

Draft Environmental Impact Report

Tasman East Specific Plan

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In Consultation with



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ACRONYMS AND ABBREVIATIONS

<u>Acronym/Abbreviation</u>	<u>Definition</u>
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACE	Altamont Commuter Express
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ATI	Approved Trip Inventory
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMP	Best Management Practices
Btu	British thermal unit
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
CRHR	California Register of Historical Resources
dB	Decibel
dBA	A-weighted decibel
DCE	Dichloroethene
DNL	Day-Night Level

<u>Acronym/Abbreviation</u>	<u>Definition</u>
DPM	Diesel Particulate Matter
du/ac	dwelling units per acre
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESL	Environmental Screening Levels
EV	Electric Vehicle
FAA	Federal Aviation Administration
FAR	Floor area ratio
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FMC	Food Machinery and Chemical Corporation
FTA	Federal Transit Administration
GHG	Greenhouse gas
GPA	General Plan Amendment
GWETS	Groundwater Extraction and Treatment System
GWh	Gigawatt-hours
HCM	Highway Capacity Manual
HOV	High-Occupancy Vehicle
HVOC	halogenated volatile organic compounds
ITE	Institute of Transportation Engineers
kW	kilowatt
kWh	kilowatt hour
L_{eq}	Noise Equivalent Level
LID	Low Impact Development
L_{max}	maximum A-weighted noise level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Levels
MND	Mitigated Negative Declaration
mph	miles per hour
MRP	Municipal Regional Permit
MT	metric tons

<u>Acronym/Abbreviation</u>	<u>Definition</u>
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxides
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	Ozone
OCP	Organochlorine pesticides
OITC	Outdoor-Indoor Transmission Class
Pb	Lead
PCB	polychlorinated biphenyles
PDA	Priority Development Areas
PM ₁₀	particulate matter
PM _{2.5}	fine particulate matter
PPV	Peak Particle Velocity
R&D	Research and Development
RMS	Root Mean Square
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RRP	Risk Reduction Plan
RWF	San José-Santa Clara Regional Wastewater Facility
RWQCB	Regional Water Quality Control Board
SBWR	South Bay Water Recycling
SCDW&U	City of Santa Clara Department of Water and Sewer Utilities
SCFD	Santa Clara Fire Department
SCPD	Santa Clara Fire Department
SCS	Sustainable Communities Strategy

<u>Acronym/Abbreviation</u>	<u>Definition</u>
SCUSD	Santa Clara Unified School District
SCVWD	Santa Clara Valley Water District
SFHA	Special Flood Hazard Areas
SHMA	Seismic Hazards Mapping Act
SHPO	State Office of Historic Preservation
SLIC	Spills, Leaks, Investigations, and Cleanup Sites
SMP	Site Management Plan
SR	State Route
STC	Sound Transmission Class
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCE	Trichloroethylene
TESP	Tasman East Specific Plan
TPH	Total Petroleum Hydrocarbons
UPRR	Union Pacific Railroad
US	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VCP	Vitrified clay
VdB	vibration decibels
VOC	Volatile Organic Compounds
vph	vehicles per hour
VTA	Valley Transportation Authority

SUMMARY

The City proposes a Specific Plan to create a framework for the development of a high density transit-oriented neighborhood with supportive retail services. The City would amend the General Plan classification for the Plan Area to *Transit Neighborhood (80-350 DU/AC)*, which would allow residential and supportive commercial and public/quasi-public uses and rezone the Plan Area to *Transit Neighborhood* to allow for development of a high density residential neighborhood with a mix of uses at the ground floor. The Specific Plan would allow construction of up to 4,500 dwelling units and up to 106,000 square feet of retail space including a 25,000 square foot grocery store spanning 45 acres located at the northeast corner of Tasman Drive and Lafayette Street.

Residential densities in the Specific Plan area would range from a minimum of 60 dwelling units per acre (du/ac) on sites less than one acre in size to a minimum of 100 du/ac for sites of one acre or larger in size with no maximum density for individual parcels, all the while maintaining an overall Specific Plan unit cap of 4,500 units. Buildings in the Specific Plan area would be, at maximum, 220 feet in height. The Specific Plan would also allow an urban school for up to 600 students on two acres. The Specific Plan includes approximately 10 acres of dispersed, non-contiguous parks, urban open spaces, and paseos.

Summary of Significant Impacts and Mitigation Measures

The following table is a brief summary of the significant environmental impacts of the project identified and discussed within the text of the EIR, and the mitigation measures proposed to avoid or reduce those impacts. The reader is referred to the main body text of the EIR for detailed discussions of the existing setting, impacts, and mitigation measures. Alternatives to the proposed project are also summarized at the end of this section.

The project would result in the following significant unavoidable impacts:

- Air Quality emissions (criteria pollutant emissions)
- Biological Resources (bird strikes)
- Transportation (intersection and freeway levels of service)

The project would also result in the following significant unavoidable cumulative impacts:

- Air Quality emissions (criteria pollutant emissions)
- Biological Resources (bird strikes)
- Transportation (intersection levels of service)
- Utilities (landfill capacity)

Impact	Mitigation Measures
Air Quality	
<p>Impact AQ-1: The project would result in significant construction air pollutant emissions due to dust generation and emissions of TACs during construction.</p>	<p>MM AQ-1.1: During any construction period ground disturbance, the applicant shall ensure that the project contractor implements the following BAAQMD BMPs:</p> <ul style="list-style-type: none"> • All exposed unpaved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site 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 (mph). • All roadways, driveways, and sidewalks to be paved 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 five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the construction firm regarding dust complaints. This 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. • The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. generators). <p>MM AQ-1.2: Construction criteria pollutant and TAC quantification will be required on a project-level basis for individual development projects once those details are</p>

Impact	Mitigation Measures
	<p>available through modeling to identify impacts and, if necessary, include measures to reduce emissions. The analysis must be submitted for City review and approval, once complete. Health risks from construction TACs shall be reduced below 10 in one million excess cancer cases, a hazard index of 1.0, and PM_{2.5} emissions of 0.3 µg/m³. Criteria pollutant emissions shall not exceed BAAQMD construction criteria pollutant emissions thresholds. Reduction in emissions can be accomplished through, though is not limited to, the following measures:</p> <ul style="list-style-type: none"> • Construction equipment selection for low emissions; • Use of alternative fuels, engine retrofits, and added exhaust devices; • Low-VOC paints; • Modify construction schedule; and • Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust. <p>Site-specific construction schedules and equipment are not known at this time for the future development of the Specific Plan and, therefore, air pollutant emissions have not been quantified at the project-level. Implementation of Mitigation Measure AQ-1.1 would ensure that all construction projects employ the proper BAAQMD-Recommended Measures to Control Particulate Matter Emissions and Mitigation Measure AQ-1.2 would ensure that construction of future development areas under the TESP would be analyzed through project-level review to quantify construction criteria pollutant emissions and identify the specific measures needed to reduce potential impacts so as not to exceed BAAQMD construction criteria pollutant emissions thresholds, as necessary. Therefore, with implementation of Mitigation Measure AQ-1.1 and AQ-1.2, the construction emissions impacts from individual development projects under the Tasman East Specific Plan would be reduced to a less than significant level.</p> <p style="text-align: center;">Less than Significant Impact With Mitigation Incorporated</p>
<p>Impact AQ-2: The operation of the project would result in significant operational ROG and NOx emissions</p>	<p>MM AQ-2.1: Proposed residential development within the TESP shall implement TDM programs to reduce residential vehicle miles traveled as required by the City’s Climate</p>

Impact	Mitigation Measures
<p>thereby contributing to regional ozone impacts.</p>	<p>Action Plan. The TDM programs would be reviewed and approved by the Community Development Director prior to issuance of building permits. An annual TDM monitoring report shall be submitted to the Community Development Director to document each development is meeting the required TDM program reductions.</p> <p>MM AQ-2.2: Proposed development within the TESP shall incorporate additional green building measures such as rooftop solar photovoltaic (PV) systems, rough-ins for electric vehicle charging, use of efficient lighting and irrigation, and recycled water, as feasible, to the satisfaction of the Community Development Director.</p> <p>MM AQ-2.3: Developed parcels shall require within their CC&Rs and/or ground leases requirements for all future interior spaces to be repainted only with architectural coatings that meet the “Low-VOC” or “Super-Compliant” requirements. “Low-VOC” refers to paints that meet the more stringent regulatory limits in South Coast AQMD Rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as “Super-Compliant” Architectural Coatings.</p> <p>However, this impact would remain significant and unavoidable given that implementation of a TDM program under the City’s Climate Action Plan would not reduce significant operational ROG and NO_x emissions below BAAQMD thresholds of 54 pounds per day. Mitigation measures including TDM programs and green building techniques would not reduce emissions of ROG and NO_x to below the BAAQMD significance thresholds for criteria pollutants. The criteria pollutant emissions impacts of the Specific Plan, therefore, would remain significant and unavoidable.</p> <p>Significant Unavoidable Impact</p>
<p>Impact C-AQ-1: The project would make a cumulatively considerable contribution to regional criteria pollutant emissions (ROG and NO_x).</p>	<p>The project is required to implement mitigation measures MM AQ-2.1 to MM AQ-2.3 to reduce the regional criteria pollutant emissions of the project. Although the TESP would meet the required Climate Action Plan reduction this impact would remain significant and unavoidable given that such a reduction would not reduce significant operational ROG and NO_x emissions below BAAQMD thresholds of 54 pounds per day. The cumulative criteria pollutant emissions impacts of</p>

Impact	Mitigation Measures
	<p>the Specific Plan, therefore, would remain significant and unavoidable.</p> <p style="text-align: center;">Significant Unavoidable Impact</p>
	Biological Resources
<p>Impact BIO-1: Development under the Specific Plan could result in the injury or mortality of individual western pond turtles due to worker foot traffic, equipment use, or vehicle traffic if western pond turtles were present on site.</p>	<p>MM BIO-1.1: Prior to any construction activity in natural habitat/substrate on the extreme eastern portion of the site (i.e., ruderal grassland, perennial freshwater wetland, or riparian habitat), a qualified biologist will examine the impact area for pond turtles and their nests 48 hours before proposed construction activities begin. If a western pond turtle is observed within the work area at any time before or during proposed construction activities, all activities will cease until such time that either (1) the pond turtle leaves the area or (2) the qualified biologist can capture and relocate the animal to suitable habitat away from construction activity.</p> <p style="text-align: center;">Less than Significant Impact with Mitigation Incorporated</p>
<p>Impact BIO – 2: Development under the proposed Specific Plan may harm individual burrowing owls or result in the permanent loss of active burrows.</p>	<p>MM BIO – 2.1: Preconstruction surveys for burrowing owls will be conducted prior to the initiation of all construction activities within suitable burrowing owl roosting habitat (i.e., ruderal grassland habitat with burrows of California ground squirrels) in the Specific Plan area, or within 250 feet of this habitat. Preconstruction surveys will be completed in conformance with the CDFW’s 2012 guidelines. An initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present. During the initial site visit, which will be conducted no less than 14 days prior to the onset of ground disturbing activities, a qualified biologist will survey the entire activity area and (to the extent that access allows) the areas within 250 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present, no additional surveys will be required. If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct at least one additional survey to investigate each burrow within the survey area for signs of owl use and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey will be conducted within the 24-hour period prior to the initiation of construction activities in any given area.</p>

Impact	Mitigation Measures
	<p>MM BIO – 2.2: If burrowing owls are present during the nonbreeding season (generally September 1 to January 31), a 160-foot buffer zone will be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls. During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no newly initiated construction-related activities will be permissible, will be maintained between construction activities and occupied burrows. Owls present between February 1 and August 31 will be assumed to be nesting, and the 250-foot protected area will remain in effect until August 31. If monitoring evidence indicates that the owls are no longer nesting or the young owls are foraging independently, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.</p> <p>MM BIO – 2.3: Any owls occupying the Specific Plan area or immediately adjacent areas are likely habituated to frequent human disturbances. As a result, they may exhibit a tolerance of greater levels of human disturbance than owls in more natural settings, and work within the standard 250-foot buffer during the nesting season may be able to proceed without disturbing the owls. Therefore, if nesting owls are determined to be present within the Specific Plan area or within 250 feet of this area, and construction activities cannot feasibly avoid disturbance of the area within 250 feet of the occupied burrow during the nesting season (i.e., February 1 through August 31) due to other seasonal constraints, a qualified biologist will be present during all activities within 250 feet of the nest to monitor the owls’ behavior. If, in the opinion of the qualified biologist, the owls are unduly disturbed (i.e., disturbed to the point of harm or reduced reproductive success), all work within 250 feet of the occupied burrow will cease until the nest is determined to no longer be active by a qualified biologist.</p> <p>MM BIO – 2.4: In the unlikely event that construction will directly impact occupied burrows, a qualified biologist will passively evict owls from burrows during the nonbreeding season (September 1 to January 31). No burrowing owls will be evicted during the nesting season (February 1 through August 31) except with the CDFW’s concurrence that evidence demonstrates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the</p>

Impact	Mitigation Measures
	<p>season). Eviction will occur through the use of one-way doors inserted into the occupied burrow and all burrows within impact areas that are within 250 feet of the occupied burrow (to prevent occupation of other burrows that will be impacted). One-way doors will be installed by a qualified biologist and left in place for at least 48 hours before they are removed. The burrows will then be back-filled to prevent re-occupation. Although relocation of owls may be necessary to avoid the direct injury or mortality of owls during construction, relocated owls may suffer predation, competition with other owls, or reduced health or reproductive success as a result of being relegated to more marginal habitat. However, the benefits of such relocation, in terms of avoiding direct injury or mortality, would outweigh any adverse effects.</p> <p style="text-align: center;">Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact BIO – 3: The project proposes structures with lighting, glass windows, building facades, and vegetation which may result in impacts to migrant birds.</p>	<p>MM BIO – 3.1: Due to the potential for buildings in the Plan Area to result in high numbers of bird collisions, particularly if extensive glass facades are used, all new construction and building additions within the Plan Area will implement the following bird-safe building design considerations:</p> <ul style="list-style-type: none"> • Reduce the extent of glass on the facades of new buildings and additions to the extent feasible. • Reduce or eliminate the visibility of landscaped areas behind glass. • No more than 10 percent of the surface area of a building’s total exterior façade shall have untreated glazing between the ground and 60 feet above ground, unless located within 300 feet of the top of bank of the Guadalupe River. Within such boundary this requirement would extend to the entirety of the structure. Bird-safe glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing or ultraviolet patterns visible to birds. Vertical elements of the window patterns should be at least 0.25 inches wide at a maximum spacing of four inches or have horizontal elements at least 0.125 inches wide at a maximum spacing of two inches. Any remaining untreated glazed areas will be broken up into sections no greater than 24 square feet in size by mullions or bird-safe glazing treatments.

Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Avoid free-standing clear glass walls, skywalks, transparent building corners, glass enclosures (e.g., greenhouses) on rooftops, and balconies with unbroken glazed segments 24 square feet and larger where feasible. If any such features are included in building designs, all glazing used in any such features will be 100 percent treated. • Reduce glass at tops of buildings, especially when incorporating a green roof into the building design. • If a green roof or green wall is incorporated into the building design, no more than 10 percent of the surface area of the building's combined facades within 12 vertical feet above and/or below the green roof or green wall shall have untreated glazing. Any remaining untreated glazed areas will be broken up into sections no greater than 24 square feet in size by mullions or bird-safe glazing treatments. • Avoid the funneling of flight paths between buildings or trees towards a glazed building façade. • Landscaping, including planted vegetation and water features, shall be designed to minimize the potential for collisions. For example, vegetation providing particularly valuable resources to birds (such as fruits) will be planted away from buildings with extensive glazing, and vegetation in general will be planted in such a way that it is not clearly reflected in windows. Water features would be located away from building exteriors to reduce the attraction of birds toward glazed facades. • Minimize exterior lighting to the extent feasible, except as needed for safety. All exterior lights shall be directed toward facilities in the Plan Area (e.g., rather than directed upward or outward) and shielded to ensure that light is not directed outward toward the Guadalupe River or Ulistac Natural Area. • Occupancy sensors or other switch control devices shall be installed on interior lights, with the exception of emergency lights or lights needed for safety purposes. On commercial buildings, these lights shall be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise. <p>The City may waive or reduce any of the above-listed bird-safe design requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds. Such a waiver will generally not be appropriate for façades adjacent to well-vegetated areas, but a waiver may be appropriate, for example, for façades that face</p>

Impact	Mitigation Measures
	<p>developed areas lacking vegetation, water features, or other features that would be particularly attractive to birds.</p> <p>Mitigation measure MM BIO-3.1 would incorporate bird-safe design elements into the future building designs and reduce this impact to the extent feasible. Given the potential for bird strikes to result from implementation of the Specific Plan this impact would be significant and unavoidable.</p>
Significant Unavoidable Impact	
<p>Impact BIO – 4: Increased artificial lighting may adversely impact bird species by increasing predation, decreasing habitat availability, and altering physiological processes.</p>	<p>MM BIO – 4.1: To the extent consistent with the normal and expected operations of commercial and/or residential uses under the Specific Plan, take appropriate measures to avoid use of unnecessary lighting at night, especially during the bird migration season (February through May and August through November). Such measures may include the installation of motion-sensor lighting, automatic light shut-off mechanisms, downward-facing exterior light fixtures, and others. Exterior lighting within the Specific Plan area will be shielded as needed to block illumination from shining upward, or outward into the Guadalupe River to the east or Ulistac Natural Area to the south. The intensity of exterior lighting will be minimized, and no exterior uplighting will be used. Lighting plans for each development site shall be reviewed and approved by the Community Development Director prior to the issuance of building permits.</p>
Less Than Significant Impact With Mitigation Incorporated	
<p>Impact BIO – 5: Redevelopment under the proposed Specific Plan could impact nesting birds, if present, on or adjacent to proposed development sites.</p>	<p>MM BIO-5.1: To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.</p> <p>MM BIO-5.2: If it is not possible to schedule construction activities between September 1 and January 31 then pre-construction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests would be disturbed during Plan implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist would inspect all trees and other potential</p>

Impact	Mitigation Measures
	<p>nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests.</p> <p>MM BIO-5.3: If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist would determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation under the Specific Plan.</p> <p>A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.</p> <p>MM BIO-5.4: If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by projects covered under the Specific Plan may be removed prior to the start of the nesting season (e.g., prior to February 1). This would preclude the initiation of nests in this vegetation and prevent the potential delay of a project due to the presence of active nests in these substrates. Any vegetation removal shall occur consistent with required tree removal and grading permits, as applicable.</p> <p>Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact BIO – 6: Construction of the proposed project may result in the permanent loss of 810 linear feet (0.39 acres) of freshwater wetlands.</p>	<p>MM BIO – 6.1: If avoidance of the wetlands is not proposed, to compensate for the permanent loss of wetlands, perennial marsh habitat shall be restored or created at a minimum ratio of 2:1 (compensation:impact) on an acreage basis, unless a higher ratio is required by a regulatory agency, in which case that higher ratio shall apply. This ratio is not higher due to the relatively low quality of the wetlands in the project area relative to more extensive, less fragmented wetlands elsewhere along the Guadalupe River, but is not lower due to the temporal loss of wetland functions and values that will result from the lag between impacts to the wetlands in the Plan area and maturation of the mitigation habitat.</p> <p>Compensation will be provided by creating or restoring wetland habitat so as to achieve the 2:1 ratio (or higher ratio,</p>

Impact	Mitigation Measures
	<p>if required by a regulatory agency) somewhere in the Santa Clara Valley. Among other criteria, the mitigation site(s) must not currently be wetlands. A qualified biologist shall develop a “Wetland Mitigation and Monitoring Plan” describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permitting conditions):</p> <ul style="list-style-type: none"> • Summary of habitat impacts and proposed mitigation ratios • Goal of the restoration to achieve no net loss of habitat functions and values • Location of mitigation site(s) and description of existing site conditions (among other criteria, the site(s) must not currently be wetlands) • Mitigation design: <ul style="list-style-type: none"> - Existing and proposed site hydrology - Grading plan if appropriate, including bank stabilization or other site stabilization features - Soil amendments and other site preparation elements as appropriate - Planting plan - Irrigation and maintenance plan - Remedial measures and adaptive management • Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by natives) and extent appropriate for the restoration location, and provision of ecological functions and values equal to or exceeding those in the wetland habitat affected. At a minimum, success criteria will include following: <ul style="list-style-type: none"> - At Year 5 post-mitigation, at least 75 percent of the mitigation site will be dominated by native hydrophytic vegetation. <p>The Wetland Mitigation and Monitoring Plan must be approved by the City of Santa Clara prior to the wetland impacts, and it must be implemented within one year following impacts.</p> <p>Alternatively, mitigation may be provided by restoring or creating at a minimum ratio of 2:1 (compensation:impact) on an acreage basis by either: (a) purchasing credits at a suitably</p>

Impact	Mitigation Measures
	<p>located mitigation bank in the Santa Clara Valley approved by the City of Santa Clara; or (b) donating funds to a project undertaking enhancement or restoration of wetland or riparian habitats in the Santa Clara Valley, approved by the City of Santa Clara.</p> <p>MM BIO – 6.2: In compliance with the NPDES, the Specific Plan will comply with the SWRCB General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, which requires preparation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that will include specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. These controls will include methods to minimize indirect impacts as a result of construction activities that may compromise water quality in the Eastside Drainage Swale. Additional control measures identified in this SWPPP will mitigate the release of construction-related pollutants from the main site during the various construction phases. Unless otherwise authorized by the RWQCB and in compliance with the NPDES permit issued for the proposed activities, the following measures will be implemented during project implementation to avoid or minimize impacts on water quality:</p> <ul style="list-style-type: none"> <li>• All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts associated with project activities. Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association “Stormwater Best Management Practices Handbook,” available at www.capmhandbooks.com. <li>• Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of wetland and aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels. <li>• No fueling shall be done in areas along the Eastside Drainage Swale. For stationary equipment that must be fueled within 50 feet of the swale, containment shall be provided in such a manner that any accidental spill of

Impact	Mitigation Measures
	<p>fuel shall not be able to enter the water or contaminate sediments that may come in contact with water.</p> <ul style="list-style-type: none"> <li>• A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors. One copy of the hazardous materials management/fuel spill containment plan located will be on the work site at all times, and will provide construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of the Plan elements. Elements of the materials management/fuel spill containment plan will include, but are not limited to the following: <ul style="list-style-type: none"> <li>- A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas; <li>- Materials Safety Data Sheets for all chemicals used and stored on site; <li>- An inventory list of emergency equipment; <li>- Spill control and countermeasures including employee spill prevention/response training; <li>- Notification and documentation procedures; and <li>- A monthly reporting plan. <li>• Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area. No washing of vehicles will occur outside of designated staging areas in uplands. <li>• The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or wetlands or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the Plan Area. <li>• Stockpiled materials will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled material to prevent runoff from transporting sediment into the Eastside Drainage Swale.

Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Silt fencing will be erected along the limits of disturbance between the Plan area and the Eastside Drainage Swale. • As to any portion of the drainage swale that is not culverted, for construction activities occurring within 50 feet of aquatic habitat in the drainage swale, protective measures shall be put in place to ensure that impacts on the swale are avoided and minimized. The following measures shall be implemented during construction: <ul style="list-style-type: none"> - Orange construction barrier fencing shall be installed around the boundaries of portions of the drainage swale that are to be avoided prior to the initiation of construction activities. - The fenced area will be designated as an Environmentally Sensitive Area and will be clearly identified in the construction specifications. - The fencing shall be maintained throughout the grading and construction period. - Grading, construction activities, traffic, equipment, or materials shall be prohibited in fenced wetland areas.
<p>Less Than Significant Impact With Mitigation Incorporated</p>	
<p>Impact BIO – 7: Construction of the proposed project could result in the loss of 0.05 acres of riparian woodland habitat.</p>	<p>MM BIO – 7.1: If avoidance is not proposed, to compensate for the permanent loss of mixed riparian woodland, riparian woodland habitat will be restored or created at a minimum ratio of 2:1 (compensation:impact) on an acreage basis, based on canopy area. This ratio is not higher due to the relatively low quality of the riparian woodland in the Plan Area relative to more extensive, less fragmented riparian woodland elsewhere along the Guadalupe River, but is not lower due to the temporal loss of riparian functions and values that will result from the lag between impacts to the woodland in the Plan Area and maturation of the mitigation habitat.</p> <p>Compensation will be provided by planting riparian habitat so as to achieve the 2:1 ratio somewhere in the Santa Clara Valley, preferably along the Guadalupe River but along another stream if appropriate. Among other criteria, the mitigation site(s) must not currently be riparian. Mitigation habitat may be hydrologically isolated from the stream in question as long as it is located within 300 feet of the stream, is not separated from the stream by development other than a trail or levee, and is dominated by native riparian trees. Although some portions of the Ulistac Natural Area are more than 300 feet from the Guadalupe River, mitigation anywhere within the Natural Area would satisfy this measure. A qualified biologist shall develop a “Riparian Habitat Mitigation and Monitoring Plan” describing the mitigation,</p>

Impact	Mitigation Measures
	<p>which will contain the following components (or as otherwise modified by regulatory agency permitting conditions):</p> <ul style="list-style-type: none"> • Summary of habitat impacts and proposed mitigation ratios • Goal of the restoration to achieve no net loss of habitat functions and values • Location of mitigation site(s) and description of existing site conditions • Mitigation design: <ul style="list-style-type: none"> - Existing and proposed site hydrology - Grading plan if appropriate, including bank stabilization or other site stabilization features - Soil amendments and other site preparation elements as appropriate - Planting plan - Irrigation and maintenance plan - Remedial measures and adaptive management • Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include following: <ul style="list-style-type: none"> - At Year 10 post-planting, canopy closure at the mitigation site will be at least 60 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site). • The Riparian Habitat Mitigation and Monitoring Plan must be approved by the City of Santa Clara prior to the impact on mixed riparian woodland, and it must be implemented within one year following impacts. <p>Alternatively, mitigation may be provided by restoring or creating at a minimum ratio of 2:1 (compensation:impact) on an acreage basis by either: (a) purchasing credits at a suitably located mitigation bank in the Santa Clara Valley approved by the City of Santa Clara; or (b) donating funds to a project undertaking enhancement or restoration of wetland or</p>

Impact	Mitigation Measures
	<p>riparian habitats in the Santa Clara Valley, approved by the City of Santa Clara.</p> <p>Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact BIO – 8: Construction of the proposed project and improvements providing connectivity to the levee would impact the riparian buffer.</p>	<p>MM BIO – 8.1: If encroachment into the riparian buffer with incompatible uses (defined as hardscape or other impermeable surfaces, non-native landscape plantings, and paved permeable surfaces such as permeable pavers) is proposed, no buildings shall be constructed closer to the buffer baseline than are currently present (i.e., in one location, a corner of a building is within approximately 95 feet of the buffer baseline, and that limited area can include a building), unless mitigation is provided in accordance with MM BIO-8.2. In addition, no new buildings or structures, impervious surface, or non-native landscaping shall occur closer to the buffer baseline than is currently present (i.e. 75 feet). Compatible uses within these areas are public trails, native landscaping, and unpaved permeable surfaces (e.g. open ground).</p> <p>MM BIO – 8.2: If any encroachment into the riparian buffer is proposed, compensatory mitigation shall be provided to offset the impacts on the ecological functions and values of the riparian corridor. Such compensatory mitigation will be provided in one of two ways:</p> <ul style="list-style-type: none"> • At a minimum ratio of 1:1 (compensation:impact), on an acreage basis excluding wetlands and mixed riparian woodland, existing development (e.g., buildings or hardscape) along the Guadalupe River, either on-site or off-site (e.g., at Ulistac Natural Area), will be removed, and the developed area restored to native habitats and dedicated to natural habitat (rather than active human uses such as urban park). For example, if a portion of the Plan Area were subject to riparian buffer encroachment, but a commensurate acreage of existing developed areas adjoining the Guadalupe River levee in other parts of the Plan Area were restored to native habitat, that would compensate for the riparian buffer encroachment impact. • At a minimum ratio of 2:1 (compensation:impact) on an acreage basis, riparian woodland habitat will be restored or created as described in Mitigation Measure BIO-6.1 above to provide ecological functions and values that offset those lost due to riparian buffer encroachment.

Impact	Mitigation Measures
Less Than Significant Impact With Mitigation Incorporated	
<p>Impact BIO – 9: Construction of the proposed project may result in the spread of invasive weeds in sensitive habitats including the Eastside Drainage Swale and Guadalupe River.</p>	<p>MM BIO – 9.1: During construction under the proposed Specific Plan, all seeds and straw materials used on-site shall be weed-free rice straw (or similar material acceptable to the City), and all gravel and fill material will be certified weed free to the satisfaction of the City and any deviation from this shall be approved by the Public Works Director.</p> <p>MM BIO – 9.2: During construction of projects under the proposed Specific Plan, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or legally operating car washes.</p> <p>MM BIO – 9.3: Following construction of projects under the proposed Specific Plan, a standard erosion control seed mix (acceptable to the Public Works Director) from a local source would be planted within the temporary impact zones on any disturbed ground that would not be under hardscape, landscaped, or maintained in order to minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.</p>
Less Than Significant Impact With Mitigation Incorporated	
<p>Impact BIO – 10: Tree removal from redevelopment of individual parcels under the Specific Plan would result in a significant impact to mature trees.</p>	<p>MM BIO – 10.1: Projects proposing or required to retain trees on-site shall implement precautionary measures during site construction to limit adverse environmental effects on ordinance-protected trees that are to be retained. A tree protection plan shall be prepared by a qualified arborist that, at a minimum, requires installation of an open material (e.g., chain link) fence six feet in height around the drip line and maintenance of the existing grade level around a tree and out to its drip line.</p> <p>MM BIO – 10.2: Project proponents under the Specific Plan will comply with the City Code and submit permit applications for removal of all trees covered by the City’s tree ordinance. Any street trees or heritage trees to be removed would require replacement on-site or off-site at a minimum 2:1 ratio per General Plan Policy 5.3.1-P10. To the extent feasible, the replacement trees will be planted on-site</p>

Impact	Mitigation Measures
	<p>and the project proponent will comply with all other tree removal requirements imposed by the City.</p> <p>Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact C-BIO-1: The proposed Specific Plan in combination with City Place, and including the implementation of mitigation measures, would result in significant unavoidable cumulative impacts due to bird strikes.</p>	<p>Implementation of mitigation measure MM BIO-3.1 would incorporate all feasible mitigation into development within the Plan Area, however, such bird-safe design techniques would not reduce the cumulative bird-strike impact of proposed development within the Plan Area and vicinity to less than significant.</p> <p>Significant Unavoidable Impact</p>
	<p>Cultural Resources</p>
<p>Impact CUL-1: Redevelopment of the Specific Plan area could result in impacts to unknown, buried archaeological resources, and human remains.</p>	<p>MM CUL-1.1: A qualified archaeologist shall monitor the demolition of the building foundations and any other below surface disturbances, such as but not limited to, grading, excavation, roadway improvements, potholing for utilities, utility removal, and addressing storm drain issues. After demolition activities and surface improvements are removed for projects involving excavation, and prior to other construction activities, conduct mechanical presence/absence exploration to a depth ranging from 6.5 to 10 feet below ground surface. Presence/absence efforts shall be conducted by a qualified local archaeologist. If any cultural resources are identified, all activity in the vicinity of such resources shall stop until a research design and treatment plan shall be prepared to address those types of resources encountered. and such plan is approved by the City. Any cultural resources identified shall be evaluated to determine if these resources would qualify for the NRHP or CRHR. If no resources are found during presence/absence testing, the implementation of mitigation measures, MM CUL-1.2 and MM CUL-1.3, would ensure any resources discovered during construction are adequately protected.</p> <p>MM CUL-1.2: In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, work within 50 feet of the find shall cease until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Preservation in place is the preferred treatment of an archeological resource. When preservation in place of an archeological resource is not feasible, data recovery, in</p>

Impact	Mitigation Measures
	<p>accord with a data recovery plan prepared and adopted by the City, is the appropriate mitigation. Construction and potential impacts to the area within a radius determined by the archaeologist shall not recommence until the assessment is complete.</p> <p>MM CUL-1.3: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.</p> <p style="text-align: center;">Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact CUL – 2: Development proposed under the Specific Plan has the potential to disturb paleontological resources if projects include deep excavations.</p>	<p>MM CUL – 2.1: Projects involving excavations 25 feet or greater below ground surface would require monitoring by a qualified paleontologist. In the event paleontological resources are discovered all work shall be halted within 50 feet of the find and a Paleontological Resource Mitigation Plan shall be prepared by a qualified paleontologist to address assessment and recovery of the resource. A final report documenting any found resources, their recovery, and disposition shall be prepared in consultation with the Community Development Director and filed with the City and local repository.</p> <p style="text-align: center;">Less Than Significant Impact With Mitigation Incorporated</p>
Hazards and Hazardous Materials	
<p>Impact HAZ-1: Existing hazardous materials contamination in soils and groundwater on the site has the potential to impact construction workers and adjacent land uses if disturbed during demolition or construction of new buildings and structures on the site.</p>	<p>MM HAZ – 1.1: Prior to the start of any demolition or construction activity, a property-specific Phase I ESA shall be completed in accordance with ASTM Standard Designation E 1527-13 (or most recent version) to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor and/or groundwater quality studies shall subsequently be conducted,</p>

Impact	Mitigation Measures
	<p>if warranted based on the findings on the property-specific Phase I ESAs to evaluate if mitigation measures are needed to protect the health and safety of site occupants. All site mitigation measures identified in the property-specific Phase I and II ESAs shall be completed under the oversight of an appropriate regulatory agency, such as the DEH, DTSC, or RWQCB. Any required cleanup/remediation of the site during development activities shall meet all applicable federal, state and local laws, regulations, and requirements. The project applicant shall provide the appropriate oversight agency's written approval of the site mitigation measures to the City of Santa Clara prior to the issuance of a demolition and/or grading permit.</p> <p>MM HAZ – 1.2: At properties where VOCs are identified as contaminants of concern (COC), the potential for vapor intrusion shall be evaluated. A Vapor Intrusion Investigation Work Plan shall be submitted to the overseeing regulatory agency for review and approval. The plan shall include soil vapor sampling for VOCs in areas of concern. The soil vapor sampling shall be conducted in conformance with DTSC's July 2015 advisory titled Active Soil Gas Investigations. A minimum of two soil vapor sampling events (with soil vapor concentrations less than the most conservative residential or commercial screening levels – as appropriate) is required to document that mitigation measures are not required; additional sampling events may be required by the overseeing regulatory agency.</p> <p>MM HAZ – 1.3: The need for vapor intrusion mitigation measures will be dependent upon the planned building design and the results of the Vapor Intrusion Investigation. Prior to redevelopment of the site, a report assessing the potential for vapor intrusion shall be submitted to and approved by the overseeing regulatory agency. The assessment shall be conducted in general conformance with DTSC's Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) dated October 2011.</p> <p>MM HAZ – 1.4: Prior to the start of any construction activity on properties with known contaminants of concern (COC) exceeding the lower of the then-current DTSC, the RWQCB or Environmental Protection Agency (EPA) residential screening levels, the project proponent shall</p>

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	<p>submit the following plans to the overseeing regulatory agency for review and approval:</p> <ul style="list-style-type: none"> <li> <p><i>Corrective Action Plan.</i> An appropriate corrective action plan (e.g. remedial action plan, removal action workplace, etc.) shall be prepared that reflects the results of the above investigations. Site cleanup levels presented in the plan shall be based on a target cancer risk of 0.00001 or, for non-carcinogens, a target hazard quotient (THQ) of 1.0. The lower of the then-current DTSC, RWQCB, or EPA residential screening levels shall be used to interpret the TR and THQ levels or, alternatively, a site-specific human health risk assessment shall be prepared and approved by the overseeing regulatory agency. Higher cleanup goals may be acceptable, if approved in writing by the oversight agency. The project applicant shall provide an oversight agency’s written approval of the corrective action plan to the City of Santa Clara, prior to issuance of a demolition and/or grading permit. Leaving contaminated soil (above residential screening levels and, for metals, above background concentrations) in-place or re-using contaminated soil shall require the oversight agency’s written approval. At a minimum, if contaminated soil is left in-place, a deed restriction or land use covenant shall detail the location of the soil. This document shall include a surveyed map of the location of the impacted soil and shall restrict future excavation in the impacted area unless approved in writing by an oversight agency.</p> <li> <p><i>Air Monitoring Plan.</i> This plan shall assess the potential for exposure of construction workers and neighboring occupants adjoining the property to COCs during construction activities; this plan shall specify measures to be implemented if COC concentrations exceed threshold values.</p> <li> <p><i>Vapor Intrusion Mitigation Plan and Associated Documents.</i> If the Vapor Intrusion Investigation identifies the need for mitigation measures, a Vapor Intrusion Mitigation Plan shall be prepared that describes the measures to be a result of vapor intrusion. The Vapor Intrusion Mitigation Plan will require the project applicant to design the proposed occupied spaces with appropriate structural and engineering features to reduce risk of vapor intrusion into buildings. At a minimum, this design shall include: 1) passive sub-slab ventilation with a spray applied vapor barrier (And with the ability to</p>

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convert the system from passive to active ventilation), 2) monitoring to ensure the long-term effectiveness of the remedy, and 3) the implementation of institutional controls. Other designs would be acceptable is approved in writing by the overseeing regulatory agency. The Vapor Intrusion Mitigation Plan shall be submitted for agency review and approval. DTSC’s October 2011 Vapor Intrusion Mitigation Advisory provides useful guidance in selecting, designing, and implementing appropriate response actions for sites where a potential vapor intrusion risk has been identified. A completed report shall be submitted to the overseeing regulatory agency upon completion of construction of the mitigation system. The report shall document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan and present final as-built design drawings. A Long-Term Operations, Maintenance, and Monitoring Plan (OMMP) also shall be submitted for agency approval that presents the actions to be taken following construction to maintain and monitor the vapor intrusion mitigation system, and a contingency plan should the vapor mitigation system fail. A financial assurance mechanism shall additionally be established (i.e. proof that adequate funds are available for long-term maintenance and monitoring of the vapor intrusion mitigation system) and described in the OMMP.

MM HAZ – 1.5: A Site Management Plan (SMP) and Health and Safety Plan (HSP) shall be developed to establish appropriate management practices for handling and monitoring of impacted soil, soil vapor, and groundwater that potentially may be encountered during construction activities. The SMP shall be prepared by an Environmental Professional and be submitted to the overseeing regulatory agency (e.g. RWQCB, DTSC and/or DEH) for review and approval prior to commencing construction activities. The SMP also shall be provided to the City of Santa Clara. Prior to the start of any construction activity that involves below ground work (i.e. mass grading, foundation construction, excavating or utility trenching), information regarding site risk management procedures, including copies of the HSP and SMP, shall be provided to the contractors for their review, and each contractor shall provide such information to its subcontractors. The SMP and HSP measures shall be incorporated into the project design documents:

Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Site control procedures to control the flow of personnel, vehicles and materials in and out of the site; • Measures to minimize dust generation, stormwater runoff and tracking of soil off-site; • Protocols for conducting earthwork activities in areas where impacted soil, soil vapor and/or groundwater are present or suspected. Worker training requirements, health and safety measures and material handling procedures shall be described; • Perimeter air monitoring for dust during any activity that significantly disturbs impacted site soil (i.e. mass grading, foundation construction, excavating or utility trenching) to document the effectiveness of dust control measures; • Protocols to be implemented if buried structures, wells, debris, or unidentified areas of impacted soil are encountered during site development activities; • Protocols to characterize/profile soil suspected of being contaminated so appropriate mitigation, disposal or reuse alternatives, if necessary, can be implemented. Soil in contact with impacted groundwater shall be assumed contaminated. All soil excavated and transported from this site shall be appropriately disposed of at a permitted facility; • Stockpiling protocols for “clean” and “impacted” soil; • Decontamination procedures to reduce the potential for construction equipment and vehicles to release contaminated soil onto public roadways or other off-site transfer; • Procedures to evaluate and document the quality of any soil imported to the site. Soil containing chemicals exceeding residential (unrestricted use) screening levels or typical background concentrations of metals shall not be accepted. The DTSC’s Clean Fill Advisory (October 2001 or latest version) provides useful guidance on evaluating imported fill; • Methods to monitor excavations and trenches for the potential presence of VOC impacted vapors. Mitigation protocols shall be developed and implemented in the event elevated VOC vapors are released during excavation activities that may pose a risk to construction worker health and/or risk to the health of occupants of neighboring properties;

Impact	Mitigation Measures
	<ul style="list-style-type: none"> • Protocols to evaluate if the residual contaminants will adversely impact the integrity of below ground utility lines and/or structures (i.e. the potential for corrosion due to subsurface contamination) • Measures to reduce soil vapor and groundwater migration through trench backfill and utility conduits. Such measures shall include placement of low-permeability backfill “plugs” at specified intervals on-site and at all locations where the utility trenches (within impacted soil or groundwater) extend off-site. In addition, utility conduits that are placed below groundwater shall be installed with water-tight fittings to reduce the potential for groundwater to migrate into the conduits. • Measures to help reduce the potential for the downward migration of contaminated groundwater if deep foundation systems are proposed. These measures shall be identified in the geotechnical investigation report and implemented as part of the development plans. <p>MM HAZ- 1.6: The project applicant’s environmental professional shall assist in the implementation of the SMP and shall, at a minimum, perform part-time observation services during demolition, excavation, grading and trenching activities. Upon completion of construction activities, the environmental professional shall prepare a report documenting compliance with the SMP; this report shall be submitted to the oversight regulatory agency and the City of Santa Clara.</p> <p style="text-align: center;">Less Than Significant Impact With Mitigation Incorporated</p>
Hydrology and Water Quality	
<p>Impact HYD-1: The overland flow path at the northwest corner of the project site would be blocked by project fill thereby causing off-site flooding.</p>	<p>MM HYD-1.1: A catch basin shall be installed on Lafayette Street or at a suitable location approved by the City Engineer that connects to the existing storm drain system on Calle Del Mundo. This new catch basin would provide an alternate path for flow that would otherwise have entered the development area prior to placement of project fill. The design of the new catch basin and new storm drain shall be subject to approval of the City. The new catch basin and new storm drain shall be complete and connected to the existing storm drain system on Calle Del Mundo must be made concurrent with redevelopment of the site in the northwest corner of the Plan Area.</p>

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Less Than Significant Impact With Mitigation Incorporated	
Noise and Vibration	
<p>Impact NV-1: Existing and planned land uses in the project vicinity would be exposed to an increase in ambient vibration levels due to project construction activities.</p>	<p>MM NV-1.1: Comply with construction hours ordinance to limit hours of exposure. The City Code limits construction activities within 300 feet of residentially zoned property to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays.</p> <p>MM NV-1.2: Minimize or avoid using vibratory rollers and tampers near sensitive areas, such as shared property lines with residential land uses. Whenever possible, use cast-in-drilled-holes piles for projects requiring deep foundations to reduce construction vibration.</p> <p>MM NV-1.3: When vibration-sensitive structures are within 18 feet of a project development site or within 86 feet of a project proposing pile-driving, survey condition of existing structures and, when necessary due to the structure type and resulting vibration due to the construction activities proposed, perform site-specific vibration studies to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures, notify the Community Development Director of any damage caused by vibration, and offer to repair or compensate for any such damage caused by vibration within a time period established by the Community Development Director upon receiving notice pursuant to this measure. The results of the vibration monitoring shall be summarized and submitted in a report to the Community Development Director prior to issuance of an occupancy permit.</p> <p>MM NV-1.4: Construction management plans for construction projects that have the potential to exceed the 0.3 in/sec. PPV threshold, particularly those involving pile driving, shall include predefined vibration reduction measures, notification requirements for properties within 200 feet of scheduled construction activities, and contact information for on-site coordination and complaints. The construction management plan shall be submitted to the City for approval prior to issuance of a demolition or grading permit.</p>

Impact	Mitigation Measures
	<p>MM NV- 1.5: Include a disclosure in the lease of future tenants within the Tasman East Specific Plan properties that provides information regarding the on-going construction activities within the area.</p> <p>Less Than Significant Impact With Mitigation Incorporated</p>
<p>Impact NV-2: Land uses in the project vicinity would be exposed to a substantial temporary increase in ambient noise levels due to project construction activities.</p>	<p>MM NV-2.1: Develop and adhere to a construction noise control plan to be submitted to the City for review and approval prior to issuance of a demolition and/or grading permit, including, but not limited to, the following available controls:</p> <ul style="list-style-type: none"> • Ensure that construction activities (including the loading and unloading of materials and truck movements) within 300 feet of residentially zoned property are limited to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays. • Ensure that excavating, grading and filling activities (including warming of equipment motors) within 300 feet of residentially zoned property are limited to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays. • Contractors equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment. • Contractors utilize “quiet” models of air compressors and other stationary noise sources where technology exists. • Locate loading, staging areas, stationary noise-generating equipment, etc. as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses. Temporary noise barriers can reduce construction noise levels by five dBA. • Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project area. • Comply with Air Resource Board idling prohibitions of uneasy idling of internal combustion engines. • Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.

Impact	Mitigation Measures
	<ul style="list-style-type: none"> • A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were unresolvable by proper scheduling. • Route construction-related traffic along major roadways and as far as feasible from sensitive receptors. • Businesses, residences or noise-sensitive land uses adjacent to construction sites should be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site. • Include a disclosure in the lease of future tenants within the Tasman East Specific Plan properties that provides information regarding the on-going construction activities within the area. <p>MM NV-2.2: If pile driving occurs, the following best management practices shall be included in the construction noise control plan:</p> <ul style="list-style-type: none"> • Schedule pile driving during a period when school is not in session. • During pile driving, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile. • During pile driving activities, install “acoustical blankets” to provide shielding for receptors located within 100 feet of the site, or use a noise attenuating shroud on the pile driving hammer.
Less Than Significant With Mitigation Incorporated	
Transportation and Traffic	
<p>Impact TRANS-1: The project would have a significant impact under existing plus project conditions at the following four intersections: Tasman Drive and Centennial Drive (#9), Lafayette Street and Great America Way (#10), Lafayette Street and Calle Del Mundo (#11), and Montague</p>	<p>MM TRANS-1.1: 9. Tasman Drive and Centennial Drive (City of Santa Clara) – Add a third eastbound through lane. With the implementation of the improvement, the intersection of Tasman Drive and Centennial Drive would operate at an acceptable LOS D. However, due to light rail lines along Tasman Drive, coordination with VTA would be needed to secure right-of-way. Since this mitigation relies on the</p>

Impact	Mitigation Measures
Expressway and Mission College Boulevard (#37).	<p>approval of VTA, the City cannot know with certainty that this mitigation measure would be implemented, and therefore this impact is significant and unavoidable. Significant Unavoidable Impact</p>
	<p>MM TRANS-1.2: 10. Lafayette Street and Great America Way (City of Santa Clara) – Signalize this intersection prior to occupancy of planned development comprising 30 percent of the project trip generation.</p>
	<p>With the implementation of this mitigation measure, the intersection would operate at an acceptable LOS D and the project’s impacts to the intersection of Lafayette Street and Great America Way would be reduced to a less than significant level. Less Than Significant With Mitigation Incorporated</p>
	<p>MM TRANS-1.3: 11. Lafayette Street and Calle Del Mundo (City of Santa Clara) – Signalize this intersection prior to occupancy of planned development comprising 70 percent of the project trip generation.</p>
	<p>With the implementation of this mitigation measure, the intersection of Lafayette Street and Calle Del Mundo would operate at LOS B and the project’s impacts to the intersection would be reduced to a less than significant level. Less Than Significant With Mitigation Incorporated</p>
	<p>MM TRANS-1.4: 37. Montague Expressway and Mission College Boulevard (County of Santa Clara) – This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The VTP 2040 project would add a third southbound left-turn lane to the intersection. The project shall make a fair-share contribution towards the additional turn lane.</p>
	<p>With implementation of the improvement identified in MM TRANS-1.4, the intersection of Montague Expressway and Mission College Boulevard would operate at an acceptable LOS E during the PM peak hour and the average delay would be better than existing conditions. This intersection is located in the City of Santa Clara, but it is within the jurisdiction of Santa Clara County. Additionally, an interchange is identified at this intersection as a Tier 2 priority per the Comprehensive County Expressway Planning Study. The</p>

Impact	Mitigation Measures
	<p>project shall implement MM TRANS-1.4, however, the impact is significant and unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the proposed project. Significant Unavoidable Impact</p>
<p>Impact TRANS-2: The project would significantly impact mixed-flow lanes and HOV lanes on the study freeway segments during the AM and PM peak hours.</p>	<p>Full mitigation of significant project impacts on freeway segments would require roadway widening to construct additional through lanes, thereby increasing freeway capacity. Since it is not feasible for an individual development project to bear responsibility for implementing such extensive transportation system improvements due to constraints in acquisition and cost of right-of-way, and no comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the significant impacts on the directional freeway segments identified above is considered significant unavoidable. Significant Unavoidable Impact</p>
<p>Impact TRANS-3: The project would have a significant impact under background plus project conditions at the following six intersections: 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 10. Lafayette Street and Great America Parkway (City of Santa Clara); 11. Lafayette Street and Calle Del Mundo (City of Santa Clara); 35. Tasman Drive and Lawrence Expressway (County of Santa Clara/CMP); and 37. Montague Expressway and Mission College Boulevard (County of Santa Clara/CMP).</p>	<p>As to intersection 35: Tasman Drive and Lawrence Expressway – The improvements that would be needed to fully mitigate the impact include widening the eastbound approach to accommodate an additional through lane. There is no right-of way available to accommodate the improvement and therefore the impact is considered significant and unavoidable. Significant Unavoidable Impact</p> <p>MM TRANS-3.1: 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP) – Restripe the southbound approach to one through/right-lane and one right-lane, which would not require right-of-way and/or narrowing of the median and would improve intersection operations to an acceptable LOS.</p> <p>Because this intersection is located in the City of San José. The project would be responsible for funding this improvement to offset its impacts, however, because this intersection is located in the City of San Jose, the City of Santa Clara cannot guarantee that this improvement would be implemented in a timely manner such that the project’s impact is avoided or mitigated. Therefore, this impact would remain significant and unavoidable. Significant Unavoidable Impact</p>

Impact	Mitigation Measures
	<p>MM TRANS- 3.2: 9. Tasman Drive and Centennial Drive (City of Santa Clara) – Add a third eastbound and a third westbound through lane.</p> <p>With the implementation of the improvement, the intersection of Tasman Drive and Centennial Drive would operate at an acceptable LOS D. However, due to light rail lines along Tasman Drive, coordination with VTA would be needed to secure right-of-way. Since this mitigation relies on the approval of VTA, the City of Santa Clara cannot know with certainty that this mitigation measure would be implement, and therefore this impact is significant and unavoidable.</p> <p>Significant Unavoidable Impact</p> <p>MM TRANS-3.3: 10. Lafayette Street/ Great America Parkway and 11. Lafayette Street/Calle Del Mundo – Signalize intersections prior to occupancy of development comprising 30 percent and 70 percent, respectively, of the project trip generation. Less Than Significant Impact With Mitigation Incorporated</p> <p>MM TRANS-3.4: 37. Montague Expressway and Mission College Boulevard (County of Santa Clara) – The VTP 2040 project would add a third southbound left-turn lane to the intersection. The project shall make a fair-share contribution towards the additional turn lane. In order to fully mitigate the project’s impact, a second northbound left turn lane would be needed but right-of-way constraints make this mitigation infeasible. Additionally, an interchange is identified at this intersection as a Tier 2 priority per the Comprehensive County Expressway Planning Study.</p> <p>The project shall make a fair share contribution to such interchange. This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The project shall implement MM TRANS-1.4, however, the impact is significant and unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the proposed project. Significant Unavoidable Impact</p>
<p>Impact TRANS-4: An existing gap in sidewalks on the north side of Tasman Drive between Calle Del Sol and the</p>	<p>MM TRANS-4.1: Sidewalk improvements to Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing would reduce the safety hazard impacts to pedestrians to a</p>

Impact	Mitigation Measures
Lafayette Street overcrossing would create a safety hazard for pedestrians.	less than significant level. Construction of a sidewalk on this segment of Tasman Drive is a required mitigation for Phase 1 of the City Place project. In the event the new residential buildings within the Plan Area fronting Tasman Drive are constructed prior to City Place Phase 1, such development shall construct the necessary improvements prior to occupancy of the building and would be reimbursed by City Place. Sidewalk improvements to Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing, as needed to address pedestrian safety hazards, shall be in place prior to occupancy of any new residential buildings within the Plan Area fronting Tasman Drive. Less Than Significant Impact With Mitigation Incorporated
Impact TRANS-5: The proposed Specific Plan would result in approximately two to three minutes of delay on the LRT line in the vicinity of the Plan Area.	Providing signal priority to LRT Route 902 along Tasman Drive is the only feasible means to minimize the delays caused to light rail by increased congestion from the Specific Plan development. The City has a system along the Tasman Drive corridor to give light rail vehicles signal priority. Redevelopment of the Plan Area would not change this operating protocol and significant increased delays are estimated to result from the project. Since there are no other feasible mitigation measures, the impacts of the Specific Plan on LRT transit, therefore, are significant and unavoidable. Significant Unavoidable Impact
Impact C-TRANS-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following intersections: 4. Great America Parkway and Old Mountain View/Alviso Road (City of Santa Clara); 5. Great America Parkway and Tasman Drive* (City of Santa Clara); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara); 26. Lick Mill Boulevard and Montague Expressway (Santa Clara County); 29. Westbound 237 and First Street* (City of San José); 32. Tasman Drive and First Street (City of San José); 34. Tasman Drive and Rio Robles (City of San	These intersections are determined to be constrained primarily due to the presence of transportation facilities such as light rail transit, infrastructure, or existing buildings that would make the improvement infeasible. Therefore, the intersections have no feasible vehicle capacity improvements due to right-of-way constraints. Because no feasible mitigation measures have been identified to address impacts at these intersections, the impact would remain significant and unavoidable. Significant Unavoidable Cumulative Impact

Impact	Mitigation Measures
José); 35. Tasman Drive and Lawrence Expressway* (Santa Clara County).	
<p>Impact C-TRANS-2: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #11 Lafayette Street and Calle Del Mundo.</p>	<p>Implementation of MM TRANS-1.3 (signalization of the intersection) would reduce the project’s contribution to cumulatively significant impacted intersections. However, there is no additional right of way available to accommodate additional intersection improvements to reduce the impact to a less than significant level of service. Therefore, the impact would remain significant and unavoidable.</p>
	<p align="center">Significant Unavoidable Impact With Mitigation Incorporated</p>
<p>Impact C-TRANS-3: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #12 Lafayette Street and Calle De Luna during the AM peak hour, intersection #13 Lafayette Street and Calle De Primavera during the PM peak hour, and intersection #21 Tasman Drive and Calle Del Sol (City of Santa Clara) during the AM and PM peak hours.</p>	<p>MM C-TRANS-3.1: 12. Lafayette Street and Calle De Luna – Reconfiguring the westbound approach to one left-turn lane and one right-turn lane would fully mitigate the impact to an acceptable LOS D and would not require additional right-of-way. Less Than Significant Cumulative Impact With Mitigation Incorporated</p> <p>MM C-TRANS-3.2: 13. Lafayette Street and Calle De Primavera - Reconfigure the westbound approach to two left-turn lanes and one right-turn lane. Less Than Significant Cumulative Impact With Mitigation Incorporated</p>
	<p>MM C-TRANS-3.3: 21. Tasman Drive and Calle Del Sol - Reconfigure the southbound approach to two left-turn lanes and one right-turn lane would fully mitigate the impact. Less Than Significant Cumulative Impact With Mitigation Incorporated</p>
	<p>Reconfiguring the westbound approach to two left turn lanes and one right-turn lane at intersection 13. Lafayette Street and Calle De Primavera would fully mitigate the impact at this intersection because the mitigation would reduce the change in critical volume/capacity to less than 0.01 seconds which thereby would mitigate the impact.</p>
	<p>Reconfiguring the southbound approach to two left-turn lanes and one right-turn lane at intersection 21. Tasman Drive and Calle Del Sol would require no additional right-of-way and is consistent with the mitigation measures imposed upon the City Place project. Therefore, this mitigation reduces the impact to a less than significant level.</p>
<p>Impact C-TRANS-4: The project would have a cumulatively considerable contribution to significant</p>	<p>36. Montague Expressway and North First Street* (Santa Clara County) – This intersection is identified as a location for future grade separation for LRT as part of the Comprehensive County Expressway Planning Study 2008</p>

Impact	Mitigation Measures
cumulative impacts at intersections #36 Montague Expressway and North First Street and #37 Mission College Boulevard and Montague Expressway during the PM peak hour.	<p>Update. The City of Santa Clara cannot guarantee that intersection improvements will be implemented in a timely manner such that the project’s impact is avoided or mitigated. Additionally, adding a dedicated eastbound right turn lane with an overlap phase would fully mitigate the project impact; however, because of right-of-way restrictions, this mitigation would not be feasible. Therefore, due to the lack of jurisdictional control, the impact is considered significant and unavoidable. Significant Unavoidable Cumulative Impact</p> <p>37. Mission College Boulevard and Montague Expressway* (Santa Clara County) – The VTP 2040 project would add a third southbound left-turn lane to the intersection, however, this would not reduce impacts to this intersection to a less than significant level. This intersection is also identified as a Tier 2 priority location for a future grade-separated interchange as part of the Comprehensive County Expressway Planning Study 2008 Update. The City of Santa Clara cannot guarantee that intersection improvements will be implemented in a timely manner such that the project’s impact is avoided or mitigated. In addition, adding a second northbound left turn lane would fully mitigate the project impact, but right-of-way constraints make this mitigation infeasible. Therefore, due to the lack of jurisdictional control, this impact is considered significant and unavoidable. Significant Unavoidable Cumulative Impact</p>

Utilities and Service Systems

Impact C-UTIL-1: The proposed Specific Plan would contribute considerably to identified exceedances of the existing pump station capacity at the Rabello and Northside Pump Stations.	MM C-UTIL-1.1: The proposed Specific Plan shall require that individual projects implemented within the Specific Plan area make a fair share contribution to the sanitary sewer pump station improvements required by cumulative development in Santa Clara. The fair share contributions for future projects developed under the Specific Plan shall be determined based on a detailed engineering study prepared by the City. The City shall determine the fair-share cost contribution for the individual projects based on their percent of wastewater flow cumulative capacity needs above the current pump capacity. Less Than Significant Cumulative Impact With Mitigation Incorporated
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Impact	Mitigation Measures
<p>Impact C-UTIL-2: Without a contract with a landfill for disposing of solid waste beyond 2024, solid waste generated by development in the City post-2024 (including waste from the proposed project) would result in a significant unavoidable cumulative impact.</p>	<p>The City does not currently have a specific plan for disposing of solid waste generated by development in the City post 2024.</p> <p style="text-align: center;">Significant Unavoidable Cumulative Impact</p>

Summary of Project Alternatives

The following is a summary of the project alternatives. Please refer to *Section 7.0 Alternatives* for the complete discussion of project alternatives. CEQA requires that an EIR identify alternatives to the project as proposed. The CEQA Guidelines specify that an EIR identify alternatives which “would feasibly attain the most basic objectives of the project but avoid or substantially lessen many of the significant environmental effects of the project,” or would further reduce impacts that area considered less than significant with the incorporation of identified mitigation.

No Project Alternative

The CEQA Guidelines specifically require consideration of a “No Project” Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The Guidelines specifically advise that the No Project Alternative is “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” The Guidelines emphasize that an EIR should take a practical approach, and not “...create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (Section 15126.6[e][3][B]).”

The Plan Area is currently developed with approximately 708,000 square feet of light industrial/office space. The Plan Area could, therefore, remain as it is or be redeveloped consistent with uses consistent with the *Light Industrial (ML)* zoning district. Both no project alternatives are discussed below.

The No Project/No Redevelopment Alternative assumes that the Plan Area would remain as developed today with its current or a similar set of uses. The No Project/No Redevelopment Alternative would avoid all of the Specific Plan’s environmental impacts. The No Project/No Redevelopment Alternative would not meet any of the City’s objectives for the Tasman East Focus Area. Because the No Project/No Redevelopment Alternative would not result in any new development on the site, this Alternative would avoid all of the environmental impacts of the project. However, this Alternative would not meet any of the City’s project objectives.

No Project/Office and R&D Redevelopment Alternative

This alternative assumes that the Plan Area would be redeveloped with the maximum allowable development under the ML zoning district which allows 75 percent lot coverage and buildings up to

70 feet in height. The Plan Area, therefore, could be developed with approximately four million square feet of office space which is a permitted use in the ML zoning district and which has a greater market in this area of Santa Clara than any other use allowed by the ML zoning district. The No Project/ Redevelopment Alternative, therefore, would more than quadruple development within the Plan Area which is currently developed with 708,000 s.f. of building space.

The No Project/Office and R&D Redevelopment Alternative may increase impervious surfaces on the site as no residential population would be located in the Plan Area and requirements for parks and pedestrian connectivity would be more limited. Given the increase in impervious areas, flooding conditions could worsen on and offsite. Vehicle trips would also substantially increase over the proposed Specific Plan (approximately 39,540 trips vs. 22,380 project trips) and would likely result in additional traffic impacts by foregoing opportunities to place residences near current and planned jobs. Additionally, the directionality of trips would be modified as the Plan Area would attract workers in the AM peak instead of vehicle trips leaving the area during the AM peak hour as would be expected with residential use. This trip pattern would also be reversed during the PM peak hour. Although the intersection impacts might be slightly different due to the directionality of the vehicle trips, given the substantially increased volume of trips it is anticipated that greater traffic impacts would result. The No Project/Office and R&D Redevelopment Alternative would also exacerbate the City's existing jobs/housing imbalance and likely increase commute times and distances which would be a significant unavoidable impact due to inconsistency with General Plan policies that were adopted to mitigate environmental impacts. The No Project/Office and R&D Redevelopment Alternative would also likely result in greater significant criteria pollutant impacts and potentially significant GHG emissions impacts due to the increased number of trips and VMT from workers traveling to the Plan Area.

The No Project/Office and R&D Redevelopment Alternative would not meet the City's primary project objective of developing new housing in a high-density neighborhood that would assist the City in reaching state-mandated RHNA goals and provide convenient access to commercial services and jobs. This alternative would be unlikely to provide substantial public open space to serve the needs of area residents. The No Project/Office and R&D Redevelopment Alternative, therefore, would not meet the City's primary objectives for the Tasman East Focus Area consistent with the General Plan.

The No Project/Office and R&D Redevelopment Alternative would likely result in higher air quality impacts and GHG emissions due to increased vehicle trips. The traffic impacts at intersections and on freeways would also likely increase due to the volume of new trips in similar commute patterns as existing trips in the vicinity of the Plan Area. This alternative would also exacerbate the City's jobs/housing imbalance in a manner inconsistent with the General Plan. The No Project/Office and R&D Redevelopment Alternative would not meet the City's primary objectives of creating a high-density residential neighborhood in the Tasman East Focus Area and advancing the City's RHNA goals.

Reduced Development Alternative

The Reduced Development Alternative assumes the proposed unit count and supporting commercial space would be reduced to approximately 1,350 and 31,000 square feet of commercial space to avoid

the majority of the project's traffic impacts. Given the smaller size of the residential neighborhood under this alternative, no school facilities would be proposed within the Plan Area.

Intersection LOS impacts to Tasman Drive and Centennial Drive (#9) occur after 10 percent of the project trips from Specific Plan buildout and, therefore, the impact at such intersection would not be avoided by this alternative. All other intersection impacts would be avoided under existing plus project conditions and background plus project conditions; however, the cumulative traffic impacts would remain significant for six of the study intersections. Freeway impacts are also assumed to remain significant and unavoidable. The Reduced Development Alternative would also eliminate the regional air quality impacts of the project as proposed development would be reduced by more than 50 percent which would reduce reactive organic gas emissions to a less than significant level. The sanitary sewer impacts of the project would also be reduced as the amount of development would not substantially contribute to a need to upsize existing pump facilities. The Reduced Development Alternative would also not contribute to the need for additional groundwater pumping facilities to serve citywide development in multiple dry years.

The Reduced Development Alternative would result in a high-density neighborhood (~37 DU per net acre) with opportunity for integrated on-site open space. The Reduced Development Alternative would qualify under the existing High Density Residential land use classification. This alternative would assist the City in meeting its RHNA goals, however, it would provide less than one-third of the units proposed by the Specific Plan and thus would not achieve the City's primary project objectives to the same degree as the project.

The Reduced Development Alternative would avoid most of the project's intersection LOS impacts and reduce freeway impacts to an extent. The regional criteria pollutant emission impacts of the project would also be reduced to less than significant for all pollutants including reactive organic gases (ROG). The sanitary sewer impacts of the project would also be reduced as the amount of development would not substantially contribute to a need to upsize existing sanitary sewer or groundwater pump facilities. Although the Reduced Development Alternative would provide for a high-density residential neighborhood, it would not assist the City in meeting its RHNA goals to the same extent nor reduce the existing jobs/housing imbalance in Santa Clara to the same extent as the project.

Environmentally Superior Alternative

The CEQA Guidelines specify that an EIR must identify the environmentally superior alternative among those alternatives discussed. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative amongst the other alternatives [Section 15126.6(e)(2)].

Based upon the previous discussion, the environmentally superior alternative would be the No Project Alternative, which would avoid the identified significant impacts. This alternative would not meet the City's primary objectives of developing new housing in a high-density neighborhood that would assist the City in reaching state-mandated RHNA goals and provide convenient access to commercial services and jobs. It is unlikely that the Plan Area would remain in its current state, and, therefore, the No Project/Office and R&D Redevelopment Alternative is reasonably foreseeable. The No Project/Office and R&D Redevelopment Alternative would also not assist the City in

meeting its primary objective of providing high-density housing to meet state-mandated RHNA goals nor would it be the environmentally superior alternative.

The Reduced Development Alternative would assist the City in meeting its RHNA goals; however, to a substantially reduced extent when compared to the proposed Specific Plan. The Reduced Development Alternative would also avoid most of the project's intersection LOS impacts and reduce freeway impacts to an extent. Based on the above discussion, the environmentally superior alternative to the proposed Specific Plan is the Reduced Development Alternative as it would reduce or avoid many of the project's environmental impacts.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Santa Clara, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Tasman East Specific Plan in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

An EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts. As the CEQA Lead Agency for this project, the City of Santa Clara is required to consider the information in the EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, cumulative impacts, alternatives, and growth-inducing impacts. It is not the purpose of an EIR to recommend either approval or denial of a project.

This document provides a program-level environmental review appropriate for the proposed Tasman East Specific Plan and in accordance with CEQA Guidelines Sections (§) 15121, 15146, 15151, and 15168.

The following guidelines are included in CEQA to clarify the role of an EIR:

§15121. Informational Document.

- (a) An EIR is an informational document, which will 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 the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.
- (b) While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091 and if necessary by making a statement of overriding consideration under Section 15093.

§15146. Degree of Specificity. The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.

- (a) An EIR on a construction project will necessarily be more detailed in the specific effects of a project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.
- (b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction project that might follow.

§15151. Standards for Adequacy of an EIR. An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed 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, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

§15152. Tiering.

- (a) “Tiering” refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIRs and concentrating the later EIR or negative declaration solely on the issues specific to the later project.
- (c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.
- (d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:
 - (1) Were not examined as significant effects on the environment in the prior EIR; or
 - (2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

§15168. Program EIR.

- (a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:
 - (1) Geographically,
 - (2) A logical part in the chain of contemplated actions,
 - (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
 - (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

It is anticipated that future development projects within the Specific Plan boundary (Plan Area) may require subsequent environmental review to demonstrate compliance with the mitigation measures identified in this EIR. Such review would be focused on analysis of only those subject areas necessary to ensure conformance with the relevant assumptions of this EIR.

1.2 EIR PROCESS

1.2.1 Notice of Preparation and Scoping

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City of Santa Clara prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on December 14, 2016. The standard 30-day comment period concluded on January 12, 2017. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City also held a public scoping meeting on December 21, 2016 to discuss the project and solicit public input as to the scope and contents of this EIR. The meeting was held at the Northside Library on Moreland Way. Subsequent to the EIR scoping meeting a revised NOP was circulated from July 17, 2017 to August 7, 2017. The revised NOP incorporated an allowance for a 600 student school in the Tasman East Specific Plan. Appendix A of this EIR includes the NOPs and comments received on both the original and revised NOPs.

1.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft EIR will mark the beginning of a 45-day public review and comment period. During this period, the Draft EIR will be available to local, state, and federal agencies and to interested organizations and individuals for review. Notice of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP. Written comments concerning the environmental review contained in this Draft EIR during the 45-day public review period should be sent by regular mail or e-mail to:

John Davidson, Principal Planner
City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
Ph.: (408) 615-2450; Email: jdavidson@santaclaraca.gov

1.3 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the 45-day public review period, the City will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- The Draft EIR, with revisions to the Draft EIR text, as necessary;
- List of individuals and agencies commenting on the DEIR;
- Copies of comments received on the DEIR;
- Responses to comments received on the DEIR, in accordance with CEQA Guidelines.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

1.3.1 Notice of Determination

If the project is approved, the City will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g)).

SECTION 2.0 PROJECT INFORMATION AND DESCRIPTION

The Tasman East Specific Plan is envisioned for the creation of a Transit-Oriented Development (TOD) mixed-use neighborhood. Significant commercial development in the local and regional area provide strong employment demand that will call for substantial housing and support services in this planning area. The description of the project is based on the draft Specific Plan, dated July 2018, which may be refined prior to final adoption. Any such revisions are not expected to alter the analysis and conclusions in this EIR.

2.1 PROJECT LOCATION

The Tasman East Specific Plan (TESP) is located in an existing industrial neighborhood, 46 gross acres in size (Plan Area), and is bounded by the City's Santa Clara Golf & Tennis Club to the north (future City Place), Tasman Drive to the south, the Guadalupe River to the east, and Lafayette Street to the west (refer to Figure 2.0-1 and 2.0-2). The Specific Plan is adjacent to the Lick Mill Light Rail Transit station on Tasman Drive and the Great America Station on the west side of Lafayette Street which is served by both the Altamont Commuter Express (ACE) and Capitol Corridor trains. The Specific Plan includes approximately 36 parcels currently developed with light industrial and commercial uses, including one City-owned utility parcel, and has a total net land acreage of 41.4 acres with approximately 4.6 acres of public right-of-way. The TESP is in a Transit Priority Area under Plan Bay Area, the region's Sustainable Communities Strategy, pursuant to California Public Resources Code Section 21099 (SB 743).

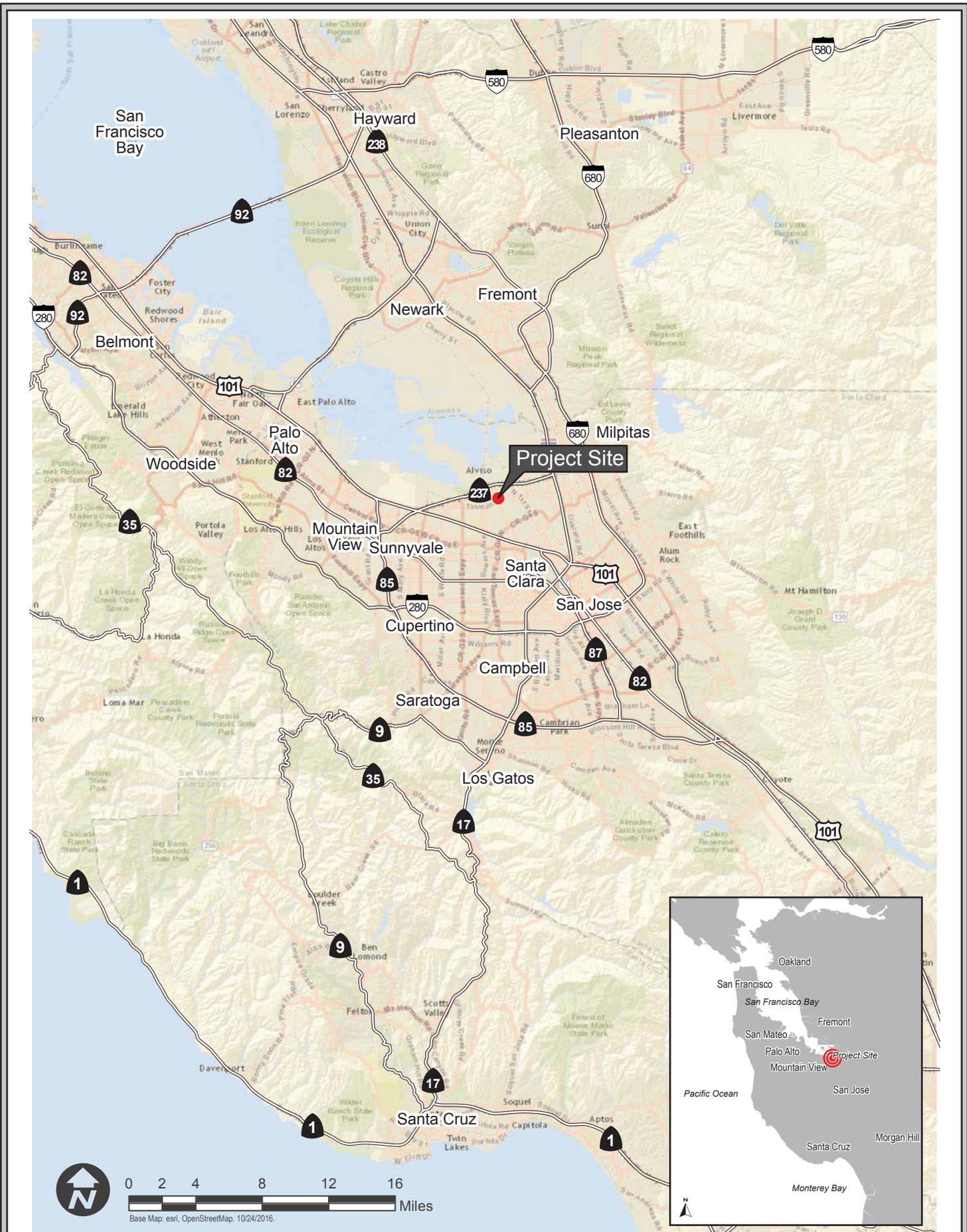
2.2 PROJECT BACKGROUND

The City of Santa Clara adopted its comprehensive 2010-2035 General Plan in November 2010 which designated nine Future Focus Areas throughout the City to support and foster the City's diverse economic and cultural base. For Phase II of the General Plan (2015-2025), the Future Focus Areas include the Tasman East Area. The Tasman East Specific Plan area (provides an opportunity for reaching housing goals identified in the City's share of the State-required Regional Housing Needs Allocation (RHNA), and for meeting the demand for housing that has resulted from job and retail growth in the City and region. A prerequisite to the development of this Focus Area is the approval of a Specific Plan (GP Policy 5.4.6-P19).

In April 2014, the City of Santa Clara initiated its Housing and General Plan Land Use Planning Elements update for the 2015-2023 planning period, including the 2015-2023 State RHNA housing cycle.¹ This update was adopted by the City Council on December 9, 2014. The work on the Housing and General Plan Land Use Element Update helped inform the comprehensive planning process for the Tasman East Specific Plan.

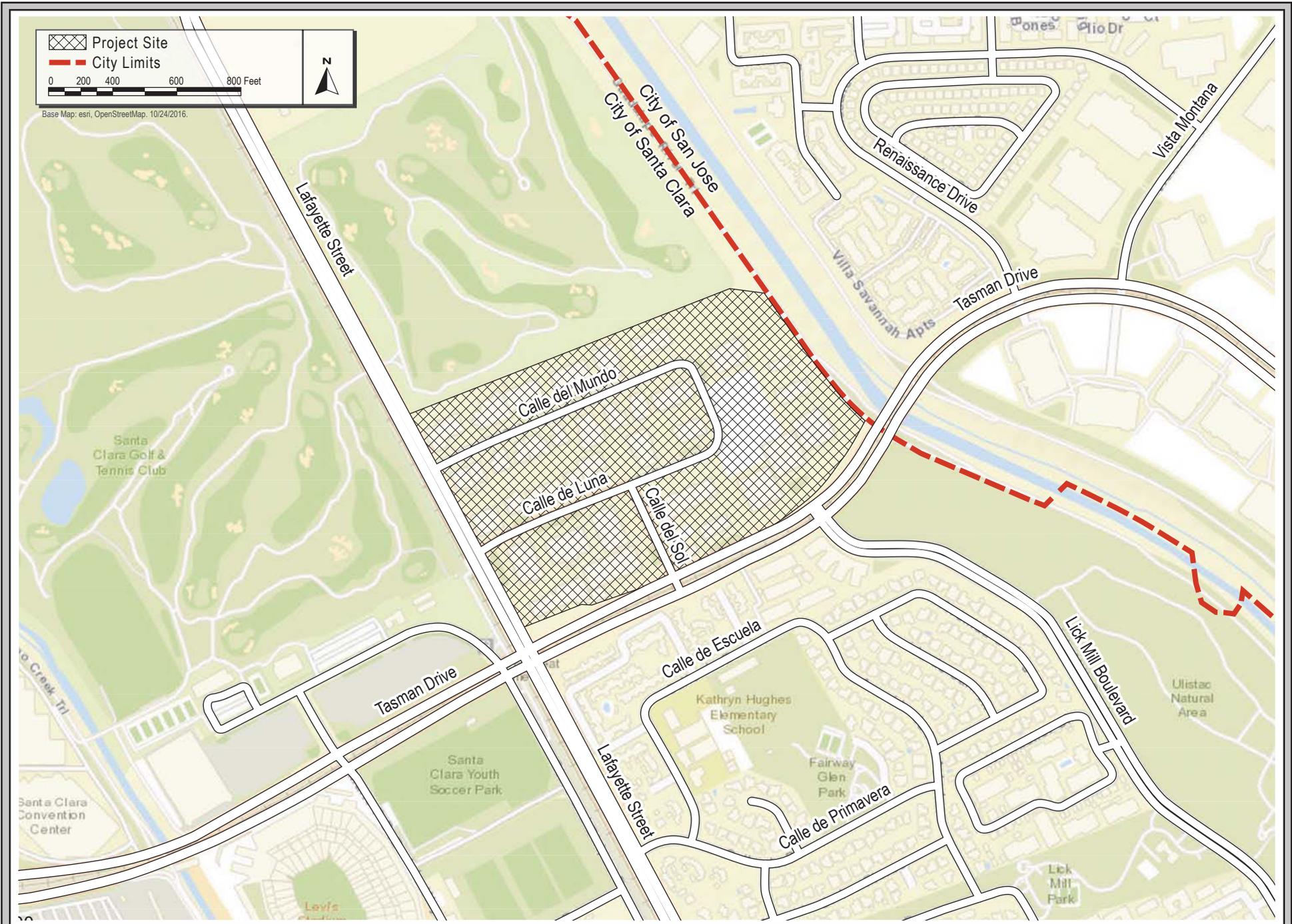
In June 2016, the City of Santa Clara certified the Final Environmental Impact Report (EIR) and Master Community Plan for the City Place project. The 240-acre mixed-use development will be developed in phases. Parcel 4, the largest parcel of the existing five parcels located west of the Tasman East Specific Plan area and Lafayette Street, will house majority of the residential, entertainment, retail, and restaurant space. The project includes up to 1,680 residential housing units

¹ The current State RHNA housing cycle (2015-2023) falls within Phase II of the City's General Plan (2015-2025).



REGIONAL MAP

FIGURE 2.0-1



VICINITY MAP

FIGURE 2.0-2

and approximately 1.1 million square feet of retail, restaurant and entertainment uses and 700 hotel rooms. City Place also includes approximately 5.7 million square feet of office space. Construction of the first phase is anticipated to begin in 2019 and conclude in 2022. Future phases are expected to be developed over a period of 10-15 years and subject to market demand.

For the purposes of this EIR, Phases 1 to 3 of City Place are included in the background scenario. As part of the cumulative scenario, full buildout of City Place (Phase 1 to 8) is included in the analysis.

