Draft Environmental Impact Report

Moffett Gateway Project

State Clearinghouse # 2015062063

CITY OF MOUNTAIN VIEW

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SUMMARY OF SIGNIFICANT IMPACTS

The following table summarizes the ***significant*** effects of the proposed project on the environment and mitigation measures proposed to reduce the effects. A significant effect on the environment means a substantial, or potentially substantial, adverse change on the environment. Impacts that are less than significant are not described in this summary and can be found in the text of the EIR. A complete description of the project and of its impacts and proposed mitigation measures can be found in the text of the EIR, which follows this summary.

SIGNIFICANT IMPACTS	MITIGATION MEASURES
Air Quality Impacts	
Impact AQ-4: Unless properly controlled, project construction could result in substantial dust emissions. **[Potentially Significant Impact]**	**MM AQ-4:** Consistent with the standard construction BMPs included in the BAAQMD CEQA Air Quality Guidelines, the project applicant shall ensure that the following measures are implemented during project construction: • All exposed 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 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible. Building pads shall be laid as soon as possible and feasible, as well, after grading unless seeding or soil binders are used. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of 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

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	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 Lead Agency 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.
Impact AQ-5: Project construction would generate substantial NOx emissions. **[Potentially Significant Impact]**	**Mitigation Measures:** According to BAAQMD, implementation of the standard construction BMPs to reduce fugitive dust and exhaust emissions listed above in MM AQ-4 would also reduce construction NOx emissions by five percent, because the BMPs limit idling times and require properly tuned equipment. Taking into account the five percent reduction, average daily project construction NOx emissions would be 52.7 pounds per day, which is below the BAAQMD threshold of 54 pounds per day and considered less than significant. Construction NOx emissions would be further reduced with implementation MM AQ-6 described below to reduce construction TAC emissions. **[Less Than Significant Impact with Mitigation Incorporated]**
Impact AQ-6: During project construction, sensitive receptors in the project area could be exposed to substantial $PM_{2.5}$ concentrations. **[Potentially Significant Impact]**	**MM AQ-6:** All diesel-powered construction equipment larger than 50 horsepower and operating on site for more than two days continuously shall meet US EPA particulate matter emissions standards for Tier 4 engines or equivalent. *Note that the construction contractor could use other measures to minimize construction period DPM emissions to reduce the predicted* $PM_{2.5}$ *and cancer risks below the thresholds. Such measures may be the use of alternative powered equipment (e.g., LPG powered forklifts), alternative fuels (e.g., biofuels), added exhaust devices, or a combination of measures, provided that these measures are approved by the lead agency.* **[Less Than Significant Impact with Mitigation Incorporated]**

SIGNIFICANT IMPACTS	MITIGATION MEASURES
Impact AQ-7: DPM emissions during project construction could substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Potentially Significant Impact]**	**Mitigation Measure:** As described above, implementation of mitigation measure MM AQ-6 would reduce on-site diesel exhaust emissions by over 90 percent, which would reduce the cancer risk to less than less than 8.3 chances in one million, below the significance threshold of 10 in one million. **[Less than Significant Impact with Mitigation Incorporated]**
Impact AQ-9: Project construction emissions together with emissions from existing nearby TAC sources would result in a significant cumulative community risk impacts. **[Potentially Significant Impact]**	**Mitigation Measures:** As described above, implementation of mitigation measure MM AQ-6 would reduce on-site diesel exhaust emissions by over 90 percent, and implementation of MM AQ-4 for dust control would reduce fugitive $PM_{2.5}$ emissions by over 50 percent. The combination of mitigation measures MM AQ-4 and MM AQ-6 would reduce the cancer risk from construction proportionally, such that the mitigated risk would be reduced to less than 8.3 chances in one million. Annual $PM_{2.5}$ concentrations from construction would be reduced to less than 0.1µg/m^3. Therefore, the cumulative cancer risk would be reduced to well below the threshold of 100 cases per million. **[Less than Significant Impact with Mitigation Incorporated]**
Impact AQ-13: Project construction, including the proposed off-site improvements, would generate substantial NOx emissions. **[Potentially Significant Impact]** **Impact AQ-14:** During construction of the proposed project, including the off-site improvements, sensitive receptors in the project area could be exposed to substantial $PM_{2.5}$ concentrations. **[Potentially Significant Impact]** **Impact AQ-15:** During construction of the proposed project, including the off-site improvements, DPM emissions could	**Mitigation Measures:** Implementation of mitigation measures MM AQ-4 and MM AQ-6 identified above to reduce on-site construction air quality impacts to a less than significant level would also reduce off-site construction air quality impacts to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

SIGNIFICANT IMPACTS	MITIGATION MEASURES
substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Potentially Significant Impact]** **Impact AQ-16:** Construction emissions from the proposed project, including the off-site improvements, together with emissions from existing nearby TAC sources would result in a significant cumulative community risk impact. **[Potentially Significant Impact]**	
Biological Resources Impacts	
Impact BIO-7: Construction of the proposed bicycle/pedestrian bridge could impact migrating steelhead. **[Potentially Significant Impact]**	**MM BIO-7.1:** Construction along the top of bank for the installation of the bridge shall be conducted between June 1 and November 30 to correspond to the dry season and the period steelhead are less likely to be moving through the area. **MM BIO-7.2:** As discussed in Section 3.9, *Hydrology and Water Quality* the proposed project will implement Best Management Practices (BMPs) for bridge construction to minimize the potential for erosion/sedimentation/siltation or for construction debris and/chemicals to enter the creek to a less than significant level. A complete list of the BMPs to be implemented by the project are listed in Section 3.9.2.2 Water Quality Impacts. **[Less than Significant Impact with Mitigation Incorporated]**
Cultural Resource Impacts	
Impact CR-2: Prior investigations completed as part of the US-101 and SR-85 Improvement Project, have demonstrated that archaeological resources are not likely present in Parcel 2 or the southeast cloverleaf. Parcel 1 and the locations of the proposed off-site bicycle/pedestrian bridge and screening wall are considered moderate to highly sensitive for buried archaeological resources. [**Potentially Significant Impact]**	**MM CR-2.1: CORE SAMPLE ANALYSIS:** Prior to the issuance of a grading permit for construction activities on Parcel 1 or for the off-site bicycle/pedestrian bridge and off-site screening wall, one core will be placed on both sides of the creek in the location of the proposed bicycle/pedestrian bridge. A qualified archaeologist will be present in the field to observe and record the soils of each core. If no cultural layers are present within the cores, then no further investigation is necessary; the project can proceed as proposed, and the archaeologist will summarize

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	the findings in a memo that will be provided to the City's Community Development Director. This measure could be coordinated with the engineering coring for the bridge. If cultural layers are present within either core, then additional investigation may be necessary before ground disturbing activities on Parcel 1 and the location of the bicycle/pedestrian bridge and screening wall can commence. The coring results will determine any further recommendations. The archaeologist will summarize the findings and any further recommendation in a memo that will be provided to the City's Community Development Director. **MM CR-2.2: TRIBAL CONSULTATION REQUESTS:** As requested during the Tribal Consultation process for the proposed project, cultural sensitivity training will be provided to the construction crews, a Native American archaeological monitor will be present for all ground disturbing activities, including coring at the proposed bridge location. **MM CR-2.3: DISCOVERY OF ARCHAEOLOGICAL RESOURCES:** If prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities, it is recommended that all work within 100' of the find be halted until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert-flaked stone tools (e.g., projectile points, knives, scrapers) or tool-making debris; culturally darkened soil ("midden") containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, will develop a treatment plan that could include site avoidance, capping, or data recovery.

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	MM CR-2.4: DISCOVERY OF HUMAN REMAINS: In the event of the discovery of human remains during construction or demolition, there shall be no further excavation or disturbance of the site within a 50-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. A final report shall be submitted to the City's Community Development Director prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs and its results including a description of the monitoring and testing resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the City's Community Development Director. **[Less than Significant with Mitigation Incorporated]**
Hazards and Hazardous Materials Impacts	
Impact HAZ-1: Hazardous materials contamination in site soils, soil vapor, and groundwater could expose construction workers and/or future hotel employees and visitors and office employees to the hazardous materials on site. **[Potentially Significant Impact]**	**MM HAZ-1.1:** Prior to the start of any construction activity, the project applicant shall submit the following plans and controls to EPA for review and approval, and shall implement the EPA approved measures: • Air Monitoring – assesses the exposure of project construction workers and neighboring occupants adjoining the project site to VOCs as part of the Soil Management Plan and Air Monitoring Plan (SMP); this plan shall specify measures to be implemented if VOCs exceed threshold values.

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	• Vapor Intrusion Control System Remedial Design – describes the measures to be implemented to help prevent exposure of project occupants to VOCs in indoor air as 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 would include incorporation of vapor barrier and provisions of space to accommodate an active ventilation equipment to help prevent indoor air contaminant concentrations exceeding EPA's indoor air cleanup levels. The project applicant will be required to submit the vapor intrusion remedial design and remedial action documents to the EPA for review and approval. • The Record of Decision (ROD) Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area (2010) and the Statement of Work Remedial Design and Remedial Action to Address the Vapor Intrusion Pathway, MEW Superfund Study Area specify the selected remedy for all future buildings as 1) passive sub-slab ventilation with a 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. Although active sub-slab/sub-membrane ventilation is considered to have a better long-term effectiveness than passive sub-slab ventilation systems, areas with lower ground water VOC concentrations are considered to have a lower potential for vapor intrusion at levels exceeding indoor air cleanup levels. Because areas overlying higher VOC ground water concentrations are considered to have a greater potential for vapor intrusion at levels exceeding indoor air cleanup levels, implementing an active sub-slab/sub-membrane ventilation system is acceptable because of its high rating in long-term effectiveness. Other design requirements

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	would be subject to the EPA's determination of necessary measures based upon its Response Action Tiering System for future buildings. • Long-Term Operations, Maintenance, and Monitoring Plan – describing actions to be taken following construction to maintain and monitor the vapor intrusion mitigation system as well as a contingency plan should the vapor system fail. • Institutional Controls Implementation Plan – non-engineered instruments of control, such as administrative and legal controls that help to minimize the potential for human exposure to contamination and/or protect the integrity of the response action. Institutional Controls will be implemented through the City's planning and permitting procedures which will ensure that the appropriate remedy is applied to particular building construction. • Financial Assurance – proof that adequate funds are available for long-term maintenance and monitoring of the vapor intrusion mitigation system. **MM HAZ-1.2:** During construction, the project applicant shall coordinate work activities with the EPA and MEW Operable Unit 3 Responsible Parties, as designated by EPA, including identifying conditions that could affect the implementation and monitoring of the vapor intrusion remedy. **MM HAZ-1.3:** Prior to construction activities, the project applicant shall implement a SMP that establishes management practices for handling contaminated soil, soil vapor, or other materials during construction for on- and off-site improvements. The SMP shall be prepared by an environmental professional and shall be submitted to EPA for review and approval prior to construction. The SMP also shall be provided to the City and the Santa Clara County Department of Environmental Health (County Health). The SMP for the project shall include the protocols, means, and methods to address the following during

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	demolition of property structures and construction, including subsurface activities: • Project control procedures to control the flow of personnel, vehicles and materials in and out of the project site, including the areas of off-site improvements. • Monitoring of vapors during the removal of the underground utilities as well as any other underground features. An environmental professional shall be present to observe soil conditions, monitor vapors with a hand held meter and low level VOC detector, as appropriate, and determine if additional soil, soil gas, and air sampling should be performed. Protocols and procedures shall be presented for determining when soil sampling and analytical testing will be performed. If additional sampling is performed, a report documenting sampling activities (with site plans and analytical data) shall be provided to the City and US EPA. • Minimization of dust generation, storm water runoff and tracking soil off the project site. • Minimization of airborne dust during demolition activities. • Management of project site risks during earthwork activities in areas where impacted soil, soil vapor and/or ground water are present or suspected. Worker training requirements, health and safety measures and soil handling procedures shall be described. • Decontamination to be implemented by the contractor to reduce the potential for construction equipment and vehicles to release contaminated soil onto public roadways or other transfer off the project site. • Perimeter air monitoring at the project site and off-site improvement locations during any activity that substantially disturbs the soil (e.g., mass grading, foundation construction, excavation or utility trenching). This

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	monitoring shall be used to document the effectiveness of dust and vapor control measures. • Contingency measures for previously unidentified buried structures, wells, debris, or areas of impacted soil that could be encountered during Property development activities. • Characterization and profiling of soil suspected of being contaminated so that appropriate disposal or reuse alternatives can be implemented. Soil in contact with ground water shall be assumed contaminated. All soil excavated and transported from the project site and/or off-site improvement areas shall be appropriated disposed at a permitted facility. • Segregation of "clean" and "impacted" soil stockpiles. • Approximately 40 stockpiles of soil are located on the Caltrans parcel, along with approximately 10 piles of debris consisting of wood, concrete, general household items, and landscaping mulch. Soil containing chemicals exceeding residential (unrestricted use) screening levels of typical background concentrations of metals and the debris piles shall be disposed at a permitted facility. • Evaluation and documentation of the quality of any soil imported to the Property. Soil containing chemicals exceeding residential (unrestricted use) screening levels of typical background concentrations of metals shall not be accepted. • Monitoring of excavations and trenches for the potential presence of VOC vapors. • Evaluation of the residual contaminants to determine if they will adversely affect the integrity of below ground utility lines and/or structures (e.g., the potential for corrosion).

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	• Measures to reduce soil vapor and ground water migration through trench backfill and utility conduits. Such measures shall include placement of low-permeability backfill "plugs" at specified intervals on-Property and at all locations where utility trenches extend off-Property. In addition, utility conduits that are placed below ground water shall be installed with water-tight fittings to reduce the potential for ground water to migrate into conduits. • Measures to prevent intrusion of contaminated water into storm water control features. A civil engineer shall design the bottom and sides of storm water features to be lined with a minimum 30 mil heavy duty plastic to help prevent infiltration. • If deep foundation systems are proposed, the foundations shall incorporate measures to help reduce the potential for the downward migration of contaminated ground water. • For construction activity that involves below ground work (e.g., mass grading, foundation construction, excavating or utility trenching), information regarding risk management procedures (e.g., a copy of the SMP) shall be provided to the contractors for their review, and each contractor shall provide such information to its subcontractors. • If excavation dewatering is required, protocols shall be prepared to evaluate water quality and discharge/disposal alternatives; the pumped water shall not be used for project dust control or any other project use. If long-term dewatering is required, the means and methods to extract, treat and dispose ground water also shall be presented and shall include treating/discharging ground water to the sanitary sewer under a Publicly Owned Treatment Works (POTW) permit or treating /discharging ground water to the storm drain system pursuant to a California Regional Water Quality Control Board – San Francisco Bay Region (Water Board) NPDES permit.

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	• Prior to removing the sewer line, a Sampling and Analyses Plan shall be submitted to US EPA for review and written approval. • An environmental professional shall assist in the implementation of the SMP for the proposed project 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 US EPA, City, and County. **MM HAZ-1.4:** Leaving contaminated soil (above residential screening levels or background concentrations of metals) in-place or re-using contaminated soil requires written approval from the US EPA. At a minimum, if contaminated soil is left in-place, a deed restriction or land use covenant shall detail the location of these soils. This document shall include a surveyed map of these impacted soils; shall restrict future excavation in these areas; and shall require future excavation be conducted in these areas only upon written approval by an oversight agency. **MM HAZ-1.5:** Any soil, soil vapor and/or ground water remediation during development activities shall require written approval by US EPA and shall meet all applicable federal, state and local laws, regulations and requirements. **MM HAZ-1.6:** Elevated concentrations of lead are sometimes encountered next to older and/or heavily traveled highways in California, primarily due to historical leaded gasoline use. Due to the proximity to Highway 101, soil sampling and analytical testing in this area for lead should be performed prior to project grading. If lead is detected above residential screening levels, it should appropriately over-excavated and transported to a permitted facility. **MM HAZ-1.7:** The project site historically was used for agricultural purposes for several decades. Pesticides may have been applied to crops in the

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	normal course of farming operations. During a prior study by URS (2007), several soil samples were collected from undeveloped areas of the Moffett Gateway parcel and analyzed for organochlorine pesticides and metals. These analyses did not detect pesticides at concentrations exceeding residential screening levels, and the detected metal concentrations appear typical of natural background levels. Thus, based on these sampling results, prior agricultural activities do not appear to have significantly impacted the Property. However, soil exported from the Site shall be analyzed for organochlorine pesticides amongst other chemicals as required by the receiving facility. **MM HAZ-1.8:** The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. Workers conducting project site investigation and earthwork activities in areas on contamination shall complete 40-hour HAZWOPER training course (29 CFR 1910.120). This document shall be provided to US EPA, City, and County. The general contractor shall be responsible for the health and safety of their employees as wells as for compliance with all applicable federal, state, and local laws and guidelines. **MM HAZ-1.9:** The project applicant shall provide a Vapor Intrusion Response Action Completion Report to the US EPA for review and approval and to the City for review. The report shall document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan, including plans and specifications, and shall include a long-term operations, maintenance and monitoring plan. **MM HAZ-1.10:** Eighteen ground water monitoring wells are located on the project site. These wells shall be protected during construction activities or upon written approval of US EPA, destroyed under permit from the Santa Clara Valley Water District, prior to mass grading activities. The locations of future ground water monitoring wells and other remediation

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	infrastructure shall be incorporated into the development plans. The project applicant and subsequent project owners and occupants shall allow access to sample the existing monitoring wells or install future ground water monitoring wells and to continue monitoring and remediation activities and any additional sampling and analyses that may be required by US EPA. **MM HAZ-1.11:** The project applicant and subsequent project owners and occupants shall provide access to the project site, including ongoing access to the 18 monitoring wells for monitoring and sampling purposes, and cooperate with US EPA and MEW Responsible Parties during implementation of any subsequent ground water and/or soil vapor investigations, or remediation as well as implementation of additional vapor intrusion remediation, if required. In addition, the project applicant and subsequent project owners and occupants shall provide access for future indoor air vapor monitoring activities and shall not interfere with the implementation of remedies required by the US EPA. These requirements shall be specified in the Covenants, Conditions and Restrictions that shall run with the project site. **[Less than Significant Impact with Mitigation Incorporated]**
Impact HAZ-2: Construction personnel working on the proposed project could be exposed to harmful levels of lead. **[Potentially Significant Impact]**	**MM HAZ-2.1:** Prior to initiation of excavation and grading activities on the site, on-site soils shall be sampled to evaluate whether they have been impacted by aerially deposited lead to determine if any special handling or disposal is necessary. The environmental agency that will provide regulatory oversight with respect to the environmental condition of the site, which shall be either (1) the California Department of Toxic Substances Control, (2) the California Regional Water Quality Control Board, or (3) the County of Santa Clara Local Oversight Program (hereafter, the "Agency"), will determine whether any special handling and/or disposal of soil is necessary at the site, prior to the initiation of excavation and grading activities at the site.

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	MM HAZ-2.2: In the event that lead-impacted soil is present at the site at concentrations that exceed Agency-approved risk levels (i.e., residential Regional Screening Levels established by the US EPA or California Human Health Screening Levels established by the California Environmental Protection Agency), the SMP to be prepared for the proposed project shall be submitted to and approved by the Agency. The SMP shall be developed to establish management practices for handling lead-impacted soil or other hazardous materials encountered during construction activities. The Agency-approved SMP shall be submitted to the City of Mountain View Director of Community Development prior to commencing construction activities. **MM HAZ-2.3:** The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. The HSP shall address the safety and health hazards of each phase of site operations that includes the requirements and procedures for employee protection. **MM HAZ-2.4:** Excavated soils will be characterized prior to off-site disposal or reuse on-site. Appropriate soil characterization, storage, transportation, and disposal procedures shall be followed under the oversight of the Agency. Contaminated soils shall be disposed of at a licensed facility in accordance with all appropriate local, state, and federal regulations. **[Less than Significant Impact with Mitigation Incorporated]**
Impact HAZ-3: Construction personnel working on the proposed project could be exposed to harmful pesticides and/or heavy metals. **[Potentially Significant Impact]**	**MM HAZ-3.1:** Prior to initiation of excavation and grading activities on the site, on-site soils shall be sampled to evaluate whether they have been impacted by agricultural pesticides to determine if any special handling or disposal is necessary. The environmental agency that will provide regulatory oversight with respect to the environmental condition of the site, which shall be either (1) the California Department of Toxic Substances Control, (2) the California Regional Water Quality

SIGNIFICANT IMPACTS	MITIGATION MEASURES
	Control Board, or (3) the County of Santa Clara Local Oversight Program (hereafter, the "Agency"), will determine whether any special handling and/or disposal of soil is necessary at the site, prior to issuance of a grading permit and prior to the initiation of excavation and grading activities at the site. **MM HAZ-3.2:** In the event that agricultural pesticides are present at the site at concentrations that exceed Agency-approved risk levels (i.e., residential Regional Screening Levels established by the United States Environmental Protection Agency or California Human Health Screening Levels established by the California Environmental Protection Agency), the Soil Management Plan to be prepared for the project shall be developed to establish management practices for handling pesticide contaminated soil that could be encountered during construction activities. The SMP shall submitted to and approved by the Agency. The Agency-approved SMP shall be submitted to the City of Mountain View Director of Community Development prior to commencing construction activities. **MM HAZ-3.3:** The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. The HSP shall address the safety and health hazards of each phase of site operations that includes the requirements and procedures for employee protection. **MM HAZ-3.4:** Excavated soils for on- and off-site improvements will be characterized prior to off-site disposal or reuse on-site. Appropriate soil characterization, storage, transportation, and disposal procedures shall be followed under the oversight of the Agency. Contaminated soils shall be disposed of at a licensed facility in accordance with all appropriate local, state, and federal regulations. **[Less than Significant Impact with Mitigation Incorporated]**

SIGNIFICANT IMPACTS	MITIGATION MEASURES
Transportation Impacts	
Impact TRANS-3: Implementation of the proposed project would result in a significant impact to the US 101 Northbound freeway segment between SR 237 and Moffett Boulevard during the AM peak hour under the Existing with Project Conditions. **[Potentially Significant Impact]**	Feasible measures are not available to reduce the project freeway impact to a less than significant level. Therefore, project-generated traffic results in a significant and unavoidable freeway segment impact. **[Significant Unavoidable Impact]**
Impact TRANS-5: The existing crosswalk at the Moffett Boulevard/Leong Drive intersection is not sufficient to provide safe pedestrian access to the project site. **[Potentially Significant Impact]**	**MM TRANS-5.1:** A crosswalk shall be added to the east leg of the Moffett Boulevard/Leong Drive intersection to improve pedestrian access between the project site and Moffett Boulevard to the south. **[Less Than Significant Impact with Mitigation Incorporated]**
Utilities and Service Systems Impacts	
Impact UTIL-2: The planning level fire flow requirement of 3,500 gpm is not met at the project site. **[Potentially Significant Impact]**	**MM UTIL-2.1:** Prior to issuance of a grading permit, the proposed project shall incorporate all measures deemed necessary by the City Fire Marshal to reduce the project fire flow requirement to 3,000 gpm. **[Less than Significant Impact with Mitigation Incorporated]**

SIGNIFICANT UNAVOIDABLE IMPACTS

The project would result in the significant unavoidable impact described below. All other significant impacts of the proposed project would be mitigated to a less than significant level with incorporation of applicable mitigation measures identified in this EIR.

- **Freeway Impacts:** As shown in Table 3.13-9, project traffic would add more than one percent of the freeway's capacity to one segment:
  - US 101 Northbound between SR 237 and Moffett Boulevard (AM peak hour)

The mitigation for freeway impacts is typically the provision of increased capacity in the form of additional mainline or auxiliary lanes. The complete mitigation of freeway impacts is considered beyond the scope of an individual development project, and feasible measures are not available to reduce the project freeway impact to a less than significant level, and the addition of project traffic results in a significant and unavoidable freeway segment impact. **[Significant Unavoidable Impact]**

SUMMARY OF PROJECT ALTERNATIVES

No Project Alternative

The CEQA Guidelines stipulate that an EIR specifically include a "No Project" alternative. The purpose in 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 is 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 project site is currently undeveloped; therefore, the "No Project" alternative includes two scenarios, the No Project – No Development Alternative and the No Project – Existing General Plan Designation Alternative. The No Project – No Development Alternative assumes the project site would remain undeveloped. The No Project – Existing General Plan Designation Alternative assumes the project site would be developed in a manner consistent with the existing General Plan designation on Parcel 1 (i.e., *Mixed-Use Corridor*). Each of these scenarios is discussed in further detail below.

No Project - No Development Alternative

The No Project - No Development Alternative would avoid the project's significant unavoidable freeway impact. The No Project - No Development Alternative would also avoid the other significant impacts resulting from the project that would be reduced to a less than significant level with the incorporation of mitigation measures. None of the project objectives would be met under the No Project - No Development Alternative.

No Project – Existing General Plan Alternative

The No Project – Existing General Plan Alternative would not avoid the freeway segment impact anticipated to occur under the proposed project and would likely result in similar impacts to those anticipated to occur under the proposed project. The density of future development could be over twice the density of the proposed project, possibly resulting in more or greater impacts compared to the proposed project.

Reduced Density Alternative

The Reduced Density Alternative was sized to avoid the significant unavoidable freeway segment impact that would occur under the proposed project, which requires reducing the size of the proposed office by half, from 200,000 square feet to 100,000. While reducing the size of the proposed office building by 100,000 square feet would avoid the freeway segment impact, it would not substantially reduce the other impacts anticipated to occur under the proposed project. The Reduced Density Alternative would partially achieve project objectives. The Reduced Density Alternative would not maximize revenue to from City-owned land. The low FAR under the Reduced Density Alternative

would not conform to the land use intensities envisioned in the City of Mountain View 2030 General Plan.

Location Alternative

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need be considered for inclusion in the EIR.

There are few undeveloped and available parcels in the City of sufficient size to accommodate the proposed project. Three alternative sites were evaluated under the Location Alternative, 1925 Amphitheater Parkway, 1625 Plymouth Street, and the Francia site. Of the three sites evaluated, one (1925 Amphitheater Parkway) is identified for lower intensity development, due to its location near sensitive biological resources. One of the sites (1625 Plymouth Street) is too small to accommodate the project at the allowed FAR. The Francia site is of sufficient size, but would likely result in similar freeway and hazardous materials impacts as the project site. The Francia site is not subject to flooding and is not located adjacent to a waterway; therefore, development of the project at the Francia site would avoid issues related to flooding and construction adjacent to a creek channel. Development of the Francia property would result in the nonrenewal of the property's existing Williamson Act contract.

Development of the project at the Francia alternative site would not meet several of the City's objectives (described above) and be unlikely to avoid the project's significant unavoidable freeway impact. This site is also not under the control of the applicant to develop. For these reasons, no suitable alternative site was found that could meet the basic objectives of the project while also avoiding or reducing significant impacts.

Proposed Project with Alternative Pedestrian/Bicycle Bridge Location

The proposed project includes a clear span pedestrian/bicycle bridge across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. Construction of the pedestrian/bicycle bridge at either the proposed or alternative location would meet the objective of the project enhance bicycle and pedestrian connections. The proposed and alternative bridge locations are close enough that they would be subject to generally the same environmental issues and neither location would result in a significant unavoidable environmental impact. Given the presence of riparian woodland vegetation directly adjacent to the alternative bridge location, there is the potential that installation of a bridge at the alternative location may affect riparian vegetation, a potential impact that does not exist at the proposed bridge location. For this reason, the alternative bridge location is not considered environmentally superior to the proposed bridge location.

No Pedestrian/Bicycle Bridge Alternative

The proposed project includes a clear span pedestrian/bicycle bridge across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. Compared to the proposed project, the No Pedestrian/Bicycle Bridge Alternative would not result in new impacts or result in fewer impacts. The No Pedestrian/Bicycle Bridge Alternative would avoid the potential for

impacts to Stevens Creek and associated special status habitat and species and, as a result, mitigation required under the proposed project (e.g., MM BIO-7.1 and MM BIO-7.2) would not be required under the No Pedestrian/Bicycle Bridge Alternative. The No Pedestrian/Bicycle Bridge Alternative would not meet the project objectives for the bridge, to enhance publicly accessible bicycle and pedestrian connections.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE(S)

The CEQA Guidelines state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).
The environmentally superior alternative would be the No Project - No Development Alternative, which would avoid all project impacts. This alternative would not meet any project objectives.

The Reduced Density Alternative would reduce the significant freeway segment impact to a less than significant level and would reduce, but not eliminate, achievement of the project objectives. The Reduced Density Alternative would be the environmentally superior alternative to the proposed project.

KNOWN VIEWS OF LOCAL GROUPS AND AREAS OF CONTROVERSY

There are no known areas of controversy related to the proposed project.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The purpose and role of an EIR are detailed in CEQA and the CEQA Guidelines. The following CEQA guidelines clarify the role of an EIR:

> Section 15121(a). Informational Document. 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.
>
> Section 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.

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 which intelligently considers 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.

The City of Mountain View (City), as the Lead Agency, has prepared this EIR for the Moffett Gateway Project in compliance with CEQA Guidelines. This EIR incorporates by reference the City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report (SCH No. 2011012069), including all appendices thereto (General Plan EIR), certified by the Mountain View City Council on July 10, 2012.

1.2 ORGANIZATION OF THE DRAFT EIR

The Draft EIR includes the following sections:

Executive Summary

The Executive Summary of the Draft EIR, which precedes this introduction, includes a brief description of the proposed project and summarizes the project's impacts, mitigation measures, and alternatives to the project. The summary also briefly describes any known areas of public controversy and the views of local groups.

Section 1.0 Introduction

This section provides a general overview of the CEQA process, describes the public participation process and opportunities for input, and outlines the contents of the Draft EIR.

Section 2.0 Description of the Proposed Project

This section describes the physical and operational characteristics of the proposed project. Information on the location of the project and assumptions about implementation of the proposed project are addressed in this section. This section also describes the intended uses of the EIR, and lists the applicant objectives for the project.

Section 3.0 Environmental Setting, Impacts, and Mitigation

The Environmental Setting, Impacts, and Mitigation section includes descriptions of the physical setting of the project area, identifies environmental impacts resulting from the project, and identifies mitigation measures for the environmental impacts examined in the EIR. The Draft EIR identifies proposed mitigation measures for significant impacts in this section and briefly evaluates the expected effectiveness/feasibility of these measures.

Section 4.0 Growth Inducing Impacts

The discussion of growth inducing impacts addresses the ways in which the proposed project could foster economic or population growth or the construction of additional housing in the surrounding area.

Section 5.0 Cumulative Impacts

This section includes a discussion of cumulative environmental impacts of the project along with other past, pending and future development in the area.

Section 6.0 Consistency with Relevant Plans

The project's consistency with policies in the City's General Plan and applicable regional plans is described in this section.

Section 7.0 Alternatives to the Proposed Project

This section identifies a reasonable range of alternatives to the proposed project which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen the significant impacts of the project. The environmental impacts associated with each alternative are discussed and a comparison of the impacts to those of the project presented. Each of the alternatives is assessed to determine its ability to meet the project objectives.

Section 8.0 Significant Unavoidable Impacts

This section lists any significant unavoidable impacts that could result if the proposed project is implemented.

Section 9.0 Significant Irreversible Environmental Changes

This section discusses the irreversible commitment of natural resources that could occur as a result of implementation of the proposed office project.

Section 10.0 References

This section lists the references, persons, and organizations consulted during preparation of the Draft EIR.

Section 11.0 List of Preparers

This section lists the lead agency staff and consultants who participated in preparation of the Draft EIR.

Appendices

These attachments to the Draft EIR include the Notice of Preparation, responses to the Notice of Preparation, and technical appendices to the Draft EIR.

1.3 EIR PROCESS AND PUBLIC PARTICIPATION

Notice of Preparation and Scoping

In accordance with Section 15063 and 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this EIR. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The NOP was circulated to local, state, and federal agencies on June 22, 2015. The standard 30-day comment period concluded on July 21, 2015.

Because the project was revised in certain respects that might affect its environmental impacts, the NOP was recirculated on January 25, 2016. Specifically, in comparison to the project as described in the June 22, 2015 NOP, hotel square footage increased, office square footage decreased, building heights increased, and off-site relocated US Highway 101 drainage facilities were included in the project. Appendix A of this EIR includes both NOPs and comments received during the circulation periods.

In addition to the circulation of the NOP to the public and responsible agencies, the project was discussed at an EIR scoping meeting held during a Zoning Administrator meeting at the Mountain View City Hall on February 10, 2016, when the public was invited to make comments on the project. No comments were received during the public scoping meeting.

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 to:

Stephanie Williams, *Senior Planner*
City of Mountain View, Community Development Department
500 Castro Street
Mountain View, CA 94039
Phone: (650) 903-6306
Email: Stephanie.Williams@mountainview.gov

Copies of documents referred to in this EIR are available for review as follows:

City of Mountain View
Community Development Department
City Hall, 1st Floor
500 Castro Street
Mountain View, CA 94041
Main Phone Number: (650) 903-6306
Website: http://www.ci.mtnview.ca.us/

Counter and Phone Hours:
Monday thru Friday: 8:00 a.m. to Noon, 1:00 p.m. to 4:00 p.m.

Mountain View Public Library
585 Franklin Street
Mountain View, CA 94041
Phone: 650-903-6887

Library Hours:
Monday to Thursday, 10:00 a.m. to 9:00 p.m.
Friday to Saturday, 10:00 a.m. to 6:00 p.m.
Sunday, 1:00 p.m. to 5:00 p.m.

Final EIR/Responses to Comments

Following the conclusion of the public review period, the City will prepare a Final EIR. The Final EIR will consist of comments received on the Draft EIR during the public review period, responses to those comments, and revisions to the text of the Draft EIR resulting from comments received. The City will consider the EIR for certification at a City Council meeting and may proceed with project approval actions after EIR certification.

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. 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.

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 DESCRIPTION

2.1 PROJECT LOCATION AND EXISTING SITE CONDITIONS

2.1.1 Project Location

The approximately 9.7-acre, undeveloped project site is located in the central portion of the City of Mountain View (City). The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south. Regional, vicinity, and aerial maps of the project site are shown on Figures 2.1-1, 2.1-2, and 2.1-3, respectively.

The project site includes two parcels, Parcel 1 and Parcel 2 (refer to Figure 2.1-3). Parcel 1 and Parcel 2 are 6.7 acres and 3.0 acres in size, respectively. The Assessor's Parcel Number (APN) for Parcel 1 is 153-19-007. Parcel 2 is US 101 right-of-way that is currently owned by the California Department of Transportation (Caltrans) and, therefore, does not have an APN. The project applicant has an option to purchase Parcel 2 from Caltrans.

2.1.2 Existing Site Conditions

The project site is currently undeveloped and overgrown with tall grasses, shrubs, and large mature trees. The site has a history of disturbance and use during construction in surrounding areas. Dirt roads traverse the site, and several soil, mulch, and debris piles are located on the northern portion of the site. Concrete slabs are located on the southern portion of the site in the area of the former County of Santa Clara Vector Control Yard that was located on Parcel 1. An aerial photograph of the project and surrounding land uses is shown on Figure 2.1-3.

2.2 PROJECT DESCRIPTION

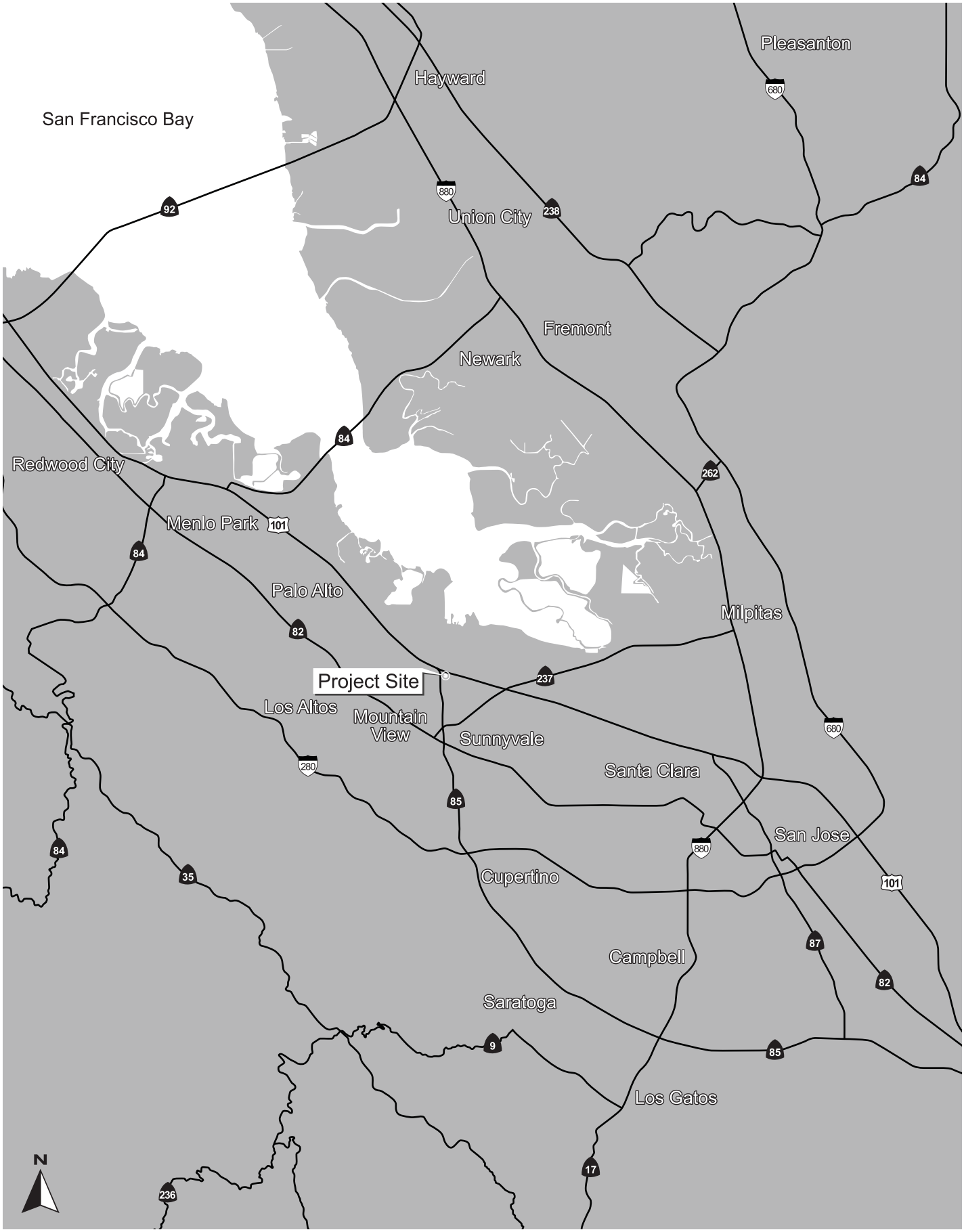
The Moffett Gateway project proposes to develop the approximately 9.7-acre project site with a new office building, hotel, and above-grade parking garage. The conceptual site plan for the proposed project is shown on Figure 2.2-1.