2.2.1 Existing General Plan Land Use Classification

The site is classified *Light Industrial* in the Santa Clara General Plan. This classification is intended to accommodate a range of light industrial uses, including general service, warehousing, storage, distribution and manufacturing. It includes flexible space, such as buildings that allow combinations of single and multiple users, warehouses, mini-storage, wholesale, bulk retail, gas stations, data centers, indoor auto-related uses and other uses that require large, warehouse-style buildings. Because uses in this classification may be noxious or include hazardous materials, places of assembly, such as religious institutions and schools, and uses catering to sensitive receptors, such as children and the elderly, as well as entertainment uses such as clubs, theaters and sports venues south of U.S. Highway 101, are prohibited.

Per General Plan prerequisite policies 5.1.1-P7 and P8, preparation of a Specific Plan is required prior to a residential General Plan classification being adopted for the Focus Area. The Tasman East Focus Area is currently identified in the 2015-2025 Phase of the General Plan for *High Density Residential* land use. The General Plan classification assumes some supporting parkland and neighborhood retail services, as shown on the Land Use Map and as described in General Plan Policies. This classification is intended for residential development at densities ranging from 37 to 50 units per gross acre which, based on net acreage within the plan area, would accommodate development of up to 1,676 units in three- to five-story buildings.² This density range is intended for areas adjacent to major transportation corridors, transit or mixed uses. *High Density Residential* development has an urban feel, with mid-rise buildings, structured or below-grade parking, and shared open space. General Plan policies for the Tasman East Focus Area identify the area as a high density residential neighborhood that provides residents with access to commercial services and open space located on-site and in the surrounding areas.

2.2.2 Existing Zoning District

Parcels in the Specific Plan area are currently in the *ML – Light Industrial* zoning district. This district is intended to provide an optimum general industrial environment, and it is intended to accommodate industries operating substantially within an enclosed building. Such permitted uses shall not be objectionable or detrimental to adjacent properties because of signing, noise, smoke, odor, dust, noxious gases, vibrations, glare, heat, fire hazards, or industrial wastes emanating from the property. The district also allows for incidental and accessory buildings, storage buildings, outdoor storage, warehouses, exposed mechanical appurtenances, and the like, that comprise less than twenty-five percent of the total lot area and are shielded from public view.

² City of Santa Clara. *City of Santa Clara 2010-2035 General Plan*. Appendix 8.12: Housing Element. December 2014. Table 8.12-6-1.

2.3 PROJECT DESCRIPTION

2.3.1 Proposed General Plan Land Use Classifications

Although the Phase II of the General Plan has called for the residential land use classification to change to *High Density Residential (37-50 DU/AC)*, the City is proposing to classify the Plan Area as *Transit Neighborhood (80-350 DU/AC)*, a new General Plan classification that would allow residential and supportive commercial and public/quasi-public uses. This density range is intended to take advantage of proximity to transit, offering an urban feel, including a positive public realm within a right-of-way accommodating all modes of transportation. Building forms are typically mid- to high-rise buildings featuring structured or below-grade parking, as well as shared outdoor space. Additionally, retail and other compatible commercial and light industrial uses that activate the street shall be permitted. The proposed General Plan classification would apply only within the boundaries of the Tasman East Specific Plan. The proposed Specific Plan would allow a minimum of 100 units per gross acre (du/ac) for all sites greater than one acre in size and a minimum of 60 du/ac for sites of less than one acre. The Discretionary Policies of the City's General Plan would be amended to allow a lower density range specifically for parcels located within the TESP boundary that are less than one acre in size consistent with the required density minimum for such parcels proposed by the Specific Plan. Discretionary Use Policy 5.5.1-P1 would be modified to include the following text, "For the Transit Neighborhood classification, the ability to apply an alternate density extends to parcels up to an acre in size." Ground floor retail along Calle Del Sol would be required and maximum building heights would be up to 220 feet. A variety of building types including high-rise towers, mixed-use buildings, and live-work spaces would be allowed.

2.3.2 Proposed Zoning District

Development Summary

The City proposes a Specific Plan to create a framework for the development of a high density transit-oriented neighborhood with supportive retail services. The Specific Plan area will be zoned *Transit Neighborhood*, a parallel zoning district created to implement the new General Plan classification, to allow for development of a high density residential neighborhood with a mix of uses at the ground floor. The Specific Plan would allow construction of up to 4,500 dwelling units and up to 106,000 square feet of retail space including a 25,000 square foot grocery store (refer to Figure 2.0-3). As described above, residential densities in the Specific Plan area would range from a minimum of 60 dwelling units per acre (du/ac) on sites less than one acre in size to a minimum of 100 du/ac for sites of one acre or larger in size with no maximum density for individual parcels, all the while maintaining an overall Specific Plan unit cap of 4,500 units. Buildings in the Specific Plan area would be, at maximum, 220 feet in height. The Specific Plan would also allow, upon issuance of a conditional use permit, an urban school for up to 600 students on two acres. The Specific Plan includes approximately 10 acres of dispersed, non-contiguous parkland, urban open spaces, paseos, and private open space. The permitted uses for the project area are shown in Table 2.0-1 of this EIR.

Table 2.0-1: Permitted Land Uses		
TESP Category	Santa Clara Zoning Code Uses	Permitted/Conditional/Accessory
Residential	Multiple-family dwelling units	Permitted
	Supportive Housing	Permitted
	Transitional Housing	Permitted
	Assisted Living	Conditional
Commercial	Neighborhood Commercial Uses	Permitted
	Alcohol Sales (on-premises)	Conditional
	Co-working	Permitted (as ground floor use in residential building)
Neighborhood Light Industrial	Light Industrial	Permitted (only as a ground floor use to a residential building, or as a legal non-conforming use)
Public/Quasi-Public	Parks and Recreational Facilities	Public parks are permitted, as well as private parcels dedicated and maintained as publicly accessible parks.
	General Education Facilities (including Elementary School)	Conditional
	Municipal and Public Utility Facilities	Conditional
	Places of Worship and other Nonprofit Facilities	Conditional
	Neighborhood Recreational Enterprises	Conditional

Planned Uses

In addition to the primary Transit Neighborhood district described in the development summary and shown in Figure 2.0-3, the plan also allows for existing uses to continue and neighborhood-serving uses to be developed to support the goals of the Tasman East Specific Plan, as described below.

Commercial Uses

Ground floor retail uses would be required along the existing and planned extension of Calle Del Sol. This local street would serve as a general shopping center zone district, which is intended to encourage organized concentration of a wide variety of retail goods and services for the community. Although retail uses are required along Calle Del Sol, this use is allowed and encouraged along all ground floor frontages.

Neighborhood Light Industrial Uses

This district is intended to provide an opportunity for the location of light industrial uses which have public-facing operations such as breweries, wineries, catering companies, butcheries, garment manufacturers, and craftsperson or artists' studios (or similar) to locate in the ground floor of buildings in urban neighborhoods.

It is intended to accommodate industries operating substantially within an enclosed building and without provision of storage or side yards. In contrast to the broader “light industrial” zoning category, permitted uses in the neighborhood light industrial zone shall not be objectionable or detrimental to adjacent properties because of signing, noise, smoke, odor, dust, noxious gases, vibrations, glare, heat, fire hazards, or industrial wastes emanating from the property. Neighborhood light industrial uses are allowed along the ground floor of any building in the Urban Neighborhood district, except where retail uses are required.

Public Uses

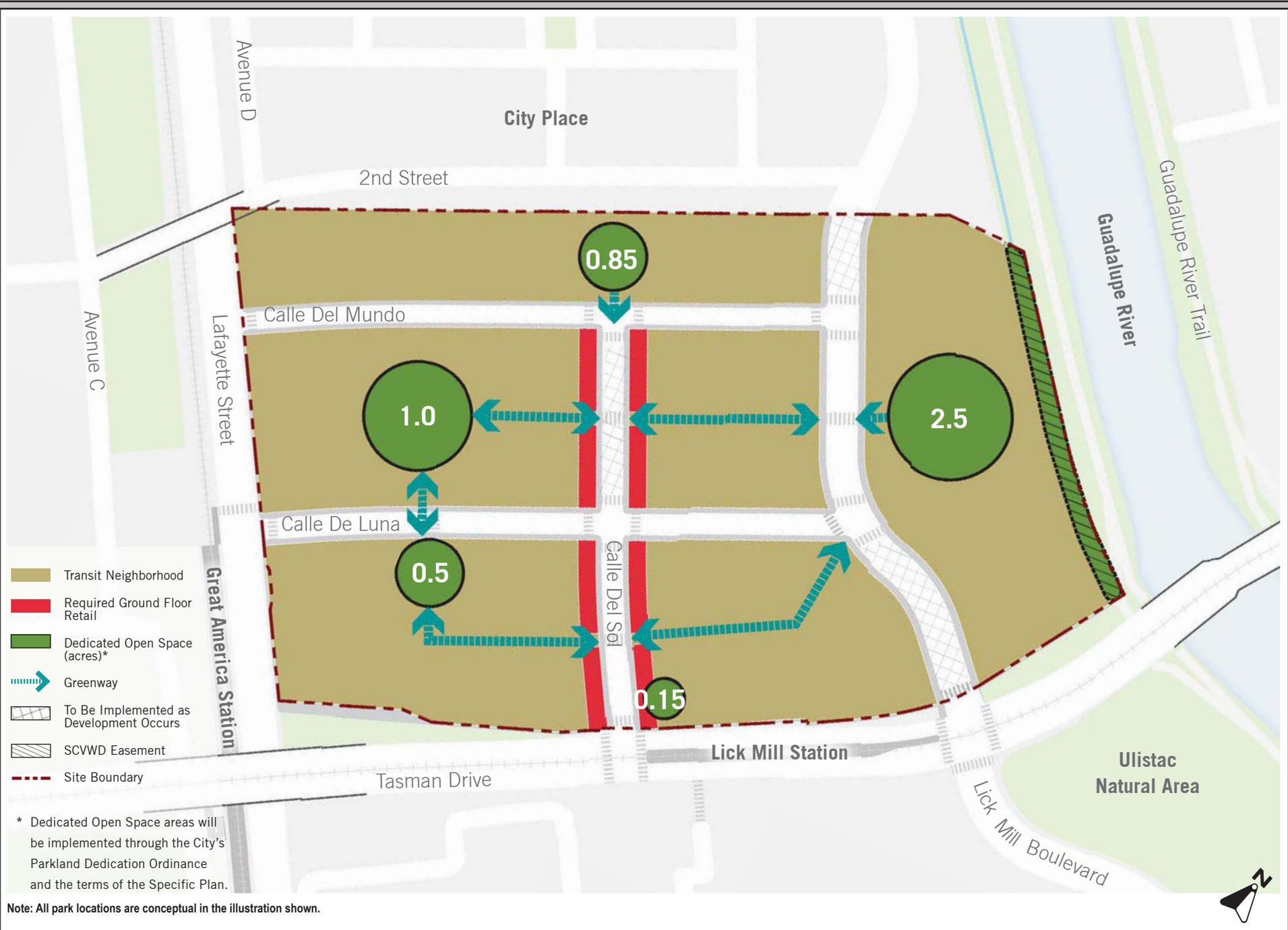
The Tasman East Specific Plan area would have dispersed, non-contiguous, publicly accessible parks (neighborhood parks, and mini parks) that are connected throughout the district by streets and public pedestrian corridors.

Public parks would be distributed throughout the Specific Plan area as shown in Figure 2.0-3. Pedestrian corridors are a street typology and non-park spaces that will form linear pedestrian connections between neighborhood parks, mini parks, and open spaces to enhance connectivity. While these pedestrian corridors are included in the proposed 10 acres of public open space within the Specific Plan area, they are distinct from the neighborhood parks and mini parks in both function and recreational use, and do not satisfy requirements of City Code 17.35.

The Specific Plan also allows for other public or quasi-public facilities such as schools, municipal facilities, non-profit facilities, and neighborhood recreational activities.

Legal Non-Conforming Uses

The lawful use of buildings existing prior to the adoption of the proposed Specific Plan may continue as though the prior zoning of the parcel remained in place, until such time as the existing use (including any expansions) has been discontinued in its entirety, at which time the prior zoning shall become inapplicable and the proposed Specific Plan shall apply from that point forward. Allowed and conditional uses as well as the development standards of the *ML Light Industrial* district would continue to be applied to these legal non-conforming uses until such time as the existing use has been discontinued in its entirety.



PROPOSED SPECIFIC PLAN LAND USES

FIGURE 2.0-3

2.3.3 Circulation Improvements

2.3.3.1 *Roadway Improvements*

The Specific Plan would maintain the existing roadway network and vehicular connections to Tasman Drive and Lafayette Street. Streets within the Tasman East Specific Plan area would be designed as “Complete Streets” which would ensure the streets are accessible for and balance the mobility of all users as well as support local land uses. The proposed street typologies used in the Tasman East Specific Plan are described in Table 2.0-2 and shown in Figure 2.0-4. Lick Mill Boulevard would function as an arterial street through the Specific Plan area. Calle De Luna west of Calle Del Sol, Calle Del Mundo, and Calle Del Sol south of Calle De Luna would function as collector streets. All other internal roadway segments function as local streets. Other intersection and roadway segments in the vicinity of the Specific Plan area are to receive improvements based upon the City Place EIR traffic analysis (refer to *Section 3.14 Transportation*).

Street Typology	Description
Minor Arterial	Two to four lanes with dedicated left-turn lanes, traffic signals at major intersections, parallel street parking, and serve through traffic including transit vehicles.
Collector Streets	Two to four lanes providing traffic circulation for residential, commercial uses, and parallel street parking.
Local Streets	Two travel lanes to serve the interior development parcels with on-street parallel parking, sidewalks, and generally designed to calm traffic and give pedestrians priority.
Greenways	Areas reserved for pedestrian and human-powered vehicles, such as bicycles, skateboards and kick scooters, in which most or all automobile traffic may be prohibited.

Roadways within the Plan Area may include interim conditions where bicycle facilities and parking are provided on most roadways. The roadway facilities described below represent full buildout conditions for the existing and proposed roadways within the Plan Area. The Specific Plan, at full buildout, may remove bicycle lanes and parking on Calle Del Sol and Calle De Luna as determined necessary by the City to meet increased vehicular traffic in the area and consistent with the roadway descriptions below.

Lick Mill Boulevard

Lick Mill Boulevard would be extended through the site to provide additional access for the proposed land uses and connect with the existing roadway network and City Place (current Santa Clara Golf & Tennis Club) to the north. Lick Mill Boulevard, a minor arterial street, would ultimately require 86 feet of right-of-way and would connect for a portion of its alignment with the easterly segment of Calle De Luna. The Specific Plan allows for a four-lane roadway extension with a seven-foot-wide cycle track³, 10-foot sidewalks, and no parking. Lick Mill Boulevard would operate as a two-lane

³ Bicycle lanes physically separated from vehicles with a median, planting strip, planter boxes, or bollards.



- Major Arterial
- Minor Arterial
- Collector Street
- Local Street
- Sharrows
- Bike Lane
- Existing Bike Lane
- To Be Implemented as Development Occurs
- SCVWD Easement
- Site Boundary

Note: Configuration of bike lanes on Calle Del Sol south of Calle De Luna will be consistent with whichever street configuration adopted.



PROPOSED CIRCULATION NETWORK

FIGURE 2.0-4

roadway with full buildout of Tasman East and would require widening to a four-lane roadway with full buildout of City Place.

Calle Del Sol

The Specific Plan would widen the existing Calle Del Sol right-of-way by six feet on each side and may extend the roadway from Calle De Luna to Calle Del Mundo. Calle Del Sol would include two vehicular travel lanes northbound and at least one vehicular travel lane southbound and would widen to include turn lanes at the Tasman Drive intersection. Calle Del Sol would be a collector street from Calle De Luna to Tasman Drive and would include parking on both sides of the roadway to midblock. Calle Del Sol north of Calle De Luna would be a local street and include one vehicular travel lane in each direction. Calle Del Sol could be extended from Calle De Luna to Calle Del Mundo. The proposed northerly ROW would accommodate a seven-foot sidewalk, five-foot landscape strip, and street parking in both directions.

Calle De Luna

Calle De Luna would serve as a critical pedestrian linkage between the Great America Station and Lick Mill Light Rail Transit (LRT) Station under the proposed Specific Plan. A six-foot sidewalk easement would be required on both sides of Calle De Luna due to insufficient right-of-way to accommodate the proposed sidewalk improvements. Calle De Luna would be a collector street from Lafayette Street to Calle Del Sol at which point it would become a local street. The proposed local street would be configured to accommodate one eastbound through lane and two westbound travel lanes. A seven-foot sidewalk, five-foot landscape strip, and street parking in both directions (only to midblock in westbound direction).

Calle Del Mundo

Calle Del Mundo would serve as a collector street through the Plan Area. The roadway would accommodate two travel lanes and a center two-way left-turn lane, five-foot bicycle lanes, a four-foot landscape strip, and a six-foot sidewalk.

2.3.3.2 *Pedestrian Improvements*

Sidewalks would be provided on both sides of the street on all internal roadways. In addition, a network of pedestrian greenways would be used to create more walkable neighborhoods and ease of non-vehicular travel, while also providing safe and convenient connections to VTA and ACE transit stations, City Place and other key destinations in the area. Easements may be acquired and developed into greenways in a phased approach in order to minimize impact on existing uses in the area. Greenways are planned to break down large blocks with finer-grained pedestrian connections that make use of the natural separation between buildings (refer to Figure 2.0-2). Crosswalks would be provided at all intersections and in several midblock locations to connect greenways and public parks.

Pedestrians traveling between Tasman East and Lick Mill Station would use Calle Del Sol, Lick Mill Boulevard, or greenways, and must cross westbound lanes of Tasman Drive to access the LRT station in the median. Access between Great America Station and Tasman East would utilize

existing points of contact with Lafayette Street from Calle Del Mundo and Calle De Luna. Sidewalk easements are proposed adjacent to existing sidewalks along the project's Lafayette Street frontage to accommodate widened sidewalks. A sidewalk easement is also proposed between Calle Del Mundo and the City Place development to the north to allow for the construction of a sidewalk. The project proposes the extension of sidewalks along the Tasman Drive frontage of the site from Calle Del Sol to the Lafayette Street overcrossing of Tasman Drive which would connect with planned sidewalk construction on the Lafayette Street overcrossing required for the City Place project. The Lafayette Street overcrossing from the proposed City Place 2nd Street located directly north of the project, and at the northwestern corner of the plan area, would provide an additional connection to the Great America Station.

2.3.3.3 *Bicycle Improvements*

Tasman East will include a network of bicycle-friendly streets and incorporate bicycle parking into all site plans in order to provide convenient connections to local destinations and activity centers like the Guadalupe River Trail, City Place, and nearby transit stations.

Tasman East streets would promote a connected bicycle network that links residential, businesses, recreation, and transit stations. This network would include bike facilities from sharrows to bike lanes on all roadways and potentially a cycle track on Lick Mill Boulevard as described in Section 2.3.3.1 above.

2.3.4 Design Guidelines

2.3.4.1 *Bulk and Massing*

The Specific Plan contains design guidelines to ensure building massing and scale are appropriate for the neighborhood. Podium-style buildings shall not exceed 85 feet above existing grade, above which height the building would be considered a tower and subject to the design guidelines for towers.

Proposed towers within the plan area would not exceed 220 feet or the FAA Part 77 height limit, whichever is lower. Exemptions for height limitations for vertical projections may extend above the height limit up to 40 feet, subject to FAA review. The maximum tower floorplate shall not exceed 12,000 square feet with a maximum plan dimension of 160 feet. Where floorplates exceed 10,000 square feet, a five-foot setback is required where the building exceeds 140 feet in length.

In order to preserve a sense of openness to the sky, towers shall be separated by at least 100 feet from one another. To preserve views and privacy for tower occupants, the faces of towers shall be set back at varying distances based on their height and massing per the TESP design standards, which would include the 100-foot tower separation.

2.3.4.2 *Street Frontages*

Calle Del Sol would be required to have retail uses along the street frontage. All other buildings on public streets, greenways, or open spaces would be required to have active uses on the public frontages. Off-street parking and loading bays shall be designed to prioritize pedestrians, including limiting parking garage entries to 20 feet, loading dock entries to 25 feet, and locating access to these

facilities more than 20 feet from building corners. Exposed structured parking would not be permitted facing a public right-of-way, greenway, or open space.

Ground floor retail spaces on Calle Del Sol would have a minimum depth of 30 feet, minimum width of 15 feet, and minimum height of 15 feet. Three-quarters of ground floor residential units would be required to be individually accessed from the building exterior by a stoop, side yard, or other means. Stoops facing public rights of way or open spaces shall generally be set at least two feet above sidewalk grade. Residential buildings would be set back a minimum of five feet to allow space for the entry steps. Ground floor live/work units would be allowed and individually accessed from the building exterior. Live/work units shall be set back at least two feet from the building façade. Neighborhood light industrial spaces are also allowed at the ground floor of buildings. Neighborhood light industrial spaces are required to be at least 15 feet in height with a minimum depth of 20 feet and at least 35 feet in one dimension.

2.3.4.3 *Rooftop Design*

Rooftops which are overlooked by taller buildings (such as towers) should have all mechanical and other normally rooftop mounted equipment contained in an enclosure. The Specific Plan would ensure mechanical and other rooftop equipment would include appropriate screening. To minimize glare and light pollution, any light source located on roofs shall be full cutoff. Rooftop mechanical equipment greater than four feet in height should be screened. Screening should be incorporated into overall architectural character of the building. Where building roofs are free of solar panels or other sustainability infrastructure, they should be designed to include systems such as vegetated roof covers, plants and roofing materials with high albedo surfaces in order to reduce heat island effect and slow rainwater runoff. Venting for any ground floor activities shall be exhausted at the roof level of the building.

2.3.5 Public Open Space

Public open space within the plan area is planned for approximately 10 acres of non-contiguous neighborhood and mini-parks, urban open space, amenity spaces, and greenways (refer to Figure 2.0-5). The open space would be provided through fixed open space⁴, greenways, and private or semi-private open spaces.

Connections from planned open space areas and pathways to the adjacent future City Place development and levee along the Guadalupe River are proposed. Pathways/sidewalks providing access to City Place and the Guadalupe River must be lit. The plan also includes the possible culverting of the Eastside Drainage Swale in a public easement on private property at the toe of the Guadalupe River levee.

Public parks would be required to conform in principle to the function and intent of City Code 17.35, Park and Recreational Land. In order for future development to receive credit toward their required parkland dedication for proposed private open space, those areas must meet four of the eight recreational elements identified in the City Code.

⁴ A minimum of five acres of fixed open space, or publically accessible open space, is required by the Specific Plan.

FIXED OPEN SPACE (MINIMUM 5 ACRES)

- Hill District 0.85 acre
- Center District 1.0 acre
- River District 2.5 acres (Including 0.75 acre easement)
- Bridge District 0.5 acre
- Station District 0.15 acre

+

FLEXIBLE OPEN SPACE total

- Greenways 
- At Grade & Publicly Accessible (100% Credit) 
- Private Open Space (50% Credit) 

=

TOTAL 10 ACRES

Public improvements beyond the site not included in 10.0 acres

Note: All park locations are conceptual in the illustration shown.

-  Public Improvement Beyond the Site
-  To Be Implemented as Development Occurs
-  SCVWD Easement
-  Site Boundary



2.3.5.1 *River District*

The River District would include a minimum 2.5-acre neighborhood park. The park in the River District would be the most expansive neighborhood park under the Specific Plan. The park would maintain public access along the riverfront and be designed to complement the adjacent Guadalupe River and Ulistac Natural Area. Ramps and stairs for bicycle and pedestrian circulation shall be a key feature to connect across the grade change between the eastern edge of the site and the Guadalupe River Trail. A lit pathway that utilizes Dark Sky compliant and efficient lamping would be provided at all times. The park may also provide a public outdoor amphitheater that can be used to host concerts, movies, and other public events. The park has the greatest capacity to accommodate regulation sized sports courts.

2.3.5.2 *Hill District*

The Hill District would contain a 0.85-acre neighborhood park. The Hill District park, located in the vicinity of the terminus of the Calle Del Sol retail street and north edge of the site, would serve as the passageway between the site and City Place's future Second Street, which both connects northward as well as serving as an important bridge connection across Lafayette Street. Surrounded by development on two sides, this park would be designed to be protected from wind and down-drafts from buildings with strategic tree planting. Other amenities such as flexible seating areas, social gathering spaces, play spaces, and public art may be provided to support the retail environment on Calle Del Sol.

2.3.5.3 *Bridge and Center Districts*

The parks in the Bridge and Center Districts would be a signature social element of the open space network. These parks would be ideal for intimate neighborhood-serving amenities as they are pulled away from Lafayette Street and Tasman Drive, but still a short walk from the retail at Calle Del Sol. The Bridge District park would be a half-acre mini-park and the Center District park would be a one-acre neighborhood park. The Bridge and Center District parks would be mostly soft-scaped and feature tree-lined promenades, tot-lots, pocket gardens with seating areas, and lawns. Lawns could provide flexible spaces to accommodate a range of activities for the community, such as movies, picnics, and community events.

2.3.5.4 *Station District*

The location and configuration of the open space in the Station District would be designed to complement the gateway experience into the site from the Lick Mill Light Rail Station. Urban plazas in the Station District would serve as mini-parks and provide an urban social space for the neighborhood and enhance connections between transit, the retail experience of Calle Del Sol, and the site's greenway and open space network. Plazas would be designed to maximize sunlight during the active hours of the day as well as emphasize visibility and public access.

2.3.6 **Common Open Space and Landscaping**

Podiums of buildings should provide generous common spaces including habitable rooftops or podium courtyards. On towers, the use of common areas and sky gardens is encouraged both to add amenities for the building occupants as well as adding visual interest to the upper building design.

Designed treatment systems such as bioswales, flow-through planters, permeable paving, and greenroofs should be utilized as part of a comprehensive approach to stormwater management. Developments with more than one building that include pedestrian corridors and neighborhood parks are encouraged to treat their stormwater management areas on site in landscaped areas. Private stormwater management plans shall not include public parks. Smaller parcels, if developed concurrently with neighboring parcels, are encouraged to coordinate stormwater design in shared private or common open spaces. Single parcels without concurrent adjacent development will treat their stormwater on site as per state stormwater C.3 regulations. Areas between stoops should be planted and can be an opportunity to provide stormwater management elements. Drought-tolerant plant species should be selected in the design of stormwater treatment systems.

Irrigation will be provided to the plan area by the City's recycled water supply. All trees shall be selected based on their location within parks, streets, greenways, and along Calle Del Sol consistent with the Specific Plan. Tree planting areas shall meet minimum soil volumes as described in the Specific Plan.

Tree varieties within the Specific Plan area shall be selected based on their location and shall have low water use requirements. Park trees shall be medium to large evergreen trees or deciduous based on sun/shade and location and include a variety of ages in 48-inch box size at installation. Street trees shall be large deciduous or evergreen trees and 48-inch box size at installation. Calle Del Sol street trees shall be London Planes, a large deciduous tree, and 48-inch box size at installation. Pedestrian corridors trees shall be medium-sized deciduous or evergreen trees and a minimum of 36-inch box size at installation. The Calle Del Sol street trees and pedestrian corridors trees shall be spaced at 25 feet apart.

2.3.7 Green Development Measures

The Specific Plan includes the following range of measures to be implemented on a project-by-project basis to reduce energy use below Title 24 standards and adhere to the City's Climate Action Plan (CAP):

- Energy efficiency – use of Energy Star rated appliances and Dark Sky-compliant⁵ lighting, energy efficient building envelopes, smart controls and switches to reduce energy use in unoccupied spaces, maximization of daylighting for interior spaces, use of operable windows for natural ventilation, where feasible.
- Mechanical systems – best technology furnaces, heat pumps, ventilation systems, and water heaters
- Renewable energy – photovoltaics on rooftops and shade structures, at minimum incorporation of solar ready infrastructure (e.g. solar panel standoffs, conduit, and roof water spigots), low-grade heat recovery from sanitary building flows
- Zero Carbon Development – install best technology and non-combustion appliances such as water heaters and furnace systems, purchase of renewable energy credits through Silicon Valley Power or other off-site sources

⁵ Exterior lighting fixtures that meet the International Dark Sky Association's standards for artificial lighting designed to protect the night sky.

- Transportation – reduced parking ratios offset by TDM measures, provide transit passes to residents, all buildings to have conduit rough-ins for Electric Vehicle (EV) charging points, install EV charging points, provide bike kitchen and storage facilities, participate in bike share programs
- The use of locally sourced and sustainable building materials is encouraged.

The Specific Plan requires that buildings, whenever possible, incorporate visible elements of sustainability – such as green roofs, shading devices, or photovoltaic panels – into the fabric of the building, and especially seen at the ground level so as to make visible the building’s energy saving features.

The following measures may be incorporated in future development on a project by project basis to efficiently use and treat water resources:

- The Specific Plan area would be connected to the reclaimed water pipeline from the Regional Wastewater Facility to maximize the use of recycled water,
- Install internal dual plumbing for selected uses when such practices are permitted,
- All irrigation would be via sub-surface drip systems,
- Stormwater management would be incorporated in landscaping and common open space as bioswales, and in buildings through activated drainage facades, flow-through planters, permeable paving, and green roofs. Private stormwater management plans shall not include adjacent public parks.

2.3.8 Proposed Utility Improvements

The Specific Plan development would require approximately 3,000 lineal feet of 12-inch water main be upsized to 16-inch in Lafayette Street. The Specific Plan area would connect to existing reclaimed water lines in Tasman Drive. The extension of Calle Del Sol through the Plan Area would require relocation of the City’s Primavera Pump Station and existing cell towers on the same site; however, no replacement location for these infrastructure components has been identified within or outside the Plan Area. There is potential for the Primavera Pump Station to be undergrounded on-site. The project could include additional groundwater pumping facilities or larger pumps at existing facilities as necessary.

2.3.9 School Facility

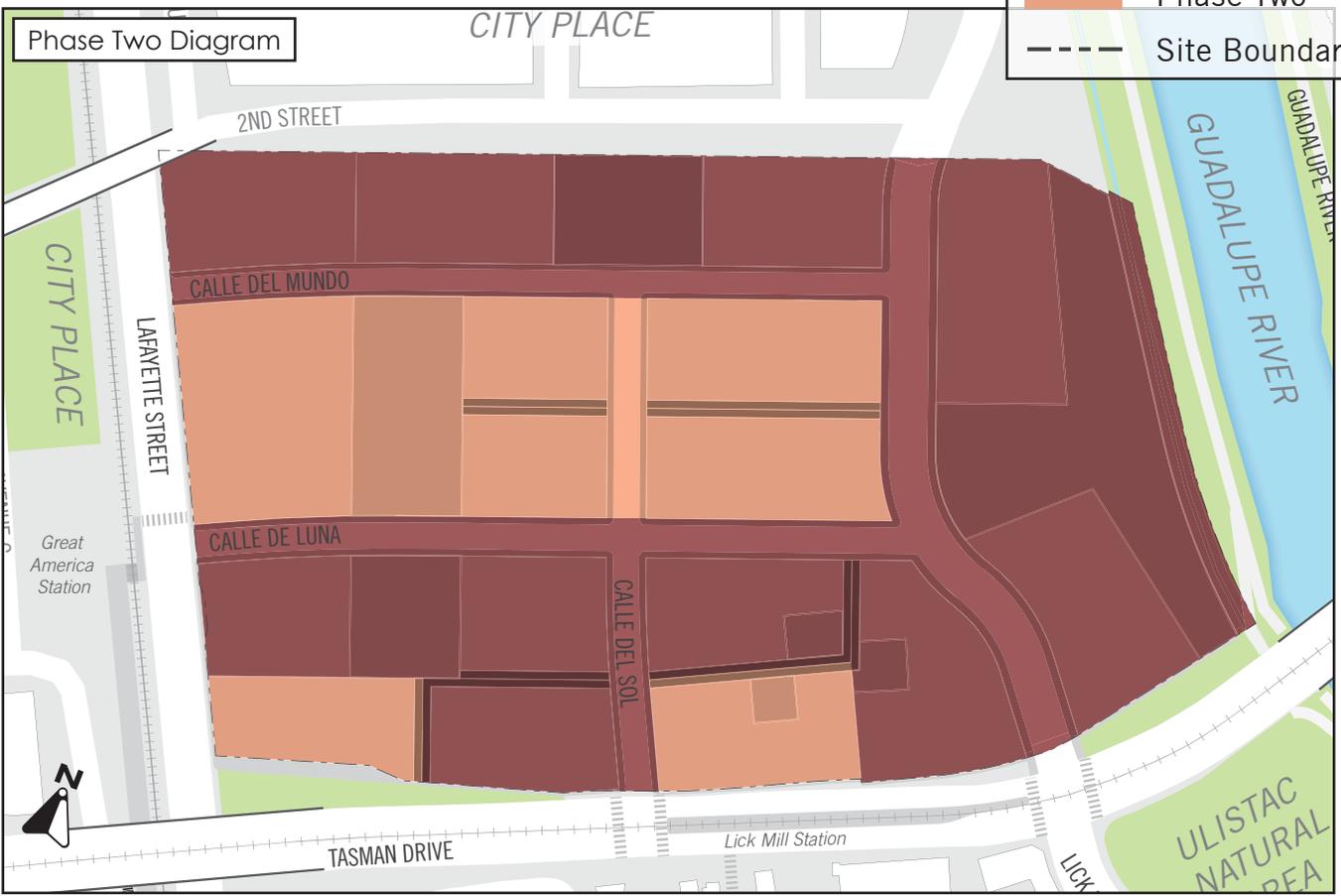
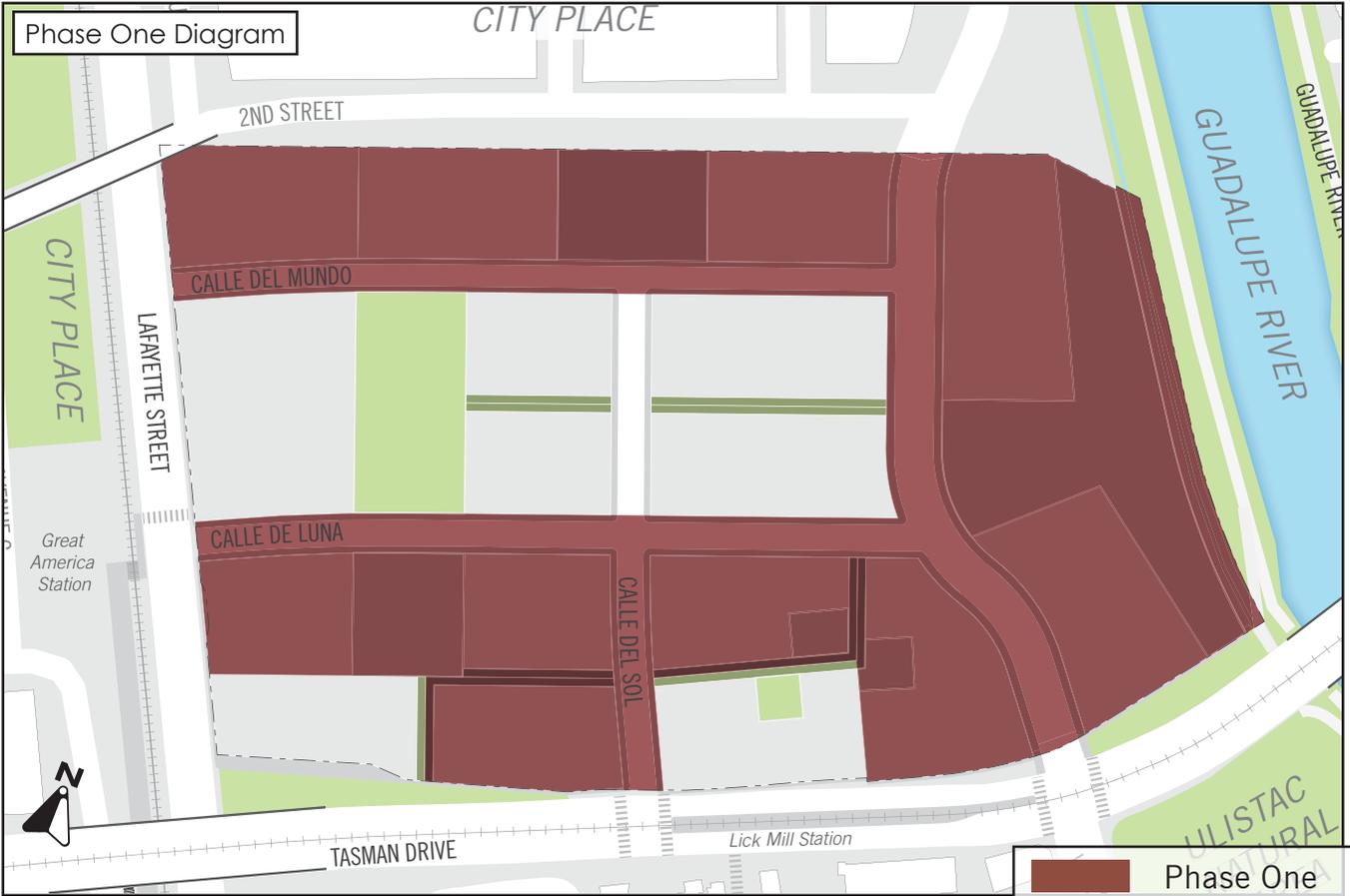
The Specific Plan would also allow an urban school for up to 600 students. The Specific Plan does not indicate a specific location for the school, therefore, a suitable location would be identified during Specific Plan implementation. It is assumed that an “urban school” of approximately 600 students can be located at the ground floor of a mixed-use building and must be adjacent and accessible to a public open space of a minimum one acre.

2.3.10 Phasing

Although it is not possible to accurately predict if and when each of the individual properties within the Specific Plan would redevelop, it is reasonable to assume, given the shared intentions of various property owners and stakeholders/developers, that the first phase of transformation is likely to

include most of the perimeter properties (except the data center near Tasman Drive and Lafayette Street and the strip mall facing Tasman Drive), including the “loop” roads of Calle De Luna, Calle Del Mundo, and the portion of Lick Mill Boulevard which connects these two routes. Lick Mill Boulevard would be constructed as a two-lane roadway to serve buildout of the Specific Plan and widened to four-lanes when required by City Place at full buildout.

Phase two will include redevelopment of the “island properties”, should that occur, extension of Calle Del Sol, and relocation of the Primavera Pump Station and cell towers which are affected by the Calle Del Sol extension. The projected potential phasing for the Plan Area is shown in Figure 2.0-6.



POTENTIAL SPECIFIC PLAN PHASING

FIGURE 2.0-6

2.4 PROJECT OBJECTIVES

The City's objectives for redevelopment within the Tasman East Specific Plan include the following:

Land Use

Establish a land use plan and policy framework that will guide future development and redevelopment activities within the area toward transit supportive uses and improvements, including:

- Housing density in the 100 units per acre range to help meet the City's state-mandated RHNA,
- New housing and supporting uses that are integrated with existing residential uses to the south and compatible with former landfill uses in the north, and
- Convenient access to commercial uses, nearby employment, retail, services, entertainment, and other community supportive facilities and services.

Transportation

Improve vehicular, pedestrian, bicycle and transit connectivity between stations and existing and future adjacent commercial and residential areas, to encourage the use of alternative modes of transportation and foster a healthy lifestyle, by:

- Providing direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.

Public Realm

Provide a vital neighborhood in this area of the City, by:

- Developing and implementing urban design standards for streets, streetscapes, buildings and open space, which promote walkable and livable environments within the project area,
- Promoting pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings, and
- Encouraging parking to be located in structures to minimize their visibility from streets and public spaces.

Parks

Create a vibrant, high density neighborhood with integrated on-site open space, recreational amenities, and neighborhood serving parks and recreational facilities, which includes:

- Provision of publicly accessible open space within the Tasman East Focus Area that is accessible to all residents, adequate to meet their activity needs, and consistent with the General Plan requirements and other City regulations, and
- New residential development that contains public open spaces, neighborhood parks and recreational amenities that are connected by trails and bikeways, and to other open space

facilities such as the Guadalupe River Trail, San Tomas Aquino Creek Trail, and Ulistac Natural Area.

Environmental

- Meet infrastructure needs and public service levels for the neighborhood in the context of the surrounding area, including allocating fair share cost burdens related to public facilities and benefits, and
- Require new development to comply with the local floodplain management ordinance to ensure the safety of residents.

2.5 USES OF THE EIR

This EIR provides decision-makers and the general public with relevant environmental information to use in considering the proposed Specific Plan and associated policies and regulations, as well as in implementing the Specific Plan over the coming years. It is expected that this EIR would be used for appropriate discretionary and other approvals necessary to implement the project, as proposed. These actions may include, but are not limited to, the following approvals:

- General Plan Land Use Diagram and Text Amendments (including Climate Action Plan)
- Modification of the Mobility & Transportation Diagram: Roadway Network
- Adoption of the Tasman East Specific Plan
- Rezonings and Planned Developments
- Design Permits/Site Review and other Permits for Development Consistent with the Specific Plan
- Development Agreements
- Streetscape Improvements
- Acquisition, redevelopment, and/or sale of property
- Disposition and Development Agreements
- Utility Infrastructure Improvements
- USACE Section 404 Permit
- RWQCB Section 401 Water Quality Certification
- CDFW Section 1602 Lake and Streambed Alteration Agreement
- SCVWD Encroachment Permit
- Local Enforcement Agency Clearance

SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

- | | | | |
|-----|---------------------------------|------|--|
| 3.1 | Aesthetics | 3.9 | Hydrology and Water Quality |
| 3.2 | Air Quality | 3.10 | Land Use and Planning (including Agricultural/Forestry Resources, Mineral Resources, and Population and Housing) |
| 3.3 | Biological Resources | | |
| 3.4 | Cultural Resources | 3.11 | Noise and Vibration |
| 3.5 | Energy | 3.12 | Public Services |
| 3.6 | Geology and Soils | 3.13 | Recreation |
| 3.7 | Greenhouse Gas Emissions | 3.14 | Transportation/Traffic |
| 3.8 | Hazards and Hazardous Materials | 3.15 | Utilities and Service Systems |

The discussion for each environmental subject includes the following subsections:

ENVIRONMENTAL SETTING

This subsection: 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

IMPACTS

This subsection: 1) includes thresholds of significance for determining impacts, 2) discusses the project's consistency with those thresholds, and 3) discusses the project's consistency with applicable plans. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, **Impact HAZ-1** denotes the first potentially significant impact discussed in the Hazards and Hazardous Materials section. Mitigation measures are also numbered to correspond to the impact they address. For example, **MM NV-2.1** refers to the first mitigation measure for the second impact in the Noise and Vibration section.

The baseline for analysis is the conditions generally at the time the NOP was first circulated (December 2016) unless otherwise noted.

Planning Considerations

The California Supreme Court in a December 2015 opinion (*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 [No. S 213478]) confirmed that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project. Therefore, the evaluation of the significance of project impacts under CEQA in the following sections focuses on

impacts of the project on the environment, including whether a project may exacerbate existing environmental hazards.

The court ruling provided for several exceptions to the general rule where an analysis of the project on the environment is warranted: 1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried); 2) if the project qualifies for certain specific specified exemptions (certain housing projects and transportation priority projects PRC 21159.21 (f),(h); 21159.22 (a),(b),(3); 21159.23 (a)(2)(A); 21159.24 (a)(1),(3); or 21155.1(a)(4),(6)); 3) if the project is exposed to potential noise and safety impacts on the project occupants due to proximity to an airport (PRC 21096); and 4) school projects requiring specific assessment of certain environmental hazards (per PRC 21151.8).

The City of Santa Clara currently has policies that address existing conditions (e.g., air quality, noise, and hazards) affecting a proposed project. This is consistent with one of the primary objectives of CEQA and this document, which is to provide objective information to decision-makers and the public regarding a project as a whole. The CEQA Guidelines and the courts are clear that a CEQA document (e.g., EIR or Initial Study) can include information of interest even if such information is not an “environmental impact” as defined by CEQA.

Therefore, where applicable, in addition to describing the impacts of the project on the environment, this chapter will discuss planning considerations that relate to policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project near sources of air emissions that can pose a health risk, in a floodplain, in a geologic hazard zone, in a high noise environment, or on/adjacent to sites involving hazardous substances.

Cumulative Impacts

The project’s cumulative impact on the resource is also discussed. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts “when the project’s incremental effect is cumulatively considerable.” The discussion does not need to be in as great detail as is necessary for project impacts but is to be “guided by the standards of practicality and reasonableness.” The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and probable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence. To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document. The analysis must then determine whether the project’s contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3).

The cumulative discussion for each environmental issue addresses two aspects of cumulative impacts: 1) would the effects of all of the pending development listed result in a cumulatively

significant impact on the resources in question? And, if that cumulative impact is likely to be significant, 2) would the contributions to that impact from the proposed project make a cumulatively considerable contribution to those cumulative impacts?

Table 3.0-1 identifies the pending and approved projects in the project vicinity that are evaluated in the cumulative analysis.

Table 3.0-1: Cumulative List of Projects		
Project Name	Location	Description
<i>City of Santa Clara – Pending Projects</i>		
Muslim Community Association	3033 Scott Boulevard	Adding high school and doubling student enrollment
Applied Materials	3303 Scott Boulevard	581,000 s.f. office
Silicon Valley Builders	1313 Franklin Street	46 residential units and 16,000 s.f. retail space
Gateway Crossings	1205 Coleman Avenue	Up to 1,600 dwelling units and up to 215,000 s.f. of commercial uses
TI and ARC	2930 Corvin Drive	20,000 s.f. data center
<i>City of Sunnyvale – Pending Projects</i>		
Rite Aid	1010 Sunnyvale – Saratoga Road	14,000 s.f. of retail to replace a vacant lot
Net App	1240 Crossman Avenue	525,000 s.f. of office space to replace 310,000 s.f. of office
Moffett Park	215 Moffett Park Drive	249,000 s.f. of office space and 5,000 s.f. of restaurants to replace 157,000 s.f. of office space
Office	280 Santa Ana Court	777,000 s.f. of office space to replace 258,000 s.f. of industrial office
<i>City of Santa Clara – Approved Projects</i>		
Mission College Boulevard Office/Retail	2350 Mission College Boulevard	300,000 s.f. office and 6,000 s.f. retail, replacing 235.523 s.f. industrial
Sobrato Office Development	4301, 4401, 4551 Great America Parkway	600,000 s.f. office
Yahoo!	5010 Old Ironsides Drive	3,060,000 s.f. office and R&D campus with 13 six-story buildings and three commons buildings
Lawson Lane Office Building	2200 Lawson Lane	613,800 s.f. of office
Office Building	3000 Bowers Avenue	200,000 s.f. office
Brad Kouskup	4880 Great America Parkway	100,000 s.f. office
U-Haul and Self-Storage	2121 Laurelwood Road	217,000 s.f. office, 4,000 s.f. retail, 9,300 s.f. amenity

**Table 3.0-1:
Cumulative List of Projects**

Project Name	Location	Description
		building replacing 100,000 s.f. warehouse
Irvine	2600 Augustine Drive	1,840 residential units and 40,000 s.f. retail
Menlo Equities	3535 Garrett Drive	150,000 s.f. office
City Place	5155 and 5120 Stars and Stripes	5,400,000 s.f. office 700 hotel rooms 1,680 residential units 1,082,000 s.f. retail 250,000 s.f. restaurant & grocery 190,000 s.f. entertainment
Courtney Bauer	3226 Scott Boulevard	230,500 s.f. office replacing 35,000 s.f. industrial
Washington Holdings	2041 Mission College Boulevard	175-room hotel and 25,000 s.f. retail replacing 93,000 s.f. industrial
Cedar Fair/Great America Master Plan	4701 Great America Parkway	140,000 s.f. retail
John Duquette	3375 Scott Boulevard	237,104 s.f. office building and a four-story parking garage with 14,000 s.f. of amenity building
SummerHill Homes	3505 and 3485 Kifer Road et al	41 single-family units, 955 multi-family units, and 37,000 s.f. retail
Applied Materials	3303 Scott Boulevard	78,000 s.f. office
Office	3001 Tasman Drive	150,000 s.f. office building
Great America Theme Park Master Plan	1 Great America Parkway	Park Master Plan with up to 100,000 s.f. of commercial space
Office/Retail	2620 Augustine Drive	1,243,300 s.f. of office space and 125,000 s.f. of retail space
Hotel	2950 Lakeside Drive	188-room hotel
<i>City of Sunnyvale – Approved Projects</i>		
Office	645 Almanor Avenue	541,000 s.f. of R&D office to replace 159,000 s.f. of office building
Ariba Campus/Moffett Towers	815 11 th Avenue	815,000 s.f. of office building to replace 615,000 s.f. of office building
Residential	520-550 E Weddell Drive	465 apartments to replace 183,000 s.f. of industrial buildings
Onizuka Air Force Station	1080 Innovation Way	Downsize from 574,000 s.f. of office to 125,000 s.f.

Table 3.0-1: Cumulative List of Projects		
Project Name	Location	Description
Office	549 Baltic Way	483,000 s.f. office buildings to replace 285,000 s.f. of office buildings
Office	589 West Java Drive	339,000 s.f. of office buildings to replace 171,000 s.f. of office buildings
<i>City of San Jose – Approved Projects</i>		
North San Jose Phase I Project	North and west of I-880 and south of SR 237	6,675,000 square feet of industrial space, 425,000 square feet of commercial space, and 8,000 residential units
North San Jose Phase II Project	North and west of I-880 and south of SR 237	6,675,000 square feet of industrial space, 425,000 square feet of commercial space, and 8,000 residential units
<i>City of Santa Clara – Projects Under Construction</i>		
Gateway Santa Clara	3700 El Camino Real	Mixed-use redevelopment of entire site
Lawson Lane	2200 Lawson Lane	516,000 s.f. of office use
Sobrato	4800 Great America Parkway	171,000 s.f. office building and site improvements and two-level parking garage
<i>City of Santa Clara – Recently Completed</i>		
Menlo Equities Office Park	3333 Scott Boulevard	735,000 square feet of office space in 5 buildings
Office	5450 Great America Parkway	213,325 s.f. office building

For each environmental issue, cumulative impacts may occur over different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire air basin, whereas noise impacts would primarily be localized to the surrounding area. In each cumulative analysis, the geographic area of impact is identified.

Consistency with Applicable Plans

The Specific Plan's consistency with applicable plans (such as general plans and regional plans) is also discussed within this subsection pursuant to CEQA Guidelines Section 15125(d). The discussions of consistency with applicable plans are evaluated in the topical sections to which the policies most directly pertain.

CONCLUSION

This subsection provides a summary of the project's impacts on the resource.

3.1 AESTHETICS
3.1.1 Environmental Setting
3.1.1.1 *Regulatory Framework*

State

Scenic Highways Program

The State Scenic Highways Program was created by the California State Legislature in 1963 and is under the jurisdiction of the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. There are no designated scenic highways in the vicinity of the Tasman East Specific Plan.

PRC § 21099 (SB 743)

SB 743 provides that aesthetics and parking are not considered CEQA impacts for residential, mixed-use residential, or employment center projects on infill sites in Transit Priority Areas. As noted above in Section 2.1, the TESP is in a Transit Priority Area. Although not a CEQA requirement the City has provided discussion of aesthetics for informational purposes.

Local

City of Santa Clara 2010–2035 General Plan

The City of Santa Clara 2010-2035 General Plan includes policies and programs associated with maintaining the City’s aesthetic character and neighborhood compatibility. The policies relevant to the proposed project include those listed below. General Plan Policies 5.4.6 – P4-P15 are specific to the Tasman East Specific Plan.

Policies	Description
Aesthetics	
5.3.1-P1	Preserve the unique character and identity of neighborhoods through community initiated neighborhood planning and design elements incorporated in new development.
5.3.1-P3	Support high quality design consistent with adopted design guidelines and the City’s architectural review process.
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 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
5.3.1-P24	Coordinate sign programs for commercial uses to promote continuity, improve streetscape design, and reduce visual clutter.
5.3.1-P27	Encourage screening of above-ground utility equipment to minimize visual impacts.
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.

- 5.3.3-P8 Require quality design for new and redeveloped commercial uses to support the City’s economic development objectives.
 - 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.
 - 5.4.6-P4 Promote pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings.
 - 5.4.6-P9 Provide appropriate transition between new development in the Tasman East Focus Area and adjacent residential uses consistent with General Plan Transition Policies.
 - 5.4.6-P11 Require new buildings to maintain a consistent setback/build-to-line from the public right-of-way in order to create a well-defined public sidewalk and street.
 - 5.4.6-P13 Require that building facades and entrances directly face street frontages, with a high proportion of transparent windows facing the street for non-residential uses.
 - 5.4.6-P14 Encourage sensitive design and site planning to minimize the scale of larger buildings through use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof lines, and pedestrian-scaled architectural details.
 - 5.4.6-P15 Encourage parking to be located in structures to minimize their visibility from streets and public spaces.
 - 5.5.2-P2 Implement design review guidelines for setback, heights, materials, massing, articulation and other standards to support Transition Policies and promote neighborhood compatibility.
 - 5.5.2-P3 Implement site design solutions, such as landscaping and increased building setbacks, to provide a buffer between non-residential and residential uses.
 - 5.5.2-P6 Adjust new building height, scale, and massing along the site perimeter abutting planned lower-intensity uses.
 - 5.5.2-P10 Encourage below-grade parking to accommodate parking demand in order to reduce overall building height and massing in transition areas.
 - 5.5.2-P12 Screen loading and trash areas to preclude visibility from off-site and public streets.
 - 5.9.1-P5 Encourage public visibility for all parks, trails, and open spaces.
 - 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.
 - 5.10.1-P11 Require use of native plants and wildlife-compatible non-native plants, when feasible, for landscaping on City property.
-

City Code – Architectural Review

An architectural review process has been established for new developments/redevelopment by the City Council to encourage the orderly and harmonious appearance of structures and property; maintain the public health, safety and welfare; maintain the property and improvement values throughout the City and to encourage the physical development of the City as intended by the General Plan. Architectural review is the responsibility of the architectural committee appointed by the City (the “Architectural Committee”). Before action is taken on an application for the issuance of a permit for any sign, building, structure, or alteration of the exterior of a structure in any zone district, plans and drawings of such sign, building or alteration shall be submitted to the Architectural Committee for approval. Additional details about the architectural review process can be found in City Code Chapter 18.76.

City Architectural Committee Policies – Specific Plan Design Guidelines

The Architectural Committee reviews plans and drawings submitted for architectural review for design, aesthetic considerations, and consistency with zoning standards, generally prior to submittal for building permits. The Architectural Committee would review future development projects for consistency with the Tasman East Specific Plan Design Guidelines. The intent of these guidelines is to identify the standards required to enhance and improve the aesthetic and functional quality of streets, open spaces, and buildings within the Plan Area.

3.1.1.2 *Existing Conditions*

Visual resources in the City of Santa Clara include the Santa Cruz Mountains to the southwest, the Diablo Range to the northeast, and the Ulistac Natural Area (approximately 120 feet south of the site). Other visual resources include the three seasonal creeks which run through the City (San Tomas Aquino, Saratoga and Calabazas Creeks), and the Guadalupe River which borders the northeastern City boundary and is east of the Plan Area.

3.1.1.3 *Visual Character of the Tasman East Specific Plan Area*

The Plan Area is an existing light industrial and commercial neighborhood and is 46 gross acres in size. The site primarily consists of one story industrial buildings. The Plan Area also contains a two-story office building on Calle De Luna and three, two-story offices and two, one-story restaurant buildings on Tasman Drive. The buildings in the Plan Area are mostly composed of concrete, flat roofs and tinted windows surrounded by paved parking lots and landscaping. Utility poles on the site are located on Calle Del Sol and Calle De Luna, and above-ground utility lines transect the site. At the street level, existing views of the Plan Area are limited to its immediate surroundings due to the low height of the buildings in the Plan Area, elevated berms/levees and surroundings, and built environment. Views and locations of the Plan Area and its surroundings are shown in Photographs 1-10 and Figure 4.1-1.

3.1.1.4 *Visual Character of the Surrounding Area*

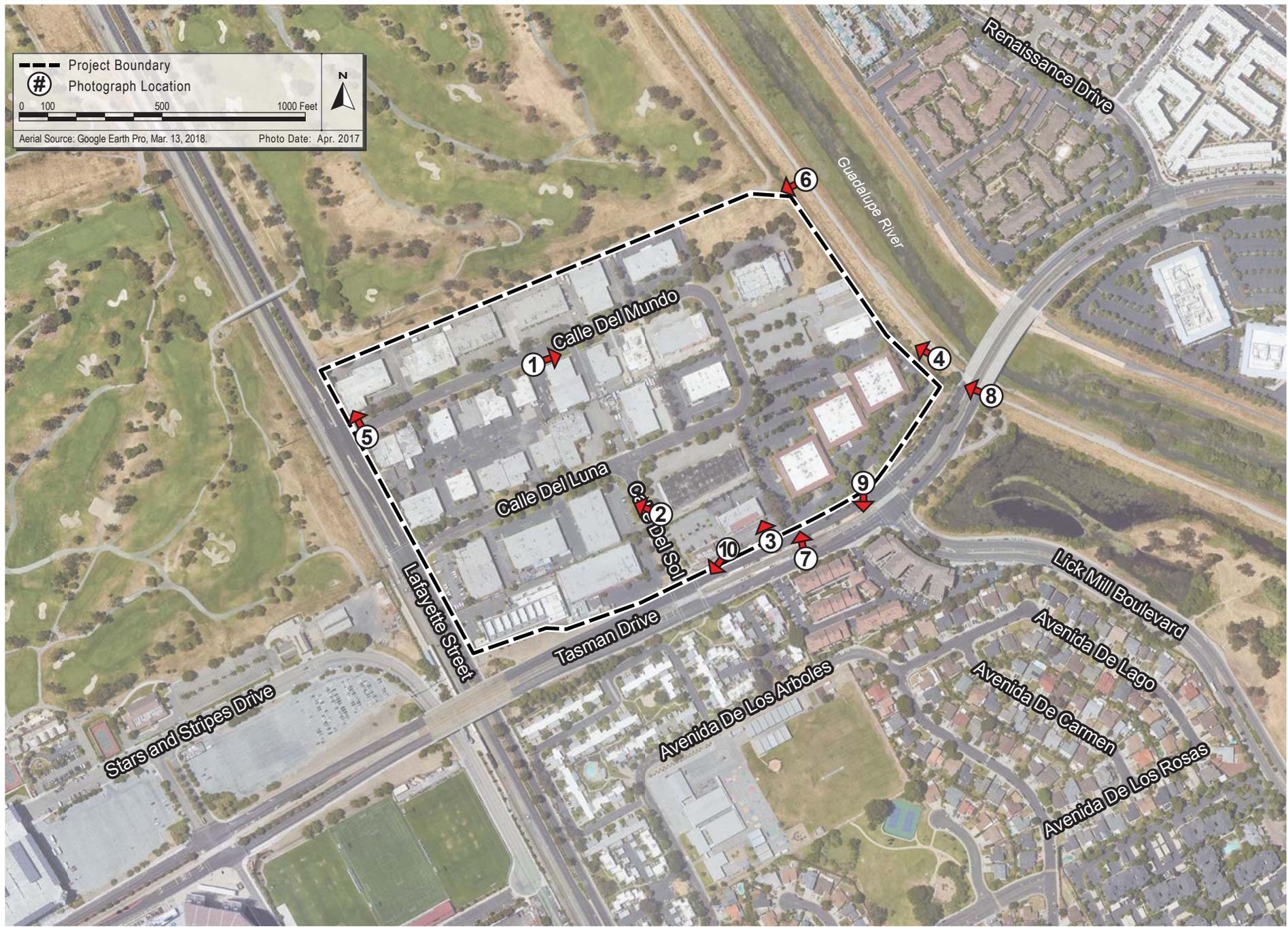
The visual character of the area is urban in nature, with structures of various mass, scale, design and materials. The Plan Area is surrounded by residential, commercial, recreational, and trail uses. The Plan Area is bordered by a golf course to the north and west, the Guadalupe River and Trail to the east, Tasman Drive, the Santa Clara Valley Transportation Authority (VTA) light rail tracks and station, the Ulistac Natural Area and residential development to the south and southeast, and Lafayette Street and the Santa Clara/Great America Station and tracks to the west.

The golf course, which borders the Plan area's northern boundary and is also to the west of Lafayette Street, is elevated and consists of landscaping, including trees. The Guadalupe River to the east is bounded by two earthen levees, with bicycle/pedestrian trails atop the levees. At the eastern boundary of the Specific Plan area is the western river levee that includes an unpaved, gravel trail that is accessible from Tasman Drive. Residential development to the south includes one- to two-story single- and multi-family residences (constructed between 1968 and 1979) comprised of wood and stucco with flat roofs. Three-story multi-family residential apartment developments (constructed between 1998 and 2005) are located at the southwest intersection of Tasman Drive and Lick Mill Boulevard. The apartment buildings are constructed of wood and stucco above a partially below

--- Project Boundary
Photograph Location

0 100 500 1000 Feet

Aerial Source: Google Earth Pro, Mar. 13, 2018. Photo Date: Apr. 2017



PHOTOGRAPH LOCATIONS OF PLAN AREA AND SURROUNDINGS

FIGURE 3.1-1



PHOTO 1: View of one-story industrial buildings on Calle Del Mundo, looking east.



PHOTO 2: View of one-story industrial buildings on Calle Del Sol, looking northwest.



PHOTO 3: View of one-story retail building within the Plan Area looking north from Tasman Drive.



PHOTO 4: View of the industrial and office buildings in the Plan Area and the golf course in the distance looking northwest from the Guadalupe River Trail.



PHOTO 5: View of the northwestern edge of the Plan Area from the Lafayette Street and Calle Del Mundo intersection.



PHOTO 6: View of northern Plan Area boundary looking west from the Guadalupe River Trail. The golf course north of the Plan Area is to the right with views of the Santa Cruz Mountains in the distance.



PHOTO 7: View of the project site looking north from the multi-family residential development on Tasman Drive.



PHOTO 8: View of the project site from the Guadalupe River Trail, located immediately to the east of the Ulistac Natural Area.



PHOTO 9: View of three-story multi-family residences south of the site on Tasman Drive.



PHOTO 10: View of the Lick Mill Light Rail Station and Levi Stadium on Tasman Drive, looking southwest.

grade parking garage with ground floor units fronting onto Tasman Drive. The Tasman Drive overcrossing of Lafayette Street is located southwest of the Plan Area. The western boundary of the Plan Area contains a 115 kV transmission line on the east side of Lafayette Street. A 200-foot tall steel stadium structure (Levi's Stadium) is approximately 0.2 miles southwest of the Plan Area and is visible from the Plan Area from Tasman Drive and Lafayette Street.

3.1.1.5 *Light and Glare*

Sources of light and glare are abundant in the urban environment of the project area, including but not limited to street lights, parking lot lights, security lights, vehicular headlights, internal buildings lights, and reflective building surfaces and windows. The existing restaurants are lit during operations, as well as office buildings (e.g., security lighting) throughout the Specific Plan area.

3.1.1.6 *Scenic Views and Corridors*

No designated view corridors are located within the City; however, the Santa Clara 2010-2035 General Plan EIR lists the Santa Cruz Mountains, the Diablo Range, Ulistac Natural Area, San Tomas Aquino Creek, and the Guadalupe River as visual resources of the City. The Guadalupe River and Trail are adjacent to the eastern boundary of the Specific Plan area.

The Specific Plan area and the surrounding area are relatively flat with the exception of the elevated golf course to the north, levee to the east, and Tasman Drive overcrossing to the south. The Plan Area, therefore, is only visible from the immediate vicinity. The Specific Plan is not located within a designated scenic area, based on the Santa Clara General Plan.

The Specific Plan area has been developed since the mid-1970s with light industrial uses. The surrounding area was also developed from farmland beginning in the 1970s. There are no natural scenic resources such as rock outcroppings present in the Plan Area or the immediate vicinity.

The closest neighborhood park to the Plan Area is the four-acre Fairway Glen Park located at 2051 Calle De Primavera which contains an open, contiguous grass area, a large children's play area, two tennis courts and picnic facilities. The 40-acre Ulistac Natural Area, a visual resource located at 4901 Lick Mill Boulevard, approximately 120 feet to the south, is the only natural open space in the City of Santa Clara. Two-story office buildings within the Plan Area are visible from the northerly edge of Ulistac Natural Area on Tasman Drive, however, the views are partially blocked by landscaping on Tasman Drive. Trails within Ulistac Natural Area are located approximately one-quarter-mile south of the Specific Plan boundary and can be accessed from the Guadalupe River Trail.

3.1.2 *Aesthetic Impacts*

3.1.2.1 *Thresholds of Significance*

For the purposes of this EIR, an aesthetic impact is considered significant if the project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

- Substantially degrade the existing visual character or quality of the site and its surroundings;
or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.2.2 *Impacts of Project on Scenic Views or Resources*

There are no designated scenic vistas or resources on the project site, and there are no designated scenic vistas within the City limits. The Plan Area would be visible from the Ulistac Natural Area, approximately 120 feet south of the Plan Area, and the elevated Guadalupe River Trail east of the Plan Area. The Santa Cruz Mountains to the west and the Diablo Range to the east are both identified as scenic resources in the 2010-2035 General Plan; however, existing urban development and landscaping already partially blocks views of these resources at these locations. Buildout of the Specific Plan would not impact views of the hillsides from the Ulistac Natural Area or the residences to the south of the Plan Area since the hillsides are in the east-west direction and the Plan Area is to the north. Given that views of these scenic hillsides are currently limited from the Guadalupe River Trail, buildout of the Specific Plan would not substantially block views of the hillsides from this location (refer to Photos 4 and 6).

The Guadalupe River to the east of the Plan Area is also considered a visual resource in the City in the 2010-2035 General Plan. Given the adjacent elevated berm and surrounding urban development currently blocks views of the river, the buildout of the Specific Plan would not substantially block views of the river.

There are no scenic highways, designated by the California Department of Transportation, in the vicinity of the Plan Area. Buildout of the Specific Plan, therefore, would not impact scenic highways or block views of scenic resources from these highways. **(Less Than Significant Impact)**

3.1.2.3 *Impacts of Project on Visual Character*

The Specific Plan provides guidelines and development standards for the massing, scale, and setbacks for future development in the Plan Area. Development standards and guidelines for the Plan Area are included in Chapters 3 through 6 of the Specific Plan. The Land Use section of this EIR describes the increases in development intensity that would be allowed by the Specific Plan. The Plan Area would include mid-rise and high-rise tower multi-family developments. Mid-rise multi-family development would typically range from four to eight stories tall. These developments would typically incorporate a one- to two-story concrete parking podium with up to five stories of wood frame construction for residences above the podium in order to reach heights of six to eight stories (under 85 feet tall).

The high-rise towers would primarily be built with steel and concrete, and would generally be 12 or more stories tall. Buildings allowed under the Specific Plan would likely be taller than existing buildings in the area. The change in visual character resulting from higher-intensity development in the Plan Area was, however, accounted for in the Santa Clara General Plan⁶. Based on the conclusions in the Santa Clara General Plan EIR, buildout of the Tasman East Focus Area (i.e.,

⁶ City of Santa Clara 2010-2035 General Plan. *5.4.6 Tasman East Focus Area Goals and Policies*. December 2014.

Tasman East Specific Plan Area) would result in higher-intensity development, resulting in smaller building footprints and allow for more open space. Development projects under the Specific Plan would comply with the design guidelines in the Specific Plan and General Plan policies listed in the above Section 3.1.1.1, *Regulatory Framework* of this EIR. Future development projects within the Plan Area would be subject to review and approval by the Architectural Committee. The Architectural Committee would review projects to ensure projects comply with City policies and guidelines including incorporation of appropriate transitions between proposed development and existing neighborhoods.

The proposed project would also develop approximately 10 acres of non-contiguous parks, urban open space areas, and a network of pedestrian greenways (corridors). Development of these pedestrian greenways and open spaces would comply with the guidelines in Specific Plan, Chapters 3 and 5.

In accordance with City Code Chapter 18.76, future development under the Specific Plan would be reviewed by the City's Architectural Committee. Future projects would be reviewed for consistency with the Specific Plan Design Guidelines. The visual character of Plan Area and its surroundings would be consistent with the City adopted regulations and policies. Conformance with design guidelines, General Plan policies, and the architectural review process would ensure that future development would not detract from the visual character and quality of the Specific Plan area or its surroundings. **(Less Than Significant Impact)**

3.1.2.4 *Light and Glare Impacts*

Future development in the Plan Area could create additional light or glare in the City. Sources of light and glare could include external and internal building lights, security lights, internal building lights, and reflective building surfaces and windows. Prior to the issuance of building permits, proposed lighting would also be reviewed by the Architectural Committee to ensure that new buildings would not introduce new substantial light sources that would adversely affect nighttime views or spillover onto adjacent properties. The Specific Plan guidelines include the use of Dark Sky compliant lighting for exterior lights which would ensure that artificial lighting is designed to protect nighttime views. Proposed windows in buildings would also be reviewed to confirm they would not be a substantial new source of daytime glare. Future development would comply with the site-wide lighting guidelines in the Specific Plan, Specific Plan Design Guidelines and General Plan policies that pertain to lighting. Conformance with Specific Plan Design Guidelines, General Plan policies, and the architectural review process would ensure that future development would not result in substantial light or glare impacts in the Specific Plan project area. **(Less Than Significant Impact)**

3.1.2.5 *Consistency with Plans*

Santa Clara 2010-2035 General Plan

The Specific Plan would allow development of up to 4,500 dwelling units and up to 106,000 square feet of retail space including a 25,000 square foot grocery store and a 600 student school. Residential densities in the Plan Area would range from a minimum of 60 du/ac on sites less than one acre in size to a minimum of 100 du/ac for sites larger than one acre. Buildings in the Specific Plan area would be, at maximum, 220 feet in height.

Future development in the Specific Plan area would be consistent with the Specific Plan Design Guidelines and General Plan Policies specific to the Tasman East Focus Area (Policies 5.4.6 – P1-P20, as applicable). The Specific Plan includes pedestrian-friendly features such as lighted pathways, street furniture, shade trees and crosswalks. Buildings are also required to maintain a consistent setback from the public right-of-way and non-residential uses are required to have transparent windows facing the street to create an inviting pedestrian environment. The Specific Plan also includes design and site planning requirements to minimize building massing, step back taller buildings, and provide articulated facades.

The design of future Specific Plan projects would be reviewed by the Architectural Committee in accordance with General Plan Policy 5.3.1-P3, which requires projects to support high quality design consistent with adopted design guidelines and the City’s architectural review process. The change in visual character of the area due to the buildout of the Specific Plan is consistent with the vision for the Tasman East Focus Area disclosed in the General Plan, which assumed new high-density residential, open space, and neighborhood retail for the area. Allowed building heights within the Specific Plan area may be taller than originally envisioned in the General Plan; however, the intensification of development on the site with multi-storied residential development would be the primary change in visual character from the existing industrial development in the Plan Area. The Specific Plan also includes required separation distances for tower development and setbacks to minimize the effects of taller buildings on the site. For these reasons, buildout of the Specific Plan would be consistent with General Plan goals and policies.

3.1.2.6 *Cumulative Impacts*

Buildout of the Specific Plan area would develop buildings up to 220 feet which would be visible from public vantage points such as Guadalupe River Trail and the Ulistac Natural Area, and residences to the south of the Plan Area. However, buildout of the Plan Area would not substantially block views of scenic vistas or resources beyond existing conditions. It is unlikely the future development of the Specific Plan area and other cumulative projects, such as City Place, would be visible from a single public vantage point. Buildings at City Place could be developed to 17 stories in height and would be subject to similar height restrictions as development under the proposed Specific Plan due to the proximity of both sites to Mineta San José International Airport. Due to distance between the cumulative projects, the intervening development, vegetation, and the flat topography of the area, the cumulative projects, therefore, are not anticipated to result in a cumulative impact to visual character. Projects in the City and adjoining jurisdictions are subject to architectural review, subject to the design guidelines and development standards of the jurisdictions’ municipal codes, including standards to prevent light and glare impacts. For these reasons, the cumulative projects would not result in a cumulative visual or aesthetic impact and the Specific Plan’s contribution would be less than cumulatively considerable. **(Less Than Significant Cumulative Impact)**

3.1.3 Conclusion

With the implementation of City General Plan policies and guidelines, Specific Plan design guidelines, and the City Code, the buildout of the Specific Plan would not substantially degrade the visual character or quality of the Specific Plan area or its immediate vicinity, block any designated scenic views or resources, or result in a substantial source of additional light or glare. **(Less Than Significant Impact)**

3.2 AIR QUALITY

The following discussion is based on an air quality assessment prepared by *Illingworth & Rodkin, Inc.* in June 2018. A copy of this report can be found in Appendix B of this EIR.

3.2.1 Environmental Setting

3.2.1.1 *Background Information*

Ambient air quality standards have been established at both the state and federal level. The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

As required by the federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter, including respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}), sulfur oxides (SO_x), and lead (Pb). Pursuant to the California Clean Air Act, the state has established the California Ambient Air Quality Standards (CAAQS). Both state and federal standards are summarized in Table 3.2-1. The “primary” standards have been established to protect the public health. The “secondary” standards are intended to protect the nation’s welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare. CAAQS are generally the same or more stringent than NAAQS. The Bay Area meets all ambient air quality standards with the exception of ground-level O₃, PM₁₀, and PM_{2.5}.

Air Pollutants of Concern

High O₃ levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high O₃ levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area’s attempts to reduce O₃ levels. High O₃ levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Table 3.2-1: Ambient Air Quality Standards				
Pollutant	Averaging Time	California Standards	National Standards^a	
			Primary^{b,c}	Secondary^{b,d}
Ozone (O ₃)	8-hour	0.07 ppm	0.07 ppm	Same as primary
	1-hour	0.09 ppm	---	Same as primary
Carbon Monoxide (CO)	8-hour	9.0 ppm	9.0 ppm	---
	1-hour	20 ppm	35 ppm	---
Nitrogen Dioxide (NO ₂)	Annual	0.030 ppm	0.053 ppm	Same as primary
	1-hour	0.18 ppm	0.100 ppm ^e	---
Sulfur Dioxide (SO ₂)	Annual	---	---	---
	24-hour	0.04 ppm	---	---
	3-hour	---	---	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	---
Respirable Particulate Matter (PM ₁₀)	Annual	20 µg/m ³	---	Same as primary
	24-hour	50 µg/m ³	150 µg/m ³	Same as primary
Fine Particulate Matter (PM _{2.5})	Annual	12 µg/m ³	12 µg/m ³	15 µg/m ³
	24-hour	---	35 µg/m ³	---
Lead (Pb)	Calendar quarter	---	1.5 µg/m ³	Same as primary
	30-day average	1.5 µg/m ³	---	---

Notes: ppm = parts per million, µg/m³ = micrograms per cubic meter.

^a California standards for O₃, CO, sulfur dioxide, nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are not to be exceeded. National standards (other than O₃, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year.

^b Concentrations are expressed first in units in which they were promulgated.

^c Primary Standards: the levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the USEPA.

^d Secondary Standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^e The form of the 1-hour NO₂ standard is the three year average of the 98th percentile of the daily maximum 1-hour average concentration.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a

freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue.

3.2.1.2 Regulatory Framework

Below is a summary of the federal, state, regional, and local regulations. Refer to Appendix B for additional details about the regulatory framework for air quality.

Federal

The U.S. Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards, including diesel engine emission standards and diesel fuel requirements. The federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

State

To address the issue of diesel emissions in the state, CARB developed the Diesel Risk Reduction Plan (Diesel RRP) to reduce diesel particulate matter emissions. In addition to requiring more stringent emission standards for new on- and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel RRP have been approved and adopted, including the federal on- and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB has also adopted and implemented regulations to reduce DPM and NO_x emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.).

Regional

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. BAAQMD has permit authority over stationary sources, acts as the primary reviewing agency for environmental documents, and develops regulations that must be consistent with or more stringent than federal and state air quality laws and regulations.

2017 Clean Air Plan

Regional air quality management districts such as BAAQMD must prepare air quality plans specifying how state air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP defines an integrated, multi-pollutant control strategy to reduce emissions of particulate matter, TACs, O₃ precursors, and greenhouse gases (GHGs). The proposed control strategy is designed to complement efforts to improve air quality and protect the climate that are being implemented by partner agencies at the state, regional, and local scale. The control strategy encompasses 85 individual control measures that describe specific actions to reduce emissions of air and climate pollutants from the full range of emission sources and is based on the following four key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources;
- Reduce emissions of “super-GHGs” such as methane, black carbon, and fluorinated gases;
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas); and
- Decarbonize our energy system.

For stationary sources, the key elements in the control strategy are to:

- Decrease emissions of GHGs and criteria air pollutants through a region-wide strategy to reduce combustion and improve combustion efficiency at industrial facilities, beginning with the three largest sources of emissions: oil refineries, power plants, and cement plants;
- Reduce methane emissions from landfills, and from oil and natural gas production and distribution; and
- Reduce emissions of toxic air contaminants by adopting more stringent thresholds and methods for evaluating toxic risks at existing and new facilities.

For transportation, the key elements in the control strategy are to:

- Reduce motor vehicle travel by promoting transit, bicycling, walking, and ridesharing.
- Implement pricing measures to reduce travel demand;
- Direct new development to areas that are well-served by transit and conducive to bicycling and walking;
- Accelerate the widespread adoption of electric vehicles; and
- Promote the use of clean fuels and low- or zero-carbon technologies in trucks and heavy-duty equipment.

For buildings and energy, the key elements in the control strategy are to:

- Expand the production of low-carbon, renewable energy by promoting on-site technologies such as rooftop solar, wind, and ground-source heat pumps;
- Support the expansion of community choice energy programs throughout the Bay Area;
- Promote energy and water efficiency in both new and existing buildings; and
- Promote the switch from natural gas to electricity for space and water heating Bay Area buildings.

The 2017 CAP control measures applicable to the project include, but are not limited to, the following listed below.

Policies	Description
Stationary Source Control Measures	
SS20	Reducing public exposure to TACs from existing facilities through Draft Rule 11-18.
SS32	Reduce emissions of DPM and black carbon from backup generators through Draft Rule 11-18, resulting in reduced health risks to impacted individuals, and in climate protection benefits.

Local

City of Santa Clara 2010-2035 General Plan

General Plan policies applicable to air quality include, but are not limited to, the following listed below.

Policies	Description
Prerequisite Policies	
5.1.1-P24	Prior to the implementation of Phase III, the City will include a community Risk Reduction Plan (“CRRP”) for acceptable Toxic Air Contaminant (“TAC”) concentrations, consistent with the Bay Area Air Quality Management District (“BAAQMD”) CEQA Guidelines, including risk and exposure reduction targets, measures to reduce emissions, monitoring procedures, and a public participations process.
Transportation Demand Management	
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.
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.
5.8.5-P9	Promote transportation demand management programs that provide education, information and coordination to connect residents and employees with alternate transportation opportunities.
Air Quality	
5.10.2-P1	Support alternative transportation modes and efficient parking mechanisms to improve air quality.
5.10.2-P2	Encourage development patterns that reduce vehicle miles traveled and air pollution.
5.10.2-P3	Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.
5.10.2-P4	Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.
5.10.2-P5	Promote regional air pollution prevention plans for local industry and businesses.
5.10.2-P6	Require “Best Management Practices” for construction dust abatement.
Safety	
5.10.5-P34	Implement minimum setbacks of 500 feet from roadways with average daily trips of 100,000 or more and 100 feet from railroad tracks for new residential or other uses with sensitive receptors, unless a project-specific study identifies measures, such as site design, tiered landscaping, air filtration systems, and window design, to reduce exposure, demonstrating that the potential risks can be reduced to acceptable levels.

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.
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3.2.1.3 *Existing Conditions*

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO.

There are groups of people more affected by air pollution than others. CARB has identified the following categories of persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, churches, elder care facilities, elementary schools, and parks. A review of the project site location indicates that there are sensitive receptors approximately 150 feet south of the Specific Plan area.

3.2.2 Air Quality Impacts

3.2.2.1 *Thresholds of Significance*

For the purposes of this EIR, an air quality impact is considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

BAAQMD adopted thresholds of significance to assist the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD reports air pollution emissions would cause significant environmental impacts. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 3.2-2.

Table 3.2-2: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for Single Sources			
Excess Cancer Risk	>10 per one million		
Hazard Index	>1.0		
Incremental annual PM _{2.5}	>0.3 µg/m ³		
Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)			
Excess Cancer Risk	>100 per one million		
Hazard Index	>10.0		
Annual Average PM _{2.5}	>0.8 µg/m ³		
Notes: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less, µm/m ³ = micrograms per cubic meter.			