2.2.1 General Plan Land Use Map Amendment

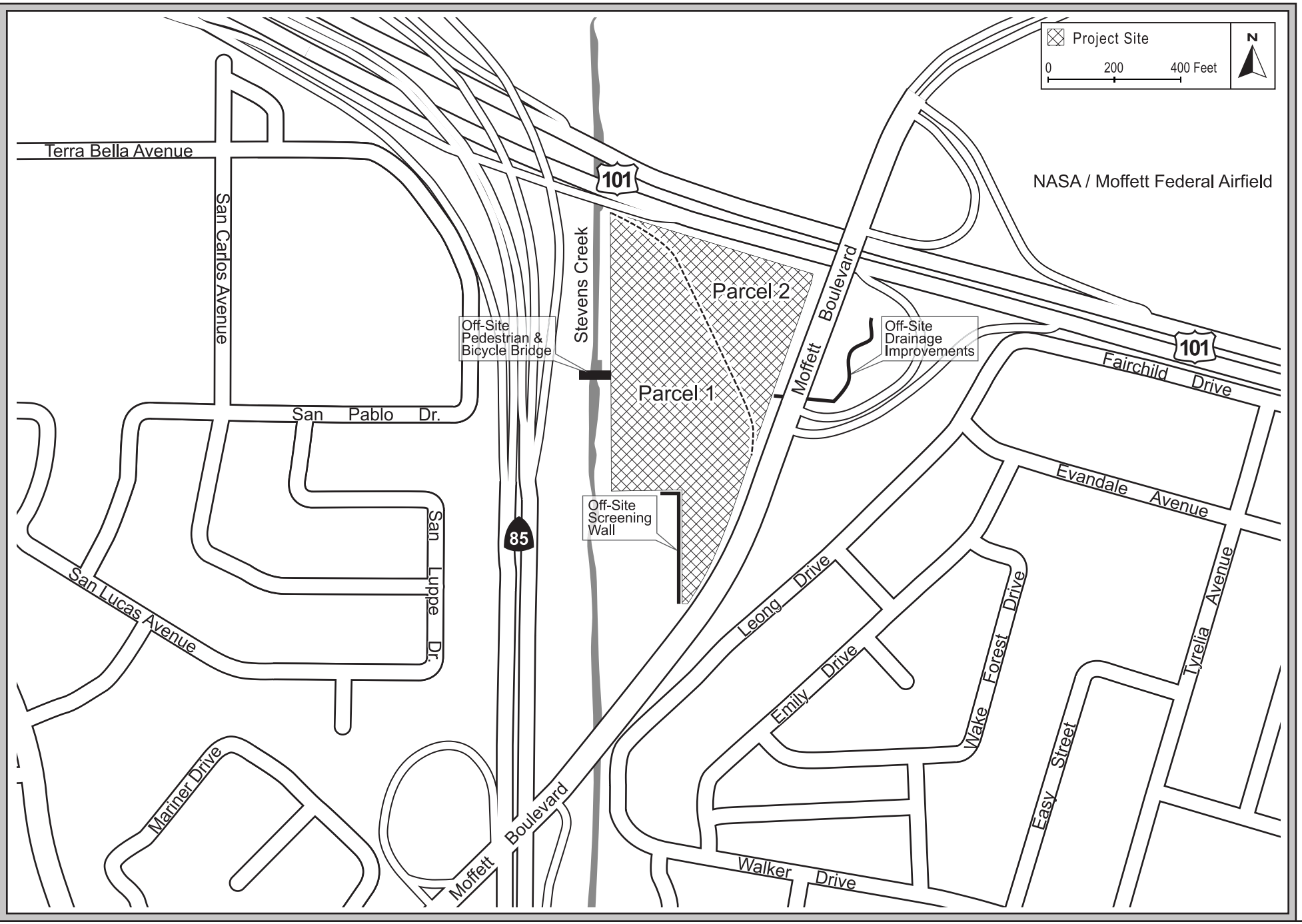
The project proposes a General Plan Land Use Map Amendment to add Parcel 2 to the City's General Plan Land Use Map with the Mixed-Use Corridor designation, consistent with the existing land use designation for Parcel 1.

2.2.3 Zoning Map Amendment

The project proposes a Zoning Map Amendment to add Parcel 2 to the City's zoning map and designate the entire 9.7-acre project site Planned Community ("P") Zoning District.



REGIONAL MAP FIGURE 2.1-1



VICINITY MAP

FIGURE 2.1-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.1-3

2.2.4 Office Building

As shown on Figure 2.2-1, the proposed office building would be located along the western boundary of the site, south of the proposed parking garage. The office building would be approximately 200,000 square feet in size and five stories tall with a maximum height of approximately 72 feet. Conceptual elevations of the proposed office building are shown on Figure 2.2-2. The office building has been designed to LEED Gold standards. [1]

2.2.5 Hotel

As shown on Figure 2.2-1, the hotel would be located in the northeastern portion of the site, east of the proposed parking garage. The proposed hotel would be approximately 180,000 square feet in size and five stories tall with a maximum height of approximately 60 feet. The hotel would include 255 guest rooms, a restaurant, and conference room area. The restaurant would include approximately 3,900 square feet of indoor dining space and a 2,500 square-foot outdoor dining patio. The hotel would provide approximately 4,300 square feet of conference room space. Conceptual elevations of the proposed hotel are shown on Figure 2.2-3. The hotel has been designed to LEED Silver standards.

2.2.6 Parking

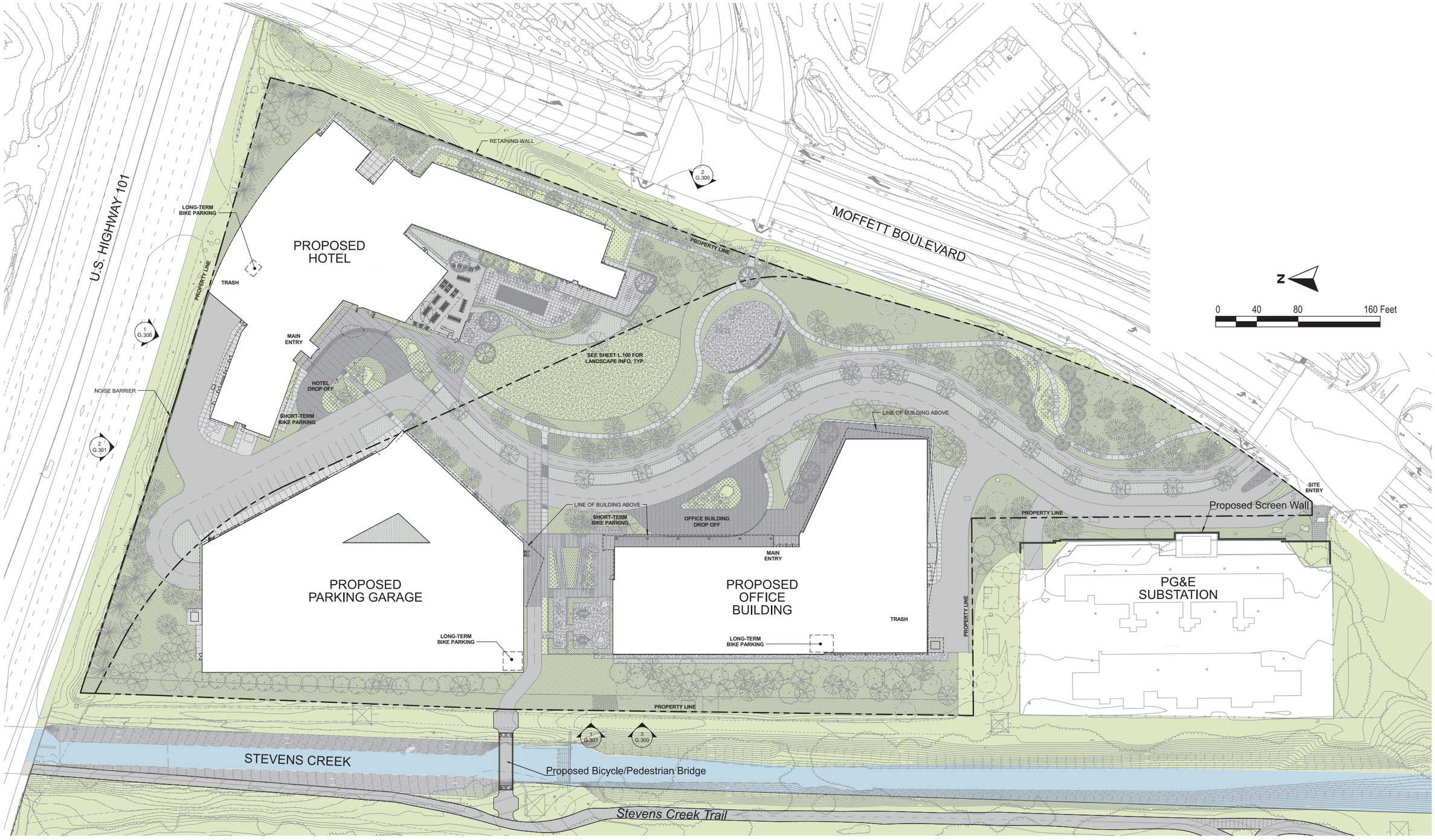
As shown on Figure 2.2-1, a proposed above-grade parking garage would be located along the western boundary of the site, north of the proposed office building. The parking garage would provide 808 parking spaces on six tiers and would have a maximum height of approximately 52 feet. Conceptual elevations of the parking garage are shown on Figure 2.2-4. The project also includes 22 surface parking spaces that would be located along the northeastern side of the parking garage, bringing the total on-site parking to 830 spaces.

Bicycle parking would be distributed throughout the project site, both inside and outside buildings. The project proposes a total of 99 bicycle parking spaces, including 58 long-term (i.e., Class I) and 41 short-term (i.e., Class II) bicycle parking spaces.

2.2.7 Site Access and Circulation

Vehicular access to the project site would be via Moffett Boulevard near the intersection of Moffett Boulevard and Leong Drive along a private roadway, as shown on Figure 2.2-1. The private driveway would also be used by PG&E to access the substation that is located adjacent to the project site near the Moffett Boulevard entrance. A publicly accessible bicycle and pedestrian path is proposed parallel to the roadway. The path would allow public bicycle and pedestrian access through the site and to the Stevens Creek Trail via the new bicycle and pedestrian bridge to be constructed as part of the proposed project (see *Section 2.2.12.1, Off-site Bicycle/Pedestrian Bridge,* below). Two additional pedestrian and bicycle access points are provided along Moffett Boulevard and connect to the internal circulation network.

[1] LEED (Leadership in Energy and Environmental Design) is a program of the US Green Building council that provides third party verification of green buildings.



CONCEPTUAL SITE PLAN

FIGURE 2.2-1

East Elevation

West Elevation

CONCEPTUAL ELEVATION - OFFICE

FIGURE 2.2-2

CONCEPTUAL ELEVATION - HOTEL

FIGURE 2.2-3

CONCEPTUAL ELEVATION - PARKING GARAGE

FIGURE 2.2-4

2.2.8 Open Space

As shown on the conceptual landscape plan (Figure 2.2-5), the project proposes to develop a landscaped open space area along the site's Moffett Boulevard frontage. The proposed bicycle/pedestrian bridge over Stevens Creek would connect the proposed open space area to the existing Stevens Creek Trail.

2.2.9 Tree Removal and Landscaping

There are a total of 357 trees that could be impacted by the proposed project (336 located on-site and 21 trees located off-site), of which 277 are considered Heritage trees by the City. Construction of the proposed project would require removing a total of 263 trees (247 located on-site and 16 trees located off-site), including 210 Heritage Trees.

The project proposes new landscaping throughout the project site. Consistent with the City's Water Efficient in Landscaping Regulations, the landscaping for the project site has been designed to be low water use. Most of the proposed trees would be "Low Water Use", and all planted areas would be watered by an automatic underground irrigation system. The landscaping also includes specific tree and plant species that are appropriate along a riparian corridor. The proposed trees would be a mix of evergreen and deciduous species, providing screening and energy conservation. The conceptual landscape plan is shown on Figure 2.2-5.

2.2.10 Transportation Demand Management Plan

A draft Transportation Demand Management Plan (TDM) has been prepared by the applicant and is included in the project (Appendix I). As described in Section 3.13, *Transportation*, this plan would be required to provide at least a 20 percent reduction in peak hour vehicle trips to and from the project site.

The Moffett Gateway TDM Plan includes a formal ridesharing program and the provision of long-haul bus service and short-distance shuttles to and from the Mountain View Transit Center along with other measures, including pedestrian improvements, bicycle amenities, employee transit passes, emergency- ride-home program, accessible bike-sharing and car-sharing, flexible work schedule, and financial incentives. The project applicant would also participate in a non-profit Transportation Management Association (TMA), which has been organized by employers in the East Whisman and North Bayshore areas with the goal of reducing vehicle trips in the City's employment areas.

2.2.11 Construction

Construction of the proposed project is anticipated to start in the fall/winter of 2016. The hotel would be completed first and ready for occupancy in the spring/summer of 2018. The office building would be completed soon after the hotel and ready for occupancy in the summer/fall of 2018. All construction staging would occur on-site. Prior to the start of construction, the site would be secured with a chain-link fence. Construction would begin with clearing the site, relocating existing utilities, and installing the new utilities; the foundations, and buildings. During construction, approximately 38,200 cubic yards of soil and 200 tons of asphalt would be imported onto the project site.

CONCEPTUAL LANDSCAPE PLAN

FIGURE 2.2-5

2.2.12 Off-site Improvements

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E property. Each of the off-site improvements are described in further detail below.

2.2.12.1 *Off-site Bicycle/Pedestrian Bridge*

A clear span bicycle/pedestrian bridge is proposed across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. As shown on the conceptual site plan (Figure 2.2-1), the proposed bridge would be located adjacent to the proposed parking garage, downstream of the PG&E gas line crossover and at least 10 feet downstream of an existing fish ladder. In this section of creek, both banks have been modified into a trapezoidal concrete channel.

2.2.12.2 *Off-site Stormwater Drainage System*

Under existing conditions, stormwater runoff from Moffett Boulevard is directed onto the project site. This stormwater runoff collects in the northeast corner of the site where additional stormwater runoff from the southeast cloverleaf is discharged onto the site via an existing 24-inch stormwater line under Moffett Boulevard. The stormwater then enters an existing catch basin and is conveyed under US 101 within an existing 24-inch line. The project proposes to re-route this off-site stormwater runoff from Moffett Boulevard to the southeast cloverleaf via an 18-inch storm drain line that would be installed under Moffett Boulevard, as shown on Figure 2.2-6. This line would connect to the existing stormwater conveyance lines.

2.2.12.3 *Off-site Screening Wall*

An existing PG&E substation is located adjacent to the project site near the Moffett Boulevard entrance. The proposed screening wall would be constructed on the PG&E substation property and would be approximately 16 feet in height. The location of the proposed screening wall is shown on the conceptual site plan (Figure 2.2-1), and a conceptual elevation is shown on Figure 2.2-7.

2.3 PROJECT OBJECTIVES

The following are the applicant's stated objectives for the project:

- Provide a hotel and office development on Moffett Boulevard consistent with the Mixed Use Corridor Land Use Designation of the 2030 General Plan.
- Provide high-quality, highly sustainable office space, with increased development intensity that targets LEED Gold standards and incorporates a TDM Plan, consistent with the Mountain View 2030 General Plan and the Greenhouse Gas Reduction Program.
- Provide sustainable development convenient to public transportation and bicycle/pedestrian facilities.
- Enhance publicly accessible bicycle and pedestrian connections.

- Provide land uses that generate City revenue and maintain and improve the City's long-term fiscal health.
- Provide beneficial, revenue-generating reuse of vacant and landlocked Caltrans right-of-way.

2.4 USES OF THE EIR

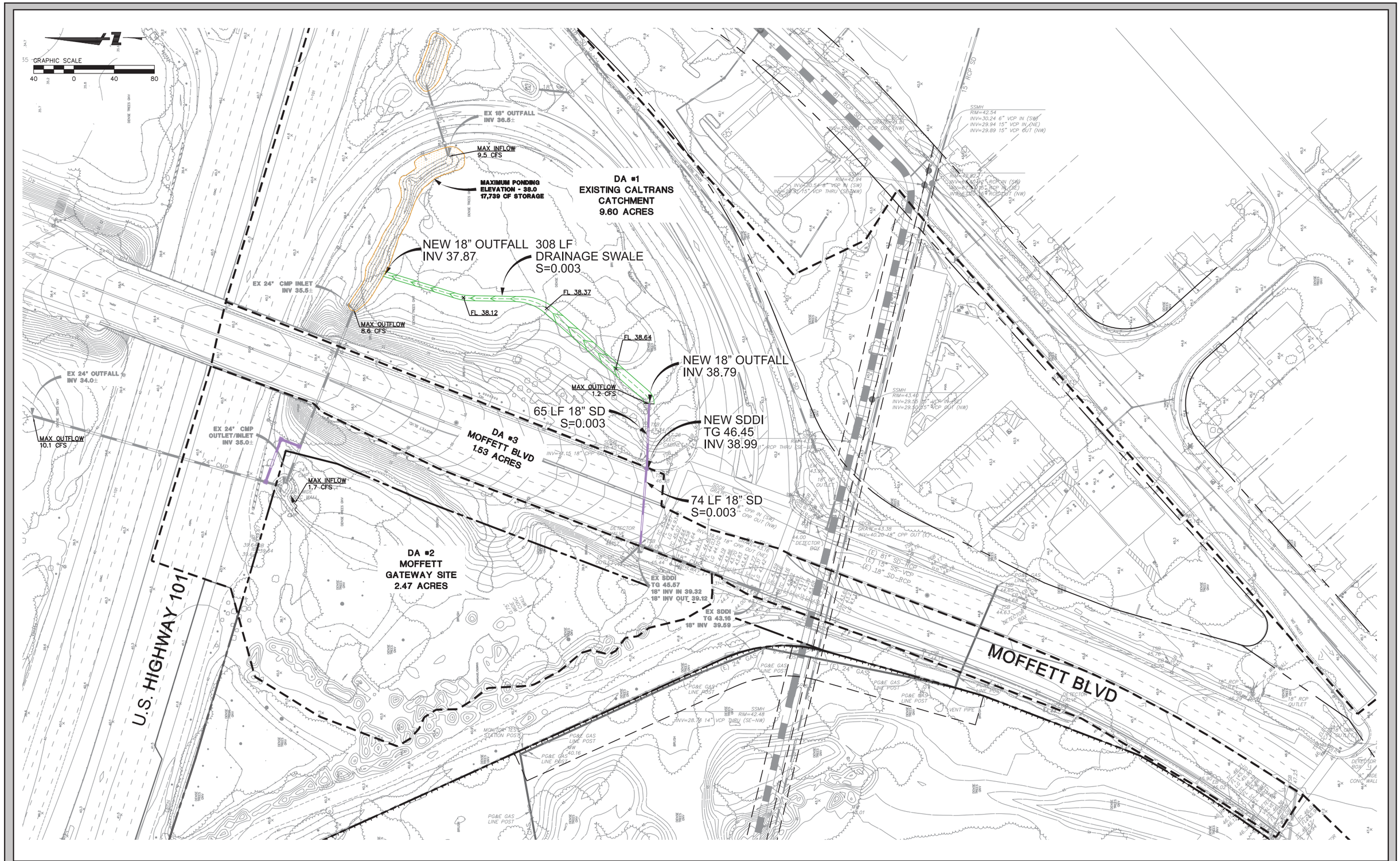
This EIR provides decision makers in the City of Mountain View and the general public with relevant environmental information to use in considering the proposed project. This EIR will be used for appropriate discretionary approvals necessary to implement the project, as proposed. These discretionary actions may include, but are not limited to, the following:

<u>City of Mountain View</u>

- General Plan Land Use Map Amendment
- Zoning Map Amendment
- Planned Community Permit
- Development Review Permit
- Heritage Tree Removal Permit

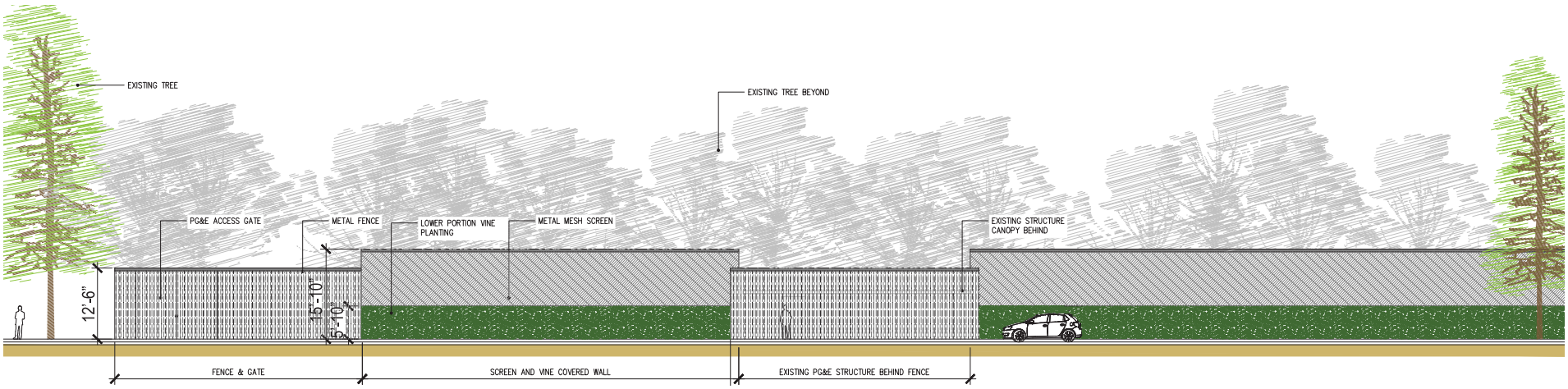
The EIR may also be relied upon for other agency approvals necessary to implement the project, including the following agencies:

- Santa Clara Valley Water District (SVCWD)
- USEPA
- CALTRANS
- CDFW
- Santa Clara County ALUC



CONCEPTUAL OFF-SITE STORMWATER DRAINAGE SYSTEM

FIGURE 2.2-6



CONCEPTUAL OFF-SITE SCREENING WALL

FIGURE 2.2-7

SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

In accordance with Section 15143 of the CEQA Guidelines, the discussion in this EIR is focused on the significant effects on the environment resulting from the proposed Moffett Gateway Project.

Implementation of the proposed project would result in development of the project site with a new office building, hotel, and above-grade parking garage. Mitigation measures are identified for all significant project impacts. "Mitigation Measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines 15370). Each impact is numbered using an alpha-numerical system that identifies the environmental issue. For example, Impact HAZ-1, denotes the first significant impact discussed in the hazards and hazardous materials section. Mitigation measure (MM) are also numbered to correspond to the impact they address. For example, MM NOI-2.3 refers to the third mitigation measure for the second impact in the noise section. The letter codes used to identify the environment issues are listed below.

Letter Code	Environmental Issue
AES	Aesthetics
AIR	Air Quality
BIO	Biological Resources
C	Cumulative
CUL	Cultural Resources
EN	Energy
GEO	Geology and Soils
GHG	Greenhouse Gas Emissions
HAZ	Hazards and Hazardous Materials
HYD	Hydrology and Water Quality
LU	Land Use
NOI	Noise
PS	Public Services
REC	Recreation
TRAN	Transportation
UTIL	Utilities and Service Systems

Important Note to the Reader: 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 City of Mountain View currently has policies that address existing conditions (e.g., noise) affecting a proposed project, which are also addressed below. This is consistent with one of the primary objectives of 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 City policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project in a floodplain, in a geologic hazard zone, or in a high noise environment.

3.1 AESTHETICS

3.1.1 Regulatory Setting

This section describes applicable state and local regulations that pertain to visual and aesthetic resources.

3.1.1.1 *State Regulations*

California Scenic Highway Program

The intent of the California Scenic Highway Program (Streets and Highway Code Sections 260 et seq.) is to protect and enhance California's natural beauty and to protect the social and economic values provided by the State's scenic resources. The California Department of Transportation (Caltrans) defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality.

Suitability for designation as a State Scenic Highway is based on vividness, intactness, and unity. There are no officially designated State Scenic highways within the City of Mountain View.[2]

3.1.1.2 *Local Regulations*

City of Mountain View 2030 General Plan

The goals and policies of the City of Mountain View 2030 General Plan provide vital direction for the future of the City and its residents. They reflect present-day community values, priorities, and compliance with current state laws and local ordinances. These goals and policies set forth the City's commitment to make appropriate decisions and allocate necessary resources to support fulfillment of the City vision. Key policies related to aesthetics and applicable to the proposed project include:

LUD 8.5: Pedestrian and bicycle amenities. Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.

LUD 9.1: Height and setback transitions. Ensure that new development includes sensitive height and setback transitions to adjacent structures and surrounding neighborhoods.

LUD 9.3: Enhanced public space. Ensure that development enhances public spaces through these measures:

- Encourage strong pedestrian-oriented design with visible, accessible entrances and pathways from the street
- Encourage pedestrian-scaled design elements such as stoops, canopies and porches.
- Encourage connections to pedestrian and bicycle facilities.
- Locate buildings near the edge of the sidewalk.
- Encourage design compatibility with surrounding uses.

[2] California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed October 16, 2015.

- Locate parking lots to the rear or side of buildings.
- Encourage building articulation and use of special materials to provide visual interest.
- Promote and regulate high-quality sign materials, colors and design that are compatible with site and building design.
- Encourage attractive water-efficient landscaping on the ground level.

LUD 9.6: Light and glare. Minimize light and glare from new development.

City of Mountain View Municipal Code

The City of Mountain View addresses visual considerations for development in many City documents, including the Municipal Code. The City Zoning Ordinance (Title 36) sets forth specific design guidelines, height limits, building density, building design and landscaping standards, architectural features, sign regulations, and open space and setback requirements.

The Zoning Ordinance promotes good design and careful planning of development projects to enhance the visual environment. The City's development review process ensures that the architecture and urban design of new developments would protect the City's visual environment and includes the review of preliminary plans, the consideration of public input at the Development Review Committee, Zoning Administrator, Environmental Planning Commission and the City Council. The City's Planning Division reviews private and public development applications for conformance with City plans, ordinances, and policies related to zoning, urban design, subdivision, and CEQA.

3.1.2 Existing Setting

3.1.2.1 *Visual Character of Project Area*

The approximately 9.7-acre project site is currently undeveloped and overgrown with tall grasses, shrubs, and large, mature trees. The site has a history of disturbance and use during construction in surrounding areas. Dirt roads traverse the site, and several soil, mulch, and debris piles are located on the northern portion of the site. Concrete slabs are located on the southern portion of the site in the area of the former County of Santa Clara Vector Control Yard that was located on Parcel 1. There are numerous large, mature trees located on the project site. The large trees dominate the visual character of the site, providing a sense of open space. Pictures of the project site are shown on the following pages.

The project site is located in an urban area adjacent to US 101. The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south.
SR 85 is located west of the site, across Stevens Creek. In the project area, SR 85 and Moffett Boulevard are elevated over US 101. The area north of the site, across US 101, is undeveloped and similar in appearance to the project site. The area east of the site, across Moffett Boulevard, is developed with older commercial uses and single-family residences that are mostly one story in height and up to three stories in height. Similarly, the area west of the site, across SR 85, is developed with older commercial and light industrial uses and single-family residences that are mostly one story in height and up to three stories in height. The segment of Stevens Creek adjacent

to the site has been substantially modified from its natural state. The northern portion of the creek, prior to flowing under US 101, has been lined with concrete to form a trapezoidal channel. The section of creek upstream of the trapezoidal channel is channelized but retains banks made of natural materials and some riparian overstory.

Areas of Proposed Off-Site Improvements

The areas of the proposed off-site improvements include the Stevens Creek corridor adjacent to the project site, the southeast cloverleaf across Moffett Boulevard from the project site, and the PG&E substation property adjacent to the southern portion of the project site. As described above, the segment of Stevens Creek adjacent to the site has been substantially modified from its natural state. The northern portion of the creek, prior to flowing under US 101, has been lined with concrete to form a trapezoidal channel. The section of creek upstream of the trapezoidal channel is channelized but retains banks made of natural materials and some riparian overstory. The southeast cloverleaf is part of the US 101/Moffett Boulevard interchange and consists of a bowl shaped landscaped area with trees and shrubs. The PG&E property is developed with a transformer station, which consists of electrical transformers atop a concrete building pad. The transformer station covers most of the PG&E site. Barren ground and ornamental trees are located around the transformer building pad.

3.1.2.2 *Scenic Views and Resources*

Due to the flat topography and surrounding development, views of the site are limited to the immediate surrounding area. The mature trees growing on the site and around the perimeter are the most prominent visual feature on the site. The project site and/or trees on the site are visible from the surrounding roadways (e.g., SR 85, US 101, and Moffett Boulevard) and the Stevens Creek Trail.

Creek Corridors

Stevens Creek and Permanente Creek are the two major creek corridors in the City of Mountain View that include creek trails. Stevens Creek and the Stevens Creek Trail are located adjacent to the western project boundary, between the project site and SR 85. Beginning in the Santa Cruz Mountains, the creek flows through Stevens Canyon and then through Cupertino, Los Altos, Sunnyvale, and Mountain View, on its way to join the San Francisco Bay. In Mountain View, the creek runs roughly parallel to SR 85 until it reaches Highway 101. At that point, the creek flows into the Bay between Moffett Field and Shoreline Regional Park.

The site is not located on a scenic view corridor, nor is it visible from a designated or eligible state scenic highway. State Route 85 and US 101 are not designated state scenic highways in the project area. No scenic vistas or resources are located on site.

City Landmarks

Landmarks are external points of reference that are usually simply defined physical objects (e.g., building or sign). The prominent visual features of the city are its landmarks. Some landmarks are very large and seen at great distances, and some landmarks are very small (e.g. a tree within an urban square) and can only be seen up close. Landmarks are an important element of urban form because

PHOTO 1: View from a dirt road on the northern portion of the project site looking north towards US 101, which can be seen in the background.

PHOTO 2: View of the project site, across Stevens Creek, from the Stevens Creek Trail looking south.

PHOTOS 1 AND 2

PHOTO 3: View from a central location on the project site looking west towards towards SR 85, which is elevated and can be seen in the background.

PHOTO 4: View from the northern portion of the project site looking east towards Moffett Boulevard. Several debris piles similar to the one in the foreground of the photo are located on the project site.

PHOTOS 3 AND 4

they help people to orient themselves in the City and help identify an area. There are no City Landmarks on or adjacent to the project site.

3.1.2.3 *Light and Glare*

Existing sources of light and glare, typical of those in developed urban areas, are found throughout the project area including vehicle headlights, street, parking lot, and security lights, and reflective surfaces such as windows.

3.1.3 Visual and Aesthetic Impacts

3.1.3.1 *Thresholds of Significance*

For the purposes of this EIR, a visual and 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.

3.1.4 On-site Improvements

3.1.4.1 *Impacts to Scenic Resources*

As described above, the project site does not contain any scenic view corridors or scenic resources. For these reasons, the project would not substantially degrade the existing visual character of the site or the surrounding area, and would not impact scenic resources or a scenic vista.

Impact AES-1: The project would not affect a scenic vista or scenic resources. **[No Impact]**

3.1.4.2 *Impacts to Visual Character and Quality*

The proposed project would construct a five-story, 200,000 square-foot office building, a five-story, 180,000 square-foot hotel, and a six-tier parking garage on the currently undeveloped project site. The maximum heights of the office building, hotel, and parking garage would be approximately 72 feet, 60 feet, and 52 feet, respectively. Conceptual elevations of the proposed buildings are shown on Figures 2.2-2 through 2.2-4 in Section 2.2, *Project Description* of this EIR. There are 336 trees located on the project site. Most of the existing trees on the site would be removed during construction of the project. At least 200 replacement trees would be planted on-site as part of the proposed landscape plan. The conceptual landscape plan is shown on Figure 2.2-5. Once mature, the proposed trees would soften views of the project. Artistic renderings of the project from several vantage points in the project area are shown on Figures 3.1-1 through 3.1-4 on the following pages.

ARTISTIC RENDERING - VIEW FROM US 101 (SOUTHBOUND)

FIGURE 3.1-1

ARTISTIC RENDERING - VIEW FROM MOFFETT BOULEVARD OVERPASS

FIGURE 3.1-2

ARTISTIC RENDERING - VIEW FROM US 101 (NORTHBOUND)

FIGURE 3.1-3

ARTISTIC RENDERING - VIEW FROM STEVENS CREEK TRAIL

FIGURE 3.1-4

Except for SR 85 and Moffett Boulevard, which are elevated over US 101, most of the surrounding area is relatively flat and developed with residential, commercial, and light industrial uses up to three stories in height. While the proposed project would be taller than the existing development in the immediate vicinity of the project site, the flat topography and surrounding development would limit most views of the project to the freeways and roadways adjacent to the site. The elevated overcrossings of SR 85 and Moffett Boulevard would limit views of the project from US 101 and uses north and south of the project site.

The Stevens Creek Trail runs parallel to the western project boundary between Stevens Creek and SR 85. The trail follows alongside Stevens Creek from Sleeper Avenue in southern Mountain View to Shoreline Regional Park. The trail is regularly used for bicycling, walking and similar recreational activities. Landscaping, including trees, is proposed between the proposed parking garage and office building and Stevens Creek Trail. As described in Section 3.3.2.4, *Trees*, the proposed development of the office building, hotel, and parking garage on the project site, would remove a total of 247 trees, including 200 Heritage trees that would be replaced at a one-to-one ratio. Although the proposed project would be highly visible to users of the Stevens Creek Trail, large sections of the trail currently traverse adjacent developed areas. For these reasons and those stated above, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.

Impact AES-2: The project would not substantially degrade the existing visual character or quality of the site and its surroundings. **[Less Than Significant Impact]**

3.1.4.3 *Lighting and Glare*

The project would be subject to the Development Review approval process prior to submittal of construction drawings for a building permit. This review would ensure that the proposed design and construction materials are consistent with standards for office and hotel development, and would not adversely affect the visual quality of the area, or create a substantial new source of light and glare.

The buildings would be oriented and designed in accordance with the City of Mountain View's design standards to minimize reflective materials and glare. New lighting sources would be installed on the site in conformance with the City's design guidelines for commercial and office uses. There are numerous existing sources of light in the area surrounding the project site including headlights from cars, streetlights, and lights associated with residential and commercial uses. Given the location of the proposed buildings and the nature of the site area, the project would not create a new source of substantial light or glare.

Impact AES-3: The project would not create a significant new source of light or glare. **[Less Than Significant Impact]**

3.1.5 <u>Off-site Improvements</u>

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E

property. The potential for these off-site improvements to result in an aesthetic impact is discussed below.

3.1.5.1 *Off-site Bicycle/Pedestrian Bridge*

The project proposes to construct a clear span bicycle/pedestrian bridge across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. As shown on the conceptual site plan (Figure 2.2-1), the proposed bridge would be located adjacent to the proposed parking garage, downstream of the PG&E gas line crossover and at least 10 feet downstream of an existing fish ladder. In this section of creek, both banks are modified into a trapezoidal concrete channel. As described in Section 3.3.2.4, *Trees*, three trees would be removed to construct the proposed bridge. The bridge would not have reflective surfaces and would not be lit. As with the proposed on-site improvements evaluated above, the proposed bridge would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources within a state scenic highway or the existing visual character or quality of the site and surroundings, or create a new substantial source of light or glare.

3.1.5.2 *Off-site Stormwater Drainage System*

Under existing conditions, stormwater runoff from Moffett Boulevard is currently directed onto the project site. The project proposes to re-route this stormwater runoff under Moffett Boulevard and into the southeast cloverleaf of the US 101/Moffett Boulevard interchange and construct a vegetated swale in the southeast cloverleaf to filter and direct the runoff to the existing catch basin in the cloverleaf. As described in Section 3.3.2.4, *Trees*, constructing the vegetated swale in the southeast cloverleaf would remove three Heritage trees, which would be replaced at a one-to-one ratio on the project site. As with the proposed on-site improvements, the proposed drainage improvements would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources within a state scenic highway or the existing visual character or quality of the site and surroundings, or create a new substantial source of light or glare.

3.1.5.3 *Off-site Screening Wall*

The project proposes to construct a screening wall on the existing PG&E substation property that is located adjacent to the project site near the Moffett Boulevard entrance. The proposed screening wall would be approximately 16 feet in height. The location of the proposed screening wall is shown on the conceptual site plan (Figure 2.2-1), and a conceptual elevation is shown on Figure 2.2-7. As described in Section 3.3.2.4, *Trees*, construction of the screening wall on the PG&E property would remove a total of 10 trees, including seven Heritage trees that would be replaced at a one-to-one ratio on the project site.

Impact AES-4: As with the proposed on-site improvements, the proposed off-site improvements would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources within a state scenic highway or the existing visual character or quality of the site and surroundings, or create a new substantial source of light or glare. **[Less Than Significant Impact]**

3.1.6 Conclusion

Impact AES-1: The project would not affect a scenic vista or a scenic resources. **[No Impact]**

Impact AES-2: The project would not substantially degrade the existing visual character or quality of the site and its surroundings. **[Less Than Significant Impact]**

Impact AES-3: The project would not create a new source of substantial light or glare. **[Less Than Significant Impact]**

Impact AES-4: As with the proposed on-site improvements, the proposed off-site improvements would not have a substantial adverse effect on a scenic vista, substantially damage scenic resources within a state scenic highway or the existing visual character or quality of the site and surroundings, or create a new substantial source of light or glare. **[Less Than Significant Impact]**

3.2 AIR QUALITY

The following discussion is based upon a Community Health Risk Assessment completed for the project site by *Illingworth & Rodkin* in March 2016. The assessment is attached as Appendix B of this EIR.

3.2.1 Setting

Air quality means the amount of a given pollutant in the atmosphere, and is measured by the amount of pollutants released and the atmosphere's ability to transport and dilute the pollutants. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunshine.

The City of Mountain View is located in the San Francisco Bay Area which typically has moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution. These factors give the Bay Area a relatively high atmospheric potential for pollution.

3.2.1.1 *Regulatory Setting*

In recognition of the adverse effects of degraded air quality, Congress and the California Legislature enacted the Federal and California Clean Air Acts, respectively. The requirements of these acts are administered by the US Environmental Protection Agency (EPA) at the federal level, the California Air Resources Board (CARB) at the state level, and the Bay Area Air Quality Management District (BAAQMD) at the regional level.

Regional air quality management districts, such as the BAAQMD, must prepare air quality plans specifying how state standards are to be met. The BAAQMD's most recently adopted Clean Air Plan (CAP) is the Bay Area 2010 Clean Air Plan (2010 CAP). This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The 2010 CAP provides an updated comprehensive plan to improve Bay Area air quality and protect public health, taking into account future growth projections for 2035. Some of these measures or programs rely on local governments for implementation. The 2010 CAP also includes measures designed to reduce greenhouse gas emissions.

Criteria Air Pollutants

Major criteria pollutants, listed in "criteria" documents by the EPA and the California Air Resources Board (CARB) include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter (PM). These pollutants can have health effect such as respiratory impairment and heart/lung disease symptoms. The project is located in the northern portion of Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the

Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate matter is another pollutant that exceeds State Air Quality Standards in 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 (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} 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.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, criteria air pollutants. TACs are commonly 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 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 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. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under the state's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles. The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

3.2.1.2 *Existing Conditions – Sensitive Receptors*

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, 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, elder care facilities, elementary schools, and parks. The proposed hotel and office uses on the project site would not include concentrations of sensitive receptors. The closest sensitive receptors are the residences located southeast of the project site across Moffett Boulevard.

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.

The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 3.2-1.

Table 3.2-1: Project-Level Significance Thresholds

Pollutant	Construction	Operation-Related	
	Average Daily Emissions (pounds/day)	**Average Daily Emissions** (pounds/day)	**Maximum Annual Emissions** (tons/year)
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust (PM_{10}/$PM_{2.5}$)	Best Management Practices	None	None
Local CO	None	9.0 ppm (8-hr average)	20.0 ppm (1-hr average)

Table 3.2-1: Project-Level Significance Thresholds			
Pollutant	**Construction**	**Operation-Related**	
	Average Daily Emissions (pounds/day)	**Average Daily Emissions** (pounds/day)	**Maximum Annual Emissions** (tons/year)
Risk and Hazards for New Sources and Receptors* (Project)	Same as Operational Threshold	• Increased cancer risk of >10.0 in one million • Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.3 μ/m^3 [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Risk and Hazards for New Sources and Receptors* (Cumulative)	Same as Operational Threshold	• Increased cancer risk of >100 in one million • Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.8 μ/m^3 [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Accidental Release of Acutely Hazardous Materials	None	Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant	
Odors	None	5 confirmed complaints per year averaged over three years	

µ/m3 = micrograms per cubic meter
* As previously discussed in Section 3.0, on December 17, 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 unless the project could exacerbate the existing environmental hazards or risks. Accordingly this EIR does not analyze the impacts of existing air quality emissions on the project site.