As previously discussed in *Section 3.0*, in December 2015, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbate those environmental hazards or risks that already exist. Nevertheless, the City has General Plan policies (refer to *Section 3.2.1.2*) that address existing conditions affecting a proposed project, which are discussed below as planning considerations.

3.2.2.2 *Cumulative Contribution to Non-Attainment Criteria Pollutant Emissions*

As discussed previously in *Section 3.2.1.3*, the Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act. As part of an effort to attain and maintain ambient air quality standards for O₃ and PM₁₀, BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O₃ precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5} and apply to both construction period and operational period impacts and are summarized in Table 3.2-2.

The California Emissions Estimator Model (CalEEMod) was used to predict emissions from project construction and operation at full buildout. Refer to Appendix B for more details regarding CalEEMod.

Construction Emissions

Implementation of the Tasman East Specific Plan would result in temporary emissions from construction activities associated with subsequent development, including demolition, site grading, asphalt paving, building construction, and architectural coating. Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit dirt/mud on local streets, which could be an additional source of airborne dust after it dries.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Construction exhaust emissions may still pose community risks for sensitive receptors such as nearby residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors.

Construction exhaust emissions include those from equipment (i.e., off-road) and traffic (on-road vehicles and trucks). Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Architectural coatings and application of asphalt pavement are dominant sources of ROG emissions. The BAAQMD CEQA Air Quality Guidelines do not identify quantified plan level thresholds for construction emissions; however, there are project-level thresholds of 54 pounds per average day for NO_x, ROG and PM_{2.5} exhaust and 82 pounds per average day for PM₁₀ exhaust. The combination of temporary dust from activities and diesel exhaust from construction equipment and related traffic may exceed BAAQMD's project-level thresholds on a project-by-project basis. In addition, NO_x emissions during grading and soil import/export for large projects may exceed the BAAQMD NO_x emission thresholds for projects.

Impact AQ-1: The project would result in significant construction air pollutant emissions due to dust generation and emissions of TACs and criteria pollutants during construction. **(Significant Impact)**

Mitigation Measures: The following mitigation measures shall be implemented on a project-by-project basis to control dust and reduce construction TAC and criteria pollutant emissions during construction:

MM AQ-1.1: During any construction period ground disturbance, the applicant shall ensure that the project contractor implements the following BAAQMD BMPs:

- All exposed unpaved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site 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 (mph).
- All roadways, driveways, and sidewalks to be paved 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 five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the construction firm regarding dust complaints. This 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.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. generators).

MM AQ-1.2: Construction criteria pollutant and TAC quantification will be required on a project-level basis for individual development projects once those details are available through modeling to identify impacts and, if necessary, include measures to reduce emissions. The analysis must be submitted for City review and approval, once complete. Health risks from construction TACs shall be reduced below 10 in one million excess cancer cases, a hazard index of 1.0, and PM_{2.5} emissions of 0.3 µg/m³. Criteria pollutant emissions shall not exceed BAAQMD construction criteria pollutant emissions thresholds.

Reduction in emissions can be accomplished through, though is not limited to, the following measures:

- Construction equipment selection for low emissions;
- Use of alternative fuels, engine retrofits, and added exhaust devices;
- Low-VOC paints;
- Modify construction schedule; and
- Implementation of BAAQMD Basic and/or Additional Construction Mitigation Measures for control of fugitive dust.

Site-specific construction schedules and equipment are not known at this time for the future development of the Specific Plan and, therefore, air pollutant emissions have not been quantified at the project-level. Implementation of Mitigation Measure AQ-1.1 would ensure that all construction projects employ the proper BAAQMD-Recommended Measures to Control Particulate Matter Emissions and Mitigation Measure AQ-1.2 would ensure that construction of future development areas under the TESP would be analyzed through project-level review to quantify construction criteria pollutant emissions and identify the specific measures needed to reduce potential impacts so as not to exceed BAAQMD construction criteria emissions thresholds, as necessary. Therefore, with implementation of Mitigation Measure AQ-1.1 and AQ-1.2, the construction emissions impacts from individual development projects under the Tasman East Specific Plan would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Effects to On-Site Sensitive Receptors

The on-site effects of the project on future sensitive receptors within the Plan Area is a planning consideration and not required as part of the CEQA analysis since it does not involve off-site impacts of the project on the environment. Since project construction would be phased, future on-site residences and the school students would be considered sensitive receptors for later phases of construction within the Plan Area. Emissions and dispersion modeling would be conducted to estimate the on-site DPM concentrations resulting from construction, so that lifetime cancer risks and non-cancer health effects can be evaluated and mitigation identified.

With the implementation of mitigation measures MM AQ-1.1 and MM AQ-1.2, future on-site sensitive receptors would not be exposed to harmful pollutants resulting from construction emissions because construction equipment would include necessary emissions controls to reduce the effects of TACs below BAAQMD significance thresholds.

Operational Emissions

Operational air emissions from the project were modeled and would be generated primarily from automobiles driven by future residents and employees. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. In addition, emissions from energy use, solid waste generation, and water/wastewater use were included in the modeling.

Implementation of the TESP would result in long-term area and mobile source emissions from operation and use of subsequent development. However, implementation of the TESP would

contribute to an increase in planned regional growth and a large increase in VMT in the Specific Plan area. The TESP would require implementation of a TDM program, consistent with the CAP, which would reduce residential vehicle trips.

Santa Clara’s Climate Action Plan requires that the new projects implement vehicles miles travelled (VMT) reductions, depending on the General Plan land use classification, project type and transportation district where the project is located. Although the existing General Plan does not have a land use classification applicable to the TESP, it does set VMT and Transportation Demand Management (TDM) targets for residential uses. The project will comply with the City’s Climate Action Plan concerning TDM programs and VMT reduction.

Table 3.2-3 summarizes the Specific Plan’s estimated operational emissions and shows that operational emissions of PM₁₀ and PM_{2.5} would be below BAAQMD significance thresholds but operational emissions of ROG and NO_x would exceed the BAAQMD significance threshold.

Table 3.2-3: Summary of Tasman East Specific Plan Operational Air Emissions				
Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
Annual Project Operational Emissions (tons/year)	22.17	17.29	17.03	4.88
Existing Operational Emissions (tons/year)	3.07	2.89	2.30	0.68
Total Net Project Operational Emissions (tons/year)	19.10	14.40	14.73	4.20
<i>BAAQMD Thresholds (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Threshold?	Yes	Yes	No	No
Average Daily Net Project Emissions (pounds/day)	105	79	81	23
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceeds Threshold?	Yes	Yes	No	No

Impact AQ-2: The operation of the project would result in significant operational ROG and NO_x emissions thereby contributing to regional ozone impacts. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would reduce operational ROG and NO_x emissions impacts resulting from the project:

MM AQ-2.1: Proposed residential development within the TESP shall implement TDM programs to reduce residential vehicle miles traveled as required by the City’s Climate Action Plan. The TDM programs would be reviewed and approved by the Community Development Director prior to issuance of building permits. An annual TDM monitoring report shall be submitted to the

Community Development Director to document each development is meeting the required TDM program reductions.

MM AQ-2.2: Proposed development within the TESP shall incorporate additional green building measures such as rooftop solar photovoltaic (PV) systems, rough-ins for electric vehicle charging, use of efficient lighting and irrigation, and recycled water, as feasible, to the satisfaction of the Community Development Director.

MM AQ-2.3: Developed parcels shall require within their CC&Rs and/or ground leases requirements for all future interior spaces to be repainted only with architectural coatings that meet the “Low-VOC” or “Super-Compliant” requirements. “Low-VOC” refers to paints that meet the more stringent regulatory limits in South Coast AQMD Rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as “Super-Compliant” Architectural Coatings.

However, this impact would remain significant and unavoidable given that implementation of a TDM program under the City’s Climate Action Plan would not reduce significant operational ROG and NO_x emissions below BAAQMD thresholds of 54 pounds per day. Mitigation measures including TDM programs and green building techniques would not reduce emissions of ROG and NO_x to below the BAAQMD significance thresholds for criteria pollutants. The criteria pollutant emissions impacts of the Specific Plan, therefore, would remain significant and unavoidable. **(Significant Unavoidable Impact)**

3.2.2.3 *Effects on Air Quality Standards Other than ROG and NO_x*

CO emissions from traffic generated by the project would be a pollutant of concern at the local level. CO emissions are generated by the incomplete combustion of fuels making motor vehicles the largest source of CO. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of CO. Air pollutant monitoring data indicate that CO levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the CO standard. The highest measured level over any eight-hour averaging period in the Bay Area during the last three years is less than 3.0 ppm, compared to the ambient air quality standard of 9.0 ppm.

Based on the trip generation rates, the project would add approximately 2,155 trips in the PM peak hour and would not affect high-volume intersections that have the potential to result in exceedances of an ambient air quality standard for CO. BAAQMD screening guidance indicates that the project would have a less than significant impact with respect to CO levels if project traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour. Because cumulative traffic volumes at all intersections affected by the project would have less than 44,000 vehicles per hour, the project would have a less than significant effect with respect to CO.

As discussed in *Section 3.2.2.2*, the project would exceed the BAAQMD O₃ (specifically ROG and NO_x) air quality standard (refer to Impact AQ-2).

The project would not violate air quality standards (including those for CO) other than ROG and NO_x. **(Less Than Significant Impact)**

3.2.2.4 *Exposure of Sensitive Receptors to Pollutant Concentrations*

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. To address exposure of sensitive receptors to substantial pollutant levels, the BAAQMD CEQA Guidelines developed thresholds that address community health risk. These include increased cancer risk, non-cancer hazards and increased annual concentrations of PM_{2.5}. Sources of TACs and PM_{2.5} lead to increased community risk levels. Diesel particulate matter, or DPM, is the predominant TAC in the area.

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site. These sources include construction sites, freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project.

Exposure of On-Site Sensitive Receptors and Students from Existing TAC Sources (Planning Consideration)

The project would introduce new sensitive receptors (residences and students) in proximity to nearby TAC sources, including Lafayette Street, Tasman Boulevard, and Lick Mill Boulevard. The rail line and the Great America train station near the project site is a source of TAC emissions from diesel-powered locomotives. Light rail transit trains operating on Lick Mill Boulevard are electrified and, therefore, not a source of DPM. Table 3.2-4 on the following page shows the existing stationary and roadway sources that could adversely affect on-site sensitive receptors.

Table 3.2-4: Maximum Health Risk to Proposed On-Site Sensitive Receptors			
Single Source	Maximum Cancer Risk (per million)	Maximum PM_{2.5} Concentration (µg/m³)	Maximum Hazard Index
Lafayette Street	15.6	0.54	0.01
Tasman Drive	14.4	0.42	0.01
Lick Mill Boulevard	2.4	0.07	0.00
Stationary Sources			
• Plant 17251 (500 feet away)	7.2	0.01	0.01
• Plant 1636 (Alzerta Corporation)	0.0	0.04	0.00
• Plant 3037 (Italix Company)	0.0	0.07	0.01
• Plant 1642 (Megastar)	0.0	0.01	0.00
• UPRR Rail Line Great America Station (100 feet away)	22.0	0.03	<0.01
Total	<61.6 ¹	1.19¹	<0.03 ¹
<i>BAAQMD Threshold for Single Sources</i>	<i>10.0</i>	<i>0.3</i>	<i>1.0</i>
<i>Exceed Single Threshold?</i>	Yes	Yes	No
<i>BAAQMD Threshold for Cumulative Sources</i>	<i>100.0</i>	<i>0.8</i>	<i>10.0</i>
<i>Exceed Cumulative Threshold?</i>	No	Yes	No
Note: Bold text indicates levels above single source thresholds.			
¹ The actual cumulative level would be less because this value represents the sum of the maximum impacts where the maximum impacts from each source does not occur at one location.			

The UPRR rail line is the maximum increased single source cancer risk at the Tasman East Specific Plan site and was computed as 22.0 in one million. Increased cancer risks at residences on floor levels above the first floor and at farther distances from the rail line would be less than the maximum cancer risk on the first-floor level. Based on the rail line modeling, the maximum PM_{2.5} concentration at the project site was 0.0272 µg/m³, occurring at the same receptor that had the maximum cancer risk. Potential non-cancer health effects due to chronic exposure to DPM were expressed in terms of a hazard index (HI), as previously described. The maximum predicted annual DPM concentration from locomotives is 0.0296 µg/m³. Thus, the Hazard Index would be less than 0.01.

Three sources of TAC and PM_{2.5} emissions were found to cause significant exposures across the Tasman East Specific Plan site. These include the Union Pacific Railroad, Lafayette Street and Tasman Drive. The areas affected by these sources include the western portion of the site that is within 270 feet of the rail line and the southern portion that is within 110 feet of the Tasman Drive edge of travel lane. Any development of sensitive receptors within these affected areas would expose sensitive receptors to significant exposure of cancer risk and/or PM_{2.5} concentrations. The locations requiring the use of MERV13 filters and other site design measures are shown in Figure 3.2-1.

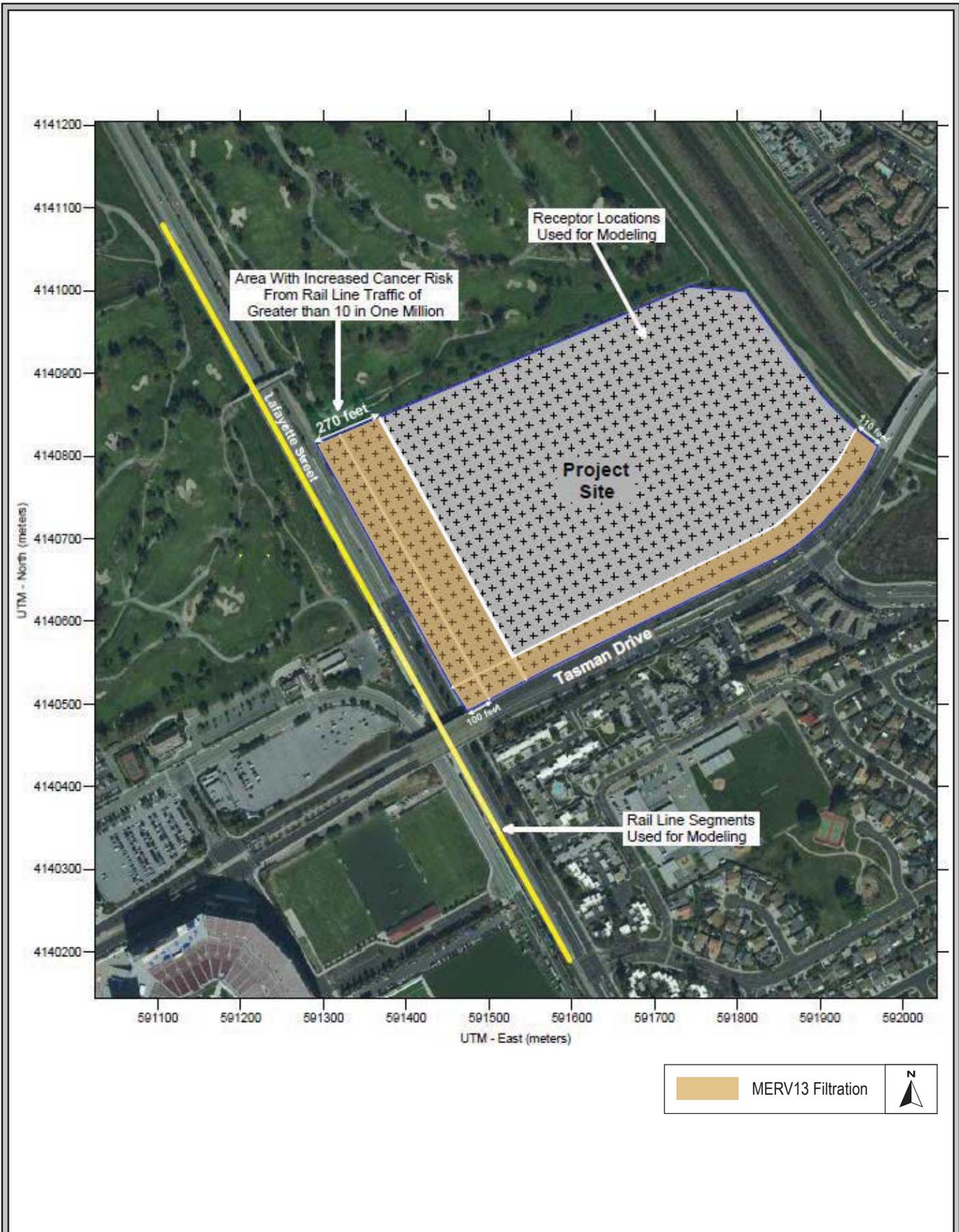
As previously discussed in *Section 3.0*, in December 2015, the California Supreme Court issued an opinion in *CBIA vs. BAAQMD* holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents unless the project risks exacerbate those environmental hazards or risks that already exist. Nevertheless, the City has General Plan policies (refer to *Section 3.2.1.2, Policy 5.10.5-P34*) that address existing conditions affecting a proposed project.

Therefore, due to the outcome of the *CBIA vs. BAAQMD* ruling discussed in *Section 3.0*, the following measures are listed as Standard Conditions of Approval (as opposed to mitigation measures) as they are required by the project to address existing conditions in accordance with the City's General Plan policies.

Standard Condition of Approval

Where cancer risk is identified in Figure 3.2-1 as exceeding 10 cases per million from any single source or annual PM_{2.5} concentrations exceeding 0.3 µg/m³ or 0.8 µg/m³ for cumulative sources within the Plan Area and 1,000 feet of the Plan Area, the following conditions of approval shall be imposed:

- Design the site to limit exposure from sources of TACs and fine particulate matter (PM_{2.5}) emissions. The final site layout shall locate operable windows and air intakes as far as possible from the Union Pacific railroad line/Lafayette Street and Tasman Drive.
- To the greatest degree possible, plant vegetation along the project site boundaries with Union Pacific rail road line/Lafayette Street and Tasman Drive and around outdoor use areas. This barrier would include trees and shrubs that provide a dense vegetative barrier.
- Install air filtration at units that have predicted PM_{2.5} concentrations above 0.3 µg/m³. Air filtration devices shall be rated MERV13 or higher. Alternately, at the approval of the City, equivalent control technology may be used if it is shown by a qualified air quality consultant or heating, ventilation, and air conditioning (HVAC) engineer that it would reduce risk below significance thresholds.
- As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.
- Ensure that any lease agreements and other property documents (1) require cleaning, maintenance, and monitoring of the affected units for air flow leaks; (2) include assurance that new owners and tenants are provided information on the ventilation system; and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.
- Require that, prior to building occupancy, an authorized air pollutant consultant or HVAC engineer verify the installation of all necessary measures to reduce cancer risk below 10 chances per million from any source and PM_{2.5} concentrations above 0.3 µg/m³ for any source and 0.8 µg/m³ for all sources.



RESIDENTIAL AREAS REQUIRING MERV13 FILTRATION

FIGURE 3.2-1

The BAAQMD Guidelines require that developments in areas affected by air pollutant sources install and maintain air filtration systems of fresh air supply. These systems would use MERV13 filters and would be installed on either an individual unit-by-unit basis, with individual air intake and exhaust ducts ventilating each unit separately, or through a centralized building ventilation system. The ventilation system would be certified to achieve certain effectiveness. In this case, the effective particulate control efficiency using a MERV13 filtration system is about 85 percent and 70 percent when accounting for three hours of non-filtered air.

Implementation of the recommended TAC reduction measures are estimated to reduce maximum cancer risk to about 7.0 cases per million and single source annual PM_{2.5} concentrations to 0.3 µg/m³ or less. Cancer risk from any single source would be reduced to less than 10 chances per million and combined PM_{2.5} concentrations from all sources within 1,000 feet would be reduced to 0.8 µg/m³ or less. Therefore, cancer risk and PM_{2.5} concentrations would be below the BAAQMD significance thresholds.

3.2.2.5 Odors

The TESP would generate localized emissions of diesel exhaust during construction equipment operation and from truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off-site by resulting in confirmed odor complaints. The TESP does not identify any typical sources of odors that could lead to objectionable odors that generate frequent odor complaints. **(Less Than Significant Impact)**

Existing Odor Sources on Future Residents (Planning Consideration)

Odor impacts could occur if residents associated with the project experienced objectionable odors and made complaints. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative methodologies to determine the presence of a significant odor impact.

BAAQMD publishes screening buffer distances for odor sources and sensitive receptors in their CEQA Air Quality Guidelines. There is a wastewater treatment plant and a materials recovery resource facility within two miles of the Specific Plan area. Specifically, the San Jose-Santa Clara Regional Wastewater Facility lies 1.4 to 1.8 miles northeast of the TESP. Zero Waste Energy Development Company's facility on Zanker Road lies about 1.6 to two miles away in the same direction. Both facilities have been identified to have odor complaints by BAAQMD, however, most complaints occur in Milpitas (which lies to the east-southeast of these facilities).

The predominant wind direction in the project area is from the northwest to the southeast. The project site is not located downwind of these sources and therefore windflow from a direction that could advect odors toward the project site would occur less than five percent of the time.

3.2.2.6 Consistency with Plans

2017 Clean Air Plan

Consistency of the Tasman East Specific Plan with Clean Air Plan control measures is demonstrated by assessing whether the proposed Specific Plan implements the applicable Clean Air Plan control measures. The Tasman East Specific Plan would result in estimated additional 12,285 additional residents at buildout (4,500 dwelling units). The General Plan Land Use Component and Housing Element Updates EIR Addendum also accounted for and analyzed 1,676 dwelling units within the Tasman East Focus Area or TESP area. The TESP currently includes a maximum of 4,500 dwelling units, which leaves up to 2,824 dwelling units that have not been accounted for in the General Plan Addendum. Although the increase in housing dwelling units allowed by the TESP would be inconsistent with quantitative 2017 Clean Air Plan projections, the Tasman East Specific Plan as a high-density development close to major transit infrastructure and proposing to incorporate green building measures would generally be consistent with the Clean Air Plan and measures intended to reduce automobile and energy use, which are discussed in Table 3.2-5.

Table 3.2-5: Clean Air Plan Measures	
Applicable BAAQMD Control Strategy Measures	Consistency
<i>Transportation Control Measures</i>	
TR1: Clean Air Teleworking Initiative	The TESP would require implementation of a TDM program, which would include measures such as increased support for telecommuting.
TR2: Trip Reduction Programs	The TESP would require implementation of a TDM program, which would include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, and/or vanpools.
TR 5: Transit Efficiency and Use	While this is mostly a regionally implemented control measure, the TESP would provide connections to regional and local transit with its convenient location near the Great America train station and Lick Mill light rail transit (LRT) station.
TR7: Safe Routes to Schools and Safe Routes to Transit	The TESP would ensure clear and safe pedestrian circulation. Convenience, safety and integrated access would be prioritized for all modes of transportation.
TR8: Ridesharing, Last-Mile Connection	The TESP would require implementation of a TDM program, which may include measures such as carpool incentives, carshare memberships, additional Last Mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	The TESP would result in a dense, walkable environment, simplify wayfinding, and ensure clear and safe pedestrian circulation.
TR10: Land Use Strategies	The TESP would design new buildings around walkable streets and close to transit, creating opportunity for more sustainable transportation modes less reliant on the car.
TR13: Parking Policies	The TESP would reduce demand for parking through design, transit accessibility and TDM programs.

<i>Building Control Measures</i>	
BL1: Green Buildings	The TESP would meet new Title 24 standards as well as City requirements.
BL2: Decarbonize Buildings	The TESP would utilize energy generation through on-site photovoltaic on buildings. TESP buildings would avoid natural gas use. In addition, the TESP aims for net zero energy on-site over time as the electricity provider, Silicon Valley Power, strives to provide carbon free generated electricity to their Santa Clara customers as well as the purchase of renewable energy credits.
BL4: Urban Heat Island Mitigation	The TESP would reduce cooling load by maximizing shade through tree planting and natural foliage.
<i>Natural and Working Lands Control Measures</i>	
NW2: Urban Tree Planting	The TESP would provide a comfortable, well-shaded environment defined by a consistent, linear planting plan along the streets and a variety of trees in parks and greenways.
<i>Waste Management Control Measures</i>	
WA4: Recycling and Waste Reduction	The TESP would include visible recycling and composting stations in the public realm and include public awareness campaigns for all users. The TESP would provide means for waste separation at point of collection.
<i>Water Control Measures</i>	
WR2: Support Water Conservation	TESP would maximize water reuse. TESP buildings would reduce water fixture use below Code minimum requirements through efficient devices. Irrigation water would rely on reclaimed water and be minimized through the use of drip systems.

The project as proposed would not disrupt or hinder the implementation of applicable control measures. **(Less Than Significant Impact)**

Santa Clara General Plan

The project is consistent with applicable General Plan policies regarding air quality by proposing high-density residential mixed-use near employment centers, existing alternative transportation (which reduces vehicle miles traveled), implementing BMPs for construction dust abatement, evaluating and mitigating health risks impacts from the project to off-site sensitive receptors, identifying recommendations to reduce health risks to on-site receptors from existing sources, and implementing a TDM program. **(Less Than Significant Impact)**

3.2.2.7 Cumulative Impacts

By its very nature, air pollution is largely a cumulative impact. The geographic area for cumulative air quality impacts is the San Francisco Bay Area Air Basin. Past, present, and future development projects contribute to the region's adverse air quality impacts. No single project is sufficient in size

to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

Cumulative Air Pollutant Emissions

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed above, the Tasman East Specific Plan with the implementation of the identified mitigation measures (MM AQ-1.1 & AQ-1.2) would reduce the project's cumulative construction impacts to air quality to a less than significant level. The TESP, therefore, would have a less than significant cumulative impact on construction period air pollutant emissions. **(Less Than Significant Impact with Mitigation Incorporated)**

Since the project exceeds BAAQMD thresholds for ROG and NO_x emissions, it would have a cumulatively considerable contribution to regional criteria pollutant emissions.

Impact C-AQ-1: The project would make a cumulatively considerable contribution to regional criteria pollutant emissions (ROG and NO_x). **(Significant Cumulative Impact)**

Mitigation Measures: The project is required to implement mitigation measures MM AQ-2.1 to MM AQ-2.3 to reduce the regional criteria pollutant emissions of the project. Although the TESP would meet the required Climate Action Plan reduction this impact would remain significant and unavoidable given that such a reduction would not reduce significant operational ROG and NO_x emissions below BAAQMD thresholds of 54 pounds per day. The cumulative criteria pollutant emissions impacts of the Specific Plan, therefore, would remain significant and unavoidable. **(Significant Unavoidable Impact)**

Exposure of On-Site Sensitive Receptors to Cumulative Pollutant Concentrations (Planning Consideration)

As discussed above, per the *CBLA vs. BAAQMD* ruling discussed in *Section 3.0*, the cumulative effects of local air pollutants sources on the Plan Area would not be a CEQA impact. The Plan Area, however, is affected by multiple sources of TACs the effects of which are considered for consistency with the City's General Plan. Table 3.2-4 above summarizes the health risk associated with each source affecting the Plan Area. The sum of impacts from combined sources (i.e., sources within 1,000 feet of the project) would exceed the cumulative threshold for annual PM_{2.5} concentrations. However, with the implementation of the standard conditions of approval identified to reduce the health risk from existing TAC sources to future occupants of the Plan Area, the health risk to future on-site receptors would be reduced below BAAQMD significance thresholds.

Cumulative Odor

The project does not include land uses that would generate considerable odors. For this reason, the project would not have a considerable contribution to a significant cumulative odor impact. **(Less Than Significant Cumulative Impact)**

3.2.3 Conclusion

Impact AQ-1: The proposed project, with the implementation of MM AQ-1.1 and MM AQ-1.2, would not result in significant construction air quality impacts. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact AQ-2: The proposed project, with the incorporation of mitigation, would result in significant impacts during the operational period from regional criteria pollutant emissions of ROG and NO_x. **(Significant Unavoidable Impact With Mitigation Incorporated)**

Impact C-AQ-1: The project would make a cumulatively considerable contribution to regional criteria pollutant emissions (ROG and NO_x) that cannot be reduced below BAAQMD thresholds of 54 pounds per day with mitigation measures (MM AQ-2.1 to MM AQ-2.3) incorporated in the project. **(Significant Unavoidable Cumulative Impact)**

The proposed project would not result in other significant air quality impacts (i.e., obstruction of the CAP and creation of objectionable odors). **(Less Than Significant Impact)**

The proposed project, with the implementation of MM AQ-1.1 and MM AQ-1.2 would not result in significant cumulative construction air quality impacts. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

3.3 BIOLOGICAL RESOURCES

The following discussion is based in part on a Biological Resources Report prepared by *H.T. Harvey & Associates* in July 2018. A copy of this document is included in Appendix C of this EIR.

3.3.1 Existing Setting

3.3.1.1 *Regulatory Setting*

Federal

Clean Water Act

Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act (CWA). Construction activities and the placement of fill within jurisdictional waters are regulated by the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California. Many wetlands fall into RWQCB jurisdiction, including some wetlands that are not subject to federal USACE jurisdiction. RWQCB jurisdiction of other waters, such as streams and lakes, extends to all areas below the ordinary high water mark.

Rivers and Harbors Appropriation Act of 1899

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The Secretary's approval authority has since been delegated to the Chief of Engineers.⁷

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or *take*, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” *Take* can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as *take* even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands. No federally listed or candidate plant or animal species occur in the Specific Plan area or in adjacent areas that could be substantially impacted by proposed activities under the Plan.

⁷ U.S. Department of Energy. *33 U.S.C 403: River and Harbors Act of 1899*.
<https://www.energy.gov/nepa/downloads/33-usc-403-river-and-harbors-act-1899>

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests; and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its April 16, 2003 Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction. All native bird species that occur in the Specific Plan area are protected under the MBTA.

State

California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the California Department Fish and Wildlife (CDFW) has jurisdiction over state-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in *take* of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of *take* under the California Fish and Game Code. The CDFW, however, has interpreted *take* to include the “killing of a member of a species which is the proximate result of habitat modification.” No suitable habitat for any state-listed plant or animal species occurs in the Plan Area, and thus no state-listed plants or animals are reasonably expected to occur in the Specific Plan area.

Porter-Cologne Water Quality Control Act

Porter-Cologne broadly defines waters of the state as “any surface water or groundwater, including saline waters, within the boundaries of the state.” Because Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California’s jurisdictional reach overlaps and may exceed the boundaries of waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that “shallow” waters of the state include headwaters, wetlands, and riparian areas. Where riparian habitat is not present, such as may be the case at headwaters and urbanized areas, jurisdiction is taken to the top of bank. The SWRCB has recently developed a Preliminary Draft Water Quality Control Policy that addresses numerous policy elements including development of a wetland definition and description of methodology to be used in defining wetlands as part of waters of the state.

California Fish and Game Code

Pursuant to California Fish and Game Code Section 1603, CDFW regulates any project proposed by any person that will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds.” CDFW Section 1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration

Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions necessary to protect fish and wildlife and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

CDFW jurisdiction under Section 1602 of the California Fish and Game Code may extend up to the tops of bank of the Eastside Drainage Swale. In areas where riparian tree canopies extend above the top of bank, the landward canopy edge will demarcate the lateral limit of CDFW jurisdiction. Impacts on these areas would require a LSAA. Most native bird, mammal, and other wildlife species that occur in the Specific Plan area and in the immediate vicinity are protected by the California Fish and Game Code.

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 (the threatened category replaced the rare category when CESA was enacted in 1984). CESA defers to the CNPPA, which ensures that State-listed plants species are protected when State agencies are involved in projects subject to CEQA.

Local

City of Santa Clara Tree Protection Policies

The City of Santa Clara provides tree protection under the City Code (Chapter 12.35), and under the General Plan (Conservation Policies 5.10.1-P3 and 5.10.1-P4 and Appendix 8.10). These policies detail protections for street trees and preservation of all City-designated heritage trees. The General Plan also requires new development to provide street trees as well as a minimum 2:1 on or off-site replacement for trees removed.

City of Santa Clara 2010-2035 General Plan

Chapter 5 of the City of Santa Clara 2010-2035 General Plan includes the following goals and policies related to the conservation of biological resources:

Policies	Description
5.10.1-G1	The protection of fish, wildlife, and their habitats, including rare and endangered species.
5.10.1-G2	Conservation and restoration of riparian vegetation and habitat.
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 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
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.
5.10.1-P2	Work with the SCVWD and require that new development follow the “Guidelines and Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resource in Santa Clara County” (SCVWD 2007).

- 5.10.1-P3 Require preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan.
- 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.
- 5.10.1-P5 Encourage enhancement of land adjacent to creeks in order to foster reinstatement of natural riparian corridors where possible.
- 5.10.1-P11 Require use of native plants and wildlife-compatible nonnative plants, when feasible, for landscaping on City property.
- 5.10.1-P12 Encourage property owners and landscapers to use native plants and wildlife-compatible nonnative plants, when feasible.

3.3.1.2 *Existing Conditions*

The Specific Plan area includes approximately 36 parcels that are developed with light industrial and commercial uses, and the current buildings on-site are generally warehouses with associated parking and rear-yard storage areas. The surrounding land uses include Levi’s Stadium and Santa Clara Youth Soccer Park to the southwest, Santa Clara Golf & Tennis Club to the north and west, Lafayette Street and Great America Station to the west, and residences and Ulistac Natural Area to the south.

The project site is located in a highly urbanized area of Santa Clara. Semi-natural features in the project area include the Guadalupe River to the east of the site. The Eastside Drainage Swale, or Tasman Channel, which is located at the toe of the Guadalupe River levee and flows south to north along the eastern edge of the project site boundary, is a man-made feature constructed in 1971 to convey stormwater to the discharge and pumping station. The Eastside Drainage Swale is subject to an easement to the City of Santa Clara for purposes of maintenance. The City conducts periodic maintenance activities to maintain the drainage capacity of the Eastside Drainage Swale including removal of vegetation in the Drainage Swale using rotary mowers; hauling of removed vegetation in dump trucks to the Eastside Storm Retention Basin area; and drying out the vegetation and loading it into 50-cubic yard debris bins for transport to the Newby Island Landfill. A standard maintenance operation takes approximately two weeks, with a four-person crew working full-time.

The freshwater wetland habitat within the Eastside Drainage Swale supports a diverse assemblage of wildlife species. The heavily urbanized context of the project site area, long history of human disturbance, and other urban-associated pressures on wildlife populations limit the value of this habitat to wildlife, but this wetland provides habitat for several waterbird species.

Several riparian trees and shrubs, such as blue elderberry (*Sambucus nigra* ssp. *caerulea*) and Fremont cottonwood (*Populus fremontii*), are rooted in the banks of the Eastside Drainage Swale. Riparian habitats typically support high wildlife diversity because of the multi-layered vegetation, presence of water, and abundance of invertebrate prey. However, the mixed riparian woodland within the project site is extremely sparse, discontinuous, and limited in extent, and provides only very limited resources for wildlife.

The project site is adjacent to the Guadalupe River, which provides breeding and foraging habitat for many species of waterbirds and wetland-associated birds. The majority of these species are common resident, migrant, or wintering wading birds, waterfowl, and passerines. The site is not subject to regulation pursuant to the Santa Clara Valley Habitat Plan (Habitat Plan) that addresses habitats and species south and east of the City. The Habitat Plan is both a habitat conservation plan and natural community conservation plan, or HCP/NCCP, however, Santa Clara is not a permittee covered by the Habitat Plan.

Ulistac Natural Area is an approximately 40-acre park located just south of the Plan area along the Guadalupe River and Lick Mill Boulevard between Tasman Drive and Montague Expressway. The park has been planted with native habitats including oak savanna, oak woodland, grassland, coastal scrub, and riparian forest. The park also contains areas of wetlands as well as a bird and butterfly garden, and the park's location along the Guadalupe River connects these planted habitats with other natural areas in the region (e.g., riparian habitats upstream and marsh habitats downstream). More than 140 species of birds are known to occur at Ulistac including resident and migrant waterbirds, raptors, and landbirds, and the park is a local bird hotspot with the highest number of bird species observed by birdwatchers in Santa Clara, including those that occur along the Guadalupe River as well as many additional species of passerines. In the context of highly urbanized Santa Clara, Ulistac represents a valuable area of native habitat that is important to the City's populations of resident and migrating birds.

Special-Status Species

Plant Species

The majority of potentially occurring special-status plant species were determined to be absent from the project site due to absence of suitable habitat types, the elevation range of the species is outside of the range on the project site; and/or the species is presumed extirpated from the project site region. No suitable habitat for any state-listed plant occurs in the Plan Area (refer to Appendix C for a list of species considered).

Animal Species

A number of special-status animal species are known to occur in the project region, however, the majority of these species are determined to be absent from the project site due to lack of suitable habitat or to evidence that the species does not occur in the project vicinity. Special-status animal species with the potential to occur in the Plan Area are described below and in Section 3.3.2.2.

Two state fully protected species, the American peregrine falcon (*Falco peregrinus anatum*) and white-tailed kite (*Elanus leucurus*), could occasionally occur in the Specific Plan area as non-breeding foragers. The pallid bat (*Antrozous pallidus*), a California species of special concern, may also forage over habitats in the Specific Plan area. These species are not expected to nest, roost, or breed in or immediately adjacent to the Plan Area (though the white-tailed kite may nest nearby at the Ulistac Natural Area), and will be affected very little, if at all, by proposed development under the Specific Plan. In addition, the yellow warbler (*Setophaga petechia*), a bird species that is considered a California species of special concern when it is breeding, may occur occasionally in trees or other vegetation on the site itself as a nonbreeding transient, forager, or migrant, but no suitable nesting habitat for this species occurs in the Plan area. Because this species is only

considered a species of special concern when nesting, it is not a “special-status species” when it occurs as a nonbreeding visitor to the Specific Plan area.

The Specific Plan area is located adjacent to the Guadalupe River, which provides habitat for several special-status fish species, including the Central California Coast steelhead and the Central Valley Fall-run Chinook salmon (*Oncorhynchus tshawytscha*). In addition, the green sturgeon (*Acipenser medirostris*) and longfin smelt (*Spirinchus thaleichthys*) occur in tidal waters downstream in Alviso Slough.

The Eastside Drainage Swale has no direct hydrologic connection to the Guadalupe River or tidal waters of the San Francisco Bay, and instead flows north into the Eastside Storm Retention Basin, downstream of the Plan Area. Therefore, special-status fish species that could occur in the Guadalupe River or downstream in tidal waters of the Bay, will not be affected by development activities within the Specific Plan area.

The western pond turtle (*Actinemys marmorata*), burrowing owl (*Athene cunicularia*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*) are addressed in greater detail below because these species can potentially breed or occur in or immediately adjacent to the Specific Plan area and/or may be significantly impacted by development under the proposed Plan if present on site (see *Section 3.4.3 Biological Resources Impacts* below).

Mature Trees

Existing trees on-site are a mixture of mainly non-native or not naturally-occurring, planted, ornamental species and include eucalyptus, acacias, and London planes. Some of these trees are adjacent to City streets and thus may be considered street trees. A permit is required for any street tree removal, regardless of size or species.

3.3.2 Biological Resources Impacts

3.3.2.1 *Thresholds of Significance*

For the purposes of this EIR, a biological resource impact is considered significant if the project would:

- 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 (CDFW) or United States Fish and Wildlife Service (USFWS);
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal filling, hydrological interruption, or other means?
- 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;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Specific Plan area is not located within the boundaries of a habitat conservation plan nor natural community conservation plan (HCP/NCCP). The Specific Plan, therefore, is not subject to an HCP/NCCP and impacts related to such plans are not discussed further in this section.

3.3.2.2 *Special-Status Species*

The western pond turtle, burrowing owl, and San Francisco common yellowthroat are addressed below because these species can potentially breed or occur in or immediately adjacent to the Specific Plan area and/or may be significantly impacted by development under the proposed Specific Plan.

Western Pond Turtle

Western pond turtles may occur in aquatic habitat along the Guadalupe River. Individual pond turtles may occasionally disperse across upland and wetland portions of the Specific Plan area, and there is some potential that they could occasionally use uplands for nesting. However, pond turtles are unlikely to excavate nests in the Specific Plan area due to the dense, compacted nature of the soils on the Guadalupe River levee and the gravel present within much of the ruderal grassland habitat.

Although there may be some upland habitat for western pond turtles in the Specific Plan Area, this habitat is of limited value to the species. Nevertheless, it is possible that individual pond turtles from populations in fresh water habitats upstream in the Guadalupe River could potentially disperse downstream to the Plan Area, although they are expected to do so in extremely small numbers if at all. Specific Plan development could potentially result in the injury or mortality of individuals due to worker foot traffic, equipment use, or vehicle traffic. Movements of pond turtles may be temporarily affected during construction activities because of disturbance, and dewatering activities (e.g., in the Eastside Drainage Swale) may expose individuals to a greater risk of predation and interfere with predator detection, causing a decrease in time spent foraging. Dewatering may result from development of the River District and amenities, bike and pedestrian connections to the adjacent Guadalupe River levee, and potential culverting of the Eastside Drainage Swale. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals. Additionally, increases in human presence and activity in the vicinity of suitable habitat during construction may result in an increase in native and non-native predators that would be attracted to trash left at the work site. For example, raccoons, American crows (*Corvus brachyrhynchos*), and common ravens (*Corvus corax*) are attracted to trash and may prey opportunistically on western pond turtles.

Further, the Eastside Drainage Swale within the Plan area is densely vegetated with California bulrush and cattails, and no suitable open water foraging habitat or basking habitat for pond turtles is present. Thus, a local population of pond turtles is not expected to regularly use the habitat within the Plan Area, although small numbers of individual pond turtles could potentially disperse along the Eastside Drainage Swale and/or nest in nearby upland areas. Thus, impacts on western pond turtles resulting from the proposed Specific Plan would likely be very limited. However, due to the regional

rarity of this species, Specific Plan impacts on individual western pond turtles would be considered significant under CEQA.

Impact BIO – 1: Development under the Specific Plan could result in the injury or mortality of individual western pond turtles due to worker foot traffic, equipment use, or vehicle traffic if western pond turtles were present on site. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measure would reduce impacts to the western pond turtle to a less than significant level:

MM BIO – 1.1: Prior to any construction activity in natural habitat/substrate on the extreme eastern portion of the site (i.e., ruderal grassland, perennial freshwater wetland, or riparian habitat), a qualified biologist will examine the impact area for pond turtles and their nests 48 hours before proposed construction activities begin. If a western pond turtle is observed within the work area at any time before or during proposed construction activities, all activities will cease until such time that either (1) the pond turtle leaves the area or (2) the qualified biologist can capture and relocate the animal to suitable habitat away from construction activity.

With the implementation of MM BIO – 1.1, impacts to the western pond turtle will be less than significant. **(Less Than Significant With Mitigation Incorporated)**

Burrowing Owl

Suitable habitat for burrowing owls (i.e., ruderal areas with burrows of California ground squirrels) is present in the ruderal grassland habitat in the Specific Plan area. However, burrowing owls are not expected to nest in the Plan Area and are unlikely to roost or forage there due to high levels of disturbance and because this habitat has never been known to be occupied despite a number of surveys of the region between 2006 and 2016. Nevertheless, there is some possibility, albeit very low, that an owl from a nearby location where owls are known to occur may occasionally forage and roost in the Plan area.

Impacts from the proposed Specific Plan may affect burrowing owl habitat (foraging and roosting) and/or individuals. Because they roost underground, individual burrowing owls (especially adults in burrows) may be killed or injured during development activities from trampling by construction personnel or equipment. Construction activities that occur in close proximity to active burrows may disturb owls to the point of abandoning their burrows. In addition, clearing and grading could result in the direct loss of habitat or individuals through the disturbance of grassland areas that support ground squirrel burrows.

Potentially suitable roosting and foraging habitat is present in ruderal grassland habitat in the northwest corner of the Plan Area and within 250 feet of the site (the typical buffer distance recommended around active burrows by the CDFW). This habitat is either unoccupied or is used infrequently by nonbreeding burrowing owls and, therefore, the loss of roosting and foraging habitat in the Plan Area is less than significant. Burrowing owls; however, could be present on-site and/or

within 250 feet of the site when construction activities occur, and construction activities may result in the loss or disturbance of an active owl burrow. Heavy ground disturbance, noise, and vibrations caused by proposed construction could potentially disturb foraging or roosting burrowing owls and cause them to move away from work areas. Due to the rarity of the burrowing owl in the region and the effects on burrowing owl populations of the loss of any individuals, the loss of individual burrowing owls or active burrowing owl burrows would be significant under CEQA.

Impact BIO – 2: Development under the proposed Specific Plan may harm individual burrowing owls or result in the permanent loss of active burrows.
(Significant Impact)

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to the burrowing owl to a less than significant level:

MM BIO – 2.1: Preconstruction surveys for burrowing owls will be conducted prior to the initiation of all construction activities within suitable burrowing owl roosting habitat (i.e., ruderal grassland habitat with burrows of California ground squirrels) in the Specific Plan area, or within 250 feet of this habitat. Preconstruction surveys will be completed in conformance with the CDFW’s 2012 guidelines. An initial habitat assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat is present. During the initial site visit, which will be conducted no less than 14 days prior to the onset of ground disturbing activities, a qualified biologist will survey the entire activity area and (to the extent that access allows) the areas within 250 feet of the site for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present, no additional surveys will be required. If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct at least one additional survey to investigate each burrow within the survey area for signs of owl use and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey will be conducted within the 24-hour period prior to the initiation of construction activities in any given area.

MM BIO – 2.2: If burrowing owls are present during the nonbreeding season (generally September 1 to January 31), a 160-foot buffer zone will be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls. During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no newly initiated construction-related activities will be permissible, will be maintained between construction activities and occupied burrows. Owls present between February 1 and August 31 will be assumed to be nesting, and the 250-foot protected area will remain in effect until August 31. If monitoring evidence indicates that the owls are no longer nesting or the young owls are foraging independently, the

buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.

MM BIO – 2.3: Any owls occupying the Specific Plan area or immediately adjacent areas are likely habituated to frequent human disturbances. As a result, they may exhibit a tolerance of greater levels of human disturbance than owls in more natural settings, and work within the standard 250-foot buffer during the nesting season may be able to proceed without disturbing the owls. Therefore, if nesting owls are determined to be present within the Specific Plan area or within 250 feet of this area, and construction activities cannot feasibly avoid disturbance of the area within 250 feet of the occupied burrow during the nesting season (i.e., February 1 through August 31) due to other seasonal constraints, a qualified biologist will be present during all activities within 250 feet of the nest to monitor the owls' behavior. If, in the opinion of the qualified biologist, the owls are unduly disturbed (i.e., disturbed to the point of harm or reduced reproductive success), all work within 250 feet of the occupied burrow will cease until the nest is determined to no longer be active by a qualified biologist.

MM BIO – 2.4: In the unlikely event that construction will directly impact occupied burrows, a qualified biologist will passively evict owls from burrows during the nonbreeding season (September 1 to January 31). No burrowing owls will be evicted during the nesting season (February 1 through August 31) except with the CDFW's concurrence that evidence demonstrates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). Eviction will occur through the use of one-way doors inserted into the occupied burrow and all burrows within impact areas that are within 250 feet of the occupied burrow (to prevent occupation of other burrows that will be impacted). One-way doors will be installed by a qualified biologist and left in place for at least 48 hours before they are removed. The burrows will then be back-filled to prevent re-occupation. Although relocation of owls may be necessary to avoid the direct injury or mortality of owls during construction, relocated owls may suffer predation, competition with other owls, or reduced health or reproductive success as a result of being relegated to more marginal habitat. However, the benefits of such relocation, in terms of avoiding direct injury or mortality, would outweigh any adverse effects.

With the implementation of mitigation measures MM BIO – 2.1 to MM BIO – 2.4, adverse impacts to burrowing owls would be reduced to a less than significant level. **(Less Than Significant With Mitigation Incorporated)**

San Francisco Common Yellowthroat

Potential impacts on the San Francisco common yellowthroat could occur as a result of activities within or near the freshwater wetland habitat within the Eastside Drainage Swale. Impacts could result from conversion of the swale into a culvert and construction activities in the vicinity of the

swale. No impacts on this species are expected to occur as a result of activities located elsewhere within the Plan Area.

Because San Francisco common yellowthroats may nest in vegetation along the Eastside Drainage Swale within the Plan Area, eggs or young in nests may be killed or injured during construction activities as a result of destruction by construction personnel or equipment, or removal of vegetation containing nests. In addition, construction activities causing a substantial increase in noise, movement of equipment, or human presence near (i.e., within 100 feet) active nests could result in the abandonment of nests, and possibly the loss of eggs or young as a result. However, the potential disturbance of nesting and loss of eggs or young in nests of this species as a result of construction activities under the Specific Plan is not expected to result in a substantial impact on the regional population.

Clearing and grading of the swale to construct a culvert may result in the permanent loss of up to 0.39 acres of perennial freshwater wetland nesting and/or foraging habitat for this species. These birds are not particularly rare in the region, and suitable habitat for this species within the region is relatively abundant. Additionally, the Eastside Drainage Swale is currently subject to periodic maintenance by the City to maintain its drainage capacity, including removal of vegetation. Therefore, the permanent loss of up to 0.39 acres of nesting and foraging habitat for this species within the Plan Area would not result in appreciable impacts on its regional population. **(Less Than Significant Impact)**

3.3.2.3 *Migratory Birds*

Avian Collisions With New Buildings

Numerous resident and migratory songbirds are known to occur at the adjacent Ulistac Natural Area south of Tasman Drive and a number of songbirds, waterbirds, and wetland-associated birds also occur along the Guadalupe River. Ulistac Natural Area has the highest reported number of bird species of any location in the City of Santa Clara and is one of only three inland hotspots in urbanized areas of the Santa Clara Valley floor where more than 150 bird species have been reported. The reach of the Guadalupe River immediately adjacent to the Plan Area does not support particularly high bird diversity due to the lack of woody riparian vegetation, but the reach immediately upstream from the Plan Area supports a mix of woody riparian and emergent vegetation that supports high bird diversity and abundance. Many of the birds that are attracted to Ulistac Natural Area and the Guadalupe River are likely to fly through the site, even though they are not particularly attracted to, or expected to make heavy use of, the habitats in the Plan Area. Due to the high importance of the Guadalupe River and Ulistac Natural Area to regional bird populations, relatively large numbers of birds that are associated with these habitats may fly past the Plan Area relative to the size of regional populations.

The proposed zoning under the Specific Plan allows for the construction of midrise (i.e., four to eight stories) and high-rise (i.e., eight or more stories) towers, with the goal of constructing a total of 4,500 residential units throughout the Plan Area. Per the Plan description, the maximum height of buildings in the Plan Area will be 220 feet. The exact locations of buildings, open spaces, pedestrian pathways, and other Specific Plan components will be determined as the Plan Area develops. Thus, there is some possibility that tall buildings could be proposed adjacent to the Guadalupe River,

adjacent to new open spaces, and/or adjacent to Tasman Drive near Ulistac Natural Area, in areas along the flight path of birds flying to and from Ulistac Natural Area and the Guadalupe River.

Depending on the design and location of the buildings in the Plan Area, some of the birds using habitats on the site or flying through the site along the Guadalupe River and to native habitats at Ulistac Natural Area are expected to strike the buildings, resulting in injury or death. Considering the close proximity of the Guadalupe River and Ulistac Natural Area, relatively large numbers of birds, compared to other areas of Santa Clara and most of the remainder of the urban Santa Clara Valley floor, are expected to fly past the site over the long term. Enough individuals of these common species can potentially strike the buildings over the long term to result in a significant impact.

Glass windows and building facades can result in injury or mortality of birds due to birds' collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation results in attempts by birds to fly through glass to reach that vegetation. The area of a building that poses the greatest risk of avian collisions, or "primary bird collision zone", is located in the lower portion of the building because (a) most of the daily, routine activities of birds, such as foraging, roosting, and nesting, occur relatively close to the ground, and (b) these lower areas are where adjacent landscape vegetation (which provides both bird habitat and a source for reflections of vegetation within windows) may be present adjacent to glass façades. The height of this zone has been variously described by different organizations: New York City Audubon defines it as "the ground level and bottom few stories" (New York City Audubon 2007), the American Bird Conservancy defines it as the lower 40 feet of the building (but then also suggests that bird-safe design is necessary above 40 feet) (Sheppard and Phillips 2015), and the City of San Francisco defines it from ground level to a height of 60 feet (San Francisco Planning Department 2011). The 60-foot height of the primary bird collision zone used by the City of San Francisco Bird-Safe Standards has generally been adopted by other San Francisco Bay Area municipalities to establish local standards for bird-safe building design (e.g., by the City of Oakland and City of Mountain View [2017]). Thus, for the purpose of this analysis of the Tasman East Specific Plan, this EIR defines the primary bird collision zone as the area from ground level to a height of 60 feet.

Additionally, as migrant birds ascend toward or rise from high-quality habitats in the Guadalupe River (particularly south of Tasman Drive) and at the Ulistac Natural Area, they will fly through areas more than 60 feet off the ground where taller buildings may be located. If only occasional migrants were to use nearby bird habitats, then relatively few birds would be expected to fly through the airspace above the primary bird collision zone. However, owing to the value of the high-quality habitats near the Plan Area, numbers of migrants ascending or descending through the Plan Area's airspace more than 60 feet above the ground may be high during some portions of the spring and fall migratory periods.

Disagreements Among Experts

There is disagreement among experts regarding the adequacy of building height restrictions to address the potential for bird strikes near the Guadalupe River and Ulistac Natural Area. According

to the CEQA Guidelines Section 15151 Standards for Adequacy of an EIR, an EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision that takes account of environmental consequences. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure. As such, the following discussion outlines the points of disagreement among experts.

The biological consulting firm H.T. Harvey and Associates has recommended (in Appendix C) that no buildings taller than 55 be constructed within 300 feet of the top of bank along the Guadalupe River or the Ulistac Natural Area habitat on the southeast side of Tasman Drive. This distance is sufficiently broad to continue to allow adequate aerial movement space for birds that are entering, exiting, or flying in between Ulistac Natural Area and the Guadalupe River following implementation of the Specific Plan. H.T. Harvey and Associates further recommends bird-safe building treatments for all buildings within the Plan Area.

An independent review of the bird strike analysis and building height limitations was completed by the biological consulting firm WRA and is included in Appendix C of this EIR. WRA's analysis does not find necessary the mitigation recommended by H.T. Harvey and Associates of limiting building heights to 55 feet within 300 feet of the Guadalupe River and the Ulistac Natural Area. WRA's analysis disagrees with H.T. Harvey and Associates' building height restriction based on the following:

Analysis of prior studies of bird strikes found that in the distribution of bird strikes based on building type 56 percent occurred at buildings four to 11 stories tall, 44 percent occurred at residences one to three stories tall, and one percent occurred at buildings of 12 stories or greater. Moreover, bird collisions are primarily related to the extent of reflective and/or untreated glass on buildings and the height and density of vegetation adjacent to the building. In one of the few studies evaluating species richness and abundance in the surrounding area, no relationship between collision frequency and local bird abundance was found which suggests other physical factors such as the amount of glass and window heights were more important factors. A study of multiple buildings in New York City similarly concluded that the expanse of glass on a building façade is the most predictive factor of bird mortality rates. Nighttime lighting has also shown to be correlated with bird mortality and is considered a better predictor of bird mortality than building height. All of these studies were conducted on buildings in which bird safe features were not used.

Standards that have been developed, based on the studies described above, relate to the type/reflectivity of glass used, the size and orientation of windows, the use of design elements to visually "break up" exterior glass from a bird's perspective, and landscaping restrictions to better ensure that birds are more aware of the presence of windows. WRA found there is no scientific data indicating that building height in and of itself is a significant cause of bird mortality. In their expert opinion the adoption of bird safe design features for the buildings within the Plan Area would be sufficiently effective at reducing bird-strikes and there is no need to also restrict building heights near the Guadalupe River and Ulistac Natural Area.

Based on the discussion above, the City concurs with WRA's analysis and is proposing to apply bird-safe building design features to all buildings in the Plan Area as described in MM BIO-3.1. Building heights would not otherwise be limited due to proximity to the Guadalupe River or Ulistac Natura Area.

Impact BIO – 3: The project proposes structures with lighting, glass windows, building facades, and vegetation which may result in impacts to migrant birds.
(Significant Impact)

Mitigation Measures: Implementation of the following mitigation measures would reduce impacts to the migratory birds to a less than significant level:

MM BIO – 3.1: Due to the potential for buildings in the Plan Area to result in high numbers of bird collisions, particularly if extensive glass facades are used, all new construction and building additions within the Plan Area will implement the following bird-safe building design considerations:

- Reduce the extent of glass on the facades of new buildings and additions to the extent feasible.
- Reduce or eliminate the visibility of landscaped areas behind glass.
- No more than 10 percent of the surface area of a building's total exterior façade shall have untreated glazing between the ground and 60 feet above ground, unless located within 300 feet of the top of bank of the Guadalupe River within such boundary this requirement would extend to the entirety of the structure. Bird-safe glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing or ultraviolet patterns visible to birds. Vertical elements of the window patterns should be at least 0.25 inches wide at a maximum spacing of four inches or have horizontal elements at least 0.125 inches wide at a maximum spacing of two inches. Any remaining untreated glazed areas will be broken up into sections no greater than 24 square feet in size by mullions or bird-safe glazing treatments.
- Avoid free-standing clear glass walls, skywalks, transparent building corners, glass enclosures (e.g., greenhouses) on rooftops, and balconies with unbroken glazed segments 24 square feet and larger where feasible. If any such features are included in building designs, all glazing used in any such features will be 100 percent treated.
- Reduce glass at tops of buildings, especially when incorporating a green roof into the building design.
- If a green roof or green wall is incorporated into the building design, no more than 10 percent of the surface area of the building's combined facades within 12 vertical feet above and/or below the green roof or green wall shall have untreated glazing. Any remaining untreated glazed areas will be broken up into sections no greater than 24 square feet in size by mullions or bird-safe glazing treatments.

- Avoid the funneling of flight paths between buildings or trees towards a glazed building façade.
- Landscaping, including planted vegetation and water features, shall be designed to minimize the potential for collisions. For example, vegetation providing particularly valuable resources to birds (such as fruits) will be planted away from buildings with extensive glazing, and vegetation in general will be planted in such a way that it is not clearly reflected in windows. Water features would be located away from building exteriors to reduce the attraction of birds toward glazed facades.
- Minimize exterior lighting to the extent feasible, except as needed for safety. All exterior lights shall be directed toward facilities in the Plan Area (e.g., rather than directed upward or outward) and shielded to ensure that light is not directed outward toward the Guadalupe River or Ulistac Natural Area.
- Occupancy sensors or other switch control devices shall be installed on interior lights, with the exception of emergency lights or lights needed for safety purposes. On commercial buildings, these lights shall be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.

The City may waive or reduce any of the above-listed bird-safe design requirements based on analysis by a qualified biologist indicating that proposed construction will not pose a collision hazard to birds. Such a waiver will generally not be appropriate for façades adjacent to well-vegetated areas, but a waiver may be appropriate, for example, for façades that face developed areas lacking vegetation, water features, or other features that would be particularly attractive to birds.

Mitigation measure MM BIO-3.1 would incorporate bird-safe design elements into the future building designs and reduce this impact to the extent feasible. Given the potential for bird strikes to result from implementation of the Specific Plan this impact would be significant and unavoidable. **(Significant Unavoidable Impact)**

Increased Lighting Impacts

Development under the Specific Plan will result in the construction of buildings and features that may increase the amount of lighting within and around the Specific Plan area. Lighting from projects constructed under the Plan would be the result of light fixtures illuminating buildings, building architectural lighting, and parking lot and pedestrian lighting. Depending on the location, direction, and intensity of exterior lighting, this lighting can potentially spill into adjacent natural areas, thereby resulting in an increase in lighting compared to existing conditions.

Many animals are sensitive to light cues, which influence their physiology and shape their behaviors, particularly during the breeding season. The wetland habitat in the Eastside Drainage Swale (if this wetland area is not impacted under the Specific Plan by placement of the swale in a culvert), wetland habitat in the Guadalupe River, and native habitats at Ulistac Natural Area all provide suitable habitat

for a variety of wildlife species, including sensitive species such as the San Francisco common yellowthroat, and are close enough to the Specific Plan area to be affected by an increase in lighting.

Wildlife species using the Guadalupe River and/or Ulistac Natural Area may be subject to increased predation, decreased habitat availability (for species that show aversions to increased lighting), and alterations of physiological processes if development under the proposed Specific Plan produces greater illuminance than the existing conditions. This impact on local wildlife populations is potentially significant under CEQA due to the high ecological value of the adjacent habitat areas along the Guadalupe River and at Ulistac Natural Area.

Impact BIO – 4: Increased artificial lighting may adversely impact bird species by increasing predation, decreasing habitat availability, and altering physiological processes. **(Significant Impact)**

Mitigation Measures: The following mitigation measure would minimize lighting impacts on birds to a less than significant level:

MM BIO – 4.1: To the extent consistent with the normal and expected operations of commercial and/or residential uses under the Specific Plan, take appropriate measures to avoid use of unnecessary lighting at night, especially during the bird migration season (February through May and August through November). Such measures may include the installation of motion-sensor lighting, automatic light shut-off mechanisms, downward-facing exterior light fixtures, and others. Exterior lighting within the Specific Plan area will be shielded as needed to block illumination from shining upward, or outward into the Guadalupe River to the east or Ulistac Natural Area to the south. Lighting plans for each development site shall be reviewed and approved by the Community Development Director prior to the issuance of building permits.

Mitigation measure MM BIO-4.1 would minimize lighting as part of project design under the Specific Plan and, therefore, would reduce this impact to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.4 *Nesting Raptors*

The Plan Area includes mature trees that could be used by nesting birds (including migratory birds and raptors). Nesting birds are protected under the MBTA, and are protected by the California Fish and Game Code 3503, 3503.5, and 2800. Construction disturbance during the breeding season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal and site grading that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would constitute a significant impact.

Impact BIO – 5: Redevelopment under the proposed Specific Plan could impact nesting birds, if present, on or adjacent to proposed development sites. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would reduce impacts to nesting birds to a less than significant level:

MM BIO-5.1: To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

MM BIO-5.2: If it is not possible to schedule construction activities between September 1 and January 31 then pre-construction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests would be disturbed during Plan implementation. These surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist would inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests.

MM BIO-5.3: If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist would determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation under the Specific Plan.

A final report of nesting birds, including any protection measures, shall be submitted to the Director of Community Development prior to the start of grading or tree removal.

MM BIO-5.4: If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by projects covered under the Specific Plan may be removed prior to the start of the nesting season (e.g., prior to February 1). This would preclude the initiation of nests in this vegetation and prevent the potential delay of a project due to the presence of active nests in these substrates. Any vegetation removal shall occur consistent with required tree removal and grading permits, as applicable.

The proposed Specific Plan, with implementation of mitigation measures MM BIO-5.1 to MM BIO-5.4, would reduce impacts to nesting birds (if present) by avoiding construction during nesting bird

season or completing pre-construction nesting bird surveys to minimize and/or avoid impacts to nesting birds. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.5 *Sensitive Habitats*

Freshwater Wetland

Implementation of the TESP may result in the permanent loss of up to 0.39 acres and 810 linear feet of perennial freshwater wetlands within the active channel of the Eastside Drainage Swale if these wetlands are filled or culverted. These wetlands may be subject to regulatory jurisdiction of the USACE, RWQCB, and/or CDFW. As noted above, the Eastside Drainage Swale is a man-made feature that has no direct hydrologic connection to the Guadalupe River or tidal waters of the San Francisco Bay. Regardless of whether these wetlands are determined to be jurisdictional, they serve a variety of important functions, such as sediment stabilization, sediment/toxicant retention, nutrient removal/transformation, and aquatic and terrestrial wildlife species habitat.

The wetland habitat within the Eastside Drainage Swale has some ecological value within the urban matrix of the project vicinity. Even though the acreage of impacts to wetlands (0.39 ac) is relatively small, wetlands are relatively scarce regionally, and even small wetland areas have disproportionate contributions to water quality, groundwater recharge, watershed function, and wildlife habitat in the region. This habitat also provides valuable refuge and foraging resources for wildlife species that typically occur in the more extensive wetland habitat in the adjacent Guadalupe River during winter flooding events, when wetland habitat in the river is inundated. For all these reasons, permanent impacts on vegetated wetlands in the Plan Area would be significant.

Water quality in the Eastside Drainage Swale could be impacted by construction activities within the project site area. Bank erosion and sedimentation are potential effects of disturbance associated with construction within the swale. Construction activities located outside of the swale may also result in indirect impacts on the plant and animal species that occur in aquatic habitats (perennial freshwater wetlands) in the Eastside Drainage Swale through erosion and sedimentation. With the following mitigation measures, impacts to freshwater wetlands would be less than significant.

Impact BIO – 6: Construction of the proposed project may result in the permanent loss of 810 linear feet (0.39 acres) of freshwater wetlands. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would minimize impacts to freshwater wetlands to a less than significant level:

MM BIO – 6.1: If avoidance of the wetlands is not proposed, to compensate for the permanent loss of wetlands, perennial marsh habitat shall be restored or created at a minimum ratio of 2:1 (compensation:impact) on an acreage basis, unless a higher ratio is required by a regulatory agency, in which case that higher ratio shall apply. This ratio is not higher due to the relatively low quality of the wetlands in the project area relative to more extensive, less fragmented wetlands elsewhere along the Guadalupe River, but is not lower due to the temporal loss of wetland functions and values that will result from the lag

between impacts to the wetlands in the Plan area and maturation of the mitigation habitat.

Compensation will be provided by creating or restoring wetland habitat so as to achieve the 2:1 ratio (or higher ratio, if required by a regulatory agency) somewhere in the Santa Clara Valley. Among other criteria, the mitigation site(s) must not currently be wetlands. A qualified biologist shall develop a “Wetland Mitigation and Monitoring Plan” describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- Summary of habitat impacts and proposed mitigation ratios
- Goal of the restoration to achieve no net loss of habitat functions and values
- Location of mitigation site(s) and description of existing site conditions (among other criteria, the site(s) must not currently be wetlands)
- Mitigation design:
 - Existing and proposed site hydrology
 - Grading plan if appropriate, including bank stabilization or other site stabilization features
 - Soil amendments and other site preparation elements as appropriate
 - Planting plan
 - Irrigation and maintenance plan
 - Remedial measures and adaptive management
- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by natives) and extent appropriate for the restoration location, and provision of ecological functions and values equal to or exceeding those in the wetland habitat affected. At a minimum, success criteria will include following:
 - At Year 5 post-mitigation, at least 75 percent of the mitigation site will be dominated by native hydrophytic vegetation.

The Wetland Mitigation and Monitoring Plan must be approved by the City of Santa Clara prior to the wetland impacts, and it must be implemented within one year following impacts.

Alternatively, mitigation may be provided by restoring or creating at a minimum ratio of 2:1 (compensation:impact) on an acreage basis by either: (a) purchasing credits at a suitably located mitigation bank in the Santa Clara Valley approved by the City of Santa Clara; or (b) donating funds to a project undertaking enhancement or restoration of wetland or riparian habitats in the Santa Clara Valley, approved by the City of Santa Clara.

MM BIO – 6.2: In compliance with the NPDES, the Specific Plan will comply with the SWRCB General Permit for Stormwater Discharges Associated with

Construction and Land Disturbance Activities, which requires preparation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that will include specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. These controls will include methods to minimize indirect impacts as a result of construction activities that may compromise water quality in the Eastside Drainage Swale. Additional control measures identified in this SWPPP will mitigate the release of construction-related pollutants from the main site during the various construction phases. Unless otherwise authorized by the RWQCB and in compliance with the NPDES permit issued for the proposed activities, the following measures will be implemented during project implementation to avoid or minimize impacts on water quality:

- All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts associated with project activities. Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association “Stormwater Best Management Practices Handbook,” available at www.capmphanthbooks.com.
- Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of wetland and aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels.
- No fueling shall be done in areas along the Eastside Drainage Swale. For stationary equipment that must be fueled within 50 feet of the swale, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water.
- A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors. One copy of the hazardous materials management/fuel spill containment plan located will be on the work site at all times, and will provide construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of the Plan elements. Elements of the materials management/fuel spill containment plan will include, but are not limited to the following:
 - A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;
 - Materials Safety Data Sheets for all chemicals used and stored on site;

- An inventory list of emergency equipment;
- Spill control and countermeasures including employee spill prevention/response training;
- Notification and documentation procedures; and
- A monthly reporting plan.
- Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area. No washing of vehicles will occur outside of designated staging areas in uplands.
- The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or wetlands or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the Plan Area.
- Stockpiled materials will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled material to prevent runoff from transporting sediment into the Eastside Drainage Swale.
- Silt fencing will be erected along the limits of disturbance between the Plan Area and the Eastside Drainage Swale.
- As to any portion of the drainage swale that is not culverted, for construction activities occurring within 50 feet of aquatic habitat in the drainage swale, protective measures shall be put in place to ensure that impacts on the swale are avoided and minimized. The following measures shall be implemented during construction:
 - Orange construction barrier fencing shall be installed around the boundaries of portions of the drainage swale that are to be avoided prior to the initiation of construction activities.
 - The fenced area will be designated as an Environmentally Sensitive Area and will be clearly identified in the construction specifications.
 - The fencing shall be maintained throughout the grading and construction period.
 - Grading, construction activities, traffic, equipment, or materials shall be prohibited in fenced wetland areas.

With mitigation measures MM BIO- 6.1 through MM BIO-6.2, impacts to freshwater wetlands would be less than significant. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.6 *Mixed Riparian Woodland*

The proposed project has the potential to impact 0.05 acres of mixed riparian woodland associated with the eastern drainage swale. This woodland may be destroyed due to tree removal and replacement with developed structures such as the placement of the swale within a culvert, and grading or paving over the root zone of riparian trees will impair the health of riparian trees, possibly to the point of causing tree death. Although this riparian vegetation is not particularly high-quality habitat due to its narrow, sparse nature, it is dominated by native riparian species such as blue

elderberry and Fremont cottonwood, and due to its proximity to the drainage swale, the Guadalupe River, and the Ulistac Natural Area, this riparian vegetation provides important resources that are used by migratory birds and other wildlife.

Owing to the functions and values of this riparian habitat, the importance of woody riparian habitat to birds in the South Bay, and the regional scarcity of riparian habitat due to historical losses of these woodlands, the impact to 0.05 ac of mixed riparian woodland would be considered significant. With the implementation of the following mitigation measures, impacts to riparian woodland habitat would be reduced to a less than significant level.

Impact BIO – 7: Construction of the proposed project could result in the loss of 0.05 acres of riparian woodland habitat. **(Significant Impact)**

Mitigation Measures: The following mitigation measure would minimize impacts to riparian woodland habitat to a less than significant level:

MM BIO – 7.1: If avoidance is not proposed, to compensate for the permanent loss of mixed riparian woodland, riparian woodland habitat will be restored or created at a minimum ratio of 2:1 (compensation:impact) on an acreage basis, based on canopy area. This ratio is not higher due to the relatively low quality of the riparian woodland in the Plan Area relative to more extensive, less fragmented riparian woodland elsewhere along the Guadalupe River, but is not lower due to the temporal loss of riparian functions and values that will result from the lag between impacts to the woodland in the Plan Area and maturation of the mitigation habitat.

Compensation will be provided by planting riparian habitat so as to achieve the 2:1 ratio somewhere in the Santa Clara Valley, preferably along the Guadalupe River but along another stream if appropriate. Among other criteria, the mitigation site(s) must not currently be riparian. Mitigation habitat may be hydrologically isolated from the stream in question as long as it is located within 300 feet of the stream, is not separated from the stream by development other than a trail or levee, and is dominated by native riparian trees. Although some portions of the Ulistac Natural Area are more than 300 feet from the Guadalupe River, mitigation anywhere within the Natural Area would satisfy this measure. A qualified biologist shall develop a “Riparian Habitat Mitigation and Monitoring Plan” describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- Summary of habitat impacts and proposed mitigation ratios
- Goal of the restoration to achieve no net loss of habitat functions and values
- Location of mitigation site(s) and description of existing site conditions (among other criteria, the site(s) must not currently be riparian)
- Mitigation design:

- Existing and proposed site hydrology
- Grading plan if appropriate, including bank stabilization or other site stabilization features
- Soil amendments and other site preparation elements as appropriate
- Planting plan
- Irrigation and maintenance plan
- Remedial measures and adaptive management
- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of riparian vegetation type (e.g., dominance by natives) and extent appropriate for the riparian restoration location, and provision of ecological functions and values equal to or exceeding those in the riparian habitat affected. At a minimum, success criteria will include following:
 - At Year 10 post-planting, canopy closure at the mitigation site will be at least 60 percent of the canopy closure at a nearby reference site (i.e., a site supporting the same habitat type as that being established at the mitigation site).
- The Riparian Habitat Mitigation and Monitoring Plan must be approved by the City of Santa Clara prior to the impact on mixed riparian woodland, and it must be implemented within one year following impacts.

Alternatively, mitigation may be provided by restoring or creating at a minimum ratio of 2:1 (compensation:impact) on an acreage basis by either: (a) purchasing credits at a suitably located mitigation bank in the Santa Clara Valley approved by the City of Santa Clara; or (b) donating funds to a project undertaking enhancement or restoration of wetland or riparian habitats in the Santa Clara Valley, approved by the City of Santa Clara.

With the implementation of mitigation measure MM BIO – 7.1 impacts to riparian woodland habitat would be less than significant. **(Less Than Significant With Mitigation Incorporated)**

3.3.2.7 *Riparian Stream/Buffer*

To protect the ecological functions and values of a stream, buffers are often prescribed between new development and the stream or its banks. These buffers provide habitat for plants and animals associated with the stream, provide habitat connectivity (i.e., areas used for wildlife movement), reduce indirect effects of adjacent development (e.g., noise, lighting, human activity, or invasive species) on the natural stream and riparian habitats, allow for the possible future expansion of natural habitat, help to maintain site hydrology, and in some areas allow for runoff to be treated (e.g., by flowing over vegetated areas) before it enters the stream.

The City of Santa Clara does not have an established policy regarding the widths of buffers that should be maintained between development and streams. However, a number of other jurisdictions and entities have evaluated suitable buffers, and the results of those evaluations are applicable to the Tasman East Specific Plan. Therefore, a 100-foot setback would be required between development

and the Guadalupe River in the vicinity of the Plan Area to maintain suitable riparian functions and values.

Impacts of encroachment into the 100-foot riparian buffer would be significant for the proposed project only if development (e.g., new buildings, parking areas, or other hardscape) or non-native landscaping were to be located within 100 feet of the baseline, or in areas where such development is already present, any closer to the baseline than existing conditions (refer to Figure 3.3-1).⁸

Development features compatible with open space and/or maintenance of water quality functions within the Guadalupe River and nearby sensitive habitats such as vegetated retention basins and bio-treatment swales that occur within the 100-foot setback are considered a beneficial use and would not be considered a significant impact.

Impact BIO – 8 Construction of the proposed project and improvements providing connectivity to the levee would impact the riparian buffer. **(Significant Impact)**

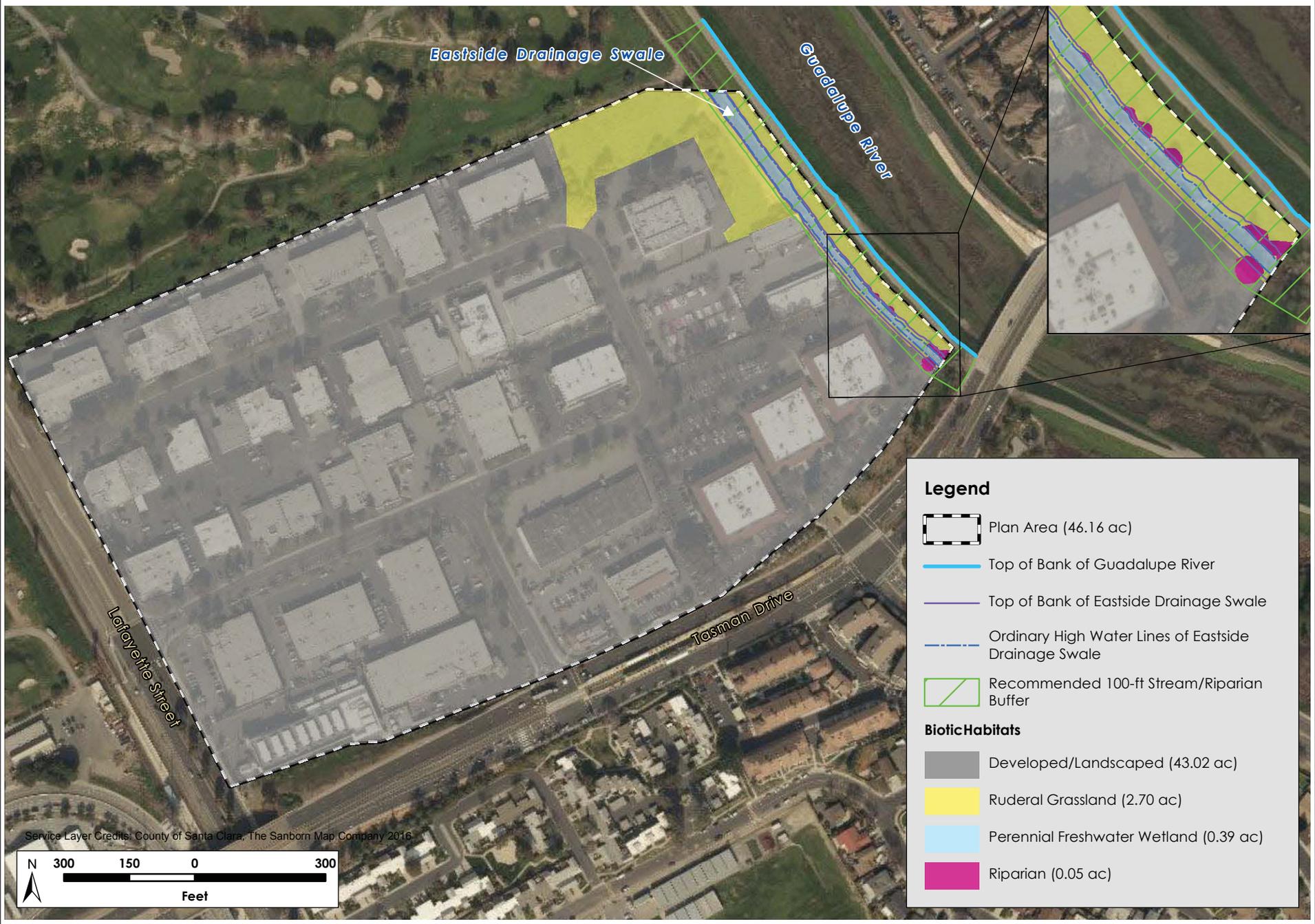
Mitigation Measures: The following mitigation measures would minimize impacts to the riparian buffer to a less than significant level:

MM BIO – 8.1: If encroachment into the riparian buffer with incompatible uses (defined as hardscape or other impermeable surfaces, non-native landscape plantings, and paved permeable surfaces such as permeable pavers) is proposed, no buildings shall be constructed closer to the buffer baseline than are currently present (i.e., in one location, a corner of a building is within approximately 95 feet of the buffer baseline, and that limited area can include a building), unless mitigation is provided in accordance with MM BIO-8.2. In addition, no new buildings or structures, impervious surface, or non-native landscaping shall occur closer to the buffer baseline than is currently present (i.e. 75 feet). Compatible uses within these areas are public trails, native landscaping, and unpaved permeable surfaces (e.g. open ground).

MM BIO – 8.2: If any encroachment into the riparian buffer is proposed, compensatory mitigation shall be provided to offset the impacts on the ecological functions and values of the riparian corridor. Such compensatory mitigation will be provided in one of two ways:

- At a minimum ratio of 1:1 (compensation:impact), on an acreage basis excluding wetlands and mixed riparian woodland, existing development (e.g., buildings or hardscape) along the Guadalupe River, either on-site or off-site (e.g., at Ulistac Natural Area), will be removed, and the developed area restored to native habitats and dedicated to natural habitat (rather than active human uses such as urban park). For example, if a portion of the Plan Area were subject to riparian buffer encroachment, but

⁸ The riparian buffer is measured from a “buffer baseline” along the levee, at the top of bank of the Guadalupe River.