3.2.3 <u>On-site Improvements</u>

3.2.3.1 *Operational Air Quality Impacts from the Project*

Regional Air Quality

Operational air emissions from the project would be generated primarily from autos driven by future workers and hotel occupants. Evaporative emissions from architectural coatings and maintenance products are other typical emissions from commercial uses. CalEEMod was used to predict emissions from operation of the site assuming full build out of the project. The project land use types and size and the trip generation rates were input to CalEEMod.

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased in over time. Therefore, the earlier the year analyzed in the

model, the higher the emission rates CalEEMod uses. The earliest year the project could possibly be constructed and begin fully operating would be 2019. Use of this date is considered conservative, as emissions associated with build-out later than 2019 would be lower.

The hotel was assumed to operate at an annual rate of 80-percent occupancy, based on available data for the project area. Therefore, traffic generation, electricity usage, natural gas usage, indoor water consumption, and solid waste generation inputs to CalEEMod were adjusted to reflect annual occupancy at the hotel. No occupancy adjustments were made for the office building.

Table 3.2-2 reports the predicted emission in terms of annual emissions in tons and average daily operational emissions, assuming 365 days of operation per year.[3]

Table 3.2-2: Operational Air Pollutant Emissions[1]

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Annual Operation - Office	3.19 tons	1.93 tons	1.52 tons	0.43 tons
Annual Operation - Hotel	2.89 tons	1.65 tons	1.17 tons	0.34 tons
	6.08 tons	3.58 tons	2.69 tons	0.77 tons
BAAQMD Thresholds (tons per year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	***No***	***No***	***No***	***No***
Average daily emissions (pounds)	33.3 lbs.	19.6 lbs.	14.7 lbs.	4.2 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	***No***	***No***	***No***	***No***

[1] Assumes 365-day operation.

As shown in the Table 3.2-2, average daily and annual emissions of ROG, NOX, PM_{10}, and $PM_{2.5}$ emissions associated with operation would not exceed the BAAQMD significance thresholds.

Impact AQ-1: Operation of the proposed project would not result in significant regional criteria pollutant emissions. **[Less than Significant Impact]**

Local Air Quality

Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide 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 carbon monoxide standard. The highest measured level over any 8-hour averaging

[3] When operational emissions were modeled, a 210,000-sqaure-foot rather than a 200,000-sqaure-foot office building was assumed; therefore, emissions would be slightly lower than indicated in Table 3.2-2.

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. The project would generate a relatively small amount of new traffic: approximately 4,179 net new trips during the entire day and approximately 400 trips during the busiest hour. BAAQMD screening guidance indicates that the project would have a less than significant impact with respect to carbon monoxide levels if project traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour. Based on the trips that would be generated by the project and 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 carbon monoxide.

Impact AQ-2: Operation of the project would not result in significant local criteria pollutant emissions. **[Less than Significant Impact]**

Community Risk Impacts

Operation of the project is not anticipated to cause localized emissions of TACs that would expose sensitive receptors to substantial pollutant concentrations. Specifically, the proposed office and hotel uses are not industrial and would not generate a substantial number of diesel truck trips.

Impact AQ-3: Operation of the project would not generate substantial TAC emissions. **[Less than Significant Impact]**

3.2.3.2 *Construction Air Quality Impacts from the Project*

Construction Dust Emissions

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Vehicles leaving the site would deposit dust or mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if controlled through best management practices (BMPs) to reduce these emissions.

Impact AQ-4: Unless properly controlled, project construction could result in substantial dust emissions. **[Potentially Significant Impact]**

Mitigation Measure: The following mitigation measure is included in the project to reduce dust emissions during project construction to a less than significant level:

MM AQ-4: Consistent with the standard construction BMPs included in the BAAQMD CEQA Air Quality Guidelines, the project applicant shall ensure that the following measures are implemented during project construction:

- All exposed 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 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible. Building pads shall be laid as soon as possible and feasible, as well, after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of 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 Lead Agency 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.

Implementation of the standard construction BMPs to reduce dust emissions, as recommended in the BAAQMD CEQA Air Quality Guidelines, would reduce construction dust emissions to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Criteria Air Pollutants and Precursors

CalEEMod was used to estimate criteria pollutant emission during project construction, including both on-site and off-site activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, vendor, and haul truck traffic.

CalEEMod emission predictions are for worker, vendor, and hauling trips. Worker trips, which include autos and light-duty trucks, were estimated based on CalEEMod defaults. Vendor trips, which include medium and heavy-duty trucks, were also based on CalEEMod defaults. Truck hauling emissions were based on the amount of material to be imported or exported.

The construction scenario modeled would occur over a period of 21 months, beginning in mid-2016.[4] There would be an estimated 420 construction workdays. CalEEMod provided the total construction emissions in tons. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 3.2-3 shows average daily emissions of ROG, NOX, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project.

Table 3.2-3: Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Site Work	0.08 tons	0.93 tons	0.03 tons	0.02 tons
Office Building	2.39 tons	8.39 tons	0.53 tons	0.51 tons
Hotel Building	0.95 tons	0.91 tons	0.04 tons	0.04 tons
Parking Garage	1.83 tons	1.39 tons	0.07 tons	0.07 tons
Total Construction emissions (tons)	5.25 tons	11.62 tons	0.67 tons	0.64 tons
Average daily emissions (pounds)[1]	25.0 lbs.	55.3 lbs.	3.2 lbs.	3.0 lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**Yes**	**No**	**No**

Note: [1] Assumes 420 workdays.

As indicated in Table 3.2-3, predicted project emissions of NOx would exceed the significance threshold of 54 pounds per average work day. All other criteria pollutant construction emissions are below the BAAQMD significance thresholds.

Impact AQ-5: Project construction would generate substantial NOx emissions. **[Potentially Significant Impact]**

Mitigation Measures: According to BAAQMD, implementation of the standard construction BMPs to reduce fugitive dust and exhaust emissions listed above in MM AQ-4 would also reduce construction NOx emissions by five percent, because the BMPs limit idling times and require properly tuned equipment. Taking into account the five percent reduction, average daily project construction NOx emissions would be 52.7 pounds per day, which is below the BAAQMD threshold of 54 pounds per day and considered less than significant. Construction NOx emissions would be further reduced with implementation MM AQ-6 described below to reduce construction TAC emissions.

Project construction NOx emissions, with the implementation of the BAAQMD recommended BMPs for dust control and exhaust emissions listed under MM AQ-4, would be less than significant. **[Less Than Significant Impact with Mitigation Incorporated]**

[4] Although project construction may start after mid-2016, for the impact areas of air quality and greenhouse gas emissions, the mid-2016 start date provides a more conservative estimate of project effects compared to using a later year. This is because emission rates for vehicles and equipment are projected to decrease over time with the implementation of more stringent state and federal emission regulations.

Community Risk Impacts

Exposure of sensitive receptors to substantial pollutant concentrations is assessed by evaluating community risk impacts. Community risk impacts are evaluated by predicting cancer risk, non-cancer hazards, and annual $PM_{2.5}$ concentrations from TAC sources and comparing the predicted levels to the thresholds that were proposed by BAAQMD and listed in Table 3.2-1. Project construction activity would generate dust and equipment exhaust on a temporary basis. The use of diesel-powered equipment during project construction would be a temporary source of toxic air contaminant (TAC) emissions in the form of diesel particulate matter (DPM).

The closest sensitive receptors are residences southeast of the project site along Moffett Boulevard, across from the project site. Residences are also located west of the project, across SR 85. A health risk assessment of the project construction activities was completed that evaluated potential health effects at nearby sensitive receptors from construction DPM emissions. Construction TAC emissions (i.e., DPM) were estimated using the CalEEMod model. Inputs to CalEEMod included the project type, size, acreage, construction schedule, and projected equipment usage. DPM emissions resulting from project construction activities, including exhaust emissions for both off-road and on-road construction equipment, are estimated to be 0.627 tons per year. The on-road emissions are a result of haul truck travel to and from the site during demolition and grading activities as well as vendor deliveries during construction. Annual fugitive dust $PM_{2.5}$ emissions were also computed, which were estimated to be 0.044 tons of fugitive $PM_{2.5}$ per year.

<u>Annual DPM and $PM_{2.5}$ Concentrations</u>

A dispersion model was used to predict the off-site DPM and $PM_{2.5}$ concentrations at the nearest residences resulting from project construction. Figure 3.2-1 shows the nearest residences in relation to the project site and where potential health impacts were evaluated. The maximum-modeled DPM concentration occurred at a residence on Moffett Boulevard south of the construction site (refer to Figure 3.2-1). The maximum annual $PM_{2.5}$ concentration (from both exhaust and fugitive dust) also occurred at this location, with a concentration of 0.40 $\mu g/m^3$, which exceeded the significance threshold of 0.3 $\mu g/m^3$ for annual $PM_{2.5}$ concentrations.

Impact AQ-6: During construction, sensitive receptors in the project area could be exposed to substantial $PM_{2.5}$ concentrations. **[Potentially Significant Impact]**

Mitigation Measure: The following mitigation measure is included in the project to reduce or avoid annual $PM_{2.5}$ concentrations and cancer risks and hazards caused by construction TAC emissions.

MM AQ-6: All diesel-powered construction equipment larger than 50 horsepower and operating on site for more than two days continuously shall meet US EPA particulate matter emissions standards for Tier 4 engines or equivalent. *Note that the construction contractor could use other measures to minimize construction period DPM emissions to reduce the predicted* $PM_{2.5}$ *and cancer risks below the thresholds. Such measures may be the use of alternative powered equipment (e.g., LPG powered forklifts), alternative fuels (e.g., biofuels), added exhaust devices, or a combination of measures, provided that these measures are approved by the lead agency.*

NEAREST SENSITIVE RECEPTORS FIGURE 3.2-1

MM AQ-6 would reduce on-site diesel exhaust emissions by over 90 percent. Implementation of mitigation measures MM AQ-4 for construction dust and emissions control would reduce fugitive $PM_{2.5}$ emissions by over 50 percent. The combination of these measures would reduce annual $PM_{2.5}$ concentrations to less than 0.1 $\mu g/m^3$, which is below the significance threshold of 0.3 $\mu g/m^3$ for annual $PM_{2.5}$ concentrations. **[Less than Significant Impact with Mitigation Incorporated]**

Cancer Risk

Cancer risk calculations assumed that infants and small children were almost continuously present at each modeled receptor. Using the maximum annual modeled DPM concentrations, described above, the maximum increased cancer risks were calculated.

Results of this assessment indicate that the maximum construction residential cancer risk is 82.5 in one million. The residential cancer risk for adult exposure would be 1.6 in one million. While the residential adult cancer risk is below the BAAQMD's threshold of 10 in one million excess cancer cases per million, the increased lifetime cancer risk for infant/child exposure is greater than the significance threshold.

Impact AQ-7: DPM emissions during project construction could substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Potentially Significant Impact]**

Mitigation Measure: As described above, implementation of mitigation measure MM AQ-6 would reduce on-site diesel exhaust emissions by over 90 percent, which would reduce the cancer risk to less than less than 8.3 chances in one million, below the significance threshold of 10 in one million. **[Less than Significant Impact with Mitigation Incorporated]**

Non-Cancer Hazards

As shown in Table 3.2-1, the increased non-cancer risk threshold is a chronic hazard index (HI) greater than a 1.0. Non-cancer hazards for DPM would be well below the HI threshold of 1.0 at all locations, with a maximum HI computed as 0.08.

Impact AQ-8: Project construction would not result in a significant non-cancer hazard impact. **[Less than Significant Impact]**

Cumulative Community Risk

In addition to the project impact to community risk, the contribution of the project and nearby TAC sources (i.e., within 1,000 feet) were also evaluated and compared to thresholds for cumulative TAC exposure. Sources that were within 1,000 feet of the MEI were evaluated for cumulative impacts. These cumulative sources included traffic on SR 85 and Moffett Boulevard, as well as stationary sources permitted by the BAAQMD. Although US 101 traffic is beyond 1,000 feet of the MEI, US 101 is within 1,000 feet of the project site, and therefore, was included in this analysis. The results of this cumulative assessment are summarized in Table 3.2-4. As shown in Table 3.2-4, the cumulative cancer risk would exceed the cumulative threshold of significance of 100 in one million.

Impact AQ-9: Project construction emissions together with emissions from existing nearby TAC sources would result in a significant cumulative community risk impacts. **[Potentially Significant Impact]**

Table 3.2-4: Community Risk Impacts from Cumulative Sources

Source	Maximum Cancer Risk (per million)	Maximum Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Impacts to Off Site Receptors (at MEI)			
Unmitigated Project Construction (child exposure)	83	0.08	0.40
Mitigated Project Construction (child exposure)	*<10*	*<0.01*	*<0.10*
Moffett Boulevard	9	<0.01	0.16
Highway 85 Traffic	3	<0.01	0.04
US 101 Traffic	15	0.00	0.09
Stationary Source Plant G9224, Don's Automotive Gas Station at 450 feet northeast[3]	<1	<0.00	0.00
Unmitigated Cumulative Total	111	<0.09	0.69
Mitigated Cumulative Total	*<38*	*<0.02*	*<0.30*
BAAQMD Threshold – Cumulative Sources	***100***	***10.0***	***0.8***
Significant (unmitigated)	***Yes***	***No***	***No***
Significant (mitigated)	***No***	***No***	***No***

Mitigation Measure: As described above, implementation of mitigation measure MM AQ-6 would reduce on-site diesel exhaust emissions by over 90 percent, and implementation of MM AQ-4 for dust control would reduce fugitive $PM_{2.5}$ emissions by over 50 percent. The combination of mitigation measures MM AQ-4 and MM AQ-6 would reduce the cancer risk from construction proportionally, such that the mitigated risk would be reduced to less than 8.3 chances in one million. Annual $PM_{2.5}$ concentrations from construction would be reduced to less than $0.1 \mu g/m^3$. Therefore, the cumulative cancer risk would be reduced to well below the threshold of 100 cases per million. **[Less than Significant Impact with Mitigation Incorporated]**

3.2.3.3 *TAC Sources*

Operation of the project is not anticipated to cause localized emissions of TACs that would expose sensitive receptors to substantial pollutant concentrations. Specifically, the proposed office and hotel uses are not industrial and would not generate a substantial number of diesel truck trips.

Impact AQ-10: Project operation would not expose sensitive receptors to substantial pollutant concentrations. **[Less than Significant Impact]**

3.2.3.4 *Odor Sources*

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent residents. Because these odors would be temporary and localized, they are not likely to adversely affect people off site by resulting in confirmed odor complaints. Operation of the proposed office building and hotel is not expected to generate significant odors.

Impact AQ-11: The proposed project would not generate odors that would affect a substantial number of people. **[Less than Significant Impact]**

3.2.3.5 *Clean Air Plan Consistency*

The most recent air quality plan is the *Bay Area 2010 Clean Air Plan*, which was adopted by BAAQMD in September 2010. The proposed project, which is infill development, would not conflict with the latest clean air planning efforts. Although the project would have emissions above BAAQMD thresholds, mitigation measures are included in the project that would reduce these emissions below the significance thresholds. Additionally, as required under the City of Mountain View Greenhouse Gas Reduction Program (GGRP), a Transportation Demand Management (TDM) Plan would be implemented by the proposed project. Examples of the trip reduction measures included in the Moffett Gateway TDM Plan include a formal ridesharing program and the provision of long-haul bus service and short-distance shuttles to and from the Mountain View Transit Center along with other measures, including pedestrian improvements, bicycle amenities, employee transit passes, emergency-ride-home program, accessible bikesharing and carsharing, flexible work schedules, and financial incentives. The measures included in the Moffett Gateway TDM Plan are consistent with the Transportation Control Measures (TCMs) identified in the Clean Air Plan and would reduce peak hour office trips by 20 percent, reducing the number of vehicle miles traveled and the amount of gasoline used.

Impact AQ-12: The project would not conflict with the Bay Area 2010 Clean Air Plan. **[Less than Significant Impact with Mitigation Incorporated]**

3.2.4 <u>Off-site Improvements</u>

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E property. Operation of the proposed off-site improvements would not generate TACs or otherwise result in air quality impacts. Construction of the proposed off-site improvements would generate dust and TACs.

As with the proposed on-site improvements, dust impacts during construction of the proposed off-site improvements would be reduced to a less than significant level by implementing the standard construction BMPs included in the BAAQMD CEQA Air Quality Guidelines. The off-site improvements were included in the construction health risk assessment completed for the proposed on-site improvements. Therefore, construction of the proposed off-site improvements would

contribute to and result in the same construction air quality impacts that are identified above to result from construction of the proposed on-site improvements.

Impact AQ-13: Project construction, including the proposed off-site improvements, would generate substantial NOx emissions. **[Potentially Significant Impact]**

Impact AQ-14: During construction of the proposed project, including the off-site improvements, sensitive receptors in the project area could be exposed to substantial $PM_{2.5}$ concentrations. **[Potentially Significant Impact]**

Impact AQ-15: During construction of the proposed project, including the off-site improvements, DPM emissions could substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Potentially Significant Impact]**

Impact AQ-16: Construction emissions from the proposed project, including the off-site improvements, together with emissions from existing nearby TAC sources would result in a significant cumulative community risk impact. **[Potentially Significant Impact]**

Mitigation Measure: Implementation of mitigation measures MM AQ-4 and MM AQ-6 identified above to reduce on-site construction air quality impacts to a less than significant level would also reduce off-site construction air quality impacts to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

3.2.6 Conclusion

Impact AQ-1: Operation of the proposed project would not result in significant regional criteria pollutant emissions. **[Less Than Significant Impact]**

Impact AQ-2: Operation of the project would not result in significant local criteria pollutant emissions. **[Less Than Significant Impact]**

Impact AQ-3: Operation of the project would not generate substantial TAC emissions. **[Less than Significant Impact]**

Impact AQ-4: Project construction, with implementation of mitigation measures MM AQ-4, would not result in significant dust emissions. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-5: Project construction, with implementation of mitigation measures MM AQ-4 and MM AQ-6, would not generate substantial NOx emissions. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-6: The proposed project, with implementation of mitigation measures MM AQ-4 and MM AQ-6, would not expose sensitive receptors in the project area to

substantial $PM_{2.5}$ concentrations. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-7: DPM emissions during project construction, with implementation of mitigation measure MM AQ-6, would not substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-8: Project construction would not result in a significant non-cancer hazard impact. **[Less Than Significant Impact]**

Impact AQ-9: Project construction emissions together with emissions from existing nearby TAC sources would not result in a significant cumulative community risk impacts. **Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-10: Project operation would not expose sensitive receptors to substantial pollutant concentrations. **[Less than Significant Impact]**

Impact AQ-11: The proposed project would not generate odors that would affect a substantial number of people. **[Less Than Significant Impact]**

Impact AQ-12: The project, with implementation of mitigation measures MM AQ-4 and MM AQ-5, would not conflict with the Bay Area 2010 Clean Air Plan. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-13: Project construction, including the proposed off-site improvements, would not generate substantial NOx emissions with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-14: During construction of the proposed project, including the off-site improvements, sensitive receptors in the project area would not be exposed to substantial $PM_{2.5}$ concentrations with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-15: During construction of the proposed project, including the off-site improvements, DPM emissions would not substantially increase cancer risk with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-16: Construction emissions from the proposed project, including the off-site improvements, together with emissions from existing nearby TAC sources would not result in a significant cumulative community risk impact with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

3.3 BIOLOGICAL RESOURCES

The following discussion is based on a Biological Reconnaissance completed for the project by *WRA* in April 2016 and an arborist report completed for the project by *HortScience* in October 2015. Copies of these reports are included in Appendices C and D of this EIR, respectively.

3.3.1 Regulatory Setting

This section describes applicable federal, state, and local regulations that pertain to biological resources.

3.3.1.1 *Federal Regulations*

Federal Endangered Species Act

The US Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act (FESA) prohibits the take of any fish or wildlife species that is federally listed as threatened or endangered without prior approval. "Take" is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC, Section 1532(19), 50 CFR, Section 17.3). Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA: 16 USC Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Construction disturbance during the breeding season could result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, a violation of the MBTA.

3.3.1.2 *State Regulations*

Threatened and Endangered Species

Special status species include plants or animals that are listed as threatened or endangered under the California Endangered Species Act (CESA), species identified by the California Department of Fish and Wildlife (CDFW) as California Species of Special Concern, as well as plants identified by the California Native Plant Society (CNPS)[5] as rare, threatened, or endangered.

The CESA (Fish and Game Code of California, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare, threatened, or endangered. The CDFW has jurisdiction over state-listed species and regulates activities that may result in take of individuals.

[5] The California Native Plant Society (CNPS) is a non-profit organization that maintains lists and a database of rare and endangered plant species in California. Plants in the CNPS "Inventory of Rare and Endangered Plants of California" are considered "Special Plants" by the CDFW Natural Diversity Database Program. http://cnps.org/cnps/rareplants/inventory/index.php/

To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species (California Fish and Game Code, Section 86).

California Fish and Game Code

The California Fish and Game Code includes regulations governing the use of, or impacts on, many of the state's fish, wildlife, and sensitive habitats. The CDFW has jurisdiction over the bed and banks of rivers, lakes, and streams (Sections 1601-1603 of the California Fish and Game Code). Streambed Alteration Agreements are required for the fill or removal of material within the beds and banks of a watercourse or waterbodies, and for removal of riparian vegetation.

Certain sections of the Fish and Game Code pertain only to specific wildlife species. Fish and Game Code Section 3503, 2513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Birds of prey, such as owls and hawks, are protected in California under Fish and Game Code Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.3.1.3 *Local Regulations*

Habitat Conservation Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (SCV Habitat Plan), which encompasses a study area of 519,506 acres (or approximately 62 percent of Santa Clara County), was adopted by six local entities in Santa Clara County. The plan went into effect in October 2013, and the Santa Clara Valley Habitat Agency is charged with implementing the plan. The area for which development activities are covered by the plan is located south and east of Mountain View, primarily within the Llagas/Uvas/Pajaro, Coyote Creek, and Guadalupe Watersheds. The SCV Habitat Plan was developed through a partnership between Santa Clara County, the Cities of San José, Morgan Hill, and Gilroy, the Santa Clara Valley Water District, and the Santa Clara Valley Transportation Authority (collectively termed the 'Local Partners'), the US Fish and Wildlife Service and the California Department of Fish and Wildlife.

The SCV Habitat Plan is a conservation program to promote the recovery of endangered species in portions of Santa Clara County while accommodating planned development, infrastructure and maintenance activities. The species of concern identified in the SCV Habitat Plan include, but are not limited to, the California tiger salamander, California red-legged frog, western burrowing owl, Bay Checkerspot butterfly, and a number of species endemic to serpentine grassland and scrub. Projects and activities of the jurisdictions in Santa Clara County, such as the City of Mountain View, which are not Permittees, are not covered under the SCV Habitat Plan.

The US Fish and Wildlife Service (USFWS) has identified critical habitat for the federally threatened Bay Checkerspot butterfly (73 FR 50406) south of US 101 and Yerba Buena Road in the City of San José. The conservation of critical habitat is considered essential for the conservation of a federally listed species. Critical habitat for the Bay Checkerspot butterfly occurs on nutrient-poor serpentine or serpentine-like grasslands that support at least two of the three butterfly's larval host plants, California plantain, dense flower owl's clover, and purple owl's clover. Non-native grasses have been reported to increase in these habitats, crowding out the native forbs needed by the Bay Checkerspot butterfly, due to increased nitrogen deposition from human sources.

Nitrogen deposition contribution estimates in Santa Clara County were made as a part of the development of the SCV Habitat Plan (Appendix E of the SCV Habitat Plan). About 46 percent of nitrogen deposition on habitat areas of concern for the base years (2005-2007) was estimated to come from existing development and traffic generated locally *within* the SCV Habitat Plan study area. The remainder of Santa Clara County (which includes the City of Mountain View) was estimated to contribute a substantially smaller amount (17 percent of the nitrogen deposition) while the other eight Bay Area counties account for about 11 percent. The remaining 26 percent was estimated to come from anthropogenic sources throughout most of California and parts of Nevada, as well as biogenic sources in the Bay Area. Nitrogen deposition modeling completed for future years (2035 and 2060) as a part of the SCV Habitat Plan process assumed that urban and rural development in the County and broader San Francisco Bay Area is expected to increase air pollutant emissions due to an increase in passenger and commercial vehicle trips and other new industrial and nonindustrial sources.

The closest serpentine grasslands to the project area that are covered by the SCV Habitat Plan are located in the Silver Creek Hills and Coyote Ridge in the Edenvale, Evergreen and San Felipe Planning Areas of San José. The Silver Creek Hills and Coyote Ridge are approximately 16 to 28 miles southeast of the project.

A conservation strategy in the SCV Habitat Plan includes collection of fees within the SCV Habitat Plan area based upon the generation of new vehicle trips to fund acquisition and management of serpentine grasslands in the Coyote Ridge area. The goal of this strategy is to improve the viability of existing Bay Checkerspot butterfly populations, increase the number of populations, and expand the geographic distribution to ensure the long-term persistence of the species in the SCV Habitat Plan area.

A nexus study was completed for the SCV Habitat Plan to assist with identifying appropriate fees to fund measures in the SCV Habitat Plan.[6] The nitrogen deposition fee was calculated based on SCV Habitat Plan costs related to mitigating the impacts of airborne nitrogen deposition from covered activities in the SCV Habitat Plan area. The nexus study does not include projects or jurisdictions outside the SCV Habitat Plan area, as these projects outside the area are not covered activities, nor are these jurisdictions participating as Local Partners.

[6] Willdan Financial Services. 2012. *Santa Clara Valley Habitat Plan Development Fee Nexus Study*. June 30, 2012.

Mountain View 2030 General Plan

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to biological resources and applicable to the proposed project include:

LUD 10.2: Low-impact development. Encourage development to minimize or avoid disturbing natural resources and ecologically significant land features.

LUD 10.7: Beneficial landscaping options. Promote landscaping options that conserve water, support the natural environment and provide shade and food.

INC 5.5: Landscape efficiency. Promote water-efficient landscaping including drought-tolerant and native plants, along with efficient irrigation techniques.

POS 12.1: Heritage trees. Protect trees as an ecological and biological resource.

POS 12.4: Drought-tolerant landscaping. Increase water-efficient, drought-tolerant and native landscaping where appropriate on public and private property

Mountain View Tree Preservation Ordinance

The City of Mountain View tree regulations protect all trees designated as "Heritage" trees (Chapter 32, Article 2). Under this ordinance, a Heritage tree is defined as any one of the following:

- A tree which has a trunk with a circumference of forty-eight (48) inches or more measured at fifty-four (54) inches above natural grade;
- A multi-branched tree which has major branches below fifty-four (54) inches above the natural grade with a circumference of forty-eight (48) inches measured just below the first major trunk fork.
- Any *Quercus* (oak), *Sequoia* (redwood), or *Cedrus* (cedar) tree with a circumference of twelve (12) inches or more when measured at fifty-four (54) inches above natural grade;
- A tree or grove of trees designated by resolution of the City Council to be of special historical value or of significant community benefit.
- A tree removal permit is required from the City of Mountain View for the removal of Heritage trees. It is unlawful to willfully injure, damage, destroy, move or remove a Heritage tree without a tree removal permit.

3.3.1.4 *Existing Conditions*

A summary of the habitat, special-status species, and trees on the project site and the areas of the proposed off-site improvements (i.e., the Stevens Creek corridor, the southeast cloverleaf, and the PG&E property) is provided below. Refer to the Biological Reconnaissance in Appendix C for additional details.

Habitat

On-Site

The approximately 9.7-acre project site is currently undeveloped and overgrown with tall grasses, shrubs, and large, mature trees. The site has a history of disturbance and use during construction in surrounding areas. Dirt roads traverse the site, and several soil, mulch, and debris piles are located on the northern portion of the site. Concrete slabs are located on the southern portion of the site in the area of the former County of Santa Clara Vector Control Yard that was located on Parcel 1. An aerial photograph of the project and surrounding land uses is shown on Figure 2.1-3, and photographs of the project site are provided in Section 3.1, *Aesthetics*.

The project site consists of ruderal land (characterized by man-induced disturbance) dominated by native and non-native vegetation including slender wild oats, rupgut brome, and smilo grass. In addition, there are numerous planted or volunteer trees and shrubs growing on-site. No sensitive habitats (e.g., wetlands or riparian habitat) are present on-site.

Given the extent and density of surrounding development, the relatively small size of the project site, and the nighttime lighting, noise, and human disturbance, the project site does not function as a wildlife or habitat corridor.

Off-Site

Stevens Creek Corridor

Stevens Creek is located to the west of the project site. Stevens Creek is a jurisdictional stream under Section 404 of the Clean Water Act and the state Porter-Cologne Act. The northern half of the creek segment located adjacent to the west of the site is lined with concrete to form a trapezoidal channel. No overstory vegetation is growing within 15 feet of the top of bank along the concrete lined portion of the channel. The section of the creek upstream (south) of the trapezoidal channel is channelized but retains banks made of natural materials and some riparian overstory. The creek's riparian vegetation is regulated by the CDFW.

Stevens Creek is designated as critical habitat for the Central California Coast DPS steelhead. Stevens Creek provides a migratory corridor for steelhead between the waters of San Francisco Bay and spawning grounds below Stevens Creek Reservoir.

Southeast Cloverleaf

The southeast cloverleaf consists of ruderal land dominated by ornamental trees and shrubs mixed with herbaceous species. Dominant tree and shrub species include deodar cedar, ornamental phlox, and London plane. Dominant ruderal/non-native grassland species include slender wild oats, ripgut brome, and smilo grass. No sensitive habitats are present in the southeast cloverleaf.

PG&E Property

The PG&E property is developed with a transformer station, which consists of electrical transformers atop a concrete building pad. The transformer station covers most of the PG&E site. The areas adjacent to the transformer station consist of ruderal habitat and ornamental trees.

Special-Status Species

On-Site

Plant Species

Due to the lack of suitable habitat, primarily due to the history of soil and vegetation disturbance, no special-status plant species occur on the project site.

Wildlife Species

Special-status wildlife species documented in the vicinity of the project site, including the burrowing owl, are excluded from the project site due to the lack of habitat features such as vernal pools, salt marsh, sandy beaches, spawning gravel, small mammal burrows, and open grassland. One special-status wildlife species, a Nuttall's woodpecker, was observed on-site. Non-special-status native birds were also observed and may nest within the project site.

Burrowing Owls

Due to regional population declines and habitat loss over the past several decades, burrowing owls have been the subject of conservation concern in Mountain View and the South Bay. Burrowing owls are known to occur in extensive open lands in the North Bayshore area, and they have been recorded nesting at the edges of Shoreline Golf Course approximately 1.5 miles to the north of the project site across Highway 101. Because burrowing owls are known to inhabit open grassland or vacant lots near the project site, special attention was paid to surveying for suitable nesting structures and open grasslands which may be used by owls. No suitable nesting or foraging habitat was observed. Due to an absence of open, short-stature grassland and suitable burrows or burrow surrogates to support nesting and the presence of tall overstory vegetation, the project site does not provide burrowing owl habitat.[7]

Off-Site

Stevens Creek Corridor, Southeast Cloverleaf, and PG&E Property

The Central California Coast Distinct Population Segment (DPS) steelhead are known to occur within Stevens Creek adjacent to the west of the site and may be present in the creek during seasonal spawning migration and outmigration. No other special status species are expected to occur within the areas of the proposed off-site improvements, due to the lack of habitat features such as vernal pools, salt marsh, sandy beaches, spawning gravel, small mammal burrows, and open grassland.

[7] WRA Environmental Consultants, *Biological Reconnaissance, Moffett Gateway Project*, March 10, 2016

Migratory Wildlife and Wildlife Corridors

On-site

Generally, the project site does not function as a movement corridor. Although natural lands associated with Shoreline at Mountain View Regional Park, the Shoreline Golf Course, and San Francisco Bay to the east and north provide valuable habitat for large numbers of birds, including several special status species, the site is not located along movement pathways between high-quality habitats due to the presence of extensive urban and suburban land uses surrounding the site. The extent and density of existing developed areas surrounding the project site means that the site does not function as a habitat corridor for the movement of terrestrial wildlife or plants. The distance between viable core habitat areas for terrestrial species is too great, and the intensity of disturbance from nighttime lighting, noise, and human presence over that distance is a major deterrent to terrestrial wildlife movement. The small size of the project site in the context of the surrounding landscape also substantially reduces the value of the project site as a stepping stone corridor for avian and bat species. For these species, there is very little that distinguishes the project site from surrounding developed and landscaped areas in terms of providing a stepping stone corridor linkage.

Off-site

Stevens Creek provides a migratory corridor for steelhead between the waters of San Francisco Bay and spawning grounds below Stevens Creek Reservoir. For other aquatic species, the value of Stevens Creek as a movement corridor can be described as tenuous at best. For an area to function as a movement corridor, it must connect two areas of core habitat. Areas at the upstream portions of Stevens Creek are cismontane woodland areas, which support a much different array of species than are present in the saline lands adjacent to San Francisco Bay. While it is not impossible that an individual could survive a journey downstream from the mountains to the Bay, habitat present in the flat, saline, and non-forested lands adjacent to the Bay is not suitable for most species that inhabit the cismontane environments upstream of developed areas. It is extremely unlikely that individuals of any species, other than steelhead, would migrate upstream from the Bay to the upstream reaches of Stevens Creek, particularly given the flows that occur and the substrate available within the creek corridor within the developed areas. For these reasons, Stevens Creek within the project area acts more as a sink for genetic material, and does not fulfill the functions of a habitat corridor, with the exception of steelhead. The PG&E property and southeast cloverleaf do not function as habitat corridors due to their developed nature and the presence of extensive urban and suburban land uses in the surrounding areas.

Trees

A tree survey was completed for the project site and the areas of off-site improvements by *HortScience*. The tree survey identified, measured, mapped, and rated the trees for preservation, which took into consideration the tree's age, health, structural condition, and ability to safely coexist within a development environment. The tree survey is included as Appendix D of the EIR. Based on the results of the tree survey, a total of 357 trees are located on the project site (or immediately adjacent to the project site) or in the areas of the proposed off-site improvements. The three most common trees surveyed were the Canary Island pine (98 trees), California pepper (91 trees), and deodar cedar (67 trees). On average, the trees on and off the project site are large and have an

average trunk diameter of 18-inches. Of the 357 trees surveyed, 277 are considered Heritage trees by the City. Approximately 46 percent (163 trees) are in fair condition. The remaining trees are in good condition (135 trees), poor condition (58 trees), or dead (one tree). The number of trees on the project site and in the areas of the proposed off-site improvements is provided below.

On-site

There are a total of 336 trees located on or immediately adjacent to the project site. Of the 336 trees on the project site, 261 are considered Heritage trees by the City.

Off-site

Stevens Creek Corridor

There are a total of three trees within the area of the proposed bicycle/pedestrian bridge. The three trees are not considered Heritage trees by the City.

Southeast Cloverleaf

There are a total of three trees in the southeast cloverleaf that are within the area of the proposed off-site drainage improvements. All three trees are considered Heritage trees by the City.

PG&E Property

There are total of 15 trees on the PG&E property within the area of the proposed screening wall. Thirteen of the trees are considered Heritage trees by the City.

3.3.2 Biological Resource Impacts

3.3.2.1 *Thresholds of Significance*

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

3.3.2.2 Direct Impacts to Special Status Species and Habitats and Wildlife Movement

On-site

The project site consists of ruderal habitat that was previously developed and disturbed by human use. As discussed above, the project site does not function as a wildlife corridor. There are no wetlands or other sensitive habitats on the project site. For these reasons, the presence of special status plants or animals on-site is unlikely, and the proposed development of the project site with an office building and hotel would not result in direct impacts to special status species or sensitive habitats.[8]

Tree Nesting Birds

No state or federally threatened or endangered avian species have the potential to nest within the project site. CDFW species of special concern, USFWS birds of conservation concern (e.g., a Nuttall's woodpecker), and non-special status native birds may nest in the trees and vegetation on-site and within the southeast cloverleaf. The nests of such birds are protected under the MBTA and state Fish and Game Codes. Construction disturbance during the breeding season (generally February 15 to August 31) could result in the incidental loss of fertile eggs or nestlings, or could otherwise lead to nest abandonment. Nest abandonment and/or loss of reproductive effort caused by disturbance are considered a "take" by the CDFW, and therefore would constitute a significant impact.

The following City of Mountain View Standard Condition of Approval would be incorporated into the project and would reduce any potential impacts to nesting birds to a less than significant level by avoiding construction during nesting season, completing a pre-construction breeding bird survey and establishing exclusion buffers as appropriate:

Preconstruction Nesting Bird Survey: To the extent practicable, vegetation removal and construction activities shall be performed from September 1 through January 31 to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, preconstruction surveys will be performed no more than two days prior to construction activities to locate any active nests as follows:

[8] As noted in Section 3.8.1.1, the Santa Clara Valley Habitat Plan identifies nitrogen deposition associated with regional vehicular emissions as impacting serpentine habitats in Santa Clara County that support Bay Checkerspot butterfly populations. Refer to Section 5.3.6, *Cumulative Biological Resources Impacts* for a discussion of the project's contribution to indirect human effects on these sensitive habitats.

The applicant shall be responsible for the retention of a qualified biologist to conduct a survey of the project site and surrounding 500' for active nests—with particular emphasis on nests of migratory birds—if construction (including site preparation) will begin during the bird nesting season, from February 1 through August 31. If active nests are observed on either the project site or the surrounding area, the project applicant, in coordination with the appropriate City staff, shall establish no-disturbance buffer zones around the nests, with the size to be determined in consultation with the California Department of Fish and Wildlife (usually 100' for perching birds and 300' for raptors). The no-disturbance buffer will remain in place until the biologist determines the nest is no longer active or the nesting season ends. If construction ceases for two days or more and then resumes during the nesting season, an additional survey will be necessary to avoid impacts on active bird nests that may be present.

Impact BIO-1: The proposed on-site development, with the implementation of the above City Standard Conditions of Approval, would not significant direct impacts to special status species or habitats or interfere with the movement of wildlife. **[Less than Significant Impact]**

Nesting Burrowing Owls

Due to an absence of open, short-stature grassland and suitable burrows or burrow surrogates to support nesting and the presence of tall overstory vegetation, the project site does not provide burrowing owl habitat. For this reason, the project would not impact burrowing owls or their habitat.

Impact BIO-2: The project would result in a less than significant impact to burrowing owls. **[Less Than Significant Impact]**

Off-site

Stevens Creek Corridor

A clear span bicycle/pedestrian bridge is proposed to span Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail on the west bank. The bridge location is shown on Figure 2.2-1 and is downstream of the existing PG&E gas line crossover next to the parking garage. Due to the design of the bridge and the installation process, the bridge is not anticipated to impact the creek bed during or following installation. The primary habitat modifications would occur at the top of the bank to install the footings and bridge foundation. Installation of the bridge would occur at the top of bank in previously developed areas.

The bridge would be located at least 10 feet downstream of an existing fish ladder where the creek flows within a trapezoidal concrete channel. A Santa Clara Valley Water District (SCVWD) access road runs along the top of the east bank, and the Stevens Creek Trail is located at the top of the west bank. Due to the developed nature of the banks, development of the bridge footings would not impact riparian woodland and its associated benefits to steelhead at this location. Work on the west bank may require some vegetation removal for installation of the bridge. The vegetation along this reach is not considered riparian due to the species present and nature of the channel (i.e., concrete lined). Vegetation removal at this location would not affect sensitive habitat or steelhead.

Installation of the bridge would require the pruning or removal of shrubs and non-riparian vegetation, but the removal of large riparian trees would not be required. It is unlikely that the proposed bridge would increase exposure or temperatures within Stevens Creek. In addition, the proposed bridge location has no shade or only partial shade throughout the day. Therefore, the proposed bridge may serve to infinitesimally increase habitat value for steelhead by increasing shade cover over Stevens Creek. For these reasons and those stated above, the proposed bridge would not substantially affect sensitive habitat or steelhead in the long term.

Southeast Cloverleaf and PG&E Property

Due to the lack of habitat features such as vernal pools, salt marsh, sandy beaches, spawning gravel, small mammal burrows, and open grassland, special status species are not expected to occur within the areas of the proposed off-site drainage improvements in the southeast cloverleaf or the screening wall on the PG&E property.