Service Layer Credits: County of Santa Clara, The Sanborn Map Company 2016



Source: H.T. Harvey & Associates, Dec. 2016.

BIOTIC HABITATS MAP

FIGURE 3.3-1

a commensurate acreage of existing developed areas adjoining the Guadalupe River levee in other parts of the Plan Area were restored to native habitat, that would compensate for the riparian buffer encroachment impact.

- At a minimum ratio of 2:1 (compensation:impact) on an acreage basis, riparian woodland habitat will be restored or created as described in Mitigation Measure BIO-6.1 above to provide ecological functions and values that offset those lost due to riparian buffer encroachment.

With the implementation of the mitigation measures MM BIO-8.1 to MM BIO-8.2, encroachment into the riparian buffer would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.8 *Invasive Weeds*

Several non-native invasive plant species occur in the Plan Area. Of these, wild oats and black mustard are the most abundant, and are rated as moderately invasive, thus they can cause substantial ecological impacts on physical processes, plant and animal communities, and vegetation structure (Cal-IPC 2016). English ivy and fennel occur sparsely in the Plan Area, but are considered to be highly invasive and thus may also potentially cause significant ecological impacts (Cal-IPC 2016). Invasive weeds can occur in all habitat types in the Plan Area and can be difficult to eradicate. One of the characteristics of some invasive plant species that make them successful is that they produce seeds that germinate readily following disturbance. In addition, newly disturbed areas are highly susceptible to colonization by non-native, invasive species that occur locally, or whose propagules are brought in by personnel, vehicles, and other equipment. While the proposed Specific Plan is unlikely to introduce new weeds to the Plan Area, ground-disturbing activities within existing weed stands can result in the unintentional introduction of these species into adjacent sensitive habitats such as the wetlands within the Eastside Drainage Swale or Guadalupe River. The further expansion of weeds into sensitive habitats downstream can have detrimental effects on their vegetative composition and wildlife habitat value. Introduction or spread of invasive weeds into sensitive wetland or riparian habitats would be a significant impact.

Impact BIO – 9: Construction of the proposed project may result in the spread of invasive weeds in sensitive habitats including the Eastside Drainage Swale and Guadalupe River. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would minimize impacts from potential invasive weed dispersal to a less than significant level:

MM BIO – 9.1: During construction under the proposed Specific Plan, all seeds and straw materials used on-site shall be weed-free rice straw (or similar material acceptable to the City), and all gravel and fill material will be certified weed free to the satisfaction of the City and any deviation from this shall be approved by the Public Works Director.

MM BIO – 9.2: During construction of projects under the proposed Specific Plan, vehicles and all equipment shall be washed (including wheels, undercarriages, and

bumpers) before and after entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or legally operating car washes.

MM BIO – 9.3: Following construction of projects under the proposed Specific Plan, a standard erosion control seed mix (acceptable to the Public Works Director) from a local source would be planted within the temporary impact zones on any disturbed ground that would not be under hardscape, landscaped, or maintained in order to minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.

With the implementation of the mitigation measures MM BIO-9.1 to MM BIO-9.3, impacts from invasive weeds would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.9 *Mature Trees*

The implementation of projects under the proposed Specific Plan would potentially remove numerous trees that occur throughout the individual development parcels. Existing trees throughout the developed portions of the Plan Area are a mixture of mainly non-native or not naturally-occurring, planted, ornamental species and include eucalyptus, acacias, and London planes. Some of these trees are adjacent to City streets and thus may be considered street trees. A permit is required for any street tree removal, regardless of size or species. The General Plan also requires replacement of trees removed as part of a proposed development project. The removal of trees would not have a significant impact on wildlife because the trees are mostly landscaped and non-native species that are not regionally limited. Given the substantial number of trees that would be removed by development proposed under the Specific Plan, impacts to mature trees from the Specific Plan would be significant.

Impact BIO – 10: Tree removal from redevelopment of individual parcels under the Specific Plan would result in a significant impact to mature trees. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would minimize impacts from potential invasive weed dispersal to a less than significant level:

MM BIO – 10.1: Projects proposing or required to retain trees on-site shall implement precautionary measures during site construction to limit adverse environmental effects on ordinance-protected trees that are to be retained. A tree protection plan shall be prepared by a qualified arborist that, at a minimum, requires installation of an open material (e.g., chain link) fence six feet in height around the drip line and maintenance of the existing grade level around a tree and out to its drip line.

MM BIO – 10.2: Project proponents under the Specific Plan will comply with the City Code and submit permit applications for removal of all trees covered by the City's tree ordinance. Any street trees or heritage trees to be removed would require replacement on-site or off-site at a minimum 2:1 ratio per General Plan Policy

5.3.1-P10. To the extent feasible, the replacement trees will be planted on-site and the project proponent will comply with all other tree removal requirements imposed by the City.

With the implementation of mitigation measures MM BIO-10.1 to MM BIO-10.2, impacts to mature trees would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

3.3.2.10 *Upland Habitats and Common Species*

Construction activities related to the proposed Plan may permanently impact up to 43.02 acres of developed/landscaped habitat and 2.70 acres of ruderal grasslands (refer to Figure 3.3-1). The redevelopment of the Plan Area would alter and/or remove existing vegetation in these areas which are relatively abundant and widespread regionally and, therefore not particularly sensitive or valuable.

Redevelopment of these upland habitat would result in removal of common plant species and effects to common animal species. These species would experience a direct loss of habitat and could potentially suffer death and injury in addition to disturbance and displacement. Loss of habitat and displacement could indirectly increase competition for wildlife and increase pressure on available resources.

Plants observed in the Plan Area during the reconnaissance-level survey are not regulated under state or federal laws nor are they considered rare in California. All native plant species found on the site are regionally abundant and common in California.

As described above, impacts on the common species and habitat resulting from the proposed Specific Plan would not have a substantial adverse effect nor significant impact under CEQA. **(Less Than Significant Impact)**

3.3.2.11 *Nonbreeding Special-Status Birds and Mammals*

Several special-status bird and mammal species occur in the Plan Area as non-breeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers in the Plan Area. These species are the yellow warbler, Alameda song sparrow, tricolored blackbird, American peregrine falcon, white-tailed kite, and pallid bat.

Redevelopment under the proposed Plan would have some potential to impact foraging habitats and/or individuals of these species. Construction activities may result in a temporary direct impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during maintenance activities) but would not result in the loss of individuals. Further, the Plan Area does not provide important foraging habitat used regularly or by large numbers of individuals of any of these species. Impacts under the Specific Plan, therefore, will have little impact on these species' foraging habitat and no substantive impact on regional populations of these species. **(Less Than Significant Impact)**

3.3.2.12 *Wildlife Movement Corridors*

The wetland and upland habitats along the Eastside Drainage Swale serve as a movement pathway for terrestrial wildlife species, providing vegetative cover and foraging opportunities. Common, urban-adapted species such as raccoons, striped skunks, the non-native Virginia opossum, and small mammals may use the vegetation along the swale to move north and south through the Plan Area. The potential culverting and associated removal of up to 0.39 ac of this habitat would create a gap of open, developed habitat along this corridor, which any wildlife species traveling along this corridor must cross in order to traverse the Plan Area. The many terrestrial wildlife species that use this habitat are acclimated to high levels of disturbance and existing fragmented habitats in the vicinity, therefore, the potential removal of the Eastside Drainage Swale would not result in significant impacts on the movements of individuals or habitat connectivity.

To the east of the Plan Area, the Guadalupe River and the associated wetland/riparian corridor provides an important movement pathway for both aquatic and terrestrial wildlife species, connecting the associated wetlands to the San Francisco Bay. The proposed Specific Plan would not result in any loss of aquatic or wetland habitat along the Guadalupe River or in any substantial reduction in the value of the Guadalupe River corridor for wildlife movement.

Based on the discussion above, the proposed Specific Plan would not 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, and this impact is determined to be less than significant. **(Less Than Significant Impact)**

3.3.2.13 *Cumulative Impacts*

Future development activities in the City of Santa Clara would result in impacts on the same habitat types and species that would be affected by the proposed project. The Specific Plan would result in increased population adjacent to the Ulistac Natural Area which may result in increased use of the Ulistac Natural Area and increased activity in the area. Projects under the Tasman East Specific Plan, in combination with other projects in the area and other activities that impact the species that are affected under the Plan, could contribute to cumulative effects on special-status species. Other projects in the area include both development and maintenance projects that could adversely affect these species and restoration projects that will benefit these species.

The cumulative impact on biological resources resulting from development under the TESP in combination with other projects in the larger region, including City Place, would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur. Both the Tasman East Specific Plan and City Place include mitigation measures to reduce impacts to most affected species to a less than significant level. No special-status plant or animal species, or habitat type would be cumulatively impacted by the concurrent development of these sites.

However, the Santa Clara General Plan contains conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on these resources. Many projects in the region that impact resources similar to those impacted by development under the proposed Specific Plan will be covered activities under the Santa Clara Valley Habitat Conservation Plan and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration.

Further, the TESP would implement a number of BMPs and mitigation measures to reduce impacts on both common and special-status species, as described above. Thus, provided that this Specific Plan incorporates the mitigation measures identified in this EIR, the implementation of the TESP will not contribute to substantial cumulative effects on most biological resources. **(Less Than Significant Cumulative Impact With Mitigation)**

The TESP in combination with City Place, however, would construct large buildings in close proximity to Ulistac Natural Area and the Guadalupe River. Given the potential for birds to encounter substantially taller structures (60 feet and above), representing at least double the height of existing structures, the cumulative projects would result in increased bird strikes. Although both projects would incorporate bird-safe design elements, required in the Plan Area by mitigation measure MM BIO-3.1, this EIR and the City Place EIR concluded each project would have significant unavoidable impacts due to the bird strikes, therefore, the cumulative impact on birds in the Plan Area and vicinity would be significant and unavoidable.

Impact C-BIO-1: The proposed Specific Plan in combination with City Place, and including the implementation of mitigation measures, would result in significant unavoidable cumulative impacts due to bird strikes. **(Significant Unavoidable Cumulative Impact)**

3.3.3 Conclusion

Impact BIO – 1: The proposed Specific Plan with implementation of mitigation measure MM BIO-1.1 would result in less than significant impacts to potential western pond turtle dispersal habitat along the Eastside Drainage Swale. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 2: The proposed Specific Plan with implementation of mitigation measures MM BIO – 2.1 to MM BIO – 2.4 would reduce impacts to burrowing owls to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 3: The proposed Specific Plan with incorporation of mitigation measure MM BIO-3.1 would incorporate bird-safe design elements into the future building designs and reduce this impact to the extent feasible. Given the potential for bird strikes to result from implementation of the Specific Plan this impact would be significant and unavoidable. **(Significant Unavoidable Impact)**

Impact BIO – 4: The proposed Specific Plan with incorporation of mitigation measure MM BIO-4.1 would minimize the effect of increase lighting on bird species to a

less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 5: The proposed Specific Plan, with implementation of mitigation measures MM BIO-5.1 to MM BIO-5.4, would reduce impacts to nesting birds (if present) by avoiding construction during nesting bird season or completing pre-construction nesting bird surveys to minimize and/or avoid impacts to nesting birds. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 6: The proposed Specific Plan with incorporation of mitigation measures MM BIO-6.1 through MM BIO-6.2 would reduce impacts to freshwater wetlands to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 7: The proposed Specific Plan with incorporation of mitigation measures MM BIO-7.1 would reduce impacts to riparian woodland habitat to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 8: The proposed Specific Plan with incorporation of mitigation measures MM BIO-8.1 to MM BIO-8.2, encroachment into the riparian buffer would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 9: The proposed Specific Plan with incorporation of mitigation measures MM BIO-9.1 to MM BIO-9.3 would reduce impacts from the potential spread of invasive weeds during construction to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact BIO – 10: The proposed Specific Plan with incorporation of mitigation measures MM BIO-10.1 to MM BIO-10.2 would reduce impacts due to tree removal to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

The mitigation measures outlined above would ensure the Specific Plan would not contribute to significant cumulative impacts on most biological resources. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

Impact C-BIO-1: The proposed Specific Plan in combination with City Place, and including the implementation of mitigation measures, would result in significant unavoidable cumulative impacts due to bird strikes. **(Significant Unavoidable Cumulative Impact)**

3.4 CULTURAL RESOURCES

The following discussion is based in part on a cultural resources literature search and report completed by *Holman & Associates* in January 2017. A copy of this report is on file with the City of Santa Clara.

3.4.1 Environmental Setting

3.4.1.1 *Regulatory Framework*

Federal

National Register of Historic Places

The National Register of Historic Places (NRHP), established under the National Historic Preservation Act, is a comprehensive inventory of known historic resources throughout the United States. The National Register is administered by the National Park Service and includes buildings, structures, sites, objects and districts that possess historic, architectural, engineering, archaeological or cultural significance. For a resource to be eligible for listing, it also must retain integrity of those features necessary to convey its significance in terms of 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association. CEQA requires evaluation of project effects on properties that are listed in or eligible for listing in the National Register.

State

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR aids government agencies in identifying, evaluating, and protecting California's historical resources, and indicates which properties are to be protected from substantial adverse change (Public Resources Code, Section 5024.1(a)). The CRHR is administered through the State Office of Historic Preservation (SHPO), which is part of the California State Parks system. A historic resource listed in, or formally determined to be eligible for listing in, the National Register is, by definition, included in the California Register (Public Resources Code Section 5024.1(d)(1)).⁹

State Regulations Regarding Cultural and Paleontological Resources

Archaeological, paleontological, and historical sites are protected by a number of state policies and regulations under the California Public Resources Code, California Code of Regulations (Title 14 Section 1427), and California Health and Safety Code. California Public Resources Code Sections 5097.9-5097.991 require notification of discoveries of Native American remains and provides for the treatment and disposition of human remains and associated grave goods.

Assembly Bill 52 – Tribal Cultural Resources

A tribal cultural resource can be 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

⁹ Refer to Public Resources Code Section 5024.1(d)(1)

a California Native American tribe. It also must be either on or eligible for the CRHR, or a local historic register; otherwise, the lead agency, at its discretion and supported by substantial evidence may choose to treat the resource as a significant tribal cultural resource. Assembly Bill 52 (AB 52), which amended the Public Resources Code, requires lead agencies to participate in formal consultations with California Native American tribes during the CEQA process, if requested by any tribe, to identify tribal cultural resources that may be subject to significant impacts by a project. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. Consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or when it is concluded that mutual agreement cannot be reached.

Senate Bill 18

The intent of Senate Bill 18 (SB 18), which came into effect in 2005, is to aid in the protection of traditional tribal cultural places through local land use planning by requiring city governments to consult with California Native American tribes on projects which include adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) and 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 to provide notice to tribes at certain key points in the planning process.

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are in part valued for the information they yield about the history of the earth and its past ecological settings. The California Public Resources Code (Section 5097.5) specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

Santa Clara County Code

Both state law and the Santa Clara County Code (Sections B6-19 and B6-20) require that the Santa Clara County Coroner be notified if cultural remains are found on a site. If the Coroner determines the remains are those of Native Americans, the Native American Heritage Commission and a "most likely descendant" must also be notified.

City of Santa Clara 2010 – 2035 General Plan

The City of Santa Clara 2010 – 2035 General Plan includes policies and programs to protect the City's cultural resources. The policies applicable to cultural resources and the project include, but are not limited to, the following listed below.

Policies	Description
5.6.3-P1	Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.
5.6.3-P2	Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
5.6.3-P4	Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and the Old Quad neighborhood.
5.6.3-P5	In the event that archeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archeologist/paleontologist.
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

Santa Clara Criteria for Local Significance

The Criteria for Local Significance were adopted on April 20, 2004, by the Santa Clara City Council. Any building, site, or property in the City that is 50 years old or older and meets certain criteria of architectural, cultural, historical, geographical or archeological significance is potentially eligible.

3.4.1.2 Existing Conditions

Historic Resources

Historic resources are buildings, structures, objects, sites, and districts of significance in history, archaeology, architecture, and culture. These resources include intact structures of any type that are 50 years or more of age. The existing buildings in the Plan Area were constructed in the late 1970s or subsequent to this period. None of the existing buildings in the Plan Area are 50 years old or more, nor is any listed on the NRHP, CRHR, or City’s Historic Properties list as historic resources.¹⁰

The project site is bordered by a golf course to the north, a recreational trail (Guadalupe River Trail) to the east, and roadways (Tasman Drive and Lafayette Street) to the south and west. Therefore, there are no historic buildings (as opposed to resources) immediately adjacent to the Plan Area.

Archaeological Resources

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. A cultural resources records search was completed by *Holman & Associates* in January 2017. All recorded cultural resource records and studies in the Plan Area, and within 165 feet (50 meters) of the Specific Plan, were reviewed.

¹⁰ Sources: 1) National Parks Service. “National Register of Historic Places.” Accessed: April 12, 2018. Available at: <https://www.nps.gov/nr/research/>; 2) State of California, Office of Historic Preservation. “Santa Clara.” Accessed: April 17, 2018. Available at: http://ohp.parks.ca.gov/?page_id=21522.; and 3) City of Santa Clara. “Historic Properties.” Accessed: April 17, 2018. Available at: <http://santaclaraca.gov/visitors/santa-clara-history/santa-clara-s-historic-properties-story-map/historic-properties>.

Prehistoric Archaeological Resources

Based on the cultural resources records search, there are several known archaeological resources adjacent to the southeast corner of the Plan Area and along the leveed Guadalupe River to the south of the Plan Area. These resources include an extensive midden, tools, several Native American sites, a large village, and human remains that were part of a cemetery. Based on prior studies, cultural deposits near the Guadalupe River have been identified 6.5 to 10 feet below ground surface.

While there are no known archaeological resources within the Plan Area, there have been a number of archaeological resources identified adjacent to the Plan Area. For this reason, there is a moderate to high potential for cultural resources within the Plan Area.

Historic Archaeological Resources

Based on a review of historic-era maps, there is a low potential for historic-era archaeological deposits to occur within the Plan Area.¹¹

Paleontological Resources

The Specific Plan area is situated on alluvial fan deposits of the Holocene age. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. These deposits, however, overlie sediments of older Pleistocene sediments with high potential to contain paleontological resources, which are found at depths of 25 feet or more below the ground surface.¹²

3.4.2 Cultural Resources Impacts

3.4.2.1 *Thresholds of Significance*

For the purposes of this EIR, a cultural resources impact is considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of dedicated cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

¹¹ Holman & Associates. *Results of the Cultural Resources Literature Search for the 46-acre Tasman East Specific Plan*. January 11, 2017.

¹² Helley, E.J. *Preliminary Contour Map Showing Elevation of Surface of Pleistocene Alluvium under Santa Clara Valley, California*. U.S. Geological Survey Open File Report 90-633. 1990.

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying this criteria, the significance of the resource to a California Native American tribe shall be considered.

3.4.2.2 *Historic Resources Impacts*

The Specific Plan area and properties within the Specific Plan area are not listed on the NRHP, CRHR, or the City’s Historical Properties list. As previously discussed, the structures within the Specific Plan area are less than 50 years of age and there are no historic buildings adjacent to the Specific Plan area. Future development under the Specific Plan would, therefore, not result in a significant impact to historic resources. **(Less Than Significant Impact)**

3.4.2.3 *Archaeological Resources Impacts/Impacts to Human Remains*

While there are no known cultural resources within the Specific Plan area, there is a moderate to high potential for buried cultural resources within the Plan Area given the previous discoveries adjacent to the Plan Area (as summarized above). Although unlikely, there is also potential for the project to encounter human remains interred outside of formal cemeteries.

Impact CUL-1: Redevelopment of the Specific Plan area could result in impacts to unknown, buried archaeological resources and human remains. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would reduce impacts to subsurface cultural resources within the entire Specific Plan area:

MM CUL-1.1: A qualified archaeologist shall monitor the demolition of the building foundations and any other below surface disturbances, such as but not limited to, grading, excavation, roadway improvements, potholing for utilities, utility removal, and addressing storm drain issues. After demolition activities and surface improvements are removed for projects involving excavation, and prior to other construction activities, conduct mechanical presence/absence exploration to a depth ranging from 6.5 to 10 feet below ground surface. Presence/absence efforts shall be conducted by a qualified local archaeologist. If any cultural resources are identified, all activity in the vicinity of such resources shall stop until a research design and treatment plan is prepared to address those types of resources encountered and such plan is approved by the City. Any cultural resources identified shall be evaluated to determine if these resources would qualify for the NRHP or CRHR. If no resources are found during presence/absence testing, the implementation of mitigation measures, MM CUL-1.2 and MM CUL-1.3, would ensure any resources discovered during construction are adequately protected.

MM CUL-1.2: In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, work within 50 feet of the find shall cease until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Preservation in place is the preferred treatment of an archeological resource. When preservation in place of an archeological resource is not feasible, data recovery, in accord with a data recovery plan prepared and adopted by the City, is the appropriate mitigation. Construction and potential impacts to the area within a radius determined by the archaeologist shall not recommence until the assessment is complete.

MM CUL-1.3: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

Implementation of the above mitigation measures would avoid and/or reduce significant impacts to unknown buried archaeological resources to a less than significant level by monitoring for resources during demolition activities, completing presence/absence exploration, and following procedures to protect resources (if found). **(Less Than Significant Impact with Mitigation Incorporated)**

3.4.2.4 Paleontological Resource Impacts

Ground disturbing activities of 25 feet below ground surface or more within the Specific Plan area, have the potential to impact undiscovered paleontological resources in older Pleistocene sediments. Future development projects within the Specific Plan area that include excavation to depths of 25 feet or more have the potential to disturb Pleistocene sediments and would require a qualified paleontologist to monitor all grading and/or excavation.

Impact CUL – 2: Development proposed under the Specific Plan has the potential to disturb paleontological resources if projects include deep excavations. **(Significant Impact)**

Mitigation Measures: The following mitigation measures would be implemented by development projects to reduce impacts to paleontological resources where deep excavations are proposed within the Plan Area:

MM CUL – 2.1: Projects involving excavations 25 feet or greater below ground surface would require monitoring by a qualified paleontologist. In the event paleontological resources are discovered all work shall be halted within 50 feet of the find and a Paleontological Resource Mitigation Plan shall be prepared by a

qualified paleontologist to address assessment and recovery of the resource. A final report documenting any found resources, their recovery, and disposition shall be prepared in consultation with the Community Development Director and filed with the City and local repository. **(Less Than Significant Impact With Mitigation Incorporated)**

3.4.2.5 *Tribal Resources Impacts*

One ethnographic village site has been located within one-half-mile of the project site. As described above in Section 3.4.2.3, the Plan Area and vicinity has a moderate to high potential for archaeological resources and archaeological monitoring for development projects within the Plan Area is required. The City contacted local Native American tribes for consultation regarding any tribal cultural resources known to be present in the Plan Area. None of the local tribes have responded to notification of the proposed Specific Plan. The proposed Specific Plan would not result in impacts to any known tribal cultural resources in the Plan Area. **(Less Than Significant Impact)**

3.4.2.6 *Consistency with Plans*

The Specific Plan is consistent with the General Plan Policies listed in Section 3.4.1.1, *Regulatory Framework* of this EIR by requiring future development projects to implement mitigation measures and comply with General Plan policies that require monitoring, suspending work when a find is discovered, taking actions to avoid and/or reduce impacts to resources, and complying with state law if human remains are found.

3.4.2.7 *Cumulative Impacts*

Implementation of the Specific Plan would not impact historic structures or known tribal resources, therefore, the project would not contribute to significant cumulative impacts to historic resources and tribal resources.

The geographic area for cumulative impacts to archaeological and paleontological resources for the Specific Plan is the immediate area. The development of cumulative projects in proximity to the Plan Area (e.g., the approved City Place project immediately to the north of the Plan Area and east of Lafayette Street), in conjunction with the implementation of the Tasman East Specific Plan, could significantly impact unknown buried archaeological and paleontological resources. Implementation of mitigation measures CUL-1.1 to -1.3 and CUL-2.1 would ensure impacts to cultural resources would be less than significant.

The cumulative projects are all subject to CEQA and are required to comply with the federal, state, and local regulations put in place to protect cultural resources (refer to Section 3.4.1.1, *Regulatory Framework*). For this reason, the cumulative projects (including the proposed Specific Plan with the implementation of the mitigation measures identified above and in conformance with applicable General Plan policies) would not result in a significant impact to archaeological or paleontological resources. **(Less Than Significant Impact with Mitigation Incorporated)**

3.4.3 Conclusion

Impact CUL-1: The buildout of the proposed Specific Plan, with the implementation of mitigation measures MM CUL-1.1 through 1.3, would not result in significant impacts to archaeological resources. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact CUL-2: The buildout of the proposed Specific Plan, with the implementation of mitigation measure MM CUL-2.1, would not result in significant impacts to paleontological resources. **(Less Than Significant Impact With Mitigation Incorporated)**

The implementation of the proposed Specific Plan would not result in other significant cultural resources impacts. **(Less Than Significant Impact)**

3.5 ENERGY

3.5.1 Environmental Setting

3.5.1.1 *Background Information*

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during both the production and consumption phases of energy use.

Energy usage is typically quantified using British thermal units (Btu).¹³ As points of reference, the approximate amount of energy provided by a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity is 123,000 Btu, 1,000 Btu, and 3,400 Btu, respectively. Utility providers measure gas usage in therms. One therm is approximately equal to 100,000 Btu.

Electrical energy is expressed in units of kilowatts (kW) and kilowatt hour (kWh). One kW, a measurement of power (energy used over time), equals one thousand joules¹⁴ per second. A kWh is a measurement of energy. If run for one hour, a 1,000 watt (one kW) hair dryer would use one kWh of electrical energy. Other measurements of electrical energy include the megawatt (1,000 kW) and the gigawatt (1,000,000 kW).

Total energy usage in California was approximately 7,300 trillion Btu in the year 2015 (the most recent year for which this specific data was available).¹⁵ The breakdown by sector was approximately 18 percent for residential uses, 19 percent for commercial uses, 24 percent for industrial uses, and 39 percent for transportation.¹⁶

3.5.1.2 *Regulatory Framework*

Federal

At the federal level, energy standards set by the United States Environmental Protection Agency (EPA) apply to numerous consumer and commercial products (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

State

Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail

¹³ A Btu is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit.

¹⁴ As defined by the International Bureau of Weights and Measures, the joule is a unit of energy or work. One joule equals the work done when one unit of force (a Newton) moves through a distance of one meter in the direction of the force.

¹⁵ United States Energy Information Administration (EIA). "California Energy Consumption Estimates 2015." Accessed January 16, 2018. Available at: <http://www.eia.gov/state/?sid=CA#tabs-2>.

¹⁶ EIA. "California Energy Consumption by End-Use Sector, 2015." Accessed January 16, 2018. Available at: http://www.eia.gov/beta/state/seds/data.cfm?incfile=/state/seds/sep_sum/html/sum_btu_1.html&sid=CA.

sales by 2010. In 2006, California's 20 percent by 2010 RPS goal was codified under Senate Bill (SB) 107. Under the provisions of SB 107, investor-owned utilities were required to generate 20 percent of their retail electricity using qualified renewable energy technologies by the end of 2010. In 2008, Executive Order S-14-08 was signed into law and required that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Silicon Valley Power is the electricity provider to the project site. Silicon Valley Power's 2016 electricity mix was 28 percent renewable.¹⁷ When large hydroelectric resources are included, 52 percent of SVP's power mix was from renewable sources (i.e. free of greenhouse gas emissions).

In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 for retail sellers and publicly owned utilities requires them to procure 50 percent of the state's electricity from renewable sources by 2030.

Building Codes

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2016 Title 24 updates went into effect on January 1, 2017. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.

In January 2010, the state adopted the California Green Building Standards Code (CALGreen), which established mandatory green building standards for buildings in California. CALGreen was also updated and went in to effect on January 1, 2017. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality.

Local

City of Santa Clara 2010 – 2035 General Plan

General Plan policies applicable to energy include, but are not limited to, the following listed below.

Policies	Description
Air Quality	
5.10.2-P1	Support alternative transportation modes and efficient parking mechanisms to improve air quality.
Air Quality	
5.10.2-P2	Encourage development patterns that reduce vehicle miles traveled and air pollution.
Energy	
5.10.3-P1	Promote the use of renewable energy resources, conservation and recycling programs.
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,

¹⁷ Silicon Valley Power. "Power Content Label." Accessed: January 17, 2018. Available at: <http://www.siliconvalleypower.com/svp-and-community/about-svp/power-content-label>.

Policies	Description
	developing solar projects, and incentivizing solar projects for residents and businesses, consistent with the CAP.
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.
5.10.3-P4	Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.
5.10.3-P5	Reduce energy consumption through sustainable construction practices, materials, and recycling.
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.
General Mobility and Transportation	
5.8.1-P4	Expand transportation options that improve alternate modes that reduce GHG emissions.
Tasman East Focus Area Sustainability Policies	
5.4.6-P1	Establish Tasman East as a high density residential neighborhood that provides residents with access to commercial services and open space located on-site and in the surrounding areas.
5.4.6-P2	Provide direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.
5.4.6-P3	Work with appropriate transportation agencies, businesses, and surrounding cities to maximize rail and bus transit to and from the stations.
5.4.6-P4	Promote pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings.
5.4.6-P7	Provide for future connections, which encourage walking and bicycling, to the new development in the north when it is redeveloped to promote accessibility between the two areas.
5.4.6-P17	Encourage new development to build to a green neighborhood rating standard.

Santa Clara Construction and Demolition Debris Recycling Program

The City of Santa Clara requires applicants seeking building or demolition permits for projects greater than 5,000 square feet to recycle at least 50 percent of discards. Applicants may also meet the City’s recycling requirement by reprocessing and reusing construction materials on-site or salvaging material, such as wood or fixtures for reuse.

3.5.1.3 Existing Conditions

Electricity

The electricity supply in California involves a complex grid of power plants and transmission lines. In 2016, California produced approximately 93 percent of the electricity it consumed, and the rest was imported. California’s non-carbon dioxide (CO₂)-emitting electric generation (from nuclear, large hydroelectric, solar, wind, and other renewable sources) accounted for 50 percent of total in-state generation for 2016, compared to 40 percent in 2015.¹⁸ Electricity supplied from out-of-state,

¹⁸ CEC. “Total System Electric Generation”. Accessed January 16, 2018. Available at: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html.

coal-fired power plants has continued to decrease since 2006, following the enactment of a state law requiring California utilities to limit new long-term financial investments to power plants that meet California emissions standards.¹⁹

In 2016, California's total system electric generation was 290,567 gigawatt-hours (GWh), which was down 1.6 percent from 2015's total generation of 295,405 GWh. California's in-state electric generation was up by approximately one percent at 198,227 GWh compared to 196,195 GWh in 2015, and energy imports were down by 6,869 GWh to 92,341 GWh.²⁰ In 2016, total in-state solar generation increased 31.5 percent from 2015 levels and wind generation increased 10.8 percent.

Growth in annual electricity consumption from traditional power plants has declined, reflecting increased energy efficiency and higher self-generation from solar photovoltaic power systems. Per capita drops in electrical consumption are predicted through 2027 as a result of energy efficiency gains and increased self-generation (particularly for photovoltaic systems).²¹ Due to population increases, however, it is estimated that future demand in California for electricity will grow at approximately one percent each year through 2027, and that 319,256 GWh of electricity would be utilized in the state in 2027.²²

Silicon Valley Power is the City of Santa Clara's energy utility, providing electricity for residential, commercial, industrial, and municipal uses. Silicon Valley Power generates or buys electricity from hydroelectric, renewable, natural gas, and coal facilities. In 2016, natural gas facilities provided 35 percent of Silicon Valley Power's electricity delivered to retail customers; renewable energy facilities including solar, geothermal, and biomass, eligible hydroelectric, and wind provided 28 percent; large hydroelectric facilities provided 24 percent; and 10 percent was provided by coal facilities.²³

Electricity usage for differing land uses varies substantially by the type of uses in a building, the type of construction materials used, and the efficiency of the electricity-consuming devices used. Electricity in Santa Clara County in 2016 was consumed primarily by the commercial sector which comprised 77 percent of electricity use, followed by the residential sector consuming 23 percent. In 2016, a total of approximately 16,800 GWh of electricity was consumed in Santa Clara County.²⁴

Natural Gas

Pacific Gas and Electric Company (PG&E) provides natural gas for residential, commercial, industrial, and municipal uses for the City of Santa Clara. In 2016, approximately three percent of

¹⁹ EIA. "California State Profile and Energy Estimates Profile Analysis." Accessed January 16, 2018. Available at: <https://www.eia.gov/state/analysis.php?sid=CA#40>.

²⁰ CEC. "Total System Electric Generation." Accessed January 16, 2018. Available at: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html

²¹ CEC. *California Energy Demand Updated Forecast, 2017-2027*. Accessed January 16, 2018. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR-05/TN214635_20161205T142341_California_Energy_Demand_Updated_Forecast.pdf.

²² Ibid.

²³ Silicon Valley Power. "Renewable Energy FAQ." Accessed: January 16, 2018. Available at: <http://www.siliconvalleypower.com/solar-and-green-power/renewable-energy-faq>.

²⁴ CEC. Energy Consumption Data Management System. "Electricity Consumption by County". Accessed January 17, 2018. <http://ecdms.energy.ca.gov/elecbycounty.aspx>.

California's natural gas supply came from in-state production, while 97 percent was imported from other western states and Canada.²⁵ California's natural gas is supplied by interstate pipelines, including the Mojave Pipeline, Transwestern Pipeline, Questar Southern Trails Pipeline, Tuscarora Pipeline, and the Baja Norte/North Baja Pipeline.²⁶ As a result of improved access to supply basins, as well as pipeline expansion and new projects, these pipelines currently have excess capacity.

In 2016, approximately 32 percent of the natural gas delivered for consumption in California was for electricity generation, 37 percent for industrial uses, 19 percent for residential uses, 11 percent for commercial uses, and less than one percent for vehicle fuel. As with electricity usage, natural gas usage depends on the type of uses in a building, the type of construction materials used, and the efficiency of gas-consuming devices. In 2016, California consumed approximately 2.03 billion MBtu of natural gas (or 2.03 quadrillion Btu), a decrease from 2015 when 2.12 billion MBtu were consumed.²⁷ In Santa Clara County, a total of 42.1 MBtu of natural gas were consumed in 2016.²⁸

Gasoline for Motor Vehicles

California crude oil production levels have been declining over the last 30 years; however, the state still accounts for six percent of the United States' crude oil production and petroleum refining capacity.²⁹ In 2016, 143.4 billion gallons of gasoline were consumed in the United States (setting an annual gasoline consumption record) of which 15.5 billion gallons were consumed in California.^{30,31} The United States has seen low gasoline prices and high demand in the last few years, though forecast growth in demand is expected to slow as retail prices begin to increase.³²

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 13.1 miles-per-gallon (mpg) in the mid-1970s to 22.0 mpg in 2015.³³ Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 mpg by the year 2020, applies to cars and light trucks of Model Years 2011

²⁵ California Gas and Electric Utilities. "2016 California Gas Report." Accessed: January 16, 2018. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-BSTD-06/TN212364_20160720T111050_2016_California_Gas_Report.pdf.

²⁶ Ibid.

²⁷ EIA. "Natural Gas Delivered to Consumers in California." Accessed: January 16, 2018. Available at: http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm.

²⁸ CEC. "Natural Gas Consumption by County." Santa Clara County 2016 Data. Accessed: January 16, 2018. Available at: <http://ecdms.energy.ca.gov/gasbycounty.aspx>.

²⁹ EIA. "California State Profile and Energy Estimates Profile Analysis." Accessed: January 16, 2018. Available at: <https://www.eia.gov/state/analysis.php?sid=CA#40>.

³⁰ EIA. "Frequently Asked Questions." Accessed: January 16, 2018. Available at: <https://www.eia.gov/tools/faqs/faq.cfm?id=23&t=10>.

³¹ California Department of Tax and Fee Administration. "Taxable Gasoline, Diesel Fuel, Jet Fuel Ten Year Reports." Accessed January 16, 2018. Available at: http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf.

³² EIA. "Short-Term Energy Outlook, U.S. Liquid Fuels." Accessed: January 16, 2018. Available at: http://www.eia.gov/forecasts/steo/report/us_oil.cfm.

³³ EPA. "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Accessed January 16, 2018. Available at: http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_04_2_3.html.

through 2020.^{34,35} In 2012, the federal government raised the fuel economy standard to 54.5 mpg for cars and light-duty trucks by Model Year 2025.³⁶

The Specific Plan area is currently developed with light industrial and commercial uses. These uses consume energy for building heating and cooling, lighting, appliances, and electronics. Existing buildings in the Plan Area are estimated to use 2 billion Btu of natural gas and 6.7 GWh of electricity annually. Energy is also consumed during vehicle trips generated by employees and customers which are estimated to use 270,187 gallons of gasoline per year.

3.5.2 Energy Impacts

3.5.2.1 *Thresholds of Significance*

Based on Appendix F of the CEQA Guidelines, and for the purposes of this EIR, a project will result in a significant energy impact if the project will:

- Result in a wasteful, inefficient, or unnecessary consumption of energy; or
- Result in a substantial increase in demand upon energy resources in relation to projected supplies.

3.5.2.2 *Energy Use and Efficiency*

Energy would be consumed during both the construction and operational phases of development for the proposed Specific Plan. The intent of the Specific Plan is to reduce energy use below Title 24 standards and adhere to the City's Climate Action Plan. The proposed Specific Plan encourages development projects to incorporate various energy efficiency measures as described in Section 2.3.7 of the project description, including the following:

- Energy efficiency – use of Energy Star rated appliances and Dark Sky-compliant lighting, energy efficient building envelopes, smart controls and switches to reduce energy use in unoccupied spaces, maximization of daylighting for interior spaces, use of operable windows for natural ventilation
- Mechanical systems – best technology furnaces, heat pumps, ventilation systems, and water heaters
- Renewable energy – photovoltaics on rooftops and shade structures, at minimum incorporation of solar ready infrastructure (e.g. solar panel standoffs, conduit, and roof water spigots), low-grade heat recovery from sanitary building flows
- Zero Carbon Development – install best technology and non-combustion appliances such as water heaters and furnace systems, purchase of renewable energy credits through Silicon Valley Power or other off-site sources

³⁴ U.S. Department of Energy. “Energy Independence & Security Act of 2007.” Accessed December 7, 2016. Available at: <http://www.afdc.energy.gov/laws/eisa>.

³⁵ Public Law 110–140—December 19, 2007. “Energy Independence & Security Act of 2007.” Page 1449. Accessed: January 16, 2018. Available at: <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf>.

³⁶ National Highway Traffic Safety Administration. *Obama Administration Finalizes Historic 54.5 mpg Fuel Efficiency Standards*. Accessed: January 16, 2018. Available at: <https://www.nhtsa.gov/press-releases/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standards>.

- Transportation – reduced parking ratios offset by TDM measures, provide transit passes to residents, all buildings to have conduit rough-ins for Electric Vehicle (EV) charging points, install EV charging points, provide bike kitchen and storage facilities, participate in bike share programs
- The use of locally sourced and sustainable building materials is encouraged.

The Specific Plan requires that buildings, whenever possible, incorporate visible elements of sustainability – such as green roofs, shading devices, or photovoltaic panels – into the fabric of the building, and especially seen at the ground level so as to make visible the building’s energy saving features.

Construction

Development under the proposed Specific Plan would require energy for the manufacture and transportation of building materials, preparation of the project site (e.g., grading), fuel use for worker travel and construction equipment, and the actual construction of the buildings and infrastructure. Details of construction on each individual development site are not currently known and, therefore, were not quantified. Depending on the size of the proposed development, it is anticipated that each project proposed under the Specific Plan would take one to two years to complete from demolition through construction. Grading and excavation for individual projects could take approximately six months and project construction could take 18 months to complete.

As discussed in *Section 3.3 Air Quality*, development under the proposed Specific Plan would be required to comply with mitigation measures MM AQ-1.1 and -1.2 which would minimize idling times of construction equipment, require properly maintaining construction equipment, and/or mandate use of electrified or alternatively-fueled construction equipment. Prior to any construction within the Plan Area, individual projects would complete a community health risk assessment of construction emissions (MM AQ-1.2). Construction contractors may be required to limit the hours of operation of diesel-powered equipment and use equipment certified to meet U.S. EPA emissions standards which would further reduce the construction period energy use of projects proposed under the Specific Plan. In addition, development under the proposed Specific Plan shall comply with the City’s Construction and Demolition Debris Recycling Program. For these reasons, future construction on individual project sites within the Plan Area would not use fuel or energy in a wasteful manner. **(Less Than Significant Impact)**

Operation

Development under the proposed Specific Plan would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Operational energy would also be consumed during each vehicle trip generated by future residents, employees, and customers. The planned uses would replace existing industrial and commercial office buildings constructed in last four decades. The Specific Plan would allow development of modern buildings subject to current building codes which require greater energy efficiency (Title 24) than when the existing development in the Plan Area was constructed.

It is estimated that the proposed Specific Plan would use approximately 20 GWh of electricity and 40 billion Btu of natural gas per year at full buildout (as early as 2030).³⁷ Given the Specific Plan's estimated vehicle miles traveled (refer to *Section 3.7 Greenhouse Gas Emissions*), it is estimated that the proposed development under the Specific Plan would use approximately 855,312 gallons of gasoline per year (assuming an average fuel economy of 54.5 mpg).³⁸

The proposed Specific Plan is located in an infill area of the City that incorporates and provides connectivity to the Lick Mill Light Rail Transit station. Gasoline use from development proposed under the Specific Plan would be reduced given the project's proximity to existing transit, the proposed mix of uses (residential and commercial), and placing residential development near jobs. The Specific Plan would not use fuel or energy in a wasteful manner, given the project features that reduce energy use, including the following:

- Developing an infill site,
- Proposing a mix of uses,
- Proposing high-density residential uses near existing transit,
- Improving sidewalks to create more walkable neighborhoods and ease non-vehicular traffic
- Providing a network of bicycle-friendly streets
- Promoting a waste reduction program to reduce solid waste disposal,
- Planting trees and natural foliage to reduce the heat island effect,
- Connecting to reclaimed water for landscape irrigation, and
- Providing opportunities for electric vehicle charging points.

(Less Than Significant Impact)

3.5.2.3 *Increase in Energy Demand*

The annual electricity use in California is projected to be 319,256 GWh in 2027 which is the furthest projection currently available from the California Energy Commission. Improvements in efficiency and production capabilities would help meet increased demand in the future, such as improving energy efficiency in California's existing and future buildings, establishing and achieving energy efficiency targets, inclusion of microgrids and zero-net energy buildings in the state, supporting development and implementation of distributed energy resource technologies, and integrating renewable technologies.³⁹ The proposed project would increase annual electricity use at the project site by approximately 13.3 GWh or a net increase of five one thousandths of one percent of existing supply in California. The project, therefore, would not result in a significant increase in demand on electrical energy resources in relation to projected supply.

California uses approximately 2.4 quadrillion Btu of natural gas each year. It is assumed that energy efficiency technology and the RPS targets are likely to reduce demand for natural gas in the state in the future. Additionally, system and drilling efficiencies will continue to enhance production and

³⁷ Illingworth & Rodkin, Inc. *Tasman East Specific Plan and EIR – Air Quality and Greenhouse Gas Assessment*. June 28, 2018. Attachment 1.

³⁸ Based on daily VMT of 127,711 x 365 days = 46,614,515 miles

³⁹ CEC. *2016 Integrated Energy Policy Report*. 2016.

decrease the overall need for natural gas.⁴⁰ Based on the relatively small increase in natural gas demand from the project of 38 billion Btu per year, and compared to the growth trends in natural gas supply and the existing available supply in California, the proposed project would not result in a significant increase in natural gas demand relative to projected supplies.

In addition, the General Plan EIR concluded that the buildout of the General Plan (in conformance with applicable regulations) would not result in a significant energy demand impact. The development proposed on-site would result in a minor increase in energy demand compared to what was assumed for the Plan Area in the existing General Plan and in relation to projected supplies. The Specific Plan, therefore, would not result in a substantial increase in demand relative to available supplies. **(Less Than Significant Impact)**

3.5.2.4 *Consistency with Plans*

The proposed Specific Plan is consistent with applicable General Plan policies to reduce energy consumption by developing a high-density mixed-use project near existing transit, proposing site-specific TDM programs as redevelopment occurs per the City's Climate Action Plan, participating in the City's Construction and Demolition Debris Recycling Program, complying with Title 24, and proposing pedestrian, bicycle, and transit improvements (refer to *Section 2.2 Project Description*).

3.5.2.5 *Cumulative Impacts*

Energy is a cumulative resource. The geographic area for cumulative energy impacts is the State of California. Past, present, and future development projects contribute to the state's energy impacts. The City of Santa Clara has an adopted Climate Action Plan which ensures individual projects incorporate measures to reduce their energy use to less than significant levels. The state appears to have adequate supplies of energy and is implementing state policies intended to reduce energy use and greenhouse gas emissions. Thus, there is no cumulative impact related to wasteful use of energy or adequate supply of energy. Therefore, the project would not contribute towards any significant cumulative energy impact. **(Less Than Significant Cumulative Impact)**

3.5.3 Conclusion

Future construction on individual parcels within the Plan Area would require modeling and mitigation measures to reduce air quality impacts which would ensure construction energy use is not inefficient or wasteful. **(Less Than Significant Impact)**

Development proposed under the Specific Plan would be consistent with the City's Climate Action Plan and implement measures identified in the Specific Plan to reduce energy use. The proposed Specific Plan, therefore, would not use energy in a wasteful manner or exceed projected supplies. **(Less Than Significant Impact)**

Cumulative development proposed in the City of Santa Clara would be undertaken in accordance with the City's Climate Action Plan and would include measures to limit energy use on individual

⁴⁰ CEC. "2013 Natural Gas Issues Trends, and Outlook." Available at: <http://www.energy.ca.gov/2014publications/CEC-200-2014-001/CEC-200-2014-001-SF.pdf>. Accessed: January 17, 2018.

projects such that cumulatively energy use would not be wasteful, inefficient, or exceed projected supplies. **(Less than Significant Cumulative Impact)**

3.6 GEOLOGY AND SOILS

3.6.1 Environmental Setting

3.6.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed into law following the destructive 1971 San Fernando earthquake. 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 to structures from surface faulting or fault creep. Local agencies are responsible for regulating most development projects within designated fault zones. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction.

Seismic Hazards Mapping Act

Following the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act (SHMA) was passed by the California legislature in 1990. The SHMA (Public Resources Code, Chapter 7.8, Section 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. It also requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the identified hazard is present and appropriate mitigation to reduce earthquake-related hazards has been included.

California Building Standards Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) contains the regulations that govern the construction of buildings in California. Through the CBSC, the state provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.

The California Building Code (CBC) refers to Part 2 of the CBSC in Title 24 of the California Code of Regulations. The CBC covers grading and other geotechnical issues, building specifications, and non-building structures. The CBC requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed developments. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that require project mitigation, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is renewed on a triennial basis (every three years).

Local

City of Santa Clara 2010 – 2035 General Plan

General Plan policies applicable to geology and soils include, but are not limited to, the following listed below.

Policies	Description
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.
5.10.5-P6	Require that new development is designed to meet current safety standards and implement appropriate building code to reduce risks associated with geologic conditions.
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.

City Code

Title 15 of the Santa Clara City Code includes the City’s adopted Building and Construction Code. These regulations are based on the CBC and include requirements for building foundations, walls, and seismic resistant design. Requirements for grading and excavation permits and erosion control are included in Chapter 15.15 (Building Code). Requirements for building safety and earthquake reduction hazard are addressed in Chapter 15.55 (Seismic Hazard Identification).

3.6.1.2 Existing Conditions

The City of Santa Clara is located within the Santa Clara Valley, which is 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, including the Monte-Vista-Shannon Fault, exists within the Santa Cruz Mountains and the Hayward and Calaveras Fault systems exist within the Diablo Range.

Seismicity and Seismic Hazards

The Specific Plan area is located within the San Francisco Bay Area, which is one of the most seismically active regions in the United States. Strong ground shaking can, therefore, be expected at the Specific Plan area during moderate to severe earthquakes in the region.

The significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well defined, active fault zones of the San Andreas Fault system, which regionally trends in a northwesterly direction. The nearest major active faults to the Specific Plan area include the southeast extension of the Hayward Fault located approximately six miles east of the Specific Plan area; the main Hayward Fault located approximately nine miles east of the Specific Plan area; and the San Andreas Fault located approximately 14 miles west of the Specific Plan area.

The Specific Plan area is not, however, located within a currently designated Alquist-Priolo Earthquake Fault Zone or Santa Clara County Fault Hazard Zone.⁴¹ Fault rupture through the site, therefore, is not anticipated.

Liquefaction

Liquefaction is the transformation of water saturated soil from a solid to a liquid state during ground shaking. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage. The site is within a State-designated Liquefaction Hazard Zone, as well as a Santa Clara County Liquefaction Hazard Zone.^{42,43}

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water. Typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of an exposed slope. The Eastside Drainage Swale is along the eastern edge of the Specific Plan area and the Guadalupe River is located just beyond the eastern boundary of the Plan Area; therefore, there is a potential for lateral spreading on the eastern portion of the Specific Plan. The Eastside Drainage Swale and Guadalupe River levees have all been engineered and, therefore, are not anticipated to be subject to lateral spreading.

Soils and Groundwater

Soils

In Santa Clara, the soil is comprised of clay soils that contain groundwater at shallow depths (less than 25 feet). Based on the USGS Web Soil Survey, underlying soils of the project site are Urban Land soils, characterized by non-homogenous distribution of soil and fill types. On-site soils have moderate to high expansion potential.

Landslides occur when the stability of a slope changes from a stable to an unstable condition. The stability of a slope is affected by the following primary factors: inclination, material type, moisture content, orientation of layering, and vegetative cover. In general, steeper slopes are less stable than more gently inclined ones. Due to the generally flat topography of the Plan Area, the potential for landslides onsite is low. In addition, the site is not located in a County-designated landslide hazard zone.⁴⁴ The Santa Clara Golf & Tennis Club to the north (future City Place), the Eastside Drainage Swale and the levees along the Guadalupe River to the east, and roadway embankments to the south have all been engineered and, therefore, are not anticipated to result in landslides in the area.

⁴¹ Association of Bay Area Governments, Resilience Program. *Bay Area Hazards Map*. 2015. Available at: <http://gis.abag.ca.gov/website/Hazards/?hlyr=apZones#nogo2>

⁴² Ibid.

⁴³ Santa Clara County. *Santa Clara County Geologic Hazard Zones, Map Sheet 11*. Map. October 26, 2012.

⁴⁴ Ibid.

Groundwater

Groundwater in the Specific Plan area has been recorded at a depth of approximately five to seven feet below the ground surface (bgs). Fluctuations in the level of subsurface water can occur due to variations in rainfall, temperature, and other factors.

3.6.2 Geology and Soils Impacts

3.6.2.1 *Thresholds of Significance*

For the purposes of this EIR, a geology and soils impact is considered significant if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42);
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction;
 - Landslides;
- Result in substantial soil erosion or the loss of topsoil; or
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2016), creating substantial risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Future development under the proposed Specific Plan would connect to the existing sanitary sewer system. No septic tanks or alternative waste water disposal systems are required for buildout of the Specific Plan. For these reasons, the last threshold listed above is not discussed further.

As previously discussed in *Section 3.0*, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents unless the project risks exacerbate those environmental hazards or risks already exist. Nevertheless, the City has policies and regulations (including those identified in *Section 3.6.1.1*) that address existing conditions affecting a proposed project.

3.6.2.2 *Seismicity and Seismic Hazards*

As discussed in *Section 3.6.1.2*, the Specific Plan area is not located within a State-designated Alquist-Priolo Earthquake Fault Zone or a Santa Clara County Fault Hazard Zone. The Specific Plan area is not subject to fault rupture. The site located in a seismically active region and, therefore, strong ground shaking would be expected during the lifetime of the Specific Plan development.

Ground shaking could damage future residences and commercial/school structures on-site and threaten the welfare of the occupants within the Specific Plan developments. Other planned improvements including park facilities and connections to adjacent development to the north and trails along the Guadalupe River levee to the east would also be subject to seismic activity.

The Specific Plan area is located within a State- and County-designated Liquefaction Hazard Zone and there is a potential for lateral spreading onsite.

Consistent with the requirements of the City of Santa Clara and existing regulations, future development and improvements, under the proposed Specific Plan shall be required to submit a design-level geotechnical engineering study to the City for review and approval prior to the issuance of building and grading permits. The applicants for specific development projects shall comply with the specific design measures (including measures to address seismicity and seismic hazards, liquefaction, and lateral spreading) of the geotechnical report to ensure building integrity.

Future development, in compliance with existing regulations, would not exacerbate seismicity and seismic hazard conditions such that it would impact (or worsen) off-site conditions. **(Less Than Significant Impact)**

3.6.2.3 *Soil and Groundwater Hazards*

Soil Hazards

The Specific Plan area is relatively flat and would not be exposed to landslides hazards. Although the Specific Plan area is relatively flat, construction activities for buildings and public improvements could result in soil erosion or loss of topsoil. As discussed in more detail in *Section 3.9 Hydrology and Water Quality*, future development under the Specific Plan would be required to implement a Storm Water Pollution Prevention Plan (SWPPP) under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and conform with grading and excavation requirements in the City Code to control erosion and sedimentation. With implementation of these measures, future development under the Specific Plan would not result in significant soil erosion or loss of topsoil nor would future development and improvements exacerbate soil erosion or loss of topsoil such that it would impact (or worsen) off-site conditions. **(Less Than Significant Impact)**

The Specific Plan area includes moderate to highly expansive soils. Expansive soil conditions could potentially damage the future buildings and improvements onsite without the incorporation of appropriate engineering into the grading and foundation design. Consistent with the requirements of the City of Santa Clara and existing regulations, future developments and improvements under the proposed Specific Plan shall be required to submit a design-level geotechnical engineering study to the City for review and approval prior to the issuance of building and grading permits. The applicants for specific development projects shall comply with the specific design measures (including measures to address expansive soils) of the geotechnical report to ensure building integrity. Future development, in compliance with existing regulations, would not exacerbate expansive soil conditions such that it would impact (or worsen) off-site conditions. **(Less Than Significant Impact)**

Groundwater Hazards

Groundwater in the Specific Plan area has been recorded at a depth of approximately five to seven feet bgs. Future development under the Specific Plan could include excavation or structures (e.g., parking garages or basement levels) that would be below existing groundwater levels. Groundwater, therefore, could be encountered during construction. Challenges associated with high groundwater typically consists of potentially wet and unstable subgrade, difficulty achieving compaction, and difficulty with underground utility installation.

Consistent with the requirements of the City of Santa Clara and existing regulations, future developments and improvements under the proposed Specific Plan shall be required to submit a design-level geotechnical engineering study to the City for review and approval prior to the issuance of building and grading permits. The applicants for specific development projects shall comply with the specific design measures (including measures to address dewatering) of the geotechnical report to ensure building integrity. Future development, in compliance with existing regulations, would not exacerbate groundwater conditions such that it would impact (or worsen) off-site conditions. **(Less Than Significant Impact)**

3.6.2.4 *Consistency with Plans*

Future development under the proposed Specific Plan would be consistent with applicable General Plan policies by preparing a design-level geotechnical investigation and being constructed to implement the identified recommendations and applicable codes (e.g., CBC and City Code) to reduce or avoid geology and soil hazards.

3.6.2.5 *Cumulative Impacts*

The geographic area of the Specific Plan's cumulative geology and soils impacts is the area surrounding the Plan Area. As discussed above, the existing geology and soil conditions would not be exacerbated from the implementation of the Specific Plan such that it would impact (or worsen) off-site geology and soil conditions. For this reason, the implementation of the Specific Plan would not have a considerable contribution to a significant cumulative geology and soils impact. **(Less Than Significant Cumulative Impact)**

3.6.3 Conclusion

Implementation of the proposed Specific Plan, in conformance with existing regulations, would not result in significant geologic and soils impacts. **(Less Than Significant Impact)**

Implementation of the proposed Specific Plan, in conformance with existing regulations, would not result in a considerable contribution to a significant cumulative geologic and soils impact. **(Less Than Significant Cumulative Impact)**

3.7 GREENHOUSE GAS EMISSIONS

In accordance with CEQA (Public Resources Code Section 21093) and CEQA Guidelines Section 15152, the following discussion is based in part on the GHG emissions assessment completed for the project by Illingworth & Rodkin, Inc. in June 2018. A copy of this report is included in Appendix B.

3.7.1 Environmental Setting

3.7.1.1 *Background Information*

GHG emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG gas emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Santa Clara, the entire State of California, and across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

The carbon intensity, or the emission rate of a given pollutant relative to the intensity of a specific activity, used for this analysis is the City's 2020 goal of 380 pounds per megawatt hour (lbs/MWhr), given that the Specific Plan would be mostly constructed after 2020. The current carbon intensity for 2017 is 423.29 lbs./MWhr.

3.7.1.2 *Regulatory Framework*

Federal

Clean Air Act

The EPA is the federal agency responsible for implementing the Clean Air Act. The U.S. Supreme Court in its 2007 decision in *Massachusetts et al. v. Environmental Protection Agency et al.*, ruled that CO₂ is an air pollutant as defined under the Clean Air Act, and that EPA has the authority to regulate emissions of GHGs. Following the court decision, EPA has taken actions to regulate, monitor, and potentially reduce GHG emissions (primarily mobile emissions).

State

California Global Warming Solutions Act

Under the California Global Warming Solutions Act, also known as AB 32, CARB has established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHG, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, that identifies how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

On September 8, 2016, Governor Brown signed SB 32 into law, amending the California Global Warming Solutions Act. SB 32 requires CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. As a part of this effort, CARB is required to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons (MT) of

carbon dioxide equivalent (CO₂e). CARB adopted the state's updated *Climate Change Scoping Plan* in December 2017. The updated plan provides a framework for achieving the 2030 target.

California's Climate Change Scoping Plan is developed by CARB in coordination with State agencies to address the requirements of AB 32, SB 32, and AB 197, and tracks the state's progress toward California's long-term climate goals.

The First Update to the Scoping Plan, approved in 2014 (the 2014 Update) found that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions required beyond 2020 as required by AB 32,"⁴⁵ and further that "if California realizes the expected benefits of existing policy goals... it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050."⁴⁶

As part of the 2014 Update, the emissions reductions required to meet the 2020 statewide GHG emissions limit were adjusted. The primary reason for adjusting the 2020 statewide emissions limit was based on the fact that the original Scoping Plan relied on the IPCC's 1996 Second Assessment Report (SAR) to assign the GWPs of greenhouse gases. In accordance with the United Nations Framework Convention on Climate Change (UNFCCC), international climate agencies have agreed to begin using the scientifically updated GWP values in the IPCC's Fourth Assessment Report (AR4) that was released in 2007. Because CARB has begun to transition to the use of the AR4 100-year GWPs in its climate change programs, CARB recalculated the Scoping Plan's 1990 GHG emissions level with the AR4 GWPs (CARB, 2016).

The 2030 Scoping Plan for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan)⁴⁷ reflects the 2030 targets that were not included in the 2014 Update, such as Senate Bill 32. The 2017 Scoping Plan "identifies how the State can reach our 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels."⁴⁸ Policies in the 2017 Scoping Plan prioritize GHG reductions at large stationary sources and mobile sources, and expands the state's Cap-and-Trade Program. The 2017 Scoping Plan found that, "California is on track to exceed its 2020 climate target, while the economy continues to grow" and that enhancing and implementing ongoing efforts to reduce GHG emissions "puts California on the path to achieving the 2030 target."⁴⁹

⁴⁵ California Air Resources Board. *First Update to the Climate Change Scoping Plan Building on the Framework*. May 22, 2014. Page ES2. Accessed: July 10, 2018. Available at: <https://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>.

⁴⁶ *Ibid.*, page 34.

⁴⁷ California Air Resources Board. *California's 2017 Climate Change Scoping Plan*. November 2017. Accessed: July 10, 2018. Available at: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.

⁴⁸ *Ibid.*, page 1.

⁴⁹ *Ibid.*, pages ES3 and 1.

Senate Bill 375 – Redesigning Communities to Reduce GHGs

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035, as compared to 2005 emissions levels. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and Bay Conservation and Development Commission (BCDC) to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) process. The SCS is referred to as Plan Bay Area.

Originally adopted in 2013, Plan Bay Area established a course for reducing per-capita GHG emissions through the promotion of compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs). Building upon the development strategies outlined in the original plan, Plan Bay Area 2040 was adopted in July 2017 as a focused update with revised planning assumptions based upon current demographic trends. In addition to PDAs the Plan Bay Area also identifies Transit Priority Areas (TPAs). Target areas in the Plan Bay Area 2040 Action Plan area related to reducing GHG emissions, improving transportation access, maintaining the region's infrastructure, and enhancing resilience to climate change (including fostering open space as a means to reduce flood risk and enhance air quality). The project site is not located within a PDA; however, it is located within a TPA.

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.

Regional

Bay Area Air Quality Management District

BAAQMD is the regional government agency that regulates sources of air pollution within the nine San Francisco Bay Area counties. Several key activities of BAAQMD related to GHG emissions are described below.

- **Regional Clean Air Plans:** BAAQMD and other agencies prepare clean air plans as required under the state and federal Clean Air Acts. The 2017 CAP focuses on two closely-related BAAQMD goals: protecting public health and protecting the climate. Consistent with the GHG reduction targets adopted by the State of California, the 2017 CAP lays the groundwork for BAAQMD's long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The 2017 CAP includes a wide

range of control measures designed to decrease emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term, and to decrease emissions of CO₂ by reducing fossil fuel combustion. The 2017 CAP is described in more detail in *Section 3.2.1.2*.

- **BAAQMD CEQA Air Quality Guidelines:** The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. As discussed in the CEQA Guidelines, the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Santa Clara and other jurisdictions in the San Francisco Bay Area Air Basin often utilize the thresholds and methodology for GHG emissions developed by BAAQMD, the expert regional agency in the GHG area. The Guidelines include information on legal requirements, BAAQMD rules, plans and procedures, methods and thresholds for analyzing GHG emissions, mitigation measures, and background information.

Local

City of Santa Clara 2010 – 2035 General Plan

General Plan policies applicable to GHGs include, but are not limited to, the following listed below.

Policies	Description
Tasman East Focus Area Sustainability Policies	
5.4.6-P2	Provide direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.
5.4.6-P3	Work with appropriate transportation agencies, businesses, and surrounding cities to maximize rail and bus transit to and from the stations.
5.4.6-P4	Promote pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings.
5.4.6-P7	Provide for future connections, which encourage walking and bicycling, to the new development in the north when it is redeveloped to promote accessibility between the two areas.
5.4.6-P15	Encourage parking to be located in structures to minimize their visibility from streets and public spaces.
5.4.6-P17	Encourage new development to build to a green neighborhood rating standard.
General Mobility and Transportation	
5.8.1-P4	Expand transportation options and improve alternate modes that reduce GHG emissions.

Climate Action Plan

In December 2013, the City adopted a comprehensive GHG emissions reduction strategy (Climate Action Plan) to achieve its fair share of statewide emissions reductions for the 2020 timeframe consistent with AB 32. The City’s Climate Action Plan defines the City’s path toward creating a

more sustainable, healthy, and livable community. The strategies outlined in the Plan will reduce GHG emissions and provide energy, fuel, and monetary savings while improving quality of life for the Santa Clara community. The reduction measures are focused in the following areas: coal-free and large renewables, energy efficiency, water conservation, waste reduction, off-road equipment, transportation and land use, and urban heat island effect. The Climate Action Plan and accompanying environmental documentation are consistent with BAAQMD requirements for a Qualified GHG Reduction Strategy and CEQA Guidelines Section 15183.5.

The City’s current Climate Action Plan does not address meeting the requirements of SB 32 (2030 emissions target).

3.7.1.3 Existing Conditions

The Plan Area is currently developed with light industrial and commercial uses. Existing development in the Plan Area is estimated to generate approximately 6,028 MT of CO₂e per year. Existing uses in 2030 are estimated to generate approximately 4,754 MT of CO₂e in the year 2030. Existing GHG emissions from the Plan Area are quantified in Table 3.7-1.

Table 3.7-1: Existing GHG Emissions Estimates		
Source	Existing CO₂e (metric tons/year)	Existing CO₂e in 2030 (metric tons/year)
Area	<1	<1
Energy Consumption	2,776	2,270
Mobile	2,490 ¹	1,788 ¹
Solid Waste Generation	442	442
Water Usage	321	254
Total	6,028	4,754
Notes: ¹ Includes Plan Area specific VMT.		

3.7.2 Greenhouse Gas Emissions Impacts

3.7.2.1 Thresholds of Significance

For the purposes of this EIR, a greenhouse gas emissions impact is considered significant if the project would:

- Generate a greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

BAAQMD adopted thresholds of significance to assist the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD reports GHG emissions would cause significant environmental impacts. The significance thresholds identified by BAAQMD are 1,100 MT of CO₂e per year OR 4.6 MT CO₂e per service population per year. In addition, a project that is in compliance with the City’s Climate Action Plan (a qualified GHG Reduction Strategy) is considered to have a less than significant GHG impact. The numeric thresholds, however, were to achieve the state’s 2020 target of 1990 GHG levels. The Specific Plan land uses are anticipated to

take approximately 20 years to construct and, therefore, would be built-out post 2020. SB 32 requires CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. Although BAAQMD has yet to publish a threshold for 2030, for the purposes of this EIR, the efficiency metric of 2.6 MT CO₂e per service population per year is utilized. The efficiency threshold of 2.6 MT CO₂e per service population per year needed to meet the 2030 target is based on the GHG reduction goals of SB32/EO B-30-15, and the projected 2030 statewide population and employment levels.⁵⁰ An efficiency metric of 1.7 MT CO₂e per service population per year for 2040 was also calculated using the same method.

3.7.2.2 Greenhouse Gas Emissions

The CalEEMod model that was used to predict air pollutant emissions was used to compute annual GHG emissions in 2030.⁵¹ The annual GHG emissions for 2030 from build-out of the TESP were divided by the service population of 12,600 new residents and workers to compute per service population emissions. The CalEEMod modeling accounted for aspects of the TESP that would reduce traffic trip rates and travel lengths, including proximity to transit and employment centers.

As shown in Table 3.7-2, assuming full build-out implementation of the proposed Specific Plan would result annual service population emissions of 1.68 MT of CO₂e per service population in 2030, which would not exceed the 2030 substantial progress threshold of 2.6 MT of CO₂e per service population annually. Emissions are anticipated to be less in 2040 as motor vehicle emissions decrease and emissions from energy uses are anticipated to decrease also.

Source	Gross TESP CO₂e (metric tons/year)			
Area	237			
Energy Consumption	5,617			
Mobile	13,544 ¹			
Solid Waste Generation	1,152			
Water Usage	587			
Total	21,137²			
<i>Significance Thresholds</i>	<i>2030</i>	<i>2.6</i>	<i>2040</i>	<i>1.7</i>
Efficiency Metric	1.68 ³			
Notes: ¹ Includes Plan Area specific VMT.				
² Gross GHG emissions from full buildout by 2030.				
³ Based on service population of 12,600.				

Full build-out conditions in 2030 indicate that GHG emissions would be below the 2040 threshold, so it is anticipated that project would also meet 2040 emissions limit reflecting substantial progress toward the 2050 GHG reduction goal. The emissions of GHG associated with the TESP, therefore, would be less than significant. **(Less Than Significant Impact)**

⁵⁰ Sources: 1) Association of Environmental Professionals. “Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California.” October 18, 2016. Available at: https://www.califaep.org/images/climate-change/AEP-2016_Final_White_Paper.pdf. 2) California Department of Finance, Demographic Research Unit. “Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 5-year Increments.” February 2017. Available at: <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>. 3) Caltrans. “California County-Level Economic Forecast 2017-2050.” September 2017. Available at: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/FullReport2017.pdf.

⁵¹ The GHG modeling report conservatively assumed a 2030 full buildout of the Specific Plan. Emissions are well below both the 2030 and 2040 thresholds, therefore, the results would not change if emissions were based upon a 2040 buildout of the Specific Plan.

Site-specific construction schedules and equipment are not known at this time for the future development of the Specific Plan and, therefore, GHG emissions have not been quantified at the project-level. Implementation of Mitigation Measure AQ-1.1 would ensure that all construction projects employ the proper BAAQMD-Recommended Measures to reduce emissions and Mitigation Measure AQ-1.2 would ensure that construction of future development areas under the TESP would be analyzed through project-level review to quantify construction GHG emissions. Therefore, with implementation of Mitigation Measure AQ-1.1 and AQ-1.2, the construction emissions from individual development projects under the Tasman East Specific Plan would be minimized to the extent feasible. BAAQMD does not currently have a construction-related GHG emissions threshold.

3.7.2.3 Consistency with Plans

2017 Clean Air Plan

The proposed Specific Plan will support the goals of the 2017 Clean Air Plan through incorporation of the following:

- Reducing motor vehicle miles traveled by developing a mixed-use project in proximity to existing/proposed/planned pedestrian, bicycle, and transit facilities;
- Including a TDM program that encourages automobile-alternative transportation;
- Tree planting programs to reduce the urban heat island effect;
- Encouraging on-site electricity generation and requiring incorporation of solar-ready infrastructure in buildings;
- Extensive use of recycled water for onsite irrigation and use of dual plumbing within each building; and
- Complying with applicable regulations that would result in energy and water efficiency including Title 24 and California Green Building Standards Code.

The proposed Specific Plan, therefore, would not disrupt or hinder the implementation of applicable control measures (refer to *Section 3.2.1.2*) in the 2017 CAP. **(Less Than Significant Impact)**

Plan Bay Area 2040

The Plan Area is identified as a Transit Priority Area (TPA) in Plan Bay Area 2040. The proposed Specific Plan is consistent with Plan Bay Area 2040 because it allows development of a compact, mixed-use neighborhood near transit, to promote alternative modes of transportation, and requires future development to prepare TDM programs, consistent with the City's Climate Action Plan. **(Less Than Significant Impact)**

Santa Clara General Plan

The proposed Specific Plan is consistent with General Plan policies to reduce GHG emissions by developing high-density residential development near existing transit and bike facilities, requiring a TDM program, and incorporating green building measures (refer to *Section 2.2*). **(Less Than Significant Impact)**

Climate Action Plan

The proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB’s Scoping Plan. The project would comply with requirements of the Green Building Code. For example, proposed buildings would be constructed with high-efficiency water fixtures and water-efficient irrigation systems.

According to the City’s Climate Action Plan, the Santa Clara community emitted approximately 2,037,800 metric tons of carbon dioxide equivalent (MT CO₂e) in the year 2008. One purpose of the qualified Greenhouse Gas Reduction Strategy is to streamline the decision-making process regarding a proposed project’s impact on GHG emissions within the City. Thus, the project’s consistency with relevant Climate Action Plan measures and actions has been used to evaluate the significance of this impact. The emissions reduction measures and actions shown in Table 3.7-3 are relevant to the proposed Specific Plan and its consistency with these measures is identified in the table below.

Table 3.7-3: Summary of Applicable Climate Action Plan Measures and Project Consistency		
Applicable Climate Action Plan Measures		Notes/Comments
Energy Efficiency		
2.4	Customer Installed Solar Photovoltaic Systems on Customer-Owned Residential and Nonresidential Projects	While this measure is implemented by the City, developers are encouraged to incorporate solar power, to the degree feasible, and at minimum provide solar ready infrastructure.
Water Conservation		
3.1	Water Conservation: Reduce GHG-Intensive Water Use Practices	The TESP includes measures to choose hardscape materials that would reduce storm water runoff volume, rate, and pollutants, and direct all storm water runoff from hardscapes towards landscaped areas. TESP development would install recycled water irrigation, water saving technology, and drip irrigation. The TESP also includes measures to introduce natural, drought tolerant landscape systems that minimize water inputs by selecting plants suited to the site’s soil and climate conditions to minimize water use.
Waste Reduction		
4.2	Increase Waste Diversion: Recycle, Food Waste Pickup, Construction, and Demolition Waste Programs to Increase Solid Waste Diversion to 80 percent	The TESP includes measures to employ best practices in resource efficiency and conservation by using durable, sustainably harvested, re-use, and/or recycled materials. Development under the TESP would participate in the City’s Construction and Demolition Debris Recycling Program, which requires the recycling or diversion of at least 50

Table 3.7-3: Summary of Applicable Climate Action Plan Measures and Project Consistency		
Applicable Climate Action Plan Measures		Notes/Comments
		percent of construction debris generated by the project.
Off-Road Equipment		
5.1	Provide for Use of Lawn and Garden Equipment Powered by Electricity (Lawn Mowers and Leaf Blowers; Outdoor Outlets)	The TESP requires that buildings be equipped with the outdoor electrical outlets necessary to accommodate electric outdoor lawn and garden equipment. Future development in the Plan Area would cooperate with the City and BAAQMD's efforts to encourage the use of electric outdoor equipment.
5.2	Use Cleaner Alternative Technologies for Construction Vehicles and Equipment (BAAQMD BMPs)	The TESP complies with BAAQMD's best management practices to control on-site construction exhaust and fugitive dust, as part of Mitigation Measures AQ-1, and AQ-2.
Transportation and Land Use		
6.1	Transportation Demand Management Programs for Residential Projects More Than 25 Units and Nonresidential Projects More Than 10,000 SF in Transportation Districts	The TESP would include measures to reinforce the mixed-use, transit-oriented concept that is fundamental to the land use plan, and encourage walking, biking, and transit usage while reducing the need to drive for daily needs. The TESP proposes TDM programs to reduce VMT consistent with the City's Climate Action Plan.
6.3	Electric Vehicle Parking and Charging Station(s) for Multi-Family Residential or Nonresidential Projects	The TESP includes measures to provide, at minimum, conduits for EV charging stations in parking areas.
Urban Heat Island Effect		
7.1	Shade Trees Near South-Facing Windows	The TESP includes measures to introduce and provide ample native landscaping, trees, and shrubs to the community along streets, sidewalks, communal areas, trails, and parks, and regularly maintain trees.
7.2	Light-Colored and/or Permeable Pavements in Uncovered Parking Spaces on Nonresidential Projects	The TESP includes measures to orient buildings to align with the sun to minimize the effects of the hot summer sun. The use of light and/or permeable pavements and designing the landscape with the most effective, broad branching trees and shrubs would provide shade and comfort to communal areas, sidewalks, and trails.

As described in Table 3.7-3, the Specific Plan includes implementing policies and measures that are generally consistent with the City's Climate Action Plan. **(Less Than Significant Impact)**

3.7.2.4 *Cumulative Impacts*

Past, present, and future development projects worldwide contribute to global climate change. No single project is sufficient in size to, by itself, change the global average temperature. Therefore, due to the nature of GHG impacts, a significant project impact is a significant cumulative impact. As discussed in Section 3.7.2.2, development under the Specific Plan would not generate significant levels of GHG emissions. **(Less Than Significant Impact)**

3.7.3 Conclusion

The proposed Specific Plan includes measures consistent with the City's Climate Action Plan and would not result in GHG emissions exceeding efficiency metrics required to reach state mandated emissions reductions in 2030. **(Less Than Significant Impact)**

3.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Screening Level Phase I Environmental Site Assessment prepared by *Cornerstone Earth Group, Inc.* in January 2017. A copy of this report is attached as Appendix D of this EIR.

3.8.1 Environmental Setting

3.8.1.1 *Regulatory Framework*

Hazardous Materials Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Key federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, and the Resource Conservation and Recovery Act (RCRA). In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies including the Santa Clara County Department of Environmental Health (SCCDEH) have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Other regional agencies are responsible for programs regulating emissions to the air, surface water, and groundwater include the Bay Area Air Quality Management District (BAAQMD), which has oversight over air emissions, and the Regional Water Quality Control Board (RWQCB) which regulates discharges and releases to surface waters and groundwater.

Oversight over investigation and remediation of sites impacted by hazardous materials releases can be completed by state agencies, such as the Department of Toxic Substances Control [(DTSC) a division of CalEPA)], regional agencies, such as the RWQCB, or local agencies, such as SCCDEH. The SCCDEH oversees investigation and remediation Leaking Underground Storage Tank (LUST) sites in Santa Clara. Other agencies that regulate hazardous materials include the California Department of Transportation and California Highway Patrol (transportation safety), and California Occupational Safety and Health Administration (Cal/OSHA).

Cortese List (Government Code Section 65962.5)

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the State, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by DTSC, State Water Resources Control Board (SWRCB), and the Department of Resources Recycling and Recovery (CalRecycle).

Federal Aviation Administration Regulations

Federal Aviation Regulations, Title 14 of the Code of Federal Aviation Regulations, “Objects Affecting Navigable Airspace” (referred to as FAR Part 77), requires that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an

extended zone defined by an imaginary slope radiating outward for several miles from an airport’s runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any structure exceeding approximately 175 feet in height above ground would require submittal to the FAA for airspace safety review. As the proposed project would have a maximum height of 220 feet, notification to the FAA is required. FAA issuance of a “Determination of No Hazard:” would ensure that the project would not be a potential aviation hazard. Without issuance of a No Hazard Determination, buildings would not be constructed over 175 feet.

California Accidental Release Prevention Program (CalARP)

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of property. Facilities that are required to participate in the CalARP program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The County of Santa Clara Department of Environmental Health reviews CalARP risk management plans as the Certified Unified Program Agency (CUPA).

City of Santa Clara 2010-2035 General Plan

General Plan policies applicable to hazards and hazardous materials include, but are not limited to, the those listed below.

Policies	Description
5.10.5-P23	Require appropriate clean-up and remediation of contaminated sites.
5.10.5-P29	Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.
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.
5.10.5-P32	Encourage all new projects within the Airport Influence Area to dedicate an aviation easement.
5.10.5-P33	Limit the height of structures in accordance with the Federal Aviation Administration Federal Aviation Regulations, FAR Part 77 criteria.

3.8.1.2 Existing Conditions

Historic Uses

Based on the Screening Level Phase I Environmental Site Assessment prepared by *Cornerstone Earth Group, Inc.*, the project site historically consisted mainly of agricultural land including row crops and orchards. Three residences with associated outbuildings and 11 apparent farm laborer dwellings were previously located on the western portion of the site. By 1974, the former residential structures had been removed and the existing on-site roadways had been constructed. The project site generally was developed with the existing on-site structures between the late 1970’s and 1990’s.

Based on a review of historical resources, the Plan Area was utilized for agricultural production from as early as the 1930s to the 1960s and 1970s. As a result, local soils may have been impacted by

agricultural contaminants, such as lead and pesticides, used within the project site. In addition, pesticides that have partially broken down over time may have released heavy metals into the soil.

Soil and Groundwater Contamination

The 46-acre project site is developed with industrial uses. The site is bounded by Tasman Drive to the south, the Guadalupe River to the east, the Santa Clara Golf & Tennis Club (formerly a portion of the City's All Purpose Landfill) to the north, and Lafayette Street to the west. Land uses in the vicinity of the project area include commercial, institutional, recreational, and residential uses.

Hazardous materials are commonly used by large institutions, industrial, commercial, and agricultural businesses. Hazardous materials include a broad range of common substances such as motor oil and fuel, pesticides, detergents, paint, and solvents. A substance may be considered hazardous if, due to its chemical and/or physical properties, it poses a substantial hazard to the environment when it is improperly treated, stored, transported, disposed, or released in to the atmosphere in the event of an accident. Many of the existing on-site businesses are likely to use and store hazardous materials, including several machine shops, metal finishing and plating businesses, and electronics manufacturers, along with a data center and glass blowing facility.

Leaking Underground Storage Tank (LUST) Cases

Known sources of hazardous material contamination within or near the project area in the past, as in most cities in the Bay Area, are the result of LUSTs. There is one known LUST case located at 2200 Calle De Luna (Bill Doran Company) which was closed by the Santa Clara Valley Water District in 1995 (refer to Figure 3.8-1). A 2,000-gallon gasoline underground storage tank (UST) was removed from the site in 1988. The most recent sampling event reported residual total petroleum hydrocarbons (TPH) as gasoline (TPHg) and benzene concentrations still present at the property.