Tree Nesting Birds

No state or federally threatened or endangered avian species have the potential to nest within the areas of the proposed off-site improvements. CDFW species of special concern, USFWS birds of conservation concern (e.g., a Nuttall's woodpecker), and non-special status native birds may nest in the trees and vegetation within the areas of the proposed off-site improvements. The nests of such birds are protected under the MBTA and state Fish and Game Codes. Construction disturbance during the breeding season (generally February 15 to August 31) could result in the incidental loss of fertile eggs or nestlings, or could otherwise lead to nest abandonment. Nest abandonment and/or loss of reproductive effort caused by disturbance are considered a "take" by the CDFW, and therefore would constitute a significant impact.

The following City of Mountain View Standard Condition of Approval would be incorporated into the project and would reduce any potential impacts to nesting birds to a less than significant level by avoiding construction during nesting season, completing a pre-construction breeding bird survey and establishing exclusion buffers as appropriate:

Preconstruction Nesting Bird Survey: To the extent practicable, vegetation removal and construction activities shall be performed from September 1 through January 31 to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, preconstruction surveys will be performed no more than two days prior to construction activities to locate any active nests as follows:

The applicant shall be responsible for the retention of a qualified biologist to conduct a survey of the project site and surrounding 500' for active nests—with particular emphasis on nests of migratory birds—if construction (including site preparation) will begin during the bird nesting season, from February 1 through August 31. If active nests are observed on either the project site or the surrounding area, the project applicant, in coordination with the appropriate City staff, shall establish no-disturbance buffer zones around the nests, with the size to be determined in consultation with the California Department of Fish and Wildlife (usually 100' for perching birds and 300' for raptors). The no-disturbance buffer will remain in place until the biologist determines the nest is no longer active or the nesting season ends. If construction ceases for two days or more and then resumes

during the nesting season, an additional survey will be necessary to avoid impacts on active bird nests that may be present.

Impact BIO-3: The proposed off-site improvements, with the implementation of the above City Standard Conditions of Approval, would not significant direct impacts to special status species or habitats or interfere with the movement of wildlife. **[Less than Significant Impact]**

3.3.2.3 Indirect Impacts to Special Status Species and Habitats

On-site

Bird Strike

The project would construct a new five-story office building, five-story hotel, and a six-tier parking garage. The proposed office building and hotel would each contain five-stories of exterior glass windows that could be a potential strike hazard to birds in the project area. The exterior windows of the proposed office building and hotel would be fritted glass, which would reduce the potential for birds to strike the building. In addition, the following City of Mountain View Standard Conditions of Approval would be incorporated into the project to further reduce the potential for bird strike:

BIRD STRIKE MANAGEMENT PLAN: A bird strike management plan, which provides project design features to reduce bird strikes, and a bird strike monitoring plan postconstruction shall be submitted as part of the building permit submittal with recommended provisions included in the building permit plans.

Impact BIO-4: The proposed project, with implementation of the City Standard Conditions of Approval, would not result in a significant impact due to bird strike. **[Less than Significant Impact]**

Siltation and Runoff

Project construction can impact the creek by increasing siltation and contaminating runoff. These impacts are discussed in Section 3.9, *Hydrology and Water Quality* and in Section 3.3.2.4, below, as they pertain to steelhead.

Riparian Setback

The Stevens Creek watershed, as a whole, is a highly impacted watershed. Existing uses in the project area are located within 30 to 75 feet of the Stevens Creek riparian corridor, including the Stevens Creek Trail, PG&E substation, and SCVWD access road. Given these factors, maintaining a setback of 30 to 75 feet between the creek riparian habitat and the proposed development would maintain local ecological conditions surrounding Stevens Creek. As shown on Figure 2.2-1, the proposed parking garage would be located along the concrete-lined portion of the channel that does not have a riparian overstory and would be set back a minimum of approximately 56 feet from the top of bank. The proposed office building would be located along the earthen portion of the channel that contains some riparian overstory and would be set back a minimum of 75 feet from the edge of

the riparian canopy. The project, therefore, would not result in significant impacts to the ecological conditions of the creek.

Impact BIO-5: The riparian setbacks proposed by the project would avoid significant impacts to the ecological conditions of Stevens Creek. **[Less Than Significant Impact]**

Planting Plan

The proposed planting plan was reviewed by WRA (refer to Appendix C). The focus of the review of the planting plan was for areas that are in proximity to Stevens Creek (i.e., west of the proposed office building and parking garage) to promote planting of native species along the creek corridor. The proposed planting plan for the project contains a mix of common ornamental and locally native tree species including coast live oak, western sycamore, and Freemont cottonwood. The selection of locally native species was emphasized in order to promote the planting of native species along the creek corridor; in order to minimize the potential for introduction of invasive species, and to provide a buffer function between the creek and natural riparian area. For these reasons, the proposed planting plan would not result in significant impacts to biological resources and is expected to improve the riparian habitat in the project area.

Impact BIO-6: The proposed planting plan would not introduce invasive species to the project site or the Stevens Creek corridor that would negatively affect Stevens Creek and its riparian habitat. **[Less Than Significant Impact]**

Steelhead

The project proposes a bridge that would span Stevens Creek and provide pedestrian access from the project site to the Stevens Creek Trail. Along the northern half of the project site and in the location of the proposed bicycle/pedestrian bridge, Stevens Creek is a concrete lined channel. The portion of Stevens Creek adjacent to the project site has been developed on both sides with a SCVWD access road along the top of the east bank and the Stevens Creek Trail along the top of the west bank. In the project area, Stevens Creek does not contain suitable spawning gravels. Steelhead, therefore, would only be present within the creek when migrating to or from spawning habitat in the headwaters of Stevens Creek. The proposed project would plant trees and shrubs along the creek within the parameters allowed by the Army Corp of Engineers and Santa Clara Valley Water District (SCVWD) setbacks, which ultimately improve the riparian habitat quality along the creek.

The possible effects of the project on steelhead would be through: 1) increased temperatures in the creek due to reflectivity from the proposed buildings, 2) removal of the riparian canopy, or 3) contamination of the creek through siltation and runoff. These three possible effects and how they would be avoided by the proposed project are described below.

- *Increase in Temperatures in the Creek* – The potential effect of increased temperature within the creek is negated primarily due to the project layout. The most reflective buildings (i.e., office and hotel) would be located furthest from the creek. The office building would be located along the portion of the creek with the thickest riparian habitat, which would block reflected light and heat, and the office building would be set back 75 feet or more from the

edge of the riparian corridor. This setback would help maintain riparian canopy integrity and minimize exposure of reflective surfaces to the creek. In addition, the project proposes riparian plantings between the office building and the creek, which would also block reflected light and heat. The hotel is proposed furthest from the creek and the parking garage is located directly between the creek and the hotel, which would block any reflected light or heat from the hotel. The parking garage would be located along the concrete-lined, non-vegetated portion of the creek; however, the garage would be set back 56 feet or more from the top of the bank and the project proposes riparian plantings between the garage and the creek. This setback would help minimize exposure of reflective surfaces to the creek, and the riparian plantings would block reflected light and heat. Due to the design of the parking garage and minimal reflective components (such as glass or metal exterior), this building is unlikely to reflect enough heat to affect temperatures beyond what is currently experienced in the concrete-lined creek channel.

- *Removal of Riparian Canopy* – Due to the design of the bridge and the installation process, the bridge is not anticipated to impact the creek bed during or following installation. Disturbance would occur at the top of the bank during installation of the bridge footings. Due to the developed nature of the banks (SCVWD access road along the east bank and Stevens Creek Trail along the west bank), installation of the proposed bridge footings would not impact riparian habitat and its associated benefits to steelhead. The west bank may require some vegetation removal, however, vegetation in this reach is not considered riparian due to the species present and nature of the channel. Vegetation removal at this location would not affect steelhead, and the proposed project includes planting riparian vegetation between the proposed project and the creek, which would enhance the riparian area.

  The creek at the proposed bridge location has either no shade or only partial shade throughout the day. The addition of the proposed bridge may infinitesimally increase habitat value for steelhead by increasing shade cover over Stevens Creek in this location. Installation of the bridge would not significantly impact steelhead in the long term.

- *Creek Disturbance and Contamination* – Construction of the proposed bicycle/pedestrian bridge has the potential to impact water quality and would generate noise and vibration. Steelhead adults typically return to their natal streams to spawn between December and June, and flows in Steven Creek are minimal during the summer and fall. Once complete, the proposed bicycle/pedestrian bridge would increase human activity in the area. The increase in activity at this location of the creek would be small in comparison to the amount of human activity currently occurring along Stevens Creek and, therefore, is not considered significant.

Impact BIO-7: Construction of the proposed bicycle/pedestrian bridge could impact migrating steelhead. **[Potentially Significant Impact]**

<u>Mitigation Measures:</u> The project shall implement the following mitigation measures to reduce potential construction-related impacts to steelhead during installation of the bridge by limiting the construction season and implementing BMPs:

MM BIO-7.1: Construction along the top of bank for the installation of the bridge shall be conducted between June 1 and November 30 to correspond to the dry season and the period steelhead are less likely to be moving through the area.

MM BIO-7.2: As discussed in Section 3.9, *Hydrology and Water Quality* the proposed project will implement Best Management Practices (BMPs) for bridge construction to minimize the potential for erosion/sedimentation/siltation or for construction debris and/chemicals to enter the creek to a less than significant level. A complete list of the BMPs to be implemented by the project are listed in Section 3.9.3, *Hydrology and Water Quality Impacts*.

The proposed project, with the implementation of the above mitigation measures (MM BIO-7.1 and -7.2), would not result in a significant impact to steelhead due to construction disturbance or erosion/siltation/sedimentation or runoff contaminated with construction debris or chemicals. **[Less than Significant Impact with Mitigation Incorporated]**

3.3.2.4 *Trees*

As summarized in Section 3.3.1.4 above (and in more detail in Appendix D), there are a total of 357 trees located on- and off-site that could be impacted by the proposed project. Based on review of the project plans (including proposed grading and improvements), the arborist that prepared the tree survey determined that of the total trees on and off the project, 73 trees could be preserved, 21 trees should be transplanted, and 263 trees should be removed. The number of trees that would be removed on the project site and in the areas of the proposed off-site improvements are described below. For additional details, including specific tree numbers, comments regarding disposition, and assumptions about preservation and construction, refer to Appendix D. A City of Mountain View Heritage Tree Removal Permit would be required before any Heritage trees could be removed under a development permit.

On-site

There are a total of 336 trees located on or immediately adjacent to the project site, 261 of which are considered Heritage trees by the City. The proposed development of the office building, hotel, and parking garage on the project site, would remove a total of 247 trees, including 200 Heritage trees. The project would also transplant 21 trees, including 18 Heritage trees.

Off-site

Stevens Creek Corridor

There are a total of three trees within the area of the proposed bicycle/pedestrian bridge, none of which are considered Heritage trees by the City. Installation of the proposed bridge would remove all three trees.

Southeast Cloverleaf

There are a total of three trees in the southeast cloverleaf that are within the area of the proposed off-site drainage improvements. All three trees are considered Heritage trees by the City and would be removed during construction of the proposed drainage improvements.

PG&E Property

There are total of 15 trees on the PG&E property within the area of the proposed screening wall, thirteen of which are considered Heritage trees by the City. Construction of the screening wall on the PG&E property would remove a total of 10 trees, including seven Heritage trees.

The following City of Mountain View Standard Conditions of Approval would be incorporated into the project and would reduce any potential impacts of construction on tree resources to a less than significant level:

REPLACEMENT: The applicant shall offset the loss of each Heritage tree with a minimum of one new tree (for a total of 210 replacement trees). Each replacement tree shall be no smaller than a 24-inch box, and shall be noted on the landscape plans submitted for building permit review as Heritage replacement trees.

ARBORIST REPORT: A qualified arborist shall provide written instructions for the care of the 69 Heritage trees to be retained before, during, and after construction. Arborist's reports shall be received by the Planning Division and must be approved prior to issuance of building permits. Prior to occupancy, the arborist shall certify in writing that all tree preservation measures have been implemented.

TREE PROTECTION MEASURES: The tree protection measures listed in the arborist's report prepared by *HortScience, Inc*. and dated October 29, 2015 shall be included as notes on the title sheet of all grading and landscape plans. These measures shall include, but may not be limited to, 6-foot chain link fencing at the drip line, a continuous maintenance and care program, and protective grading techniques. Also, no materials may be stored within the drip line of any tree on the project site.

Impact BIO-8: The proposed project, with implementation of the City Standard Conditions of Approval, would not result in a significant impact to tree resources. **[Less than Significant Impact]**

3.3.2.5 *Consistency with Plans and Policies*

The project site and the location of the proposed off-site improvements are not within the area of an applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP), or other approved local, regional, or state habitat conservation plan.

Impact BIO-9: The proposed project would not conflict with an applicable conservation plan. **[No Impact]**

3.3.4 Conclusion

Impact BIO-1: The proposed on-site development, with the implementation of the above City Standard Conditions of Approval, would not result in significant direct impacts to special status species or habitats or interfere with the movement of wildlife. **[Less than Significant Impact]**

Impact BIO-2: The project would result in a less than significant impact to burrowing owls. **[Less Than Significant Impact]**

Impact BIO-3: The proposed off-site improvements, with the implementation of the above City Standard Conditions of Approval, would not result in significant direct impacts to special status species or habitats or interfere with the movement of wildlife. **[Less than Significant Impact]**

Impact BIO-4: The proposed planting plan would not introduce invasive species to the project site or the Stevens Creek corridor that would negatively affect Stevens Creek and its riparian habitat. **[Less Than Significant Impact]**

Impact BIO-7: The installation of the proposed bicycle and pedestrian bridge, with implementation of MM BIO-7.1 and MM BIO-7.2, would not significantly impact migrating steelhead. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact BIO-8: The proposed project, with implementation of the City Standard Conditions of Approval, would not result in a significant impact to tree resources. **[Less Than Significant Impact]**

Impact BIO-9: The proposed project would not conflict with an applicable conservation plan. **[No Impact]**

3.4 CULTURAL RESOURCES

The following discussion is based upon an Archaeological Survey Report completed for the project site and adjacent off-site construction areas by *Holman and Associates* in December 2015.

The cultural resource inspection was completed to obtain information about recorded prehistoric and/or historic archaeological sites in the project area. Because the report may reveal the location of specific archaeological sites, it is considered administratively confidential and is not included as an appendix to this EIR. Qualified personnel may request a copy from the City's Planning Division during normal business hours.

3.4.1 Regulatory Setting

This section describes applicable state and local regulations that pertain to cultural resources.

3.4.1.1 *State Regulations*

Senate Bill 18 – Tribal Consultation

Senate Bill (SB) 18 requires cities and counties to contact and consult with California Native American tribes, prior to amending or adopting any general plan or specific plan or designating land as open space. For purposes of consultation with tribes, the Native American Heritage Commission (NAHC) maintains a list of California Native American Tribes with whom local governments must consult. The NAHC's "California Tribal Consultation List" provides the name, address, and contact name for of each of these tribes; and telephone, fax and email information if available. Prior to initiating consultation with a Tribe, the city or county must contact the NAHC for a list of Tribes to consult with.

The Native American Heritage Commission (NAHC) was contacted on June 1, 2015 to request a review of the Sacred Land Files for any evidence of cultural resources or traditional properties of potential concern to Native Americans within or adjacent to the study area. The Commission responded with a list of eleven Native American contacts who may have been able to provide information on possible areas of cultural sensitivity. Subsequently, the eleven Native American tribal contacts were reached out to via email. Two contacts requested cultural sensitivity training for the construction crews and both a Native American and archaeological monitor for all ground disturbing activities. Two other contacts requested Native American monitors during coring or to be briefed on the subsurface findings, if Native Americans were not monitoring the work. At no time during the consultation process was any specific Native American resource identified within or adjacent to the project site.

Assembly Bill 52 – Tribal Resources

Assembly Bill (AB) 52 requires that, by July 1, 2016, the NAHC must provide the tribes on its contact list with a list of all public agencies that may serve as a lead agency for projects within the geographic area within which the tribe is traditionally and culturally affiliated. NAHC must also inform these tribes how to request project notifications from public agencies. Where a tribe requests, in writing, that a public agency inform it of proposed projects, the lead agency must notify the tribe

within 14 days of determining that a project application is complete or deciding to undertake a project (i.e., prior to the release of the environmental document). The notification must be in writing and include a brief description of the project and its location, contact information, and statement that the tribe has 30 days to request consultation. If the tribe responds by requesting consultation, in writing, within 30 days of the notification, the lead agency must begin the consultation process within 30 days of receiving the request. No tribes have contacted the City of Mountain View in writing and requested to be informed of proposed projects, as required under AB 52. Therefore, no tribes were notified of the proposed project, as required under AB 52. As stated above, however, tribal consultation per SB 18 was completed for the proposed project.

3.4.1.2 *City of Mountain View General Plan*

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to cultural resources and applicable to the proposed project include:

LUD 11.5: Archaeological and paleontological site protection. Require all new development to meet state codes regarding the identification and protection of archaeological and paleontological deposits.

LUD 11.6: Human remains. Require all new development to meet state codes regarding the identification and protection of human remains.

3.4.2 Existing Setting

3.4.2.1 *On-site*

The project site is located in the central portion of the City. The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south.

The project site is composed of two parcels, Parcel 1 and Parcel 2, which are both currently undeveloped. Parcel 1 was undeveloped prior to 1939. From 1939 to 1956, the property was developed with a small residential sized structure and row crops. From 1961 to 1970, the property was vacant with no apparent structures. The Vector Control Yard was constructed by the County of Santa Clara (County) in 1970 and was used continuously as this use until 2004 when the Vector Control yard was closed and the structures were demolished and removed from Parcel 1.

Parcel 2 is owned by the California Department of Transportation (Caltrans). Parcel 2 was agricultural from at least 1939 to approximately 1961 when it was developed into a cloverleaf highway ramp and a road connecting Highway 101 and Moffett Boulevard. This use continued into the early 2000s, when the cloverleaf and connecting road were removed by Caltrans during realignment. Parcel 2 has subsequently remained as undeveloped land.

3.4.2.2 *Off-site*

Stevens Creek Corridor

Stevens Creek is located to the west of the project site. The segment of the creek located adjacent to the project site is channelized and the northern half of the segment is lined with concrete to form a trapezoidal channel.

Southeast Cloverleaf

The southeast cloverleaf is developed with an on- and off-ramp connecting Moffett Boulevard to southbound Highway 101.

PG&E Property

The PG&E property is developed with a transformer station, which consists of electrical transformers atop a concrete building pad.

3.4.2.3 *Prehistoric Resources*

On-site

On June 10, 2015, Holman & Associates completed a records search at the Northwest Information Center of the California Historical Resources Information System (CHRIS), Sonoma State University. The review included all cultural resources mapped within a quarter mile of the project site, all studies completed within an eighth of a mile of the site, and historic-era maps and literature on file, including state and federal inventories. Reports and maps from Holman & Associates' library were also used and limited archival research was conducted. Based on the results of the records search and literature review, there are no known cultural resources within the project site. The nearest recorded archaeological site is within a quarter mile of the site.

On June 12, 2015, Holman & Associates conducted a surface reconnaissance focusing on all accessible lands within Parcels 1 and 2 of the project site. Ground visibility was limited due to thick vegetation. Areas of exposed soil were inspected for evidence of subsurface material or paleo soils that might have been deposited on the surface during previous uses of the parcels. No evidence of archaeological materials was found during the field survey.

Prior cultural resource investigations, encompassing the entire project site, have been completed in the project area. No evidence of archaeological materials was found on the project site during these prior investigations. The most notable of these are the numerous Caltrans-related investigations that were completed for the US 101 and SR 85 Improvement Project. These investigations surveyed portions of the project site, including the former US 101/Moffett Boulevard southbound offramp (i.e., Parcel 2 of the project site). In addition to field surveys, auger borings were completed during the Caltrans investigations, including one in Parcel 2. All prior cultural resource investigations on the project site resulted in negative findings. For these reasons, the potential for Native American deposits within Parcel 2 is considered low.

Recently, three trenches were excavated in the project area, one northeast cloverleaf, one in the northwest cloverleaf, and one in the southeast cloverleaf of the Moffett Boulevard interchange. No archaeological materials or cultural layers were identified during the trenching, but the geomorphology within the trenches suggest that the soils were formed in a freshwater environment or pond. Previously recorded Native American sites in the project area tend to be situated at the edge of the historic margins of San Francisco Bay, on valley terraces, and/or locations situated adjacent to a freshwater source. Given the changes to riparian systems and bay margins over several millennia and the possibility of a freshwater environment or pond to the northeast of the project site, the potential for Native American deposits within Parcel 1 is considered moderate to high.

Off-site

Stevens Creek Corridor

Prior cultural resource investigations that included the location of the proposed bicycle/pedestrian bridge resulted in negative findings. Recently, three trenches were excavated across US 101 in the northeast cloverleaf of the Moffett Boulevard interchange. No archaeological materials or cultural layers were identified during the trenching, but the geomorphology within the trenches suggest that the soils were formed in a freshwater environment or pond.

Previously recorded Native American sites in the project area tend to be situated at the edge of the historic margins of San Francisco Bay, on valley terraces, and/or locations situated adjacent to a freshwater source. Given the changes to riparian systems and bay margins over several millennia and the possibility of a freshwater environment or pond to the northeast of the project site, the potential for Native American deposits within the area of the proposed bicycle/pedestrian bridge is considered moderate to high.

Southeast Cloverleaf

Prior cultural resource investigations encompassing the southeast cloverleaf have been completed in the project area. No evidence of archaeological materials were found on the southeast cloverleaf during these prior investigations. The most notable of these prior investigations are the numerous Caltrans-related investigations that were completed for the US 101 and SR 85 Improvement Project. In addition to field surveys, auger borings were completed during the Caltrans investigations, including two in the southeast cloverleaf that resulted in negative findings. Recently, three trenches were excavated in the project area with negative findings, including one in the southeast cloverleaf of the Moffett Boulevard interchange. For these reasons, the potential for Native American deposits within the southeast cloverleaf is considered low.

PG&E Property

The PG&E property is developed with a transformer station, which consists of electrical transformers atop a concrete building pad. Prior cultural resource investigations in the project area have resulted in negative findings. Recently, three trenches were excavated across US 101 in the northeast cloverleaf of the Moffett Boulevard interchange. No archaeological materials or cultural layers were identified during the trenching, but the geomorphology within the trenches suggest that the soils were formed in a freshwater environment or pond.

Previously recorded Native American sites in the project area tend to be situated at the edge of the historic margins of San Francisco Bay, on valley terraces, and/or locations situated adjacent to a freshwater source. Given the changes to riparian systems and bay margins over several millennia and the possibility of a freshwater environment or pond to the northeast of the project site, the potential for Native American deposits within the PG&E property is considered moderate to high.

3.4.2.4 *Historic Resources*

Based upon review of the California Inventory of Historic Resources, California's Office of Historic Preservation's Historic Property Data File, and the City of Mountain View Register of Historic Resources, there are no known historic resources located within or adjacent to the project site or the areas of the proposed off-site improvements.

3.4.3 Cultural Resources Impacts

3.4.3.1 *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 §15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

3.4.3.2 *Paleontological Resources Impacts*

There are no known paleontological resources on the project site or in the areas of the proposed off-site improvements; however, the possibility of paleontological resources being uncovered during project construction cannot be entirely dismissed. The following City of Mountain View Standard Condition of Approval would be incorporated into the project and would reduce any potential impacts to paleontological resources, if they were to be found on the site:

DISCOVERY OF PALEONTOLOGICAL RESOURCES: In the event that a fossil is discovered during construction of the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined to be significant and if avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards.

Impact CR-1: The proposed project, including the proposed off-site improvements would not result in a significant impact to paleontological resources with

implementation of the City Standard Conditions of Approval. **[Less than Significant Impact]**

3.4.3.3 *Archaeological Resource Impacts*

Based on the proximity of the project site to the likely prehistoric riparian zone of Stevens Creek, San Francisco Bay margin, and/or other freshwater environments, the project site and the areas of the proposed off-site improvements would have provided favorable conditions for Native American habitation. Prior investigations completed as part of the US-101 and SR-85 Improvement Project, have demonstrated that archaeological resources are not likely present in Parcel 2 or the southeast cloverleaf of the Moffett Boulevard/US 101 interchange. Parcel 1 and the locations of the proposed off-site bicycle/pedestrian bridge and off-site screening wall remain moderate to highly sensitive for buried archaeological resources.

Impact CR-2: Prior investigations completed as part of the US-101 and SR-85 Improvement Project, have demonstrated that archaeological resources are not likely present in Parcel 2 or the southeast cloverleaf. Parcel 1 and the locations of the proposed off-site bicycle/pedestrian bridge and screening wall are considered moderate to highly sensitive for buried archaeological resources. **[Potentially Significant Impact]**

Mitigation Measures: The following mitigation measures are included in the project to reduce or avoid impacts to archaeological resources:

MM CR-2.1: **CORE SAMPLE ANALYSIS:** Prior to the issuance of a grading permit for construction activities on Parcel 1 or for the off-site bicycle/pedestrian bridge and off-site screening wall, one core will be placed on both sides of the creek in the location of the proposed bicycle/pedestrian bridge. A qualified archaeologist will be present in the field to observe and record the soils of each core. If no cultural layers are present within the cores, then no further investigation is necessary; the project can proceed as proposed, and the archaeologist will summarize the findings in a memo that will be provided to the City's Community Development Director. This measure could be coordinated with the engineering coring for the bridge. If cultural layers are present within either core, then additional investigation may be necessary before ground disturbing activities on Parcel 1 and the location of the bicycle/pedestrian bridge and screening wall can commence. The coring results will determine any further recommendations. The archaeologist will summarize the findings and any further recommendation in a memo that will be provided to the City's Community Development Director.

MM CR-2.2: **TRIBAL CONSULTATION REQUESTS:** As requested during the Tribal Consultation process for the proposed project, cultural sensitivity training will be provided to the construction crews, a Native American archaeological monitor will be present for all ground disturbing activities, including coring at the proposed bridge location.

MM CR-2.3: **DISCOVERY OF ARCHAEOLOGICAL RESOURCES:** If prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities, it is recommended that all work within 100' of the find be halted until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert-flaked stone tools (e.g., projectile points, knives, scrapers) or tool-making debris; culturally darkened soil ("midden") containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, will develop a treatment plan that could include site avoidance, capping, or data recovery.

MM CR-2.4: **DISCOVERY OF HUMAN REMAINS:** In the event of the discovery of human remains during construction or demolition, there shall be no further excavation or disturbance of the site within a 50-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. A final report shall be submitted to the City's Community Development Director prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs and its results including a description of the monitoring and testing resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the City's Community Development Director.

Implementation of the mitigation measures MM CR-2.1 through MM CR-2.4 would reduce potential impacts to archaeological resources to a less than significant level. **[Less than Significant with Mitigation Incorporated]**

3.4.3.4 *Historic Resource Impacts*

As previously discussed, there are no historic structures on the project site or the areas of the proposed off-site improvements. For this reason, the proposed project, including the proposed off-site improvements, would not result in impacts to aboveground historical resources.

Impact CR-3: The proposed project, including the proposed off-site improvements, would not result in impacts to historic resources. **[No Impact]**

3.4.4 Conclusion

Impact CR-1: The proposed project, including the proposed off-site improvements would not result in a significant impact to paleontological resources with implementation of the City Standard Conditions of Approval. **[Less than Significant Impact]**

Impact CR-2: Prior investigations completed as part of the US 101 and S 85 Improvement Project, have demonstrated that archaeological resources are not likely present in Parcel 2 or the southeast cloverleaf. Parcel 1 and the locations of the proposed off-site bicycle/pedestrian bridge and screening wall are considered moderate to highly sensitive for buried archaeological resources. Implementation of the mitigation measures MM CR-2.1 through MM CR-2.4 would reduce potential impacts to archaeological resources to a less than significant level. **[Less than Significant with Mitigation Incorporated]**

Impact CR-3: The proposed project, including the proposed off-site improvements, would not result in impacts to historic resources. **[No Impact]**

3.5 ENERGY

CEQA Guidelines Section 15126.4(a)(1)(C) and Appendix F of the Guidelines (Energy Conservation) require that EIRs include a discussion of the potential energy impacts of proposed projects with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The following discussion provides background on existing energy use and supplies, and is based largely on data and reports produced by the California Energy Commission and the Energy Information Administration of the US Department of Energy.

3.5.1 Regulatory Setting

This section describes applicable federal, state, and local regulations that pertain to energy conservation. Many federal, state, and local statutes and policies address energy conservation. At the Federal level, energy standards set by the US Environmental Protection Agency (EPA) apply to numerous products (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation. At the State level, Title 24 of the California Building Standards Code sets forth energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the *Flex Your Power* program promotes conservation in multiple areas. The California Building Energy Efficiency Standards, which include the California Green Building Standards Code (CalGreen), are a portion of the much broader Title 24 standards. The CalGreen code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality.

At the local level, the Mountain View Green Building Code (MVGBC) amends the State-mandated CalGreen standards to include local green building standards and requirements for private development. The MVGBC applies green building requirements based on building type and size to new construction, residential additions, and commercial/industrial tenant improvements. The MVGBC includes energy efficiency standards that exceed the 2008 Building Energy Efficiency Standards. The MVGBC does not require formal certification from a third-party organization, but requires projects to be designed and constructed to "meet the intent" of a third-party rating system.[9] For nonresidential projects proposing over 25,000 sf of new construction, the buildings must meet the intent of the LEED (Leadership in Energy and Environmental Design) Silver certification from the US Green Building Council, and must comply with mandatory CalGreen requirements.

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to energy and applicable to the proposed project include:

LUD 10.5: Building energy efficiency. Incorporate energy-efficient design features and materials into new and remodeled buildings.

LUD 10.6: On-site energy technologies. Support on-site renewable energy technologies that help reduce community energy demand.

[9] City of Mountain View, Community Development Department. *Mountain View Green Building Code (MVGBC).* 2011. Accessed January 29, 2016. http://www.mountainview.gov/depts/comdev/building/construction/mvgbc.asp.

LUD 10.9: Sustainable roofs. Encourage sustainable roofs to reduce a building's energy use, reduce the heat island effect of new and existing development and provide other ecological benefits.

3.5.2 Existing Energy Use

Total energy usage in California was approximately 7,684 trillion British thermal units (Btu) in the year 2013, the most recent year for which this data was available.[10] The breakdown by sector was approximately 19 percent (1,480 trillion Btu) for residential uses, 19 percent (1,812 trillion Btu) for commercial uses, 23 percent (2,908 trillion Btu) for industrial uses, and 38 percent (3,000 trillion Btu) for transportation.[11] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

The project site is currently undeveloped with numerous trees growing throughout the two parcels. There is no existing energy use on the project site, however, there is a PG&E substation just to the south of the site. Substations act as junctions within the electricity grid by using transformers to lower the voltage of electricity, thereby facilitating the connection of the transmission system and distribution system.[12]

3.5.2.1 *Electricity*

Electricity supply in California involves a complex grid of power plants and transmission lines. In 2014, California produced approximately 68 percent of the electricity it consumed, and imported the remaining 30 percent from 11 western states, Canada, and Mexico.[13]

The bulk of California's electricity comes from power plants. Statewide electricity consumption in 2014 was 293,268 gigawatt-hours (GWh), with a one percent decrease from 2013. Updated forecasts for electricity consumption statewide show a projected increase to 297,618-322,266 GWh in 2025.[14]

Pacific Gas and Electric (PG&E) is Mountain View's energy utility, providing both natural gas and electricity for residential, commercial, industrial, and municipal uses. In 2014, 24 percent of the electricity delivered by PG&E to its customers was generated by natural gas, 21 percent by nuclear, eight percent by large hydroelectric, and 21 percent from unspecified sources (these sources typically represent purchases of electricity from out of State). Renewable sources such as rooftop photovoltaic systems, biomass power plants, and wind turbines, accounted for the remaining 27 percent of

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[10] United States Energy Information Administration. *Table C4. Total End-Use Energy Consumption Estimates, 2010.* Accessed January 29, 2016. Available at: http://www.eia.gov/beta/state/seds/data.cfm?incfile=/state/seds/sep_sum/html/sum_use_tx.html&sid=CA

[11] United States Energy Information Administration. *Table C1. Energy Consumption Overview: Estimates by Energy Source and End-Use Sector, 2013.* Accessed January 29, 2016. Available at: http://www.eia.gov/beta/state/seds/data.cfm?incfile=/state/seds/sep_sum/html/sum_btu_1.html&sid=CA

[12] PG&E. "Current Electric Grid." Accessed September 2, 2015. Available at: http://www.pge.com/en/safety/systemworks/electric/currentgrid/index.page

[13] California Energy Commission, Energy Almanac. *California Electricity Statistics and Data.* 2014. Accessed January 29, 2016. Available at: http://energyalmanac.ca.gov/electricity/

[14] California Energy Commission. *2015 Integrated Energy Policy Report* (CEC-100-2015-001-CMF). 2015. Page 171. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-01/TN210036_20160127T151510_2015_Integrated_Energy_Policy_Report_Proposed_for_Adoption.pdf

PG&E's electricity portfolio.[15] According to the Mountain View Greenhouse Gas Reduction Program, additional greenhouse gas-free electricity will be made available to customers in Mountain View.[16] Mountain View's electricity is transmitted from power plants via high-voltage transmission lines to the Whisman and Mountain View substations, where transformers reduce the voltage[17] for local use.[18]

Electricity usage for different 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 used in the Pacific Gas and Electric (PG&E) Planning Area, within which the project is located, is consumed primarily by the commercial sector (41 percent), the residential sector (31 percent), and the industrial sector (approximately 16 percent).[19]

3.5.2.2 *Natural Gas*

In 2013, approximately 10 percent of California's natural gas supply came from in-state production, while 90 percent was imported from other western states and Canada.[20] PG&E supplies Mountain View with natural gas through underground high-pressure pipes.

The most recent data from the US Energy Information Administration shows that in 2014, approximately 36 percent of the natural gas delivered for consumption in California was for electricity generation, 35 percent for industrial uses, 17.5 percent for residential uses, 11 percent for commercial uses, and less than one percent for transportation.[21] 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.

3.5.2.3 *Fuel for Motor Vehicles*

California accounts for more than six percent of the United States' crude oil production and petroleum refining capacity.[22] Nearly 18 billion gallons of gasoline, diesel, and jet fuel are consumed in California each year.[23] 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-

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[15] Due to rounding conventions, the numbers disclosed by PG&E do not add up to 100 percent. Source: Pacific Gas & Electric. *PG&E's 2014 Electric Power Mix Delivered to Retail Customers.* N.d. Accessed January 29, 2016. Available at: http://pge.com/includes/docs/pdfs/myhome/myaccount/explanationofbill/billinserts/11.15_PowerContent.pdf

[16] City of Mountain View. *Mountain View Greenhouse Gas Reduction Program.* August 2012.

[17] Voltage is the measure of electrical potential energy between two points.

[18] City of Mountain View. *2030 General Plan.* July 10, 2012.

[19] California Energy Commission, Energy Consumption Data Management System. *Electricity Consumption by Planning Area, 2014*. Accessed January 29, 2016. Available at: http://ecdms.energy.ca.gov/elecbyplan.aspx

[20] California Energy Commission. *Natural Gas Supply by Region*. 2013. Accessed January 29, 2016. Available at: http://www.energyalmanac.ca.gov/naturalgas/natural_gas_supply.html

[21] US Energy Information Administration. *Natural Gas Summary*. January 31, 2013. Accessed January 23, 2014. Available at: http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm

[22] US Energy Information Administration. *Natural Gas Summary*. Accessed January 29, 2016. Available at: http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm

[23] California Energy Commission. *Draft Integrated Energy Policy Report Update* (CEC-100-2014-001-CMF). 2011. Page 8. Available at: http://www.energy.ca.gov/2014publications/CEC-100-2014-001/CEC-100-2014-001-CMF-small.pdf

gallon (mpg) in the mid-1970's to 24.3 mpg in 2014.[24] In 2012, the federal government raised the fuel economy standard to 54.5 miles per gallon for cars and light-duty trucks by Model Year 2025.[25]

3.5.3 Energy Impacts

3.5.3.1 *Thresholds of Significance*

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

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

3.5.3.2 *Energy Use*

The project proposes to develop an approximately 9.7-acre site with a 200,000-square-foot office building, 180,000-square-foot hotel, and a 269,000-square-foot above-grade parking garage. Energy would be consumed during both the construction and operational phases of the proposed project. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., grading), and the actual construction of the buildings. The operation of the proposed office and hotel uses would consume energy (in the form of electricity and natural gas) for building heating and cooling, lighting, and water heating. Operational energy would also be consumed during each vehicle trip associated with the proposed use.

Table 3.5-1 shows the estimated annual energy usage for the proposed project. It is estimated that the proposed development would have an annual energy use of roughly 6,227,060 kWh/year in electricity usage, 10,800 million BTUs (approximately 10.02 million cubic feet) of natural gas, and 302,668 gallons of gasoline.[26] For electricity, this would represent less than two percent of the usage of the commercial sector in Mountain View consumed in 2005, and an increase of approximately 1.3 percent over existing conditions.[27] This is not considered substantial increase in demand for energy resources in relation to California, PG&E, and Mountain View's projected supplies.

Impact EN-1: The proposed project, including the off-site improvements, would not result in a substantial increase in demand upon energy resources in relation to projected supplies. **[Less than Significant Impact]**

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[24] United States Environmental Protection Agency. *Light-Duty Automotive Technology, Carbon Dioxide Emissions and Fuel Economy Trends: 1975 through 2015.* Accessed January 29, 2016. Available at: http://www.epa.gov/otaq/fetrends.htm

[25] National Highway Traffic Safety Administration. *Obama Administration Finalizes Historic 54.5 mpg Fuel Efficiency Standards.* August 28, 2012. Available at: http://www.nhtsa.gov/About+NHTSA/Press+Releases/2012/Obama+Administration+Finalizes+Historic+54.5+mpg+Fuel+Efficiency+Standards

[26] The proposed project is estimated generate a total of approximately 6,840,306 annual vehicle miles traveled. Based on the US EPA estimated average fuel economy rate of 22.6 miles per gallon for light-duty vehicles, the proposed project would use approximately 302,668 gallons of gasoline a year.

[27] City of Mountain View. *Mountain View General Plan Update Current Conditions Report: Chapter 13, Sustainability*. Table 13-4, "Total PG&E Energy Consumed in Mountain View, 2005." 2009.

Table 3.5-1: Estimated Annual Average Energy Use				
Type of Energy	**Factor[1]**	**Existing Energy Use**	**Total Project Energy Use**	**Project Energy Use Increase**
Electricity (Hotel)	9.10 kWh/sq ft	0 kWh	1,638,000 kWh	1,638,000 kWh
Electricity (Office)	13.88 kWh/sq ft	0 kWh	2,776,000 kWh	2,776,000 kWh
Electricity (Parking)	6.74 kWh/sq ft	0 kWh	1,813,060 kWh	1,813,060 kWh
Total Electricity		**0 kWh**	**6,227,060 kWh**	**6,227,060 kWh**
Natural Gas (Hotel)	.04 MMBtu/sq ft	0 MMBtu	7,200 MMBtu	7,200 MMBtu
Natural Gas (Office)	.02 MMBtu/sq ft	0 MMBtu	3,600 MMBtu	3,600 MMBtu
Total Natural Gas		**0 MMBtu**	**10,800 MMBtu**	**10,800 MMBtu**
Total Gasoline (Hotel & Office)	24.3 mpg[2]	**0 gallons**	**302,668 gallons**	**302,668 gallons**

Notes: kwh: Kilowatt hours, MMBtu: Million Btus, sq ft: square feet
[1] Factor based on information contained in Appendix B of the CalEEMod User Guide.
[2] For 2014 light-duty vehicles, the EPA estimates an average mpg of 24.3.

3.5.3.3 *Energy Efficiency*

While the development of the project site would increase overall energy usage, the proposed project would not use fuel or energy in a wasteful manner. The project's development standards would incorporate sustainable design and green building principles that promote energy efficiency and conservation, in accordance with City guidelines and currently accepted best practices.