Spills, Leaks, Investigations, and Cleanup (SLIC) Sites

Four on-site properties were identified on the Regional Water Quality Control Board's (RWQCB) SLIC database. Out of the four on-site SLIC, three are currently identified as open cases.

The SLIC case at 2339 Calle Del Mundo was closed by the RWQCB in 1997; however, residual concentrations of volatile organic compounds (VOCs) remained in soil and groundwater that pose a potential vapor intrusion concern. The VOC impacted groundwater appears to have migrated below the northerly adjacent landfill property (current golf course).

VOCs also were identified in groundwater at 2301 Calle De Luna and have migrated below the easterly adjacent on-site parcel at 2281 Calle De Luna. This open SLIC case is currently being overseen by the RWQCB.

The two remaining on-site SLIC cases at 2278 Calle De Luna (Coatek, Inc.) and 2220 & 2222 Calle De Luna (Air Flight Service) are being overseen by the Santa Clara County Department of Environmental Health (DEH). The Air Flight Service property was found to have elevated levels of TPH as diesel (TPHd) that are unrelated to the prior film processing done on the property. The Coatek property was found to have elevated nickel and copper concentrations related to the industrial land use activities on the site. Oil, grease, trichloroethene (TCE), TPH as motor oil (TPHmo),

hexavalent chromium, and benzene concentrations were also found to be elevated above residential screening levels. As described above, both facilities have entered into Voluntary Cleanup Agreements with DEH.

All Purpose Landfill

The former Santa Clara All Purpose Landfill (landfill) is a closed municipal landfill with a footprint of approximately 136 acres located adjacent to the project site. Portions of the landfill have been converted into a public golf course, and the remainder is open space. The landfill consists of four parcels: 1, 2, 3/6, and 4. Parcel 2 is located adjacent to the north of the Plan Area and Parcel 4 is across Lafayette Street to the west. Parcels 1 and 3/6 are located further to the north and northwest. Parcels 2 and 4 were both constructed without clay liners. All parcels include a landfill gas collection system consisting of 75 active vertical extraction wells connected by horizontal laterals to a landfill gas-to-energy flare system.

Groundwater beneath the landfill, primarily on parcel 4, is impacted with VOCs. The primary VOCs detected in groundwater samples collected during the first quarter of 2016 were 1,1 dichloroethene, *cis*-1,2-dichloroethene, *trans*-1,2-dichloroethene, TCE, and vinyl chloride. The area of VOC impacted on parcel 4 is located cross-gradient from the site with respect to groundwater flow direction (northeast) and did not migrate below the site.

Two groundwater monitoring wells are located on the southern border of the landfill (Parcel 2) and immediately north of the Plan Area. Low concentrations of VOCs have been detected in groundwater from both monitoring wells, one of which is located down-gradient of 2339 Calle Del Mundo, an identified SLIC site discussed above.

Landfill gas investigations were conducted at the landfill and identified several VOCs in landfill gas. Benzene, ethylbenzene, and vinyl chloride were reported in landfill gas at concentrations exceeding residential and commercial Environmental Screening Levels (ESLs).

Hazardous Materials Use, Storage, and Disposal

Several regulatory agency databases provide information on hazardous material use, storage, and disposal within Santa Clara. Most of the light industrial and commercial uses within the project area were listed on regulatory databases as using, storing, or disposing of hazardous materials on-site. Six sites were listed on the Envirostor database which indicates that these facilities were subject to the Department of Toxic Substances Control's (DTSC) tiered permit program for hazardous waste treatment or storage. The "facility status" for one of the sites, Paragon Electronics, is listed as "No Action Needed." For each of the five remaining facilities, the status is listed as "inactive-needs evaluation." These listings are an indication that hazardous wastes were generated and treated at these facilities; however, these listings are not necessarily an indication that releases have occurred.

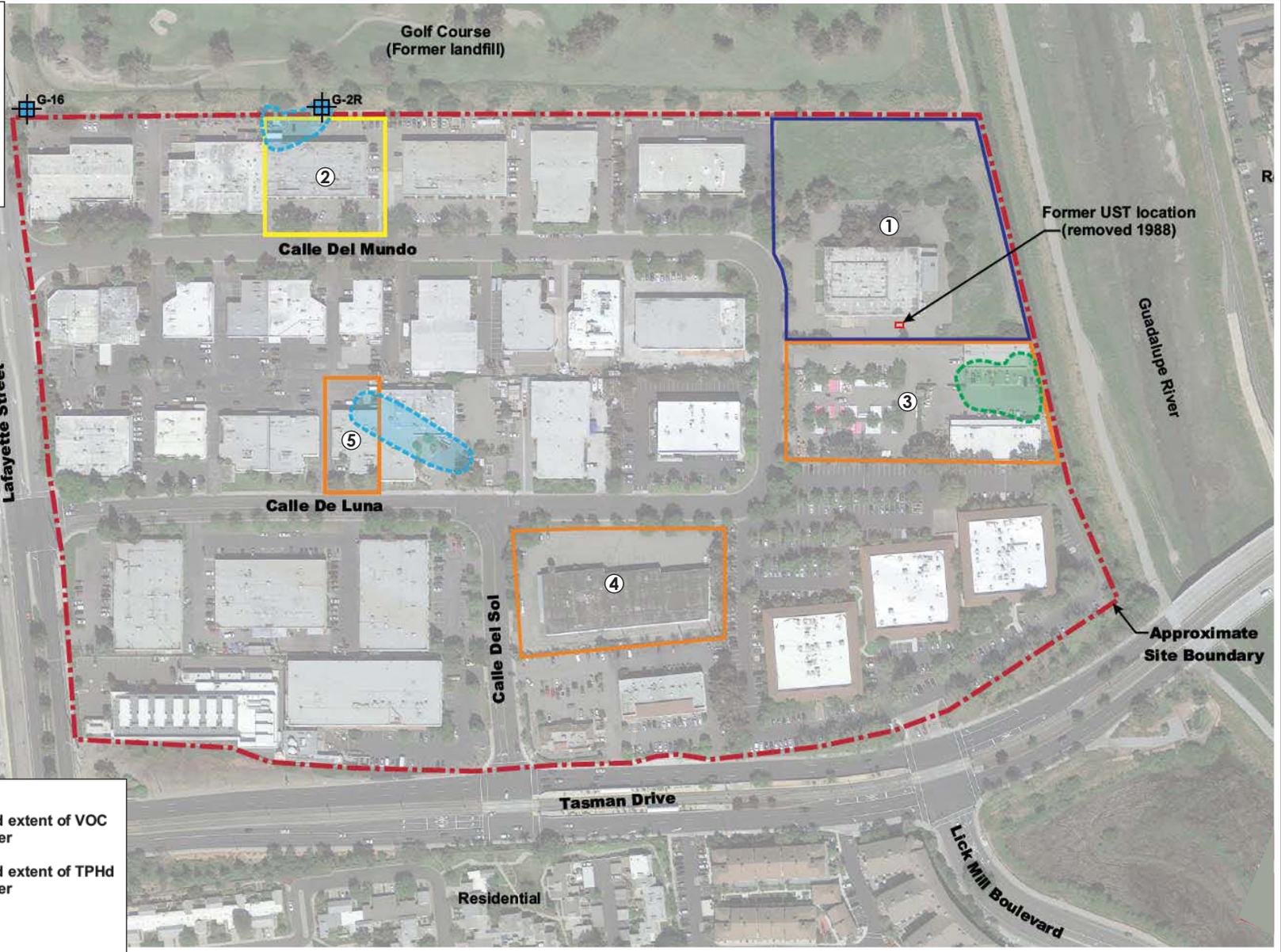
The storage, use, or disposal of hazardous materials at a site can result in contamination of soil and/or groundwater; a thorough site reconnaissance, a more detailed review of site history, and/or soil and groundwater sampling would be necessary to determine if use, storage, or disposal of hazardous materials have affected subsurface conditions at a particular site.

- ① Bill Doran Company
2200 Calle De Luna
- ② Watts Machining
2339 Calle De Mundo
- ③ Tasman East Parcel 57
2220 and 2222 Calle De Luna
- ④ 2278 Calle De Luna
2258 through 2278 Calle De Luna
- ⑤ D&H Manufacturing
2301 Calle De Luna

Legend

-  Approximate reported extent of VOC impacted ground water
-  Approximate reported extent of TPHd impacted ground water
-  Open SLIC Case
-  Closed SLIC Case
-  Closed LUST Case
-  Approximate location of ground water monitoring well at landfill

Base by Google Earth, dated 4/5/2016



Source: Cornerstone Earth Group, 1/2017.

PARCELS WITH KNOWN HAZARDOUS MATERIALS INCIDENTS

FIGURE 3.8-1

Hazardous Building Materials

Hazardous materials are commonly found in building materials that may be affected during demolition and renovation activities associated with redevelopment of the project site. Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance. Building demolition can release lead particles and/or asbestos fibers into the air, where they may be inhaled by construction workers and the general public. Many structures on-site were built prior to the 1970s and are likely to contain asbestos and lead-based building materials. Other common hazardous materials include fluorescent lighting, electrical switches, heating/cooling equipment, chemically-treated wood, and thermostats, which may pose a health risk if not handled and disposed of properly.

Other Hazards

The Plan Area is not located within two miles of a public airport. The Plan Area is not located within a very high fire hazard severity zone. The Plan Area, however, is within the Airport Influence Area of the Norman Y. Mineta San José International Airport. The FAR Part 77 airspace notification surface over the project site ranges from approximately 175 feet to 185 feet above ground level from the southerly end to the northerly end of the site, respectively. Buildings above 175 feet would require FAA review for a determination of “no hazard” as described in *Section 3.8.2.4*, below.

3.8.2 Hazards and Hazardous Materials Impacts

3.8.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hazards and hazardous materials impact is considered significant if the project would:

- Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

3.8.2.2 *Impacts from On-Site Hazardous Materials*

The project is a Specific Plan to create a framework for the development of a high-density transit-oriented neighborhood with supportive retail services. The Specific Plan would allow development of up to 4,500 residential units, 106,000 square-feet of retail space including a 25,000 square-foot grocery store, and a 600-student school.

Given the industrial use of the site and prior agricultural uses and LUST case, residual hazardous materials contamination is anticipated to be present on the site which could be disturbed by proposed new buildings and infrastructure.

Impact HAZ – 1: Existing hazardous materials contamination in soils and groundwater on the site has the potential to impact construction workers and adjacent land uses if disturbed during demolition or construction of new buildings and structures on the site. **(Significant Impact)**

Mitigation Measures: As conditions of approval to redevelop a site within the Plan Area, the project proponent shall implement the following mitigation measures to reduce impacts from hazardous materials to a less than significant level:

MM HAZ – 1.1: Prior to the start of any demolition or construction activity, a property-specific Phase I ESA shall be completed in accordance with ASTM Standard Designation E 1527-13 (or most recent version) to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor and/or groundwater quality studies shall subsequently be conducted, if warranted based on the findings on the property-specific Phase I ESAs to evaluate if mitigation measures are needed to protect the health and safety of site occupants. All site mitigation measures identified in the property-specific Phase I and II ESAs shall be completed under the oversight of an appropriate regulatory agency, such as the DEH, DTSC, or RWQCB. Any required cleanup/remediation of the site during development activities shall meet all applicable federal, state and local laws, regulations, and requirements. The project applicant shall provide the appropriate oversight agency’s written approval of the site mitigation measures to the City of Santa Clara prior to the issuance of a demolition and/or grading permit.

MM HAZ – 1.2: At properties where VOCs are identified as contaminants of concern (COG), the potential for vapor intrusion shall be evaluated. A Vapor Intrusion Investigation Work Plan shall be submitted to the overseeing regulatory agency for review and approval. The plan shall include soil vapor sampling for VOCs in areas of concern. The soil vapor sampling shall be conducted in conformance with DTSC’s July 2015 advisory titled *Active Soil Gas*

Investigations. A minimum of two soil vapor sampling events (with soil vapor concentrations less than the most conservative residential or commercial screening levels – as appropriate) is required to document that mitigation measures are not required; additional sampling events may be required by the overseeing regulatory agency.

MM HAZ – 1.3: The need for vapor intrusion mitigation measures will be dependent upon the planned building design and the results of the Vapor Intrusion Investigation. Prior to redevelopment of the site, a report assessing the potential for vapor intrusion shall be submitted to and approved by the overseeing regulatory agency. The assessment shall be conducted in general conformance with DTSC’s *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)* dated October 2011.

MM HAZ – 1.4: Prior to the start of any construction activity on properties with known contaminants of concern (COC) exceeding the lower of the then-current DTSC, the RWQCB or Environmental Protection Agency (EPA) residential screening levels⁵², the project proponent shall submit the following plans to the overseeing regulatory agency for review and approval:

- *Corrective Action Plan.* An appropriate corrective action plan (e.g. remedial action plan, removal action workplace, etc.) shall be prepared that reflects the results of the above investigations. Site cleanup levels presented in the plan shall be based on a target cancer risk of 0.00001 or, for non-carcinogens, a target hazard quotient (THQ) of 1.0. The lower of the then-current DTSC, RWQCB, or EPA residential screening levels shall be used to interpret the TR and THQ levels or, alternatively, a site-specific human health risk assessment shall be prepared and approved by the overseeing regulatory agency. Higher cleanup goals may be acceptable, if approved in writing by the oversight agency. The project applicant shall provide an oversight agency’s written approval of the corrective action plan to the City of Santa Clara prior to issuance of a demolition and/or grading permit. Leaving contaminated soil (above residential screening levels and, for metals, above background concentrations) in-place or re-using contaminated soil shall require the oversight agency’s written approval. At a minimum, if contaminated soil is left in-place, a deed restriction or land use covenant shall detail the location of the soil. This document shall include a surveyed map of the location of the impacted soil and shall restrict future excavation in the impacted area unless approved in writing by an oversight agency.
- *Air Monitoring Plan.* This plan shall assess the potential for exposure of construction workers and neighboring occupants adjoining the property to

⁵² Naturally occurring background concentrations of some metals may exceed their respective screening levels. Regulatory agencies generally do not require cleanup of contaminants in soil to below background levels. Site specific background levels may be substituted for the published screening levels if approved by the overseeing regulatory agency.

COCs during construction activities; this plan shall specify measures to be implemented if COC concentrations exceed threshold values.

- *Vapor Intrusion Mitigation Plan and Associated Documents.* If the Vapor Intrusion Investigation identifies the need for mitigation measures, a Vapor Intrusion Mitigation Plan shall be prepared that describes the measures to be a result of vapor intrusion. The Vapor Intrusion Mitigation Plan will require the project applicant to design the proposed occupied spaces with appropriate structural and engineering features to reduce risk of vapor intrusion into buildings. At a minimum, this design shall include: 1) passive sub-slab ventilation with a spray applied vapor barrier (And with the ability to convert the system from passive to active ventilation), 2) monitoring to ensure the long-term effectiveness of the remedy, and 3) the implementation of institutional controls. Other designs would be acceptable is approved in writing by the overseeing regulatory agency. The Vapor Intrusion Mitigation Plan shall be submitted for agency review and approval. DTSC's October 2011 *Vapor Intrusion Mitigation Advisory* provides useful guidance in selecting, designing, and implementing appropriate response actions for sites where a potential vapor intrusion risk has been identified. A completed report shall be submitted to the overseeing regulatory agency upon completion of construction of the mitigation system. The report shall document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan and present final as-built design drawings. A Long-Term Operations, Maintenance, and Monitoring Plan (OMMP) also shall be submitted for agency approval that presents the actions to be taken following construction to maintain and monitor the vapor intrusion mitigation system, and a contingency plan should the vapor mitigation system fail. A financial assurance mechanism shall additionally be established (i.e. proof that adequate funds are available for long-term maintenance and monitoring of the vapor intrusion mitigation system) and described in the OMMP.

MM HAZ – 1.5:

A Site Management Plan (SMP) and Health and Safety Plan (HSP) shall be developed to establish appropriate management practices for handling and monitoring of impacted soil, soil vapor, and groundwater that potentially may be encountered during construction activities. The SMP shall be prepared by an Environmental Professional and be submitted to the overseeing regulatory agency (e.g. RWQCB, DTSC and/or DEH) for review and approval prior to commencing construction activities. The SMP also shall be provided to the City of Santa Clara. Prior to the start of any construction activity that involves below ground work (i.e. mass grading, foundation construction, excavating or utility trenching), information regarding site risk management procedures, including copies of the HSP and SMP, shall be provided to the contractors for their review, and each contractor shall provide such information to its subcontractors. The SMP and HSP measures shall be incorporated into the project design documents:

- Site control procedures to control the flow of personnel, vehicles and materials in and out of the site;
- Measures to minimize dust generation, stormwater runoff and tracking of soil off-site;
- Protocols for conducting earthwork activities in areas where impacted soil, soil vapor and/or groundwater are present or suspected. Worker training requirements, health and safety measures and material handling procedures shall be described;
- Perimeter air monitoring for dust during any activity that significantly disturbs impacted site soil (i.e. mass grading, foundation construction, excavating or utility trenching) to document the effectiveness of dust control measures;
- Protocols to be implemented if buried structures, wells, debris, or unidentified areas of impacted soil are encountered during site development activities;
- Protocols to characterize/profile soil suspected of being contaminated so appropriate mitigation, disposal or reuse alternatives, if necessary, can be implemented. Soil in contact with impacted groundwater shall be assumed contaminated. All soil excavated and transported from this site shall be appropriately disposed of at a permitted facility;
- Stockpiling protocols for “clean” and “impacted” soil;
- Decontamination procedures to reduce the potential for construction equipment and vehicles to release contaminated soil onto public roadways or other off-site transfer;
- Procedures to evaluate and document the quality of any soil imported to the site. Soil containing chemicals exceeding residential (unrestricted use) screening levels or typical background concentrations of metals shall not be accepted. The DTSC’s Clean Fill Advisory (October 2001 or latest version) provides useful guidance on evaluating imported fill;
- Methods to monitor excavations and trenches for the potential presence of VOC impacted vapors. Mitigation protocols shall be developed and implemented in the event elevated VOC vapors are released during excavation activities that may pose a risk to construction worker health and/or risk to the health of occupants of neighboring properties;
- Protocols to evaluate if the residual contaminants will adversely impact the integrity of below ground utility lines and/or structures (i.e. the potential for corrosion due to subsurface contamination)
- Measures to reduce soil vapor and groundwater migration through trench backfill and utility conduits. Such measures shall include placement of low-permeability backfill “plugs” at specified intervals on-site and at all locations where the utility trenches (within impacted soil or groundwater) extend off-site. In addition, utility conduits that are placed below groundwater shall be installed with water-tight fittings to reduce the potential for groundwater to migrate into the conduits.
- Measures to help reduce the potential for the downward migration of contaminated groundwater if deep foundation systems are proposed.

These measures shall be identified in the geotechnical investigation report and implemented as part of the development plans.

MM HAZ- 1.6: The project applicant's environmental professional shall assist in the implementation of the SMP and shall, at a minimum, perform part-time observation services during demolition, excavation, grading and trenching activities. Upon completion of construction activities, the environmental professional shall prepare a report documenting compliance with the SMP; this report shall be submitted to the oversight regulatory agency and the City of Santa Clara.

Implementation of the above identified measures would ensure that development under the Specific Plan would not exacerbate existing unknown hazardous materials contamination that may be present in the Plan Area and would reduce impacts related to such contamination to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

3.8.2.3 *Asbestos-Containing Materials (ACMs) and Lead-Based Paint*

Given the age of the existing on-site buildings, structures on the project site may have been constructed using materials containing asbestos such as mastics in flooring and roofing materials. Lead-based paint also may have been used on existing structures that may be demolished or modified under the proposed project.

Demolition or construction of structures on the project site could expose construction workers or residents in the vicinity of the project site to harmful levels of ACMs or lead.

The project is required to conform to the following regulatory programs and to implement the following measures to reduce impacts due to the presence of ACMs and/or lead-based paint:

- In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be conducted prior to the demolition of on-site buildings to determine the presence of asbestos-containing materials.
- All potentially friable ACMs shall be removed in accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to any building demolition or renovation that may disturb the materials. All demolition activities will be undertaken in accordance with Cal/OSHA standards contained in Title 8 of CCR, Section 1529, to protect workers from exposure to asbestos.
- A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.
- Materials containing more than one percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one percent asbestos shall be completed in accordance with BAAQMD requirements.

Existing structures on the site may have been constructed using ACMs and lead based paint. Any ACMs or lead based paint found to be present in buildings or structures proposed for demolition will be removed in accordance with uniformly applied federal, state, and local regulations to ensure worker safety. **(Less Than Significant Impact)**

3.8.2.4 *Airport Safety Hazards*

The project site is located approximately three miles from the Norman Y. Mineta San Jose International Airport. Federal Aviation Regulations, Part 77, “Objects Affecting Navigable Airspace” (referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards to aircraft such as reflective surfaces, flashing lights, and electronic interference. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport’s runways, or which would otherwise stand at least 200 feet in height above ground. The Specific Plan allows building heights up to 220 feet above ground which would be subject to ALUC and FAA review.

The FAR Part 77 airspace notification surface over the project site ranges from approximately 175 feet to 185 feet above ground level from the southerly end to the northerly end of the site, respectively. Notification to the FAA would therefore be required for proposed structures that would exceed this airspace surface. As mentioned previously, the City would submit the Specific Plan for a determination of consistency to the ALUC, given that the Plan Area is located within the Airport Influence Area (AIA), as defined by the Airport’s CLUP. Consistent with County Airport Land Use Commission (ALUC) and City General Plan policy, FAA issuance of “no hazard” determinations, with any conditions set forth in an FAA no-hazard determination also incorporated into the City’s development permit, would ensure that development under the proposed Specific Plan will not be a hazard to aircraft operation. No buildings would be constructed above the notification surface without this prior documentation. **(Less Than Significant Impact)**

3.8.2.5 *Impacts to Schools*

The Tasman East Specific Plan is approximately 0.1 miles northwest of Kathryn Hughes Elementary School. Future residents, employees, and students on-site would likely use and store small quantities of common household hazardous wastes (i.e. ammonia, paints, oils) which would not be considered significant. Therefore, the proposed residential, retail, and institutional uses would not use or emit significant quantities of hazardous materials that would have any effect on Kathryn Hughes Elementary School. **(Less Than Significant Impact)**

Development of a school on the site would require further environmental review to address any potential soil and groundwater contamination on the proposed school site and the proximity of industrial uses, their potential hazardous materials use, and potential to impact the school operations and students. The proposed residential and retail uses on the site would not use or emit significant quantities of hazardous materials that would have any effect on a school located within the Plan Area **(Less Than Significant Impact)**

3.8.2.6 *Emergency Operations Plan*

The project site is located in a developed area and would not change the local roadway circulation pattern and access, or otherwise physically interfere with the Santa Clara Emergency Operations Plan or other emergency response or evacuation plan.⁵³ The lack of modifications to Plan Area access and general vehicular circulation through the Plan Area and considering no emergency facilities are present within the Plan Area ensures the proposed Specific Plan would not affect the City's emergency operations. **(No Impact)**

3.8.2.7 *Consistency With Plans*

The proposed Specific Plan is consistent with General Plan policies requiring compliance of future buildings with FAA Part 77 regulations and requirements for a determination of "no hazard." Future redevelopment of existing industrial sites would also be required per the mitigations outlined above to ensure site remediation of contaminated soils and avoidance of vapor intrusion in new structures.

3.8.2.8 *Cumulative Impacts*

Cumulative projects located in the vicinity of the Plan Area do not include manufacturing facilities or operations that would use significant quantities of hazardous materials. The cumulative projects, therefore, would not create a significant hazard to the environment through the routine use, transport, or reasonably foreseeable accidents related to hazardous materials use. Hazardous materials contamination impacts are specific to the individual sites within the Specific Plan area as impacts vary by site characteristics, site history, and proposed land use. Future development within the Plan Area shall mitigate its hazardous materials impact to a less than significant level with the implementation of MM HAZ-1.1 to HAZ-1.6; therefore, redevelopment in the Plan Area would not make a considerable contribution to a significant cumulative hazardous materials impact. **(Less than Significant Cumulative Impact)**

3.8.3 Conclusion

Impact HAZ – 1: Implementation of mitigation measures MM HAZ-1.1 to HAZ-1.6 would ensure impacts from hazardous materials contamination in the Plan Area are reduced to less than significant levels. **(Less Than Significant Impact With Mitigation Incorporated)**

The proposed Specific Plan would not result in other significant hazards and hazardous materials impacts (i.e., safety hazard due to airport proximity, impairing an emergency response or evacuation plan, or wildland fires). **(Less Than Significant Impact)**

The proposed Specific Plan would ensure that contaminated sites are remediated and designed to avoid other hazards such that the redevelopment of the Plan Area would not have a considerable contribution towards a significant cumulative hazards and hazardous materials impact. The cumulative projects do not involve the manufacture or use of significant quantities of hazardous materials and, therefore, would not result in a cumulative hazardous materials impact. **(Less Than Significant Cumulative Impact)**

⁵³ City of Santa Clara. *Emergency Operations Plan*. June 2016.

3.9 HYDROLOGY AND WATER QUALITY

The following discussion is based on a Flood Impact Study prepared by *Schaaf & Wheeler* in December 2016. A copy of this report is included in Appendix E of this EIR.

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

Federal, State, and Local

Water Quality Overview

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the EPA and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the NPDES permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the water quality control boards. The project site is within the jurisdiction of the San Francisco Bay RWQCB.

Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan or "Basin Plan." The Basin Plan lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Statewide Construction General Permit

The SWRCB has implemented a NPDES General Construction Permit for the State of California. For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements are to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Municipal Regional Stormwater NPDES Permit (MRP)/C.3 Requirement

The San Francisco Bay RWQCB has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP) that covers the project area. Under provisions of the NPDES Municipal Permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. The MRP requires regulated projects to include Low Impact Development (LID) practices, such as pollutant source control measures and stormwater treatment features aimed to maintain or restore the

site's natural hydrologic functions. The MRP also requires that stormwater treatment measures are properly installed, operated and maintained.

In addition to water quality controls, the MRP requires all new and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be deemed exempt from the permit requirements if they do not meet the size threshold, drain into tidally-influenced areas or directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchments areas that are greater than or equal to 65 percent impervious (per the Santa Clara Valley Permittees Hydromodification Management Applicability Map).

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) in order to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRM) that identify Special Flood Hazard Areas (SFHA). An SFHA is an area that will be inundated by the one-percent annual chance flood (one in one hundred chance of being flooded in any one year based on historic data), which is also referred to as the base flood or 100-year flood. The SFHA is the area where the NFIP floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

Dam Safety

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail. Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and state level. Dams under the jurisdiction of the California Division of Safety of Dams are identified in California Water Code Sections 6002, 6003, and 6004 and regulations for dams and reservoirs are included in the California Code of Regulations. In accordance with the state's Dam Safety Act, dams are inspected regularly and detailed evacuation procedures have been prepared for each dam.

As part of its comprehensive dam safety program, Santa Clara Valley Water District (SCVWD) routinely monitors and studies the condition of each of its 10 dams. SCVWD also has its own Emergency Operations Center and a response team that inspects dams after significant earthquakes. These regulatory inspection programs reduce the potential for dam failure.

Santa Clara Valley Water District

SCVWD operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects

within SCVWD property or easements are required under the SCVWD’s Water Resources Protection Ordinance and District Well Ordinance.⁵⁴

Local

City of Santa Clara 2010 – 2035 General Plan

General Plan policies applicable to hydrology and water quality include, but are not limited to, the following listed below.

Policies	Description
5.10.5-P11	Require that new development meet stormwater and water management requirements in conformance with state and regional regulations.
5.10.5-P13	Require that development complies with the Flood Damage Protection Code.
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.
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.
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, Stormwater Best Management Practice Handbook for Construction.
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.
5.10.5-P20	Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

City Code

Chapter 13.20, Storms Drains and Discharges, of City Code is enacted for the protection of health, life, resources and property through 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 the San Francisco Bay. The City Code also includes Flood Damage Prevention Code (Chapter 15.45) and requirements for grading and excavation permits and erosion control (Chapter 15.15).

⁵⁴ Santa Clara Valley Water District. “Well Permits and Inspections.” 2018. Accessed: June 22, 2018. Available at: <https://www.valleywater.org/contractors/doing-businesses-with-the-district/wells-and-well-owners/well-permits-and-inspections>.

3.9.1.2 Existing Conditions

Surface Water Quality

The storm drains that serve the project site drain to the Eastside Storm Retention Basin, the Eastside Pump Station, and the Eastside Drainage Swale which all, ultimately, lead to the Guadalupe River. Beneficial uses of Guadalupe River include habitat and recreation. The water quality of Guadalupe River is directly affected by pollutants contained in stormwater runoff from a variety of urban and non-urban uses. Stormwater from urban uses contains metals, pesticides, herbicides, and other contaminants, including oil, grease, asbestos, lead, animal wastes, and trash. Beneficial uses of Guadalupe River include habitat and recreation.

Groundwater

Groundwater in the Specific Plan area has been recorded at depths of approximately five to seven feet below ground surface (bgs). Groundwater generally flows in a northeasterly direction in the Plan Area. The groundwater elevations near water features in the site area may be elevated. Fluctuations in the level of subsurface water can occur due to variations in rainfall, temperature, and other factors.

Stormwater Drainage System

Storm drainage facilities in and around the Specific Plan area are owned and maintained by private property owners, the City of Santa Clara Department of Public Works, and the Santa Clara Valley Water District (SCVWD). Private systems in the individual parcels typically discharge through 12- to 24-inch storm drain lines into public catch basins in the public rights-of-way. The public system consists of surface inlets and 12- to 33-inch storm drain lines in streets. The stormwater generally flows in a northeasterly direction to Calle Del Mundo and Calle De Luna. Stormwater flows are also conveyed in a 33-inch storm drain line that runs in the north-south section of Calle De Luna. The stormwater in the storm drain lines flow into the City's Eastside Drainage Swale in the northeast corner of the project site along the Guadalupe River's western levee. The Eastside Drainage Swale carries flows north to the Eastside Retention Basin where it is pumped through the levee and into the Guadalupe River. The Guadalupe River, which is under SCVWD jurisdiction, flows to the San Francisco Bay.

The storm drain system serving the development area is not directly connected to surrounding systems and generally receives only local drainage. Surface runoff to the project site from the surrounding area comes from Lafayette Street and Tasman Drive, although some overflow from the existing storm drain system on Lafayette Street enters the area from the northwest. The system drains to the Eastside Drainage Swale to the east, combining local gravity drainage and discharges from the Tasman Pump Station, located south of Tasman Drive adjacent to the Ulistac Natural Area. In the existing condition during a one-percent storm event, stormwater runoff is unable to enter the storm drain system due to a lack of capacity, which causes the storm drain system to surcharge (pressurize) and force water out of the storm drain system through the open inlets and catch basins. Flooding from these stormwater spills is mostly contained within the street rights of way, and some overland flow enters the project site from Lafayette Street from the northwest.

Flooding

According to the Federal Emergency Management Agency's (FEMA) current Flood Insurance Rate Map (FIRM), most of the Specific Plan area is subject to localized flooding.⁵⁵ Approximately 80 percent (or 36.8 acres) of the Specific Plan area is in special flood hazard area (SFHA) Zone AH, which is defined as an area of flood depths from one to three feet during 100-year flood conditions. The flooding in the areas designated as Zone AH is due to a lack of capacity in the local drainage systems (i.e., Guadalupe River and the Eastside Pump Station). The remaining approximately 20 percent (or 9.2 acres) of the Plan Area is designated as Zone X, defined as an area of less than one foot of flooding during 100-year flood conditions and areas protected by levees. The different flood zones within the Plan Area are shown in Figure 3.9-1.

Dam Inundation

The Plan Area is located within the inundation area of two dams: Anderson Dam and Guadalupe Dam. The Plan Area is located approximately 26 miles northwest downstream of the Anderson Dam and 17 miles downstream of the Guadalupe Dam. In the unlikely event dam failure occurs, the maximum inundation depth expected on-site is nine feet.⁵⁶ Anderson Reservoir is currently kept at approximately 68 percent of its maximum capacity due to the findings of the SCVWD's Anderson Dam Seismic Study and Retrofit Project⁵⁷. The California Department of Safety of Dams determined that the dam may experience significant damage in an earthquake and the water level should remain approximately 25 feet below the spillway until seismic retrofits can be completed. The currently estimated date of completion of those two seismic retrofit projects is 2021.

Sea Level Rise

Global climate change has the potential to cause sea level rise, which can inundate low-lying areas. Based on a U.S. Geological Survey analysis which predicted areas in the San Francisco Bay Area region that are subject to inundation due to future sea level rise (up to 60 inches in year 2100), the Specific Plan area is subject to increased flooding due to sea level rise.⁵⁸

Seiche, Tsunami, and Mudflows

The resonant oscillation of water in an enclosed body of water is a seiche. The San Francisco Bay is considered to be an enclosed body of water and is in the general vicinity of the project site. Existing levees positioned between the Bay and the Plan Area would dampen any effects of a seiche. There are no other enclosed bodies of water in the vicinity of the Plan Area that would produce seiche events.

The Plan Area is not located within a tsunami inundation area. The Plan Area is flat and not downslope of any natural steeply sloped areas. The Plan Area is not located within an identified landslide or mudflow hazard area.⁵⁹

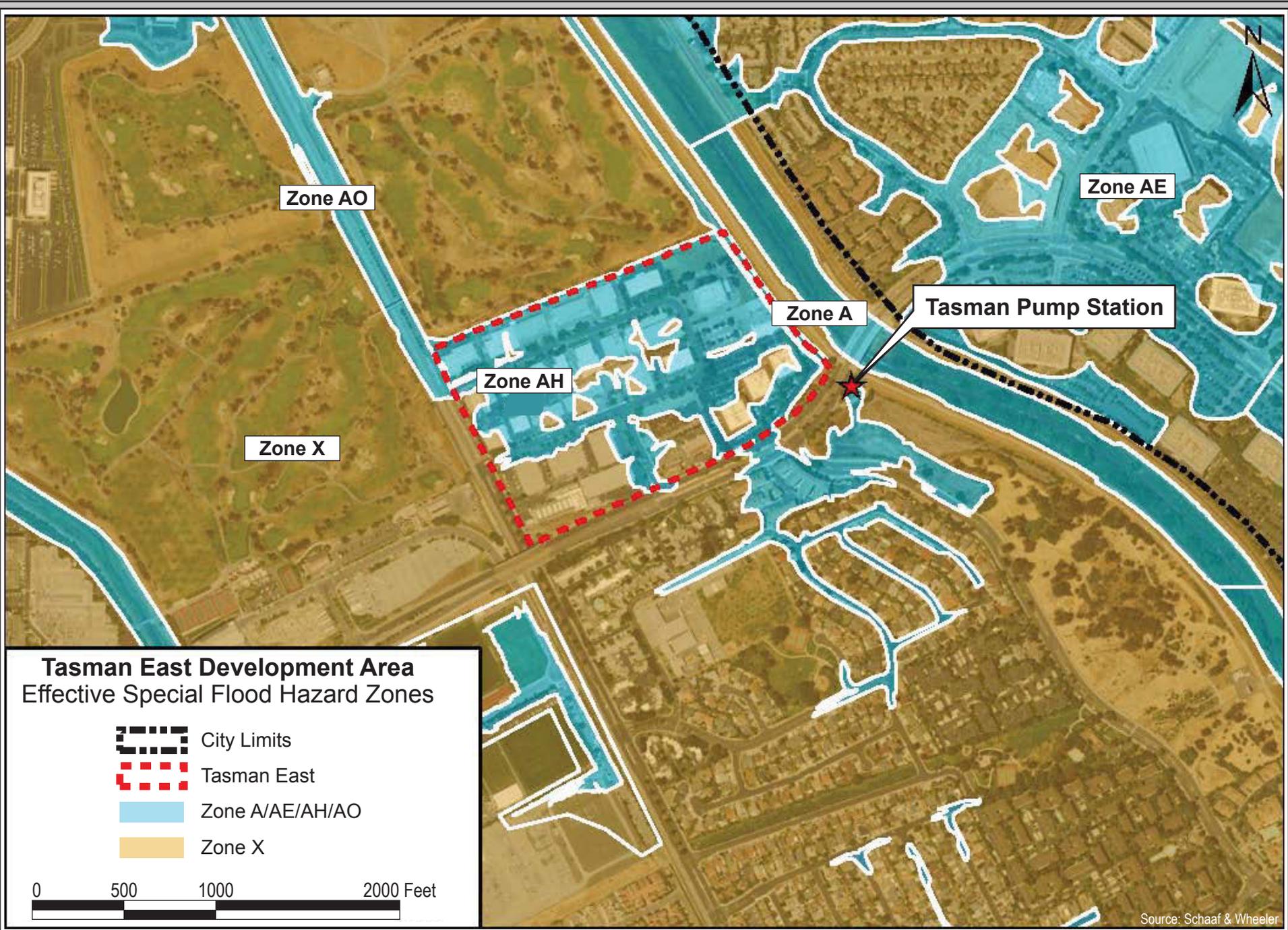
⁵⁵ Federal Emergency Management Agency. *Flood Insurance Rate Map, Community Panel No. 06085C0062J*. February 19, 2014.

⁵⁶ Schaaf & Wheeler. *East Tasman Area Floodplain Impact Study*. December 23, 2016.

⁵⁷ Santa Clara Valley Water District. *Anderson Dam Seismic Study and Retrofit Project*. June 2011.

⁵⁸ NOAA. "Sea Level Rise Viewer." 2015. Accessed: May 2, 2018. Available at: <https://coast.noaa.gov/slr/>.

⁵⁹ Schaaf & Wheeler. *East Tasman Area Floodplain Impact Study*. December 23, 2016.



3.9.2 Hydrology and Water Quality Impacts

3.9.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hydrology and water quality impact is considered significant if the project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Inundation by seiche, tsunami, or mudflow.

3.9.2.2 *Water Quality Impacts*

During Construction

Because redevelopment within the Plan Area would disturb more than one acre of ground surface, it is subject to compliance with the Construction General Permit and would be required to develop and implement SWPPPs. As a condition of approval the City would require SWPPPs for all project sites within the Plan Area, including those less than one acre in size. The SWPPPs would contain erosion and sediment controls designed to minimize stormwater pollution by reducing sediment loads in runoff from construction sites. The SWPPP would also contain a list of measures and BMPs that would be used to reduce pollutant loads in runoff generated by materials, equipment, and other construction activities. An NOI would also be filed with the RWQCB in conformance with NPDES Permit requirements for sites over one acre. Implementation of the SWPPP and conformance to drainage standards required by the City would reduce the construction phase stormwater pollution impacts individual development sites within the Plan Area to less than significant levels. **(Less Than Significant Impact)**

Post-Construction

The Plan Area is currently developed with industrial and commercial uses and associated parking lots that drain directly to the City's storm sewer facilities without treatment. The Specific Plan requires various stormwater treatment measures be included in future redevelopment sites within the Plan Area to meet the MRP and LID requirements. Developments with more than one building that include pedestrian corridors and open spaces are encouraged to treat their stormwater management areas in adjacent private open spaces. Designed treatment systems such as bioswales, flow-through planters, permeable paving, and greenroofs should be utilized as part of a comprehensive approach to stormwater management. Smaller parcels, if developed concurrently with neighboring parcels, are encouraged to coordinate stormwater design in shared private open spaces. Single parcels without concurrent adjacent development will treat their stormwater on site as per state stormwater C.3 regulations. Areas between stoops should be planted and can be an opportunity to provide stormwater management elements. The use of various treatment measures within each redevelopment project, consistent with MRP and NPDES requirements, would ensure that impacts to stormwater quality from implementation of the Specific Plan would be less than significant. **(Less Than Significant Impact)**

3.9.2.3 *Groundwater Impacts*

Groundwater in the Specific Plan area has been recorded at depths of approximately five to seven feet bgs. Excavation for building foundations and subgrade parking would likely encounter groundwater in the Plan Area and would require appropriate design to address high groundwater (refer to Section 3.6.2.3). The Plan Area is not located in an area used for groundwater recharge and, therefore, would not interfere with groundwater recharge or deplete supplies. As discussed in Section 3.15.2.2, the City may pump more groundwater during drought years to serve the Plan Area and other development. Groundwater throughout the Santa Clara Valley is managed by the SCVWD to ensure adequate recharge of the aquifer and limit pumping to not exceed the maximum sustainable yield. Although the Specific Plan may contribute toward the need for additional pumping, given the active management of groundwater in the area, the Specific Plan would not interfere with groundwater recharge or deplete supplies. **(Less Than Significant Impact)**

3.9.2.4 *Flooding Impacts*

On-Site Flooding (Planning Consideration)

As discussed in *Section 3.9.1.2*, most of the Specific Plan area (80 percent or 36.2 acres) is within Flood Zone AH, a 100-year flood hazard area subject to ponding with average depths of one to three feet. The remainder to the Specific Plan area (20 percent or 9.8 acres) is located in Zone X and is not subject to a 100-year flood hazard (refer to Figure 3.9-1).

Future development under the Specific Plan shall be required to be constructed in conformance with General Plan Policy 5.10.5-P13, FEMA SFHZ regulations, and the City's Flood Damage Prevention Code which would require residential developments and school facilities within Flood Zone AH to elevate habitable and other structures with sensitive populations above the base flood elevation (BFE). The Flood Damage Prevention Code includes requirements for flood-proofing subgrade garages. Therefore, while the Specific Plan would allow for residential uses within a 100-year flood

plain, future residential development would be elevated above the BFE and not expose people or habitable structures to flooding.

Off-Site Flooding

The implementation of the Specific Plan would include importing fill material to raise buildings above the 100-year floodplain and elevating the extension of Lick Mill Road to tie in with the City Place development to the north. These elevation changes within the Plan Area would block overland flows. Furthermore, the existing storm drain system is insufficient to handle flows during storms under existing conditions.

Due to the developed nature of the Plan Area and requirements for stormwater treatment and retention, redevelopment of the Plan Area would not contribute substantial additional runoff during storm events. While the proposed development itself does not create additional stormwater runoff that would exceed the capacity of the storm drain system at Lafayette Street, the placement of fill associated with the development would block overland flow and without that release, the runoff tributary to the Lafayette Street storm drain system would increase. The overland flow path at the northwest corner of the site would be blocked and, therefore, improvements to the storm drain system would be required to offset any significant off-site effects of the development.

Impact HYD-1: The overland flow path at the northwest corner of the project site would be blocked by project fill thereby causing off-site flooding. **(Significant Impact)**

Mitigation Measures: The following mitigation measure would reduce the impact of the Specific Plan to off-site flooding to a less than significant level.

MM HYD-1.1: A catch basin shall be installed on Lafayette Street or at a suitable location approved by the City Engineer that connects to the existing storm drain system on Calle Del Mundo. This new catch basin would provide an alternate path for flow that would otherwise have entered the development area prior to placement of project fill. The design of the new catch basin and new storm drain shall be subject to approval of the City. The new catch basin and new storm drain shall be complete and connected to the existing storm drain system on Calle Del Mundo must be made concurrent with redevelopment of the site in the northwest corner of the Plan Area.

With the implementation of MM HYD-1.1, off-site flooding impacts would be mitigated to a less than significant level by providing a catch basin that would increase the capacity of the existing storm drain system and avoid impeding and redirecting flood runoff flows. **(Less Than Significant With Mitigation Incorporated)**

3.9.2.5 Drainage Impacts

Since the Plan Area, as well as the surrounding area that currently lies within regulatory floodplain area, is already developed, there is relatively little potential for altered drainage patterns or a substantial increase in runoff rate or volume. Within the Tasman East Specific Plan area itself,

current development is mostly commercial and light industrial. The proposed high density residential development will likely consist of comparable impervious area as to the existing land uses. With planned changes to the street system within the Plan Area (including an extension of Lick Mill Blvd, extension of Calle Del Sol, and the widening of Calle De Luna), the proposed Specific Plan would increase the existing peak runoff rate by approximately two percent (less than one cfs). This relatively minor change in runoff does not cause any significant increase in flooding on-site or downstream of the project boundary based on post-project modeling.

The Specific Plan would also allow for the potential conversion of the Eastside Drainage Swale at the toe of the Guadalupe River levee to a concrete box culvert. The conversion of the open channel to a concrete box culvert is assumed to involve a 12-foot-wide by four-foot-deep rectangular section (or two parallel six-foot-wide sections) that would minimize upstream impacts. The new culvert would minimally increase flows from 110 cfs to 115 cfs and, therefore would not significantly alter flow in the remaining downstream portion of the open channel. The conversion of the open channel drainage, if implemented, would not increase flow depths significantly, increase stormwater flow rates such that erosion would result, nor would it impact operation of the Eastside Detention Basin and Pump Station. **(Less Than Significant Impact)**

3.9.2.6 *Other Inundation Hazards (Planning Considerations)*

As described previously, the Specific Plan area is not subject to sea level rise, seiche, tsunami, or mudflows. The Specific Plan area is, however, located within the inundation area of Anderson Dam and Guadalupe Dam.

While the Specific Plan area is subject to inundation if Anderson Dam or Guadalupe Dam fail catastrophically, the dams are inspected twice a year by the SCVWD in conjunction with the California Division of Safety of Dams and the Federal Energy Regulatory Commission and both reservoirs are managed to prevent significant damage during a maximum credible earthquake. Therefore, the probability of dam failure is extremely remote and therefore not considered a significant hazard.

In addition, the Guadalupe River levees are designed to meet FEMA standards to provide protection from the 100-year flood. The probability of dam or levee failure is low given the regular inspection and maintenance makes the risk of loss, injury, or death less than significant; as it is highly unlikely that the levee will fail in the 100-year event. Therefore, inundation from dam or levee failures would be considered a less than significant impact. **(Less Than Significant Impact)**

3.9.2.7 *Consistency with Plans*

The project would be required to comply with all applicable federal, state, regional, and local water quality and stormwater control standards and permits, as well as all regulations pertaining to flood zones. In doing so, the project would be consistent with the applicable General Plan policies regarding hydrology and water quality.

3.9.2.8 *Cumulative Impacts*

The geographic area for the Specific Plan's cumulative hydrology and water quality impacts include the approved and pending cumulative projects (refer to Table 3.0-1). As a direct result of the

regulations summarized in *Section 3.9.1*, development projects (including future development under the proposed Specific Plan) are required to undertake steps to avoid, minimize, and/or mitigate flooding and water quality impacts. For example, projects north of the Plan Area including City Place shall be designed to have no impacts to upstream water surface elevations and therefore will cause no negative flooding impacts to the project site. In addition, future upstream projects would not impact the project site as they would not significantly alter the existing hydrologic (i.e. flow path) conditions of those areas and are subject to NPDES regulations for treatment and retention of stormwater runoff. Therefore, cumulative hydrological impacts would be considered less than significant. **(Less Than Significant Cumulative Impacts)**

3.9.3 Conclusion

Impact HYD-1.1: The proposed Specific Plan, with the implementation of the mitigation measure MM HYD-1.1, would not result in significant off-site flooding impact. **(Less Than Significant Impact With Mitigation Incorporated)**

Implementation of the Specific Plan would not result in other significant hydrology and water quality impacts. **(Less Than Significant Impact)**

Implementation of the proposed Specific Plan, in conformance with existing regulations, would not result in a considerable contribution to a significant cumulative hydrology and water quality impact. **(Less Than Significant Cumulative Impact)**

3.10 LAND USE AND PLANNING

This section includes discussion of the effects of the Specific Plan on the land use and planning related subjects of Agricultural and Forestry Resources, Mineral Resources, and Population/Housing.

3.10.1 Existing Setting

3.10.1.1 Regulatory Framework

Regional

Norman Y. Mineta San José International Airport Comprehensive Land Use Plan

The Tasman East Specific Plan is located within the Airport Influence Area (AIA), as defined by the Airport’s CLUP, adopted by the Santa Clara County Airport Land Use Commission (ALUC) on May 25, 2011. The CLUP includes land use compatibility policies and standards, which form the basis for evaluating the land use compatibility of individual projects with the Airport and its operations. Standards in the CLUP focus on the three areas of ALUC responsibility: 1) aircraft noise, 2) the safety of persons on the ground and in aircraft, and 3) the control of objects in navigable airspace.

Proposals for amendments to general or specific plans and either building or zoning regulations by local agencies must be submitted to the ALUC for a determination of consistency. In addition, development projects that are higher than 200 feet above ground level are also encouraged to be submitted for review by the ALUC. Recommendations made by the ALUC are advisory to local jurisdictions, not mandatory.

Applicable CLUP land use policies to the project include the following listed below.

Policies	Description
G-5	Where legally allowed, dedication of an aviation easement to the City of San José shall be required to be offered as a condition of approval on all projects located within an Airport Influence Area, other than reconstruction projects.
G-7	All new exterior lighting within the AIA shall be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.
O-1	All new projects within the AIA that are subject to discretionary review and approval shall be required to dedicate in compliance with state law, an aviation easement to the City of San José.

City of Santa Clara 2010-2035 General Plan

The *Tasman East Focus Area* in the City’s General Plan is intended as a high density neighborhood that provides housing in close proximity to jobs, retail, services and entertainment. As envisioned in the General Plan, the Focus Area would be transformed into a high density residential community with mid-rise buildings that are served by neighborhood commercial, shared open space areas, and structured parking. Densities are specified to range from 37 to 50 units per gross acre, with the

potential to accommodate up to 2,285 units on the gross acreage or 2,095 units on the net acreage⁶⁰, and building heights of three to five stories. A minimum of 10.55 acres of non-contiguous park and open space areas were planned to support active recreational activities and social gathering.

General Plan policies applicable to land use, and safety related to airspace protection, include but are not limited to, the following listed below.

Policies	Description
General	
5.3.1-P13	Support high density and intensity development within a quarter-mile of transit hubs and stations and along transit corridors.
5.3.1-P18	Meter net new industrial and commercial development excluding “Approved/Not Constructed and Pending Projects” identified on Figure 2.1-1 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.
5.3.1-P30	Resolve any conflicts between proposed development, plans or funding for improvements and the Land Use Diagrams, Transportation and Mobility Diagrams or text through a General Plan Amendment in order to evaluate the implications of the proposal as well as to ensure the required internal consistency for the Plan.
5.3.2-P1	Encourage the annual construction of the housing units necessary to meet the City’s regional housing needs assessment by reducing constraints to housing finance and development.
5.3.4-P4	Require mixed-use development to meet the density and intensity specified in the land use classifications.
Residential	
5.3.2-P2	Encourage higher-density residential development in transit and mixed-use areas and in other locations throughout the City where appropriate.
5.3.2-P3	Encourage below-grade parking and parking structures for development in Medium Density and High Density designations.
5.3.2-P6	Provide adequate choices for housing tenure, type and location, including higher density, and affordability for low- and moderate-income and special needs households.
Commercial	
5.3.4-P6	Locate a neighborhood square or plaza within large mixed-use developments.
5.3.4-P11	Foster active, pedestrian-oriented uses at the ground level, such as retail shops, office, restaurants with outdoor seating, public plazas or residential units with front stoops, in mixed-use development.
Tasman East Focus Area	
5.4.6-P1	Establish Tasman East as a high density residential neighborhood that provides residents with access to commercial services and open space located on-site and in the surrounding areas.

⁶⁰ The 2014 Housing Element Update assumed that only 1,676 units would be developed within the net acreage of Focus Area, by calculating at 80 percent of its the maximum capacity of 50 du/ac.

Policies	Description
5.4.6-P2	Provide direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.
5.4.6-P4	Promote pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings.
5.4.6-P5	Provide publicly accessible open space within the Tasman East Focus Area that is accessible to all residents, adequate to meet their activity needs, and consistent with the General Plan requirements and other City regulations.
5.4.6-P6	Ensure new residential development contains public open spaces that are connected by trails and bikeways, and to other open space networks such as the Guadalupe River Trail, Ulistac Natural Area, San Tomas Aquino Creek Trail, and the Santa Clara Golf and Tennis Club.
5.4.6-P9	Provide appropriate transition between new development in the Tasman East Focus Area and adjacent residential uses consistent with General Plan Transition Policies.
5.4.6-P20	Allow higher residential densities through the specific plan process.
Safety	
5.10.5-P29	Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.
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.
5.10.5-P32	Encourage all new projects within the Airport Influence Area to dedicate an aviation easement.
5.10.5-P33	Limit the height of structures in accordance with the Federal Aviation Administration Federal Aviation Regulations, FAR Part 77 criteria.

Zoning Code

The intent of the Zoning Code (Title 18 of the City Code) is to encourage development of various kinds of living, working and commercial activities in specific areas as defined in general in the General Plan and to segregate and protect the activities of these areas one from another and to accomplish the following purposes:

- To promote the public health, safety, comfort, and general welfare.
- To conserve the values of property throughout the City and to protect the character and stability of residential, commercial, professional and manufacturing areas, and to promote the orderly and beneficial development of such areas.
- To provide adequate light, air, privacy, and convenience of access to property.
- To minimize congestion on the public streets and highways.
- To provide for the elimination of incompatible and nonconforming uses of land, buildings, and structures which are adversely affecting the character and value of desirable development in each district.
- To establish official plan lines and building setback lines.
- To define the powers and duties of the administrative officers and bodies as provided herein.

- To promote efficient urban design arrangement and to secure economy in governmental expenditures.
- To preserve landmarks which reflect the City’s historical, architectural, cultural and aesthetic traditions and promote a sense of community identity and historic perspective.

The project site is currently zoned *Light Industrial* (ML).⁶¹

3.10.1.2 Existing Land Use

Tasman East is a 46-acre industrial neighborhood in northern Santa Clara that spans west-east from Lafayette Street to the Guadalupe River and north-south from Santa Clara Golf & Tennis Club to Tasman Drive along Calle Del Mundo and Calle De Luna. The 2010-2035 General Plan indicates a land use classification for the site of *High Density Residential*, which permits a density of 37 to 50 dwelling units per acre. The current zoning for the site is *ML: Light Industrial* which allows for uses such as manufacturing, processing, repairing, and storing products. Consistent with the zoning, the current buildings on-site are generally warehouses with associated surface parking and rear-yard storage areas. There is also currently a data center at the southwest corner of the site, and a cluster of office buildings at the southeast corner of the site.

3.10.1.3 Surrounding Land Uses

The project site is surrounded by properties designated for *Regional Commercial*, *Parks/Open Space*, *Low Density Residential*, *High Density Residential*, and *Urban Center/Entertainment District* land uses in the 2010-2035 General Plan. Existing development surrounding the project site includes the Santa Clara Golf & Tennis Club (approved for the City Place development) to the north of the site, the Guadalupe River and levee trail to the east, Kathryn Hughes Elementary School and several residential neighborhoods to the south, Levi’s Stadium to the southwest, and commercial uses to the west across Lafayette Street (future City Place).

The Guadalupe River, which runs along the eastern edge of the site and also marks the boundary between Santa Clara and San José. This area of San José is home to a mix of high-density housing and office parks, most notably the Cisco and Samsung campuses that front onto Tasman Drive.

The Norman Y. Mineta San José International Airport (San José International Airport) is located approximately 2.5 miles southeast of the project site. The site is located within the Airport Land Use Commission referral boundary and Airport Influence Area for the San José International Airport.

3.10.1.4 Agricultural and Forestry Resources

The project site is not designated as farmland or the subject of a Williamson Act contract.⁶² According to the Santa Clara County Important Farmlands 2014 Map, the project site is designated as *Urban and Built-Up Land*.⁶³ *Urban and Built-Up Land* is defined as land with at least six

⁶¹ Note that the existing zoning district for the Plan Area is not consistent with the existing General Plan land use classification.

⁶² Agricultural lands in California can be protected from development and reserved for agricultural purposes or open-space conservation under the California Land Conservation Act, commonly known as the Williamson Act.

⁶³ California Department of Conservation. *Santa Clara County Important Farmland 2014 Map*. August 2016.

structures per 10 acres and utilized for residential, institutional, industrial, commercial, landfill, golf course, and other urban-related purposes. The project site and surrounding area has been developed urban and recreational uses since the 1970s. There are no agricultural or forest lands in the vicinity of the project site.

3.10.1.5 *Mineral Resources*

The City of Santa Clara is located in an area zoned MRZ-1 for aggregate materials by the State of California. MRZ-1 zones are areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. The proposed site is not known to support significant mineral resources of any type. No mineral resources are currently being extracted in the City. The State Office of Mine Reclamation's list of mines (AB 3098 list) regulated under the Surface Mining and Reclamation does not include any mines within the City.

3.10.1.6 *Population and Housing*

In 2017, the City of Santa Clara was estimated to have a total population of approximately 123,983 residents in 46,535 households (2.73 persons per household).⁶⁴ ABAG projects the City's population will increase to 156,500 by 2040.⁶⁵ The Plan Area is currently developed with employment uses and does not contain any housing units.

3.10.1.7 *Existing Electrical Utility Infrastructure*

There are several existing electric utility transmission lines located in the vicinity of the proposed project including, two 115 kV transmission lines on the west side of Lafayette Street and a 115 kV transmission line on the east side of Lafayette Street (Kifer – Nortech 115 kV Transmission Line).

3.10.2 Land Use and Planning Impacts

3.10.2.1 *Thresholds of Significance*

For the purposes of this EIR, a land use and planning impact is considered significant if the project would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any applicable habitat conservation plan or natural community conservation plan;
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural use;

⁶⁴ Department of Finance. *Table 2: E-5 City/County Population and Housing Estimates, 1/1/17*. Accessed December 5, 2017.

⁶⁵ Association of Bay Area Governments. *Plan Bay Area Projections 2013*. December 2013.

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use;
- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan;
- Induce substantial population growth in an area, either directly or indirectly;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The Specific Plan area is not located within the boundaries of a habitat conservation plan nor natural community conservation plan (HCP/NCCP). The Specific Plan, therefore, is not subject to an HCP/NCCP and impacts related to such plans are not discussed further in this section.

3.10.2.2 *Land Use Impacts*

An *established community* can be defined as a neighborhood with historical and cultural qualities that create a sense of belonging or attachment. Possible adverse effects on an established community include effects on interactions among persons and groups, isolation of certain people from others, and the perceived effect on community quality of life due the creation of a new physical barrier or division.

Although the Phase II of the General Plan has called for the residential land use classification to change to *High Density Residential (37-50 DU/AC)*, the City is proposing to classify the Plan Area as *Transit Neighborhood (80-350 DU/AC)*, a new General Plan classification that would allow residential and supportive commercial and public/quasi-public uses. This density range is intended to take advantage of proximity to transit, offering an urban feel, including a positive public realm within a right-of-way accommodating all modes of transportation. Building forms are typically mid-to high-rise buildings featuring structured or below-grade parking, as well as shared outdoor space. Additionally, retail and other compatible commercial and light industrial uses that activate the street shall be permitted. The proposed General Plan classification would apply only within the boundaries of the Tasman East Specific Plan.

Development under the TESP would transform an industrial/commercial area into a high-density residential neighborhood with close proximity to transit. The existing businesses in the project area are highly diverse and do not represent an established community of businesses that are dependent on one another such that redevelopment of some parcels in the Plan Area would reduce interactions

amongst the businesses or isolate individual businesses. Furthermore, the proposed Specific Plan would not create new physical barriers or divisions within the Plan Area such that the existing development would be isolated from the larger community. With adoption of the General Plan amendment and rezone, therefore, land use impacts would be less than significant. No mitigation measures would be required. **(Less Than Significant Impact)**

3.10.2.3 Consistency with Adopted Plans

The following discussion addresses land use plans adopted by the City of Santa Clara. While other City and regional plans may relate to the proposed land uses within the Plan Area, they are fully evaluated in the topical sections of this EIR to which the policies most directly pertain.

The Tasman East Specific Plan area is located in an industrial and commercial area of north Santa Clara. The current zoning, *Light Industrial*, is intended to accommodate industries operating substantially within an enclosed building (Santa Clara City Code, § 18.48.020).

Implementation of the TESP and amendment of the zoning district would bring this area into conformance with the General Plan policy that this transit-oriented site become an opportunity to develop high-density housing with direct walking access to many community amenities and a robust transit network. The TESP proposes substantially more dense development than allowed by the current General Plan land use classification. The increased density, however, is in keeping with the major strategies of the General Plan and policies to explore increased density in the Plan Area (Policies 5.4.6-P1 and 5.4.6-P20). Given the consistency with these major strategies, and the proposed amendment to the General Plan, the inconsistency of the TESP with the current General Plan assumptions for the Plan Area would not result in a significant land use impact. The proposed uses would not be consistent with the Plan Area's current *Light Industrial* zoning classification, but that zoning classification is inconsistent with the General Plan. Therefore, the TESP proposes to rezone the Plan Area from *Light Industrial* to *Transit Neighborhood* to allow for development of a high density residential neighborhood with a mix of uses at the ground floor. Once this rezoning is effected, the TESP would comply with applicable zoning requirements. **(Less Than Significant Impact)**

Airport Land Use Compatibility

The Tasman East Specific Plan proposes to construct midrise and high-rise multi-family housing structures. Midrise multi-family housing products are typically between four and eight stories tall. These developments are primarily built of up to five stories of relatively inexpensive wood frame construction (i.e., below 55 feet), but sometimes incorporate a one- to two-story concrete parking podium in order to reach heights of six to eight stories (under 85 feet tall). High-rise towers are built of relatively expensive steel and concrete, and are generally twelve or more stories tall.

The project site is located approximately 2.5 miles from the Norman Y. Mineta San Jose International Airport. Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards to aircraft such as reflective surfaces, flashing lights, and electronic interference. These regulations require that the Federal Aviation Administration (FAA) be

notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground.

The FAR Part 77 airspace notification would be required for future high-rise structures exceeding 175 to 185 feet above ground level. Notification to the FAA would therefore be required for proposed structures that would exceed this airspace surface. Consistent with County Airport Land Use Commission (ALUC) and City General Plan policy, FAA issuance of "no hazard" determinations, with any conditions set forth in an FAA no-hazard determination also incorporated into the City's development permit, would ensure that project development would not be a hazard to aircraft operation.

Future development in the Plan Area would also incorporate Dark Sky-compliant exterior lighting, which would ensure that proposed development is consistent with CLUP policies for exterior lighting and avoiding off-site glare. As a condition of approval, proposed development projects would also be required to dedicate avigation easements to the City of San Jose per CLUP policies for properties located within the Airport Influence Area. Implementation of the Specific Plan, therefore, would be consistent with applicable CLUP policies and would not result in significant hazards to aircraft operations. **(Less Than Significant Impact)**

3.10.2.4 *Agricultural and Forestry Resources*

The project site is developed and located within an urbanized commercial, industrial, and residential area. The site is designated *Urban and Built-Up Land* by the California Resources Agency and is not under a Williamson Act contract. As such, there is no potential for a conflict with agricultural or forest zoning, for the conversion of any farmland to non-agricultural uses, for the conversion of forest land to non-forest uses, or for any conflict with a Williamson Act contract. For these reasons, the proposed project would not result in the loss of farmland directly or indirectly, nor the loss of forest or timberlands. **(No Impact)**

3.10.2.5 *Mineral Resources*

There are no significant mineral resources present in the City of Santa Clara boundaries. In addition, there are no exploitable oil or gas resources within the City. For these reasons, the proposed project would not result in the loss of any mineral resources, or result in the loss of availability of any locally-important mineral resource recovery sites. **(No Impact)**

3.10.2.6 *Population and Housing Impacts*

The proposed Specific Plan is located in an area currently developed with industrial and commercial uses. Buildout of the proposed Specific Plan, therefore, would not displace existing housing or people such that replacement housing would be required elsewhere. **(Less Than Significant Impact)**

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, as described above.

The City of Santa Clara had an estimated jobs to housing ratio of 2.50 in 2010.⁶⁶ The 2010-2035 General Plan (adopted in 2011 and updated in 2014) focuses on increasing housing and the placement of housing near employment. However, the City is anticipated to maintain a greater ratio of jobs to housing and/or employed residents. Some employees who work within the City are, and still will be, required to seek housing outside the community with full implementation of the 2010-2035 General Plan.

Implementation of the TESP would add up to 106,000 square feet of neighborhood-serving retail space, including up to 25,000 square additional feet of grocery store space. The addition of up to 106,000 square feet of retail space could result in up to approximately 265⁶⁷ additional jobs on the site. A 600-student school within the Plan Area would be anticipated to require approximately 50 employees.⁶⁸ This may increase jobs citywide by one percent compared to the assumed job projections of the General Plan.⁶⁹ The addition of 4,500 residential units would result in an increase in approximately 12,285 residents.⁷⁰

There is currently a shortage of available housing within the City of Santa Clara compared to the number of jobs within the City. Therefore, the addition of 4,500 dwelling units and increase in jobs would incrementally decrease the overall jobs/housing imbalance within the City.

Although the Specific Plan would directly result in population and employment growth in the City, it would further the City's efforts to provide more balanced development by providing housing near employment centers and reducing the current jobs/housing imbalance. Through continued implementation of the 2010-2035 General Plan, the City's job/housing imbalance would be further reduced. The allowed residential development within the Plan Area would contribute to the reduction in the City's jobs/housing imbalance and would have a less than significant impact, due to population growth, on population and housing in Santa Clara. **(Less Than Significant Impact)**

3.10.2.7 Cumulative Impacts

The cumulative projects considered for land use impacts include a number of large-scale office, commercial and residential developments north of US 101 in Santa Clara, North San José, and Alviso. The cumulative projects may result in land use impacts due to increases in the jobs/housing imbalance and other potential inconsistencies with the assumptions in existing land use plans.

⁶⁶ City of Santa Clara. *2010-2035 General Plan*. December 2014. Appendix 8.12 (Housing Element), page 8.12-25.

⁶⁷ Based on one employee per 400 square feet of commercial space.

⁶⁸ Healy, Michal, Director, Facilities Development and Planning, Santa Clara Unified School District. "RE: Tasman East Specific Plan; CEQ2016-12400." August 7, 2017.

⁶⁹ The *City of Santa Clara 2010-2035 General Plan* assumes 25,040 new jobs would be created in the City through 2035.

⁷⁰ 2.73 persons per household x 4,500 households = 12,285 new residents.

The proposed Specific Plan would not result in any impact to mineral resources, agriculture, and forestry resources, therefore, the Specific Plan would not result in cumulative impacts to these resources.

The cumulative projects would not divide an established community given the uses surrounding the cumulative projects and the nature of the proposed developments. Although several of the cumulative projects would be inconsistent with General Plan because they propose growth that is unaccounted for in their respective City's General Plans, the TESP would not make a cumulatively considerable contribution to such an impact. The proposed Specific Plan, although proposing additional growth beyond that considered in the General Plan, would assist the City in meeting its regional housing needs and addressing the jobs/housing imbalance in Santa Clara.

Several projects in the cumulative analysis, including City Place Santa Clara and Phase II of the General Plan which includes residential development near the Lawrence Expressway Caltrain Station and TESP, identified land use impacts related to the regional jobs-housing imbalance. Over the past few decades, regional job growth has greatly exceeded housing capacity, leading to traffic congestion and air pollution from vehicles as workers commute long distances from outlying areas with more affordable housing. Both City Place Santa Clara and Phase II of the General Plan contain substantial employment-based land uses, which would exacerbate indirect impacts related to traffic and air pollution. Though some job-creating land uses are proposed under TESP, development under TESP would improve the regional jobs/housing imbalance by creating 4,500 dwelling units. Therefore, this cumulative impact would be less than significant. **(Less Than Significant Cumulative Impact)**

3.10.3 Conclusion

The proposed project would not create a new land use compatibility impact due to the presence of substantially increased housing development in this area of Santa Clara. Proposed structures on the site would adhere to the Specific Plan design guidelines and adhere with FAA height limitations for safe operation of the San José International Airport. Although the project would result in a small increase in employment on the site, it would provide 4,500 new housing units and have a positive effect on the City's job/housing imbalance. **(Less Than Significant Impact)**

3.11 NOISE AND VIBRATION

The following discussion is based on a noise and vibration assessment prepared by *Illingworth & Rodkin, Inc.* in July 2018. A copy of the report is included as Appendix F of this EIR.

3.11.1 Environmental Setting

3.11.1.1 *Background Information*

Noise

Several factors influence sound as it is perceived by the human ear, including the actual level of sound, the period of exposure to the sound, the frequencies involved, and the fluctuation in the noise level during exposure. Noise is measured on a “decibel” scale which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc.

There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the “A-weighted” decibel, or dBA. Further, sound is averaged over time and penalties are added to the average for noise that is generated during times that may be more disturbing to sensitive uses such as early morning or late evening.

Since excessive noise levels can adversely affect human activities (such as conversation and sleeping) and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. The noise guidelines are almost always expressed using one of several noise averaging methods, such as L_{eq} , DNL, or CNEL.⁷¹ Using one of these descriptors is a way for a location’s overall noise exposure to be measured, realizing of course that there are specific moments when noise levels are higher (e.g., when a jet is taking off from the Airport or when a leaf blower is operating) and specific moments when noise levels are lower (e.g., during lulls in traffic flows on I-880 or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the Peak Particle Velocity (PPV) and another is the Root Mean Square (RMS) velocity. The PPV is defined as the

⁷¹ L_{eq} stands for the Noise Equivalent Level and is a measurement of the average energy level intensity of noise over a given period of time such as the noisiest hour. DNL stands for Day-Night Level and is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. CNEL stands for Community Noise Equivalent Level; it is similar to the DNL except that there is an additional five dB penalty applied to noise which occurs between 7:00 PM and 10:00 PM. As a general rule, where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq} .

maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. In this report, a PPV descriptor with units of millimeters per second (mm/sec) or inches per second (in/sec) is used to evaluate construction generated vibration for building damage and human complaints.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure, and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Railroad and light-rail operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. Human responses to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} in/sec RMS, which equals 0 VdB, and one in/sec equals 120 VdB. Although not a universally accepted notation, the abbreviation “VdB” is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Additional information on the fundamentals of noise and vibration are included in Appendix F of this EIR.

3.11.1.2 *Regulatory Framework*

Federal and State

Federal Transit Administration Vibration Limits

The US Department of Transportation Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. FTA has vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 3.11-1, below. As summarized in Table 3.11-1, there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

**Table 3.11-1:
Groundborne Vibration Impact Criteria**

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 μinch/sec, RMS)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1 – Buildings where vibration would interfere with interior operations.	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2 – Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3 – Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes: VdB re 1 μinch/sec, RMS = Root-mean-square vibration velocity in vibration decibel relative to 1 micro-inch per second

¹ “Frequent Events” is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

² “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.

³ “Infrequent Events” is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

California Building Code, Title 24, Part 2

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartments, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dBA DNL or CNEL⁷² in any habitable room.

California Green Building Standards Code

The state established exterior sound transmission control standards for non-residential buildings as set forth in the California Green Building Standards Code (CALGreen), Section 5.507.4.1 and 5.507.4.2. CALGreen requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor-Indoor Transmission Class (OITC) rating of no less than 40. Exterior windows must have a minimum STC of 40 or OITC of 30 when the commercial property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, industrial source or fixed-guideway noise source, as determined by the local general plan noise element.

⁷² Title 24 states that the determination of whether to apply DNL or CNEL should be consistent with the metric used in the noise element of the local general plan.

Regional and Local

Norman Y. Mineta San José International Airport Comprehensive Land Use Plan (CLUP)

The project site is located within the Airport Influence Area (AIA), as defined by the Airport's CLUP, adopted by the Santa Clara County Airport Land Use Commission (ALUC) on May 25, 2011. The CLUP includes noise policies and contains standards for projects within the vicinity of the Norman Y. Mineta San José International Airport. These policies include, but are not limited to, the following:

Policies	Description
N-1	The CNEL method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
N-2	In addition to the other policies herein, the Noise Compatibility Policies presented in Table 4-1 of the CLUP shall be used to determine if a specific land use is consistent with this CLUP, which shows residential uses are generally acceptable in 55-60 CNEL environments, conditionally acceptable in 60-65 CNEL environments, generally unacceptable in 65-70 CNEL environments and unacceptable in 70+ CNEL environments. Transient lodging including motels and hotels are generally acceptable in 55-65 CNEL noise environments, conditionally acceptable in 65 to 70 CNEL noise environments, unacceptable at 70+ CNEL noise environments. Commercial uses are generally acceptable in 55-65 CNEL noise environments, conditionally acceptable in 65-70 CNEL noise environments, generally unacceptable in 70-75 noise environments, and unacceptable in 75+ CNEL noise environments.
N-3	Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 of the CLUP.
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 there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi-unit residential project.
N-5	All property owners within the Airport Influence Area who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are 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 AB2776 (2002).
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 presents acceptable noise levels for other land uses in the vicinity of the Airport (refer to Policy N-2 to land uses proposed by the project).
N-7	Single-event noise levels (SENL) 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 regularly overflown by aircraft, but which may not produce significant CNEL contours, such as the down-wind segment of the traffic pattern, and airport entry and departure flight corridors.

According to the Aircraft Noise Contours (CLUP Figure 5), the project site is not within the 65 dB CNEL noise contour for the Norman Y. Mineta San José International Airport.

City of Santa Clara 2010-2035 General Plan

The City of Santa Clara’s General Plan identifies noise and land use compatibility standards for various land uses and establishes policies to control noise within the community. The General Plan noise standards table, shown below in Table 3.11-2, identifies acceptable noise levels for various land uses. Residential land uses are considered compatible in noise environments of 55 dBA CNEL or less. The guidelines state that where the exterior noise levels are greater than 55 dBA CNEL and less than 70 dBA CNEL, the design of the project should include measures to reduce noise levels to acceptable levels. Noise levels exceeding 70 dBA CNEL at residential land uses are considered incompatible. Residential land uses proposed in noise environments exceeding 70 dBA CNEL should generally be avoided, except when the residential use is entirely indoors and where interior noise levels can be maintained at 45 dBA CNEL or less.

Table 3.11-2: Noise and Land Use Compatibility (CNEL)									
Land Use	50	55	60	65	70	75	80	85	
Residential	Compatible		Require Design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.			
Educational	Compatible		Require Design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.			
Recreational	Compatible		Require Design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.			
Commercial	Compatible		Require Design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.			
Industrial	Compatible		Require Design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.			
Open Space	Compatible								
	Require Design and insulation to reduce noise levels								
	Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 dBA can be maintained.								
Source: <i>City of Santa Clara 2010-2035 General Plan (2014).</i>									

General Plan policies applicable to noise include, but are not limited to, the following listed below.

Policies	Description
5.10.6-P1	Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels.
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 above).
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).
5.10.6-P4	Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.

Policies	Description
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.
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.
5.10.6-P8	Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area.
5.10.6-P9	Work with the City of San José Norman Y. Mineta International Airport to implement mitigation from aircraft noise to the fullest extent possible.
5.10.6-P11	Develop and include noise reduction measures with improvements and extensions of City streets.

City Code

The City Code establishes noise and vibration level performance standards for fixed sources. Section 9.10.040 of the City Code limits noise levels at residences to 55 dBA during daytime hours (7:00 AM to 10:00 PM) and 50 dBA at night (10:00 PM to 7:00 AM), noise levels at commercial uses to 65 dBA during daytime hours and 60 dBA during nighttime hours, and noise levels at light industrial uses to 70 dBA at any time. The noise limits are not applicable to emergency work, licensed outdoor events, City-owned electric, water, and sewer utility system facilities, construction activities occurring within allowable hours, permitted fireworks displays, or permitted heliports. The City Code does not expressly state the acoustical time descriptor such as L_{eq} (the average noise level) or L_{max} (the maximum instantaneous noise level) that is associated with the above limits. A reasonable interpretation of the City Code, however, which the City has used consistently in its environmental documents, is to identify the ambient base noise level criteria as an average or median noise level (L_{eq}/L_{50}).

Section 9.10.230 of the City Code states construction activities are not permitted within 300 feet of residentially zoned property except within the hours of 7:00 AM and 6:00 PM on weekdays and 9:00 AM and 6:00 PM on Saturdays. No construction is permitted on Sundays or holidays.

Section 9.10.050 of the City Code states “It shall be unlawful for any person to operate or cause, permit, or allow the operation of, any fixed source of vibration 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.”

3.11.1.3 Existing Conditions

The project site is bounded by Tasman Drive to the south, the Guadalupe River to the east, the Santa Clara Golf & Tennis Club to the north, and Lafayette Street to the west. The Specific Plan area is adjacent to the Lick Mill Light Rail Transit Station on Tasman Drive and the Great America Station on the west side of Lafayette Street which is served by both the Altamont Commuter Express (ACE) and Amtrak. The surrounding land uses include light industrial and office uses. Mineta San José

International Airport is a public-use airport located approximately 2.5 miles south of the project site.

Ambient noise levels were monitored in March 2017 (refer to Appendix F for details regarding noise monitoring locations and levels). The predominant sources of noise that affect the noise environment at the site and at nearby land uses results primarily from vehicular traffic along Lafayette Street and Tasman Drive. Traffic along the local streets within the project site, which include Calle Del Mundo and Calle De Luna, also affect the ambient noise environment. Aircraft associated with Norman Y. Mineta San José International Airport and trains passing along the Lick Mill Light Rail Transit Station and Great America Station also contribute to the noise environment in the area.

Long-term noise measurements were taken in the plan area from March 7 through March 9, 2017. The location of the measurements is shown in Figure 3.11-1. The CNEL at the southern property boundary near the Lick Mill Light Rail Transit (LRT) Station ranged from 62 to 72 dBA L_{eq} (LT-1), 63 to 76 dBA L_{eq} along Lafayette Street (LT-2) and 55 to 62 dBA L_{eq} along the northern property boundary (LT-3).

Short-term (ST) noise measurements were taken throughout the Plan Area and nearby residential neighborhoods (refer to Figure 3.11-1). ST-1 was made on the eastern bank of the Guadalupe River, away from traffic and LRT noise on Tasman Drive. ST-2 and ST-6 were made on the south side of Tasman Drive. ST-2 was made in the outdoor use area of the Riverwood Grove apartment complex and ST-6 was made in the common outdoor use area between Avenida De Los Alumnos and Plaza Corona. ST-3 and ST-5 were made at the west boundary of the plan area, adjacent to Lafayette Street. Measured noise levels at these locations were dominated by traffic noise along Lafayette Street and the Lafayette Street/Tasman Drive intersection. ST-4 and ST-7 were made in the parking lot along Tasman Drive and Calle Del Sol, respectively. At these locations, noise from vehicular traffic and LRT operations equally dominate the soundscape. Light rail trains at ST-7 were measured at 69 to 70 dBA. Short-term noise measurements are summarized in Table 3.11-3.

**Table 3.11-3:
Summary of Results at Short-Term Noise Measurement Locations**

Noise Measurement Location	Start Time	L_(max)	L₍₁₎	L₍₁₀₎	L₍₅₀₎	L₍₉₀₎	L_{eq}
ST-1: 514 feet from Tasman Drive	12:30 PM	59	57	52	44	40	48
	12:40 PM	75	74	66	50	48	62
ST-2: 140 feet from Tasman Drive	12:50 PM	78	76	72	62	53	67
	1:00 PM	69	68	58	52	49	57
ST-3: 15 feet from Lafayette Street and 170 feet from Calle Del Mundo	1:30 PM	73	70	66	60	54	62
	1:40 PM						
ST-4: 140 feet from Tasman Drive	2:20 PM	69	68	58	52	49	57
	2:30 PM						
ST-5: 30 feet from Lafayette Street and 76 feet from Tasman Drive	2:40 PM	73	70	66	60	54	62
	2:50 PM						
ST-6: 62 feet from Tasman Drive	3:00 PM	71	70	64	56	51	61
	3:10 PM						
ST-7: 58 feet from Tasman Drive and 652 feet from Lafayette Street	3:20 PM	73	71	65	58	53	62
	3:30 PM						

Levi's Stadium, approximately 1,175 feet away from the project area, will periodically contribute to the noise environment during large events such as NFL games and concerts. Based on findings from the 2009 Stadium EIR, residences within 2,000 feet of the stadium would experience elevated exterior noise levels during events which would result in an unavoidable significant impact.

- Project Boundary
- V-# Vibration Measurement Location
- ST-# Short-Term Noise Measurement Location
- LT-# Long-Term Noise Measurement Location



0 100 500 1000 Feet

Aerial Source: Google Earth Pro, Mar. 13, 2018. Photo Date: Apr. 2017



NOISE AND VIBRATION MEASUREMENT LOCATIONS

FIGURE 3.11-1

3.11.2 Noise and Vibration Impacts

3.11.2.1 *Thresholds of Significance*

For the purposes of this EIR, a noise and vibration impact is considered significant if the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

The project site is not within the vicinity of a private airstrip; therefore, the last threshold listed above is not discussed further. CEQA does not define what noise level increase would be considered substantial. The following criteria based on standards identified in the Building Code, CALGreen Code, General Plan, City Code, and City practice were used to evaluate the significance of environmental noise and vibration resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or City Code.
- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels (refer to Table 3.11-1) at nearby structures. Groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to structurally intact buildings constructed prior to the 1990s.
- A significant impact would be identified if traffic generated by the project or project improvements/operations would substantially increase noise levels at sensitive receptors in the vicinity. A substantial increase would occur if: a) the noise level increase is five dBA CNEL or greater, with a future noise level of less than the “normally acceptable” standard, or b) the noise level increase is three dBA CNEL or greater, with a future noise level equal to or greater than the “normally acceptable” standard.
- A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. Hourly average noise levels exceeding 60 dBA L_{eq} , and the ambient by at least five dBA L_{eq} , for a period of more than

one year would constitute a significant temporary noise increase at adjacent residential land uses. Where noise from construction activities exceeds 70 dBA L_{eq} and the ambient noise environment by at least five dBA L_{eq} at commercial land uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

As previously discussed in *Section 3.0*, the California Supreme Court issued an opinion in “CBIA vs. BAAQMD” holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project’s future users or residents. The ruling provided for several exceptions to the general rule where an analysis of the project on the environment is warranted, including if the project is exposed to potential noise and safety impacts on the project occupants due to proximity to an airport (PRC 21096) as discussed in *Section 3.0*. Consequently, the noise impacts on the project that have the potential to qualify as significant impacts under CEQA are those related to airport noise. The City has policies and regulations (including those identified in *Section 3.11.1.2*) that address existing conditions affecting a proposed project, which are discussed below.

3.11.2.2 *Impacts from the Project*

Construction-Related Impacts

Construction-Related Vibration Impacts

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site preparation work, foundation work, paving, and new building framing and finishing. The proposed project may require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards (post-1990), 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for buildings that are documented to be structurally weakened. No buildings that are documented to be structurally weakened adjoin the project site. Therefore, groundborne vibration levels exceeding 0.3 in/sec PPV at buildings constructed prior to 1990 and 0.5 in/sec PPV at buildings constructed post-1990 would have the potential to result in a significant vibration impact.

Table 3.11-4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet (reference distance) and 121 feet (distance to nearest sensitive receiver). Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The nearest future off-site buildings are located approximately 121 feet north of the project site, opposite a future City Place roadway. At this distance, vibration levels from construction activities, including pile driving, would be expected to be approximately 0.2 in/sec PPV, which would not exceed the 0.3 in/sec PPV significance threshold. All other off-site buildings have distances greater

than 121 feet from the project boundary. Vibration levels at these buildings would not exceed 0.3 in/sec PPV.

Table 3.11-4: Vibration Source Levels for Construction Equipment			
Equipment		PPV at 25 feet (in/sec)	PPV at 121 feet (in/sec)
Pile Driver (Impact)	upper range	1.158	0.204
	typical	0.644	0.114
Pile Driver (Sonic)	upper range	0.734	0.130
	typical	0.170	0.030
Clam Shovel Drop		0.202	0.036
Hydromill (slurry wall)	in soil	0.008	0.001
	in rock	0.017	0.003
Vibratory Roller		0.210	0.037
Hoe Ram		0.089	0.016
Large Bulldozer		0.089	0.016
Caisson Drilling		0.089	0.016
Loaded Trucks		0.076	0.013
Jackhammer		0.035	0.006
Small Bulldozer		0.003	0.001
Note: VdB is the term used for vibration decibels. in/sec = inches per second Source: United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration. Transit Noise and Vibration Impact Assessment, May 2006.			

Depending on the Tasman Specific Plan build out, the existing commercial and industrial buildings located in the Plan Area would be exposed to construction vibration. With the exclusion of pile driving, new construction up to 18 feet away from existing commercial buildings has the potential to exceed the 0.3 in/sec PPV threshold. Accounting for possible pile driving, new construction up to 86 feet away from existing commercial buildings has the potential to exceed the 0.3 in/sec PPV threshold. While the construction-generated vibration levels for the proposed project would not result in “architectural” damage at any existing or future project buildings on or surrounding the site, construction activities could at times be perceptible.

Impact NV-1: Existing and planned land uses in the project vicinity would be exposed to an increase in ambient vibration levels due to project construction activities.
(Significant Impact)

Mitigation Measure: The future development under the TESP would be required to implement the following mitigation measures which would avoid impacts related to excessive groundborne construction vibration and to reduce perceptibility at noise-sensitive sites:

- MM NV-1.1:** Comply with construction hours ordinance to limit hours of exposure. The City Code limits construction activities within 300 feet of residentially zoned property to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays.
- MM NV-1.2:** Minimize or avoid using vibratory rollers and tampers near sensitive areas, such as shared property lines with residential land uses. Whenever possible, use cast-in-drilled-holes piles for projects requiring deep foundations to reduce construction vibration.
- MM NV-1.3:** When vibration-sensitive structures are within 18 feet of a project development site or within 86 feet of a project proposing pile-driving, survey condition of existing structures and, when necessary due to the structure type and resulting vibration due to the construction activities proposed, perform site-specific vibration studies to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures, notify the Community Development Director of any damage caused by vibration, and offer to repair or compensate for any such damage caused by vibration within a time period established by the Community Development Director upon receiving notice pursuant to this measure. The results of the vibration monitoring shall be summarized and submitted in a report to the Community Development Director prior to issuance of an occupancy permit.
- MM NV-1.4:** Construction management plans for construction projects that have the potential to exceed the 0.3 in/sec. PPV threshold, particularly those involving pile driving, shall include predefined vibration reduction measures, notification requirements for properties within 200 feet of scheduled construction activities, and contact information for on-site coordination and complaints. The construction management plan shall be submitted to the City for approval prior to issuance of a demolition or grading permit.
- MM NV- 1.5:** Include a disclosure in the lease of future tenants within the Tasman East Specific Plan properties that provides information regarding the on-going construction activities within the area.

Critical factors pertaining to the impact of construction vibration on sensitive receptors include the proximity of the existing structures to the project area, the soundness of the structures, and the methods of construction used. The implementation of the mitigation measures outlined above would reduce vibration impacts to less than significant. **(Less Than Significant Impact with Mitigation)**

Construction-Related Noise Impacts to Off-Site Receptors

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily

result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

The City exempts noise due to construction activities from the noise level performance standards for fixed sources of noise, when construction falls within the City's allowable hours of between 7:00 AM and 6:00 PM Monday through Friday, and between 9:00 AM and 6:00 PM on Saturdays. Construction on Sundays or holidays is prohibited. However, where noise from construction activities exceeds 60 dBA L_{eq} and exceeds the ambient noise environment by at least five dBA L_{eq} at noise-sensitive residential uses in the project vicinity for a period exceeding one year, the impact would be considered significant. For commercial uses, a significant impact would be identified if construction noise were to exceed 70 dBA L_{eq} and exceeds the ambient noise environment by at least five dBA L_{eq} for a period exceeding one year.

Construction activities for individual projects are typically carried out in stages. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Most demolition and construction noise falls with the range of 80 to 90 dBA at a distance of 50 feet from the source.

Construction activities generate considerable amounts of noise, especially during earth-moving activities and during the construction of the building's foundation when heavy equipment is used. The highest noise levels would be generated during grading, excavation, and foundation construction. The hauling of excavated materials and construction materials would generate truck trips on local roadways, as well. Construction activities would include site preparation, excavation, grading, trenching, building construction, paving, and architectural coating.

The nearest existing noise-sensitive receptors, which are multi-family residences, are located approximately 280 feet south of the center of potential construction activity within the Plan Area. At this distance, hourly average noise levels due to construction noise would range from 63 to 74 dBA L_{eq} , which would exceed 60 dBA L_{eq} , and the current ambient noise level by five dBA L_{eq} . To the east, multi-family residences are located 690 feet from the Specific Plan area. At this distance, hourly average noise levels due to construction noise would range from 55 to 66 dBA L_{eq} , which would exceed 60 dBA L_{eq} and the current ambient noise level by five dBA L_{eq} .

During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. The highest noise levels would be generated during demolition, excavation, grading, and foundation construction. Noise generated during the construction of the proposed structures is generally lower as less heavy construction equipment is required to complete the task. Once construction moves indoors, minimal noise would be generated at off-site locations.

It is expected that full buildout of the Tasman East Specific Plan will likely occur over the next 20 years. Developments bordering the site are expected to be under construction for over a year. Construction activities are anticipated to cause noise levels at nearby sensitive receptors in excess of

60 dBA L_{eq} and exceeding the ambient noise environment by at least five dBA L_{eq} . Residential development within the Plan Area as well as the school once it begins operation would also experience elevated construction noise levels over the buildout of the Specific Plan.

Impact NV-2: Land uses in the project vicinity would be exposed to a substantial temporary increase in ambient noise levels due to project construction activities.
(Significant Impact)

Mitigation Measure: In addition to adhering to the City Code for construction hours, the future development projects would be required to implement the following standard construction noise control measures to reduce construction noise levels at nearby land uses:

MM NV-2.1: Develop and adhere to a construction noise control plan to be submitted to the City for review and approval prior to issuance of a demolition and/or grading permit, including, but not limited to, the following available controls:

- Ensure that construction activities (including the loading and unloading of materials and truck movements) within 300 feet of residentially zoned property are limited to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays.
- Ensure that excavating, grading and filling activities (including warming of equipment motors) within 300 feet of residentially zoned property are limited to the hours of 7:00 a.m. to 6:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction is permitted on Sundays or holidays.
- Contractors equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
- Contractors utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
- Locate loading, staging areas, stationary noise-generating equipment, etc. as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses. Temporary noise barriers can reduce construction noise levels by five dBA.
- Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project area.

- Comply with Air Resource Board idling prohibitions of unsteady idling of internal combustion engines.
- Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.
- A temporary noise control blanket barrier could be erected, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were unresolvable by proper scheduling.
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- Businesses, residences or noise-sensitive land uses adjacent to construction sites should be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.
- Include a disclosure in the lease of future tenants within the Tasman East Specific Plan properties that provides information regarding the on-going construction activities within the area.

MM NV-2.2:

If pile driving occurs, the following best management practices shall be included in the construction noise control plan:

- Schedule pile driving during a period when school is not in session.
- During pile driving, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
- During pile driving activities, install “acoustical blankets” to provide shielding for receptors located within 100 feet of the site, or use a noise attenuating shroud on the pile driving hammer.

The implementation of the noise controls outlined above would reduce construction noise levels from development sites within the Tasman East Specific Plan area in order to minimize disruption and annoyance. With the implementation of these controls, as well as the City Code limits on allowable construction hours, and considering that construction is temporary, the impact would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Operational Noise

Stationary Equipment Noise Impacts Off-Site

Buildings developed within the Tasman East Specific Plan area would include mechanical equipment, such as heating and air conditioning systems. Typical air conditioning units and heat pumps for multi-family uses residences would be approximately 60 dBA L_{eq} at a distance of 50 feet. Due to the distances of the off-site sensitive receptors at approximately 121 feet, the mechanical equipment would not impact off-site receptors. **(Less Than Significant Impact)**

Project-Generated Traffic Noise

A significant impact would occur if the permanent noise level increase due to project-generated traffic at existing noise-sensitive receptors was three dBA CNEL or greater for existing ambient noise levels exceeding 55 dBA CNEL or was five dBA CNEL or greater for existing ambient noise levels at or below 55 dBA CNEL. To determine noise level increases at existing residential land uses due to project-generated traffic, the existing plus project peak hour traffic conditions from the *Fehr & Peers* traffic study were compared to the existing peak hour traffic conditions. For the Tasman East Specific Plan, a total of 39 intersections were evaluated for peak hour traffic volumes. The intersection of Tasman Drive and Lick Mill Boulevard is shown to have an increase in traffic noise of one dBA near sensitive residential receptors to the south. All other traffic segments are shown to have noise increases lower than one dBA. Therefore, the future increase in traffic volumes would not cause a permanent noise increases of three dBA or greater at the nearest noise-sensitive receptors. **(Less Than Significant Impact)**

Aircraft Noise

Norman Y. Mineta San José International Airport is a public-use airport located approximately 2.5 miles south of the Plan Area. The Plan Area lies outside the 2027 65 dBA CNEL noise contour shown in the Norman Y. Mineta San José International Airport Master Plan Update Project for the airport. The proposed project lies inside the 60 dBA CNEL noise contour. An interpolation of the contours indicates that future aircraft noise levels would reach 62 dBA CNEL at the project area. Such noise levels would be compatible with the proposed land uses with respect to the guidelines set forth in the Airport Master Plan. **(Less Than Significant Impact)**

3.11.2.3 *Impacts/Effects to the Project (Planning Considerations)*

Future Exterior Noise Levels

The future noise environment at the project site would continue to result primarily from vehicular traffic along Tasman Drive, Lafayette Street, and the future Lick Mill boulevard extension north of Tasman Drive. Aircraft associated with Norman Y. Mineta San José International Airport, and heavy-rail and light-rail train passbys would also contribute to the noise environment.

Based on measurements made at the long-term measurement sites discussed in *Section 3.11.3 Existing Setting*, future exterior noise levels would be 70 dBA CNEL at LT-1 along Tasman Drive, 74 dBA CNEL at LT-2 along Lafayette Street, and up to 67 dBA CNEL along the future Lick Mill Boulevard extension.

High-Density Residential Areas

In mid/high density residential developments, private terraces or balconies are not typically considered sensitive to exterior noise levels. Aircraft noise exposure throughout the project site exceeds 55 dBA CNEL, and it is not normally feasible to reduce aircraft noise in outdoor activity areas. Residential development is proposed along Lafayette Street and Tasman Drive where the noise exposure is projected to exceed 70 dBA CNEL, which would be incompatible with residential outdoor activity areas. Additionally, residential development proposed along the future Lick Mill Boulevard extension where noise exposure is projected to exceed 60 dBA CNEL would be incompatible with residential outdoor activity areas.

Retail Areas

Retail areas planned for Tasman East are required along certain frontage roads to support a walkable neighborhood. The Specific Plan shows retail buildings being situated on Calle Del Sol. Current noise levels along Calle Del Sol range up to 68 dBA CNEL. Due to an anticipated increase in traffic volumes, retail units situated on Calle Del Sol are expected to experience sound levels up to 71 dBA CNEL. Based on Table 5-10.2 of the Santa Clara General Plan, noise levels here are acceptable if measures are taken to reduce interior noise at retail locations to acceptable levels.

Open Space Areas

The Tasman East Specific Plan includes open space areas through a distributed non-contiguous park system in each of the districts identified in the Specific Plan. Open space areas within the center of the site could be as close as approximately 243 feet from Lafayette Street and 216 feet from Tasman Drive. At a distance of 243 feet from Lafayette Street, noise levels at a neighborhood park would be expected to be 64 dBA CNEL, not accounting for the shielding provided by intervening buildings. At a distance of 216 feet from Tasman Drive, noise levels at a neighborhood park would also be expected to be 64 dBA CNEL, not accounting for building shielding. These levels would be below the 65 dBA CNEL threshold of the Santa Clara General Plan.

The largest neighborhood park in the current plan would be located in the River District bordering the Guadalupe River. According to current plans, this park may lie as close as approximately 107 feet from Tasman Drive. At this distance, noise levels from Tasman Drive would be expected to be 69 dBA CNEL, not accounting for building shielding, exceeding the 65 dBA CNEL threshold. However, the noise environment throughout most of the River District would be compatible. At a setback of 200 feet from the center of Tasman Drive, noise levels would be below the 65 dBA CNEL threshold. Between 107 and 200 feet, noise levels would be between 65 and 69 dBA CNEL. Similarly, areas of River District bordering the future Lick Mill Boulevard extension would be expected to experience noise levels exceeding the 65 dBA CNEL threshold. At a setback distance of 100 feet or more from Lick Mill Boulevard, noise levels would be expected to be below the 65 dBA CNEL threshold.

The following Conditions of Approval shall be incorporated into future development proposed under the Specific Plan to reduce exterior noise levels at common outdoor activity areas consistent with the City's General Plan:

- Do not locate common outdoor activity areas immediately adjacent to Tasman Drive, Lafayette Street, or the future Lick Mill Boulevard extension.
- Utilize site planning by placing outdoor activity areas in courtyards, on shielded podium levels (sky gardens) or rooftops, or behind buildings adjoining Tasman Drive, Lafayette Street, and Lick Mill Boulevard. Development adjacent to existing and planned open space shall be designed to provide shielding of the open space from Tasman Drive, Lafayette Street, and Lick Mill Boulevard.

Future Interior Noise Levels

Commercial Land Uses

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. The CALGreen Code establishes that interior noise levels shall be maintained at 50 dBA $L_{eq}(1\text{-hr})$ or less during hours of operation at any proposed commercial buildings. Standard commercial construction provides approximately 30 dBA of exterior-to-interior noise reduction. At a distance of 50 feet from Lafayette Street along the western edge of the project site, the future noise level is calculated to be up to 77 dBA. At a distance of 65 feet from Tasman Drive along the southern edge of the project site, the future noise level is calculated to be 74 dBA. Standard construction should result in compatible interior noise levels in commercial uses within the plan area.

Residential Land Uses

The City of Santa Clara requires that interior noise levels be maintained at 45 dBA CNEL or less for residences. Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. Standard residential construction provides approximately 15 dBA of exterior to interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA CNEL, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA CNEL, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

At a distance of 50 feet from the southern and western border of the proposed project site, sound levels are anticipated to range from 72 to 74 dBA CNEL. Future interior noise levels at the plan area would be up to 55 dBA CNEL, exceeding the 45 dBA CNEL threshold of the Santa Clara General Plan.

As Conditions of Approval, the following noise insulation features shall be incorporated to reduce interior noise levels, as needed, at future residences bordering both Lafayette Street and Tasman Drive to 45 dBA CNEL or less:

- Assuming a conservative estimated ratio of 30 percent windows/doors to total wall area, preliminary calculations indicate that the façades of high-density residential buildings having line-of-sight to Lafayette Street would require windows and doors with a minimum STC rating of 30 to meet the interior noise threshold established by the City.
- Along the façades having direct line-of-sight to Tasman Drive and Lick Mill Boulevard, the minimum required STC for windows and doors would be 26.
- Provide a suitable form of forced-air mechanical ventilation, as determined by the Community Development Director, for all residential units in the plan area so that windows can be kept closed at the occupant's discretion to control interior noise and achieve the interior noise standards.
- A qualified acoustical consultant shall review the final site plans, building elevations, and floor plans of the proposed residential buildings and make recommendations for noise insulation to reduce interior noise levels to 45 dBA CNEL or less. Treatments would include, but are not limited to, forced-air mechanical ventilation systems, sound-rated wall and window constructions, acoustical caulking, protected ventilation openings, etc. The specific determination of what noise insulation treatments are necessary shall be conducted during final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City, along with the building plans and approved design, prior to issuance of a building permit.

Mechanical Equipment

Buildings developed within the Tasman East Specific Plan would have mechanical equipment, such as heating, ventilation, and air conditioning systems. Under the Santa Clara City Code, noise generated by fixed sources of noise would be restricted to 55 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and to 50 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.) at residential land uses.

Mechanical equipment noise would potentially impact adjacent noise-sensitive receptors within the Plan Area. Due to the number of variables inherent in the mechanical equipment needs of buildings within the Tasman East Specific Plan (number and type of units, locations, size, housing or enclosures, etc.), the impacts of mechanical equipment noise on adjacent noise-sensitive uses could be significant and therefore shall be assessed during the design phase of projects within the Specific Plan boundary.

As Conditions of Approval, mechanical equipment shall be selected and designed to limit elevated mechanical noise on adjacent uses. Future development projects would be required to incorporate the following measure:

- Mechanical equipment shall be selected and designed to meet the City Code noise limits of 55 dBA during the daytime and 50 dBA at night. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise to comply with the City Code. Design planning for mechanical equipment shall take into account the noise criteria associated with such equipment and use site planning to locate equipment in less noise-sensitive areas, where

feasible. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and/installation of noise barriers such as enclosures and parapet walls to block the line of sight between the noise source and the nearest receptors.

Truck Circulation and Loading Activities

Noise measurements taken at grocery and large retail stores indicate that the highest noise levels generated by the retail uses in the proposed Tasman East Specific Plan would typically result from delivery and garbage trucks circulating to and from the docking area at a grocery store. Heavy truck deliveries typically generate maximum instantaneous noise levels of 70 to 75 dBA L_{max} at a distance of 50 feet. Smaller vendor trucks, which would be expected at the potential smaller retail uses within the plan area, would generate maximum noise levels ranging from 65 to 70 dBA L_{max} at a distance of 50 feet. Low speed truck noise results from a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air-brakes. The noise level of backup alarms can vary depending on the type and directivity of the sound, but maximum noise levels are typically in the range of 65 to 75 dBA L_{max} at a distance of 50 feet. Noise generated by loading dock activities and slow-moving trucks would drop off at a rate of about six dB per doubling of distance between the noise source and receptor.

Truck circulation and loading activities would affect the residents surrounding the proposed commercial uses as well as potentially the school. Based on short-term measurements at locations ST-6 and ST-7, typical maximum instantaneous noise levels from truck circulation and loading activities would be consistent with current ambient noise. At a distance of 50 feet from Tasman Drive, current maximum instantaneous noise levels typically range from 70 to 75 dBA L_{max} . These levels are consistent with future truck circulation and loading activities associated with the Specific Plan. The project would be designed in accordance with the above conditions of approval to reduce noise associated with truck circulation and loading activities that would affect residents and potentially the school surrounding the proposed commercial uses.

In addition, as Conditions of Approval, Loading docks shall be designed to reduce impacts on surrounding uses to meet the City Code noise limits of 55 dBA during the daytime and 50 dBA at night. Prior to issuance of a building permit, a qualified acoustical consultant shall be retained to review proposed loading dock areas to determine specific noise reduction measures necessary to reduce noise to comply with the City Code. Noise reduction measures could include, but are not limited to, the following:

- Locate loading zones inside (e.g., within parking structures), where possible, and as far from adjacent residential uses as possible.
- Implement a no idling policy at all retail locations that requires engines to be turned off after five minutes.
- Recess truck docks into the ground.
- Equip loading bay doors with rubberized gasket type seals to allow little loading noise to escape.
- Limit deliveries to the hours between 7 a.m. and 10 p.m. daily.

Project-level analyses shall be submitted to the City of Santa Clara for review and approval prior to issuance of any building permits.

Construction Noise and Vibration Impacts to On-Site Receptors

The construction of the Tasman East Specific Plan may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. Buildings developed within the Tasman East Specific Plan may require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 inches/second PPV for buildings structurally sound and designed to modern engineering standards, which typically consist of buildings constructed since the 1990s. Groundborne vibration levels exceeding 0.3 in/sec PPV limit at existing buildings within the Plan Area constructed prior to 1990 and for recent developments, ground-borne vibration in excess of 0.5 in/sec PPV would have the potential to result in vibration impacts.

Accounting for possible pile driving, new construction up to 86 feet away from existing commercial buildings has the potential to exceed the 0.3 in/sec PPV threshold. While the construction-generated vibration levels for the proposed project would not result in architectural damage at any existing or future project buildings on or surrounding the site, construction activities could at times be perceptible. As a result, the project would adhere to MM NV-1.1 through NV-1.5, MM NV-2.1, and MM NV-2.2 as a condition of approval to reduce potential impacts of construction noise and vibration to existing buildings within the Plan Area.

3.11.2.4 *Consistency with Plans*

The project is consistent with the CLUP by preparing a noise assessment using the CNEL method to represent noise levels for the project site. The project site is inside the 60 CNEL noise contour, and the project proposes compatible land uses consistent with Table 4-1 of the CLUP by including residential and school uses with noise insulation features, and commercial uses.

The project site is consistent with the City's General Plan by including noise attenuation measures to reduce residential and school interior noise levels to 45 dBA CNEL. Noise levels within the neighborhood parks would be below the 65 dBA CNEL threshold of the Santa Clara General Plan for those areas of the parks not directly adjacent to roadways.

3.11.2.5 *Cumulative Impacts*

The noise and vibration impacts of the project are localized, therefore, the geographic extent of the cumulative impacts for noise and vibration is the surrounding area.

Cumulative Construction Noise Impact

The proposed project may contribute to cumulative construction noise levels resulting from the development of pending projects, and projects that are approved, but have not started construction. In light of the proximity and scale of surrounding development, construction of the future City Place

project would have the greatest potential for substantial temporary noise on receptors near the project site.

The nearest sensitive common noise receptor for both the Tasman East Specific Plan and City Place would be the residences south of Tasman Drive. Construction noise from City Place construction would cause noise levels of 66 dBA L_{eq} at the neighborhood bordering Tasman Drive. At the same location, construction noise contributions from TESP developments would be up to 74 dBA L_{eq} . At these levels, cumulative construction noise levels would increase by at most one dBA. A worst case cumulative construction noise increase of one dBA from the project in combination with City Place would not make a noticeable increase to the overall construction noise level.

In addition, the Tasman East Specific Plan proposes to implement the construction best management practices identified above (MM NV-2.1 and MM NV-2.2) to reduce construction noise levels emanating from the site. Since cumulative construction noise levels would not be noticeably higher than construction noise levels expected from the individual projects alone, the cumulative construction noise impact would be considered less than significant. **(Less Than Significant Cumulative Impact)**

Cumulative Vibration Impacts

The proposed project may contribute to cumulative construction vibration levels resulting from the development of pending projects, and projects that are approved, but have not started construction. In light of the proximity and scale of surrounding development, construction of the future City Place project would have the greatest potential for substantial temporary vibration impacts on receptors near the project site.

The nearest sensitive common noise receptor for both the Tasman East Specific Plan and City Place would be the residences south of Tasman Drive. Groundborne vibration levels exceeding 0.3 in/sec PPV limit at existing residential buildings south of Tasman Drive that were constructed prior to 1990 would be considered significant. The closest residential structure that would be subject to potential groundborne vibration from the cumulative projects would be at least 300 feet from any construction activity which based on Table 3.11-4 would not be subject to groundborne vibration exceeding 0.3 in/sec PPV. **(Less Than Significant Cumulative Impact)**

Cumulative Traffic Noise Impact

A significant impact would occur if the cumulative traffic noise level increase was three dBA CNEL or greater for existing levels exceeding 55 dBA CNEL or was five dBA CNEL or greater for existing levels at or below 55 dBA CNEL, and if the project would make a “cumulatively considerable” contribution to the overall traffic noise increase. A “cumulatively considerable” contribution would be defined as an increase of one dBA CNEL or more attributable solely to the proposed project.

Cumulative traffic noise level increases were calculated by comparing the cumulative traffic volumes and the cumulative plus project volumes to existing traffic volumes. A traffic noise increase of three dBA CNEL was calculated under both cumulative scenarios (cumulative and cumulative plus project) along multiple roadway segments in Santa Clara in which existing noise levels exceed 55 dBA CNEL. However, there were no segments with a noise level increase of three dBA CNEL for

which the project contribution exceeded one dBA CNEL and therefore project traffic would not represent a cumulatively considerable contribution to the overall traffic noise increase. **(Less Than Significant Cumulative Impact)**

3.11.3 Conclusion

Impact NV-1: With the implementation of the mitigation measures MM NV-1.1 through NV-1.5, construction vibration impacts to existing and planned land uses in the project vicinity would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact NV-2: With the implementation of mitigation measures MM NV-2.1 and MM NV-2.2, temporary increases in ambient noise levels due to project construction activities would be reduced to a less than significant level. **(Less Than Significant Impact With Mitigation Incorporated)**

The proposed project would not result in other significant noise and vibration impacts (i.e., excessive vibration, permanent increase in ambient noise, nor inconsistency with the CLUP). **(Less Than Significant Impact)**

The proposed project would not have a considerable contribution towards a significant cumulative noise and vibration impact. **(Less Than Significant Cumulative Impact)**

3.12 PUBLIC SERVICES

The following discussion identifies the City’s existing public facilities and services and addresses whether the proposed Specific Plan has the potential to result in impacts related to the construction of new facilities to provide such services.

3.12.1 Environmental Setting

3.12.1.1 *Regulatory Framework*

State

Quimby Act

The Quimby Act (California Government Code Sections 66475-66478) was approved by the California legislature to set aside parkland and open space for active recreational purposes. This legislation was in response to California’s increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California’s growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate parks, pay an in-lieu fee, or perform a combination of the two at the discretion of the City.

School Impact Fees

California Government Code Section 65996 specifies that an acceptable method of offsetting a project’s effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Sections 65995-65998 set forth provisions for the payment of school impact fees by new development for “mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property)” (Section 65996[a]). The legislation goes on to say that the payment of school impact fees “are hereby deemed to provide full and complete school facilities mitigation” under CEQA (Section 65996[b]).

In accordance with California Government Code Section 65996, developers pay a school impact fee to the school district to offset the increased demands on school facilities caused by their proposed residential development projects. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Local

City of Santa Clara 2010 – 2035 General Plan

The City of Santa Clara 2010-2035 General Plan includes policies and programs to provide public services throughout the City. Applicable General Plan policies include, but are not limited to, the following listed below.

Policies	Description
	Parks, Open Space and Recreation
5.4.3-P3	Provide pedestrian-oriented ground floor uses and a network of parks and public spaces to serve both residential and non-residential development.

Policies	Description
5.9.3-P1	Encourage design techniques that promote public and property safety in new development and public spaces.
5.9.1-P2	Develop new parks to serve the needs of the surrounding community based on the criteria for mini (less than one acre, appropriate for all areas), neighborhood (1-15 acres, appropriate for medium- and high density residential areas serving individual neighborhoods), and community (over 15 acres, appropriate for medium- and high-density residential areas serving the City as a whole) parks.
5.9.3-P3	Maintain a City-wide average three minute response time for 90 percent of police emergency service calls.
5.9.3-P4	Maintain a City-wide average three minute response time for fire emergency service calls.
5.9.1-P5	Encourage public visibility for all parks, trails and open spaces.
5.9.1-P14	Encourage publicly accessible open space in new development.
5.9.1-P15	Provide opportunities for private maintenance of publicly accessible open space and trails.
5.9.1-P17	Foster site design for new development so that building height and massing do not overshadow new parks and plazas.
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.
5.9.1-P20	Promote the continuation of parks per population ratio of 2.4 acres 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.

Santa Clara City Code Chapter 17.35

The Santa Clara City Council adopted Ordinance No. 1928 adding City Code Chapter 17.35 (“Park and Recreational Land”) to Title 17 (“Development”) of the Santa Clara City Code to help mitigate the impacts of new housing development growth on existing parkland subject to the provisions of the State of California Quimby Act and Mitigation Fee Act. Chapter 17.35 requires new residential developments to provide adequate park and recreational facilities and/or pay a fee in-lieu of parkland dedication at the discretion of the City. The City is currently meeting the standard of three acres per 1,000 residents per the Quimby Act provisions of the City Code and 2.53 acres per 1,000 residents per the Mitigation Fee Act provisions of the City Code with regard to neighborhood parks.

3.12.1.2 Existing Conditions

Fire Protection Services

Fire protection services are provided to the project site by the City of Santa Clara Fire Department (SCFD). The SCFD is comprised of approximately 180 fire service personnel and more than 60 reserve employees/volunteers.⁷³ The SCFD receives an average of 8,700 emergency calls per year, including hazardous materials, emergency medical, specialized rescue, and fires.

The SCFD consists of 10 stations distributed throughout the City. The closest station to the project site is Fire Station 10 located at 511 Stars and Stripes Drive, approximately 260 feet east of the Specific Plan area.

⁷³ City of Santa Clara. “History of the Fire Department.” Accessed April 20, 2018. Available at: <http://santaclaraca.gov/government/departments/fire/about-us/history>.

Police Protection Services

Police protection services are provided in the project area by the City of Santa Clara Police Department (SCPD). The SCPD has approximately 231 full-time employees including 155 sworn officers and 76 civilians.⁷⁴ The SCPD headquarters is located on 601 El Camino Real, approximately four miles south of the Specific Plan area.

Schools

The Specific Plan area is located within the Santa Clara Unified School District (SCUSD). Students in the project area attend Kathryn Hughes Elementary School located at 4949 Calle De Escuela (approximately 530 feet south of the Specific Plan area), Buchser Middle School located at 1111 Bellomy Street (approximately 4.4 miles south of the Specific Plan area), and Santa Clara High School located at 3000 Benton Street (approximately 4.25 miles southwest of the Specific Plan area).

The SCUSD is planning to construct a new kindergarten through 12th grade school on the Agnews East School site located on Zanker Road between Descanso Drive and River Oaks Parkway, approximately 1.2 miles southeast of the Specific Plan area. The new school would likely result in the redistribution of students within the SCUSD and at local schools serving the Specific Plan area.

New school facilities are also anticipated in North San José, which is served by the SCUSD, and would add more capacity for new students within the vicinity of the Specific Plan and could reduce the number of students in existing SCUSD facilities.

Parks

The City of Santa Clara Parks and Recreation Department (Department) is responsible for maintaining and programming the various parks and recreation facilities, and works cooperatively with public agencies in coordinating all recreational activities within the City. Overall, the Department maintains and operates Central Park, a 45.04-acre community park, 26 neighborhood parks (125.58 acres), four mini parks (1.59 acres), public open space (16.13 acres improved and 40.08 acres unimproved resulting in 56.21 acres), recreational facilities (14.76 acres improved, 9.04 acres unimproved and excluding SCG&TC/BMX resulting in 23.8 acres), recreational trails (7.59 acres) and joint use facilities (48.52 acres) throughout the City totaling approximately 259 improved acres. The City is currently meeting the parkland standard of three acres per 1,000 residents per the Quimby provisions of the City Code and 2.53 acres per 1,000 residents per the Mitigation Fee Act provisions of the City Code with regard to neighborhood parks.

The closest neighborhood park to the Plan Area is Fairway Glen Park located at 2051 Calle De Primavera – a four (4) acre park offering an open, contiguous grass area, a large children’s play area, two tennis courts and picnic facilities with BBQs; however, it is further than a 10-minute walk from the Plan Area. Ulistac Natural Area at 4901 Lick Mill Boulevard, approximately 120 feet south of the Specific Plan area is the only natural open space in the City. A public community park of 15 to 30 acres is planned on the north side of the City within the City Place development that would serve the northern half of the City.

⁷⁴ City of Santa Clara. “Santa Clara Police Department: About Us.” Accessed April 13, 2018. Available at: <http://santaclaraca.gov/government/departments/police-department/about-us>.

Libraries

The City is served by three libraries: 1) Central Park Library located at 2635 Homestead Road (approximately 4.6 miles southwest of the Specific Plan area); 2) Mission Library Family Reading Center located at 1098 Lexington Street (approximately 4.3 miles southeast of the Specific Plan area); and 3) Northside Branch Library located at 695 Moreland Way (approximately 1.25 miles southeast the Specific Plan area). These facilities total approximately 104,770 square feet and have approximately 457,210 items combined. With a current service population of 123,983, the SCCL provides approximately 0.85 square foot of library space per resident and 3.69 items per resident.^{75,76}

The Central Park Library includes group study rooms, large community rooms, public art, a computer training facility, a café and bookstore, a genealogy and local history collection, a children's garden, fireplaces, and materials for educational and recreational use. The Mission Library contains reading materials and is headquarters for READ Santa Clara, a free adult literacy program. The Northside Branch Library includes books, movies, digital collections, a community room, four small group study areas, and a technology center.

3.12.2 Public Services Impacts

3.12.2.1 *Thresholds of Significance*

For the purposes of this EIR, a public services impact is considered significant if the impacts are 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 public services:
 - Fire protection
 - Police protection
 - Schools
 - Parks
 - Other public facilities.

The development and growth (4,500 new residential units, 106,000 square feet of commercial space, and a new elementary/middle school with a capacity of up to 600 students) allowed by the proposed Specific Plan is generally consistent with the high-density growth envisioned for the Tasman East Focus Area in the City's General Plan; however, additional dwelling units and residents are assumed for the Plan Area than previously considered in the General Plan.

3.12.2.2 *Fire Protection Services Impacts*

The certified General Plan EIR concluded that the existing fire station facilities have capacity to absorb additional fire personnel (if needed to serve the buildout of the General Plan, which includes

⁷⁵ City of Santa Clara. *Gateway Crossings Draft Environmental Impact Report*. April 2018. Page 147.

⁷⁶ California Department of Finance. "E-5 City/County Population and Housing Estimates." May 2017. Accessed: August 18, 2017. Available at: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>.

development of the Plan Area with residential uses) without the need to expand or construct new facilities.⁷⁷ While the proposed project would intensify the use of the site compared to existing conditions and assumptions in the existing General Plan,⁷⁸ the TESP was reviewed by the Fire Department⁷⁹ and it is not anticipated that the project would require the construction or expansion of fire station facilities as the Plan Area is within close proximity to existing fire station facilities. In addition, future development under the Specific Plan would be reviewed by the SCFD and built to applicable Fire Code standards to reduce fire hazards.

Based on the discussion above, the buildout of the Specific Plan would not require the expansion or construction of new fire facilities or substantially affect fire protection services. The implementation of the Specific Plan would have a less than significant impact on fire protection services. **(Less than Significant Impact)**

3.12.2.3 Police Protection Services Impacts

The certified General Plan EIR concluded that additional officers (if needed to serve the buildout of the General Plan, which includes a portion of the development proposed in the Specific Plan) would be housed in the existing facilities and refurbishment of the facilities would consist of reconfiguration of space and regular upgrade of furniture and equipment. The Police Department has reviewed the TESP⁸⁰ and may require additional personnel, however, there would be no need for the construction of new or expanded facilities based on the potential increase in planned units.⁸¹ In addition, the design of future development projects within the Specific Plan area shall be reviewed by the SCPD to ensure safety features are incorporated to minimize criminal activity.

Based on the discussion above, the buildout of the Specific Plan would not require the expansion or construction of new police facilities or substantially affect police protection services. The implementation of the Specific Plan would have a less than significant impact on police protection services. **(Less than Significant Impact)**

3.12.2.4 School Impacts

The Specific Plan includes 4,500 new residential units, which would generate approximately 350 school-aged students.⁸² As discussed in the certified General Plan EIR, SCUSD can accommodate students from buildout of the General Plan (which includes a portion of the development proposed in

⁷⁷ City of Santa Clara. *Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan*. SCH# 2008092005. Certified November 16, 2010. Pages 206-207.

⁷⁸ The proposed Specific Plan would allow for up to 2,824 additional residential units than were considered in the current General Plan. A 600-student school would be allowed which was not previously considered in the General Plan.

⁷⁹ Davidson, John. Principal Planner. Personal Communication. June 2018.

⁸⁰ Ibid.

⁸¹ City of Santa Clara. *Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan*. SCH# 2008092005. Certified November 16, 2010. Page 207.

⁸² Enrollment Projection Consultants. *SCUSD 2015-2016 Forecast Update Report 2015-2016*. February 13, 2016. Page 16.

Assumes a transitional kindergarten to 12th grade BMR unit student generation rate of 0.60 students per unit and a market rate unit student generation rate (SGR) of 0.05 students per unit. The Tasman East Specific Plan is anticipated to have five percent below market rate (BMR) units and 95 percent market rate units. 4,500 units x 0.05 BMR units x 0.60 SGR = 135 students. 4,500 units x 0.95 units x 0.05 SGR = 215 students.

the Specific Plan) with existing school facilities, by modifying school catchment areas, and/or by adding modular classrooms on existing campuses.⁸³ Table 3.12-1 shows the existing capacity and enrollment of the local schools that the students from the Plan Area would attend prior to the development of a school.

Table 3.12-1: School Capacity and Enrollment			
School	Existing Capacity	Current Enrollment	Potential TESP Students
Kathryn Hughes Elementary School	517 ¹	416 ²	200
Buchser Middle School ³	1,294	1,025	64
Santa Clara High School ³	1,954	2,033	86

Sources: ¹City of Santa Clara. *City Place Santa Clara Project Draft Environmental Impact Report, Volume II: Section 3.4 – Chapter 6. Table 3.13-1.* October 2015.
²California Department of Education, DataQuest. “Kathryn Hughes Elementary School Report 2017-18.” 2018. Accessed April 18, 2018. Available at: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=43696746048896&agglevel=School&year=2017-18>.
³City of Santa Clara. *Gateway Crossings Draft Environmental Impact Report.* April 2018.

In addition, the Specific Plan allows for the development of a new school with the capacity for up to 600 students within the Specific Plan area. If a new school is developed within the Plan Area, the new school would more than offset the demand the project would have on local schools. Subsequent environmental review shall be required when a specific school development site is proposed as the exact location and adjacent uses are not currently known. Because a school within the Plan Area was assumed in this EIR, it is anticipated that any impacts from school development would be similar to the impacts, and subject to the mitigation measures identified in this EIR. The SCUSD is also planning a new K-12 school on the Agnews East site in San Jose, which would further offset increased demands for school facilities in the district.

As required by state law (Government Code Section 65996), the project proponents for future development projects shall pay the appropriate school impact fees to SCUSD to offset the increased demands on school facilities caused by their development projects. The implementation of the Specific Plan, in conformance with state law (Government Code Section 65996), would not result in significant impacts to local schools. **(Less Than Significant Impact)**

3.12.2.5 Park Impacts

The Specific Plan has a goal to develop a total of 10 acres of dispersed, non-contiguous parks/open space on-site. The Specific Plan area would have three neighborhood parks and an urban plaza distributed throughout the Plan Area. The park and open space areas would be available to future residents and employees in the Plan Area. The environmental impacts of constructing the park/open space is discussed throughout this EIR.

The certified General Plan EIR concluded that accelerated deterioration of existing park and recreational facilities resulting from increased use due to the buildout of the General Plan (including

⁸³ City of Santa Clara. *City of Santa Clara Draft 2010 – 2035 General Plan: Integrated Final Environmental Impact Report.* Section 4.6.5.2, Schools and Community Facilities. January 2011.

a portion of the development proposed in the Tasman East Specific Plan area) would not be significant with the implementation of existing state and City regulations and policies.⁸⁴ The increased density on site would increase the number of users of park and recreation facilities in the City. Future development projects under the Specific Plan shall comply with existing regulations and policies, including the Quimby Act and the Mitigation Fee Act, which requires project applicants to dedicate park and recreational facilities and/or pay a fee in-lieu of park dedication to mitigate the impacts of housing development growth on existing parkland and recreational facilities. However, the sizes, shapes and locations of dedicated public parkland within the Plan Area is below the required 2.53 acres per 1,000 new residents, which would result in a greater density of use on the planned smaller sized public parks and open space and result in requiring the City to resolve that significant impact by providing additional parkland outside of the Plan Area through the use of mitigation fees.

Based on the discussion above, implementation of the Specific Plan would result in less than significant impacts to park facilities. **(Less Than Significant Impact)**

3.12.2.6 *Library Impacts*

The future residents and employees of the proposed Specific Plan would incrementally increase the demand on library facilities compared to existing conditions. The Northside Branch Library was opened in August 2014 and would serve the Plan Area and northern Santa Clara. The proposed Specific Plan would result in approximately 12,285 new residents in Santa Clara.

The City does not currently have service ratios or other performance objectives for library services. The residents generated by the project would slightly reduce the library-space-per-resident ratio and library-items-per-resident ratio by 9.4 percent, from 0.85 to 0.77 square feet of library space per resident and from 3.69 to 3.36 items (e.g., books and audio/visual volumes) per resident.

The future residents and employees of the proposed project would incrementally increase the demand on library facilities compared to existing conditions; however, it is not anticipated that the project alone would require the construction of new library facilities. **(Less than Significant Impact)**

3.12.2.7 *Consistency with Plans*

Future development under the Specific Plan would be consistent with applicable General Plan policies in Section 3.12.1.1, *Regulatory Framework* of this EIR by paying the appropriate school impact fees; dedicating park and recreational facilities and/or paying a fee in-lieu of park dedication, at the discretion of the City; constructing in accordance with the Fire Code; having site designs reviewed by the SCPD; and having project plans undergo Architectural Committee review.⁸⁵

⁸⁴ City of Santa Clara. *Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan*. SCH# 2008092005. Certified November 16, 2010. Pages 240-241.

⁸⁵ The Architectural Committee reviews plans and drawings submitted for architectural review for design, aesthetic considerations, and consistency with zoning standards. Review of development consistency with General Plan policy 5.9.1-P17 that states to foster sign design that does not overshadow new parks and plazas could be considered during this review.

3.12.2.8 *Cumulative Impacts*

The geographic area for cumulative public services impacts is the City's boundaries. The General Plan EIR discussed the cumulative impact on public services from the buildout of the General Plan (which includes a portion of the development and growth proposed by the Specific Plan) and concluded that future development, consistent with existing regulations, would not result in significant impacts to public facilities. The adjacent City Place project would also provide for public services on its project site or pay in-lieu fees. City Place may move the existing Fire Station 10 to a site fronting the east side of Great America Parkway within or adjacent to the City Place project boundary. The potential relocation of the fire station would not result in any cumulative impact to response times in the project vicinity. The in-lieu fees paid by projects developed under the Specific Plan would reduce cumulative impacts to school and park facilities. The incremental increase in density in the Plan Area would not contribute to any cumulative impact to fire or police facilities which were previously determined to be adequate to serve development allowed under the General Plan. For these reasons, the implementation of the Specific Plan would not have a considerable contribution to a significant cumulative public services impact. **(Less Than Significant Cumulative Impact)**

3.12.3 Conclusion

Implementation of the proposed Specific Plan would not result in significant impacts to public services. **(Less Than Significant Impact)**

Implementation of the proposed Specific Plan would not have a considerable contribution to a significant cumulative public services impact. **(Less Than Significant Cumulative Impact)**

3.13 RECREATION
3.13.1 Environmental Setting
3.13.1.1 *Regulatory Framework*

State

Parkland Dedication Requirements

The Quimby Act (California Government Code Section 66477 was approved by the California legislature to set aside parkland and open space for active recreational purposes. This legislation was in response to California’s increased rate of urbanization and the need to ensure the provision of sufficient open space and provide parks and recreation facilities for California’s growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions for five or more units to dedicate parks, pay an in-lieu fee, or perform a combination of the two at the discretion of the City. The Santa Clara City Council adopted Ordinance No. 1928 adding Chapter 17.35 (“Park and Recreational Land”) to Title 17 (“Development”) of the Santa Clara City Code. The purpose is to help mitigate the impacts of the new housing development growth on existing parkland subject to the provisions of the State of California Quimby Act and Mitigation Fee Act.

Local

City of Santa Clara 2010 – 2035 General Plan

Applicable recreational services General Plan policies, include, but are not limited to, the following listed below.

Policies	Description
Tasman East Focus Area	
5.4.6-P5	Provide publicly accessible open space within the Tasman East Focus Area that is accessible to all residents, adequate to meet their activity needs, and consistent with the General Plan requirements and other City regulations.
5.4.6-P6	Ensure new residential development contains public open spaces that are connected by trails and bikeways, and to other open space networks such as the Guadalupe River Trail, Ulistac Natural Area, San Tomas Aquino Creek Trail, and the Santa Clara Golf and Tennis Club.
Parks, Open Space and Recreation Policies	
5.9.1-P1	Develop additional parkland in the City so that it is integrated into neighborhoods and meets the standards for size, amenities and location to serve residents and employees.
5.9.1-P2	Develop new parks to serve the needs of the surrounding community based on the criteria for mini (less than one acre, appropriate for all areas), neighborhood (1-15 acres, appropriate for medium- and high density residential areas serving individual neighborhoods), and community (over 15 acres, appropriate for medium- and high-density residential areas serving the City as a whole) parks.
5.9.1-P5	Encourage public visibility for all parks, trails and open spaces.
5.9.1-P14	Encourage publicly accessible open space in new development.

Policies	Description
5.9.1-P15	Provide opportunities for private maintenance of publicly accessible open space and trails.
5.9.1-P17	Foster site design for new development so that building height and massing do not overshadow new parks and plazas.
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.
5.9.1-P20	Promote the continuation of parks per population ratio of 2.4 acres 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 of the General Plan.

City of Santa Clara City Code Chapter 17.35

Santa Clara City Code Chapter 17.35 requires new residential developments to provide adequate park and recreational facilities and/or pay a fee in-lieu of parkland dedication at the discretion of the City, and pursuant to the Quimby Act and/or the Mitigation Fee Act to help mitigate the impacts of new resident demand on existing parkland and recreational facilities. The City is meeting the standard of three acres per 1,000 residents per the Quimby Act provisions of the City Code and 2.53 acres per 1,000 residents per the Mitigation Fee Act provisions of the City Code.

3.13.1.2 *Existing Conditions*

As discussed in more detail in *Section 3.12.1.2*, the City of Santa Clara Parks and Recreation Department is responsible for maintaining and programming the City’s various parks and recreational facilities. The City is currently meeting the parkland standard of three acres per 1,000 residents per the Quimby provisions of the City Code and 2.53 acres per 1,000 residents per the Mitigation Fee Act provisions of the City Code with regard to neighborhood parks.

The closest neighborhood park to the Specific Plan area is Fairway Glen Park located at 2051 Calle De Primavera – a four (4) acre park offering an open, contiguous grass area, a large children’s play area, two tennis courts and picnic facilities with BBQs; however, it is further than a 10-minute walk from the Plan Area. Ulistac Natural Area at 4901 Lick Mill Boulevard, approximately 120 feet south of the Specific Plan area is the only natural, open space in the City.

3.13.2 Recreation Impacts

3.13.2.1 *Thresholds of Significance*

For the purposes of this EIR, a recreation impact is considered significant if the project would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The Specific Plan has a goal to develop a total of 10 acres of park/open space on-site. The Specific Plan area would have three neighborhood parks, a mini-park, and an urban plaza (mini-park) distributed throughout the Plan Area. The park and open space areas would be available to future

residents and employees in the Plan Area. The environmental impacts of constructing the park/open space in the Plan Area is evaluated throughout this EIR since such space is a part of the project.

The certified General Plan EIR concluded that accelerated deterioration of existing park and recreational facilities resulting from increased use due to the buildout of the General Plan (including a portion of the development proposed in the Plan Area) would not be significant with the implementation of existing state and City regulations and policies.⁸⁶ The increased density on site would increase the number of users of park and recreation facilities in the City. Future development projects under the Specific Plan shall comply with existing regulations and policies, including the Quimby Act and the Mitigation Fee Act, which require project applicants to dedicate parks and recreational facilities and/or pay a fee in-lieu of parkland dedication, at the discretion of the City, to mitigate the impacts on existing parkland and recreational facilities. Given the availability of parkland and private open spaces within the Plan Area, future residents and employees of the Plan Area would not cause deterioration of existing parkland and open space.

Based on the discussion above, implementation of the Specific Plan would result in less than significant impacts to park facilities. **(Less than Significant Impact)**

3.13.2.2 *Consistency with Plans*

The proposed Specific Plan would be consistent with applicable General Plan policies through the provision of 10 acres of dispersed, non-contiguous parks and greenways on-site and connections to adjacent recreational facilities. Although the project would not meet policies related to the parkland per resident ratio, the Specific Plan would offset demand for park and open space facilities on-site through the provision of parks, greenways, and common open space. Future development would also be subject to the payment of parkland dedication fees to ensure recreational space is provided for future residents of the Plan Area and the City's parkland per resident ratios are met.

3.13.2.3 *Cumulative Impacts*

The geographic area for cumulative recreation impacts is the City's boundaries. The General Plan EIR discussed the cumulative impact on recreation facilities from the buildout of the General Plan and concluded that future development, consistent with existing regulations, would not result in significant impacts to recreational facilities. The previously approved City Place project includes an approximately 31-acre park to provide for recreational facilities north of US 101. Therefore, as concluded in the certified City Place Santa Clara Project Final EIR, the buildout of the General Plan and the large cumulative City Place Santa Clara and Tasman East Specific Plan projects would not result in significant recreation impacts.⁸⁷ **(Less Than Significant Cumulative Impact)**

⁸⁶ City of Santa Clara. *Integrated Final Environmental Impact Report for the City of Santa Clara Draft 2010-2035 General Plan*. SCH# 2008092005. Certified November 16, 2010. Pages 240-241.

⁸⁷ City of Santa Clara. *City Place Santa Clara Project Draft Environmental Impact Report*. SCH# 2014072078. Certified June 2016. Pages 3.13-23 through 3.13-25.

3.13.3 Conclusion

With the provision of on-site park and recreational space and the payment of parkland dedication fees, and other planned parkland in the vicinity, the proposed Specific Plan would not result in the deterioration of existing recreational facilities, nor contribute to cumulative impacts to recreational facilities. **(Less Than Significant Impact)**

3.14 TRANSPORTATION/TRAFFIC

The following discussion is based on a Traffic Impact Analysis prepared by *Fehr and Peers Transportation Consultants* in June 2018. Although the proposed project is located in the City of Santa Clara, transportation facilities outside of the City would be affected by the proposed project. Thus, the transportation impacts of the project were evaluated following the standards and methodologies set forth by the cities of Santa Clara and San José, the County of Santa Clara, and the VTA. Since the project would generate more than 100 peak hour vehicle trips, an analysis was prepared in accordance with the VTA's Congestion Management Program (CMP) guidelines. A copy of the traffic impact analysis is provided in Appendix G of this EIR.

3.14.1 Environmental Setting

3.14.1.1 *Background Information*

Traffic conditions at the study intersections were evaluated using level of service (LOS). Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or congested conditions with excessive delays. The various analysis methods are described below.

Cities of Santa Clara and San José Intersections

The cities of Santa Clara and San José level of service methodology is TRAFFIX, which is based on the Highway Capacity Manual (HCM) 2000 method for signalized intersections. This methodology evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, each of the cities' methodologies employs the CMP defaults values for the analysis parameters. The City of Santa Clara has LOS D as the minimum standard, except on CMP and expressway facilities within Santa Clara and roadways considered "regionally significant," which have a standard of LOS E consistent with County of Santa Clara standards. The City of San José's level of service standard is LOS D or better for all signalized intersections, including CMP intersections. The correlation between average delay and level of service is shown in Table 3.14-1.

CMP Intersections

Since TRAFFIX is the designated level of service methodology for both the CMP and local municipalities, the CMP study intersections are not analyzed separately, but rather are among the local municipalities' signalized intersections analyzed using TRAFFIX. The only difference between the local municipalities' and CMP analyses is that project impacts are determined on the basis of a different level of service standard – the CMP level of service standard for signalized intersections is LOS E or better.

Table 3.14-1: Signalized Intersection Level of Service Definitions		
Level of Service	Description of Operations	Average Control Delay (seconds)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	Up to 10.0
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	Greater than 80.0

Freeway Segments

The LOS for freeway segment is estimated based on vehicle density, considering vehicles per mile per lane, peak hour volume in vehicles per hour (vph), number of travel lanes, and average travel speed in miles per hour (mph). The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from high-occupancy vehicle (HOV) lanes (otherwise known as carpool lanes). Freeway LOS criteria are summarized in Table 3.14-2.

Table 3.14-2: Freeway Level of Service Based on Density		
Level of Service	Description	Density (vehicles/ mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	0-11
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	>11-18
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	>18-26
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	>26-46
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	>46-58
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	> 58.0

3.14.1.2 *Regulatory Framework*

State

California Department of Transportation (Caltrans)

Caltrans has authority over the State highway system, including freeways, interchanges, and arterial State Routes. Caltrans requirements are described in the *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2001), which covers the information needed for Caltrans to review the impacts on state highway facilities including freeway segments. However, as the Congestion Management Agency, the Santa Clara Valley Transportation Authority is responsible for monitoring operations on Caltrans facilities within Santa Clara County.

Regional

Regional Transportation Planning

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted *Plan Bay Area 2040* in July 2017, which includes the region’s Sustainable Communities Strategy (integrating transportation, land use, and housing to meet GHG reduction targets set by CARB) and Regional Transportation Plan (including a regional transportation investment strategy for revenues from federal, state, regional and local sources over the next 24 years).

Congestion Management Program

The Santa Clara Valley Transportation Authority (VTA) oversees the Congestion Management Project (CMP), a program aimed at reducing regional traffic congestion. The relevant state legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of the increased gas tax revenues. CMP legislation requires that each CMP contain the following five mandatory elements: 1) a system definition and traffic level of service standard element; 2) a transit service and standards element; 3) a trip reduction and transportation demand management element; 4) a land use impact analysis program element; and 5) a capital improvement element. The Santa Clara County CMP includes the five mandated elements and three additional elements, including: a county-wide transportation model and data base element, an annual monitoring and conformance element, and a deficiency plan element. The VTA has review responsibility for proposed development projects that are expected to affect CMP designated intersections.

Local

Santa Clara General Plan

All future development allowed by the proposed Tasman East Specific Plan shall be in conformance with adopted City plans and policies. General Plan policies applicable to transportation/traffic include, but are not limited to, the following listed below.

Policies	Description
General Mobility and Transportation Policies	
5.8.1-P3	Identify opportunities to connect people to supportive services, public amenities and transit.
Roadway Network Policies	
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.
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 extensions and intelligent transportation systems.
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.
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.
5.8.3-P8	Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information and shelters.
5.8.3-P9	Require new development to incorporate reduced on-site parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.
5.8.3-P10	Require new development to participate in public/private partnerships to provide new transit options between Santa Clara residences and businesses.

Policies	Description
Bicycle and Pedestrian Network Policies	
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 alternate modes of transportation.
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.
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.
5.8.4-P9	Encourage pedestrian- and bicycle-oriented amenities, such as bicycle racks, benches, signalized mid-block crosswalks, and bus benches or enclosures.
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.
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.
Tasman East Focus Area Policies	
5.4.6-P2	Provide direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.
5.4.6-P3	Work with appropriate transportation agencies, businesses, and surrounding cities to maximize rail and bus transit to and from the stations.
5.4.6-P4	Promote pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings.
5.4.6-P7	Provide for future connections, which encourages walking and bicycling, to the new development in the north when it is redeveloped to promote accessibility between the two areas.
5.4.5-P9	Emphasize walkability and access to transit and existing roadways in Future Focus Area comprehensive plans.
5.4.5-P10	Provide access across expressways or major arterial streets so that new residential development in Future Focus Areas has adequate access to neighborhood retail, services and public facilities.
Future Focus Area Goals	
5.4.7-P8	Require development of public amenities, including parks and open space, in the first phase of development for all Future Focus Areas
5.4.7-P9	Emphasize walkability and access to transit and existing roadways in Future Focus Area comprehensive plans.
5.4.7-10	Provide access across expressways or major arterial streets so that new residential development in Future Focus Areas has adequate access to neighborhood retail, services and public facilities.

City of Santa Clara Bicycle Plan

The City of Santa Clara Final Bicycle Plan Update (2009) provides a bikeway planning and design tool, which contains the policy vision, design guidance, and specific recommendations to guide public and private investments in active transportation bicycle facilities and related programs.

3.14.1.3 Existing Conditions

Existing Roadway Network

The existing roadway network serving the project area includes regional facilities and local roadways. Currently, public street access to the project site is provided via US 101, SR 237, Great America Parkway, Tasman Drive, and Lafayette Street. Regional and local access to the project site is provided via the streets described below and shown on Figure 3.14-1.

Regional Access

US Highway 101 (US 101) is a north/south freeway with six mixed-flow lanes and two HOV lanes through most of Santa Clara and San José. US 101 extends northward through San Francisco and southward through Gilroy. Access to and from the site is provided via interchanges at I-880 and De La Cruz Boulevard/Trimble Road.

State Route 237 (SR 237) is a six-lane freeway that connects the east and west sides of Silicon Valley via Mountain View, Sunnyvale, Santa Clara, and north San José. One lane in each direction operates as an HOV lane from 5:00 to 9:00 AM and from 3:00 to 7:00 PM, Monday through Friday.

Great America Parkway is a six-lane north-south divided major arterial that extends from SR 237 to US 101, providing access to US 101, Central Expressway, and El Camino Real. It provides primary access to the project site from SR 237 and US 101.

Tasman Drive is a four- to six-lane east-west divided arterial with an at-grade light rail running between I-880 in the east to Java Drive in the west.

Lafayette Street is a four-lane north-south arterial that connects to SR 237 immediately north of the project site (via Gold Street) two miles south of the project site. Lafayette Street lacks sidewalks along the entire west (southbound) side, where railroad tracks would conflict with pedestrians, and along most of its east (northbound) side north of Tasman Drive.

Montague Expressway is an eight-lane divided expressway that connects to US 101 south of the project site. Montague Expressway begins at I-880 in north San José and transitions into San Tomas Expressway south of US 101, at which point the roadway narrows to two lanes in each direction. There is one westbound HOV lane on Montague Expressway beginning at O'Toole Avenue / McCarthy Boulevard and ending at the US 101 Lafayette Bridge overcrossing. There is one eastbound HOV lane on Montague Expressway beginning at Mission College Boulevard and ending at O'Toole Avenue/McCarthy Boulevard.

Mission College Boulevard is a five-lane arterial located south of the project site. It begins north of US 101 at Montague Expressway and continues to Mission College Boulevard, providing access to various employers and retail/commercial land uses in the area north of US 101. Mission College Boulevard connects with Great America Parkway, which provides direct access to the project site.

Local Access

Calle Del Mundo is a two-lane local street located on the north end of the project site that loops east and connects with Calle De Luna. Calle Del Mundo has sidewalks on the north side of the street. Together, these streets form a short, half-mile loop branching off Lafayette Street.

Calle De Luna is located immediately south of Calle Del Mundo off of Lafayette Street southwest of the project site. Calle De Luna has sidewalks on the north side of the street. Both Calle Del Mundo and Calle De Luna are lined with single-level office/industrial buildings surrounded by surface level parking lots. Calle De Luna west of Calle Del Sol and Calle Del Sol act as a loop connecting Tasman Drive to Lafayette Street.

Calle Del Sol is a four-lane collector street connecting Tasman Drive to Calle De Luna. The street acts as a de-facto cloverleaf for vehicles connecting from Tasman Drive to Lafayette Street. Sidewalks are located on the east side of the street.

Lick Mill Boulevard is a four-lane arterial located between Tasman Drive and Montague Expressway. It runs through residential areas on the border between Santa Clara and San José.

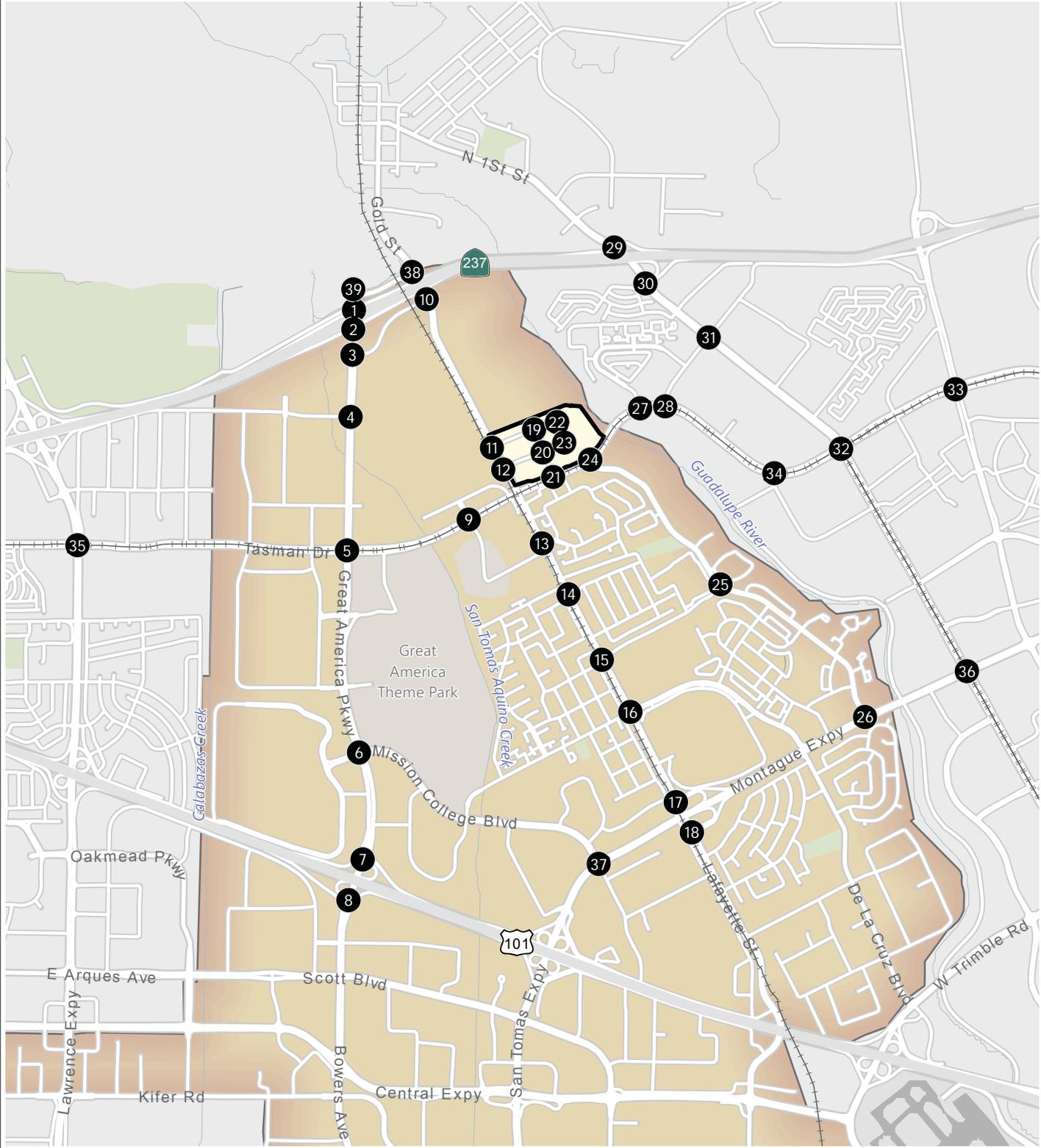
North First Street is a four-lane arterial with center-running, at-grade light-rail. North First Street connects downtown San José to north San José. It is located east of the project site and terminates north of SR 237.

Zanker Road is a four-lane arterial that runs slightly east of North First Street in San José. It begins near downtown San José at US 101 / I-880 interchange and ends north of SR 237 near the San José – Santa Clara Regional Wastewater Facility.

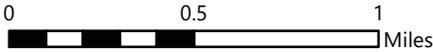
Existing Pedestrian and Bicycle Facilities

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. A mostly complete network of sidewalks and crosswalks provides pedestrian connectivity surrounding the Tasman East area. Sidewalks are present along the north and south sides of Tasman Drive between Great America Parkway and the Guadalupe River Trail. However, sidewalk gaps exist along the north side of Tasman Drive between Centennial Boulevard and Calle Del Sol, Lafayette Street, Calle De Luna, and Calle Del Mundo.



- Study Intersections
- ▭ Tasman East Boundary
- City of Santa Clara



Source: Fehr & Peers, 3/29/18.

EXISTING ROADWAY NETWORK AND STUDY INTERSECTIONS

FIGURE 3.14-1

Bicycle Facilities

There are several bicycle facilities in the vicinity of the project site. The existing bicycle facilities within the study area are described below and shown on Figure 3.14-2.

Class I Trail or Path is an off-street path with exclusive right-of-way for non-motorized transportation used for commuting as well as recreation. There is a Class I bike path that runs along the Guadalupe Parkway and San Tomas Aquino Creek northeast of the project site that provides access to central San José and Santa Clara.

Class II Bike Lanes are preferential use areas within a roadway designated for bicycles. Within the project vicinity, Class II bikeways are present on Tasman Drive from Patrick Henry Drive to the City of San Jose. Great America Parkway has on-street bicycle lanes that extend from Great America Way past US 101 until south of Central Expressway. Lafayette Street has on-street lanes between Agnew Road and SR 237.

Existing Transit Service

Existing transit service to the study area is provided by several transit agencies, as described below and shown on Figure 3.14-3.

Santa Clara Valley Transportation Authority (VTA)

VTA provides light rail, bus and paratransit service to Santa Clara County, including the City of Santa Clara. Light rail trains operate at 15-, 20-, and 60-minute frequencies depending on the time of day. VTA bus routes generally operate between 5:00 AM and 1:00 AM.

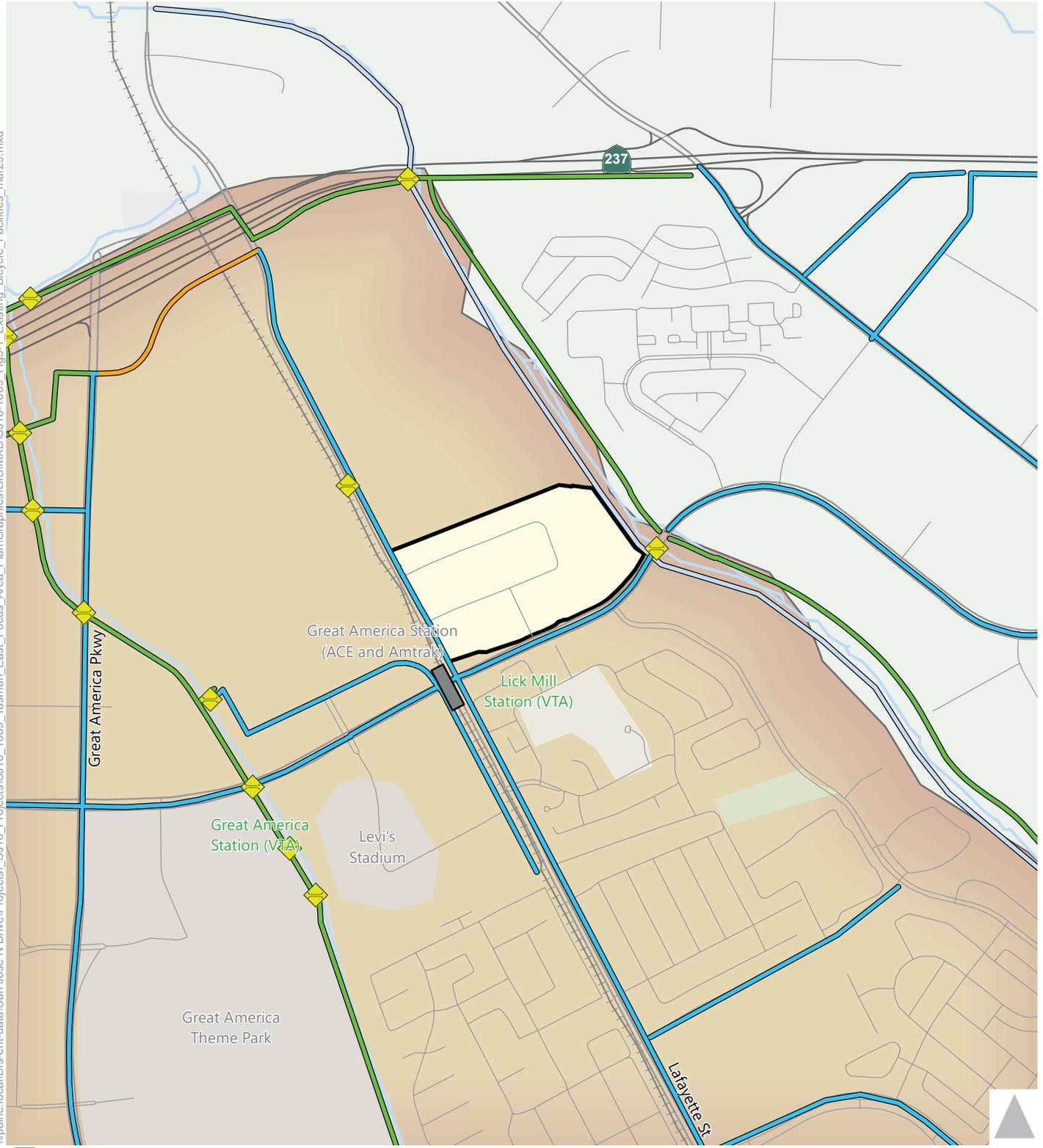
Caltrain

Caltrain operates a commuter rail service seven days a week between San José and San Francisco. During weekday commuting hours, Caltrain also serves the south county including Gilroy, San Martin, and Morgan Hill. Caltrain provides shuttle service to businesses in the Silicon Valley and on the peninsula. The Lawrence Caltrain Station and the Santa Clara Caltrain Station are closest to the project site. Caltrain provides service with 30-minute headways during commute hours.

Altamont Commuter Express (ACE)

ACE provides passenger rail service across the Altamont corridor between the Central Valley and Silicon Valley. ACE trains connect to Caltrain at both the Santa Clara and San José Diridon Stations. Four trains are in operation with 60-minute headways during the commute hours with westbound trains heading to San José in the morning and eastbound trains heading to Modesto in the evening. The nearest ACE station to the project site is the Santa Clara/Great America Station.

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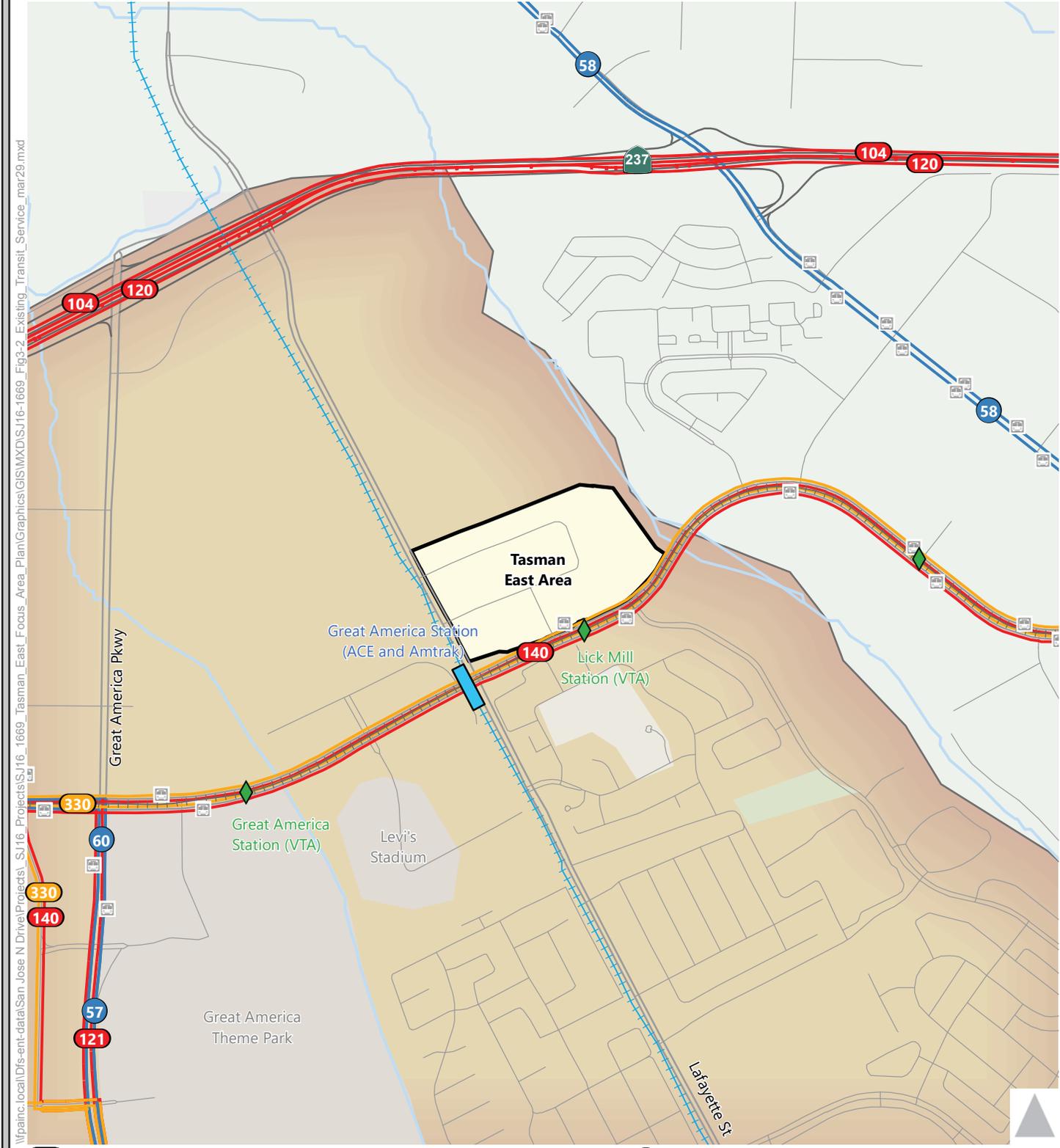
- Project Parcel Boundaries
 - City of Santa Clara
 - Bicycle & Pedestrian Bridge/Under Crossing
 - Unpaved Class I Bicycle Path
 - Class I Bicycle Path
 - Class II Bicycle Lane
 - Class III Bicycle Route
 - VTA Light Rail Route
- 0 1,000 Feet

Source: Fehr & Peers, 3/29/18.

EXISTING BICYCLE FACILITIES

FIGURE 3.14-2

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- | | | | |
|---------------------|--------------------------------|-------------------------------|--------------|
| Project Boundaries | ACE & Capitol Corridor Station | VTA Local Bus Route | 0 1,000 Feet |
| City of Santa Clara | VTA Light Rail Stations | VTA Limited Stop Bus Route | |
| | Bus Stops | VTA Express Bus Route | |
| | | VTA Light Rail Route | |
| | | ACE & Amtrak Capitol Corridor | |

Source: Fehr & Peers, 6/19/18.

EXISTING TRANSIT SERVICE

FIGURE 3.14-3

Amtrak Capitol Corridor Inner-City Rail

Amtrak provides commuter rail service between Sacramento and San José. It operates from 4:30 AM to 12:00 AM with one- to three-hour headways during the commute periods. The nearest Amtrak stations to the project site are the Santa Clara Caltrain station and the Santa Clara/Great America Station.

Study Intersections and Freeway Segments

The traffic analysis determined the impacts of the proposed project on key signalized intersections and freeway segments in the vicinity of the project site. The study intersections and freeway segments are identified below and shown on Figure 3.14-1.