The proposed development would be constructed to meet or exceed the state energy efficiency standards (i.e., Part 6 of Title 24 of the California Code of Regulations). In addition, the development of an underutilized site in a developed area takes advantage of existing infrastructure and reduces the energy required to provide utilities and services to the site.

The project proposes to develop an office building, hotel, and parking garage on an undeveloped site within a developed, urban area. As required under the City of Mountain View Greenhouse Gas Reduction Program (GGRP), a Transportation Demand Management (TDM) Plan has been prepared and would be implemented by the proposed project. Examples of the trip reduction measures included in the Moffett Gateway TDM Plan include a formal ridesharing program, the provision of

long-haul bus service and short-distance shuttles to and from the Mountain View Transit Center, pedestrian improvements, bicycle amenities, employee transit passes, emergency-ride-home program, accessible bikesharing and carsharing, flexible work schedules, and financial incentives. The measures included in the Moffett Gateway TDM Plan would reduce peak hour office trips by 20 percent reducing the number of vehicle miles traveled and the amount of gasoline used.

Impact EN-2: The proposed project, including the off-site improvements, would not use energy in a wasteful manner. **[Less than Significant Impact]**

3.5.4 Conclusion

Impact EN-1: The proposed project, including the off-site improvements, would not result in a substantial increase in demand upon energy resources in relation to projected supplies. **[Less than Significant Impact]**

Impact EN-2: The proposed project, including the off-site improvements, would not use energy in a wasteful manner. **[Less than Significant Impact]**

3.6 GEOLOGY AND SOILS

The following discussion of the geologic features, soils, and seismic conditions of the project site is based in part on a Geotechnical Investigation prepared by *Cornerstone Earth Group* in November 2015. The Geotechnical Investigation is attached as Appendix E of this EIR.

3.6.1 Regulatory Background

The following laws and regulations related to geology and soils are applicable to the proposed project.

3.6.1.1 *State Statutes and Regulations*

Alquist-Priolo Earthquake Fault Zoning (AP) Act

The Alquist-Priolo Earthquake Fault Zoning (AP) Act was passed into law following the destructive 1971 San Fernando earthquake. The AP Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the AP Act is to ensure 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.

Seismic Hazards Mapping Act (SHMA)

Following the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act (SHMA) was passed by the California legislature in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, and other seismic hazards. The SHMA established a state-wide mapping program to identify areas subject to violent shaking and ground failure; the program is intended to assist cities and counties in protecting public health and safety. The SHMA requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. As a result, the California Geological Survey (CGS) is mapping SHMA Zones and has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, ground shaking, and landslides: the central San Francisco Bay Area and Los Angeles basin.

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. 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 California Building Standards Code 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 of one or more buildings greater than 4,000 square feet to evaluate geologic and seismic hazards.

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. Requirements for the geotechnical investigation are presented in Chapter 16 "Structural Design" and Chapter 18 "Soils and Foundation" of the CBC.

3.6.1.2 *City of Mountain View 2030 General Plan*

The goals and policies of the City of Mountain View 2030 General Plan provide vital direction for the future of the City and its residents. *Infrastructure and Conservation* and *Public Safety* goals and policies set forth the City's commitment to the use of appropriate design and construction to minimize the impacts of seismic hazards and to provide for emergency response. Key policies related to geology and soils and applicable to the proposed project include:

PSA 5.1: New development. Ensure new development addresses seismically induced geologic hazards.

PSA 5.2: Alquist-Priolo zones. Development shall comply with the Alquist-Priolo Earthquake Fault Zoning Act.

3.6.1.3 *City of Mountain View City Code*

The City of Mountain View has adopted the California Building Code (CBC), with amendments, as the reference building code for all projects in the City under Chapter 8 of the City's Code of Ordinances. The City of Mountain View's Building Inspection Division, which is part of the Community Development Department, is responsible for reviewing plans, issuing building permits, and conducting field inspections. Geotechnical investigation reports, as required by the CBC, would be reviewed by the City of Mountain View's Building Inspection Division prior to issuance of building permits to ensure compliance.

3.6.2 Existing Setting

3.6.2.1 *Geologic Setting and Topography*

The project site is located within the Santa Clara Valley, which is a broad alluvial plane 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. Alluvial soil thickness in the area is mapped to be on the order of 400 to 500 feet thick. The elevation of the project site is approximately 38 to 53 feet above mean sea level.

3.6.2.2 *Soil Properties and Groundwater*

The site is generally level with some fill mounds and soil stockpiles. Undocumented fill was found on the project site consisting primarily of very stiff to hard lean clays with variable amounts of sand and gravel to depths ranging from about one-half to five feet below the ground surface. The

expansion potential of the surficial soils was evaluated. The results show that the surficial clayey soils have a moderate to high soil expansion potential.

Groundwater was encountered on-site at depths ranging from approximately 13 to 15 feet below current grades during the soil borings completed for the Geotechnical Investigation. Historic high groundwater levels are mapped at a depth of approximately four to five feet below current grades. Fluctuations in groundwater levels occur due to many factors including seasonal fluctuation, underground drainage patterns, and regional fluctuations, along with other factors.[28]

3.6.2.3 *Seismicity*

The project site is located within the seismically-active San Francisco Bay region, however, it is not located within a designated Alquist-Priolo Earthquake Fault Zone or a Santa Clara County Fault Hazard Zone. There are three major active faults in the project vicinity: the San Andreas Fault, approximately 7.9 miles to the southwest; the Calaveras Fault, approximately 14.5 miles to the northeast; and the Hayward Fault, approximately 11.7 miles to the northeast. The smaller Monte Vista-Shannon Fault is five miles southwest of the project site. There are no known earthquake faults crossing the site and historically, ground failure has not occurred in this area during earthquake events. Local ground cracking, however, is possible due to the high seismic activity of the region, and the potential exists for strong ground shaking at the site from a large earthquake.

3.6.2.4 *Liquefaction*

The site is mapped within a State-designated Liquefaction Hazard Zone as well as a Santa Clara County Liquefaction Hazard Zone. Liquefaction is the result of seismic activity and is characterized as the transformation of loose water-saturated soils from a solid state to a liquid state during ground shaking. Liquefied soils may lose shear strength that may lead to large shear deformations and/or flow failure under moderate to high shear stresses, such as beneath foundations or sloping ground. Field work and testing during preparation of the Geotechnical Investigation (refer to Appendix E) confirmed that on-site soils could experience liquefaction in the event of an earthquake.

3.6.2.5 *Ground Rupture*

Ground rupture or sand boils can occur at sites subject to liquefaction if there is not a sufficient layer (or cap) of non-liquefiable material to prevent ground rupture or sand boils. For ground rupture to occur, the pore water pressure within the liquefiable soil layer needs to be great enough to break through the overlying non-liquefiable layer. Ground rupture can cause significant ground deformation and settlement. Field work and testing during preparation of the Geotechnical Investigation (Appendix E) confirmed that the cap of non-liquefiable material across most of the site is sufficient to prevent ground rupture. Therefore, the potential for liquefied sands to vent to the ground surface through cracks in the surficial soils is low.

[28] Cornerstone Earth Group. Geotechnical Investigation, 750 Moffett Boulevard, Mountain View, CA. November 2015

3.6.2.6 *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 the exposed slope.

Stevens Creek runs adjacent to the western border of the project site. The northern section of the creek channel is lined with concrete; the southern section of the creek is not. The concrete lining of the creek channel would likely prevent lateral spreading along the northern portion of the site. Lateral spreading could occur on the southern portion of the site adjacent to the unlined creek channel.

3.6.2.7 *Differential Settlement*

Loose unsaturated sandy soils can settle during strong seismic shaking. The soils encountered at the surface of the site and above groundwater (i.e., unsaturated) were predominantly very stiff to hard clays. As a result, the potential for substantial differential settlement on the site during a strong seismic event is considered low.

3.6.3 Geology and Soil Impacts

3.6.3.1 *Thresholds of Significance*

Appendix G to the CEQA Guidelines suggests that 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; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- 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 Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
- 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 wastewater.

As previously discussed in Section 3.0, on December 17, 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 unless the project could exacerbate the existing environmental hazards or risks. The proposed project would not exacerbate existing geology and soil conditions in the project area; therefore, the proposed project would not result in geology and soils impacts. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project. The City has, therefore, included planning considerations relating to these policies and regulations for information only.

3.6.3.2 *Soil Related Issues*

Expansive Soils

On-site soils have the potential for expansion, which can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. The proposed project, including the off-site improvements, would not exacerbate the existing condition of expansive soils. Therefore, there would be no CEQA impact. City of Mountain View Standard Conditions of Approval would be incorporated into the project to address the effects of existing expansive soils on the proposed project.

Impact GEO-1: The proposed project, including the off-site improvements, would not exacerbate the hazards of the existing expansive soils on the project site. **[No Impact]**

Undocumented Fill

As discussed above, undocumented fill was encountered on the site. The undocumented fill is expected to vary in thickness, density, and consistency across the site. Undocumented fill can result in various geology and soil hazards including, but not limited to, differential settlement. The proposed project, including the off-site improvements, would not exacerbate the existing condition of undocumented fill on the project site. Therefore, there would be no CEQA impact. City of Mountain View Standard Conditions of Approval would be incorporated into the project to address the effects of existing undocumented fill on the proposed project.

Impact GEO-2: The proposed project, including the off-site improvements, would not exacerbate the hazards of the existing undocumented fill on the project site. **[No Impact]**

Landslide and Erosion Hazards

Due to the relatively flat topography of the site and surrounding area, there are no existing slope instability, erosion, or landslide related hazards. The proposed project, including the off-site improvements, would not cause or exacerbate a landslide or erosion hazard. Therefore, there would be no CEQA impact.

Impact GEO-3: The proposed project would not cause or exacerbate landslide or erosion-related hazards. **[No Impact]**

3.6.3.3 *Seismicity and Seismic Hazards*

Seismicity

The project site is located in a seismically-active region and as such, would likely be subject to strong to very strong earthquake-induced ground shaking during the lifetime of the proposed project. While there are no known active faults crossing the project site, ground shaking on site from regional fault rupture could damage structures and threaten future occupants of the proposed development. The proposed project, including the off-site improvements, would not exacerbate ground shaking in the project area. Therefore, there would be no CEQA impact. City of Mountain View Standard Conditions of Approval would be incorporated into the project to address the effects of ground shaking on the proposed project.

Impact GEO-4: The proposed project would not exacerbate ground shaking in the project area. **[No Impact]**

Liquefaction

The site is mapped within a State-designated Liquefaction Hazard Zone as well as a Santa Clara County Liquefaction Hazard Zone. Field work and testing during preparation of the Geotechnical Investigation (refer to Appendix E) confirmed that on-site soils could experience liquefaction during a seismic event. Settlement resulting from on-site soil liquefaction could damage the buildings and other on-site improvements proposed by the project. The proposed project, including the off-site improvements, would not exacerbate the existing risk of liquefaction. Therefore, there would be no CEQA impact. City of Mountain View Standard Conditions of Approval would be incorporated into the project to address the effects of liquefaction on the proposed project.

Impact GEO-5: The proposed project, including the off-site improvements, would not exacerbate the existing risk of liquefaction. **[No Impact]**

Ground Rupture

Field work and testing during preparation of the Geotechnical Investigation (Appendix E) confirmed that the cap of non-liquefiable material across most of the site is sufficient to prevent ground rupture and the potential for liquefied sands to vent to the ground surface through cracks in the surficial soils is low. The proposed project, including the off-site improvements, would not exacerbate the existing risk of ground rupture. Therefore, there would be no CEQA impact.

Impact GEO-6: The proposed project, including the off-site improvements, would not exacerbate the existing risk of ground rupture. **[No Impact]**

Lateral Spreading

Stevens Creek runs along the western border of the project site. The proposed parking garage and office building would be located approximately 56 and 75 feet from the top of bank of Stevens Creek, respectively. The northern section of the creek channel along the proposed parking garage is lined with concrete. The concrete lining of this section of creek would likely prevent lateral spreading from occurring and affecting the parking garage and improvements adjacent to this section of creek.

The section of Stevens Creek along the office building is not concrete lined. Field work and testing during preparation of the Geotechnical Investigation (refer to Appendix E) confirmed the potential for lateral spreading to occur along this portion of the site is low. For these reasons, the proposed project, including the off-site improvements, would not increase the risk of lateral spreading. Therefore, there would be no CEQA impact.

Impact GEO-7: The proposed project, including the off-site improvements, would not increase the risk of lateral spreading. **[No Impact]**

3.6.4 Planning Considerations

The following City of Mountain View Standard Condition of Approval would be incorporated into the project to address the effects of the existing geology and soil hazards at the project site upon the proposed project:

GEOTECHNICAL REPORT: The applicant shall have a design-level geotechnical investigation prepared which includes recommendations to address and mitigate geologic hazards in accordance with the specifications of California Geological Survey (CGS) Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards, and the requirements of the Seismic Hazards Mapping Act. The report will be submitted to the City prior to the issuance of building permits, and the recommendations made in the geotechnical report will be implemented as part of the project. Recommendations may include considerations for design of permanent below-grade walls to resist static lateral earth pressures, lateral pressures causes by seismic activity, and traffic loads; method for backdraining walls to prevent the buildup of hydrostatic pressure; considerations for design of excavation shoring system; excavation monitoring; and seismic design.

3.6.5 Conclusion

Impact GEO-1: The proposed project, including the off-site improvements, would not exacerbate the hazards of the existing expansive soils on the project site. **[No Impact]**

Impact GEO-2: The proposed project, including the off-site improvements, would not exacerbate the hazards of the existing undocumented fill on the project site. **[No Impact]**

Impact GEO-3: The proposed project, including the off-site improvements, would not cause or exacerbate landslide or erosion-related hazards. **[No Impact]**

Impact GEO-4: The proposed project, including the off-site improvements, would not exacerbate ground shaking in the project area. **[No Impact]**

Impact GEO-5: The proposed project, including the off-site improvements, would not exacerbate the existing risk of liquefaction. **[No Impact]**

Impact GEO-6: The proposed project, including the off-site improvements, would not exacerbate the existing risk of ground rupture. **[No Impact]**

Impact GEO-7: The proposed project, including the off-site improvements, would not increase the risk of lateral spreading. **[No Impact]**

3.7 GREENHOUSE GAS EMISSIONS

The following discussion is based upon a Greenhouse Gas Assessment completed for the project site by *Illingworth & Rodkin, Inc.* in March 2016.

3.7.1 Background Information

Unlike emissions of criteria and toxic air pollutants, which are discussed in Section 3.2, *Air Quality* and have local or regional impacts, emissions of Greenhouse Gases (GHGs) have a broader, global impact. Global warming associated with the "greenhouse effect" is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere over time. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors.

3.7.2 Regulatory Setting

This section describes applicable state and local regulations that pertain to greenhouse gas emissions.

3.7.2.1 *State Regulations*

California Assembly Bill 32 and Executive Order S-3-05

The Global Warming Solutions Act (Assembly Bill (AB) 32) was passed in California in September 2006 to address the State's contribution to global climate change. Assembly Bill 32 requires that GHG emissions in California be reduced to 1990 levels by 2020. In June 2005 the Governor of California signed Executive Order S-3-05, identifying CalEPA as the lead coordinating State agency for establishing climate change emissions reduction targets in California. Under Executive Order S-3-05, the State plans to reduce GHG emissions to 80 percent below 1990 levels by 2050.

In December 2008, the California Air Resources Board (CARB) approved the Climate Change Scoping Plan, which proposes a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 greenhouse gas reduction goal. In May 2014, CARB adopted an updated Scoping Plan document. The 2014 Update defines CARB's climate change priorities for the next five years and lays the groundwork to start the transition to the post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012 (see below). The 2014 Update highlights California's progress toward meeting the "near-term" 2020 greenhouse gas emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State's longer-term greenhouse gas reduction strategies with other State policy priorities, such as for water, waste, natural resources, agriculture, clean energy, and transportation and land use.

In addition to AB 32 and Executive Order S-3-05, Executive Order B-16-2012 established benchmarks for increased use of zero emission vehicles and zero emission vehicle infrastructure by 2020 and 2025.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, setting a new interim statewide greenhouse gas emission reduction target. The purpose of establishing the interim target is to ensure California meets its previously established target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050, as set forth in Executive Order S-3-05 in 2005. Under Executive Order B-30-15, the interim target is to reduce greenhouse gas emissions 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 of carbon dioxide equivalent. The updated Scoping Plan will provide a framework for achieving the 2030 target and will be completed and adopted by the Air Resources Board in 2016.

Senate Bill 375 – Sustainable Communities Strategy

Senate Bill 375 (SB 375), known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. It builds on AB 32 by requiring CARB to develop regional greenhouse gas reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 when compared to emissions in 2005. The per capita 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. Under SB 375, the region's Metropolitan Planning Organizations (MPOs) must create a Sustainable Communities Strategy (SCS), to provide an integrated land use/transportation plan for meeting regional targets, consistent with the Regional Transportation Plan (RTP).

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) adopted Plan Bay Area, which includes an SCS and the 2040 RTP for the region, in July 2013. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. The project site is not within a PDA.

California Environmental Quality Act (CEQA)

As outlined in Section 15183.5 of the CEQA Guidelines (Tiering and Streamlining the Analysis of Greenhouse Gas Emissions), public agencies may analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions that has been adopted in a public process following environmental review. The City of Mountain View adopted a Greenhouse Gas Reduction Program as a part of the City's General Plan Update on July 10, 2012.

3.7.2.2 *Regional and Local*

Bay Area 2010 Clean Air Plan

The Bay Area 2010 Clean Air Plan (2010 CAP) addresses air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the CAP is climate protection. The CAP includes emission control measures and performance objectives, consistent with the state's climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHGs to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program

The City of Mountain View certified the General Plan and Greenhouse Gas Reduction Program EIR and adopted the Mountain View 2030 General Plan and Greenhouse Gas Reduction Program (GGRP) in July 2012. The General Plan is the guiding document for future growth of the City. The GGRP is a separate but complementary document and long-range plan that implements the greenhouse gas emissions reduction goals of the General Plan, and serves as a programmatic greenhouse gas reduction strategy for CEQA tiering purposes. The GGRP includes goals, policies, performance standards, and implementation measures for achieving GHG emission reductions, to meet the requirements of AB 32.

In June 2010, the BAAQMD produced updated CEQA guidelines to implement the new State CEQA Guidelines on GHG emissions. The GGRP is also intended to meet the mandates as outlined in the BAAQMD CEQA Air Quality Guidelines and the recent standards for "qualified plans" as set forth by BAAQMD.

Individual development projects that comply with the GGRP can be determined to not have cumulatively considerable greenhouse gas emissions impacts under CEQA (CEQA Guidelines Section 15183.5).

3.7.3 Existing Conditions

The project site is undeveloped. Because the site is currently undeveloped, there are no direct or indirect GHG emissions associated with the site.

3.7.4 Greenhouse Gas Impacts

3.7.4.1 *Thresholds of Significance*

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

- Generate 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.

Per the BAAQMD CEQA Air Quality Guidelines and Section 15183.5 of the CEQA Guidelines, compliance with a qualified greenhouse gas reduction strategy is one method of showing less than significant GHG emissions. The City of Mountain View has adopted a qualified GHG reduction strategy, the GGRP. The GGRP includes a goal to improve communitywide per-service population emissions efficiency by 15 to 20 percent over 2005 levels by 2020. This would achieve annual emissions of 5.1 to 5.4 MT CO_2 equivalent per service population (CO_2e/SP).

Since the proposed project requires a General Plan Amendment, the consistency of the project's emissions was evaluated by computing GHG emissions from the project and comparing them to the City's GGRP minimum goal of 5.4 MT CO_2e/SP per year for the year 2020 and the GGRP year 2030 goal of 4.5 MT CO_2e/SP per year. Project consistency with GHG reduction measures outlined in the GGRP that apply to non-residential development projects was also evaluated. Emissions of GHG are computed as CO_2 equivalent (CO_2e), which considers the global warming potential of gases other than CO_2 that are emitted from typical land use projects, such as methane and nitrous oxide.

3.7.4.2 *Greenhouse Gas Emissions Impacts from the Project*

Construction Emissions

Construction phases would include demolition, site preparation, site grading, trenching, paving, building construction, and application of architectural coatings. Annual CO_2 emissions associated with construction would occur from late 2016 through 2017, and well into 2018. Under this scenario, construction of the project, including the off-site improvements, was calculated to emit 1,451 metric tons (MT) of CO_2e. Neither the City of Mountain View nor BAAQMD have quantified thresholds for construction activities. In any one year, however, the annual GHG emissions during construction would be below the lowest project emission threshold considered by BAAQMD (i.e., 1,100 MT of CO_2e per year).

Global Climate Change Impacts from Project Operation Based on Consistency with the Mountain View GGRP

The California Emissions Estimator model (CalEEMod) along with the project vehicle trip generation rates, energy usage, water usage, and solid waste generation were used to predict operational period GHG emissions associated with operation of a fully developed site under the proposed project. Operation of the proposed off-site improvements would not generate GHG emissions.

The operational period GHG emissions of the fully developed site were estimated for the year 2019, which would be the first year of operation. The year 2019 emissions would be 3,859 MT of CO_2e/yr. The total project service population would be 784 workers, which includes 64 workers for the hotel and 720 workers for the office. The resulting per capita emissions would be 4.9 MT CO_2e/SP per year for the year 2019 and are below the City's GGRP year 2020 goal of 5.4 MT of CO_2e/SP per year. The operational period GHG emissions from operation of the fully developed site were also estimated for the year 2030. The year 2030 emissions would be 3,555 MT of CO_2e/yr. With the service population of 784 workers, the year 2030 per capita emissions would be 4.5 MT CO_2e/SP per year. These emissions would not exceed the City's GGRP year 2030 service population emissions efficiency goal of 4.5 MT of CO_2e/SP per year.

Table 3.7-1, below, evaluates the project's consistency with GHG reduction measures outlined in the GGRP that apply to non-residential development projects. As shown in Table 3.7-1, the project incorporates all mandatory GGRP measures and a voluntary measure. For these reasons and those stated above, GHG emissions associated with the project would not be significant.

Table 3.7-1: Project Consistency Analysis with GGRP

GGRP Measure	Description	Project Consistency Analysis
Mandatory Measure E-1.3 – Non-Residential Lighting Retrofit	Enforce the Building Code to require all non-residential tenant improvements larger than 15,000 square feet improve lighting to 10% above 2008 Title-24 standards.	Consistent. The project would involve new construction of commercial and retail developments of more than 15,000 square feet. The project would be compliant with the standards of LEED Gold (office) and LEED Silver (hotel). The project would improve upon 2008 Title-24 standards by more than 10%.
Mandatory Measure E-1.7 – Exceed State Energy Standards in New Non-Residential Development	New non-residential development must comply with the Mountain View Green Building Code (MVGBC) which stipulates that new non-residential projects must exceed 2008 Title-24 standards by 10% and new hotels must exceed 2008 Title-24 standards by 7%.	Consistent. The project includes energy efficiency measures to ensure the 2008 Title-24 standards are exceeded by 10%. The project would be compliant with the standards of LEED Gold (office) and LEED Silver (hotel) and would include solar water heating for the hotel.
Voluntary Measure E-2.2 – Non-Residential Solar Water Heaters	City outreach program and removal of regulatory barriers to solar water heater installation.	Consistent. The project includes solar water heating for the hotel.
Mandatory Measure SW-1.1: Implementation of Zero-Waste Plan	The City will seek to implement higher waste diversion standards over time and will require compliance with its Construction and Demolition Ordinance, requiring construction and demolition projects greater than 5,000 square feet to divert a minimum of 50% of debris from the landfill.	Consistent. The project would comply with the Construction and Demolition Ordinance.

Table 3.7-1: Project Consistency Analysis with GGRP		
GGRP Measure	**Description**	**Project Consistency Analysis**
Mandatory Measure W-1.1: Urban Water Management Plan Conservation Strategies	The City will implement conservation programs identified within the 2010 Urban Water Management Plan, including implementation of the Mountain View Landscaping Regulations (reducing water waste in landscaping) and the Mountain View Green Building Code (requiring new and renovated buildings to use water-efficient plumbing fixtures or demonstrate 20% reductions from baseline water use).	Consistent. The project would comply with the Mountain View Landscaping Regulations and Green Building Code to reduce water use.
Mandatory Measure T-1.1 – Transportation Demand Management	Requires the City to adopt a Transportation Demand Management (TDM) ordinance that specifies all new non-residential development, generating 50 employees or more, to reduce home-based, drive-alone peak hour commute trips.	Consistent. The project includes a TDM plan to reduce employee VMT. The TDM plan includes the following features: • Bicycle measures including infrastructure improvements, parking, showers, lockers, and bike repair facilities. • Building design elements to encourage pedestrians, telecommuters, bicyclists and ride-sharers. • Preferred parking for ridesharing. • Proximity to transit and bike routes. • Guaranteed Ride Home Program. • Pre-tax commuter benefits. • Long-haul bus service. • Participation in Transportation management Association. • Shuttles to public transit with on-site shuttle stop

Consistency with Plan Bay Area (SB 375 Implementation) and the 2010 CAP

The proposed project, which is infill development, would not conflict with the latest clean air planning efforts. The site is not within a priority development area (PDA) identified by the City of Mountain View and in Plan Bay Area.[29] As required under the City of Mountain View GGRP, a Transportation Demand Management (TDM) Plan has been prepared and would be implemented by the proposed project. Examples of the trip reduction measures included in the Moffett Gateway TDM Plan include a formal ridesharing program and the provision of long-haul bus service and short-distance shuttles to and from the Mountain View Transit Center along with other measures, including pedestrian improvements, bicycle amenities, employee transit passes, emergency-ride-home program, accessible bikesharing and carsharing, flexible work schedules, and financial incentives. The measures included in the Moffett Gateway TDM Plan are consistent with the Transportation Control Measures (TCMs) identified in the Clean Air Plan and would reduce peak hour office trips by 20 percent, reducing the number of vehicle miles traveled and the amount of gasoline used. For these reasons, the proposed project is consistent with Plan Bay Area and the 2010 CAP.

Impact GHG-1: The proposed project, including the off-site improvements, would be consistent with the City of Mountain View GGRP and, therefore, would not result in significant operational-related greenhouse emissions. The project would not conflict with applicable plans, policies, or regulations for reducing greenhouse gas emissions adopted by the State of California, regional agencies, or the City of Mountain View. **[Less than Significant Impact]**

3.7.5 Conclusion

Impact GHG-1: The proposed project, including the off-site improvements, would be consistent with the Mountain View Greenhouse Gas Reduction Program and, therefore, would not result in significant operational-related greenhouse emissions. The project would not conflict with applicable plans, policies, or regulations for reducing greenhouse gas emissions adopted by the State of California, regional agencies, or the City of Mountain View. **[Less Than Significant Impact]**

[29] Association of Bay Area Governments. Metropolitan Transportation Commission. *Plan Bay Area*. July, 2013.

3.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based upon a Hazardous Materials Summary Review completed for the project site by *Cornerstone Earth Group* in April 2016. This report is attached as Appendix F of this EIR.

3.8.1 Background

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include pesticides, herbicides, petroleum products, metals (e.g., lead, mercury, arsenic), asbestos, and chemical compounds used in manufacturing. Determining if such substances are present on or near project sites is important because, by definition, exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology.

Due to the fact that these substances have properties that are toxic to humans and/or the ecosystem, there are multiple regulatory programs in place designed to minimize the chance for unintended releases and/or exposures to occur. Other programs set forth remediation requirements at sites where contamination has occurred.

Hazardous waste generators and hazardous materials users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations are designed to reduce the risk associated with the human exposure to hazardous materials and minimize adverse environmental effects. State and federal construction worker health and safety regulations require protective measures during construction activities where workers may be exposed to asbestos, lead, and/or other hazardous materials.

3.8.2 Regulatory Framework

This section describes applicable federal, state, and local regulations that pertain to hazards and hazardous materials.

3.8.2.1 *Federal Regulations*

Hazards Waste/Material

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes.

Other federal laws include:

- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act

- Occupational Safety and Health Act (OSHA)
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Federal Aviation Administration (FAA)

Restriction on the height of buildings, antennas, trees, and other objects near Moffett Federal Airfield is regulated by the Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77. The FAR Part 77 map is used by the FAA and the Santa Clara County Airport Land Use Commission (ALUC) to identify potential obstructions and hazards to aviation traffic and determine consistency with the CLUP. The project site is mapped within the 182-foot above mean sea level (msl) maximum building height for Moffett Federal Airfield.

3.8.2.2 *State Regulations*

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. In California, the Environmental Protection Agency (EPA) has granted most enforcement authority of federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). Under the authority of Cal/EPA, the Department of Toxic Substances Control (DTSC) or the San Francisco Bay Regional Water Quality Control Board (Water Board) is responsible for overseeing the remediation of contaminated sites in the San Francisco Bay area.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction. The California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH) enforce state worker health and safety regulations related to construction activities. Regulations include exposure limits, protective clothing, and training requirements to prevent exposure to hazardous materials. DOSH also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement, which equal or exceed their federal counterparts.

3.8.2.3 *Local Regulations*

Hazardous Waste/Materials

The routine management of hazardous materials in California is administered under the Unified Program. The Cal/EPA has granted responsibilities to the Santa Clara County Hazardous Materials Compliance Division (HMCD) for implementation and enforcement of hazardous material regulations under the Unified Program as a Certified Unified Program Agency (CUPA). Through a formal agreement with the HMCD, the Mountain View Fire Department (MVFD) implements hazardous materials programs for the City of Mountain View as a Participating Agency within the Unified Program. The Mountain View Fire Department coordinates with the HMCD to implement the Santa Clara County Hazardous Materials Management Plan and to ensure that commercial and

residential activities involving classified hazardous substances are properly handled, contained, and disposed.

Comprehensive Land Use Plan for Moffett Federal Airfield

The proposed project site is approximately 4,000 feet southwest of the Moffett Federal Airfield, the closest airport to the project site. The site is within the Airport Influence Area (AIA) for Moffett Federal Airfield, as described in the Comprehensive Land Use Plan (CLUP) adopted by the Santa Clara County Airport Land Use Commission (ALUC) in November 2012.

Airport Influence Area (AIA): The Airport Influence Area (AIA) is a composite of the areas surrounding the airport that are affected by noise, height, and safety considerations. The AIA is defined as a feature-based boundary around the airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan (CLUP) policies may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions, and noise and safety protection to the public. The project is within the AIA for Moffett Federal Airfield. As shown in the Moffett Federal Airfield CLUP, the project site is mapped within the 182-foot above msl maximum building height and is outside the 65 dB CNEL noise contour.

Mountain View 2030 General Plan

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to hazards and hazardous materials and applicable to the proposed project include:

INC 18.1: Contamination prevention. Protect human and environmental health from environmental contamination.

INC 18.2: Contamination clean-up. Cooperate with local, state and federal agencies that oversee environmental contamination and clean-up.

PSA 3.2: Protection from hazardous materials. Prevent injuries and environmental contamination due to the uncontrolled release of hazardous materials through prevention and enforcement of fire and life safety codes.

PSA 3.4: Oversight agencies. Work with local, state and federal oversight agencies to encourage remediation of contamination and protection of public and environmental health and safety.

3.8.2 Existing Setting

3.8.2.1 *Existing and Historic Site Conditions*

The approximately 9.7-acre project site is currently undeveloped and overgrown with tall grasses, shrubs, and large, mature trees. The site has a history of disturbance and use during construction in surrounding areas. Dirt roads traverse the site, and several soil, mulch, and debris piles are located

on the northern portion of the site. Concrete slabs are located on the southern portion of the site in the area of the former County of Santa Clara Vector Control Yard.

The project site is composed of two parcels; Parcel 1 and Parcel 2, which are both currently undeveloped. Parcel 1 was undeveloped prior to 1939. From 1939 to 1956, the property was developed with a small residential sized structure and row crops. From 1961 to 1970, the property was vacant with no apparent structures. The Vector Control Yard was constructed by the County of Santa Clara (County) in 1970 and was used continuously as this use until 2004 when the Vector Control yard was closed and the structures were demolished and removed from Parcel 1.

The Caltrans property was agricultural from at least 1939 to approximately 1961; it was then developed into a cloverleaf highway ramp and a road connecting Highway 101 and Moffett Boulevard. This use continued into the early 2000s, when the cloverleaf and connecting road were removed by Caltrans during realignment. This property has subsequently remained as undeveloped land.

Site Hydrology

Groundwater was encountered on-site at depths ranging from approximately 13 to 15 feet below current grades during the soil borings completed for the Geotechnical Investigation. Historic high groundwater levels are mapped at a depth of approximately four to five feet below current grades. Fluctuations in groundwater levels occur due to many factors including seasonal fluctuation, underground drainage patterns, and regional fluctuations, along with other factors.[30]

Investigations in the general area have identified three water yielding units beneath the project site, which extend from approximately eight to 12 feet bgs to 250 feet bgs. Groundwater beneath the project site is expected to flow to the north-northwest towards the San Francisco Bay.

Off-site

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E property. The proposed off-site improvements are located adjacent to the project site and, as a result, historic conditions at the locations of the off-site improvement were likely similar to those described above for the project site.

Stevens Creek Corridor

Stevens Creek flows along the western boundary of the project site. The northern half of the creek segment located adjacent to site is lined with concrete to form a trapezoidal channel. The southern half of the creek segment is also channelized but is not concrete lined.

[30] Cornerstone Earth Group. Geotechnical Investigation, 750 Moffett Boulevard, Mountain View, CA. November 2015

Southeast Cloverleaf

The southeast cloverleaf of the US 101/Moffett Boulevard interchange consists of undeveloped land that is covered with trees, shrubs, and grasses.

PG&E Property

The PG&E property is developed with a transformer station, which consists of electrical transformers atop a concrete building pad. The concrete building pad covers most of the PG&E site. The areas adjacent to the concrete building pad consist of bare ground covered with trees, shrubs, and grasses.

3.8.2.2 *Potential Sources of Contamination*

On-Site Contaminants

Parcel 1

The Santa Clara County (County) Vector Control Yard[31] was constructed on Parcel 1 in 1970. The facility was used for storage and handling of flammable materials and pest control products from 1970 to 2003 and has been vacant since 2004. Trichloroethene[32] (TCE) was reportedly used in small quantities for cleaning and may have been a component of stored pesticides.

The Vector Control Yard had three underground storage tanks (USTs) installed in 1970, which reportedly stored weed oil, mosquito larvicide, and gasoline. The USTs were removed in March 1994 and received regulatory closure by the County of Santa Clara Environmental Resources Agency Office of Toxics Enforcement. The County Vector Control Yard operations were relocated in June 2004. The County approved a Closure Application for aboveground hazardous materials storage. The facility closure inspection noted that hazardous materials had been removed from the site, and hazardous materials permits for the site were deactivated.

Due diligence activities at the former Vector Control Yard in 2004 and 2005 by *URS* identified petroleum hydrocarbons (TPH) and organochlorine pesticides in the soil of an unvegetated area, and the area that formerly contained the USTs. *URS* attributed detections of volatile organic compounds (VOCs) in groundwater to off-site sources. Due diligence activities conducted by *Clayton Group Services* in 2005 identified VOC impacts including TCE in soil gas and shallow groundwater at concentrations exceeding regulatory screening levels.

In 2005, petroleum hydrocarbon and pesticide soil impacts were addressed by excavation and removal from three limited areas. In July 2006, the County enrolled the former Vector Control Yard, located on Parcel 1, into a Voluntary Cleanup Agreement (VCA) with the DTSC to address soil impacted with petroleum hydrocarbons associated with the former use of an underground catch basin (later removed). DTSC concluded that the catch basin, which served to settle out sediments from vehicle wash water, was the most likely cause of contamination in soil at that location. DTSC requested that the County further evaluate the historical storage and use of insecticides and

[31] Vector control is a range of methods used to eradicate animals and insects which transmit disease pathogens.
[32] TCE is a halocarbon commonly used as an industrial solvent.

fungicides Vector Control Yard and perform additional testing of fill piles and clearings for organochlorine pesticides, metals, as well as specified insecticides and fungicides. DTSC also requested that the County investigate groundwater gradient, flow direction and quality in the shallow A1 and deeper A2/B1 groundwater bearing zones and assess the utility corridor that passes under the site to determine if it may be a conduit for contaminant migration.

In December 2007, *URS* submitted a Supplemental Environmental Investigation Report, which concluded that the extent of TPH, organochlorine pesticide, and fuel-related VOC impacts identified in soil surrounding the catch basin was limited and had been delineated. Low concentrations of TCE detected in some soil samples collected from the saturated zone or capillary fringe in the catch basin/floor drain and utility corridor areas were attributed to groundwater contaminants. TCE detected in groundwater was attributed, in part, to migration from off-site via the utility corridor.

A Removal Action Work Plan was developed to remove the catch basin and to address the associated residual TPH and fuel-related VOC contamination in soil to achieve conditions considered amenable to redevelopment. Details are presented in the Removal Action Completion Report (URS, April 2009). In a letter dated May 6, 2009, the DTSC issued environmental closure for the contaminated soil removal with no further action required. The City acquired the Vector Control Yard property in September 2009.

Parcel 2

Parcel 2 was used for agriculture from at least 1939 to approximately 1961. The parcel was then developed into a cloverleaf highway ramp and a road connecting Highway 101 and Moffett Boulevard. This use continued into the early 2000s, when the cloverleaf and connecting road were removed by Caltrans during realignment of the highway. The parcel has subsequently remained as undeveloped land. Approximately 40 stockpiles of soil located on Parcel 2, along with approximately 10 piles of debris consisting of wood, concrete, general household items, and landscaping mulch.

Off-Site Contaminants

In 2013, *Bureau Veritas* investigated the distribution and potential sources (including a utility corridor) of groundwater contamination that underlies the project site. The utility corridor transecting the site consists of two storm drain lines (81-inch and 18-inch diameter) and one sanitary sewer line (15-inch diameter). The site investigation included excavating two exploratory trenches to expose the storm and sanitary sewer lines and advancing 17 borings across the site down to a depth of approximately 80 feet to collect over 60 water samples and two soil samples. TCE and other VOCs were detected in the soil vapor, groundwater, and soil samples.

In 2014, *Bureau Veritas* installed ten ground water monitoring wells on the project site. Distinct TCE ground water plumes were noted on the western portion of the property near the former Vector Control Yard office building and in the eastern portion of the property along the utility corridor. The greatest TCE concentration was detected in ground water sampled near the sanitary sewer line near the eastern boundary of the project site.

Middlefield-Ellis-Whisman (MEW) Superfund Study Area

In the 1960s and 1970s, several industries involved in the semiconductor, electronics, and other manufacturing and research contaminated the soil and groundwater with VOCs; primarily TCE. These companies were located in an area now referred to as the Middlefield-Ellis-Whisman (MEW) Superfund Study Area, which is named for the three streets that generally bound the source areas of contamination: Middlefield Road, Ellis Street, and Whisman Road. The MEW Superfund Study Area includes three Superfund sites: Fairchild Semiconductor Corporation, Raytheon Company, and Intel Corporation along with several other facilities and portions of the former Naval Air Station (NAS) Moffett Field Superfund site.

The US EPA is the lead regulatory agency responsible for directing the cleanup process under CERCLA for the MEW Superfund Study Area. The primary chemicals of concern with the MEW Superfund Study Area are TCE and its degradation products. The US EPA anticipates that the ground water remediation will continue for decades in order to meet cleanup standards.

In 2005 and 2011 to 2014, USEPA and MEW Regional Program conducted ground water sampling in the vicinity of the known Regional Plume area to determine whether the TCE contamination occurs in shallow ground water (ground water within approximately 40 feet of the surface) of areas beyond the estimated boundaries of the Regional Plume area. In 2013, EPA collected shallow ground water samples at numerous locations along the sanitary sewer system route and the storm water drainage route. Several locations along the sanitary sewer line were identified with elevated concentrations of TCE in ground water. The greatest concentrations were detected near the sanitary sewer line located near the boundary of 850 and 870 Leong Drive.

The US EPA identified a Vapor Intrusion Evaluation Area to assess potential TCE vapor intrusion. The project site is located within this Vapor Intrusion Evaluation Area. Laboratory analyses detected TCE at concentrations exceeding commercial screening levels in 35 of 38 samples.

Aerially Deposited Lead

As discussed above, the northern portion of the project site (Parcel 2) was developed into a cloverleaf highway ramp and a road connecting Highway 101 and Moffett Boulevard in 1961. This use continued into the early 2000s, when the cloverleaf and connecting road were removed by Caltrans during realignment. The parcel has subsequently remained as undeveloped land. Prior to 1940 through the mid-1980s, tetraethyl lead was commonly used in gasoline (used for vehicles) and is sometimes found in exposed soils (due to aerial deposit) that are within proximity to highways. As a result, it is possible that on-site soils within and near Parcel 2 contain elevated levels of lead.

Agricultural Pesticides

As discussed above, the northern portion of the project site (Parcel 2) was used for agricultural production from at least 1939 through 1961. Organochloride pesticides (e.g., DDT and DDE) and associated heavy metals (e.g., arsenic and lead) are known to persist in soil long after their application has ceased. Because the project site was used for agricultural purposes in the past, there is a possibility that soil on the project site may be contaminated with organochloride pesticides and/or associated heavy metals.

The project site is located in a developed urban area and is not located in a Very High Hazard Severity Zone for wildland fires.[33]

3.8.2 Hazards and Hazardous Material 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 the 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 *Hazardous Material Contamination*

Middlefield-Ellis-Whisman (MEW) Study Area

The site is impacted by a release of VOCs, mainly TCE and its degradation products. Hazardous materials contamination in site soils and groundwater could expose construction workers and/or future hotel employees and visitors and office employees.

Impact HAZ-1: Hazardous materials contamination in site soils, soil vapor, and groundwater could expose construction workers and/or future hotel employees and visitors and office employees to the hazardous materials on site. **[Potentially Significant Impact]**

[33] Cal Fire. Santa Clara County Fire Hazard Severity Zone. November 2007.

Mitigation Measures: The following mitigation measures are included in the project to reduce construction worker or future employee and visitor exposure to hazardous materials contamination:

MM HAZ-1.1: Prior to the start of any construction activity, the project applicant shall submit the following plans and controls to EPA for review and approval, and shall implement the EPA approved measures:

- Air Monitoring – assesses the exposure of project construction workers and neighboring occupants adjoining the project site to VOCs as part of the Soil Management Plan and Air Monitoring Plan (SMP); this plan shall specify measures to be implemented if VOCs exceed threshold values.

- Vapor Intrusion Control System Remedial Design – describes the measures to be implemented to help prevent exposure of project occupants to VOCs in indoor air as 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 would include incorporation of vapor barrier and provisions of space to accommodate an active ventilation equipment to help prevent indoor air contaminant concentrations exceeding EPA's indoor air cleanup levels. The project applicant will be required to submit the vapor intrusion remedial design and remedial action documents to the EPA for review and approval.

- The Record of Decision (ROD) Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area (2010) and the Statement of Work Remedial Design and Remedial Action to Address the Vapor Intrusion Pathway, MEW Superfund Study Area specify the selected remedy for all future buildings as 1) passive sub-slab ventilation with a 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. Although active sub-slab/sub-membrane ventilation is considered to have a better long-term effectiveness than passive sub-slab ventilation systems, areas with lower ground water VOC concentrations are considered to have a lower potential for vapor intrusion at levels exceeding indoor air cleanup levels. Because areas overlying higher VOC ground water concentrations are considered to have a greater potential for vapor intrusion at levels exceeding indoor air cleanup levels, implementing an active sub-slab/sub-membrane ventilation system is acceptable because of its high rating in long-term effectiveness. Other design requirements would be subject to the EPA's determination of necessary measures based upon its Response Action Tiering System for future buildings.

- Long-Term Operations, Maintenance, and Monitoring Plan – describing actions to be taken following construction to maintain and monitor the vapor intrusion mitigation system as well as a contingency plan should the vapor system fail.

- Institutional Controls Implementation Plan – non-engineered instruments of control, such as administrative and legal controls that help to minimize the potential for human exposure to contamination and/or protect the integrity of the response action. Institutional Controls will be implemented through the City's planning and permitting procedures which will ensure that the appropriate remedy is applied to particular building construction.

- Financial Assurance – proof that adequate funds are available for long-term maintenance and monitoring of the vapor intrusion mitigation system.

MM HAZ-1.2: During construction, the project applicant shall coordinate work activities with the EPA and MEW Operable Unit 3 Responsible Parties, as designated by EPA, including identifying conditions that could affect the implementation and monitoring of the vapor intrusion remedy.

MM HAZ-1.3: Prior to construction activities, the project applicant shall implement a SMP that establishes management practices for handling contaminated soil, soil vapor, or other materials during construction for on- and off-site improvements. The SMP shall be prepared by an environmental professional and shall be submitted to EPA for review and approval prior to construction. The SMP also shall be provided to the City and the Santa Clara County Department of Environmental Health (County Health). The SMP for the project shall include the protocols, means, and methods to address the following during demolition of property structures and construction, including subsurface activities:

- Project control procedures to control the flow of personnel, vehicles and materials in and out of the project site, including the areas of off-site improvements.

- Monitoring of vapors during the removal of the underground utilities as well as any other underground features. An environmental professional shall be present to observe soil conditions, monitor vapors with a hand held meter and low level VOC detector, as appropriate, and determine if additional soil, soil gas, and air sampling should be performed. Protocols and procedures shall be presented for determining when soil sampling and analytical testing will be performed. If additional sampling is performed, a report documenting sampling activities (with site plans and analytical data) shall be provided to the City and US EPA.

- Minimization of dust generation, storm water runoff and tracking soil off the project site.

- Minimization of airborne dust during demolition activities.

- Management of project site risks during earthwork activities in areas where impacted soil, soil vapor and/or ground water are present or

suspected. Worker training requirements, health and safety measures and soil handling procedures shall be described.

- Decontamination to be implemented by the contractor to reduce the potential for construction equipment and vehicles to release contaminated soil onto public roadways or other transfer off the project site.

- Perimeter air monitoring at the project site and off-site improvement locations during any activity that substantially disturbs the soil (e.g., mass grading, foundation construction, excavation or utility trenching). This monitoring shall be used to document the effectiveness of dust and vapor control measures.

- Contingency measures for previously unidentified buried structures, wells, debris, or areas of impacted soil that could be encountered during Property development activities.

- Characterization and profiling of soil suspected of being contaminated so that appropriate disposal or reuse alternatives can be implemented. Soil in contact with ground water shall be assumed contaminated. All soil excavated and transported from the project site and/or off-site improvement areas shall be appropriated disposed at a permitted facility.

- Segregation of “clean” and “impacted” soil stockpiles.

- Approximately 40 stockpiles of soil are located on the Caltrans parcel, along with approximately 10 piles of debris consisting of wood, concrete, general household items, and landscaping mulch. Soil containing chemicals exceeding residential (unrestricted use) screening levels of typical background concentrations of metals and the debris piles shall be disposed at a permitted facility.

- Evaluation and documentation of the quality of any soil imported to the Property. Soil containing chemicals exceeding residential (unrestricted use) screening levels of typical background concentrations of metals shall not be accepted.

- Monitoring of excavations and trenches for the potential presence of VOC vapors.

- Evaluation of the residual contaminants to determine if they will adversely affect the integrity of below ground utility lines and/or structures (e.g., the potential for corrosion).

- Measures to reduce soil vapor and ground water 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 utility trenches extend off-site. In addition, utility conduits that are placed below ground water shall be installed with water-tight fittings to reduce the potential for ground water intrusion.

- Measures to prevent intrusion of contaminated water into storm water control features. A civil engineer shall design the bottom and sides of storm water features to be lined with a minimum 30 mil heavy duty plastic to help prevent infiltration.

- If deep foundation systems are proposed, the foundations shall incorporate measures to help reduce the potential for the downward migration of contaminated ground water.

- For construction activity that involves below ground work (e.g., mass grading, foundation construction, excavating or utility trenching), information regarding risk management procedures (e.g., a copy of the SMP) shall be provided to the contractors for their review, and each contractor shall provide such information to its subcontractors.

- If excavation dewatering is required, protocols shall be prepared to evaluate water quality and discharge/disposal alternatives; the pumped water shall not be used for project dust control or any other project use. If long-term dewatering is required, the means and methods to extract, treat and dispose ground water also shall be presented and shall include treating/discharging ground water to the sanitary sewer under a Publicly Owned Treatment Works (POTW) permit or treating /discharging ground water to the storm drain system pursuant to a California Regional Water Quality Control Board – San Francisco Bay Region (Water Board) NPDES permit.

- Prior to removing the sewer line, a Sampling and Analyses Plan shall be submitted to US EPA for review and written approval.

- An environmental professional shall assist in the implementation of the SMP for the proposed project 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 US EPA, City, and County.

MM HAZ-1.4: Leaving contaminated soil (above residential screening levels or background concentrations of metals) in-place or re-using contaminated soil requires written approval from the US EPA. At a minimum, if contaminated soil is left in-place, a deed restriction or land use covenant shall detail the location of these soils. This document shall include a surveyed map of these impacted soils; shall restrict future excavation in these areas; and shall require future excavation be conducted in these areas only upon written approval by an oversight agency.

MM HAZ-1.5: Any soil, soil vapor and/or ground water remediation during development activities shall require written approval by US EPA and shall meet all applicable federal, state and local laws, regulations and requirements.

MM HAZ-1.6: Elevated concentrations of lead are sometimes encountered next to older and/or heavily traveled highways in California, primarily due to historical leaded gasoline use. Due to the proximity to Highway 101, soil sampling and analytical testing in this area for lead should be performed prior to project grading. If lead is detected above residential screening levels, it should appropriately over-excavated and transported to a permitted facility.

MM HAZ-1.7: The project site historically was used for agricultural purposes for several decades. Pesticides may have been applied to crops in the normal course of farming operations. During a prior study by URS (2007), several soil samples were collected from undeveloped areas of the Moffett Gateway parcel and analyzed for organochlorine pesticides and metals. These analyses did not detect pesticides at concentrations exceeding residential screening levels, and the detected metal concentrations appear typical of natural background levels. Thus, based on these sampling results, prior agricultural activities do not appear to have significantly impacted the Property. However, soil exported from the Site shall be analyzed for organochlorine pesticides amongst other chemicals as required by the receiving facility.

MM HAZ-1.8: The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. Workers conducting project site investigation and earthwork activities in areas on contamination shall complete 40-hour HAZWOPER training course (29 CFR 1910.120). This document shall be provided to US EPA, City, and County. The general contractor shall be responsible for the health and safety of their employees as wells as for compliance with all applicable federal, state, and local laws and guidelines.

MM HAZ-1.9: The project applicant shall provide a Vapor Intrusion Response Action Completion Report to the US EPA for review and approval and to the City for review. The report shall document installation of the vapor control measures identified in the Vapor Intrusion Mitigation Plan, including plans and specifications, and shall include a long-term operations, maintenance and monitoring plan.

MM HAZ-1.10: Eighteen ground water monitoring wells are located on the project site. These wells shall be protected during construction activities or upon written approval of US EPA, destroyed under permit from the Santa Clara Valley Water District, prior to mass grading activities. The locations of future ground water monitoring wells and other remediation infrastructure shall be incorporated into the development plans. The project applicant and subsequent project owners and occupants shall allow access to sample the existing monitoring wells or install future ground water monitoring wells and to continue monitoring and remediation activities and any additional sampling and analyses that may be required by US EPA.

MM HAZ-1.11: The project applicant and subsequent project owners and occupants shall provide access to the project site, including ongoing access to the 18 monitoring wells for monitoring and sampling purposes, and cooperate with US EPA and MEW Responsible Parties during implementation of any subsequent ground water and/or soil vapor investigations, or remediation as well as implementation of additional vapor intrusion remediation, if required. In addition, the project applicant and subsequent project owners and occupants shall provide access for future indoor air vapor monitoring activities and shall not interfere with the implementation of remedies required by the US EPA. These requirements shall be specified in the Covenants, Conditions and Restrictions that shall run with the project site.

Aerially Deposited Lead

Due to the past use of tetraethyl lead-based gasoline in vehicles, the location of the project site adjacent to US 101, and the development and use of the northern portion of the project site (i.e., Parcel 2) as an off-ramp and cloverleaf for the Moffett Boulevard interchange, it is possible that aerially deposited lead is present in soils on-site. If present, the lead could pose a risk to construction workers and could require disposal at regulated facilities. The northern portion of the project site is located adjacent to US 101 and was the prior location of the US 101/Moffett Boulevard interchange off-ramp and cloverleaf. Because lead is sometimes encountered at elevated levels next to older highways in California due to historical leaded gasoline use, it is possible that soils are contaminated with lead. In which case, construction personnel working on the proposed project could be exposed to this harmful element.

Impact HAZ-2: Construction personnel working on the proposed project could be exposed to harmful levels of lead. **[Potentially Significant Impact]**

Mitigation Measures: The following mitigation measures are included in the project to avoid and reduce hazardous materials impacts associated with aerially deposited lead:

MM HAZ-2.1: Prior to initiation of excavation and grading activities on the site, on-site soils shall be sampled to evaluate whether they have been impacted by aerially deposited lead to determine if any special handling or disposal is necessary. The environmental agency that will provide regulatory oversight with respect to the environmental condition of the site, which shall be either (1) the California Department of Toxic Substances Control, (2) the California Regional Water Quality Control Board, or (3) the County of Santa Clara Local Oversight Program (hereafter, the "Agency"), will determine whether any special handling and/or disposal of soil is necessary at the site, prior to the initiation of excavation and grading activities at the site.

MM HAZ-2.2: In the event that lead-impacted soil is present at the site at concentrations that exceed Agency-approved risk levels (i.e., residential Regional Screening Levels established by the US EPA or California Human Health Screening Levels established by the California Environmental Protection Agency), the SMP to be prepared for the proposed project shall be submitted to and

approved by the Agency. The SMP shall be developed to establish management practices for handling lead-impacted soil or other hazardous materials encountered during construction activities. The Agency-approved SMP shall be submitted to the City of Mountain View Director of Community Development prior to commencing construction activities.

MM HAZ-2.3: The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. The HSP shall address the safety and health hazards of each phase of site operations that includes the requirements and procedures for employee protection.

MM HAZ-2.4: Excavated soils will be characterized prior to off-site disposal or reuse on-site. Appropriate soil characterization, storage, transportation, and disposal procedures shall be followed under the oversight of the Agency. Contaminated soils shall be disposed of at a licensed facility in accordance with all appropriate local, state, and federal regulations.

If present, implementation of the mitigation measure listed above would reduce the impacts of on-site lead to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Agricultural Chemicals

The project site was used for agricultural production in the past. Because organochloride pesticides and associated heavy metals are known to persist in soil long after use has ceased, there is a possibility that soil on the site may be contaminated with organochloride pesticides and/or heavy metals. During a prior study on the project site by *URS* (2007), several soil samples were collected from undeveloped areas of the project and analyzed for organochlorine pesticides and metals. These analyses did not detect pesticides at concentrations exceeding residential screening levels, and the detected metal concentrations appear typical of natural background levels. Thus, based on these sampling results, prior agricultural activities do not appear to have significantly impacted the project site. Further testing, however, is necessary to ensure construction personnel working on the proposed project are not exposed to these chemicals and that soil exported from the project site is transported and disposed appropriately.

Impact HAZ-3: Construction personnel working on the proposed project could be exposed to harmful pesticides and/or heavy metals. **[Potentially Significant Impact]**

Mitigation Measures: The following mitigation measures are included in the project to avoid and reduce hazardous materials impacts associated with agricultural pesticides:

MM HAZ-3.1: Prior to initiation of excavation and grading activities on the site, on-site soils shall be sampled to evaluate whether they have been impacted by agricultural pesticides to determine if any special handling or disposal is necessary. The environmental agency that will provide regulatory oversight with respect to the environmental condition of the site, which shall be either (1) the California Department of Toxic Substances Control, (2) the California

Regional Water Quality Control Board, or (3) the County of Santa Clara Local Oversight Program (hereafter, the "Agency"), will determine whether any special handling and/or disposal of soil is necessary at the site, prior to issuance of a grading permit and prior to the initiation of excavation and grading activities at the site.

MM HAZ-3.2: In the event that agricultural pesticides are present at the site at concentrations that exceed Agency-approved risk levels (i.e., residential Regional Screening Levels established by the United States Environmental Protection Agency or California Human Health Screening Levels established by the California Environmental Protection Agency), the Soil Management Plan to be prepared for the project shall be developed to establish management practices for handling pesticide contaminated soil that could be encountered during construction activities. The SMP shall submitted to and approved by the Agency. The Agency-approved SMP shall be submitted to the City of Mountain View Director of Community Development prior to commencing construction activities.

MM HAZ-3.3: The project applicant shall require the construction general contractor to prepare a Health and Safety Plan (HSP) establishing appropriate protocols for working in hazardous materials. The HSP shall address the safety and health hazards of each phase of site operations that includes the requirements and procedures for employee protection.

MM HAZ-3.4: Excavated soils for on- and off-site improvements will be characterized prior to off-site disposal or reuse on-site. Appropriate soil characterization, storage, transportation, and disposal procedures shall be followed under the oversight of the Agency. Contaminated soils shall be disposed of at a licensed facility in accordance with all appropriate local, state, and federal regulations.

If present, implementation of the mitigation measure listed above would reduce the impacts of organochloride pesticides and associated heavy metals a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Hazardous Materials Use

The project proposes to construct an office, hotel, and parking garage on the project site. There is a potential for the development on the site to include the use, storage, transport, or disposal of hazardous materials. Depending on the nature of the use of such materials at the site, there is a potential for these activities to impact other uses in the vicinity. If future uses on the site involve the use, storage, transport, or disposal of hazardous materials, the site operator would be required to comply with federal, state, and local requirements for managing hazardous materials. Depending on the type and quantity of hazardous materials, these requirements could include the preparation of, implementation of, and training in the plans, programs, and permits prepared for the site, and compliance would be monitored and enforced during the permitting process for these activities.

Impact HAZ-4: The proposed project would not result in a significant impact due to the use of hazardous materials. **[Less than Significant Impact]**

The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The Yew Chung International School of Silicon Valley and the German International School of Silicon Valley are both located at 310 Easy Street, about 0.4 miles south of the project site, at the site of the former Whisman Elementary School. Carnegie Mellon University – Silicon Valley is located approximately 4.2 miles northeast from the site.

Impact HAZ-5: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. **[No Impact]**

3.8.2.3 *Airport Safety*

The project site is approximately 4,000 feet southwest of the Moffett Federal Airfield (i.e., the nearest airport). There are no other public or private airstrips near the project site. As shown in the Moffett Federal Airfield CLUP, the project site is within the AIA for Moffett Federal Airfield. The AIA is defined as a feature-based boundary around the airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan (CLUP) policies may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions, and noise and safety protection to the public. As shown in the Moffett Field Federal Airfield CLUP, the site is not located within the airport safety zone for Moffett Federal Airfield and is outside the 65 dB CNEL noise contour. The tallest proposed structure would be the office building at approximately 128 feet msl, which is below the 182 feet msl height restriction for the project site. For these reasons, the proposed project is consistent with Moffett Field Federal Airfield CLUP.

General Plan and zoning changes, such as those proposed by the project, within the AIA require review by the Santa Clara County ALUC. For this reason, the project will be referred to the Santa Clara County ALUC for a determination of consistency with the adopted Moffett Field Federal Airfield CLUP, prior to approval by the City Council.

Impact HAZ-6: Upon a determination of consistency with the adopted Moffett Field Comprehensive Land Use Plan, the project would not result in a safety hazard for people residing or working in the project area. **[Less than Significant Impact]**

The project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact HAZ-7: Implementation of the project would not result in impacts to an adopted emergency response plan or emergency evacuation plan. **[No Impact]**

The project site is located in a developed urban area and would not expose people or structures to wildland fires.

Impact HAZ-8: Implementation of the proposed project would not result in an impact related to the exposure of people or structures to wildland fire. **[No Impact]**

3.8.4 Conclusion

Impact HAZ-1: Hazardous materials contamination in site soils, soil vapor, and groundwater could expose construction workers and/or future hotel employees and visitors and office employees to the hazardous materials on site. Implementation of the MM HAZ-1.1 through MM HAZ-1.11 would reduce these impacts to a less than significant level. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact HAZ-2: Construction personnel working on the proposed project could be exposed to harmful levels of lead. Implementation of MM HAZ-2.1 through MM HAZ-2.4 would reduce this impact to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Impact HAZ-3: Construction personnel working on the proposed project could be exposed to harmful pesticides and/or heavy metals. Implementation of MM HAZ-3.1 through MM HAZ-3.4 would reduce the impact to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Impact HAZ-4: The proposed project would not result in a significant impact due to the use of hazardous materials. **[Less Than Significant Impact]**

Impact HAZ-5: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. **[No Impact]**

Impact HAZ-6: Upon a determination of consistency with the adopted Moffett Field Comprehensive Land Use Plan, the project would not result in a safety hazard for people residing or working in the project area. **[Less Than Significant Impact]**

Impact HAZ-7: Implementation of the project would not result in impacts to an adopted emergency response plan or emergency evacuation plan. **[No Impact]**

Impact HAZ-8: Implementation of the proposed project would not result in an impact related to the exposure of people or structures to wildland fire. **[No Impact]**

3.9 HYDROLOGY AND WATER QUALITY

The following discussion is based, in part, upon a Floodplain Study completed for the project site by *Schaaf & Wheeler* in April 2016 which is included as Appendix G of this EIR.

3.9.1 Regulatory Setting

This section describes applicable federal, state, and local regulations that pertain to hydrology and water quality.

3.9.1.2 *Federal Regulations*

Federal Clean Water Act of 1972

The federal Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands, and is administered by US Environmental Protection Agency (EPA). It operates on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit. The sections of the CWA include:

- Section 303 – Water Quality Standards and Implementation Plans
- Section 401 – Dredge/Fill and Wetlands Certification Program
- Section 402 – National Pollutant Discharge Elimination System (NPDES)
- Section 404 – US Army Corps of Engineers fill or dredge discharge Permits

With the exception of the 404 permits, the EPA has delegated its authority to implement and enforce the provisions of these sections to the individual states. In California, the provisions are enforced by nine Regional Water Quality Control Boards under the auspices of the State Water Resources Control Board.

National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

The Federal Emergency Management Agency (FEMA) manages the NFIP and creates Flood Insurance Rate Maps (FIRMs) that designate 100-year flood hazard zones and delineate other flood hazard areas. A 100-year flood hazard zone is the area that has a one in one hundred (i.e., one percent) chance of being flooded in any one year based on historical data. Portions of the City are identified as special flood hazard areas (primarily from creeks), with a one percent annual chance and a 0.2 percent annual chance of flooding (also known as the 100-year and 500-year flood zones) as determined by the FEMA NFIP.

3.9.1.3 *State Regulations*

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), promulgated in 1969, implements the federal CWA. The Porter-Cologne Act established the State Water Resources Control Board and divided California into nine hydrologic regions, each overseen by a Regional Water Quality Control Board. The Porter-Cologne Act also provides for the development and tri-annual review of Water Quality Control Plans (i.e., Basin Plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters.

Basin Plan

The San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the Bay Area (including the City of Mountain View) in accordance with the Basin Plan, which is the currently adopted Water Quality Control Plan for the Bay Area. The Basin Plan is a master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulations in the San Francisco Bay region. The Basin Plan lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, and 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 "non-point 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.

National Pollutant Discharge Elimination System

As discussed above, the federal CWA and California's Porter-Cologne Act are the primary laws related to water quality. Regulations set forth by the US Environmental Protection Agency (EPA) include the National Pollutant Discharge Elimination System (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, which for the greater project area is the San Francisco RWQCB.

<u>Statewide Construction General Permit</u>: The State Water Resources Control Board has implemented a NPDES Construction General Permit (CGP) for the State of California that is overseen by individual RWQCB's. The CGP, which became effective July 1, 2010, includes requirements for training, inspections, record keeping, reporting and, for projects of certain risk levels, monitoring. Projects disturbing one acre or more of land must obtain coverage under the CGP by filing a Notice of Intent (NOI) with the RWQCB and preparing a Storm Water Pollution Prevention Plan (SWPPP), prior to commencement of construction, and implementing the SWPPP through the completion of construction.

<u>Municipal Regional Stormwater NPDES Permit/C.3 Requirement</u>: In an effort to standardize stormwater management requirements throughout the region, the San Francisco Bay RWQCB issued a Municipal Regional Stormwater NPDES Permit (MRP) to 76 jurisdictions that own, operate, or

maintain storm drain collection and conveyance facilities that drain to San Francisco Bay and/or the Pacific Ocean. Provision C.3 of the MRP establishes requirements for reducing pollutants in stormwater runoff by requiring new development to capture and treat runoff. Under Provision C.3, projects that create or replace 10,000 square feet or more of impervious surfaces or 5,000 square feet or more of uncovered parking area, are required to design and construct on-site stormwater treatment controls to treat post-construction stormwater runoff. The MRP requires post-construction runoff to be managed with Low Impact Development (LID) methods, such as on-site harvest and use of runoff, infiltration and/or bioretention, unless the project qualifies for Special Project credit reduction, which would allow the project to implement non-LID measures for all or a portion of the site depending on the project characteristics.

Impaired Water Bodies (Section 303(d))

Pursuant to the Clean Water Act Section 303(d), the State of California assesses the water quality of the state's waterways to determine if they contain pollutants in concentrations that exceed federal standards. Total Maximum Daily Load (TMDL) programs are established by the SWRCB and RWQCBs for waterways that exceed these limits. A TMDL is a calculation of the maximum amount of a pollutant that body of water can receive and still meet water quality standards. A body of water is deemed 'impaired' if, despite the use of pollution control technologies, pollutant concentrations exceed the standards.

3.9.1.4 *Local Regulations*

Mountain View Flood Hazard Ordinance

The City of Mountain View Flood Hazard Ordinance requires the lowest floor in new non-residential construction to be elevated to the base flood elevation, be flood-proofed by making walls below the base flood level watertight, and have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. The applicable requirements of the Municipal Code for construction in a flood zone are required of projects built in Mountain View as conditions of project approval.

City of Mountain View 2030 General Plan

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to hydrology and water quality and applicable to the proposed project include:

INC 8.2: National Pollutant Discharge Elimination System Permit. Comply with requirements in the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP).

INC 8.4: Runoff pollution prevention. Reduce the amount of stormwater runoff and stormwater pollution entering creeks, water channels and the San Francisco Bay through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program.

INC 8.5: Site-specific stormwater treatment. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.

3.9.2 Existing Setting

3.9.2.1 *Water Quality*

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

The project site is located within the Stevens Creek watershed, which includes portions of unincorporated Santa Clara County and the cities of Cupertino, Los Altos, Sunnyvale, and Mountain View. The creek receives runoff from open space areas and urban and suburban development, including industrial areas.

3.9.2.2 *Groundwater*

Groundwater in the area of the project site is part of the Santa Clara Sub-basin, which extends from the northern border of Santa Clara County to the groundwater divide near the town of Morgan Hill. The Santa Clara Sub-basin provides municipal, domestic, industrial, and agricultural water supply. The Santa Clara Valley Water District (SCVWD) conducts an artificial groundwater recharge program that entails releasing locally conserved or imported water to in-stream and off-stream facilities.

Groundwater was encountered on-site at depths ranging from approximately 13 to 15 feet below current grades during the soil borings completed for the Geotechnical Investigation. Historic high groundwater levels are mapped at a depth of approximately four to five feet below current grades. Fluctuations in groundwater levels occur due to many factors including seasonal fluctuation, underground drainage patterns, and regional fluctuations, along with other factors.[34]

3.9.2.3 *Stormwater Drainage*

Stormwater in Mountain View is collected by a municipal storm drain system consisting of storm drain inlets, conveyance pipes, culverts, channels and retention basins operated by the City of Mountain View Public Works Department. Stormwater from Parcel 1 is collected and discharged directly into Stevens Creek, which is located adjacent to the western border of the project site.

Under existing conditions, stormwater runoff from Caltrans facilities (i.e., Moffett Boulevard overpass) is currently directed onto the project site. This stormwater runoff collects in the northeast

[34] Cornerstone Earth Group. Geotechnical Investigation, 750 Moffett Boulevard, Mountain View, CA. November 2015

corner of the site where additional stormwater runoff from the southeast cloverleaf is discharged onto the site via an existing 24-inch stormwater line under Moffett Boulevard. The stormwater then enters an existing catch basin and is conveyed under US 101 within an existing 24-inch line to existing Caltrans storm drainage facilities on the north side of US 101.

3.9.2.4 *Flooding*

Based on the current Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA) for the project area, the project site is not located within a 100-year flood hazard zone.[35] The site is located in Flood Hazard Zone X, which is defined by FEMA as areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one mile; and areas protected by levees from one percent annual chance flood.

Hydraulic modeling performed by Schaaf & Wheeler for this study indicates that the site has potential for inundation during the 100-year event. The modeling shows that under existing conditions flood flows are greatest along the western portion of the site, immediately adjacent to Stevens Creek.

3.9.2.5 *Other Inundation Hazards*

Dam Failure

The Association of Bay Area Governments (ABAG) compiles the dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The Mountain View dam hazard map contained within the 2030 General Plan EIR shows that the project site is not located within a dam failure inundation hazard zone. [36]

Sea Level Rise

Based on location and elevation of the project site, the site would not inundated as a result of future sea-level rise. The City of Mountain View completed the *Shoreline Regional Park Community Sea Level Rise Study: Feasibility Report and Capital Improvement Program* in December 2012. Because of considerable uncertainty in sea level rise projections, this study adopts two sea level rise scenarios to bracket the low and high ends of a representative uncertainty range. The two sea level rise scenarios studied were:

- eight inches of sea level rise between 2000 and 2067, and
- 31 inches of sea level rise between 2000 and 2067.

The study examines impacts to the North Bayshore area of Mountain View with and without the implementation of the capital improvements described in this plan. Proposed capital improvements

[35] Federal Emergency Management Agency. *Flood Insurance Rate Map, Santa Clara County, California. Map Number 06085C0039H.* May 18, 2009
[36] City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report.* November 2011. Figure IV.H-3.

for the Shoreline area include improved levees and flood walls, storm drain and pump station improvements, and upgrades to storm drains. The project site is located south of the North Bayshore area, across US 101. Based on the discussion in the study, the project site would not be affected by sea-level rise under either scenario described above, with or without implementation of the proposed capital improvements described in the study.

Earthquake-Induced Waves and Mudflow Hazards

The terms tsunami or seiche are described as ocean waves or similar waves usually created by undersea fault movement or by a coastal or submerged landslide. Tsunamis may be generated at great distance from shore (far field events) or nearby (near field events). Waves are formed as the displaced water moves to regain equilibrium and radiates across the open water, similar to ripples from a rock being thrown into a pond. When the wave reaches the coastline, it quickly raises the water level. The water mass, as well as vessels, vehicles, or other objects in its path create tremendous forces as they impact coastal structures.

A tsunami or seiche originating in the Pacific Ocean would lose much of its energy passing through San Francisco Bay. Areas most likely to be inundated are marshlands, tidal flats, and former bay margin lands that are now artificially filled, but are still at or below sea level, and are generally within 1½ miles of the shoreline. The project site is approximately 2½ miles inland from the San Francisco Bay shoreline, and is approximately 38 to 53 feet above mean sea level. Additionally, according to maps developed for emergency planning purposes, the project area is not in a tsunami hazardous zone, and is not subject to inundation by seiche, tsunami, or mudflow.[37] For these reasons, the potential for inundation at the project site due to tsunami or seiche is considered low.

3.9.3 Hydrology and Water Quality Impacts

3.9.3.1 *Thresholds of Significance*

Appendix G to the CEQA Guidelines suggests that 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 level (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;

[37] California Department of Conservation and the County of Santa Clara. *Tsunami Inundation Map for Emergency Planning, Mountain View Quadrangle*. July 31, 2009. Available at: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SantaClara/Documents/Tsunami_Inundation_MountainView_Quad_SantaClara.pdf. Accessed January 26, 2016.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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
- Expose people or structures to inundation by seiche, tsunami, or mudflow.

As previously discussed in Section 3.0, on December 17, 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 unless the project could exacerbate the existing environmental hazards or risks. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project. The City has, therefore, included planning considerations relating to these policies and regulations for information only.

3.9.3.2 *Water Quality Impacts*

Construction Water Quality Impacts

Implementation of the project would require excavation, paving, and grading of the site, which can result in temporary impacts to surface water quality. Project grading and construction activities would expose soil to the erosive forces of wind and water, increasing the potential for sedimentation downstream of the project site, including Stevens Creek and San Francisco Bay.

Implementation of the project would result in the disturbance of most of the site, which would be approximately 9.7-acres of surface area. As a result, the project would disturb a site greater than one acre and would be required to comply with the State of California General Construction Permit. The following City of Mountain View Standard Conditions of Approval, which are consistent RWQCB requirements, would be incorporated into the project to reduce impacts to water quality during project construction:

State of California Construction General Stormwater Permit: A "Notice of Intent" (NOI) and "Stormwater Pollution Prevention Plan" (SWPPP) shall be prepared for construction projects disturbing one (1) acre or more of land. Proof of coverage under the State General Construction Activity Stormwater Permit shall be attached to the building plans.

Construction Best Management Practices: All construction projects shall be conducted in a manner which prevents the release of hazardous materials, hazardous waste, polluted water, and

sediments to the storm drain system. Refer to the City of Mountain View document, "It's In the Contract But Not In the Bay," for the specific construction practices required at the job site.

Construction Sediment and Erosion Control Plan: The applicant shall submit a written plan acceptable to the City which shows controls that will be used at the site to minimize sediment runoff and erosion during storm events. The plan should include installation of the following items where appropriate: (a) silt fences around the site perimeter; (b) gravel bags surrounding catch basins; (c) filter fabric over catch basins; (d) covering of exposed stockpiles; (e) concrete washout areas; (f) stabilized rock/gravel driveways at points of egress from the site; and (g) vegetation, hydroseeding, or other soil stabilization methods for high-erosion areas. The plan should also include routine street sweeping and storm drain catch basin cleaning.

Impact HYDRO-1: Project grading and construction activities would expose soil to the erosive forces of wind and water, increasing the potential for sedimentation downstream of the project site, including Stevens Creek and San Francisco Bay. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant construction water quality impacts. **[Less than Significant Impact]**

Post-Construction Water Quality Impacts

The project site is currently undeveloped and mainly consists of pervious surfaces. Impervious surfaces, following project construction, would increase from approximately 1.2 percent to approximately 55.1 percent, which would represent a 53.9 percent increase in impervious surfaces as shown on Table 3.9-1.

Table 3.9-1: Pervious and Impervious Surfaces on Site

Surface Type	Existing Condition (sq. ft.)	Percent	Proposed Condition (sq. ft.)	Percent	Difference (sq. ft.)	Percent
Impervious Surfaces	5,107	1.2%	242,634	55.1%	+237,527	+53.9%
Pervious Surfaces	434,849	98.8%	197,322	44.9%	-237,527	-53.9%
Total	**439,956**	**100%**	**439,956**	**100%**	**n/a**	**n/a**

The increase in impervious surfaces from implementation of the project would increase the amount of stormwater runoff generated by the site. The project would implement appropriate post-construction stormwater treatment measures as required by the City. The following City of Mountain View Standard Conditions of Approval would be incorporated into the project to reduce impacts to water quality during project operation to a less than significant level:

STATE OF CALIFORNIA CONSTRUCTION GENERAL STORMWATER PERMIT: A "Notice of Intent" (NOI) and "Stormwater Pollution Prevention Plan" (SWPPP) shall be prepared for

construction projects disturbing one (1) acre or more of land. Proof of coverage under the State General Construction Activity Stormwater Permit shall be attached to the building plans.

CONSTRUCTION SEDIMENT AND EROSION CONTROL PLAN: The applicant shall submit a written plan acceptable to the City which shows controls that will be used at the site to minimize sediment runoff and erosion during storm events. The plan should include installation of the following items where appropriate: (a) silt fences around the site perimeter; (b) gravel bags surrounding catch basins; (c) filter fabric over catch basins; (d) covering of exposed stockpiles; (e) concrete washout areas; (f) stabilized rock/gravel driveways at points of egress from the site; and (g) vegetation, hydroseeding, or other soil stabilization methods for high-erosion areas. The plan should also include routine street sweeping and storm drain catch basin cleaning.

LANDSCAPE DESIGN: Landscape design shall minimize runoff and promote surface filtration. Examples include: (a) no steep slopes exceeding 10 percent; (b) using mulches in planter areas without ground cover to avoid sedimentation runoff; (c) installing plants with low water requirements; and (d) installing appropriate plants for the location in accordance with appropriate climate zones. Identify which practices will be used in the building plan submittal.

EFFICIENT IRRIGATION: Common areas shall employ efficient irrigation to avoid excess irrigation runoff. Examples include: (a) setting irrigation timers to avoid runoff by splitting irrigations into several short cycles; (b) employing multi-programmable irrigation controllers; (c) employing rain shutoff devices to prevent irrigation after significant precipitation; (d) use of drip irrigations for all planter areas which have a shrub density that will cause excessive spray interference of an overhead system; and (e) use of flow reducers to mitigate broken heads next to sidewalks, streets, and driveways. Identify which practices will be used in the building plan submittal.

PRIVATE STREET MAINTENANCE: For residential projects with private streets, the following ongoing maintenance shall be provided: (a) private streets shall be swept at least four times per year; (b) private storm drain inlets shall be cleaned at least once per year prior to October 15; and (c) common area trash management and litter control. Attach a copy of the contract or maintenance agreement identifying the name, address, and phone number of the party carrying out these maintenance activities.

PRIVATE STORM DRAIN INLET STENCILING: For residential subdivisions with private streets, storm drain inlets shall be labeled in accordance with the City's storm drain inlet label program ("No Dumping, Flows to Bay").

OUTDOOR STORAGE AREAS (INCLUDING GARBAGE ENCLOSURES): Outdoor storage areas (for storage of equipment or materials which could decompose, disintegrate, leak, or otherwise contaminate stormwater runoff), including garbage enclosures, shall be designed to prevent the run-on of stormwater and runoff of spills by all of the following: (a) paving the area with concrete or other nonpermeable surface; (b) covering the area; and (c) sloping the area inward (negative slope) or installing a berm or curb around its perimeter. There shall be no storm drains in the outdoor storage area.

STORMWATER TREATMENT (C.3): This project will create or replace more than ten thousand (10,000) square feet of impervious surface; therefore, stormwater runoff shall be directed to approved permanent treatment controls as described in the City's guidance document entitled, "Stormwater Quality Guidelines for Development Projects." The City's guidelines also describe the requirement to select Low-Impact Development (LID) types of stormwater treatment controls; the types of projects that are exempt from this requirement; and the Infeasibility and Special Projects exemptions from the LID requirement. The "Stormwater Quality Guidelines for Development Projects" document requires applicants to submit a Stormwater Management Plan, including information such as the type, location, and sizing calculations of the treatment controls that will be installed. Include three stamped and signed copies of the Final Stormwater Management Plan with the building plan submittal. The Stormwater Management Plan must include a stamped and signed certification by a qualified Engineer, stating that the Stormwater Management Plan complies with the City's guidelines and the State NPDES Permit. Stormwater treatment controls required under this condition may be required to enter into a formal recorded Maintenance Agreement with the City.

STORMWATER MANAGEMENT PLAN—THIRD-PARTY ENGINEER'S CERTIFICATION: The Final Stormwater Management Plan must be certified by a qualified third-party engineer that the proposed stormwater treatment controls comply with the City's Guidelines and Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP). A list of qualified engineers is available at the following link: http://www.scvurppp-w2k.com/consultants_list.shtml.