Study Intersections

1. Great America Parkway and Westbound SR 237 Ramps* (City of San José)
2. Great America Parkway and Eastbound SR 237 Ramps* (City of Santa Clara)
3. Great America Parkway and Great America Way (City of Santa Clara)
4. Great America Parkway and Old Mountain View – Alviso Road (City of Santa Clara)
5. Great America Parkway and Tasman Drive* (City of Santa Clara)
6. Great America Parkway and Mission College Boulevard* (City of Santa Clara)
7. Great America Parkway- Bowers Avenue and US 101 Northbound Ramps* (City of Santa Clara)
8. Bowers Avenue and US 101 Southbound Ramps* (City of Santa Clara)
9. Tasman Drive and Centennial Drive (City of Santa Clara)
10. Lafayette Street and Great America Way (City of Santa Clara)
11. Lafayette Street and Calle Del Mundo (City of Santa Clara)
12. Lafayette Street and Calle De Luna (City of Santa Clara)
13. Lafayette Street and Calle De Primavera (City of Santa Clara)
14. Lafayette Street and Hogan Drive (City of Santa Clara)
15. Lafayette Street and Hope Drive (City of Santa Clara)
16. Lafayette Street and Agnew Road (City of Santa Clara)
17. Lafayette Street and Montague Expressway Westbound (County of Santa Clara)
18. Lafayette Street and Montague Expressway Eastbound (County of Santa Clara)
19. Calle Del Sol and Calle Del Mundo (New City of Santa Clara Intersection)
20. Calle Del Sol and Calle De Luna (City of Santa Clara)
21. Tasman Drive and Calle Del Sol (City of Santa Clara)
22. Lick Mill and Calle De Luna (New City of Santa Clara Intersection)
23. Lick Mill and Calle Del Mundo (New City of Santa Clara Intersection)
24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara)
25. Lick Mill Boulevard and Hope Drive (City of Santa Clara)
26. Lick Mill Boulevard and Montague Expressway (County of Santa Clara)
27. Tasman Drive and Renaissance Drive (City of San José)
28. Tasman Drive and Vista Montana (City of San José)
29. Westbound 237 and 1st Street* (City of San José)
30. Eastbound 237 and 1st Street* (City of San José)
31. 1st Street and Vista Montana (City of San José)
32. Tasman Drive and 1st Street (City of San José)

33. Tasman Drive and Zanker Road (City of San José)
34. Tasman Drive and Rio Robles (City of San José)
35. Tasman Drive and Lawrence Expressway* (Santa Clara County)
36. Montague Expressway and North First Street* (Santa Clara County)
37. Montague Expressway and Mission College Boulevard* (Santa Clara County)
38. Gold Street and Gold Street Connector (City of San José)
39. Gold Street Connector and Great America Parkway (City of San José)

*denotes CMP intersections

Freeway Segments

- SR 237 from I-880 (Milpitas) to U.S. 101 (San José)
- U.S. 101 from Embarcadero (Palo Alto) to Old Bayshore Highway (San José)
- I-880 from Dixon Landing Road (Milpitas) to U.S. 101 (San José)

Traffic Scenarios Analyzed

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour is expected to occur between 7:00 AM and 9:00 AM and the PM peak hour is expected to occur between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most traffic congestion occurs on the roadways. Traffic conditions were evaluated for the following scenarios:

- *Existing Conditions.* Existing conditions are represented by existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from existing count data available from recently completed traffic studies (between 2014 and 2016), and new traffic counts conducted in May 2017.
- *Existing Plus Project Conditions.* Existing plus project conditions represent existing peak-hour traffic volumes with the addition of traffic generated by the proposed project if the project were open and operating today. Existing plus project conditions were evaluated relative to existing conditions in order to identify potential deficiencies associated solely with the proposed project.
- *Background Conditions.* Background conditions were represented by future traffic volumes on the future roadway network. Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet constructed developments in the study area. The added traffic from approved but not yet constructed developments was based on the list of approved projects provided by the City of Santa Clara, and includes development occurring in San José. Background conditions include transportation improvements required as mitigation for other approved developments.
- *Background Plus Project Conditions.* Background traffic volumes with the project (hereafter called project traffic volumes) were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

- *Cumulative Conditions.* Cumulative conditions represent future traffic volumes estimated to occur by 2040 as well as planned improvements to the transportation system. Cumulative conditions include traffic growth projected to occur due to the approved development projects and proposed but not yet approved (pending) development projects in the study area including in San José. The added traffic from pending projects was based on forecasts from the VTA traffic model.
- *Cumulative Plus Project Conditions.* Cumulative plus project conditions were estimated by adding to the cumulative traffic volumes the additional traffic estimated to be generated by the proposed project.

Table 3.14-3: Existing and Background Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Background	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS
1. Great America Parkway and Westbound SR 237* (City of San José)	D	AM	17.5	B	31.3	C
		PM	17.5	B	27.5	C
2. Great America Parkway and Eastbound SR 237 Ramps* (City of Santa Clara)	E	AM	12.3	B	13.3	B
		PM	10.4	B	12.3	B
3. Great America Parkway and Great America Way (City of Santa Clara)	D	AM	20.7	C	25.6	C
		PM	22.9	C	17.3	B
4. Great America Parkway and Old Mountain View – Alviso Road (City of Santa Clara)	D	AM	18.9	B	62.4	E
		PM	26.6	C	24.7	C
5. Great America Parkway and Tasman Drive* (City of Santa Clara)	E	AM	25.8	C	29.2	C
		PM	29.8	C	49.8	D
6. Great America Parkway and Mission College Blvd.* (City of Santa Clara)	E	AM	37.8	D	45.2	D
		PM	49.0	D	53.2	E
7. Great America Parkway- Bowers Avenue and US 101 Northbound Ramps* (City of Santa Clara)	E	AM	9.8	A	12.0	B
		PM	8.1	A	10.9	B
8. Bowers Avenue and US 101 Southbound Ramps* (City of Santa Clara)	E	AM	22.3	C	23.5	C
		PM	5.6	A	6.5	A
9. Tasman Drive and Centennial Drive (City of Santa Clara)	D	AM	18.7	B	61.9	E
		PM	30.9	C	>180	F
10. Lafayette Street and Great America Way (City of Santa Clara) ¹	D	AM	9.6	A	10.2	B
		PM	21.1	C	39.2	D
11. Lafayette Street and Calle Del Mundo (City of Santa Clara) ¹	D	AM	14.1	B	17.9	C
		PM	12.7	B	18.0	C
12. Lafayette Street and Calle De Luna (City of Santa Clara)	D	AM	14.8	B	14.6	B
		PM	18.8	B	19.1	B

Table 3.14-3: Existing and Background Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Background	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS
13. Lafayette Street and Calle De Primavera (City of Santa Clara)	D	AM PM	16.4 11.1	B B	16.4 11.2	B B
14. Lafayette Street and Hogan Drive (City of Santa Clara)	D	AM PM	10.3 10.8	B B	9.0 9.5	A A
15. Lafayette Street and Hope Drive (City of Santa Clara)	D	AM PM	21.0 13.9	C B	20.4 13.2	C B
16. Lafayette Street and Agnew Road (City of Santa Clara)	D	AM PM	38.2 40.2	D D	37.0 40.3	D D
17. Lafayette Street and Montague Expressway Westbound (Santa Clara Co.)	D	AM PM	32.4 24.8	C C	31.0 22.7	C C
18. Lafayette Street and Montague Expressway Eastbound (Santa Clara Co.)	D	AM PM	15.1 12.5	B B	14.1 10.9	B B
19. Calle Del Sol and Calle Del Mundo (New City of Santa Clara Intersection)	--	AM PM	-- --	-- --	-- --	-- --
20. Calle Del Sol and Calle De Luna (City of Santa Clara) ¹	E	AM PM	15.6 23.2	C C	-- --	-- --
21. Tasman Drive and Calle Del Sol (City of Santa Clara)	D	AM PM	13.8 17.5	B B	13.9 19.3	B B
22. Lick Mill and Calle Del Mundo (New City of Santa Clara Intersection)	--	AM PM	-- --	-- --	-- --	-- --
23. Lick Mill and Calle De Luna (New City of Santa Clara Intersection)	--	AM PM	-- --	-- --	-- --	-- --
24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara)	D	AM PM	20.9 21.5	C C	26.2 33.4	C C
25. Lick Mill Boulevard and Hope Drive (City of Santa Clara)	D	AM PM	26.6 23.6	C C	24.0 20.5	C C
26. Lick Mill Boulevard and Montague Expressway (Santa Clara County)	E	AM PM	20.6 21.8	C C	18.4 32.8	B C
27. Tasman Drive and Renaissance Drive (City of San José)	D	AM PM	17.1 10.3	B B	16.5 13.3	B B
28. Tasman Drive and Vista Montana (City of San José)	D	AM PM	18.8 22.2	B C	17.5 22.0	B C
29. Westbound 237 and 1st Street* (City of San José)	D	AM PM	14.2 16.8	B B	28.6 36.7	C D

Table 3.14-3: Existing and Background Intersection Levels of Service						
Study Intersection	LOS Threshold	Peak Hour	Existing		Background	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS
30. Eastbound 237 and 1st Street* (City of San José)	D	AM PM	23.0 22.0	C C	34.1 24.7	C C
31. 1st Street and Vista Montana (City of San José)	D	AM PM	31.2 35.0	C C	33.0 37.0	C D
32. Tasman Drive and 1st Street (City of San José)	D	AM PM	33.2 38.6	C D	37.3 48.1	D D
33. Tasman Drive and Zanker Road (City of San José)	D	AM PM	34.4 39.9	C D	37.9 42.8	D D
34. Tasman Drive and Rio Robles (City of San José)	E	AM PM	24.3 27.5	C C	23.6 26.0	C C
35. Tasman Drive and Lawrence Expressway* (Santa Clara County)	E	AM PM	39.8 54.7	D D	60.3 80.5	E F
36. Montague Expressway and North First Street* (Santa Clara County)	E	AM PM	105.9 110.4	F F	175.0 >180	F F
37. Montague Expressway and Mission College Boulevard* (Santa Clara County)	E	AM PM	46.9 91.6	D F	58.7 149.0	E F
38. Gold Street and Gold Street Connector (City of San José)	D	AM PM	22.6 21.5	C C	23.6 26.9	C C
39. Gold Street Connector and Great America Parkway (City of San José)	D	AM PM	11.8 16.7	B B	13.5 21.3	B C
Note: * Denotes CMP intersection						
¹ Unsignalized intersection						
Bold text indicates conditions that exceed the applicable level of service standard.						

Existing Levels of Service

Existing Intersection Levels of Service

The results of the intersection level of service analysis under existing conditions are summarized in Table 3.14-3. The results of the intersection level of service analysis under existing conditions show that, measured against the applicable municipal and CMP level of service standards, all study intersections, with the exception of intersections #36 and #37, operate at acceptable levels of service during the peak hour period under existing conditions. Intersection #36 currently operates at an LOS F in both the AM and PM peak hours, and intersection #37 currently operates at an LOS F in the PM peak hour.

Field Observations

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service along the Tasman Drive, Great America Parkway, and Lafayette Street corridors. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculation does not accurately reflect level of service in the field.

Overall, most study intersections operated adequately (i.e., LOS D or better for Santa Clara and San José intersections and LOS E or better for CMP intersections), during both AM and PM peak hours of traffic (with the exception of intersections #36 and #37), and the level of service analysis appears to accurately reflect actual existing traffic conditions. Refer to Appendix G for more details.

Existing Freeway Levels of Service

The existing freeway segment level of service results are shown in Table 3.14-4. The results show that all of the study freeway segments currently operate at LOS F during at least one peak hour in at least one direction.

Table 3.14-4: Existing Freeway Levels of Service					
Freeway Segment		Direction	Peak Hour	Mixed-Flow Lanes	HOV Lane
				LOS	
US 101	1. Old Bayshore Highway to North First Street	NB	AM PM	F B	F A
		SB	AM PM	B F	A F
	2. 2. North First Street to Guadalupe Parkway	NB	AM PM	F B	F A
		SB	AM PM	B F	A F
	3. Guadalupe Parkway to De La Cruz Boulevard	NB	AM PM	F C	F A
		SB	AM PM	C E	A D
	4. De La Cruz Boulevard to Montague Expressway – San Tomas Expressway	NB	AM PM	F C	F A
		SB	AM PM	C F	A F

**Table 3.14-4:
Existing Freeway Levels of Service**

Freeway Segment		Direction	Peak Hour	Mixed-Flow Lanes	HOV Lane
				LOS	
US 101	5. Montague Expressway – San Tomas Expressway to Bowers Avenue – Great America Parkway	NB	AM PM	F D	F A
		SB	AM PM	C F	B F
	6. Bowers Avenue – Great America Parkway to Lawrence Expressway	NB	AM PM	F D	F B
		SB	AM PM	D F	B F
	7. Lawrence Expressway to North Fair Oaks Avenue	NB	AM PM	F D	F B
		SB	AM PM	D F	B F
	8. North Fair Oaks Avenue to North Mathilda Avenue	NB	AM PM	F C	E A
		SB	AM PM	C F	B F
	9. North Mathilda Avenue to SR-237	NB	AM PM	E C	F C
		SB	AM PM	C F	D F
	10. SR-237 to Moffett Boulevard	NB	AM PM	F E	F D
		SB	AM PM	D F	D E
	11. Moffett Boulevard to SR-85	NB	AM PM	F F	F D
		SB	AM PM	D F	B F
	12. SR-85 to North Shoreline Boulevard	NB	AM PM	F F	D D
		SB	AM PM	D F	D E

**Table 3.14-4:
Existing Freeway Levels of Service**

Freeway Segment		Direction	Peak Hour	Mixed-Flow Lanes	HOV Lane	
				LOS		
US 101	13. North Shoreline Boulevard to Rengstorff Avenue	NB	AM PM	F F	F D	
		SB	AM PM	D F	B F	
	14. Rengstorff Avenue to San Antonio Avenue	NB	AM PM	E F	C C	
		SB	AM PM	E F	C C	
	15. San Antonio Avenue to Oregon Expressway	NB	AM PM	E F	D D	
		SB	AM PM	D F	C D	
	16. Oregon Expressway to Embarcadero Road	NB	AM PM	F F	F F	
		SB	AM PM	D F	D D	
	SR 237	17. US 101 to Mathilda Avenue	EB	AM PM	D F	- -
			WB	AM PM	E F	- -
		18. Mathilda Avenue to North Fair Oaks Avenue	EB	AM PM	D F	B F
			WB	AM PM	F F	- -
19. North Fair Oaks Avenue to Lawrence Expressway		EB	AM PM	D F	C F	
		WB	AM PM	F F	F D	
20. Lawrence Expressway to Great America Parkway		EB	AM PM	D F	B F	
		WB	AM PM	F D	F B	

**Table 3.14-4:
Existing Freeway Levels of Service**

Freeway Segment		Direction	Peak Hour	Mixed-Flow Lanes	HOV Lane	
				LOS		
SR 237	21. Great America Parkway to North First Street	EB	AM PM	D F	C F	
		WB	AM PM	F D	F B	
	22. North First Street to Zanker Road	EB	AM PM	D F	B E	
		WB	AM PM	F D	F A	
	23. Zanker Road to McCarthy Boulevard	EB	AM PM	D D	B D	
		WB	AM PM	F D	F B	
	24. McCarthy Boulevard to I-880	EB	AM PM	C C	A D	
		WB	AM PM	F C	F A	
	I-880	25. US 101 to East Brokaw Road	NB	AM PM	E D	B B
			SB	AM PM	F F	F D
		26. East Brokaw Road to Montague Expressway	NB	AM PM	C C	B B
			SB	AM PM	F F	C D
27. Montague Expressway to Great Mall Parkway		NB	AM PM	C D	B B	
		SB	AM PM	F F	D D	
28. Great Mall Parkway to SR-237		NB	AM PM	D D	D C	
		SB	AM PM	D F	D D	

Table 3.14-4: Existing Freeway Levels of Service					
Freeway Segment		Direction	Peak Hour	Mixed-Flow Lanes	HOV Lane
				LOS	
I-880	29. SR-237 to Dixon Landing Road	NB	AM PM	C D	A D
		SB	AM PM	E D	F C

Note: **Bold** text indicates unacceptable level of service based on VTA's LOS E Standard. Source: Santa Clara Valley Transportation Authority. *Monitoring and Conformance Report*. 2016.

3.14.1.4 *Background Conditions*

This section discusses background conditions, which are defined as traffic conditions from approved but not yet constructed developments and recently constructed but yet occupied developments. Traffic volumes for background conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site. Background conditions include transportation improvements required as mitigation for other approved developments, including development and roadway improvements in adjacent areas of San José.

Background Transportation Network

It is assumed in this analysis that the transportation network under background conditions would be the same as the existing transportation network with the exception of the following improvements identified by the City of Santa Clara:

1. Great America Parkway/Westbound SR 237 Ramps – third westbound left-turn lane and receiving lane; second westbound right-turn lane. (City Place Responsible⁸⁸)
2. Great America Parkway/Eastbound SR 237 Ramps – third southbound through lane and second eastbound right-turn lane (City Place Responsible)
3. Great America Parkway/Great America Way – second westbound right-turn lane with overlap phase and second southbound left-turn lane (City Place Responsible)
4. Great America Parkway/Old Mountain View – Alviso Road – second eastbound left-turn lane (City Place Responsible)
5. Great America Parkway/Tasman Drive – southbound right-turn lane and third westbound left-turn lane (City Place Responsible)
6. Great America Parkway/Mission College Boulevard – third westbound left-turn lane, fourth southbound through lane, third northbound left-turn lane, separate westbound right-turn lane (City of Santa Clara Capital Improvement Program)

⁸⁸ City Place Responsible indicates those improvements proposed by or required as mitigation measures for the City Place project.

24. Tasman Drive/Lick Mill Boulevard – reconfigured northbound and southbound approaches to two left-turn lanes, one through lane, and one right-turn lane; change phasing on northbound and southbound approaches from split to protected left-turn phasing; second westbound left-turn lane (City Place Responsible)
26. Lick Mill Boulevard/Montague Expressway – third southbound left-turn lane (City Place Responsible)
39. Gold Street Connector/Great America Parkway – second northbound right-turn lane (City Place Responsible)

Background Traffic Volumes

Background peak-hour traffic volumes were estimated by adding to existing volumes the estimated traffic from approved, but not yet constructed, developments. The City Place development, which was recently approved, may take 10 years or more to complete. Therefore, background conditions include the trips generated by City Place Phases 1, 2, and 3 and North San Jose Development Policies Update Phases I and II.

Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions are summarized in Table 3.14-3. The results show that, measured against applicable level of service standards, the following signalized intersections would operate at an unacceptable level of service during one or both peak hours:

9. Tasman Drive and Centennial Drive (City of Santa Clara) – AM and PM Peak Hour
35. Tasman Drive and Lawrence Expressway (City of Santa Clara)* – PM Peak Hour
36. Montague Expressway and Mission College Boulevard (County of Santa Clara)* – AM and PM Peak Hour
37. Montague Expressway and Mission College Boulevard (County of Santa Clara)* – PM Peak Hour

* denotes CMP intersection

The remaining study intersections would operate at acceptable levels of service during both the AM and PM peak hours of traffic under background conditions.

3.14.2 Transportation/Traffic Impacts

3.14.2.1 *Thresholds of Significance*

For the purposes of this EIR, a transportation/traffic impact is considered significant if the project would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance of safety of such facilities.

Intersection Impact Criteria

For the purpose of this EIR, the significance criteria used to determine significant impacts on intersections for this analysis are based on the cities of Santa Clara and San José and CMP level of service standards.

City of Santa Clara Definition of Significant Signalized Intersection Impacts

The project would create a significant adverse impact on traffic conditions at a signalized intersection in the City of Santa Clara if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better to an unacceptable LOS E or F, or
2. The level of service at the intersection is an unacceptable level (LOS E or F at City-controlled intersections and LOS F at expressway intersections) and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

A significant impact by the City of Santa Clara standards is determined to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to an acceptable level or no worse than existing or background conditions as applicable.

City of Santa Clara Definition of Significant Unsignalized Intersection Impacts

The City of Santa Clara does not have an officially adopted significance criterion for unsignalized intersections. However, the City generally uses LOS E as a minimum acceptable operating level at unsignalized intersections in its environmental documents. As a result, significant impacts occur when the addition of project traffic degrades operations to LOS F and the intersection satisfies the peak hour signal warrants from the California Manual of Uniform Traffic Control Devices.

City of San José Definition of Significant Signalized Intersection Impacts

The project would create a significant adverse impact on traffic conditions at a signalized intersection in the City of San José if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better to an unacceptable LOS E or F, or
2. The level of service at the intersection is an unacceptable LOS E or F and the addition of project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the V/C increases by one percent (0.01) or more.

An exception to criteria 2 applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

A significant impact by City of San José standard is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to existing or background conditions or better, as applicable.

City of San José Definition of Significant Unsignalized Intersection Impacts

The City of San Jose does not have an officially adopted significance criterion for unsignalized intersections. Based on previous traffic studies, significant impacts occur when the addition of project traffic causes the average intersection delay for all-way stop-controlled intersections or the worst movement for side-street stop-controlled intersections to degrade to LOS F and the intersection satisfies any traffic signal warrant from the California Manual on Uniform Traffic Control Devices.

CMP Definition of Significant Signalized Intersection LOS Impacts

The definition of a significant impact at a CMP intersection is the same as for each of the cities, except that the CMP standard for acceptable level of service at a CMP intersection is LOS E or better. A significant impact by CMP standard is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to an acceptable level or no worse than existing or background conditions, as applicable.

CMP Definition of Significant Freeway Segment Impacts

The LOS standard for CMP freeway segments is LOS E for both mixed-flow and HOV lanes. The Tasman East study area includes freeway segments within Santa Clara County. Santa Clara County's impact criteria for a freeway segment impact is below:

1. The level of service on the freeway segment degrades from an acceptable LOS E or better to an unacceptable LOS F; or

2. The level of service on the freeway segment is an unacceptable LOS F under project conditions *and* the number of project trips added to that segment constitutes at least one percent of capacity.

3.14.2.2 Trip Generation Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel were estimated. In the project trip assignment, the project trips were assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. The standard trip generation rates can be applied to help predict the future traffic increases that would result from a new development. The standard trip generation rates are published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*.

Project Trip Generation

The trip estimates for each of the land use components of the Tasman East Specific Plan were reduced to account for internalization, or trips made between each of the proposed land uses. The reductions are based on the assumption that vehicle trips to each of the proposed residential, retail, and institutional land uses at the site would be reduced due to internalization of trips. Reductions of 13 to 19 percent were applied due to internalization and external walking, bicycling and transit trips as determined by *Fehr & Peers'* MainStreet mixed-use trip generation model. These reductions assumed five percent of the project trips would be made via nearby transit services. The numbers of vehicle trips generated by the school were estimated by applying the rates developed from the local surveys and a 35 percent reduction to account for students residing in Tasman East walking and biking to school.

Based on the ITE trip generation rates and applicable reductions, it is estimated that the proposed project would generate 30,695 daily trips, with 2,370 trips (665 inbound and 1,705 outbound) occurring during the AM peak hour and 2,765 trips (1,675 inbound and 1,090 outbound) occurring during the PM peak hour.

Existing Project Site Trip Generation

Trips associated with the existing 708,000 square-foot light industrial buildings on the project site are subtracted from the estimated trips to be generated by the proposed project to determine the project's net trip generation. Based on the ITE trip generation rates, the existing light industrial buildings generate approximately 4,460 daily trips, with 570 trips (500 inbound and 70 outbound) occurring during the AM peak hour and 610 trips (70 inbound and 540 outbound) occurring during the PM peak hour.

Net Project Trip Generation

Based on the ITE trip generation rates, applicable reductions, and credit for existing uses on the project site, it is estimated that the proposed project would generate 26,235 net daily trips, with 1,800 net trips (165 inbound and 1,635 outbound) occurring during the AM peak hour and 2,155 net trips (1,605 inbound and 550 outbound) occurring during the PM peak hour. The trip generation estimates for the proposed project are presented in Table 3.14-5. Applicable trip reductions include a five percent reduction due to the proximity of the Plan Area to transit facilities. As discussed in MM AQ-2.1, individual development projects within the Plan Area would be required to implement a TDM program consistent with the requirements of the City's Climate Action Plan that would ensure the assumed reduction in trip generation is achieved.

Trip Distribution and Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway network, the locations of complementary land uses, and the previous traffic impact report completed for the adjacent City Place project. The peak-hour trips generated by the project were assigned to the roadway network in accordance with the project trip distribution pattern. The trip distribution patterns for the project are shown in Appendix G of this EIR.

Table 3.14-5: Existing Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
		Rate ³	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Proposed											
Residential	4,500 du	6.087	27,395		445	1,765	2,210		1,620	875	2,495
Retail	106,000 sf	66.56	7,055		100	60	160		295	330	625
Housing/retail mixed-use and transit reductions ¹		(12.7%)	-4,380	(16.2%)	-90	-295	-385	(18.9%)	-360	-235	-595
School	390 ²	1.61	965	0.54/0.45	215	170	385	0.3/.32	115	130	245
Walk/Bike Reduction		(35%)	-340		-115	-95	-210		-60	-70	-130
<i>Project Trips After Reductions</i>			30,695		665	1,705	2,370		1,675	1,090	2,765
Former Land Use											
Light Industrial	708,000 sf		4,935		575	75	650		85	605	690
Transit Trip Reductions		(9.6%)	-475	(12.4%)	-75	-5	-80	(11.6%)	-15	-65	-80
Total			4,460		500	70	570		70	540	610
Net Project Trip (Proposed – Former Land Uses):			26,235		165	1,635	1,800		1,605	550	2,155
Notes: du = dwelling units; sf = square feet											
¹ Trip reductions due to trip internalization and external walking, bicycling and transit trips range from 13 percent to 19 percent.											
² An estimated 390 students will generate vehicle trips due to the proposed school.											
³ Rates are shown as per unit, per 1,000 square feet, or per student.											

3.14.2.3 *Existing Plus Project Conditions*

Existing Plus Project Transportation Network

It is assumed in this analysis that the transportation networks under existing plus project would be the same as existing conditions.

Existing Plus Project Traffic Volumes

Project impacts were evaluated relative to existing traffic volumes. For the existing plus project scenario, the new trips generated by the project were added to the existing traffic volumes to derive the existing plus project traffic volumes.

Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions are summarized in Table 3.14-6. The changes in critical delay and critical volume to capacity ratio between existing and existing plus project conditions are used to identify project-level significant impacts.

The results of the intersection level of service analysis under existing plus project conditions show that, measured against the applicable municipal level of service standards, two signalized intersections (#9 and #37) would result in significant impacts, listed below. Additionally, intersection #10 and #11 would operate at LOS F and meet the peak hour signal warrant (#10 during the PM peak hour and #11 during the AM peak hour), which for the purposes of this EIR is a significant impact.

- 9. Tasman Drive and Centennial Drive (City of Santa Clara) – PM Peak Hour
 - 10. Lafayette Street and Great America Way (City of Santa Clara) – PM Peak Hour
 - 11. Lafayette Street and Calle Del Mundo (City of Santa Clara) – AM Peak Hour
 - 37. Montague Expressway and Mission College Boulevard* (Santa Clara County) – PM Peak Hour
- * denotes CMP intersection

All the other study intersections are projected to continue to operate at acceptable levels of service, according to applicable municipal and CMP standards under existing plus project conditions.

Impact TRANS-1: The project would have a significant impact under existing plus project conditions at the following four intersections: Tasman Drive and Centennial Drive (#9), Lafayette Street and Great America Way (#10), Lafayette Street and Calle Del Mundo (#11), and Montague Expressway and Mission College Boulevard (#37). **(Significant Impact)**

Mitigation Measures: The following mitigation measures, if implemented, would reduce the impacts of the Specific Plan to a less than significant level:

MM TRANS-1.1: 9. Tasman Drive and Centennial Drive (City of Santa Clara) – Add a third eastbound through lane

With the implementation of the improvement, the intersection of Tasman Drive and Centennial Drive would operate at an acceptable LOS D. However, due to light rail lines along Tasman Drive, coordination with VTA would be needed to secure right-of-way. Since this mitigation relies on the approval of VTA, the City cannot know with certainty that this mitigation measure would be implemented, and therefore this impact is significant and unavoidable. **(Significant Unavoidable Impact)**

MM TRANS-1.2: 10. Lafayette Street and Great America Way (City of Santa Clara) – Signalize this intersection prior to occupancy of planned development comprising 30 percent of the project trip generation.

With the implementation of this mitigation measure, the intersection would operate at an acceptable LOS D and the project's impacts to the intersection of Lafayette Street and Great America Way would be reduced to a less than significant level. **(Less Than Significant With Mitigation Incorporated)**

MM TRANS-1.3: 11. Lafayette Street and Calle Del Mundo (City of Santa Clara) – Signalize this intersection prior to occupancy of planned development comprising 70 percent of the project trip generation.

With the implementation of this mitigation measure, the intersection of Lafayette Street and Calle Del Mundo would operate at LOS B and the project's impacts to the intersection would be reduced to a less than significant level. **(Less Than Significant With Mitigation Incorporated)**

MM TRANS-1.4: 37. Montague Expressway and Mission College Boulevard (County of Santa Clara) – This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The VTP 2040 project would add a third southbound left-turn lane to the intersection. The project shall make a fair-share contribution towards the additional turn lane.

With implementation of the improvement identified in MM TRANS-1.4, the intersection of Montague Expressway and Mission College Boulevard would operate at an acceptable LOS E during the PM peak hour and the average delay would be better than existing conditions. This intersection is located in the City of Santa Clara, but it is within the jurisdiction of Santa Clara County. Additionally, an interchange is identified at this intersection as a Tier 2 priority per the Comprehensive County Expressway Planning Study. The project shall implement MM TRANS-1.4, however, the impact is significant and unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the

implementation of the improvement concurrent with the proposed project. **(Significant Unavoidable Impact)**

Existing Plus Project Freeway Segment Level of Service

Traffic volumes on the study freeway segments under existing plus project conditions were estimated by adding net project trips to the existing freeway volumes. The results show that, based on the CMP freeway segment criteria, the project would have a significant impact on the following mixed-flow lanes on 16 directional freeway segments and HOV lanes on eight directional freeway segments during at least one peak hour:

Mixed-Flow Lane Segment Impacts:

US 101 Northbound:

- Bowers Avenue/Great America Parkway to Lawrence Expressway (AM peak hour)
- Lawrence Expressway to North Fair Oaks Avenue (AM peak hour)
- North Fair Oaks Avenue to North Mathilda Avenue (AM peak hour)

US 101 Southbound:

- North Mathilda Avenue to North Fair Oaks Avenue (PM peak hour)
- North Fair Oaks Avenue to Lawrence Expressway (PM peak hour)
- Lawrence Expressway to Bowers Avenue / Great America Parkway (PM peak hour)

SR 237 Eastbound:

- US 101 to Mathilda Avenue (PM peak hour)
- Mathilda Avenue to North Fair Oaks Avenue (PM peak hour)
- North Fair Oaks Avenue to Lawrence Expressway (PM peak hour)
- Lawrence Expressway to Great America Parkway (PM peak hour)
- North First Street to Zanker Road (PM peak hour)

SR 237 Westbound:

- Great America Parkway to Lawrence Expressway (AM peak hour)
- Lawrence Expressway to North Fair Oaks Avenue (AM and PM peak hours)
- North Fair Oaks Avenue to Mathilda Avenue (AM and PM peak hours)
- Mathilda Avenue to US 101 (PM peak hour)

I-880 Southbound:

- SR 237 to Dixon Landing Road (AM peak hour)

Table 3.14-6: Existing and Existing Plus Project Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Existing Plus Project				Mitigated	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
1. Great America Parkway and Westbound SR 237* (City of San José)	D	AM	17.5	B	23.9	C	0.191	8.2		
		PM	17.5	B	17.5	B	0.105	0.8		
2. Great America Parkway and Eastbound SR 237 Ramps* (City of Santa Clara)	E	AM	12.3	B	13.5	B	0.018	0.7		
		PM	10.4	B	16.0	B	0.144	5.7		
3. Great America Parkway and Great America Way (City of Santa Clara)	D	AM	20.7	C	29.4	C	0.168	10.5		
		PM	22.9	C	31.1	C	0.223	11.2		
4. Great America Parkway and Old Mountain View – Alviso Road (City of Santa Clara)	D	AM	18.9	B	18.9	B	0.000	0.0		
		PM	26.6	C	26.5	C	0.003	0.1		
5. Great America Parkway and Tasman Drive* (City of Santa Clara)	E	AM	25.8	C	26.0	C	0.080	1.4		
		PM	29.8	C	33.5	C	0.229	7.7		
6. Great America Parkway and Mission College Boulevard* (City of Santa Clara)	E	AM	37.8	D	37.8	D	0.033	-0.2		
		PM	49.0	D	48.9	D	0.011	0.5		
7. Great America Parkway- Bowers Avenue and US 101 Northbound Ramps* (City of Santa Clara)	E	AM	9.8	A	9.7	A	0.003	-0.1		
		PM	8.1	A	7.9	A	0.038	0.0		
8. Bowers Avenue and US 101 Southbound Ramps* (City of Santa Clara)	E	AM	22.3	C	22.3	C	0.010	0.1		
		PM	5.6	A	8.0	A	0.038	2.9		

Table 3.14-6: Existing and Existing Plus Project Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Existing Plus Project				Mitigated	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
9. Tasman Drive and Centennial Drive (City of Santa Clara)	D	AM	18.7	B	22.2	C	0.136	5.2	N/A	N/A
		PM	30.9	C	94.5	F	0.137	101.0	N/A	N/A
10. Lafayette Street and Great America Way (City of Santa Clara) ¹	N/A	AM	9.6	A	10.5	B	N/A	N/A	11.2	B
		PM	21.1	C	>180	F	N/A	N/A	40.4	D
11. Lafayette Street and Calle Del Mundo (City of Santa Clara) ¹	N/A	AM	14.1	B	59.5	F	N/A	N/A	16.3	B
		PM	12.7	B	40.4	E	N/A	N/A	12.0	B
12. Lafayette Street and Calle De Luna (City of Santa Clara)	D	AM	14.8	B	24.2	C	0.261	10.4		
		PM	18.8	B	23.2	C	0.248	16.5		
13. Lafayette Street and Calle De Primavera (City of Santa Clara)	D	AM	16.4	B	16.3	B	0.008	-0.1		
		PM	11.1	B	11.6	B	0.026	0.4		
14. Lafayette Street and Hogan Drive (City of Santa Clara)	D	AM	10.3	B	8.9	A	0.007	-0.1		
		PM	10.8	B	9.8	A	0.024	-0.2		
15. Lafayette Street and Hope Drive (City of Santa Clara)	D	AM	21.0	C	20.7	C	0.022	1.6		
		PM	13.9	B	13.9	B	0.022	-0.3		
16. Lafayette Street and Agnew Road (City of Santa Clara)	D	AM	38.2	D	37.9	D	0.038	1.3		
		PM	40.2	D	40.0	D	0.029	0.2		
17. Lafayette Street and Montague Expressway Westbound (Santa Clara County)	D	AM	32.4	C	37.2	D	0.098	6.8		
		PM	24.8	C	25.8	C	0.083	-0.5		
18. Lafayette Street and Montague Expressway Eastbound (Santa Clara County)	D	AM	15.1	B	16.0	B	0.012	1.6		
		PM	12.5	B	15.1	B	0.187	2.9		

Table 3.14-6: Existing and Existing Plus Project Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Existing Plus Project				Mitigated	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
19. Calle Del Sol and Calle Del Mundo (New City of Santa Clara Intersection)	Future Intersection	AM PM	-- --	-- --	-- --	-- --	-- --	-- --		
20. Calle Del Sol and Calle De Luna (City of Santa Clara)	E	AM PM	15.6 23.2	C C	-- --	-- --	-- --	-- --		
21. Tasman Drive and Calle Del Sol (County of Santa Clara)	E	AM PM	13.8 17.5	B B	21.6 21.1	C C	0.277 0.159	8.2 14.7		
22. Lick Mill and Calle Del Mundo (New City of Santa Clara Intersection)	Future Intersection	AM PM	-- --	-- --	-- --	-- --	-- --	-- --		
23. Lick Mill and Calle De Luna (New City of Santa Clara Intersection)	Future Intersection	AM PM	-- --	-- --	-- --	-- --	-- --	-- --		
24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara)	D	AM PM	20.9 21.5	C C	26.6 24.1	C C	0.228 0.148	6.4 2.6		
25. Lick Mill Boulevard and Hope Drive (City of Santa Clara)	D	AM PM	26.6 23.6	C C	26.1 23.4	C C	0.061 0.034	-0.7 0.4		
26. Lick Mill Boulevard and Montague Expressway (Santa Clara County)	E	AM PM	20.6 21.8	C C	25.2 24.1	C C	0.033 0.041	3.1 3.9		
27. Tasman Drive and Renaissance Drive (City of San José)	D	AM PM	17.1 10.3	B B	14.7 10.4	B B	0.012 0.081	-3.6 -0.3		
28. Tasman Drive and Vista Montana (City of San José)	D	AM PM	18.8 22.2	B C	19.7 26.6	B C	0.104 0.156	2.2 5.6		

Table 3.14-6: Existing and Existing Plus Project Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Existing Plus Project				Mitigated	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
29. Westbound 237 and 1st Street* (City of San José)	E	AM	14.2	B	14.3	B	0.004	0.1		
		PM	16.8	B	16.8	B	0.040	-0.1		
30. Eastbound 237 and 1st Street* (City of San José)	D	AM	23.0	C	22.3	C	0.000	0.0		
		PM	22.0	C	21.9	C	0.000	0.0		
31. 1st Street and Vista Montana (City of San José)	D	AM	31.2	C	32.4	C	0.084	1.4		
		PM	35.0	C	34.9	C	0.119	2.7		
32. Tasman Drive and 1st Street (City of San José)	D	AM	33.2	C	33.4	C	0.003	0.0		
		PM	38.6	D	38.5	D	0.017	0.3		
33. Tasman Drive and Zanker Road (City of San José)	D	AM	34.4	C	34.6	C	0.006	0.2		
		PM	39.9	D	39.6	D	0.008	-0.2		
34. Tasman Drive and Rio Robles (City of San José)	D	AM	24.3	C	24.1	C	0.004	0.0		
		PM	27.5	C	27.4	C	0.021	0.1		
35. Tasman Drive and Lawrence Expressway* (Santa Clara County)	D	AM	39.8	D	40.3	D	0.001	0.1		
		PM	54.7	D	55.6	E	0.023	0.5		
36. Montague Expressway and North First Street* (Santa Clara County)	D	AM	105.9	F	105.9	F	0.002	1.3		
		PM	110.4	F	116.7	F	0.008	4.7		
37. Montague Expressway and Mission College Boulevard* (Santa Clara County)	E	AM	46.9	D	48.0	C	0.034	1.6	47.9	D
		PM	91.6	F	91.6	F	0.011	-0.9	71.4 ²	E ²
38. Gold Street and Gold Street Connector (City of San José)	E	AM	22.6	C	21.6	C	0.138	-2.1		
		PM	21.5	C	23.3	C	0.187	1.6		

Table 3.14-6: Existing and Existing Plus Project Intersection Levels of Service

Study Intersection	LOS Threshold	Peak Hour	Existing		Existing Plus Project				Mitigated	
			Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
39. Gold Street Connector and Great America Parkway (City of San José)	D	AM	11.8	B	11.3	B	0.079	-1.4		
		PM	16.7	B	18.3	B	0.163	1.3		

Note: * Denotes CMP intersection

¹Unsignalized intersection

² Intersection is under the Jurisdiction of Santa Clara County, and the identified mitigation cannot be guaranteed to be implemented by the City of Santa Clara concurrent with the Tasman East Specific Plan, therefore the impact is considered significant and unavoidable.

Bold text indicates conditions that exceed the applicable level of service standard.

Shaded text indicates a significant project impact.

HOV Lane Segment Impacts:

US 101 Northbound:

- Bowers Avenue/Great America Parkway to Lawrence Expressway (AM peak hour)
- Lawrence Expressway to North Fair Oaks Avenue (AM peak hour)

US 101 Southbound:

- North Fair Oaks Avenue to Lawrence Expressway (PM peak hour)
- Lawrence Expressway to Bowers Avenue / Great America Parkway (PM peak hour)

SR 237 Eastbound:

- Mathilda Avenue to North Fair Oaks Avenue (PM peak hour)
- North Fair Oaks Avenue to Lawrence Expressway (PM peak hour)
- Lawrence Expressway to Great America Parkway (PM peak hour)

SR 237 Westbound:

- Great America Parkway to Lawrence Expressway (AM peak hour)

Impact TRANS-2: The project would significantly impact mixed-flow lanes and HOV lanes on the study freeway segments during the AM and PM peak hours. **(Significant Impact)**

Full mitigation of significant project impacts on freeway segments would require roadway widening to construct additional through lanes, thereby increasing freeway capacity. Since it is not feasible for an individual development project to bear responsibility for implementing such extensive transportation system improvements due to constraints in acquisition and cost of right-of-way, and no comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the significant impacts on the directional freeway segments identified above is considered significant unavoidable. **(Significant Unavoidable Impact)**

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment		Direction	Peak Hour	Existing LOS		Capacity		Project Trips			
				Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes	
								Volume	% Capacity	Volume	% Capacity
US 101	1. Old Bayshore Highway to North First Street	NB	AM	F	F	6,900	1,650	5	0.07	0	0.00
			PM	B	A	6,900	1,650	44	0.64	0	0.00
		SB	AM	B	A	6,900	1,650	43	0.62	2	0.12
			PM	F	F	6,900	1,650	13	0.19	2	0.12
	2. North First Street to Guadalupe Parkway	NB	AM	F	F	6,900	1,650	7	0.10	0	0.00
			PM	B	A	6,900	1,650	63	0.91	0	0.00
		SB	AM	B	A	6,900	1,650	60	0.87	4	0.24
			PM	F	F	6,900	1,650	19	0.28	3	0.18
	3. Guadalupe Parkway to De La Cruz Boulevard	NB	AM	F	F	6,900	1,650	10	0.14	0	0.00
			PM	C	A	6,900	1,650	90	1.30	0	0.00
		SB	AM	C	A	6,900	1,650	84	1.22	7	0.42
			PM	E	D	6,900	1,650	27	0.39	5	0.30
4. De La Cruz Boulevard to Montague Expressway – San Tomas Expressway	NB	AM	F	F	6,900	1,650	14	0.20	0	0.00	
		PM	C	A	6,900	1,650	128	1.86	0	0.00	
	SB	AM	C	A	6,900	1,650	113	1.64	17	1.03	
		PM	F	F	6,900	1,650	38	0.55	7	0.42	
5. Montague Expressway – San Tomas Expressway to Bowers Avenue – Great America Parkway	NB	AM	F	F	6,900	1,650	65	0.94	12	0.73	
		PM	D	A	6,900	1,650	23	0.33	3	0.18	
	SB	AM	C	B	6,900	1,650	7	0.10	1	0.06	
		PM	F	F	6,900	1,650	65	0.94	11	0.67	

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment		Direction	Peak Hour	Existing LOS		Capacity		Project Trips			
				Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes	
								Volume	% Capacity	Volume	% Capacity
US 101	6. Bowers Avenue – Great America Parkway to Lawrence Expressway	NB	AM	F	F	6,900	1,650	152	2.20	27	1.64
			PM	D	B	6,900	1,650	53	0.77	9	0.55
		SB	AM	D	B	6,900	1,650	16	0.23	3	0.18
			PM	F	F	6,900	1,650	150	2.17	26	1.58
	7. Lawrence Expressway to North Fair Oaks Avenue	NB	AM	F	F	6,900	1,650	106	1.54	19	1.15
			PM	D	B	6,900	1,650	37	0.54	6	0.36
		SB	AM	D	B	6,900	1,650	11	0.16	2	0.12
			PM	F	F	6,900	1,650	105	1.52	18	1.09
	8. North Fair Oaks Avenue to North Mathilda Avenue	NB	AM	F	E	6,900	1,650	75	1.09	13	0.79
			PM	C	A	6,900	1,650	26	0.38	4	0.24
		SB	AM	C	B	6,900	1,650	8	0.12	1	0.06
			PM	F	F	6,900	1,650	73	1.06	13	0.79
9. North Mathilda Avenue to SR-237	NB	AM	E	F	6,900	1,650	53	0.77	9	0.55	
		PM	C	C	6,900	1,650	18	0.26	3	0.18	
	SB	AM	C	D	6,900	1,650	5	0.07	1	0.06	
		PM	F	F	6,900	1,650	51	0.74	9	0.55	
10. SR-237 to Moffett Boulevard	NB	AM	F	F	6,900	1,650	37	0.54	6	0.36	
		PM	E	D	6,900	1,650	13	0.19	2	0.12	
	SB	AM	D	D	6,900	1,650	3	0.04	1	0.06	
		PM	F	E	6,900	1,650	36	0.52	6	0.36	

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment		Direction	Peak Hour	Existing LOS		Capacity		Project Trips			
				Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes	
								Volume	% Capacity	Volume	% Capacity
US 101	11. Moffett Boulevard to SR-85	NB	AM	F	F	6,900	1,650	25	0.36	5	0.30
			PM	F	D	6,900	1,650	9	0.13	2	0.12
	SB	AM	D	B	6,900	1,650	3	0.04	0	0.00	
		PM	F	F	6,900	1,650	25	0.36	4	0.24	
	12. SR-85 to North Shoreline Boulevard	NB	AM	F	D	9,200	1,650	18	0.20	3	0.18
			PM	F	D	9,200	1,650	7	0.08	1	0.06
	SB	AM	D	D	6,900	1,650	2	0.03	0	0.00	
		PM	F	E	6,900	1,650	17	0.25	3	0.18	
	13. North Shoreline Boulevard to Rengstorff Avenue	NB	AM	F	D	6,900	3,300	13	0.19	2	0.06
			PM	F	B	6,900	3,300	5	0.07	1	0.03
	SB	AM	D	C	6,900	3,300	1	0.01	0	0.00	
		PM	F	C	6,900	3,300	12	0.17	2	0.06	
	14. Rengstorff Avenue to San Antonio Avenue	NB	AM	E	C	6,900	3,300	9	0.13	2	0.06
			PM	F	C	6,900	3,300	3	0.04	1	0.03
SB	AM	E	C	6,900	3,300	0	0.00	0	0.00		
	PM	F	C	6,900	3,300	5	0.07	1	0.03		
15. San Antonio Avenue to Oregon Expressway	NB	AM	E	D	6,900	3,300	7	0.10	1	0.03	
		PM	F	D	6,900	3,300	3	0.04	0	0.00	
SB	AM	D	C	6,900	3,300	0	0.00	0	0.00		
	PM	F	D	6,900	3,300	2	0.03	0	0.00		

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment		Direction	Peak Hour	Existing LOS		Capacity		Project Trips			
				Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes	
								Volume	% Capacity	Volume	% Capacity
US 101	16. Oregon Expressway to Embarcadero Road	NB	AM	F	F	6,900	1,650	5	0.07	1	0.06
			PM	F	F	6,900	1,650	2	0.03	0	0.00
		SB	AM	D	D	6,900	1,650	0	0.00	0	0.00
PM	F		F	6,900	1,650	1	0.01	0	0.00		
SR 237	17. US 101 to Mathilda Avenue	EB	AM	D	-	4,600	1,650	19	0.43	-	-
			PM	F	-	4,600	1,650	181	4.11	-	-
	WB	AM	E	-	4,600	1,650	184	4.18	-	-	
		PM	F	-	4,600	1,650	63	1.43	-	-	
	18. Mathilda Avenue to North Fair Oaks Avenue	EB	AM	D	B	4,600	1,650	23	0.50	4	0.24
			PM	F	F	4,600	1,650	219	4.76	39	2.36
	WB	AM	F	-	4,600	1,650	263	3.81	-	-	
		PM	F	-	4,600	1,650	90	1.30	-	-	
	19. North Fair Oaks Avenue to Lawrence Expressway	EB	AM	D	C	4,600	1,650	33	0.72	6	0.36
			PM	F	F	4,600	1,650	313	6.80	55	3.33
WB	AM	F	F	4,600	1,650	375	8.15	0	0.00		
	PM	F	D	4,600	1,650	129	2.80	0	0.00		
20. Lawrence Expressway to Great America Parkway	EB	AM	D	B	4,600	1,650	31	0.67	5	0.30	
		PM	F	F	4,600	1,650	288	6.26	51	3.09	
WB	AM	F	F	4,600	1,650	293	6.37	52	3.15		
	PM	D	B	4,600	1,650	100	2.17	18	1.09		

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment		Direction	Peak Hour	Existing LOS		Capacity		Project Trips			
				Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes	
								Volume	% Capacity	Volume	% Capacity
SR 237	21. Great America Parkway to North First Street	EB	AM	D	C	4,600	1,650	110	2.39	20	1.21
			PM	F	F	4,600	1,650	38	0.83	7	0.42
	WB	AM	F	F	4,600	1,650	12	0.26	2	0.12	
		PM	D	B	4,600	1,650	108	2.35	19	1.15	
	22. North First Street to Zanker Road	EB	AM	D	B	4,600	1,650	208	4.52	37	2.24
			PM	F	E	4,600	1,650	71	1.54	13	0.79
	WB	AM	F	F	4,600	1,650	22	0.48	4	0.24	
		PM	D	A	4,600	1,650	204	4.43	36	2.18	
23. Zanker Road to McCarthy Boulevard	EB	AM	D	B	4,600	1,650	146	3.17	26	1.58	
		PM	D	D	4,600	1,650	50	1.09	9	0.55	
WB	AM	F	F	4,600	1,650	15	0.33	3	0.18		
	PM	D	B	4,600	1,650	143	3.11	25	1.52		
24. McCarthy Boulevard to I-880	NB	AM	C	A	4,600	1,650	103	2.24	17	1.03	
		PM	C	D	4,600	1,650	35	0.76	6	0.36	
SB	AM	F	F	6,900	1,650	11	0.24	2	0.12		
	PM	C	A	6,900	1,650	100	2.17	18	1.09		
I-880	25. US 101 to East Brokaw Road	NB	AM	E	B	6,900	1,650	1	0.01	0	0.00
			PM	D	B	6,900	1,650	1	0.01	0	0.00
	SB	AM	F	F	6,900	1,650	1	0.01	0	0.00	
PM		F	D	6,900	1,650	0	0.00	0	0.00		

Table 3.14-7: Freeway Segment Levels of Service

Freeway Segment	Direction	Peak Hour	Existing LOS		Capacity		Project Trips				
			Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes	HOV Lanes	Mixed-Flow Lanes		HOV Lanes		
							Volume	% Capacity	Volume	% Capacity	
I-880	26. East Brokaw Road to Montague Expressway	NB	AM	C	B	6,900	1,650	2	0.03	0	0.00
			PM	C	B	6,900	1,650	3	0.04	0	0.00
	SB	AM	F	C	6,900	1,650	3	0.04	0	0.00	
		PM	F	D	6,900	1,650	1	0.01	0	0.00	
	27. Montague Expressway to Great Mall Parkway	NB	AM	C	B	6,900	1,650	3	0.04	1	0.06
			PM	D	B	6,900	1,650	7	0.10	1	0.06
	SB	AM	F	D	6,900	1,650	8	0.12	0	0.00	
		PM	F	D	6,900	1,650	2	0.03	0	0.00	
	28. Great Mall Parkway to SR-237	NB	AM	D	D	6,900	1,650	8	0.12	1	0.06
			PM	D	C	6,900	1,650	18	0.26	3	0.18
SB	AM	D	D	6,900	1,650	19	0.28	0	0.00		
	PM	F	D	6,900	1,650	6	0.09	0	0.00		
29. SR-237 to Dixon Landing Road	NB	AM	C	A	6,900	1,650	20	0.29	3	0.18	
		PM	D	D	6,900	1,650	45	0.65	8	0.48	
SB	AM	E	F	6,900	1,650	48	0.70	0	0.00		
	PM	D	C	6,900	1,650	16	0.23	0	0.00		

3.14.2.4 *Background Plus Project Conditions*

The background plus project scenario includes existing traffic volumes and traffic generated by approved but not yet constructed projects and not occupied developments to account for growth in the project area. The background plus project analysis accounts for the approved City of Santa Clara projects identified in Table 3.0-1 of this EIR, City Place phases 1 through 3,⁸⁹ and the City of San Jose Approved Trips Inventory, including the North San Jose Development Policies Update Phases I and II.

Background Plus Project Transportation Network

It is assumed in this analysis that the transportation network under background plus project conditions would be the same as background conditions. The roadway network under background conditions was based on the planned and fully funded improvements identified by the City of Santa Clara, including improvements that are conditions of approval for City Place Phases 1, 2, and 3. The following roadway improvements within the study area assumed in the background condition include:

1. Great America Parkway/Westbound SR 237 Ramps – third westbound left-turn lane and receiving lane; second westbound right-turn lane. (City Place Responsible)
2. Great America Parkway/Eastbound SR 237 Ramps – third southbound through lane and second eastbound right-turn lane (City Place Responsible)
3. Great America Parkway/Great America Way – second westbound right-turn lane with overlap phase and second southbound left-turn lane (City Place Responsible)
4. Great America Parkway/Old Mountain View – Alviso Road – second eastbound left-turn lane (City Place Responsible)
5. Great America Parkway/Tasman Drive – southbound right-turn lane and third westbound left-turn lane (City Place Responsible)
6. Great America Parkway/Mission College Boulevard – third westbound left-turn lane, fourth southbound through lane, third northbound left-turn lane, separate westbound right-turn lane (City of Santa Clara Capital Improvement Program)
24. Tasman Drive/Lick Mill Boulevard – reconfigured northbound and southbound approaches to two left-turn lanes, one through lane, and one right-turn lane; change phasing on northbound and southbound approaches from split to protected left-turn phasing; second westbound left-turn lane (City Place Responsible)
26. Lick Mill Boulevard/Montague Expressway – third southbound left-turn lane (City Place Responsible)
39. Gold Street Connector/Great America Parkway – second northbound right-turn lane (City Place Responsible)

⁸⁹ Vehicle trips from Phases 1, 2, and 3 of the City Place project were included to reflect the amount of the City Place project expected to be completed under Background conditions. All phases of the City Place project are included under Cumulative conditions.

Background Plus Project Traffic Volumes

Project impacts were evaluated relative to background traffic volumes. For the background plus project scenario, the net new trips generated by the project were added to the background traffic volumes to derive the background plus project traffic volumes. Trip reductions were used for traffic generated by the project to account for linking of the residential trips with office and retail trips generated by City Place. Table 3.14-8 summarizes the trip generation estimates for the Tasman East Specific Plan project under background conditions.

Background Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under background plus project conditions are summarized in Table 3.14-9. The results show that measured against the applicable municipal and CMP level of service standards, eight intersections are projected to operate at an unacceptable LOS during at least one hour under background plus project conditions.

Based on applicable municipal and CMP significance criteria, six of the eight intersections would be significantly impacted by the project:

1. Great America Parkway and Westbound 237 Ramps (City of San José)* – AM Peak Hour
9. Tasman Drive and Centennial Drive (City of Santa Clara) – AM & PM Peak Hours
10. Lafayette Street and Great America Parkway (City of Santa Clara) – PM Peak Hour
11. Lafayette Street and Calle Del Mundo (City of Santa Clara) – AM & PM Peak Hours
35. Tasman Drive and Lawrence Expressway (County of Santa Clara)* – PM Peak Hour
37. Montague Expressway and Mission College Boulevard (County of Santa Clara)* – PM Peak Hour

* denotes CMP intersections

All other study intersections are projected to operate at acceptable levels during both the AM and PM peak hours of traffic when measured against the applicable municipal and CMP level of service standards.

Impact TRANS-3: The project would have a significant impact under background plus project conditions at the following six intersections: 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 10. Lafayette Street and Great America Parkway (City of Santa Clara); 11. Lafayette Street and Calle Del Mundo (City of Santa Clara); 35. Tasman Drive and Lawrence Expressway (County of Santa Clara/CMP); and 37. Montague Expressway and Mission College Boulevard (County of Santa Clara/CMP). **(Significant Impact)**

Table 3.14-8: Background Plus Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
		Rate ³	Trips	Rate	In	Out	Total	Rate	In	Out	Total
Proposed											
Residential	4,500 du	6.087	27,395		445	1,765	2,210		1,620	875	2,495
Retail	106,000 sf	66.56	7,055		100	60	160		295	330	625
Housing/retail mixed-use and transit reductions ¹		(24%)	-8,235	(31%)	-175	-555	-730	(37%)	-715	-450	-1,165
School	390 ²	1.61	965	0.54/0.45	325	270	595	0.3/.32	180	190	370
Walk/Bike Reduction		(35%)	-340		-115	-95	-210		-60	-70	-130
<i>Project Trips After Reductions</i>			<i>26,840</i>		<i>580</i>	<i>1,445</i>	<i>2,025</i>		<i>1,320</i>	<i>875</i>	<i>2,195</i>
Former Land Use											
Light Industrial	708,000 sf		4,935		575	75	650		85	605	690
Trip Reductions		(9.6%)	-475	(12.4%)	-75	-5	-80	(11.6%)	-15	-65	-80
Total			4,460		500	70	570		70	540	610
Net Project Trip (Proposed – Former Land Uses):			22,380		80	1,375	1,455		1,250	335	1,585
Notes: du = dwelling units; sf = square feet											
¹ Trip reductions due to trip internalization and external walking, bicycling and transit trips range from 13 percent to 19 percent.											
² An estimated 390 students will generate vehicle trips due to the proposed school.											
³ Rates are shown as per unit, per 1,000 square feet, or per student.											

Table 3.14-9: Background and Background + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Background + Project				Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
1. Great America Parkway and Westbound SR 237* (City of San José)	AM	31.3	C	67.2	E	0.152	47.7	38.2	D
	PM	27.5	C	30.8	C	0.045	3.8	34.3	C
2. Great America Parkway and Eastbound SR 237 Ramps* (City of Santa Clara)	AM	13.3	B	13.7	B	0.010	0.4		
	PM	12.3	B	15.8	B	0.075	4.6		
3. Great America Parkway and Great America Way (City of Santa Clara)	AM	25.6	C	25.9	C	0.000	0.1		
	PM	17.3	B	22.6	C	0.075	8.1		
4. Great America Parkway and Old Mountain View – Alviso Road (City of Santa Clara)	AM	62.4	E	62.4	E	0.000	0.1		
	PM	24.7	D	24.7	C	0.001	0.1		
5. Great America Parkway and Tasman Drive* (City of Santa Clara)	AM	29.2	C	29.9	C	-0.005	-1.0		
	PM	49.8	D	75.8	E	0.157	58.3		
6. Great America Parkway and Mission College Boulevard* (City of Santa Clara)	AM	45.2	D	45.2	D	0.002	0.1		
	PM	53.2	D	53.7	D	0.007	0.7		
7. Great America Parkway- Bowers Avenue and US 101 Northbound Ramps* (City of Santa Clara)	AM	12.0	B	12.0	B	0.003	0.0		
	PM	10.9	B	10.8	B	0.003	0.1		
8. Bowers Avenue and US 101 Southbound Ramps* (City of Santa Clara)	AM	23.5	C	23.7	C	0.004	0.1		
	PM	6.5	A	8.2	A	0.027	2.1		
9. Tasman Drive and Centennial Drive (City of Santa Clara)	AM	60.1	E	107.4	F	0.123	67.0	N/A	N/A
	PM	>180	F	>180	F	0.162	106.6	N/A	N/A

Table 3.14-9: Background and Background + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Background + Project				Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
10. Lafayette Street and Great America Way (City of Santa Clara) ¹	AM	10.2	B	10.7	B	--	--	14.4	B
	PM	39.2	D	>180	F	--	--	35.1	D
11. Lafayette Street and Calle Del Mundo (City of Santa Clara) ¹	AM	17.9	C	84.8	F	--	--	15.1	B
	PM	18.0	C	57.3	F	--	--	10.5	B
12. Lafayette Street and Calle De Luna (City of Santa Clara)	AM	14.6	B	21.2	C	0.176	7.8		
	PM	19.1	B	22.1	C	0.136	14.6		
13. Lafayette Street and Calle De Primavera (City of Santa Clara)	AM	16.4	B	16.3	B	0.007	-0.1		
	PM	11.2	B	11.7	B	0.021	0.3		
14. Lafayette Street and Hogan Drive (City of Santa Clara)	AM	9.0	A	8.2	A	0.007	-0.1		
	PM	9.5	A	9.1	A	0.019	0.1		
15. Lafayette Street and Hope Drive (City of Santa Clara)	AM	20.4	C	20.1	C	0.019	1.0		
	PM	13.2	B	13.5	B	0.018	0.0		
16. Lafayette Street and Agnew Road (City of Santa Clara)	AM	37.0	D	36.7	D	0.013	0.6		
	PM	40.3	D	40.4	D	0.027	0.8		
17. Lafayette Street and Montague Expressway Westbound (Santa Clara County)	AM	31.0	C	35.9	D	0.084	7.0		
	PM	22.7	C	23.7	C	0.066	-0.1		
18. Lafayette Street and Montague Expressway Eastbound (Santa Clara County)	AM	14.1	B	14.9	B	0.010	1.3		
	PM	10.9	B	13.7	B	0.144	3.8		
19. Calle Del Sol and Calle Del Mundo (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--		
	PM	--	--	--	--	--	--		

Table 3.14-9: Background and Background + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Background + Project				Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
20. Calle Del Sol and Calle De Luna (City of Santa Clara)	AM	--	--	--	--	--	--		
	PM	--	--	--	--	--	--		
21. Tasman Drive and Calle Del Sol (City of Santa Clara)	AM	13.9	B	36.6	D	0.284	32.3		
	PM	19.3	B	31.4	C	0.127	14.5		
22. Lick Mill and Calle Del Mundo (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--		
	PM	--	--	--	--	--	--		
23. Lick Mill and Calle De Luna (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--		
	PM	--	--	--	--	--	--		
24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara)	AM	26.2	C	30.0	C	0.174	6.1		
	PM	33.4	C	42.9	D	0.071	11.4		
25. Lick Mill Boulevard and Hope Drive (City of Santa Clara)	AM	24.0	C	24.5	C	0.006	10.6		
	PM	20.5	C	20.5	C	0.028	1.0		
26. Lick Mill Boulevard and Montague Expressway (Santa Clara County)	AM	18.4	B	18.2	B	0.020	0.2		
	PM	32.8	C	35.3	D	0.030	4.4		
27. Tasman Drive and Renaissance Drive (City of San José)	AM	16.5	B	16.1	B	0.010	-0.1		
	PM	13.3	B	14.3	B	0.028	0.7		
28. Tasman Drive and Vista Montana (City of San José)	AM	17.5	B	19.8	B	0.123	4.4		
	PM	22.0	C	32.7	C	0.209	20.8		
29. Westbound 237 and 1st Street* (City of San José)	AM	28.6	C	28.5	C	0.000	0.0		
	PM	36.7	D	35.8	D	0.047	-1.6		
30. Eastbound 237 and 1st Street* (City of San José)	AM	34.1	C	32.9	C	0.000	0.0		
	PM	24.7	C	24.2	C	0.000	0.0		

Table 3.14-9: Background and Background + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Background + Project				Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	Average Delay (sec)	LOS
31. 1st Street and Vista Montana (City of San José)	AM	33.0	C	37.0	D	0.095	4.8		
	PM	37.0	D	39.7	D	0.071	4.4		
32. Tasman Drive and 1st Street (City of San José)	AM	37.3	D	37.5	D	0.003	0.1		
	PM	48.1	D	48.9	D	0.014	1.4		
33. Tasman Drive and Zanker Road (City of San José)	AM	37.9	D	38.0	D	0.005	0.2		
	PM	42.8	D	42.6	D	0.007	0.0		
34. Tasman Drive and Rio Robles (City of San José)	AM	23.6	C	23.5	C	0.004	0.0		
	PM	26.0	C	26.0	C	0.000	-0.4		
35. Tasman Drive and Lawrence Expressway* (Santa Clara County)	AM	60.3	E	61.5	E	0.031	2.2	N/A	N/A
	PM	80.5	F	87.6	F	0.018	7.7	N/A	N/A
36. Montague Expressway and North First Street* (Santa Clara County)	AM	175.0	F	174.9	F	0.002	1.2		
	PM	>180	F	>180	F	0.007	2.8		
37. Montague Expressway and Mission College Boulevard* (Santa Clara County)	AM	58.7	E	59.8	E	0.028	1.5	N/A	N/A
	PM	149.0	F	156.4	F	0.026	11.9	N/A	N/A
38. Gold Street and Gold Street Connector (City of San José)	AM	23.6	C	24.0	C	0.106	0.0		
	PM	26.9	C	27.8	C	0.108	0.7		
39. Gold Street Connector and Great America Parkway (City of San José)	AM	13.5	B	13.6	B	0.061	-0.5		
	PM	21.3	C	20.0	B	0.094	1.2		

Note: * Denotes CMP intersection; **Bold** text indicates unacceptable levels of service. **Shaded** text indicates a significant project impact.

Significant Impacts with No Feasible Mitigation - The following intersection has been determined to be constrained primarily due to the presence of transportation facilities such as light rail transit, infrastructure, or existing buildings that would make the improvement infeasible. Therefore, the intersection listed below has no feasible vehicle capacity improvements due to right-of-way constraints.

As to intersection 35: Tasman Drive and Lawrence Expressway – The improvements that would be needed to fully mitigate the impact include widening the eastbound approach to accommodate an additional through lane. There is no right-of way available to accommodate the improvement and therefore the impact is considered significant and unavoidable. **(Significant Unavoidable Impact)**

Mitigation Measures: The following mitigation measures, if implemented, would reduce the impacts of the Specific Plan to a less than significant level:

MM TRANS-3.1: 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP) – Restripe the southbound approach to one through/right-lane and one right-lane, which would not require right-of-way and/or narrowing of the median and would improve intersection operations to an acceptable LOS.

Because this intersection is located in the City of San Jose, the City of Santa Clara cannot guarantee that this improvement would be implemented in a timely manner such that the project’s impact is avoided or mitigated. Therefore, this impact would remain significant and unavoidable. **(Significant Unavoidable Impact)**

MM TRANS- 3.2: 9. Tasman Drive and Centennial Drive (City of Santa Clara) – Add a third eastbound and a third westbound through lane.

With the implementation of the improvement, the intersection of Tasman Drive and Centennial Drive would operate at an acceptable LOS D. However, due to light rail lines along Tasman Drive, coordination with VTA would be needed to secure right-of-way. Since this mitigation relies on the approval of VTA, the City of Santa Clara cannot know with certainty that this mitigation measure would be implement, and therefore this impact is significant and unavoidable. **(Significant Unavoidable Impact)**

MM TRANS-3.3: 10. Lafayette Street/ Great America Parkway and 11. Lafayette Street/Calle Del Mundo –Signalize intersections prior to occupancy of development comprising 30 percent and 70 percent, respectively, of the project trip generation. **(Less Than Significant Impact With Mitigation Incorporated)**

MM TRANS-3.4: 37. Montague Expressway and Mission College Boulevard (County of Santa Clara) – The VTP 2040 project would add a third southbound left-turn lane to the intersection. The project shall make a fair-share contribution towards the additional turn lane.

In order to fully mitigate the project’s impact, a second northbound left turn lane would be needed but right-of-way constraints make this mitigation infeasible. Additionally, an interchange is

identified at this intersection as a Tier 2 priority per the Comprehensive County Expressway Planning Study. The project shall make a fair share contribution to such interchange. This intersection is located in the City of Santa Clara and under the jurisdiction of Santa Clara County. The project shall implement MM TRANS-1.4, however, the impact is significant and unavoidable because the improvement at this intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the proposed project. **(Significant Unavoidable Impact)**

3.14.2.5 *Construction-Related Traffic Impacts*

Construction of development contemplated by the Specific Plan is estimated to take approximately 20 years to complete. Future development in the Plan Area would include construction activities, including clearing, excavation, and grading operations, import/export of fill material, and construction vehicle travel during the construction period. Traffic from these activities would be ongoing throughout the demolition, grading, and construction process for the individual development sites.

Therefore, there is potential for temporary traffic related impacts from construction activities at the site. Although not anticipated to result in significant construction period traffic impacts in the area, the individual development projects occurring in the TESP shall prepare a Construction Management Plan consistent with noise and vibration mitigation measure MM NV-1.4, which would include, but is not limited to the following conditions, subject to City's approval:

- Truck haul routes for construction trucks.
- Signs shall be posted along roads identifying construction traffic access or flow limitations due to lane restrictions during periods of truck traffic.

The effect of construction traffic would only be temporary, and with implementation of the standard measures to prepare a Construction Management Plan, the project would not result in a significant construction related traffic impact. **(Less Than Significant Impact)**

3.14.2.6 *Pedestrian Facilities Impacts*

The Tasman East Specific Plan would generate substantial numbers of pedestrians traveling to transit stops along routes where sidewalk gaps exist, thus potentially creating a hazardous condition for pedestrians. The project would generate pedestrian travel that would occur between the Tasman East area and surrounding land uses. Pedestrian travel would also be generated between the Plan Area and adjacent transit stops and stations, primarily Great America ACE/Capitol Corridor (Amtrak) Station and the Lick Mill light-rail stations.

The policies of the General Plan require that the Tasman East Specific Plan provide direct linkages to transit stations and stops (Policy 5.4.6-P2) and require new development to provide improvements such as sidewalks to promote pedestrian use and access to transit services (Policies 5.8.4-P8 and 5.8.4-P9). As one of the Specific Plan's goals is to provide safe and convenient connections to transit, the Specific Plan would be required to include installation of any missing sidewalk on the north side of Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing to facilitate

pedestrian access to the train station. The need for the installation of this missing sidewalk segment to complete a pedestrian connection to the train station is also required mitigation for Phase 1 of the City Place project.

Impact TRANS-4: An existing gap in sidewalks on the north side of Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing would create a safety hazard for pedestrians. **(Significant Impact)**

Mitigation Measure: The project shall implement the following measure to address safety hazards related to the lack of key sidewalk connections adjacent to the Plan Area:

MM TRANS-4.1: Sidewalk improvements to Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing would reduce the safety hazard impacts to pedestrians to a less than significant level. Construction of a sidewalk on this segment of Tasman Drive is a required mitigation for Phase 1 of the City Place project. In the event the new residential buildings within the Plan Area fronting Tasman Drive are constructed prior to City Place Phase 1, such development shall construct the necessary improvements prior to occupancy of the building and would be reimbursed by City Place. Sidewalk improvements to Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing, as needed to address pedestrian safety hazards, shall be in place prior to occupancy of any new residential buildings within the Plan Area fronting Tasman Drive. **(Less Than Significant Impact With Mitigation Incorporated)**

3.14.2.7 *Bicycle Facilities Impacts*

The proposed project would generate bicycle travel primarily by residents as a commute mode and as an access mode to transit. The project would provide an on-street bicycle network with connections to the Guadalupe River Trail, and other existing and planned bicycle facilities.

The policies of the General Plan require that new development connects to the existing and planned bicycle facilities in the vicinity of the Plan Area (Policy 5.8.4-P6). The Specific Plan includes bicycle racks and bicycle parking spaces for proposed development types as well as bicycle safety features consistent with City policies (Policies 5.8.4-P9 and 5.8.4-P13). The City of Santa Clara also has plans to support bicycle use within the Plan Area by constructing bike lanes on Calle Del Mundo and Lick Mill Boulevard. The site is adjacent to the Guadalupe River, which has a paved bike path along the east bank and an unpaved path on the west bank adjacent to the site. This path connects to the Bay Trail to the north of the site and can be used by bicycle commuters traveling to and from locations to the south. The proposed project provides adequate bicycle access to the Bay Trail and points south along the Guadalupe River Trail. As a result, bicycle impacts are considered to be less than significant. **(Less Than Significant Impact)**

3.14.2.8 Transit Facilities Impacts

The project site is currently served by two bus lines (Route 57 and 60) and Light Rail 902 as well as ACE trains and Amtrak. An evaluation of the effects of project traffic on transit vehicle delay was completed. The analysis shows that the traffic created by the project will increase travel times by less than 30 seconds for bus Route 57 under all scenarios, and for bus Route 60 under all scenarios except during the Cumulative Plus Project PM peak hour in the northbound direction (see table 3.14-10, on the following page). The additional delay of 37.3 seconds added by the project on Route 60 during the Cumulative Plus Project PM peak hour constitutes four percent of the total travel time on that route.

Table 3.14-10: Additional Transit Vehicle Delay by Route								
Affected Transit Routes	Peak Hour	Projected Additional Delay (sec)						Corridor
		Existing Plus Project		Background Plus Project		Cumulative Plus Project		
		EB/NB	WB/SB	EB/NB	WB/SB	EB/NB	WB/SB	
Route 57	AM	6.4	0.7	4.3	2.2	12.9	5.9	Great America Pkwy ¹ , Mission College Blvd ²
	PM	0.4	3.9	4.7	4.3	9.5	6.8	
Route 60	AM	6.6	-0.3	2.4	0.4	6.3	4.5	Great America
	PM	-3.3	2.5	2.5	6.6	37.3	13.1	
Light Rail 902	AM	3.7	27.9	4.3	95.4	2.8	136.6	Tasman Drive ³
	PM	116.7	9.3	165.4	41.3	162.4	180.8	

Notes: ¹Great America Parkway corridor is defined as between Tasman Drive and US 101 Southbound Ramps for Route 57, and as between Tasman Drive and Mission College Boulevard for Route 60.
²Mission College Blvd. corridor is defined as between the bus stop at Mission College and Montague Expwy.
³Tasman Drive corridor is defined as between Great America Parkway and North First Street.

Along the Tasman Drive corridor, Light Rail Transit (LRT) Route 902 is projected to incur delay greater than 60 seconds in the eastbound direction during the PM peak hour for most scenarios and the westbound direction during the AM peak hour for the Background Plus Project and Cumulative Plus Project scenarios. The longest-delay result of 180.8 seconds on Light Rail Route 902 constitutes less than one percent of the total travel time on that route. Neither the City nor VTA has established policies or quantitative significance criteria related to transit vehicle delay; however, development under the Specific Plan would contribute to approximately two to three minute delays during the peak commute period for Light Rail Route 902 which would be considered significant by the City of Santa Clara.

Impact TRANS-5: The proposed Specific Plan would result in approximately two to three minutes of delay on the LRT line in the vicinity of the Plan Area.
(Significant Impact)

Providing signal priority to LRT Route 902 along Tasman Drive is the only feasible means to minimize the delays caused to light rail by increased congestion from the Specific Plan development. The City has a system along the Tasman Drive corridor to give light rail vehicles signal priority. Redevelopment of the Plan Area would not change this operating protocol and significant increased

delays are estimated to result from the project. Since there are no other feasible mitigation measures, the impacts of the Specific Plan on LRT transit, therefore, are significant and unavoidable. **(Significant Unavoidable Impact)**

3.14.2.9 *Other Impacts*

Air Traffic Patterns

As discussed in *Section 3.9 Hazards and Hazardous Materials*, given the proximity of the site to the Airport, development on-site may penetrate FAR Part 77 surfaces. The project site is located within the Airport Influence Area. FAA issuance of a “Determination of No Hazard” would ensure that any project involving towers above 175 to 185 feet above existing grade would not be a potential aviation hazard, and development would not penetrate the FAR Part 77 surfaces without such a determination. For this reason, the Tasman East Specific Plan would not result in a significant impact to air traffic patterns. **(Less than Significant Impact)**

Design Hazards and Emergency Access

The project design does not include sharp curves or dangerous intersections that could result in safety hazards within the Plan Area; nor does the project propose incompatible uses. The Specific Plan would have an interconnected street network and all streets would be designed to accommodate emergency vehicles. **(Less Than Significant Impact)**

3.14.2.10 *Consistency with Plans*

Santa Clara General Plan

The Tasman East Specific Plan is consistent with applicable General Plan policies that propose to transform the Tasman East area into a high density residential community with mid-rise buildings served by neighborhood commercial, shared open space areas, and structured parking. The Plan Area would provide for new housing opportunities close by and conveniently connected to jobs and services, encouraging alternative travel modes (Policy 5.8.4-P6). The project proposes a safe and continuous network of pedestrian paths internal to the Plan Area with enhanced streetscapes, landscaping, street furnishings and other pedestrian amenities that encourage residents to walk or bike to open space areas, retail uses, and nearby jobs (Policy 5.4.4-P8). The project will comply with the City’s Climate Action Plan concerning TDM programs and VMT reduction. The proposed Specific Plan, therefore, would be consistent with the transportation policies of the General Plan which call for locating residences and business close to transit and other multi-modal amenities to reduce VMT.

3.14.2.11 *Cumulative Impacts*

Cumulative traffic conditions represent future traffic conditions with expected growth in the area. The expected future traffic growth conditions include approved and pending projects in Santa Clara, North San José, and north Sunnyvale through 2040. Cumulative conditions also include trips

associated with development of Phases 4 – 8 (full buildout) of the City Place project and the North San José Development Policy.^{90,91}

Cumulative Transportation Network

Development of future roadway networks for Cumulative Conditions was based on the planned and funded improvements identified in the financially constrained roadway improvement project list from the Valley Transportation Plan (VTP) 2040 published by VTA (October 2014) and the City of Santa Clara 2010–2035 General Plan. Intersection mitigation measures from the City Place EIR from the cumulative plus City Place project conditions where City Place is 100 percent responsible for the improvements were applied to Tasman East Study intersections.

Cumulative Traffic Volumes

The VTA travel demand model was used to develop traffic forecasts for streets and highways in the study area. Traffic volumes under cumulative conditions were estimated by adding to the background traffic volumes the trips from proposed, but not yet approved (pending), development projects within the cities of Santa Clara, North San José, and north Sunnyvale. For all other areas outside Santa Clara, North San José, and north Sunnyvale, future-year land use data from the VTA model was used, which incorporates 2013 ABAG projections.

City of Santa Clara Significant Cumulative Threshold of Significance

The project would create a significant adverse cumulative impact on traffic conditions at a signalized intersection in the City of Santa Clara if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better at all City-controlled intersections and LOS E or better at all expressway intersections) under cumulative conditions to an unacceptable level (LOS E or F at City-controlled intersections and LOS F at expressway intersections) under cumulative plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F at City-controlled intersections and LOS F at expressway intersections) under cumulative conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* V/C increases by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

⁹⁰ The City Place project includes a total of 9,164,400 square feet of development on a 227-acre site, which is expected to be constructed in eight phases. This analysis assumes that full buildout of City Place would occur by 2040.

⁹¹ North San José Development Policy is a policy document prepared by the City of San José to guide ongoing growth and development of the North San José area, along with the City's General Plan. The Policy supports growth of North San José as an employment center through a pool of 26.7 million square feet industrial development capacity that can be allocated to specific properties in the Policy area. The plan contains four phases.

A significant cumulative impact by the City of Santa Clara standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to an acceptable level or no worse than cumulative conditions.

City of San José Significant Cumulative Threshold of Significance

The cumulative projects collectively would create a significant adverse impact on traffic conditions at a signalized intersection in the City of San José, including CMP intersections within San José, if during either the AM or PM peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under cumulative plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of cumulative project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds and V/C increases by 0.01 or more.

An exception to criteria 2 applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

The project's contribution to a cumulative intersection impact is deemed considerable by the City of San José (and thus called out as a significant impact of the project) if the proportion of project traffic represents 25 percent or more of the increase in total volume from background traffic conditions to cumulative plus project traffic conditions.

A significant cumulative impact by City of San José standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to cumulative conditions or better.

CMP Significant Cumulative Threshold of Significance (except within the City of San José)

The definition of a significant impact at a CMP intersection is the same as for the local intersections, except that the CMP standard for acceptable level of service at a CMP intersection is LOS E or better.

The project would create a significant adverse cumulative impact on traffic conditions at a CMP-designated signalized intersection if for either peak hour:

- The level of service at the intersection degrades from an acceptable LOS E or better under cumulative conditions to an unacceptable LOS F under cumulative plus project conditions, or

- The level of service at the intersection is an unacceptable LOS F under cumulative conditions and the addition of project trips under cumulative plus project conditions causes both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* V/C increases by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to cumulative conditions or better.

Cumulative Plus Project Intersection Levels of Service

Cumulative plus project conditions were evaluated relative to cumulative conditions for City of Santa Clara study intersections and to cumulative conditions for City of San José intersections to determine potential project impacts. Level of service results for cumulative conditions are summarized in Table 3.14-11.

The results show that, measured against applicable municipal and CMP level of service level of service impact criteria, 20 study intersections (10 intersections in City of Santa Clara, six intersections in the City of San José, and four intersections in Santa Clara County) would operate at unacceptable levels under cumulative conditions. Based on applicable municipal and CMP significance criteria, the project would have a cumulatively considerable contribution to 15 of the 20 cumulatively significant impacted intersections. Table 3.14-12 summarizes the cumulatively significantly impacted intersections.

All other study intersections are projected to operate at acceptable levels during both the AM and PM peak hours of traffic when measured against the applicable municipal and CMP level of service standards.

Table 3.14-11: Background, Cumulative, and Cumulative + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Cumulative		Cumulative Plus Project					Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	% of Project Contribution	Average Delay (sec)	LOS
1. Great America Parkway and Westbound SR 237* (City of San José)	AM	31.3	C	22.6	C	41.4	D	0.152	28.7			
	PM	27.5	C	26.7	C	30.3	C	0.062	6.0			
2. Great America Parkway and Eastbound SR 237 Ramps* (City of Santa Clara)	AM	13.3	B	26.9	C	27.7	C	0.010	0.9			
	PM	12.3	B	17.3	B	27.3	C	0.075	16.3			
3. Great America Parkway and Great America Way (City of Santa Clara)	AM	25.6	C	67.7	E	66.2	E	0.000	0.1			
	PM	17.3	B	36.5	D	53.0	D	0.075	27.1			
4. Great America Parkway and Old Mountain View – Alviso Road (City of Santa Clara)	AM	62.4	E	91.0	F	90.9	F	0.000	0.1	---	N/A	N/A
	PM	24.7	D	54.9	D	55.1	E	0.001	0.4	---	N/A	N/A
5. Great America Parkway and Tasman Drive* (City of Santa Clara)	AM	29.2	C	84.3	F	94.2	F	0.049	21.3	---	N/A	N/A
	PM	49.8	D	162.2	F	>180	F	0.057	27.5	---	N/A	N/A
6. Great America Parkway and Mission College Boulevard* (City of Santa Clara)	AM	45.2	D	73.7	E	74.8	F	0.002	0.8			
	PM	53.2	D	110.0	F	111.2	F	0.007	2.7			
7. Great America Parkway- Bowers Avenue and US 101 Northbound Ramps* (City of Santa Clara)	AM	12.0	B	18.8	B	18.8	B	0.003	0.1			
	PM	10.9	B	15.4	B	15.4	B	0.003	0.2			

Table 3.14-11: Background, Cumulative, and Cumulative + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Cumulative		Cumulative Plus Project					Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	% of Project Contribution	Average Delay (sec)	LOS
8. Bowers Avenue and US 101 Southbound Ramps* (City of Santa Clara)	AM	23.5	C	26.6	C	27.0	C	0.004	0.2			
	PM	6.5	A	10.8	B	12.7	B	0.030	2.3			
9. Tasman Drive and Centennial Drive (City of Santa Clara)	AM	60.1	E	146.7	F	>180	F	0.116	57.5	---	N/A	N/A
	PM	>180	F	>180	F	>180	F	0.085	43.5	---	N/A	N/A
10. Lafayette Street and Great America Way (City of Santa Clara) ¹	AM	10.2	B	39.5	D	47.8	D	0.071	8.5			
	PM	39.2	D	36.8	D	48.4	D	0.229	18.2			
11. Lafayette Street and Calle Del Mundo (City of Santa Clara) ¹	AM	17.9	C	45.8	D	96.5	F	0.241	60.8	---	N/A	N/A
	PM	18.0	C	8.5	A	12.7	B	0.057	1.3	---	N/A	N/A
12. Lafayette Street and Calle De Luna (City of Santa Clara)	AM	14.6	B	36.3	D	68.0	E	0.180	41.8	---	53.1	D
	PM	19.1	B	17.7	B	21.6	C	0.048	1.3	---	45.9	D
13. Lafayette Street and Calle De Primavera (City of Santa Clara)	AM	16.4	B	97.1	F	95.8	F	0.007	3.6	---	93.2	F
	PM	11.2	B	123.4	F	128.9	F	0.021	13.8	---	128.9	F
14. Lafayette Street and Hogan Drive (City of Santa Clara)	AM	9.0	A	13.2	B	13.0	B	0.007	0.5			
	PM	9.5	A	12.1	B	12.7	B	0.019	1.2			
15. Lafayette Street and Hope Drive (City of Santa Clara)	AM	20.4	C	29.1	C	29.6	C	0.019	2.0			
	PM	13.2	B	25.5	C	29.1	C	0.054	5.6			
16. Lafayette Street and Agnew Road (City of Santa Clara)	AM	37.0	D	49.1	D	49.3	D	0.010	2.1	---		
	PM	40.3	D	49.8	D	52.5	D	0.014	3.2	---		

Table 3.14-11: Background, Cumulative, and Cumulative + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Cumulative		Cumulative Plus Project					Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	% of Project Contribution	Average Delay (sec)	LOS
17. Lafayette Street and Montague Expressway Westbound (Santa Clara County)	AM	31.0	C	46.7	D	47.4	D	0.006	1.2			
	PM	22.7	C	33.4	D	34.6	C	0.004	0.0			
18. Lafayette Street and Montague Expressway Eastbound (Santa Clara County)	AM	14.1	B	12.6	B	13.2	B	0.010	0.7			
	PM	10.9	B	9.0	A	12.3	B	0.149	5.2			
19. Calle Del Sol and Calle Del Mundo (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--	--	--			
	PM	--	--	--	--	--	--	--	--			
20. Calle Del Sol and Calle De Luna (City of Santa Clara)	AM	--	--	--	--	--	--	--	--			
	PM	--	--	--	--	--	--	--	--			
21. Tasman Drive and Calle Del Sol (City of Santa Clara)	AM	13.8	B	26.4	C	64.1	E	0.267	63.1	---	45.9	D
	PM	18.7	B	32.5	C	61.8	E	0.16	51.6	---	23.3	C
22. Lick Mill and Calle Del Mundo (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--	--	--			
	PM	--	--	--	--	--	--	--	--			
23. Lick Mill and Calle De Luna (New City of Santa Clara Intersection)	AM	--	--	--	--	--	--	--	--			
	PM	--	--	--	--	--	--	--	--			
24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara)	AM	26.2	C	155.1	F	153.8	F	0.086	7.4	---	N/A	N/A
	PM	33.4	C	132.5	F	166.6	F	0.091	36.4	---	N/A	N/A

Table 3.14-11: Background, Cumulative, and Cumulative + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Cumulative		Cumulative Plus Project					Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	% of Project Contribution	Average Delay (sec)	LOS
25. Lick Mill Boulevard and Hope Drive (City of Santa Clara)	AM	24.0	C	23.5	C	23.6	C	0.005	0.0			
	PM	20.5	C	35.1	D	36.0	D	0.017	1.6			
26. Lick Mill Boulevard and Montague Expressway* (Santa Clara County)	AM	18.4	B	66.1	E	72.9	E	0.043	8.9			
	PM	32.8	C	74.0	E	83.7	F	0.030	16.1			
27. Tasman Drive and Renaissance Drive* (City of San José)	AM	16.5	B	63.9	E	63.5	E	0.009	3.8			
	PM	13.3	B	18.5	B	29.6	C	0.077	19.4			
28. Tasman Drive and Vista Montana (City of San José)	AM	17.5	B	22.3	C	45.3	D	0.118	32.4			
	PM	22.0	C	23.6	C	52.4	D	0.160	45.4			
29. Westbound 237 and 1st Street* (City of San José)	AM	28.6	C	18.4	B	18.4	B	0.000	0.0		N/A	N/A
	PM	36.7	D	76.7	E	74.0	E	0.047	-3.7		N/A	N/A
30. Eastbound 237 and 1st Street* (City of San José)	AM	34.1	C	109.5	F	109.1	F	0.000	0.0			
	PM	24.7	C	82.3	E	79.8	E	0.000	0.0			
31. 1st Street and Vista Montana (City of San José)	AM	33.0	C	22.4	C	27.4	C	0.099	6.3			
	PM	37.0	D	35.2	D	38.1	D	0.071	4.8			
32. Tasman Drive and 1st Street (City of San José)	AM	37.3	D	>180	F	>180	F	0.006	2.5		N/A	N/A
	PM	48.1	D	71.7	E	75.4	E	0.014	4.3		N/A	N/A
33. Tasman Drive and Zanker Road (City of San José)	AM	37.9	D	90.6	F	92.3	F	0.007	2.9			
	PM	42.8	D	50.3	D	50.8	D	0.007	0.8			
34. Tasman Drive and Rio Robles (City of San José)	AM	23.6	C	115.3	F	114.5	F	0.004	1.9		N/A	N/A
	PM	26.0	C	59.1	E	62.8	E	0.011	4.6		N/A	N/A

Table 3.14-11: Background, Cumulative, and Cumulative + Project Intersection Levels of Service

Study Intersection	Peak Hour	Background		Cumulative		Cumulative Plus Project					Mitigated	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Increase in Critical V/C	Increase in Critical Delay (sec)	% of Project Contribution	Average Delay (sec)	LOS
35. Tasman Drive and Lawrence Expressway* (Santa Clara County)	AM	60.3	E	179.0	F	>180	F	0.020	18.3		N/A	N/A
	PM	80.5	F	174.5	F	>180	F	0.019	15.3		N/A	N/A
36. Montague Expressway and North First Street* (Santa Clara County)	AM	175.0	F	>180	F	>180	F	0.004	1.6		>180	F
	PM	>180	F	>180	F	>180	F	0.015	10.9		>180	F
37. Montague Expressway and Mission College Boulevard* (Santa Clara County)	AM	58.7	E	>180	F	>180	F	0.028	12.3		N/A	N/A
	PM	149.0	F	>180	F	>180	F	0.031	-31.2		N/A	N/A
38. Gold Street and Gold Street Connector (City of San José)	AM	23.6	C	27.2	C	29.6	C	0.066	2.6			
	PM	26.9	C	30.2	C	30.6	C	0.016	0.1			
39. Gold Street Connector and Great America Parkway (City of San José)	AM	13.5	B	9.6	A	9.3	A	0.005	-0.7			
	PM	21.3	C	20.9	C	21.7	C	0.062	0.9			

Note: * Denotes CMP intersection; **Bold** text indicates unacceptable levels of service. *Shaded* text indicates a significant project impact.

Table 3.14-12: Summary of Project Contributions to Significant Cumulative Intersection Impact

Significant Cumulative Intersections		Cumulatively Considerable Project Contribution?
3.	Great America Parkway and Great America Way (City of Santa Clara) – AM Peak Hour	No
4.	Great America Parkway and Old Mountain View (City of Santa Clara) – PM Peak Hour	Yes
5.	Great America Parkway and Tasman Drive* (City of Santa Clara) – AM and PM Peak Hours	Yes
6.	Great America Parkway and Mission College Boulevard* (City of Santa Clara) – PM Peak Hour	No
9.	Tasman Drive and Centennial Drive (City of Santa Clara) – AM and PM Peak Hours	Yes
11.	Lafayette Street and Calle Del Mundo (City of Santa Clara) – AM Peak Hour	Yes
12.	Lafayette Street and Calle De Luna (City of Santa Clara) - AM Peak Hour	Yes
13.	Lafayette Street and Calle De Primavera (City of Santa Clara) – PM Peak Hour	Yes
21.	Tasman Drive and Calle Del Sol (City of Santa Clara) – AM and PM Peak Hour	Yes
24.	Tasman Drive and Lick Mill Boulevard (City of Santa Clara) – AM and PM Peak Hours	Yes
26.	Lick Mill Boulevard and Montague Expressway (Santa Clara County) – PM Peak Hour	Yes
27.	Tasman Drive and Renaissance Drive (City of San José) – AM Peak Hour	No
29.	Westbound 237 and First Street* (City of San José) – PM Peak Hour	Yes
30.	Eastbound 23 and First Street* (City of San José) – AM and PM Peak Hours	No
32.	Tasman Drive and North First Street (City of San José) – PM Peak Hour	Yes
33.	Tasman Drive and Zanker Road (City of San José) – AM Peak Hour	No
34.	Rio Robles and Tasman Drive (City of San José) – PM Peak Hour	Yes
35.	Lawrence Expressway and Tasman Drive* (Santa Clara County) – AM and PM Peak Hours	Yes
36.	North First Street and Montague Expressway*(Santa Clara County) – PM Peak Hour	Yes
37.	Mission College Boulevard and Montague Expressway*(Santa Clara County) – AM and PM Peak Hours	Yes
Note: * Denotes CMP intersections		

Cumulative Impacts with No Feasible Mitigation - The following intersections are determined to be constrained primarily due to the presence of transportation facilities such as light rail transit, infrastructure, or existing buildings that would make the improvement infeasible. Therefore, the intersections listed below have no feasible vehicle capacity improvements due to right-of-way constraints.

Impact C-TRANS-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following signalized intersections: 4. Great America Parkway and Old Mountain View/ Alviso Road (City of Santa Clara); 5. Great America Parkway and Tasman Drive* (City of Santa Clara); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara); 26. Lick Mill Boulevard and Montague Expressway (Santa Clara County); 29. Westbound 237 and First Street* (City of San José); 32. Tasman Drive and First Street (City of San José); 34. Tasman Drive and Rio Robles (City of San José); 35. Tasman Drive and Lawrence Expressway* (Santa Clara County). **(Significant Cumulative Impact)**

- 4. Great America Parkway and Old Mountain View/ Alviso Road (City of Santa Clara) – infrastructure constraints
- 5. Great America Parkway and Tasman Drive* (City of Santa Clara) – light rail transit constraints
- 9. Tasman Drive and Centennial Drive (City of Santa Clara) – light rail transit constraints
- 24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara) – light rail transit constraints
- 26. Lick Mill Boulevard and Montague Expressway (Santa Clara County) – existing building constraints
- 29. Westbound 237 and First Street* (City of San José) – infrastructure constraints
- 32. Tasman Drive and North First Street (City of San José) – light rail constraints
- 34. Tasman Drive and Rio Robles (City of San José) – light rail constraints
- 35. Tasman Drive and Lawrence Expressway* (Santa Clara County) – light rail constraints

*signifies a CMP intersection

Because no feasible mitigation measures have been identified to address impacts at the intersections noted above, the impact at those locations would remain significant and unavoidable. **(Significant Unavoidable Cumulative Impact)**

Cumulative Impacts with Some Feasible Mitigation – The following intersection is assumed to be signalized under cumulative conditions. However, even with signalization, the intersection would operate at LOS F with the project and the impact would remain significant and unavoidable.

Impact C-TRANS-2: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #11 Lafayette Street and Calle Del Mundo. **(Significant Cumulative Impact)**

Mitigation Measures: Implementation of MM TRANS-1.3 (signalization of the intersection) would reduce the project's contribution to cumulatively significant impacted intersections. However, there is no additional right of way available to accommodate additional intersection improvements to reduce the impact to a less than significant level of service. Therefore, the impact would remain significant and unavoidable. **(Significant Unavoidable Cumulative Impact With Mitigation Incorporated)**

Cumulative Impacts with Feasible Mitigation – The following intersections would contribute to significant cumulative impacts and can be mitigated to a less than significant level with the implementation of the improvements identified below.

Impact C-TRANS-3: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #12 Lafayette Street and Calle De Luna during the AM peak hour, intersection #13 Lafayette Street and Calle De Primavera during the PM peak hour, and intersection #21 Tasman Drive and Calle Del Sol (City of Santa Clara) during the AM and PM peak hours. **(Significant Cumulative Impact)**

Mitigation Measures: The project proposes to implement the following mitigation measure to reduce its contribution to cumulatively significant impacted intersections:

MM C-TRANS-3.1: 12. Lafayette Street and Calle De Luna – Reconfiguring the westbound approach to one left-turn lane and one right-turn lane would fully mitigate the impact to an acceptable LOS D and would not require additional right-of-way. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

MM C-TRANS-3.2: 13. Lafayette Street and Calle De Primavera - Reconfigure the westbound approach to two left-turn lanes and one right-turn lane. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

MM C-TRANS-3.3: 21. Tasman Drive and Calle Del Sol - Reconfigure the southbound approach to two left-turn lanes and one right-turn lane would fully mitigate the impact. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

Reconfiguring the westbound approach to two left turn lanes and one right-turn lane at intersection 13. Lafayette Street and Calle De Primavera would fully mitigate the impact at this intersection

because the mitigation would reduce the change in critical volume/capacity to less than 0.01 seconds which thereby would mitigate the impact.

Reconfiguring the southbound approach to two left-turn lanes and one right-turn lane at intersection 21. Tasman Drive and Calle Del Sol would require no additional right-of-way and is consistent with the mitigation measures imposed upon the City Place project. Therefore, this mitigation reduces the impact to a less than significant level.

Cumulative Impacts in Other Jurisdictions – The following intersections are located in other jurisdictions, and therefore, the City of Santa Clara cannot guarantee implementation of mitigation measures. For that reason, the impact would remain significant and unavoidable.

Impact C-TRANS-4: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersections #36 Montague Expressway and North First Street and #37 Mission College Boulevard and Montague Expressway during the PM peak hour. **(Significant Cumulative Impact)**

36. Montague Expressway and North First Street* (Santa Clara County) – This intersection is identified as a location for future grade separation for LRT as part of the Comprehensive County Expressway Planning Study 2008 Update. The City of Santa Clara cannot guarantee that intersection improvements will be implemented in a timely manner such that the project's impact is avoided or mitigated. Additionally, adding a dedicated eastbound right turn lane with an overlap phase would fully mitigate the project impact; however, because of right-of-way restrictions, this mitigation would not be feasible. Therefore, due to the lack of jurisdictional control, the impact is considered significant and unavoidable. **(Significant Unavoidable Cumulative Impact)**

37. Mission College Boulevard and Montague Expressway* (Santa Clara County) – The VTP 2040 project would add a third southbound left-turn lane to the intersection, however, this would not reduce impacts to this intersection to a less than significant level. This intersection is also identified as a Tier 2 priority location for a future grade-separated interchange as part of the Comprehensive County Expressway Planning Study 2008 Update. The City of Santa Clara cannot guarantee that intersection improvements will be implemented in a timely manner such that the project's impact is avoided or mitigated. In addition, adding a second northbound left turn lane would fully mitigate the project impact, but right-of-way constraints make this mitigation infeasible. Therefore, due to the lack of jurisdictional control, this impact is considered significant and unavoidable. **(Significant Unavoidable Cumulative Impact)**

Cumulative Stadium Traffic

The Plan Area is located approximately 0.2 miles northeast of Levi's Stadium. Implementation of the proposed Specific Plan would increase development in the area and contribute towards increased traffic on NFL game days which represent the highest volume of traffic on the local roadway network. A peak traffic scenario would occur when an NFL game is scheduled for a Thursday or Monday evening where NFL fans, employees at surrounding commercial development, local residents, and Specific Plan residents and employees are on the local roadway network during the PM peak hour. Approximately 12,000 parking spaces are typically utilized in the area by visitors to the stadium which represents a substantial reduction from original estimated parking demand of

approximately 19,000 spaces. The reduced parking demand is primarily related to visitors taking mass transit options (e.g. bus, train, shuttle, and light rail) as well as walking and biking from other developed areas near the stadium. The City of Santa Clara manages traffic on game days in the vicinity of the stadium and Plan Area as described below.

Traffic Management and Operations Plan

Game day traffic is managed in the areas of Santa Clara north of US 101 and south of SR 237 between Great America Parkway in the west and Lafayette Street. A Traffic Management and Operations Plan (TMOP) is implemented on game days at Levi's Stadium for the purpose of providing for efficient ingress and egress of vehicles, pedestrians, and transit services to and from the stadium and identified parking facilities and in order to minimize the effects of stadium traffic and parking on surrounding neighborhoods. The TMOP implements the following strategies:

- Motorist information system
- Dispersed/decentralized parking plan
- Neighborhood protection
- Promotion of public transit options
- Traffic and pedestrian control
- Use of a transportation management and communications center

A traffic control plan that serves to move vehicular traffic associated with the stadium efficiently from regional transportation facilities to arterials and into identified parking locations is implemented as part of the TMOP. Residents and employees of the Plan Area on an NFL game night during the PM peak hour would be subject to the same traffic controls as stadium visitors. The traffic control plan includes road closures, intersection lane configuration changes, and locations that are controlled by uniformed officers. Changes in nearby land uses, available parking locations, and residential concerns, necessitate a re-evaluation of the TMOP annually to evaluate the effectiveness of the TMOP and address any concerns that arise from implementation of the TMOP. As the Plan Area develops, it may be necessary to refine the TMOP to ensure that adequate access to the Plan Area is not prohibited by road closures. Such modifications of the TMOP to accommodate users of the Plan Area would occur as part of the annual review of the TMOP and would ensure cumulative traffic in the vicinity of the Plan Area and Levi's Stadium is adequately accommodated.

Cumulative game day traffic volumes would include an estimated 12,000 vehicle trips resulting from stadium visitors, approximately 12,310 vehicle trips resulting from City Place on game days, up to 1,500 vehicle trips from Great America Theme Park, 1,585 vehicle trips from the Plan Area and vehicle trips from employees at existing and planned commercial development in the area. Although the analysis of a weekday NFL game represents a peak cumulative traffic scenario, it is expected to occur, at most, once or twice per year. Cumulative traffic volumes for such an event, however, would result in significant cumulative impacts to the roadway network and intersections in the vicinity of Great America, Levi's Stadium, City Place, and Tasman East when NFL games occur on weekday evenings. The project's contribution to cumulative traffic volumes would be less than six percent during such events and, therefore, would not be cumulatively considerable. **(Less Than Cumulatively Considerable Contribution)**

3.14.3 Conclusion

Impact TRANS-1: The project would have a significant impact under existing plus project conditions at the following four intersections: Tasman Drive and Centennial Drive (#9), Lafayette Street and Great America Way (#10), Lafayette Street and Calle Del Mundo (#11), and Montague Expressway and Mission College Boulevard (#37). **(Significant Impact)**

Intersections #10 and #11 listed above would be mitigated to a less than significant impact with the implementation of mitigation measures MM TRANS-1.2 and MM TRANS-1.3. **(Less Than Significant Impacts With Mitigation Incorporated)**

Intersections #9 and #37 have no feasible mitigation available to reduce their impacts to a less than significant level and, therefore, the Specific Plan would result in significant and unavoidable impacts. **(Significant Unavoidable Impacts)**

Impact TRANS-2: The project would result in significant impacts mixed-flow lanes and HOV lanes on the study freeway segments during at least one peak hour. Full mitigation of significant project impacts on freeway segments would require roadway widening to construct additional through lanes, thereby increasing freeway capacity which is not feasible for individual development projects to implement. No comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the significant impacts on the freeway segments is, therefore, considered significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-3.1: The project would have a significant impact under background plus project conditions at the intersection of 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP). The project would be responsible for funding the required striping improvements to offset its impacts, however, because this intersection is located in the City of San Jose, the City of Santa Clara cannot guarantee that this improvement would be implemented in a timely manner such that the project's impact is avoided or mitigated. Therefore, this impact would remain significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-3.2: The project would have significant impacts under background plus project conditions at the intersection of 9. Tasman Drive and Centennial Drive (City of Santa Clara). Adding a third eastbound and a third westbound through lane would fully mitigate the impact. The improvements would rely on approval and implementation by VTA that the City of Santa Clara cannot guarantee would be implemented. Therefore, this impact would remain significant and unavoidable. **(Significant and Unavoidable Impact)**

Impact TRANS-3.3: The project would have significant impacts under background plus project conditions at the intersections of 10. Lafayette Street and Great America Parkway (City of Santa Clara) and 11. Lafayette Street and Calle Del Mundo

(City of Santa Clara). These intersections would meet the peak hour signal warrant under the background plus project condition. Signalization would allow the intersections to operate at acceptable levels and shall be implemented prior to 30 percent and 70 percent, respectively, of the planned development being occupied. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact TRANS-3.4: The project would have significant impacts under background plus project conditions at the intersection of 37. Montague Expressway and Mission College Boulevard (CMP/County of Santa Clara). The project shall make a fair-share contribution toward improvements identified in the VTP 2040. An additional improvement, consisting of a second northbound left-turn lane would also be required. The improvements required to mitigate the impacts of the project are significant and unavoidable because the intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the proposed project. **(Significant Unavoidable Impact)**

As to intersection 35: Tasman Drive and Lawrence Expressway – The improvements that would be needed to fully mitigate the impact include widening the eastbound approach to accommodate an additional through lane. There is no right-of way available to accommodate the improvement and therefore the impact is considered significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-4: The proposed Specific Plan would create a safety hazard to pedestrians due to an existing gap in sidewalks on the north side of Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing. Sidewalk improvements to Tasman Drive between Calle Del Sol and the Lafayette Street overcrossing shall be constructed prior to occupancy of buildings within the Plan Area fronting Tasman Drive in accordance with City Place Phase 1 mitigation or by the proposed development with future reimbursement by City Place. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact TRANS-5: The proposed Specific Plan would result in approximately two to three minutes of delay on the LRT line in the vicinity of the Plan Area. Providing signal priority to LRT Route 902 along Tasman Drive is the only feasible means to minimize the delays caused to light rail by increased congestion from the Specific Plan development. The City recently installed a system along the Tasman Drive corridor to give light rail vehicles signal priority. Redevelopment of the Plan Area would not change this operating protocol and significant increased delays are estimated to result from the project. Since there are no other feasible mitigation measures, the impacts of the Specific Plan on LRT transit, therefore, are significant and unavoidable. **(Significant Unavoidable Impact)**

Impact C-TRANS-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following intersections for which no feasible mitigation is available due to right-of-way constraints: 4. Great

America Parkway and Old Mountain View/Alviso Road (City of Santa Clara); 5. Great America Parkway and Tasman Drive* (City of Santa Clara); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara); 26. Lick Mill Boulevard and Montague Expressway (Santa Clara County); 29. Westbound 237 and First Street* (City of San José); 32. Tasman Drive and North First Street (City of San José); 34. Tasman Drive and Rio Robles (City of San José) 35. Tasman Drive and Lawrence Expressway* (Santa Clara County).
(Significant Unavoidable Cumulative Impact)

Impact C-TRANS-2: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #11 Lafayette Street and Calle Del Mundo that cannot be mitigated due to right-of-way constraints. The intersection; however, would be signalized to mitigate for project impacts on existing conditions. **(Significant Unavoidable Cumulative Impact With Mitigation Incorporated)**

Impact C-TRANS-3: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #12 Lafayette Street and Calle De Luna during the AM peak hour and intersection #13 Lafayette Street and Calle De Primavera during the PM peak hour. Improvements within the existing right-of-way to restripe the lanes at both intersections would reduce the cumulatively considerable contributions of the Specific Plan to these impact to a less than significant level. The project would also have a cumulatively considerable contribution to significant cumulative impacts at intersection #21 Tasman Drive and Calle Del Sol (City of Santa Clara) during the AM and PM peak hours. Reconfiguration of the southbound approach to two left-turn lanes and one right-turn lane would require no additional right-of-way and would fully mitigate the impact. This improvement is consistent with improvements identified in the City Place EIR and would mitigate this impact to a less than significant level. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

Impact C-TRANS-4: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #36 Montague Expressway and North First Street during the PM peak hour and at intersection #37 Mission College Boulevard and Montague Expressway during the PM peak hour. The required improvements are under the jurisdiction of Santa Clara County and, therefore, outside the jurisdiction of the City of Santa Clara. **(Significant Unavoidable Cumulative Impact)**

3.15 UTILITIES AND SERVICE SYSTEMS

The following discussion is based in part on a Draft Water Supply Assessment (WSA) prepared by the City’s Water Utility in June 2018. A copy of the WSA is included in Appendix H of this EIR. A Sanitary Sewer Capacity Evaluation was prepared by *Woodard & Curran* in June 2018. A copy of this technical memorandum is included in Appendix I of this EIR.

3.15.1 Environmental Setting

3.15.1.1 *Regulatory Framework*

State and Regional

Urban Water Management Plan

Pursuant to State Water Code requirements, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. The State Water Code requires water agencies to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, and to address a number of related subjects including water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Santa Clara adopted its most recent Urban Water Management Plan in November 2016.

Senate Bill 610

Senate Bill 610 (SB 610), codified at Water Code Section 10910 et seq., requires that certain water supply and demand information be prepared for “projects” which are the subject of an EIR. Water Codes Section 10912 defines a “project” as, among other things, a proposed residential development of more than 500 dwelling units.

Senate Bill 606 and Assembly Bill 1668

Senate Bill (SB) 606 and Assembly Bill (AB) 1668 were signed into law by Governor Brown on May 31, 2018. SB 606 and AB 1668 emphasize efficiency and stretching existing water supplies in our cities and on farms. Specifically, the bills call for creation of new urban efficiency standards for indoor use, outdoor use, and water lost to leaks, as well as any appropriate variances for unique local conditions. The State Water Board will adopt these standards by regulation no later than June 30, 2022, after full and robust public and stakeholder processes. Each urban retail water agency will annually, beginning November 2023, calculate its own objective, based on local water needs and must meet their water use objectives. Starting in 2023, the State Water Board may issue informational orders to urban water suppliers that do not meet their water use objective, and may issue conservation orders beginning in 2025. The indoor water use standard will be 55 gallons per capita daily (GPCD) until January 2025; the standard will become stronger over time, decreasing to 50 GPCD in January 2030. Water use standards for other land uses will be developed by June 2022.

Senate Bill X7-7 2009 (Water Conservation Act of 2009)

Effective January 1, 2010, SB X7-7 requires the State to achieve a 20 percent reduction in urban per capita water use by December 31, 2020. In addition, SB X7-7 requires agricultural water management plans and efficient water management practices for agricultural water suppliers, and promotes expanded development of sustainable water supplies at the regional level. The portion of SB X7-7 focused on urban water management establishes processes for urban water suppliers to meet the statewide water conservation targets. Furthermore, SB X7-7 requires Department of Water Resources (DWR) review and reporting on urban water management plans; creates a Commercial, Industrial, and Institutional Task Force to develop best management practices (BMPs) for water use in this sector; requires that DWR promote implementation of regional water resource management practices through increased incentives; and requires that DWR in consultation with the State Water Board develop or update statewide targets for recycled water, brackish groundwater desalination, and urban stormwater runoff.

Senate Bill 221

SB 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s). This requirement also applies to increases of 10 percent or more of service connections for public water systems with fewer than 500 service connections. The law defines criteria for determining “sufficient water supply” such as using normal, single-dry, and multiple-dry year hydrology and identifying the amount of water that the supplier can reasonably rely on to meet existing and future planned use.

Wastewater

The San Francisco Bay Regional Water Quality Board (RWQCB) includes regulatory requirements that each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan (SSMP) to provide adequate capacity to convey peak flows. Other RWQCB regulatory requirements include the General Waste Discharge Requirements (GWDR), which regulates the discharge from wastewater treatment plants.

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA), AB 939, passed in September 1989, requires every city and county in the State to prepare a Source Reduction and Recycling Element with its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory State diversion goals of 25 percent by 1995 and 50 percent by 2000. The intent of AB 939 is to facilitate solid waste reductions, recycling, and reuse to the greatest extent possible. The bill imposes fines of up to \$10,000 per day on cities and counties for non-compliance in meeting the goals and timelines set forth in AB 939.

Assembly Bill 341

Assembly Bill 341 (2011) (AB 341) sets forth the requirements of the statewide mandatory commercial recycling program in the Public Resources Code. All businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in

California are required to recycle. The purpose of the law is to reduce garbage sent to landfills and reduce GHG emissions. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Local

County Integrated Waste Management Plan

As described above, the existing CIWMA 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 (IWMP). The County’s plan was approved by the Board in 1996. Since that time it has undergone two 5-year reviews. The jurisdictions covered in the 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, Sunnyvale, and the unincorporated areas of the County. Each jurisdiction has a diversion requirement of 50 percent for 2000 and 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 of Santa Clara adopted a Climate Action Plan (CAP) in December 2013. The CAP outlines the City’s efforts to reduce greenhouse gas (GHG) emissions consistent with the Bay Area Air Quality Management District’s (BAAQMD’s) CEQA Guidelines and larger statewide GHG reduction goals. The CAP estimates current (2008) and future (2020 and 2035) GHG emissions generated by community activities and sets a GHG reduction goal of 15 percent below 2008 emissions levels by 2020.¹ Measures to achieve this target are identified and focus on energy efficiency, renewable energy, water conservation, waste reduction, off-road equipment, and transportation and land use.

City of Santa Clara Recycling Programs

The City has in place a Single-Family Recycling Program, a Multi-Family Recycling Program, and a Commercial 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 of Santa Clara 2010 – 2035 General Plan

General Plan policies applicable to utilities and service systems include, but are not limited to, the following listed below.

Policies	Description
Prerequisite Policies	
5.1.1-P3	Prior to the implementation of Phase III of the General Plan, undertake a comprehensive assessment of water, sanitary sewer conveyance, wastewater treatment, solid waste disposal,

Policies	Description
	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.
5.1.1-P8	Prior to approval of residential development for Phase III in any Future Focus Area, complete a comprehensive plan for infrastructure and utilities, that specifies: <ul style="list-style-type: none"> • With provisions for sufficient storm drain, sanitary sewer conveyance, wastewater treatment, water, solid waste disposal and energy capacity
5.1.1-P21	Prior to 2023, identify and secure adequate solid waste disposal facilities to serve development in Phase III.
Conservation Policies	
5.10.1-P6	Require adequate wastewater treatment and sewer conveyance capacity for all new development.
General Land Use	
5.3.1-P9	Require that new development provide adequate public services and facilities, infrastructure, and amenities to serve the new employment or residential growth.
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.
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.
5.3.1-P27	Encourage screening of above-ground utility equipment to minimize visual impacts.
5.3.1-P28	Encourage undergrounding of new utility lines and utility equipment throughout the City.
Water Policies	
5.10.4-P3	Promote water conservation, recycled water use and sufficient water importation to ensure an adequate water supply.
5.10.4-P4	Require an adequate water supply and water quality for all new development.
5.10.4-P5	Prohibit new development that would reduce water quality below acceptable State and local standards.
5.10.4-P6	Maximize the use of recycled water for construction, maintenance, irrigation and other appropriate applications.
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.
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.
Safety	
5.10.5-P20	Maintain, upgrade and replace storm drains throughout the City to reduce potential flooding.
5.10.5-P21	Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.

3.15.1.2 *Water Service*

Potable Water

Potable water in the City of Santa Clara comes from three sources, including local, city-owned wells; the Santa Clara Valley Water District (SCVWD); and the San Francisco Public Utilities Commission (SFPUC). Water service to the site is provided by the San Francisco Public Utilities Commission (SFPUC) through turnouts to the Bay Division Pipelines of the Hetch Hetchy delivery system.

The water system consists of more than 315 miles of water mains, 26 wells and seven storage tanks with more than 28 million gallons of water capacity.⁹² Drinking water is provided by an extensive underground aquifer (accessed by the City's wells) and by two wholesale water importers: the Santa Clara Valley Water District (SCVWD) (imported from the Sacramento-San Joaquin Delta) and the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy System. About 25 percent of the City's water comes from these imported treated water supplies. Another 62 percent is pumped from the City's system of 26 deep wells.⁹³ The three sources (SCVWD, SFPUC, and groundwater) are used interchangeably or are blended together. A water recharge program administered by SCVWD from local reservoirs and imported water enhances the dependability of the underground aquifer.

There is a 12-inch water main in Lafayette Street along the western project frontage that extends from a system of 16-inch trunk mains near the City's water storage facility approximately one-half-mile southwest of the Plan Area. A 12-inch water main is also located in Tasman Drive and Calle Del Sol. The existing development in the Plan Area is estimated to use 35.7 acre-feet of water per year.

Recycled Water

The South Bay Water Recycling Program was initiated to reduce the amount of treated wastewater entering San Francisco Bay from the San José-Santa Clara Regional Wastewater Facility. The City of Santa Clara sources the remaining approximately 13 percent of its water from the South Bay Water Recycling Program for non-potable uses by businesses, industries, parks, and schools along pipeline routes.⁹⁴

There are no recycled water facilities within the Plan Area, though the main transmission line from San José enters the City of Santa Clara in Tasman Drive on the west bank of the Guadalupe River. At the intersection of Calle Del Sol and Tasman Drive is a 30-inch transmission main.

3.15.1.3 *Sewer Services*

Wastewater Treatment

Wastewater from the City of Santa Clara is treated at the San José-Santa Clara Regional Wastewater Facility (RWF), located near Alviso in north San José. The RWF serves eight tributary sewage collection agencies and is administered and operated by the City of San José's Department of

⁹² City of Santa Clara. "Water Utility". Accessed August 14, 2016.
<<http://santaclaraca.gov/government/departments/water-sewer-utilities/water-utility>>

⁹³ Ibid.

⁹⁴ Ibid.

Environmental Services. The RWF provides primary, secondary, and tertiary treatment of wastewater and has the capacity to treat 167 million gallons of wastewater per day (mgd).⁹⁵ The City of Santa Clara currently has rights to approximately 25 mgd of the total treatment capacity at the plant with peak sewage flows of 16.15 mgd in 2017.⁹⁶

The RWF is currently operating under a 120 mgd dry weather effluent flow constraint.⁹⁷ This requirement is based upon the State Water Resources Control Board and the Regional Water Quality Control Board concerns over the effects of additional freshwater discharges from the RWF on saltwater marsh habitat, as well as pollutant loading to the Bay from the RWF. Approximately 10 percent of the facility's effluent is recycled for non-potable uses and the remainder flows into San Francisco Bay. The facility currently treats an average of 110 mgd of wastewater.⁹⁸

Wastewater Conveyance

Wastewater conveyance facilities within the project site are owned and maintained by the City of Santa Clara Department of Water and Sewer Utilities (SCDW&U). The facilities consist of gravity pipe lines constructed in 1973 with vitrified clay (VCP), as well as the Primavera Lift Station, which consists of six identical pumps having an estimated total capacity of 5.7 mgd. This station handles wastewater from the project site, as well as incoming flows from a 24-inch gravity main in Tasman Drive that runs northward below Calle Del Sol. The City's existing estimated base wastewater flow is approximately 11.0 million gallons per day (mgd).⁹⁹

Existing sewer pipelines within the Plan Area consist of 12-inch, 15-inch and 21-inch VCPs. Wastewater flows from the Plan Area to the west to a trunk system in Lafayette Street. As it flows north, it increases from a 36-inch, to a 42-inch, then to a 48-inch pipe, and then enters a control chamber to the Rabello Pump Station and the Northside Pump Station. The Rabello Pump Station has a capacity of 20 mgd and the Northside Pump Station has a capacity of 21 mgd.¹⁰⁰ These two-stations work in parallel to convey flows through a combination of 36-inch force mains, a junction structure, and a 48-inch force main to the Santa Clara Inflow Junction Structure. This junction combines City of San Jose's system and the Santa Clara system just prior to entering the RWF.

Wastewater Generation Rates

Based on 2013 and 2014 water billing records in the City's customer billing database, existing Base Water Flow (BWF) of 0.036 MGD is generated from current development within the Plan Area. Assuming full build-out at the existing Light Industrial zoning district (50% FAR and 0.15 gpd/sf wastewater generation), 0.157 MGD would be anticipated.

⁹⁵ City of San José, Environmental Services Department. "San Jose Santa Clara Regional Wastewater Facility". Available at: <<http://www.sanjoseca.gov/?nid=1663>> Accessed: May 23, 2018.

⁹⁶ City of San José, Environmental Services Department. *Tributary Agencies' Estimated Available Plant Capacity – 2017*. December 20, 2017.

⁹⁷ San Francisco RWQCB. ORDER No. R2-2014-0034, NPDES No. CA0037842. September 10, 2014.

⁹⁸ City of San José, Environmental Services Department. "San Jose-Santa Clara Regional Wastewater Facility.". Available at: <<http://www.sanjoseca.gov/?nid=1663>> Accessed: June 28, 2018.

⁹⁹City of Santa Clara. *Sanitary Sewer Master Plan Update Final Report*. April 2016. Table 2-2: Base Wastewater Flow Estimates.

¹⁰⁰ City of Santa Clara. *Sanitary Sewer Master Plan Update Final Report*. April 2016. Table 4-3: Pump Station Firm Capacity Analysis.

In April 2016, RMC Water and Environment prepared the City’s Sanitary Sewer Master Plan to guide improvements to the City’s wastewater system to accommodate current and future development. The study used future (based on Phase III Development of the 2010-2035 General Plan) Peak Wet Weather Flow (PWWF) assumptions to analyze the system. The 2010-2035 General Plan indicates a land use classification for the Plan Area of “High Density Residential,” with a density of 40 Dwelling Units per Acre, which would yield a BWF of 0.336 MGD.

3.15.1.4 Storm Drainage

Storm drainage facilities in and around the Tasman East Specific Plan Area are owned and maintained by private property owners, the City of Santa Clara’s Department of Public Works and the Santa Clara Valley Water District (SCVWD). Private systems in the individual parcels typically discharge through 12-inch through 24-inch lines into the backs of public catch basins in the public rights-of-way. The local public system consists of surface inlets and storm drain pipes in streets. These vary in size between 12-inch and 33-inch. They generally flow northeasterly in Calle Del Mundo and Calle De Luna and north in a 33-inch pipe that runs in the north-south section of Calle De Luna. The system flows into the City’s Eastside Drainage Swale in the northeast corner of the project site along the Guadalupe River’s western levee. The Eastside Drainage Swale carries flows of approximately 3,000-LF to the Eastside Retention Basin. A pump station pumps stormwater from this basin through the levee and into the Guadalupe River. The Guadalupe River, which is under Santa Clara Valley Water District (SCVWD) jurisdiction, conveys flows to the San Francisco Bay.

In the existing condition during a one-percent storm event, stormwater runoff is unable to enter the storm drain system due to a lack of capacity, which causes the storm drain system to surcharge (pressurize) and force water out of the storm drain system through the open inlets and catch basins. Flooding from these stormwater spills is mostly contained within the street rights of way, and some overland flow enters the project site from Lafayette Street from the northwest.

3.15.1.5 Solid Waste

The Santa Clara County’s Integrated Waste Management Plan (IWMP) was approved by the California Integrated Waste Management Board (CIWMB) in 1996 and has since been reviewed in 2004, 2007, and 2011. According to the IWMP, the County has adequate disposal capacity beyond 2026.¹⁰¹ Solid waste generated within the County is landfilled at Guadalupe Mines, Kirby Canyon, Newby Island, Zanker Road Materials Processing Facility, and Zanker Road landfills.

Solid waste collection in the City of Santa Clara is provided by Mission Trail Waste System through a contract with the City. Mission Trail Waste System also has a contract to implement the Clean Green portion of the City’s recycling plan by collecting yard waste. All other recycling services are provided through Stevens Creek Disposal and Recycling. The City has a contract with the owners of the Newby Island Landfill (NISL), located in San José, to provide disposal capacity for the City of Santa Clara through 2024. As of January 2017, NISL had approximately 18 million cubic yards of remaining capacity. There is sufficient capacity at this facility to serve existing and planned development under the 2010-2035 General Plan through 2024.¹⁰² Beyond 2024, the City would

¹⁰¹ Santa Clara County. *Five-Year CIWMP/RAIWMP Review Report*. May 2011.

¹⁰² City of Santa Clara. *City of Santa Clara 2010-2035 General Plan*. 2010. Page 5-124.

need to contract with another landfill operator which would be subject to separate environmental review.

The City of Santa Clara has a construction debris diversion ordinance which requires all projects over 5,000 s.f. to divert a minimum 50 percent of construction and demolition debris from landfills. The existing light industrial development is estimated to generate approximately 775 tons of solid waste annually.¹⁰³

3.15.2 Utilities and Service Systems Impacts

3.15.2.1 *Thresholds of Significance*

For the purposes of this EIR, a utilities and service systems impact is considered significant if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new waste or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, and would require new or expanded entitlements;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Be inconsistent with federal, state, and local statutes and regulations related to solid waste.

3.15.2.2 *Water Service and Supply Impacts*

The proposed TESP would result in approximately 4,500 residential units, 106,000 square feet of commercial space, and a 600-student school in the Plan Area. The Water Supply Assessment is considered a conservative analysis as it does not assume any increase in recycled water use or conservation. Development within the Plan Area would result in increased water use of approximately 627.3 acre-feet per year.¹⁰⁴ The Specific Plan includes connection to the Regional Wastewater Facility's reclaimed water pipeline primarily for irrigation purposes but would also allow for dual plumbing relying on recycled water in some buildings, as feasible. The City plans to meet future demand growth by pumping additional groundwater, relying on more recycled water, and

¹⁰³ Existing light industrial development in the Plan Area totals approximately 708,000 square feet. The existing development is assumed to generate six pounds of solid waste per 1,000 s.f. per day. (708ksf x 6 lbs/day x 365 days)/2000 lbs. = 775 tons annually. California Integrated Waste Management Board. "Industrial Sector Generation Rates." 2016. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/>. Accessed: June 28, 2018.

¹⁰⁴ City of Santa Clara. *Tasman East Specific Plan Water Supply Assessment*. June 2018.

increased conservation. Given the potential for decreased SFPUC imported surface deliveries due to the City's interruptible contract, increased groundwater pumping may be necessary during multiple dry years. As noted in the project description, increased pumping of groundwater may require additional groundwater pumping facilities or larger pumps at existing pumping facilities.

Future development of the proposed Specific Plan is anticipated to require the upsizing of approximately 3,000 feet water main in Lafayette Street from 12 inches to 16 inches in order to meet the City's fire flow requirements. The upsized water line would extend southerly on Lafayette Street and connect with the existing North Side Water Storage Tanks property. The project may include replacement pipeline in existing City rights-of-way. **(Less Than Significant Impact)**

3.15.2.3 *Sanitary Sewer/Wastewater Impacts*

According to the Sanitary Sewer Master Plan, the two pump stations serving the project site will be operating within their estimated capacity (total of approximately 41 mgd) during future PWWF conditions. The Primavera Lift Station, located within the Specific Plan Area, has a capacity of 5.7 mgd. The Master Plan estimated flows at the Primavera Lift Station of 2.0 mgd in 2035 at full build-out. According to the Sanitary Sewer Capacity Evaluation, redevelopment in the Specific Plan area is estimated to increase wastewater flows by approximately 0.45 mgd which is more than double the flows estimated in the Sanitary Sewer Master Plan. Given the estimated excess capacity at the Primavera Pump Station, adequate capacity exists to convey the increased wastewater flows from the Plan Area. The Sewer Master Plan does not indicate any other elements of the conveyance system between the project site and the RWF that are anticipated to need upgrades before 2035.

The Primavera Pump Station that is currently located in the planned alignment of the Calle Del Sol extension would require either undergrounding or relocation within the Plan Area. Modifications and/or relocation of the Primavera Pump Station within the Specific Plan boundary would result in similar impacts and mitigation measures identified throughout this EIR. In the event the Primavera Pump Station is relocated outside of the Plan Area, subsequent environmental review would be required.

Current and planned development would not exceed the City's allocation at the RWF of 25 mgd today or in 2035. As described in *Section 3.15.2.2*, the City's peak sewage flows to the RWF in 2017 were 16.15 mgd. With the addition of approximately 0.45 mgd of sewage from future development under the Specific Plan, the City would not exceed its allocation of 25 mgd. Because the City has sufficient capacity allocation at the RWF to support future development under the Specific Plan, no significant impacts would result from implementation of the Specific Plan. **(Less Than Significant Impact)**

3.15.2.4 *Storm Drainage Impacts*

Since the Plan Area, as well as the surrounding area that currently lies within regulatory floodplain area, is already developed, there is relatively little potential for a substantial increase in runoff rate or volume. Within the Tasman East Specific Plan area itself, current development is mostly commercial and light industrial. The proposed high density residential development will likely consist of comparable impervious area as to the existing land uses. Planned changes to the street system within the Specific Plan area (including an extension of Lick Mill Blvd and the widening of

Calle De Luna), the proposed condition would increase the existing peak runoff rate by approximately two percent (less than one cfs). This relatively minor change in runoff does not cause any significant increase in flooding downstream of the project boundary based on post-project modeling.

The implementation of the Specific Plan would include importing fill material to raise buildings above the 100-year floodplain in addition to elevating the extension of Lick Mill Road to tie in with the City Place development to the north. These elevation changes within the Plan Area would block overland flows. Furthermore, the existing storm drain system is insufficient to handle flows during storms under existing conditions.

While the proposed development itself does not create additional stormwater runoff that would exceed the capacity of the storm drain system at Lafayette Street, the placement of fill associated with the development would block overland flow and without that release, the runoff tributary to the Lafayette Street storm drain system is increased. The overland flow path at the northwest corner of the site would be blocked and, therefore, improvements to the storm drain system would be required to offset any significant off-site effects of the development. As described in *Section 3.9.2.4*, the Specific Plan would be required to include the placement of a catch basin at the northwest corner of the site to address potential increased flooding due to the blockage of overland stormwater flows. The placement of a new catch basin within the Plan Area would result in similar impacts as other ground-disturbing activities and required mitigation described elsewhere in this EIR. The inclusion of storm drainage facilities within existing developed sites and rights-of-way in the Plan Area would not result in new significant impacts. **(Less Than Significant Impact With Mitigation Incorporated)**

3.15.2.5 *Solid Waste*

Implementation of the proposed project will result in construction waste as well as an ongoing net increase in solid waste and recyclable materials generated within the City of Santa Clara of approximately 1,413 tons per year.¹⁰⁵ Development within the Plan Area would be required to provide recycling facilities within proposed buildings to assist the City in meeting AB 939 requirements. The Specific Plan includes recycling and composting stations in the public realm and include public awareness campaigns for the Plan Area which would further increase diversions from landfills. The Newby Island Landfill, located in San José, has an agreement with the City to provide disposal capacity through 2024. The City has not secured solid waste disposal capacity at a landfill beyond 2024. General Plan policies 5.1.1-P3 and 5.1.1-P21, however, require the City complete an assessment of infrastructure and utility demand (including solid waste disposal) to ensure adequate capacity and funding to implement the necessary improvements to support development. Secure, adequate solid waste disposal facilities to serve development must be identified.

According to the IWMP, the County has adequate disposal capacity beyond 2026 and as of January 2017, NISL has approximately 18 million cubic yards of remaining capacity. There is existing capacity at local landfills, including NISL, to accommodate project generated waste post 2024. For this reason, the project would be served by a landfill with sufficient permitted capacity.

¹⁰⁵ Illingworth & Rodkin, Inc. *Tasman East Specific Plan and EIR – Air Quality and Greenhouse Gas Assessment*. April 26, 2018. Attachment 2.

During construction, the proposed project will be required to comply with the City of Santa Clara construction debris diversion ordinance which requires all projects over 5,000 square feet to divert a minimum 50 percent of construction and demolition debris from landfills. This will reduce the amount of material disposed of at the landfill during the construction phase of the project.

In accordance with the mandatory recycling provisions of the City Code (Ord. 1947 § 3, 1-12-16), the project would comply with the requirements of the Santa Clara Business/Commercial Recycling Program to assist the City in meeting its waste diversion goal of 50 percent. **(Less Than Significant Impact)**

3.15.2.6 *Consistency with Plans*

The proposed Specific Plan is consistent with applicable General Plan policies by being served by adequate sanitary sewer/wastewater services, as discussed above. The Specific Plan would upsize an existing water main in Lafayette Street to accommodate fire flow requirements for future development in the Plan Area. The storm sewer system would require improvements to ensure adequate drainage is provided and flooding minimized due to the planned fill necessary to elevate habitable structures out of the floodplain²⁴. As identified in the General Plan, the City shall initiate and identify a plan to provide adequate solid waste disposal post 2024.

3.15.2.7 *Cumulative Impacts*

The geographic area for cumulative utility and service systems is the City boundaries.

Water Supply

The Water Supply Assessment determined the City would have adequate water supply for the proposed Specific Plan under most scenarios with the exception of multiple dry years with supply discontinued from SFPUC. As discussed in the Urban Water Management Plan, the City has plans to construct two new groundwater wells which would provide approximately 4,000 acre-feet of water per year which would provide adequate water supply to the City in multiple dry years. It is anticipated that such facilities could be located to avoid or reduce impacts to a less than significant level. Buildout of the Specific Plan, would contribute to the need for previously identified water supply improvements in the Urban Water Management Plan. Therefore, projects with the Plan Area may be subject to water supply or capacity fees, additional water efficiency standards or other water supplies (i.e. groundwater pumps) may need to be developed. **(Less Than Significant Cumulative Impact)**

Wastewater Treatment/Sanitary Sewer System

Buildout of the General Plan would result in an increase in sewage generated within the City. As discussed in the certified General Plan EIR, the average dry weather flows projected from the full buildout of the General Plan were projected to be within the City's allocated treatment capacity at RWF, which at the time of the certification of the General Plan EIR was 20.1 mgd¹⁰⁶ and below the City's 2017 flow allocation of approximately 25.0 mgd. The Specific Plan and other large projects

¹⁰⁶ City of Santa Clara. *2010-2035 General Plan Integrated Final Environmental Impact Report*. SCH# 2008092005. January 2011. Page 228.

proposed within the City are not anticipated collectively to exceed the City's existing allocation at the RWF.¹⁰⁷ The RWF has excess flow capacity of approximately 59.7 mgd and the City has a process to obtain additional capacity rights at the RWF should the need arise.¹⁰⁸ **(Less Than Significant Cumulative Impact)**

The Sewer Master Plan does not indicate any elements of the conveyance system between the project site and the RWF that are anticipated to need upgrades before 2035. The Rabello and Northside Pump Stations; however, are anticipated to exceed their pump capacity of 41 mgd by 2035 with recent development approvals not previously considered in the General Plan. In the event that more development occurs than was anticipated by the General Plan, the capacity of the Rabello and Northside Pump Stations would need to be upgraded to meet the demand. The upgrades would include additional wet well and pumping capacity as well as, potentially, force main improvements. The timing for the pump station improvements is not currently known. As part of the mitigation for City Place, a detailed engineering study and analysis to determine the precise size and timing needed for the required pump station capacity upgrades to address projected cumulative development is required. Such improvements are required to occur concurrent with City Place Phase 2 which is anticipated to complete construction by 2023, far in advance of the Specific Plan buildout. The City shall implement the required capacity upgrades and the proposed project shall fund its fair share of such upgrades. This EIR assumes the proposed improvements can be implemented on the existing pump station sites and within existing City rights-of-way to minimize any significant environmental impacts. Future upgrades to the Rabello and Northside Pump Stations would be subject to the environmental review requirements of CEQA.

Impact C-UTIL-1: The proposed Specific Plan would contribute considerably to identified exceedances of the existing pump station capacity at the Rabello and Northside Pump Stations. **(Significant Cumulative Impact)**

Mitigation Measures: The following mitigation measure would reduce the impact of the proposed Specific Plan to sanitary sewer facilities to a less than significant level:

MM C-UTIL-1.1: The proposed Specific Plan shall require that individual projects implemented within the Specific Plan area make a fair share contribution to the sanitary sewer pump station improvements required by cumulative development in Santa Clara. The fair share contributions for future projects developed under the Specific Plan shall be determined based on a detailed engineering study prepared by the City. The City shall determine the fair-share cost contribution for the individual projects based on their percent of wastewater flow cumulative capacity needs above the current pump capacity. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

¹⁰⁷ Wastewater from the City Place development (1.75 mgd), Gateway Crossings (0.3 mgd), Lawrence Station Area Plan (0.556 mgd), and Tasman East (0.45 mgd) would conservatively add up to approximately 3.056 mgd to wastewater flows projected in the General Plan EIR.

¹⁰⁸ The total flow capacity at the RWF is 167 mgd, and the joint owners (Santa Clara and San José) have agreements with several tributary agencies, which have capacity rights of approximately 35 mgd. Pursuant to Section V.B.3 of the 1983 agreements with the tributary agencies, Santa Clara can purchase additional capacity from those tributary agencies.

Storm Drainage System

Development projects (including future development under the proposed Specific Plan) are required by City ordinances to undertake steps to avoid, minimize, and/or mitigate flooding and water quality impacts. For example, projects north of the Specific Plan area including City Place shall be designed to have no impacts to upstream water surface elevations and therefore would cause no negative storm drainage impacts to the project site. Redevelopment projects upstream of the Plan Area would also be required to minimize and treat stormwater runoff from their sites which would avoid stormwater flow rate increases in the drainage system. Therefore, cumulative storm sewer impacts would be considered less than significant. **(Less Than Significant Cumulative Impact)**

Solid Waste

Buildout of the City and the proposed project would generate solid waste that would need to be disposed of appropriately. Consistent with the conclusion in the certified General Plan Final EIR and City Place Santa Clara Project Final EIR,¹⁰⁹ without a specific plan for disposing of solid waste beyond 2024, the solid waste generated by development in the City post-2024 (including waste from the proposed project and other cumulative projects such as City Place Santa Clara) would result in a significant unavoidable impact. **(Significant Unavoidable Cumulative Impact)**

Impact C-UTIL-2: Without a contract with a landfill for disposing of solid waste beyond 2024, solid waste generated by development in the City post-2024 (including waste from the proposed project) would result in a significant unavoidable cumulative impact. **(Significant Unavoidable Cumulative Impact)**

3.15.3 Conclusion

The proposed Specific Plan would require upsizing of a water main in Lafayette Street that would be subject to mitigation measures related to ground-disturbing activities discussed elsewhere in this EIR. **(Less Than Significant Impact With Mitigation Incorporated)**

The proposed Specific Plan would not result in significant impacts to water supply, sewage treatment or conveyance facilities, and solid waste facility capacity. **(Less Than Significant Impact)**

The proposed Specific Plan would require placement of a new catch basin within the Plan Area to avoid impacts to stormwater flows from the project. The required storm drainage improvement would result in similar impacts as other ground-disturbing activities and required mitigation described elsewhere in this EIR. **(Less Than Significant Impact With Mitigation Incorporated)**

Impact C-UTIL-1: The proposed Specific Plan with inclusion of a fair share contribution to expand pump station capacity at the Rabello and Northside Pump Stations would reduce its contribution to cumulative sanitary sewer system impacts to a less than significant level. **(Less Than Significant Cumulative Impact With Mitigation Incorporated)**

¹⁰⁹ City of Santa Clara. *City Place Santa Clara Project Draft Environmental Impact Report*. SCH# 2014072078. Certified June 2016. Pages 3.14-38 and 3.14-39.

Impact C-UTIL-2: Without a contract with a landfill for disposing of solid waste beyond 2024, solid waste generated by development in the City post-2024 (including waste from the proposed project) would result in a significant unavoidable cumulative impact. **(Significant Unavoidable Cumulative Impact)**

SECTION 4.0 GROWTH-INDUCING IMPACTS

The CEQA Guidelines require that an EIR identify the likelihood that a proposed project could “foster” or stimulate “economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment” (Section 15126.2(d)). This section of the EIR is intended to evaluate the impacts of such growth in the surrounding environment.

The proposed project is an “infill” project, meaning that the project site is within the City’s existing boundaries, already served by existing infrastructure, and planned for urban uses. Redevelopment of the Tasman East Focus Area was envisioned as part of the Santa Clara 2010-2035 General Plan. The proposed Specific Plan has increased the allowed density in the Plan Area from what was assumed in the General Plan. The resulting dwelling unit assumptions for the Plan Area have increased from 1,676 residential units as described in the 2014 Housing Element update to 4,500 dwelling units assumed in the Specific Plan. The proposed commercial square footage and school facilities are consistent with the mixed-use neighborhood envisioned for the Plan Area. The impacts to infrastructure and services resulting from the proposed Specific Plan are described throughout this EIR.

The proposed Specific Plan is a previously envisioned growth area in the General Plan and is not anticipated to result in increased growth outside the City where urban development is not already planned. For these reasons, the proposed Specific Plan would not result in growth-inducing impacts beyond what is envisioned in the City’s General Plan. **(Less Than Significant Impact)**

SECTION 5.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources. Applicable environmental changes are described in more detail below.

5.1 USE OF NONRENEWABLE RESOURCES

Future development under the proposed Specific Plan, during construction and operation, would require the use and consumption of nonrenewable resources. Renewable resources, such as lumber and other wood byproducts, could also be used. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals.

Energy would be consumed during both the construction and operational phases of the Specific Plan development. The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics, and glass. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the site, and construction of the buildings. The operational phases would consume energy for multiple purposes including, building heating and cooling, lighting, appliances, and electronics. Energy, in the form of fossil fuels, will be used to fuel vehicles traveling to and from Plan Area.

The proposed Specific Plan would result in a substantial increase in demand for nonrenewable resources. However, the project is subject to the standard California Code of Regulations Title 24 Part 6 and CALGreen energy efficiency requirements.

As discussed in *Section 3.5 Energy*, the Specific Plan is consistent with the City's General Plan policies regarding energy use, which fosters development that reduces the use of nonrenewable energy resources in transportation, buildings, and urban services (utilities).

5.2 COMMITMENT OF FUTURE GENERATIONS TO SIMILAR USE

The proposed Specific Plan includes residential, commercial, and educational uses. The development of the proposed Specific Plan would commit a substantial amount of resources to prepare the sites, construct the buildings, and operate them.

5.3 IRREVERSIBLE DAMAGE RESULTING FROM ENVIRONMENTAL ACCIDENTS ASSOCIATED WITH THE PROJECT

The project does not propose any new or uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would impact other areas. As discussed in *Section 3.8 Hazards and Hazardous Materials*, the Plan Area contains individual parcels that have been confirmed or may contain soil and groundwater contamination that may expose construction workers, future occupants, and the surrounding environment to contaminated soils and soil vapor intrusion.

Phase I Environmental Site Assessments and Site Management Plans shall be implemented by future development under the Specific Plan to mitigate potential risks to construction workers, future occupants, and the environment from potential exposure to hazardous substances. There are no known significant unmitigable on-site or off-site sources of contamination that would substantially affect the proposed uses in the Plan Area. There are no significant geology and soils impacts from implementation of the project.

Based on the discussion above, the proposed Specific Plan would not likely result in irreversible damage that may result from environmental accidents.

SECTION 6.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed Specific Plan would result in the following significant unavoidable impacts:

- Impact AQ-2:** The proposed project, with the incorporation of mitigation, would result in significant impacts during the operational period from regional criteria pollutant emissions of ROG and NO_x both at a project-level and cumulatively. **(Significant Unavoidable Impact With Mitigation Incorporated)**
- Impact C-AQ-1:** The project would make a cumulatively considerable contribution to regional criteria pollutant emissions (ROG and NO_x) that cannot be reduced below BAAQMD thresholds of 54 pounds per day with mitigation measures (MM AQ-2.1 to MM AQ-2.3) incorporated in the project. **(Significant Unavoidable Cumulative Impact)**
- Impact BIO – 3:** The proposed Specific Plan with incorporation of mitigation measure MM BIO-3.1 would incorporate bird-safe design elements into the future building designs and reduce this impact to the extent feasible. Given the potential for bird strikes to result from implementation of the Specific Plan this impact would be significant and unavoidable. **(Significant Unavoidable Impact)**
- Impact C-BIO-1:** The proposed Specific Plan in combination with City Place, and including the implementation of mitigation measures, would result in significant unavoidable cumulative impacts due to bird strikes. **(Significant Unavoidable Cumulative Impact)**
- Impact TRANS-1:** The project would have a significant impact under existing plus project conditions at the following four intersections: Tasman Drive and Centennial Drive (#9), Lafayette Street and Great America Way (#10), Lafayette Street and Calle Del Mundo (#11), and Montague Expressway and Mission College Boulevard (#37). **(Significant Impact)**

Intersections #9 and #37 have no feasible mitigation available to reduce their impacts to a less than significant level and, therefore, the Specific Plan would result in significant and unavoidable impacts. **(Significant Unavoidable Impacts)**

- Impact TRANS-2:** The project would result in significant impacts to mixed-flow lanes and HOV lanes on the study freeway segments during at least one peak hour. Full mitigation of significant project impacts on freeway segments would require roadway widening to construct additional through lanes, thereby increasing freeway capacity which is not feasible for individual development projects to implement. No comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the significant impacts on the freeway segments is, therefore, considered significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-3.1: The project would have a significant impact under background plus project conditions at the intersection of 1. Great America Parkway and Westbound 237 Ramps (City of San José/CMP). The project would be responsible for funding the required striping improvements to offset its impacts, however, because this intersection is located in the City of San Jose, the City of Santa Clara cannot guarantee that this improvement would be implemented in a timely manner such that the project's impact is avoided or mitigated. Therefore, this impact would remain significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-3.2: The project would have significant impacts under background plus project conditions at the intersection of 9. Tasman Drive and Centennial Drive (City of Santa Clara). Adding a third eastbound and a third westbound through lane would fully mitigate the impact. The improvements would rely on approval and implementation by VTA that the City of Santa Clara cannot guarantee would be implemented. Therefore, this impact would remain significant and unavoidable. **(Significant and Unavoidable Impact)**

Impact TRANS-3.4: The project would have significant impacts under background plus project conditions at the intersection of 37. Montague Expressway and Mission College Boulevard (CMP/County of Santa Clara). The project shall make a fair-share contribution toward improvements identified in the VTP 2040. An additional improvement, consisting of a second northbound left-turn lane would also be required. The improvements required to mitigate the impacts of the project are significant and unavoidable because the intersection is not under the jurisdiction of the City of Santa Clara and the City cannot guarantee the implementation of the improvement concurrent with the proposed project. **(Significant Unavoidable Impact)**

As to intersection 35: Tasman Drive and Lawrence Expressway – The improvements that would be needed to fully mitigate the impact include widening the eastbound approach to accommodate an additional through lane. There is no right-of way available to accommodate the improvement and therefore the impact is considered significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-5: The proposed Specific Plan would result in approximately two to three minutes of delay on the LRT line in the vicinity of the Plan Area. Providing signal priority to LRT Route 902 along Tasman Drive is the only feasible means to minimize the delays caused to light rail by increased congestion from the Specific Plan development. The City has a system along the Tasman Drive corridor to give light rail vehicles signal priority. Redevelopment of the Plan Area would not change this operating protocol and significant increased delays are estimated to result from the project. Since there are no other feasible mitigation measures, the impacts of the Specific Plan on LRT transit, therefore, are significant and unavoidable. **(Significant Unavoidable Impact)**

Impact C-TRANS-1: The project would have a cumulatively considerable contribution to significant cumulative impacts at the following intersections for which no feasible mitigation is available due to right-of-way constraints: 4. Great America Parkway and Old Mountain View/Alviso Road (City of Santa Clara); 5. Great America Parkway and Tasman Drive* (City of Santa Clara); 9. Tasman Drive and Centennial Drive (City of Santa Clara); 24. Tasman Drive and Lick Mill Boulevard (City of Santa Clara); 26. Lick Mill Boulevard and Montague Expressway (Santa Clara County); 29. Westbound 237 and First Street* (City of San José); 32. Tasman Drive and North First Street (City of San José); 34. Tasman Drive and Rio Robles (City of San José) 35. Tasman Drive and Lawrence Expressway* (Santa Clara County). **(Significant Unavoidable Cumulative Impact)**

Impact C-TRANS-2: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #11 Lafayette Street and Calle Del Mundo that cannot be mitigated due to right-of-way constraints. The intersection; however, would be signalized to mitigate for project impacts on existing conditions. **(Significant Unavoidable Cumulative Impact With Mitigation Incorporated)**

Impact C-TRANS-4: The project would have a cumulatively considerable contribution to significant cumulative impacts at intersection #36 Montague Expressway and North First Street during the PM peak hour and at intersection #37 Mission College Boulevard and Montague Expressway during the PM peak hour. The required improvements are under the jurisdiction of Santa Clara County and, therefore, outside the jurisdiction of the City of Santa Clara. **(Significant Unavoidable Cumulative Impact)**

Impact C-UTIL-2: Without a contract with a landfill for disposing of solid waste beyond 2024, solid waste generated by development in the City post-2024 (including waste from the proposed project) would result in a significant unavoidable cumulative impact. **(Significant Unavoidable Cumulative Impact)**

SECTION 7.0 ALTERNATIVES

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which “would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” The purpose of this section is to determine whether there are alternatives of design, scope, or location that would substantially lessen the significant impacts of the project, even if those alternatives would “impede to some degree the attainment of the project objectives” or are more expensive (Section 15126.6).

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts that are anticipated to occur if the project is implemented, but to try to meet as many of the project’s fundamental objectives as possible. The Guidelines emphasize a common sense approach – the alternatives should be reasonable, “foster informed decision making and public participation,” and focus on alternatives that avoid or substantially lessen the significant impacts. The range of alternatives selected for analysis is governed by the “rule of reason” which requires the EIR to discuss only those alternatives necessary to permit a reasoned choice.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: 1) the significant impacts from the proposed project that could be reduced or avoided by an alternative, 2) the project’s objectives, and 3) the feasibility of the alternatives available. Each of these factors is discussed below.

7.1 SIGNIFICANT IMPACTS OF THE PROJECT

As mentioned above, the CEQA Guidelines advise that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the basic project objectives. The project has significant unavoidable impacts related to regional air quality, transportation (intersection and freeway), and utilities and service systems.

Alternatives may also be considered if they would further reduce impacts that are already less than significant because the project is proposing mitigation measures. Impacts that would be significant, but for which the project includes mitigation measures to reduce them to less than significant levels include impacts to air quality (construction-related emissions), biological resources, cultural resources, hazards and hazardous materials, and construction-related noise and vibration. The alternatives discussion does not focus on project impacts that are less than significant.

CEQA encourages consideration of an alternative site when impacts of the project might be avoided or substantially lessened. Only locations that would avoid or substantially lessen any of the impacts of the project and meet most of the project objectives need to be considered for inclusion in the EIR.

7.2 OBJECTIVES OF THE PROJECT

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the basic project objectives is considered relevant to their

consideration. As identified in *Section 2.4*, the City's objectives for redevelopment within the Tasman East Specific Plan include the following:

Land Use

Establishment of a land use plan and policy framework that will guide future development and redevelopment activities within the area toward transit supportive uses and improvements, including:

- Housing density in the 100 units per acre range to help meet the City's state-mandated RHNA,
- New housing and supporting uses that are integrated with existing residential uses to the south and compatible with former landfill uses in the north, and
- Convenient access to commercial uses, nearby employment, retail, services, entertainment, and other community supportive facilities and services.

Transportation

Improvement of vehicular, pedestrian, bicycle and transit connectivity between stations and existing and future adjacent commercial and residential areas, to encourage the use of alternative modes of transportation and foster a healthy lifestyle, by:

- Providing direct linkages from Tasman East to the Santa Clara Valley Transportation Authority, Amtrak, and Altamont Corridor Express stations and transit stops to promote transit use for access to services and jobs.

Public Realm

Provide a vital neighborhood in this area of the City, by:

- Developing and implementing urban design standards for streets, streetscapes, buildings and open space, which promote walkable and livable environments within the project area,
- Promoting pedestrian-friendly design that includes features such as shade trees, streetscapes that contain lighting and landscaping, street furniture, pedestrian and bike paths, limited driveway curb cuts, traffic-calming features, and pedestrian street crossings, and
- Encouraging parking to be located in structures to minimize their visibility from streets and public spaces.

Parks

A vibrant, high density neighborhood with integrated on-site open space, recreational amenities, and neighborhood serving parks and recreational facilities, which includes:

- Provision of publicly accessible open space within the Tasman East Focus Area that is accessible to all residents, adequate to meet their activity needs, and consistent with the General Plan requirements and other City regulations, and
- New residential development that contains public open spaces, neighborhood parks and recreational amenities that are connected by trails and bikeways, and to other open space

facilities such as the Guadalupe River Trail, San Tomas Aquino Creek Trail, and Ulistac Natural Area.

Environmental

- Meet infrastructure needs and public service levels for the neighborhood in the context of the surrounding area, including allocating fair share cost burdens related to public facilities and benefits, and
- Require new development to comply with the local floodplain management ordinance to ensure the safety of residents.

7.3 FEASIBILITY OF ALTERNATIVES

CEQA, the CEQA Guidelines, and the case law on the subject have found that feasibility can be based on a wide range of factors and influences. The Guidelines advise that such factors can include (but are not necessarily limited to) site suitability, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can “reasonably acquire, control or otherwise have access to the alternative site (Section 15126.6[f][1]).”

7.4 SELECTION OF ALTERNATIVES

7.4.1 Alternatives Considered But Rejected

Location alternatives are frequently considered to reduce the site-specific impacts of a project. The alternative location would typically need to be of similar size to the Plan Area, within the urban service area of the City, near existing transit, and have the appropriate General Plan land use designation(s). Given that the Specific Plan was developed to address planned growth within the Tasman East Focus Area that was identified in the City’s General Plan, and redevelopment in the current phase of the General Plan is a primary goal for this particular location, alternative locations were not further considered. The City has previously identified the Tasman East Focus Area as an appropriate location for housing to meet the City’s Regional Housing Needs Allocation and other goals and policies of the General Plan. Moreover, there is not an equivalent area available for redevelopment within the Tasman East Focus Area or immediate vicinity. For these reasons, an alternative location to the Plan Area was considered but rejected as infeasible.

Development under the proposed Specific Plan would result in significant impacts at a project and cumulative level due to bird collisions with buildings proposed in the Plan Area. Mitigation measure, MM BIO-3.1, requires that proposed buildings incorporate bird-safe design measures to reduce impacts to birds. Bird collisions with buildings have been found to primarily occur between the ground and 60 feet. MM BIO-3.1 requires bird-safe design for all buildings in the Plan Area up to 60 feet in height with incorporation of bird-safe measures to the entirety of buildings within 300 feet of the Guadalupe River. Given the location of the Plan Area adjacent to the Guadalupe River and Ulistac Natural Area, any redevelopment in the Plan Area would result in bird-strike impacts due to the primary collision zone with buildings defined as ground level to 60 feet in height. Therefore, regardless of the distance from adjacent natural areas or height of the proposed buildings, any redevelopment of the Plan Area would have an impact due to bird strikes regardless of any additional design limitations being placed on the proposed buildings. Consideration of a design alternative to

increase setbacks or reduce allowed building heights, therefore, would not reduce bird-strike impacts to a less than significant level. For these reasons, a design alternative to address significant and unavoidable biological resource impacts was considered but rejected as infeasible.

7.4.2 Alternatives Selected

In addition to “No Project,” the CEQA Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that “would avoid or substantially lessen any of the significant effects of the project” (Section 15126.6[f]). The discussion below addresses alternatives that could reduce project impacts and are feasible from a physical land use and infrastructure perspective. This EIR does not evaluate the financial or economic feasibility of alternatives.

Given the factors discussed above, the following evaluation of possible alternatives to the project includes: 1) No Project Alternatives as required by CEQA and 2) a Reduced Development Alternative. The components of these alternatives are described below, followed by a discussion of their impacts and how they would differ from those of the proposed project.

7.5 PROJECT ALTERNATIVES

7.5.1 No Project Alternative

The CEQA Guidelines specifically require consideration of a “No Project” Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approved the project with the impacts of not approving the project. The Guidelines specifically advise that the No Project Alternative is “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” The Guidelines emphasize that an EIR should take a practical approach, and not “...create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (Section 15126.6[e][3][B]).”

The Plan Area is currently development with approximately 708,000 square feet of light industrial/ office space. The Plan Area could, therefore, remain as it is or be redeveloped consistent with uses consistent with the Light Industrial (ML) zoning district. Both no project alternatives area discussed below.

7.5.1.1 *No Project/No Redevelopment Alternative*

The No Project/No Redevelopment Alternative assumes that the Plan Area would remain as developed today with its current or a similar set of uses.

Comparison of Environmental Impacts

The No Project/No Redevelopment Alternative would avoid all of the Specific Plan’s environmental impacts.

Relationship to Objectives

The No Project/No Redevelopment Alternative would not meet any of the City's objectives for the Tasman East Focus Area.

Conclusion

Because the No Project/No Redevelopment Alternative would not result in any new development on the site, this Alternative would avoid all of the environmental impacts of the project. However, this Alternative would not meet any of the City's project objectives.

7.5.1.2 *No Project/Office and R&D Redevelopment Alternative*

This alternative assumes that the Plan Area would be redeveloped with the maximum allowable development under the ML zoning district which allows 75 percent lot coverage and buildings up to 70 feet in height. The Plan Area, therefore, could be developed with approximately four million square feet of office space which is a permitted use in the ML zoning district and which has a greater market in this area of Santa Clara than any other use allowed by the ML zoning district. The No Project/Redevelopment Alternative, therefore, would more than quadruple development within the Plan Area which is currently developed with 708,000 s.f. of building space.

Comparison of Environmental Impacts

The No Project/Office and R&D Redevelopment Alternative may increase impervious surfaces on the site as no residential population would be located in the Plan Area and requirements for parks and pedestrian connectivity would be more limited. Given the increase in impervious areas, flooding conditions could worsen on and offsite. Vehicle trips would also substantially increase over the proposed Specific Plan (approximately 39,540 trips¹¹⁰ vs. 22,380 project trips) and would likely result in additional traffic impacts by foregoing opportunities to place residences near current and planned jobs. Additionally, the directionality of trips would be modified as the Plan Area would attract workers in the AM peak instead of vehicle trips leaving the area during the AM peak hour as would be expected with residential use. This trip pattern would also be reversed during the PM peak hour. Although the intersection impacts might be slightly different due to the directionality of the vehicle trips, given the substantially increased volume of trips it is anticipated that greater traffic impacts would result. The No Project/Office and R&D Redevelopment Alternative would also exacerbate the City's existing jobs/housing imbalance and likely increase commute times and distances which would be a significant unavoidable impact due to inconsistency with General Plan policies that were adopted to mitigate environmental impacts. The No Project/Office and R&D Redevelopment Alternative would also likely result in greater significant criteria pollutant impacts and potentially significant GHG emissions impacts due to the increased number of trips and VMT from workers traveling to the Plan Area.

¹¹⁰ Assumes approximately 11 daily trips per 1,000 s.f. of office/R&D space consistent with ITE rates minus existing daily trips of 4,460.

Relationship to Project Objectives

The No Project/Office and R&D Redevelopment Alternative would not meet the City's primary project objective of developing new housing in a high-density neighborhood that would assist the City in reaching state-mandated RHNA goals and provide convenient access to commercial services and jobs. This alternative would be unlikely to provide substantial public open space to serve the needs of area residents. The No Project/Office and R&D Redevelopment Alternative, therefore, would not meet the City's primary objectives for the Tasman East Focus Area consistent with the General Plan.

Conclusion

The No Project/Office and R&D Redevelopment Alternative would likely result in higher air quality impacts and GHG emissions due to increased vehicle trips. The traffic impacts at intersections and on freeways would also likely increase due to the volume of new trips in similar commute patterns as existing trips in the vicinity of the Plan Area. This alternative would also exacerbate the City's jobs/housing imbalance in a manner inconsistent with the General Plan. The No Project/Office and R&D Redevelopment Alternative would not meet the City's primary objectives of creating a high-density residential neighborhood in the Tasman East Focus Area and advancing the City's RHNA goals.

7.5.2 Reduced Development Alternative

The Reduced Development Alternative assumes the proposed unit count and supporting commercial space would be reduced to approximately 1,350 and 31,000 square feet of commercial space to avoid the majority of the project's traffic impacts. Given the smaller size of the residential neighborhood under this alternative, no school facilities would be proposed within the Plan Area.

Comparison of Environmental Impacts

Intersection LOS impacts to Tasman Drive and Centennial Drive (#9) occur after 10 percent of the project trips from Specific Plan buildout and, therefore, the impact at such intersection would not be avoided by this alternative. All other intersection impacts would be avoided under existing plus project conditions and background plus project conditions; however, the cumulative traffic impacts would remain significant for six of the study intersections. Freeway impacts are also assumed to remain significant and unavoidable. The Reduced Development Alternative would also eliminate the regional air quality impacts of the project as proposed development would be reduced by more than 50 percent which would reduce reactive organic gas emissions to a less than significant level. The sanitary sewer impacts of the project would also be reduced as the amount of development would not substantially contribute to a need to upsize existing pump facilities. The Reduced Development Alternative would also not contribute to the need for additional groundwater pumping facilities to serve citywide development in multiple dry years.

Relationship to Objectives

The Reduced Development Alternative would result in a high-density neighborhood (~37 DU per net acre) with opportunity for integrated on-site open space. The Reduced Development Alternative

would qualify under the existing *High Density Residential* land use classification. This alternative would assist the City in meeting its RHNA goals, however, it would provide less than one-third of the units proposed by the Specific Plan and thus would not achieve the City's primary project objectives to the same degree as the project.

Conclusion

The Reduced Development Alternative would avoid most of the project's intersection LOS impacts and reduce freeway impacts to an extent. The regional criteria pollutant emission impacts of the project would also be reduced to less than significant for all pollutants including reactive organic gases (ROG). The sanitary sewer impacts of the project would also be reduced as the amount of development would not substantially contribute to a need to upsize existing sanitary sewer or groundwater pump facilities. Although the Reduced Development Alternative would provide for a high-density residential neighborhood, it would not assist the City in meeting its RHNA goals to the same extent nor reduce the existing jobs/housing imbalance in Santa Clara to the same extent as the project.

7.5.3 Environmentally Superior Alternative

The CEQA Guidelines specify that an EIR must identify the environmentally superior alternative among those alternatives discussed. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative amongst the other alternatives [Section 15126.6(e)(2)].

Based upon the previous discussion, the environmentally superior alternative would be the No Project Alternative, which would avoid the identified significant impacts. This alternative would not meet the City's primary objectives of developing new housing in a high-density neighborhood that would assist the City in reaching state-mandated RHNA goals and provide convenient access to commercial services and jobs. It is unlikely that the Plan Area would remain in its current state, and, therefore, the No Project/Office and R&D Redevelopment Alternative is reasonably foreseeable. The No Project/Office and R&D Redevelopment Alternative would also not assist the City in meeting its primary objective of providing high-density housing to meet state-mandated RHNA goals nor would it be the environmentally superior alternative.

The Reduced Development Alternative would assist the City in meeting its RHNA goals; however, to a substantially reduced extent when compared to the proposed Specific Plan. The Reduced Development Alternative would also avoid most of the project's intersection LOS impacts and reduce freeway impacts to an extent. Based on the above discussion, the environmentally superior alternative to the proposed Specific Plan is the Reduced Development Alternative as it would reduce or avoid many of the project's environmental impacts.

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