Impact HYDRO-2: The proposed project would increase the amount of impervious surfaces on the project site. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant post-construction water quality impacts. **[Less than Significant Impact]**

3.9.3.3 *Groundwater Impacts*

Excavation for the building foundations may encounter groundwater. As a City of Mountain View Standard Condition of Approval, the design-level Geotechnical Investigation (Appendix E) would be finalized prior to the start of construction and demolition activities and dewatering during excavation and construction of the project site would adhere to the measures described in the design-level Geotechnical Investigation for dewatering and disposal of pumped groundwater. Once construction is complete, groundwater at the site would not be exposed. Project operation would not use or otherwise deplete groundwater at the project site. The following City of Mountain View Standard Condition of Approval would be incorporated into the project to reduce potential impacts to groundwater during project construction to a less than significant level:

GEOTECHNICAL REPORT: The applicant shall have a design-level geotechnical investigation prepared which includes recommendations to address and mitigate geologic hazards in accordance with the specifications of California Geological Survey (CGS) Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards, and the requirements of the Seismic Hazards Mapping Act. The report will be submitted to the City prior to the issuance of building permits, and the recommendations made in the geotechnical report will be implemented as part of the project. Recommendations may include considerations for design of permanent below-grade walls to resist static lateral earth pressures, lateral pressures causes by seismic activity, and traffic loads; method for

backdraining walls to prevent the buildup of hydrostatic pressure; considerations for design of excavation shoring system; excavation monitoring; and seismic design.

Impact HYDRO-3: The proposed project, with implementation of the City Standard Conditions of Approval, would not would not adversely impact groundwater supplies. **[Less than Significant Impact]**

3.9.3.4 *Flood Impacts*

Off-site Flooding

Hydraulic modeling performed by Schaaf & Wheeler for this study indicates that the site has potential for inundation during the 100-year event. The floodplain modeling completed for the proposed project shows that the proposed project would have little effect on water surface elevations. The maximum increase in water surface elevation off-site is less than 0.25 feet (*Schaaf & Wheeler*, 2016). In the residential areas adjacent to the site, increases in water surface elevation larger than a tenth of a foot are confined to the street or Caltrans right-of-way (*Schaaf & Wheeler*, 2016). For these reasons, the incremental increase in water surface elevation that could occur off-site as a result of the proposed project is less than significant.

Impact HYDRO-4: Development of the proposed project would not expose people or structures flood hazards or substantially increase flooding off-site. **[Less than Significant Impact]**

3.9.3.5 <u>Off-site Improvements</u>

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E property.

Construction Water Quality Impacts

Construction of the proposed project, including the off-site improvements, would require excavation and grading, which can result in temporary impacts to surface water quality. Grading and construction activities would expose soil to the erosive forces of wind and water, increasing the potential for sedimentation downstream of the project site, including Stevens Creek and San Francisco Bay.

The proposed project, which includes the proposed off-site improvements, would disturb an area greater than one acre and, therefore, would be required to comply with the State of California General Construction Permit. The following City of Mountain View Standard Conditions of Approval, which are consistent RWQCB requirements, would be incorporated into the project to reduce impacts to water quality during project construction:

State of California Construction General Stormwater Permit: A "Notice of Intent" (NOI) and "Stormwater Pollution Prevention Plan" (SWPPP) shall be prepared for construction projects disturbing one (1) acre or more of land. Proof of coverage under the State General Construction Activity Stormwater Permit shall be attached to the building plans.

Construction Best Management Practices: All construction projects shall be conducted in a manner which prevents the release of hazardous materials, hazardous waste, polluted water, and sediments to the storm drain system. Refer to the City of Mountain View document, "It's In the Contract But Not In the Bay," for the specific construction practices required at the job site.

Construction Sediment and Erosion Control Plan: The applicant shall submit a written plan acceptable to the City which shows controls that will be used at the site to minimize sediment runoff and erosion during storm events. The plan should include installation of the following items where appropriate: (a) silt fences around the site perimeter; (b) gravel bags surrounding catch basins; (c) filter fabric over catch basins; (d) covering of exposed stockpiles; (e) concrete washout areas; (f) stabilized rock/gravel driveways at points of egress from the site; and (g) vegetation, hydroseeding, or other soil stabilization methods for high-erosion areas. The plan should also include routine street sweeping and storm drain catch basin cleaning.

Impact HYDRO-5: Project grading and construction activities would expose soil to the erosive forces of wind and water, increasing the potential for sedimentation downstream of the project site, including Stevens Creek and San Francisco Bay. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant construction water quality impacts. **[Less than Significant Impact]**

Post-Construction Water Quality Impacts

The proposed off-site improvements, would increase impervious surfaces. The increase in impervious surfaces would increase the amount of stormwater runoff generated by the site, which could contain non-point source pollutants (e.g., litter, sediment, etc.). The project would implement appropriate post-construction stormwater treatment measures as required by the City. The following City of Mountain View Standard Conditions of Approval would be incorporated into the project to reduce impacts to water quality during project operation to a less than significant level:

STATE OF CALIFORNIA CONSTRUCTION GENERAL STORMWATER PERMIT: A "Notice of Intent" (NOI) and "Stormwater Pollution Prevention Plan" (SWPPP) shall be prepared for construction projects disturbing one (1) acre or more of land. Proof of coverage under the State General Construction Activity Stormwater Permit shall be attached to the building plans.

CONSTRUCTION SEDIMENT AND EROSION CONTROL PLAN: The applicant shall submit a written plan acceptable to the City which shows controls that will be used at the site to minimize sediment runoff and erosion during storm events. The plan should include installation of the following items where appropriate: (a) silt fences around the site perimeter; (b) gravel bags surrounding catch basins; (c) filter fabric over catch basins; (d) covering of exposed stockpiles; (e) concrete washout areas; (f) stabilized rock/gravel driveways at points of egress from the site; and (g)

vegetation, hydroseeding, or other soil stabilization methods for high-erosion areas. The plan should also include routine street sweeping and storm drain catch basin cleaning.

LANDSCAPE DESIGN: Landscape design shall minimize runoff and promote surface filtration. Examples include: (a) no steep slopes exceeding 10 percent; (b) using mulches in planter areas without ground cover to avoid sedimentation runoff; (c) installing plants with low water requirements; and (d) installing appropriate plants for the location in accordance with appropriate climate zones. Identify which practices will be used in the building plan submittal.

EFFICIENT IRRIGATION: Common areas shall employ efficient irrigation to avoid excess irrigation runoff. Examples include: (a) setting irrigation timers to avoid runoff by splitting irrigations into several short cycles; (b) employing multi-programmable irrigation controllers; (c) employing rain shutoff devices to prevent irrigation after significant precipitation; (d) use of drip irrigations for all planter areas which have a shrub density that will cause excessive spray interference of an overhead system; and (e) use of flow reducers to mitigate broken heads next to sidewalks, streets, and driveways. Identify which practices will be used in the building plan submittal.

PRIVATE STREET MAINTENANCE: For residential projects with private streets, the following ongoing maintenance shall be provided: (a) private streets shall be swept at least four times per year; (b) private storm drain inlets shall be cleaned at least once per year prior to October 15; and (c) common area trash management and litter control. Attach a copy of the contract or maintenance agreement identifying the name, address, and phone number of the party carrying out these maintenance activities.

PRIVATE STORM DRAIN INLET STENCILING: For residential subdivisions with private streets, storm drain inlets shall be labeled in accordance with the City's storm drain inlet label program ("No Dumping, Flows to Bay").

OUTDOOR STORAGE AREAS (INCLUDING GARBAGE ENCLOSURES): Outdoor storage areas (for storage of equipment or materials which could decompose, disintegrate, leak, or otherwise contaminate stormwater runoff), including garbage enclosures, shall be designed to prevent the run-on of stormwater and runoff of spills by all of the following: (a) paving the area with concrete or other nonpermeable surface; (b) covering the area; and (c) sloping the area inward (negative slope) or installing a berm or curb around its perimeter. There shall be no storm drains in the outdoor storage area.

STORMWATER TREATMENT (C.3): This project will create or replace more than ten thousand (10,000) square feet of impervious surface; therefore, stormwater runoff shall be directed to approved permanent treatment controls as described in the City's guidance document entitled, "Stormwater Quality Guidelines for Development Projects." The City's guidelines also describe the requirement to select Low-Impact Development (LID) types of stormwater treatment controls; the types of projects that are exempt from this requirement; and the Infeasibility and Special Projects exemptions from the LID requirement. The "Stormwater Quality Guidelines for Development Projects" document requires applicants to submit a Stormwater Management Plan, including information such as the type, location, and sizing calculations of the treatment controls that will be installed. Include three stamped and signed copies of the Final Stormwater Management Plan with the building plan

submittal. The Stormwater Management Plan must include a stamped and signed certification by a qualified Engineer, stating that the Stormwater Management Plan complies with the City's guidelines and the State NPDES Permit. Stormwater treatment controls required under this condition may be required to enter into a formal recorded Maintenance Agreement with the City.

STORMWATER MANAGEMENT PLAN—THIRD-PARTY ENGINEER'S CERTIFICATION: The Final Stormwater Management Plan must be certified by a qualified third-party engineer that the proposed stormwater treatment controls comply with the City's Guidelines and Provision C.3 of the Municipal Regional Stormwater NPDES Permit (MRP). A list of qualified engineers is available at the following link: http://www.scvurppp-w2k.com/consultants_list.shtml.

Impact HYDRO-6: The proposed project would increase the amount of impervious surfaces on the project site. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant post-construction water quality impacts. **[Less than Significant Impact]**

Groundwater

Due to the relatively shallow cuts required for the proposed off-site improvements, groundwater is not anticipated to be encountered during construction of the proposed off-site improvements. Operation of the proposed off-site improvements would not require the use or come in contact with groundwater. For these reasons, the proposed off-site improvements would not deplete or adversely affect groundwater.

Impact HYDRO-7: The proposed off-site improvements would not adversely impact groundwater supplies. **[Less than Significant Impact]**

Off-site Flooding

The floodplain modeling completed for the proposed project, which included the proposed bicycle/pedestrian bridge and screening wall, shows that the proposed project would have little effect on water surface elevations. The proposed off-site drainage improvements would not impede flood flows or otherwise affect off-site flooding. The maximum increase in water surface elevation off-site is less than 0.25 feet (*Schaaf & Wheeler*, 2016). In the residential areas adjacent to the site, increases in water surface elevation larger than a tenth of a foot are confined to the street or Caltrans right-of-way (*Schaaf & Wheeler*, 2016). For these reasons, the incremental increase in water surface elevation that could occur off-site as a result of the proposed project, including the proposed off-site improvements, is less than significant.

Impact HYDRO-8: Development of the proposed project, including the off-site improvements, would not expose people or structures flood hazards or substantially increase flooding off-site. **[Less than Significant Impact]**

3.9.4 Planning Considerations

3.9.4.1 *On-site Flooding*

Hydraulic modeling performed by *Schaaf & Wheeler* for this study indicates that the site has potential for inundation during the 100-year event. The modeling shows that under existing conditions flood flows are greatest along the western portion of the site, immediately adjacent to Stevens Creek. The proposed office building blocks the primary flow path on the project site. The proposed grading, however, creates a defined flow path between the proposed driveway and the hotel building. The defined flow path directs the flow through the parking garage, which has been designed to allow flood flows to pass through the structure, and back into the creek on the northwest corner of the site.

The Mountain View Municipal Code contains criteria for new construction in areas prone to flooding. The lowest finished floor elevations of the proposed office building and hotel must be above the maximum adjacent 100-year water surface elevation (WSEL). Each structure's finished floor elevation is identified in Table 3.9-2.

Table 3.9-2: Proposed Finished Floor Elevations and Maximum Adjacent WSEL

Building	Finished Floor Elevation	Maximum Adjacent WSEL
Office	47.5	45.3
Hotel	45.0	44.2
Parking Garage	43.0	44.0

Source: Schaaf & Wheeler. *750 Moffett Boulevard Floodplain Study*. April 2016

As shown in Table 3.9-2, the proposed finished floor elevation of the office building is more than two feet above the maximum adjacent water surface. The proposed finished floor elevation of the hotel is about 0.8 feet above the maximum adjacent water surface elevation. The parking garage is not considered a finished structure and, therefore, is assumed to be exempt from the floodproofing criteria. For these reasons, the proposed project would not expose people or structures to flood hazards.

3.9.5 Conclusion

Impact HYDRO-1: Construction activities would temporarily increase the amount of unconsolidated materials on-site, and grading activities could increase erosion and sedimentation that could be carried by runoff into natural waterways, which could increase sedimentation impacts to local creeks or San Francisco Bay. The proposed project, with implementation of City Standard Conditions of Approval, would not result in significant construction water quality impacts. **[Less than Significant Impact]**

Impact HYDRO-2: The proposed project would increase the amount of impervious surfaces on the project site. The proposed project, with implementation of City Standard Conditions of Approval, would not result in significant post-construction water quality impacts. **[Less than Significant Impact]**

Impact HYDRO-3: The proposed project, with implementation of City Standard Conditions of Approval, would not would not adversely impact groundwater supplies. **[Less than Significant Impact]**

Impact HYDRO-4: Development of the proposed project would not expose people or structures to flood hazards or substantially increase flooding off-site. **[Less Than Significant Impact]**

Impact HYDRO-5: Project grading and construction activities would expose soil to the erosive forces of wind and water, increasing the potential for sedimentation downstream of the project site, including Stevens Creek and San Francisco Bay. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant construction water quality impacts. **[Less than Significant Impact]**

Impact HYDRO-6: The proposed project would increase the amount of impervious surfaces on the project site. The proposed project, with implementation of the City Standard Conditions of Approval, would not result in significant post-construction water quality impacts. **[Less than Significant Impact]**

Impact HYDRO-7: The proposed off-site improvements would not adversely impact groundwater supplies. **[Less than Significant Impact]**

Impact HYDRO-8: Development of the proposed project, including the off-site improvements, would not expose people or structures flood hazards or substantially increase flooding off-site. **[Less than Significant Impact]**

3.10 LAND USE

The following discussion is based upon information contained in the following land use documents:

- Moffett Federal Airfield Comprehensive Land Use Plan
- City of Mountain View 2030 General Plan
- City of Mountain View Municipal Code

3.10.1 Regulatory Setting

3.10.1.1 *Federal Regulations*

Federal Aviation Administration (FAA)

Restriction on the height of buildings, antennas, trees, and other objects near Moffett Federal Airfield is regulated by the Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77. The FAR Part 77 map is used by the FAA and the Santa Clara County Airport Land Use Commission (ALUC) to identify potential obstructions and hazards to aviation traffic and determine consistency with the CLUP. The project site is mapped within the 182-foot above msl maximum building height for Moffett Federal Airfield.

3.10.1.2 *Local Regulations*

Comprehensive Land Use Plan for Moffett Federal Airfield

The proposed project site is approximately 4,000 feet southwest of the Moffett Federal Airfield, the closest airport to the project site. The site is within the Airport Influence Area (AIA) for Moffett Federal Airfield, as described in the Comprehensive Land Use Plan (CLUP) adopted by the Santa Clara County Airport Land Use Commission (ALUC) in November 2012.

Airport Influence Area (AIA): The AIA is a composite of the areas surrounding the airport that are affected by noise, height, and safety considerations. The AIA is defined as a feature-based boundary around the airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan (CLUP) policies may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions, and noise and safety protection to the public. The project is within the AIA for Moffett Federal Airfield. As shown in the Moffett Federal Airfield CLUP, the project site is mapped within the 182-foot above msl maximum building height and is outside the 65 dB CNEL noise contour.

City of Mountain General Plan and Zoning Ordinance

'Land use' is a term that describes different types of activities that occur in a particular area. For example, different areas in Mountain View contain homes, retail stores, industry, parks, open spaces, and public facilities, such as schools. Mountain View includes a mixed-use Downtown core, distinct

residential neighborhoods and commercial corridors, and industrial areas, each embodying a character that makes it unique.

Local land use is governed by the City's General Plan, which in turn provides the basis for the City's Zoning Ordinance, precise plans and design guidelines. The current Mountain View 2030 General Plan and City's Zoning Ordinance are described below.

City of Mountain View 2030 General Plan

The General Plan provides the City with goals and policies that reflect shared community values, potential change areas, and compliance with state law and local ordinances, and provides a guide for future land use decisions. The current Mountain View 2030 General Plan was adopted by the City Council in July 2012, and provides the City with a guide for future land use decisions in the City. Key policies related to land use and applicable to the proposed project include:

INC 5.6: Indoor efficiency. Promote the use of water-efficient fixtures and appliances.

INC 8.5: Site-specific stormwater treatment. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.

INC 15.3: Citywide green building. Support green building technologies and innovations throughout the city.

LUD 3.1: Land use and transportation. Focus higher land use intensities and densities within a half-mile of public transit service, and along major commute corridors.

LUD 3.3: Health. Promote community health through land use and design.

LUD 8.2: Streets friendly to bicyclists and pedestrians. Encourage a network of streets friendly to bicyclists and pedestrians that create a safe and comfortable environment and include convenient amenities and features.

LUD 8.5: Pedestrian and bicycle amenities. Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.

LUD 9.1: Height and setback transitions. Ensure that new development includes sensitive height and setback transitions to adjacent structures and surrounding neighborhoods.

LUD 10.2: Low-impact development. Encourage development to minimize or avoid disturbing natural resources and ecologically significant land features.

MOB 10.2: Reduced travel demand. Promote effective TDM programs for existing and new development.

POS 6.1: Citywide network of pathways. Develop a citywide network of pedestrian and bicycle pathways to connect neighborhoods, employment centers, open space resources and major destinations within the city.

City of Mountain View Zoning Ordinance

As a long-range planning document, the General Plan outlines long-term visions, policies, and actions designed to shape future development within Mountain View. The Zoning Ordinance serves as an implementing tool for the General Plan by establishing detailed, parcel-specific development regulations and standards in each area of the City. Although the two are distinct documents, the Mountain View General Plan and Zoning Ordinance are closely related, and State law mandates that zoning regulations be consistent with the General Plan maps and policies.

3.10.2 Existing Setting

3.10.2.1 *Project Site*

The approximately 9.7-acre project site is currently undeveloped and overgrown with tall grasses, shrubs, and large, mature trees. The site has a history of disturbance and use during construction in surrounding areas. Dirt roads traverse the site, and several soil, mulch, and debris piles are located on the northern portion of the site. Concrete slabs are located on the southern portion of the site in the area of the former County of Santa Clara Vector Control Yard that was located on Parcel 1. An aerial photograph of the project and surrounding land uses is shown on Figure 2.1-3, and photographs of the project site are provided in Section 3.1, *Aesthetics*.

3.10.2.2 *Surrounding Area*

The project site is located in the central portion of the City. The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south.

In the project area, US 101 includes four travel lanes in each direction. The area north of the site, across US 101, is undeveloped Caltrans right-of-way and an undeveloped portion of the NASA Ames Research Center. The area east and south of the project site, across Moffett Boulevard, is developed with commercial and residential uses, including single-family and multi-family residences. In the project area, SR 85 includes two mixed-flow lanes plus one HOV lane in each direction and is elevated approximately 22 to 47 feet above the project site, gaining elevation as it approaches the US 101 interchange. Residential, commercial, retail, and office uses are located west of the project site, across SR 85.

3.10.2.3 *General Plan and Zoning Designation*

General Plan Designation

The project site consists of two parcels; Parcel 1 and Parcel 2. In the City of Mountain View 2030 General Plan, Parcel 1 is designated as *Mixed-Use Corridor* and is within the Moffett/Whisman Planning Area. The *Mixed-Use Corridor* designation offers a range of allowable land uses including multi-family, residential, office, commercial, and lodging. A maximum allowed development density of up to a 1.85 floor area ratio (FAR) is allowed under the *Mixed-Use Corridor* designation, of which up to 0.50 FAR can be office or commercial uses. Parcel 2 is shown as Caltrans right-of-way in the City of Mountain View 2030 General Plan and has no General Plan land use designation.

Zoning Designation

Parcel 1 within the project site is Zoned *A – Agriculture*. The intent of the *A – Agriculture* zoning district is to preserve lands best suited for agricultural use from the encroachment of incompatible uses, and to preserve in agricultural use land suited to eventual development in other uses, pending proper timing for the economical provision of utilities, major streets and other facilities, so that compact, orderly development occurs. The zoning for Parcel 1 is not consistent with the General Plan land use designation. Plan Parcel 2 is shown as Caltrans right-of-way on the Zoning Map and has no zoning designation.

3.10.2.4 *Population and Housing*

In 2010, Mountain View had a population of 74,066 which included 31,957 households[38]. The Association of Bay Area Governments' (ABAG) *Building Momentum: Projections and Priorities 2013* estimates that for 2035, the projected population would be 95,200 residents in 40,130 households. ABAG is projecting that jobs in Mountain View will increase from 47,950 in 2010 to 61,440 by 2035.

3.10.2.5 *Agricultural and Forestry Resources*

Parcel 1 within the project site is Zoned *A – Agricultural.* The project site is not used for agricultural production and is located within an existing, developed, urban area of Mountain View. According to the *Santa Clara County Important Farmland Map 2012*, the project site is designated as "Urban and Built-up Land", which is defined as land that is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. The project site is not designated by the California Resources Agency as farmland of any type and is not subject to a Williamson Act contract. No land adjacent to the project site is designated or used as farmland or timberland.

3.10.3 Land Use Impacts

3.10.3.1 *Thresholds of Significance*

For the purposes of this EIR, a land use 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 (addressed in Section 3.3, *Biological Resources*);

[38] Bay Area Census. "City of Mountain View". Accessed September 11, 2015. Available at: http://www.bayareacensus.ca.gov/cities/MountainView.htm

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere;
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- 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; or
- 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.

3.10.3.2 *Impacts to an Established Community*

The project site is located within a developed, urban area of the City of Mountain View. The site is bordered by US 101 to the north, Moffett Boulevard to the east and south, a PG&E substation to the south, and Stevens Creek, the Stevens Creek Trail, and SR 85 to the west. The surrounding area is fully developed and consists mainly of residential and commercial uses. The project proposes to construct an office building, hotel, and above-ground parking garage on the site, and also includes off-site improvements (i.e., bicycle/pedestrian bridge, screening wall, storm drainage improvements). The proposed project, including the proposed off-site improvements, would not physically divide a community.

Impact LU-1: The proposed project, including the proposed off-site improvements, would not physically divide an established community. **[No Impact]**

3.10.3.3 *Consistency with Applicable Plans, Policies, and Regulations*

General Plan and Zoning

The project is not consistent with the General Plan in that Parcel 2 has no General Plan designation. The project is not consistent with zoning in that Parcel 1 is zoned for agriculture and Parcel 2 has no zoning. The project proposes the adoption of a General Plan Amendment to add Parcel 2 to the General Plan map and designate Parcel 2 *Mixed-Use Corridor*, consistent with the existing land use designation for Parcel 1. The project also proposes adoption of a new Planned Community ("P") Zoning District for the entire 9.7-acre project site and a Zoning Map Amendment reflecting both the proposed P Zoning District and the addition of Parcel 2 to the City's zoning map. The permitted land uses, densities, and maximum building heights of the proposed project (refer to Section 2.2, *Project*

Description) would be consistent with those allowed under the *Mixed-Use Corridor* General Plan designation.

The design and construction of the project, including the proposed off-site improvements, would not place incompatible uses adjacent to existing uses or otherwise conflict with development standards in the city's zoning ordinance in a manner that would result in a substantial environmental effect on adjacent or nearby land uses. Following approval of the proposed General Plan Land Use Map Amendment and Zoning Map Amendment, the project would be in conformance with the Mountain View General Plan and Zoning Ordinance. The project's consistency with the individual General Plan goals and policies is discussed in detail in the Section 6.0, *Consistency with Relevant* of this EIR.

Impact LU-2: Upon adoption of the General Plan Amendment, Planned Community ("P") Zoning District, and Zoning Map Amendment, the proposed project, including the proposed off-site improvements, would be consistent with the City of Mountain View General Plan and Zoning Ordinance. **[Less than Significant Impact]**

3.10.3.4 *Moffett Federal Airfield Comprehensive Land Use Plan*

The project site is approximately 4,000 feet southwest of the Moffett Federal Airfield. As shown in the Moffett Federal Airfield CLUP, the project site is within the AIA for Moffett Federal Airfield. The AIA is defined as a feature-based boundary around the airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan (CLUP) policies may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions, and noise and safety protection to the public. As shown in the Moffett Field Federal Airfield CLUP, the site is not located within the airport safety zone for Moffett Federal Airfield and is outside the 65 dB CNEL noise contour. The tallest proposed structure on the project site would be the office building at approximately 128 feet msl, which is below the 182 feet msl height restriction for the project site. For these reasons, the proposed project is consistent with Moffett Field Federal Airfield CLUP.

General Plan and zoning changes, such as those proposed by the project, within the AIA require review by the Santa Clara County ALUC. For this reason, the project will be referred to the Santa Clara County ALUC for a determination of consistency with the adopted Moffett Field Federal Airfield CLUP, prior to approval by the City Council.

Impact LU-3: Upon a determination of consistency with the adopted Moffett Field Comprehensive Land Use Plan, the proposed project, including the proposed off-site improvements, would not result in a safety hazard for people residing or working in the project area. **[Less than Significant Impact]**

3.10.3.5 *Population and Housing Impacts*

Displacement of Housing or People

There is no housing or people living on the project site or the areas of the proposed off-site improvements; therefore, the project would not displace housing or people.

Population Growth

The proposed office and hotel is estimated to create a total of 784 jobs, which includes 64 employees for the hotel and 720 employees for the office building. This is approximately one percent of the existing population in the City of Mountain View, and less than one percent of the projected population in the City of Mountain View upon General Plan build-out. The proposed project does not include housing. The population growth that could result from the jobs created by the proposed project is not considered substantial in relation to the existing population of the City of Mountain View. The proposed project, including the proposed off-site improvements, would not increase the capacity of existing infrastructure or extend infrastructure to currently undeveloped areas. For these reasons, the proposed project, including the proposed off-site improvements, would not directly or indirectly induce substantial population growth in the project area.

Jobs/Housing Balance

Currently, the City of Mountain View has a "surplus" number of jobs compared to the number of housing units located within the City.[39] The 2030 General Plan states that the jobs/housing ratio in the City will improve from the rate of 1.51 in 2010 to 1.37 in 2030 at General Plan buildout, based on the projected housing growth within the City.

The proposed 200,000-square-foot office building and 180,000-square-foot hotel would create approximately 784 jobs (720 office-related jobs and 64 hotel-related jobs). The number of jobs created by the proposed project was not fully accounted for in the 2030 General Plan jobs/housing analysis and, therefore, the proposed project could incrementally worsen the jobs/housing ratio projected in the 2030 General Plan. The proposed off-site improvements would not affect the City's jobs/housing ratio.

Although approval of the project would increase the number of jobs in the City and could incrementally worsen the jobs/housing ratio that is projected in the 2030 General Plan, the increase is nominal and would not result in significant population growth or housing needs within the community.

Impact LU-4: The proposed hotel would incrementally worsen the 2030 General Plan projected jobs/housing ratio. The incremental increase in jobs, however, is not anticipated to result in a significant population and housing impact. **[Less than Significant Impact]**

[39] Association of Bay Area Governments. *Jobs-Housing Connection Strategy*. May 2012.

3.10.3.6 *Impacts to Agriculture and Forestry Resource*

The project site, including the locations of the proposed off-site improvements, is not designated by the California Resources Agency as farmland of any type and is not subject to a Williamson Act contract. No land adjacent to the project site is designated or used as farmland or timberland. For these reasons, the project would not impact agricultural or forest resources.

Impact LU-5: The proposed project, including the proposed off-site improvements, would not have an impact on agricultural land, agricultural activities, or forest resources. **[No Impact]**

3.10.4 Conclusion

Impact LU-1: The proposed project, including the proposed off-site improvements, would not physically divide an established community. **[No Impact]**

Impact LU-2: Upon adoption of the General Plan Amendment, Planned Community ("P") Zoning District, and Zoning Map Amendment, the proposed project, including the proposed off-site improvements, would be consistent with the City of Mountain View General Plan and Zoning Ordinance. **[Less Than Significant Impact]**

Impact LU-3: Upon a determination of consistency with the adopted Moffett Field Comprehensive Land Use Plan, the project, including the proposed off-site improvements, would not result in a safety hazard for people residing or working in the project area. **[Less than Significant Impact]**

Impact LU-4: The proposed hotel would incrementally worsen the 2030 General Plan projected jobs/housing ratio. The incremental increase in jobs, however, is not anticipated to result in a significant population and housing impact. **[Less Than Significant Impact]**

Impact LU-5: The proposed project, including the proposed off-site improvements, would not have an impact on agricultural land, agricultural activities, or forest resources. **[No Impact]**

3.11 NOISE AND VIBRATION

The following discussion is based upon an Environmental Noise Assessment completed for the project site by *Illingworth & Rodkin* in March 2016. The assessment is attached as Appendix H of this EIR.

3.11.1 Background

3.11.1.1 *Noise*

Noise may be defined as unwanted sound. Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background or ambient noise level to temporary increases caused by traffic or other sources. State and federal standards have been established as guidelines for determining the compatibility of a particular use with its noise environment.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA.[40] This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors include maximum noise level (L_{max}), the energy-equivalent noise level (L_{eq}), and the day-night average noise level (L_{dn}). The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For the energy-equivalent sound/noise descriptor called L_{eq} the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since the sensitivity to noise increases during the evening hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Day/Night Average Sound Level (L_{dn}) is the average A-weighted noise level during a 24-hour day, obtained after the addition of 10 dB to noise levels measured in the nighttime between 10:00 p.m. and 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour A-weighted noise level from midnight to midnight after the addition of five dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

3.11.1.2 *Ground-borne 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 method is the Peak

[40] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints.

To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

3.11.2 Regulatory Setting

3.11.2.1 *City of Mountain View 2030 General Plan*

The City's General Plan identifies the following land use outdoor compatibility standards for office buildings:

- Normally Acceptable: up to 67.5 dBA L_{dn}
- Conditionally Unacceptable: 67.5-75 dBA L_{dn}
- Normally Unacceptable: 75-85+ dBA L_{dn}

The "normally acceptable" noise levels are considered satisfactory for office uses assuming that the office buildings are of normal conventional construction and without any special noise insulation requirements. In areas where the noise level is "conditionally unacceptable" for office uses, new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design (General Plan Policy NOI 1.3). In areas where the noise level is "normally unacceptable," new construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.[41]

Chapter 7 of the City of Mountain View's 2030 General Plan provides noise contours for the year 2030, and establishes the following policies that are applicable to the proposed project:

NOI 1.1: Land use compatibility. Use the Outdoor Noise Environmental Guidelines as a guide for planning and development decisions (Table 7.1).

[41] City of Mountain View 2030 General Plan, *Outdoor Noise Acceptability Guidelines.*

Table 7.1 Outdoor Noise Environment Guidelines

Land Use Category	Community Noise Exposure in Decibels (CNEL) Day/Night Average Noise Level in Decibels (Ldn)						
	55	60	65	70	75	80	85
Residential–Single-Family, Duplex, Mobile Homes							
Residential–Multi-Family Transient Lodging–Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters, Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE
New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development clearly should not be undertaken.

Source: State of California General Plan Guidelines, 2003.

NOI 1.2: Noise-sensitive land uses. Require new development of noise-sensitive land uses to incorporate measures into the project design to reduce interior and exterior noise levels to the following acceptable levels:

- New single-family developments shall maintain a standard of 65 dBA L_{dn} for exterior noise in private outdoor active use areas.

- New multi-family residential developments (and hotels, per Table 7.1) shall maintain a standard of 65 dBA L_{dn} for private and community outdoor recreation use areas. Noise standards do not apply to private decks and balconies in multi-family residential developments.

- Interior noise levels shall not exceed 45 dBA L_{dn} in all new single-family and multi-family residential units.

- Where new single-family and multi-family residential units would be exposed to intermittent noise from major transportation sources, such as train or airport operations, new construction shall achieve an interior noise level of 65 dBA (Lmax) through measures such as site design or special construction materials. This standard shall apply to areas exposed to four or more major transportation noise events, such as passing trains or aircraft flyovers per day.

NOI 1.3: Exceeding acceptable noise thresholds. If noise levels in the area of a proposed project would exceed normally acceptable thresholds, the City shall require a detailed analysis of proposed noise reduction requirements to determine whether the proposed use is compatible. As needed, noise insulation features shall be included in the design of such projects to reduce exterior noise levels to meet acceptable thresholds, or for uses with no active outdoor use areas, to ensure acceptable interior noise levels.

NOI 1.4: Site planning. Use site planning and project design strategies to achieve the noise level standards in NOI 1.1 (Land use compatibility) and in NOI 1.2 (Noise-sensitive land uses). The use of noise barriers shall be considered after all practical design-related noise measures have been integrated into the project design.

NOI 1.5: Major Roadways. Reduce the noise impacts from major arterials and freeways.

NOI 1.6: Sensitive uses. Minimize noise impacts on noise-sensitive land uses, such as residential uses, schools, hospitals, and child-care facilities.

NOI 1.7: Stationary sources. Restrict noise levels from stationary sources through enforcement of the Noise Ordinance.

NOI 1.8: Moffett Federal Airfield. Support efforts to minimize noise impacts from Moffett Federal Airfield in coordination with Santa Clara County's Comprehensive Land Use Plan.

3.11.2.2 *City of Mountain View Municipal Code*

Section 8.70.1 of the City's Municipal Code restricts the hours of construction activity to 7:00 a.m. to 6:00 p.m., Monday through Friday. No construction activity is permitted on Saturday, Sunday, or holidays without written approval from the City.

The City of Mountain View also identifies limits on noise from stationary equipment (such as heating, ventilation, and air conditioning mechanical systems, delivery truck idling, loading/ unloading activities, recreation activities, and parking lot operations) in Section 21.26 of the

Municipal Code. The maximum allowable noise level is 55 dBA during the day and 50 dBA at night unless it has been demonstrated that such operation will not be detrimental to the health, safety, peace, morals, comfort or general welfare of residents subjected to such noise, and the use has been granted a permit by the Zoning Administrator.

3.11.3 Existing Conditions

A noise monitoring survey was performed at the site beginning on Tuesday, June 16, 2015 and concluding on Thursday, June 18, 2015. The monitoring survey included two long-term noise measurements and two short-term noise measurements. The long-term and short-term measurement locations are shown in Figure 3.11-1. The noise environment at the site and in the surrounding areas results primarily from vehicular traffic along US 101, SR 85, and Moffett Boulevard. Overhead aircraft associated with Moffett Federal Airfield also affect the noise environment at the project site. The results of the noise monitoring survey are summarized below. For more detailed information, please refer to Appendix H of this EIR.

Long-term noise measurement LT-1 was made near the southwest corner of the project site, just north of the existing PG&E substation building. LT-1 was approximately 305 feet east of the centerline of northbound SR 85 and approximately 385 feet west of the centerline of Moffett Boulevard. Hourly average noise levels at this location typically ranged from 60 to 64 dBA L_{eq} during the day and from 53 to 62 dBA L_{eq} at night. The day-night average noise level at LT-1 ranged from 65 to 66 dBA.

LT-2 was made in the northeast corner of the project site, approximately 120 feet south the centerline of the near through lane along US 101 and approximately 185 feet west of the centerline of Moffett Boulevard. Hourly average noise levels at this location typically ranged from 63 to 74 dBA L_{eq} during the day and from 67 to 75 dBA L_{eq} at night. The day-night average noise level ranged from 77 to 79 dBA.

ST-1 was made in the southeast corner of the site, approximately 75 feet northwest of the centerline of Moffett Boulevard. The ten-minute average noise level measured at ST-1 was 63 dBA, and the estimated day-night average noise level was 66 dBA. ST-2 was made along the western boundary of the project site, approximately 240 feet east of the centerline of the nearest northbound SR 85 ramp. The ten-minute average noise level measured at ST-2 was 62 dBA, and the estimated day-night average noise level was 65 dBA.

3.11.4 Noise and Vibration Impacts

3.11.4.1 *Thresholds of Significance*

Appendix G to the CEQA Guidelines suggests that a noise 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 applicable standards of other agencies;

NOISE AND VIBRATION MEASUREMENT LOCATIONS FIGURE 3.11-1

- 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 following criteria were used to evaluate environmental noise in accordance with the thresholds listed above:

- 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 Municipal Code.

- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Ground-borne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant impact would be identified if traffic generated by the project would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is five (5) dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is three (3) dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

- 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 (5) dBA L_{eq}, for a period of more than one year would constitute a significant temporary noise increase at adjacent residential land uses.

As previously discussed in Section 3.0, on December 17, 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 unless the project could exacerbate the existing environmental hazards or risks. Nevertheless, the City has policies and regulations that address existing conditions affecting a proposed project. The City has, therefore, included planning considerations relating to these policies and regulations for information only.

3.11.4.2 *Noise and Vibration Impacts from the Project*

Construction Noise and Vibration Impacts

Construction Vibration Impacts

Construction activities would include site preparation work, foundation work, and new building framing and finishing. The proposed project would not require pile driving, which can cause high vibration levels.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings that area structurally sound and designed to modern engineering standards, 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 ancient buildings or buildings that are documented to be structurally weakened. No ancient buildings or buildings that are documented to be structurally weakened adjoin the project site; therefore, ground-borne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

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. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. The nearest existing buildings are located east and west of the project site, across Moffett Boulevard and SR 85, respectively. The distance from the project site to the nearest buildings located to the east, across Moffett Boulevard, is approximately 225 feet and greater. At these distances, vibration levels would be expected to be 0.02 in/sec PPV or less. The nearest buildings located to the west of the project site, across SR 85, are approximately 415 to 480 feet from the project site. At these distances, the vibration levels are expected to be 0.01 in/sec PPV or less. All vibration levels expected at nearby buildings would, therefore, be below the 0.3 in/sec PPV significance threshold.

Impact NOI-1: Construction-related vibration levels resulting from activities at the project site would not exceed 0.3 in/sec PPV at the nearest existing buildings. **[Less than Significant Impact]**

Construction Noise Impacts

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. 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 uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The typical range of maximum instantaneous noise levels would be 80 to 90 dBA L_{max} at a distance of 50 feet. Hourly average noise levels generated by construction are about 78 to 89 dBA L_{eq} measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

Based on the results of several noise studies completed in project vicinity, existing daytime noise levels at the nearby receptors located east of the project site along Leong Drive were estimated to range from 60 to 67 dBA L_{eq}.[42] [43] Noise levels during construction of the proposed project, including the proposed off-site improvements, would not substantially affect the residences located west of the project site, across SR 85, due to the distance between these residences and the project site, existing traffic noise along SR 85, and the shielding provided by an existing sound wall along SR 85.

Construction activities would include site preparation, excavation, grading, trenching, building construction, paving, and architectural coating. Once construction moves indoors, minimal noise would be received at off-site locations. The proposed project is expected to take a total of 15 to 18 months to complete. The highest construction noise levels would occur when construction of all three proposed structures (i.e., hotel, office, and parking garage) would occur simultaneously. Noise levels at the nearest residences during construction of the proposed project, including the proposed off-site improvements, were calculated to exceed the lowest daytime ambient noise level (i.e., 60 dBA L_{eq}) by more than five dBA for a total of eight months. Construction noise levels are not expected to exceed 60 dBA L_{eq} and exceed ambient levels at the nearby residences by more than five dBA L_{eq} for a period of more than one year and, therefore, would not result in a significant noise impact. In addition, the following City of Mountain View Standard Condition of Approval would be incorporated into the project to reduce construction noise levels:

Construction Noise Reduction: The following noise reduction measures shall be incorporated into construction plans and contractor specifications to reduce the impact of temporary construction-related noise on nearby properties: (a) comply with manufacturer's muffler requirements on all construction equipment engines; (b) turn off construction equipment when not in use, where applicable; (c) locate stationary equipment as far as practical from receiving properties; (d) use temporary sound barriers or sound curtains around loud stationary equipment if the other noise reduction methods are not effective or possible; and (e) shroud or shield impact tools and use electric-powered rather than diesel-powered construction equipment.

Work Hours: No work shall commence on the job site prior to 7:00 a.m. nor continue later than 6:00 p.m., Monday through Friday, nor shall any work be permitted on Saturday or Sunday or any holiday unless prior approval is granted by the Chief Building Official. At the discretion of the Chief Building Official, the general contractor or the developer may be required to erect a sign at a prominent location on the construction site to advise the subcontractor and material suppliers of the working hours. Violation of this condition of approval may be subject to the penalties outlined in Section 8.6 of the City Code and/or suspension of building permits

[42] Illingworth & Rodkin, Inc. Holiday Inn Express Hotel Environmental Noise Assessment. September 2013.
[43] Illingworth & Rodkin, Inc. Draft Noise Study Report State Route 85 Express Lanes Project. February 2012.

Construction Parking Management Plan: The applicant shall prepare a construction parking management plan to address parking demands and impacts during the construction phase of the project. The construction parking management plan shall be subject to review and approval by the Zoning Administrator prior to the issuance of building permits.

Notice of Construction: The applicant shall notify neighbors within 300' of the project site of the construction schedule in writing, prior to construction. A copy of the notice and the mailing list shall be submitted prior to issuance of building permits.

Disturbance Coordinator: The project applicant shall designate a "disturbance coordinator" who will be responsible for responding to any local complaints regarding construction noise. The coordinator (who may be an employee of the general contractor) will determine the cause of the complaint and will require that reasonable measures warranted to correct the problem be implemented. A telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site fence and on the notification sent to neighbors adjacent to the site. The sign must also list an emergency after-hours contact number for emergency personnel.

Impact NOI-2: Project construction activities, including construction of the proposed off-site improvements, would not substantially increase ambient noise levels at the nearest residences. In addition, the standard construction noise controls listed above and included in the project as City of Mountain View Standard Conditions of Approval would be implemented to reduce noise levels. **[Less than Significant Impact]**

Project Operational Noise

Operational noise associated with the proposed office building and hotel includes the noise from the building heating ventilation and air conditioning systems and pool equipment. Due to the distance between the proposed buildings and the nearby residences and the high ambient noise levels in the project area, operation of the proposed project is not expected to exceed the noise levels outlined in the City of Mountain View Municipal Code or otherwise result in a significant noise impact.

Impact NOI-3: Project operational noise would not substantially increase noise levels at adjacent receptors. **[Less than Significant Impact]**

Project-Generated Traffic Noise

Typically, a significant permanent noise increase would occur if the project would increase noise levels at noise-sensitive receptors by three dBA L_{dn} or greater where project noise levels exceed the "normally acceptable" noise level standard. Where project noise levels remain at or below the "normally acceptable" noise level standard, noise level increases of five dBA L_{dn} or greater would be considered significant. According to the City's 2030 General Plan, the "normally acceptable" outdoor noise level standard for the nearby residences would be 55 dBA L_{dn}, and existing ambient levels exceed this threshold; therefore, a significant impact would occur if project-generated traffic would permanently increase ambient levels by three dBA L_{dn}.

Traffic along US 101, Moffett Boulevard, and SR 85 dominates the noise environment in the area. Additionally, airplane flyovers also affect the noise environment at the nearby residences. The traffic study prepared for the project (refer to Appendix I) provides peak hour project-generated traffic volumes. The project is projected to add approximately 401 trips during the morning peak hour and approximately 289 trips during the evening peak hour. The permanent noise level increase due to this project-generated traffic increase at the surrounding noise-sensitive receptors would be approximately one dBA L_{dn}; therefore, the proposed project would not cause a substantial permanent noise level increase at the surrounding noise-sensitive receptors.

Impact NOI-4: Project-generated traffic would not substantially increase noise levels at the existing residences in the project vicinity. **[Less than Significant Impact]**

3.11.4.3 *Proposed Off-site Improvements*

3.2.3 Off-site Improvements

In addition to the proposed on-site development, the proposed project also includes off-site improvements. The off-site improvements include constructing a bicycle/pedestrian bridge over Stevens Creek, re-routing stormwater runoff across Moffett Boulevard to the southeast cloverleaf of the US 101/Moffett Boulevard interchange, and constructing a screening wall on the adjacent PG&E property. Operation of the proposed off-site improvements would not generate noise or otherwise result in noise impacts. Construction of the off-site improvements would generate noise and, therefore, was included in the construction noise assessment completed for the proposed on-site development. As discussed above, noise during construction of the proposed project, including the off-site improvements, would not would not result in a significant noise impact. The City of Mountain View Standard Condition of Approval identified above to reduce on-site construction noise levels would also be implemented during construction of the proposed off-site improvements.

Impact NOI-5: Project construction activities, including construction of the proposed off-site improvements, would not substantially increase ambient noise levels at the nearest residences. In addition, the standard construction noise controls listed above and included in the project as City of Mountain View Standard Conditions of Approval would be implemented reduce noise levels. **[Less than Significant Impact]**

3.11.5 Planning Considerations

3.11.5.2 *Noise Impacts to the Project*

Exterior Noise Levels

The future noise environment at the project site would continue to be dominated by vehicular traffic along US 101, SR 85, and Moffett Boulevard. Based on a review of the data contained in the City of Mountain View's 2030 General Plan and Greenhouse Gas Reduction Program EIR and the traffic study completed for the proposed project, traffic noise levels in the area are anticipated to increase by two dBA L_{dn} under Cumulative Plus Project peak hour traffic conditions; therefore, the future noise environment at the project site would be 68 dBA L_{dn} at a distance of 75 feet from the centerline of

Moffett Boulevard, would range from 79 to 81 dBA L_{dn} at a distance of 120 feet from the centerline of the nearest US 101 through lane, and would range from 67 to 68 dBA L_{dn} at a distance of 305 feet from the centerline of the nearest SR 85 ramp.

Proposed Hotel

The conceptual site plan for the proposed project shows three outdoor use areas at the proposed hotel. According to Policy NOI 1.2 of the City's General Plan, outdoor noise environments at hotels would be considered "normally acceptable" at or below 65 dBA L_{dn}. These noise standards would apply to outdoor public use areas but not to private decks or balconies.

Figure 3.11-2 shows the conceptual site plan of the proposed hotel with the three outdoor use areas identified A, B, and C. Outdoor use area A is located in the southeast corner of the project site, approximately 150 feet from the centerline of Moffett Boulevard. The proposed hotel building would provide shielding from US 101 traffic noise. The future exterior noise level at outdoor use area A would be 64 dBA L_{dn} and would meet the 65 dBA L_{dn} requirement.

Outdoor area B is an outdoor dining area located on the interior of the site and would receive shielding from US 101 and Moffett Boulevard traffic noise by the proposed hotel building and from SR 85 traffic noise by the proposed parking garage. This outdoor dining area is approximately 195 feet from the centerline of Moffett Boulevard and approximately 315 feet from the centerline of the nearest through lane along southbound US 101. With the shielding provided by the proposed hotel and parking garage, the future exterior noise levels at outdoor use area B would be below the 65 dBA L_{dn} noise requirement.

Outdoor use area C would also be located on the interior of the site, east of outdoor use area B, and is the pool area for the proposed hotel. With shielding from Moffett Boulevard and US 101 traffic noise provided by the proposed hotel and shielding from SR 85 traffic noise provided by the proposed parking garage, the future exterior noise level at outdoor use area C would be below the 65 dBA L_{dn} noise requirement.

Proposed Office Building

As established in the City's General Plan, outdoor noise environments at the office building and adjacent outdoor areas should be maintained at or below 67.5 dBA L_{dn} to be considered by the City of Mountain View to be "normally acceptable. These noise standards would apply to community outdoor areas and not to private decks or balconies.

The three outdoor use areas at the office building are shown in Figure 3.11-2 as D, E, and F. Outdoor area D would be located near the eastern façade of the office building approximately 205 feet from the centerline of Moffett Boulevard. At this distance, the future unmitigated noise levels at this break area would be 62 dBA L_{dn}. Outdoor area E is located between the office building and the parking garage. This location would have a direct line-of-sight to SR 85 and would be approximately 260 feet from the centerline of the nearest ramp. At this distance, the future exterior noise levels would be 66 dBA L_{dn}. Outdoor area F is a rooftop garden patio located on the fourth floor of the proposed office building. This outdoor use area would have a direct line-of-sight to Moffett Boulevard but would be partially shielded from SR 85 by the interior office space located on the

fourth and fifth floors. The distance from outdoor area F to the centerline of Moffett Boulevard would be approximately 200 feet, and the distance to the centerline of the nearest SR 85 ramp would be approximately 425 feet. At these distances, the future exterior noise levels at outdoor area F would range from below 60 to 62 dBA L_{dn}.

There is also a designated outdoor picnic area in the landscaped section of the project site between the proposed hotel and proposed office building. This outdoor park area would be located approximately 160 feet from the centerline of Moffett Boulevard. At this distance, the future exterior noise levels would be 63 dBA L_{dn}.

Interior Noise Levels

Proposed Hotel

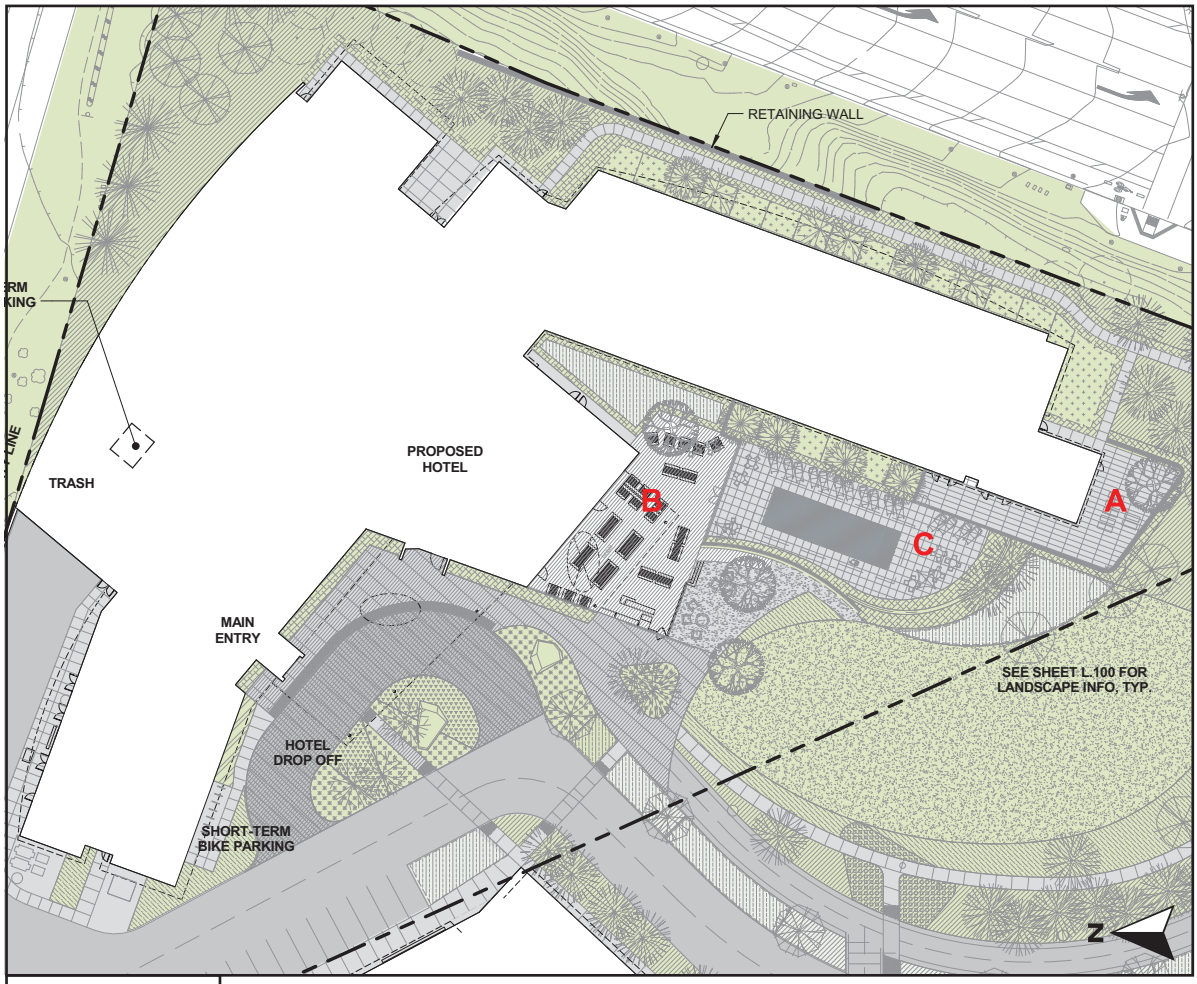
The City of Mountain View's 2030 General Plan requires interior noise levels to be maintained at or below 45 dBA L_{dn} for hotel uses. The General Plan also states that where new lodging units would be exposed to intermittent noise from four or more daily aircraft flyovers interior noise levels should not exceed 65 dBA Lmax.

The hotel rooms along the northernmost building façade adjacent to US 101 would have setbacks from the centerline of the nearest through travel lane ranging from approximately 100 feet in the northwest corner of the hotel to approximately 200 feet in northeast corner. At these distances, the rooms would be exposed to future exterior noise levels ranging from 76 to 82 dBA L_{dn}. A 12-foot sound wall is planned as part of the proposed hotel along the northern boundary. While this would provide shielding for the first floor of the hotel along this building façade, the hotel rooms on floors two through five would have direct line-of-sight to US 101 and would not receive shielding from the 12-foot sound wall. Maximum instantaneous noise levels due to airplane flyovers are not expected to change under future conditions. Assuming there would be four or more airplane flyovers under future conditions, the future intermittent exterior noise levels at the rooms adjacent to US 101 would typically range from 70 to 80 dBA Lmax.

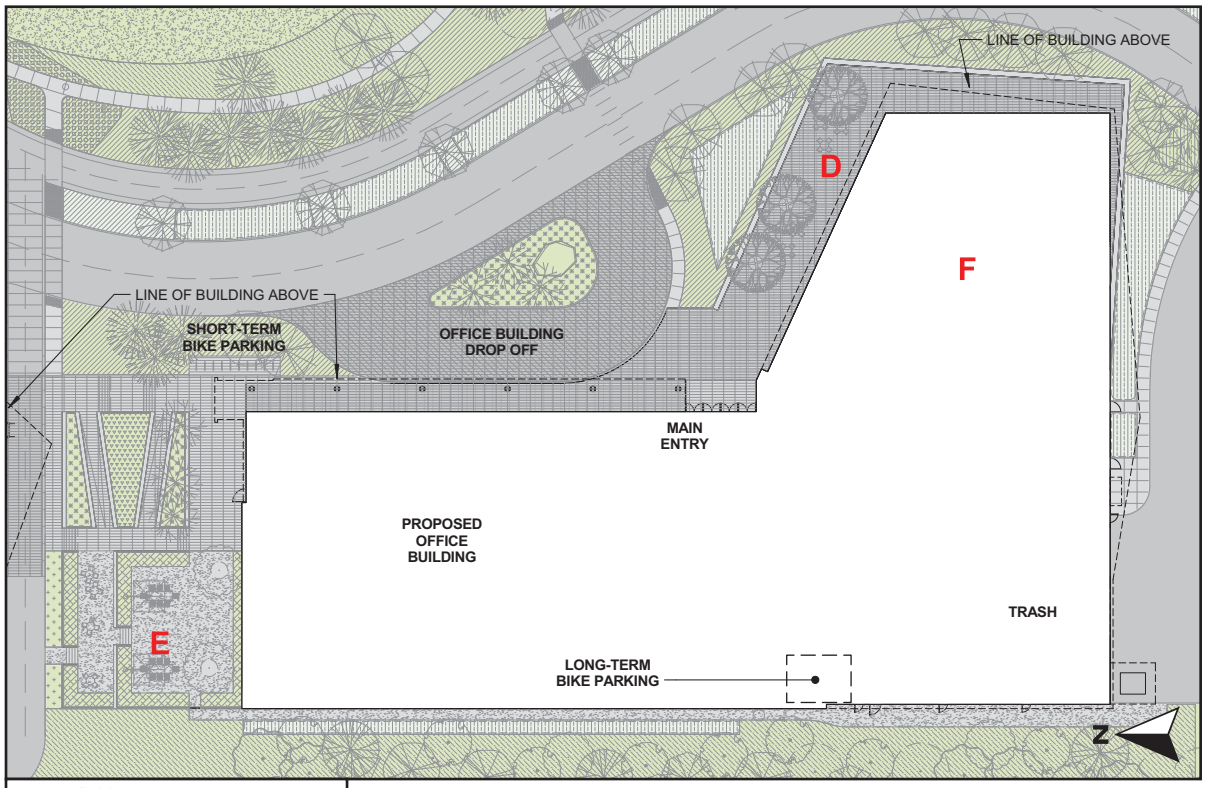
The hotel rooms along the building façade adjacent to Moffett Boulevard would be set back from the centerline of the roadway by approximately 90 feet. At these distances, the hotel would be exposed to exterior noise levels ranging from 73 to 76 dBA L_{dn}. Typical airplane flyovers would cause future exterior noise levels ranging from 70 to 80 dBA Lmax at these rooms.

The hotel rooms located along the interior of the project site would be shielded from traffic along the surrounding roadways by the proposed buildings. These rooms would be exposed to future exterior noise levels below 65 dBA L_{dn} and to maximum instantaneous noise levels up to 70 to 80dBA Lmax due to airplane flyovers.

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 commercial hotel construction provides approximately 20 to 25 dBA of exterior-to-interior noise reduction, assuming windows are closed. For exterior noise environments ranging from 65 to 70 dBA L_{dn}, interior noise levels can typically be maintained below 45 dBA L_{dn} with the incorporation of an adequate forced-air mechanical ventilation system in each hotel room, allowing the windows to be closed. In noise



Hotel



Office Building

OUTDOOR USE AREAS FIGURE 3.11-2

environments of 70 dBA L_{dn} or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods are often necessary to meet the interior noise 45 dBA L_{dn} level limit. Projected interior noise levels for the proposed project would potentially be as high as 62 dBA L_{dn} at the rooms adjacent to US Highway 101 and as high as 47 dBA L_{dn} at the rooms adjacent to Moffett Boulevard, exceeding the City's 45 dBA L_{dn} noise standard. Future intermittent interior noise levels would range from 50 to 60 dBA Lmax due to airplane flyovers, meeting the City's 65 dBA Lmax standard.

The following City of Mountain View Standard Conditions of Approval would be incorporated into the project to ensure interior noise levels at the proposed hotel would meet the City's noise standards:

Interior Noise Levels (Commercial): Construction drawings must confirm that measures have been taken to achieve an interior noise level of 45 dB(A) Ldn for all commercial tenant space.

Proposed Office Building

The proposed office building would be shielded from US 101 by the proposed hotel and parking garage; however, the proposed office building would have direct line-of-sight to SR 85 and Moffett Boulevard. The western-facing facade of the office building would be approximately 240 to 285 feet from the centerline of SR 85. At this distance, the lower level building façades would be exposed to future exterior noise levels ranging from 64 to 66 dBA L_{eq}. Exterior noise levels at upper levels of the proposed office building would be approximately 10 to 15 dBA higher because of the lack of acoustical shielding. The eastern office building façade nearest Moffett Boulevard would be approximately 180 to 200 feet from the centerline of the roadway. At these distances, the building façade would be exposed to future exterior noise levels of 61 dBA L_{eq}.

The state requires interior noise levels to be maintained at 50 dBA L_{eq} or less during hours of operation at the proposed office building, and the City of Mountain View Standard Conditions of Approval require interior noise levels to be maintained at 45 dBA L_{dn} or less. Various methods could be used for the proposed office building to achieve the state's and the City's interior noise standards. For example, a wall assembly with an STC rating of at least 50 and window assemblies with an STC rating of at least 40 would provide at least 35 to 40 dBA of noise reduction in interior spaces. The inclusion of adequate forced-air mechanical ventilation systems is normally required so windows may be kept closed at the occupant's discretion.

The following City of Mountain View Standard Conditions of Approval would be incorporated into the project to ensure interior noise levels at the proposed office building would meet the City's noise standards:

Interior Noise Levels (Commercial): Construction drawings must confirm that measures have been taken to achieve an interior noise level of 45 dB(A) Ldn for all commercial tenant space.

3.11.5.2 *Moffett Federal Airfield*

Moffett Federal Airfield is a joint civil-military airport located less than one mile east of the project site. According to the 2022 Aircraft Noise Contour, the project site falls within the airport influence area; however, the site is outside the 60 dBA CNEL noise contour. Noise from aircraft would not

substantially increase ambient noise levels at the project site, and interior noise levels resulting from aircraft would be compatible with the proposed project.

3.11.3 Conclusion

Impact NOI-1: Construction-related vibration levels resulting from activities at the project site would not exceed 0.3 in/sec PPV at the nearest existing buildings. **[Less than Significant Impact]**

Impact NOI-2: Project construction activities, including construction of the proposed off-site improvements, would not substantially increase ambient noise levels at the nearest residences. In addition, the standard construction noise controls included in the project as City of Mountain View Standard Conditions of Approval would be implemented to reduce noise levels. **[Less than Significant Impact]**

Impact NOI-3: Project operational noise would not substantially increase noise levels at adjacent receptors. **[Less than Significant Impact]**

Impact NOI-4: Project-generated traffic would not substantially increase noise levels at the existing residences in the project vicinity. **[Less than Significant Impact]**

Impact NOI-5: Project construction activities, including construction of the proposed off-site improvements, would not substantially increase ambient noise levels at the nearest residences. In addition, the standard construction noise controls listed above and included in the project as City of Mountain View Standard Conditions of Approval would be implemented to reduce noise levels. **[Less than Significant Impact]**

3.12 PUBLIC SERVICES

3.12.1 Background

Unlike utility services, public facility services are provided to the community as a whole, usually from a central location or from a defined set of nodes. The resources base for delivery of the services, including the physical service delivery mechanisms, is financed on a community-wide basis, usually from a unified or integrated financial system. The service delivery agency can be a city, county, service or other special district. Typically new development creates an incremental increase in the demand for these services. The amount of the demand varies widely depending on the nature of the development (e.g. residential vs. industrial), the type of services, and the specific characteristics of the development (such as senior housing vs. family housing).

The impact of a particular project on public facilities and services is generally a fiscal impact. By increasing the demand for a service, a project could cause an increase in the cost of providing the service (more personnel hours to patrol an area, additional fire equipment needed to service a tall building, etc.). This is a fiscal impact, not an environmental one. CEQA does not require an analysis of fiscal impacts.

CEQA analysis is, however, required if the increased demand is of sufficient size to trigger the need for a new facility (such as a police or fire station), since the new facility would have a physical impact on the environment. CEQA requires that an EIR then identify and evaluate the physical impacts on the environment from this new facility.

3.12.2 Existing Setting

3.12.2.1 *Fire Protection Services*

The Mountain View Fire Department (MVFD) provides fire protection and emergency medical services in Mountain View. In addition to participating in State-wide and mutual aid programs, the MVFD also participates in an automatic aid program with the cities of Palo Alto, Los Altos, and Sunnyvale. The MVFD has an established response time goal of six minutes from dispatch for "Medical Code Three" calls (i.e., those requiring expedited transport). During the 2012-2013 fiscal year, the MVFD had 88 full-time staff, including 21 firefighters/paramedics.[44]

The MVFD operates five fire stations that are staffed daily by a total of 21 personnel, a MVFD standard. The closest fire station to the project site is Station One, which is located at 251 South Shoreline Boulevard approximately 1.5 miles southwest of the project site. The MVFD reviews applications for new projects to ensure that they comply with the City's current codes and standards.

[44] City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report.* November 2011

3.12.2.2 *Police Protection Services*

The Mountain View Police Department (MVPD) provides police services in Mountain View. The MVPD has a staff of 95 sworn and 49 non-sworn personnel, and conducts an active volunteer program that consists of approximately 30 non-sworn volunteers.[45] Officers patrolling the area are dispatched from the police headquarters located at 1000 Villa Street, approximately 1.3 miles southwest of the project site.

The MVPD has a goal to respond to Priority E and Priority 1 calls in less than four minutes from dispatch at least 55.5 percent of the time. Priority E and Priority 1 calls are considered the highest priority calls and signal emergency dispatch from the MVPD. To ensure that their standards are always met, the MVPD has a mutual aid agreement with the surrounding jurisdictions, under which the other agencies would assist the MVPD in responding to calls, when needed.

3.12.3 Public Service Impacts

3.12.3.1 *Thresholds of Significance*

The public services discussion below focuses on fire and police services, using the following threshold of significance (CEQA Guidelines, Appendix G):

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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.

The project does not propose residential uses, and therefore the project would not result in an increase in demand for schools or libraries and a minimal increase in demand for parks and recreational facilities. For these reasons, impacts to these public services are assumed to be minimal and not discussed further.

3.12.3.2 *Impacts to Fire Protection Facilities*

The project proposes to develop the 9.7-acre project site with new office building, hotel, and above-grade parking garage. The proposed project also includes a bicycle/pedestrian bridge over Stevens Creek that would connect the project site and surrounding area to the Stevens Creek Trail. Based on the growth assumptions in the City's 2030 General Plan, the MVFD does not anticipate the need to construct a new fire station to accommodate build-out of the General Plan.[46] A portion of the project site (Parcel 1) is designated *Mixed-Use Corridor* in the City's 2030 General Plan; the remaining portion (Parcel 2) is shown as a Caltrans right-of-way and, therefore, has no land use designation.

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[45] City of Mountain View. *2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report.* September 2012

[46] City of Mountain View. *2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report.* September 2012. Pages 503-504.

The project proposes the adoption of a General Plan Amendment to add and designate Parcel 2 as *Mixed-Use Corridor*, consistent with the existing General Plan land use designation for Parcel 1.

Implementation of the proposed project would intensify the use of the site and increase the demand for fire protection services compared to existing conditions. However, proposed development would be consistent with the *Mixed-Use Corridor* designation for the project site and within the assumptions made under the 2030 General Plan. Adopting a General Plan Amendment to add and designate Parcel 2 as *Mixed-Use Corridor* would not expand the MVFD's service area since Parcel 2 is located within the City of Mountain View and the surrounding area is already served by the MVFD. Whereas approximately 539,000 square feet of development is permitted on Parcel 1 under the General Plan, the project proposes 380,000 square feet on Parcels 1 and 2, combined.

The project would be constructed to current Fire Code standards, and would not expand the urban area already served by the MVFD. For these reasons, the construction of new or expanded fire protection facilities would not be needed to serve the project.

Impact PS-1: The project would not result in the need for new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives. **(Less than Significant Impact)**

3.12.3.3 *Impacts to Police Protection Facilities*

According to the 2030 General Plan EIR, buildout of the General Plan may require additional police facilities to be constructed in order to adequately meet service goals, which could result in significant environmental effects. Consequently, the General Plan EIR included measures to reduce potentially significant impacts from the expansion of police facilities to a less than significant level.

Adopting a General Plan Amendment to add and designate Parcel 2 as *Mixed-Use Corridor* would not expand the MVPD's service area since Parcel 2 is located within the City of Mountain View and the surrounding area is already served by the MVPD. Whereas approximately 539,000 square feet of development is permitted on Parcel 1 under the General Plan, the project proposes 380,000 square feet on Parcels 1 and 2, combined.

For these reasons, implementation of the proposed project would not expand the urban area already served by the MVPD nor result in the need to expand or construct new police facilities beyond what is already anticipated under the 2030 General Plan.

Impact PS-2: The project would not result in the need for new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives. **(Less than Significant Impact)**

3.12.4 Conclusion

Impact PS-1: The project would not result in the need for new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives. **(Less than Significant Impact)**

Impact PS-2: The project would not result in the need for new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives. **(Less than Significant Impact)**

3.13 TRANSPORTATION

The following discussion is based upon a Transportation Impact Analysis completed for the project site by *Fehr & Peers* in March 2016. This report is attached as Appendix I of this EIR.

3.13.1 Regulatory Setting

3.13.1.2 *Regional*

Santa Clara County Valley Transportation Authority (VTA)

The proposed project is located within the City of Mountain View, in Santa Clara County. The Santa Clara County Valley Transportation Authority (VTA) is the Congestion Management Agency (CMA) for the County and has policies and regulations that are relevant to the project. The VTA is responsible for ensuring local government conformance with the Congestion Management Program (CMP), a program aimed at reducing regional traffic congestion. The CMP requires that each jurisdiction identify existing and future transportation facilities that will operate at an acceptable service level and provide mitigation where future growth degrades that service level. The VTA has review responsibility for proposed development projects that are expected to generate 100 or more additional peak-hour trips.

Santa Clara Countywide Bicycle Plan

The Santa Clara Countywide Bicycle Plan synthesizes other local and County plans into a comprehensive 20-year cross-county bicycle corridor network and expenditure plan (May 2008). The long-range countywide transportation plan and the means by which projects compete for funding and prioritization are documented in the Valley Transportation Plan (VTP) 2035 (adopted in January 2009). VTA has adopted the Santa Clara Countywide Bicycle Plan, which is a planned bicycle network of 24 routes of countywide or intercity significance.

3.13.1.3 *Local*

Mountain View 2030 General Plan

The Mountain View 2030 General Plan was adopted in July 2012, and provides the City with goals and policies that more accurately reflect shared community values, potential change areas, and compliance with state law and local ordinances. The General Plan provides a guide for future land use decisions in the City. Key policies related to transportation and traffic and applicable to the proposed project include:

MOB 1.2: Accommodating all modes. Plan, design and construct new transportation improvement projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists and persons of all abilities.

MOB 4.1: Bicycle network. Improve facilities and eliminate gaps along the bicycle network to connect destinations across the city.

MOB 4.2: Planning for bicycles. Use planning processes to identify or carry out improved bicycle connections and bicycle parking.

MOB 4.3: Public bicycle parking. Increase the amount of well-maintained, publicly accessible bicycle parking and storage throughout the city.

MOB 4.4: Bicycle parking standards. Maintain bicycle parking standards and guidelines for bicycle parking and storage in convenient places in private development to enhance the bicycle network.

MOB 9.2: Reduced vehicle miles traveled. Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita vehicle miles traveled.

MOB 9.3: Low-emission vehicles. Promote use of fuel-efficient, alternative fuel and low-emission vehicles.

MOB 11.3: Facility types. Maintain and enhance walking, bicycling and transit related facilities to address community needs.

3.13.2 Existing Setting

The project site is located in the central portion of the City. The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south.

The project site is currently undeveloped and, therefore, does not generate traffic.

3.13.2.1 *Existing Roadway Network*

Regional Access

Regional access to the project site is provided by US 101, SR 85, SR 237, and Interstate (I-) 280 as described below.

US 101 is a primarily north-south freeway located directly north of the project site. In the project area, US 101 includes four travel lanes, including one high-occupancy vehicle (HOV) lane, in each direction. US 101 extends north through San Francisco and south through San Jose and Gilroy. Access to the site from US 101 is provided via Moffett Boulevard.

SR 85 is a north-south freeway located directly west of the project site. It extends from southern San José to the City of Mountain View in the north. The freeway includes two mixed-flow lanes plus one HOV lane per direction. Access to the site from SR 85 is provided via Moffett Boulevard.

SR 237 is a primarily east-west freeway that provides two to three travel lanes in each direction. One travel lane in each direction is designated as an HOV lane. SR 237 extends from the City of Mountain View in the west to the City of Milpitas in the east. Access to the site from SR 237 is provided via Middlefield Road and the US 101 interchange.

I-280 is a north-south freeway extending from the City of San José in the south to the City of San Francisco in the north. The freeway includes three mixed-flow lanes plus one HOV lane per direction near the site. Access to the site from I-280 is provided via its interchange with SR 85.

Local Access

Local access to the project site is provided by Moffett Boulevard and Leong Drive as described below.

Moffett Boulevard is a four-lane, north-south arterial road with class II bike lanes. Moffett Boulevard extends from Downtown Mountain View to US 101. It provides access to US 101, SR 85, local streets. A driveway at the signalized intersection of Moffett Boulevard and Leong Avenue provides access to the project site from Moffett Boulevard.

Leong Drive is a two-lane, north-south local residential road that perimeters the west side of a residential neighborhood consisting of mostly single-family residences. A driveway at the signalized intersection of Moffett Boulevard and Leong Drive provides access to the project site from Leong Drive.

3.13.2.2 *Existing Transit, Bicycle, and Pedestrian Facilities*

Transit Facilities

Bus and light rail service in Mountain View is operated by the Valley Transportation Authority (VTA). Commuter rail service (Caltrain) is provided from San Francisco to Gilroy by the Peninsula Joint Powers Board. The VTA local bus Route 51 runs along Moffett Boulevard with one stop at the project site (Moffett Boulevard/Leong Drive) and one stop near the Mountain View Caltrain Station, which is approximately one mile south of the project site. The VTA local bus Route 32 operates along Middlefield Road and stops approximately a half-mile away from the site at the intersection of Moffett Boulevard and Middlefield Road. MVGo is a free shuttle service providing a last mile connection from Caltrain to employment centers in the Whisman and North Bayshore areas of Mountain View. Table 3.13-1 describes the transit services and their frequencies (headways) during the week. Figure 3.13-1 is a map showing the transit routes in the project area.

Table 3.13-1: Existing Transit Services						
VTA Route[1]/Service	From	To	Weekdays		Weekends	
			Operating Hours	Peak Headway[2] (minutes)	Operating Hours	Headway[2] (minutes)
51	De Anza College	Moffett Field/Ames Center	6:30 AM – 7:00 PM	60	No Service	No Service
32	San Antonio Transit Center	Santa Clara Transit Center	6:00 AM – 7:30 PM	30	8:50 AM – 5:50 PM (Saturday only)	60 (Saturday only)
Caltrain	San Francisco	Gilroy	4:30 AM – 1:30 AM	20-40	7:00 AM – 1:40 AM	60
MVGo	Caltrain/VTA Transit Center	East Whisman AM	7:00 AM – 10:30 AM	15	No Service	No Service
MVGo	Caltrain/VTA Transit Center	East Whisman PM	4:00 PM – 7:30 PM	15	No Service	No Service

[1] Weekday and weekend service as of April 2015.
[2] Headways are defined as the time between transit vehicles on the same route (e.g. time between Route 32 buses stopping at the Middlefield Road and Bernardo Avenue intersection bus stops.

Project Site
VTA 522 Rapid Bus Service
VTA Community Bus Service
VTA Express Bus Service
VTA Light Rail: MOUNTAIN VIEW - WINCHESTER
VTA Local Bus Service
ACE Shuttle Service
MVgo Shuttle

EXISTING TRANSIT MAP

FIGURE 3.13-1

Bicycle Facilities

The bicycle network promotes bicycling as an active mode of transportation for both commuting and recreation. The City's 2015 Bicycle Transportation Plan describes the four bikeway classifications in the City, which all meet the design guidelines of the: (1) VTA Bicycle Technical Guidelines for bicycle facilities, and (2) the Caltrans Highway Design Manual (HDM), Chapter 1000: Bikeway Planning and Design for multi-use trails. These bicycle facility types and their locations near the project site are described below and shown on Figure 3.13-2.

Bike Paths (Class I): These provide a completely separate right of way for the exclusive use of bicycles and pedestrians with minimal roadway crossings. Two Class I bike paths are located near the project site: Stevens Creek Trail and Hetch Hetchy Trail.

Bike Lanes (Class II): These provide a striped lane and signage for one-way bike travel on a street or highway and are designed for the exclusive use of cyclists with certain exceptions. For instance, right-turning vehicles must merge into the lane before turning. Four Class II bike lanes are located near the project site: Moffett Boulevard (SR 85 overpass to US 101 overpass), Middlefield Road (SR 237 overpass to Old Middlefield Way), Shoreline Boulevard (El Camino Real to Charleston Road), and Whisman Road (Central Expressway to US 101 overpass).

Bike Routes (Class IIIa): These may be identified on a local residential or collector street when the travel lane is wide enough and the traffic volume is low enough to allow both cyclists and motor vehicles. Although some streets with high volumes of traffic have been designated as bike routes, most official bike routes in Mountain View are on low-volume streets. One Class III bike route is located near the project site: Moffett Boulevard/Castro Street (El Camino Real to SR 85 overpass).

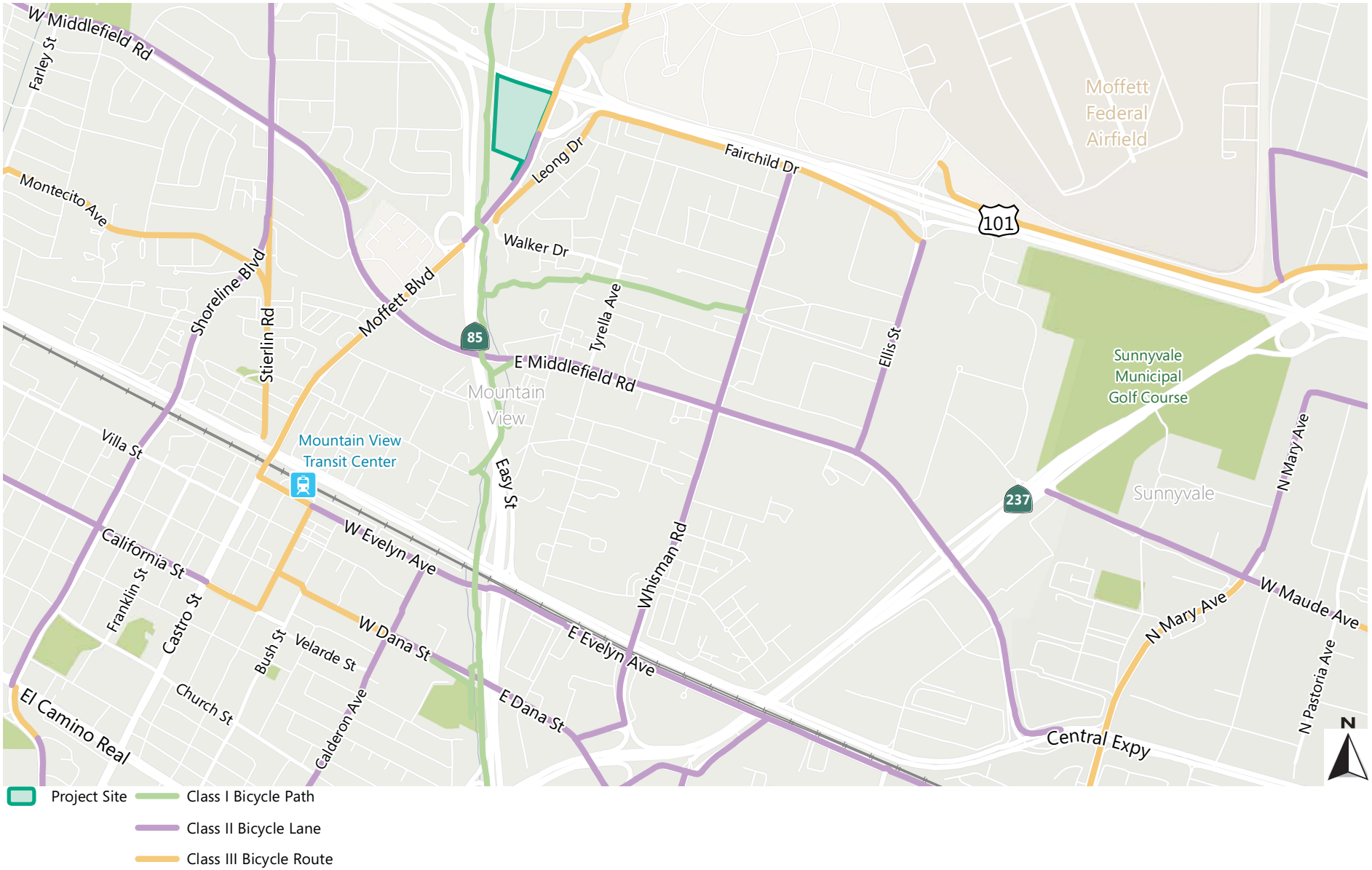
Bike Boulevards (Class IIIb): These are a modified bicycle route and are more convenient and efficient than a typical bike route. A bike boulevard includes signage, pavement markings, and in some cases, traffic calming (e.g., midblock closures to vehicles), and bike lanes.

Pedestrian Facilities

Pedestrian facilities comprise sidewalks, crosswalks, and multi-use (pedestrian and bicycle) paths. Sidewalks are provided along Moffett Boulevard on both sides of the street between Leong Drive and the US 101 Northbound Ramps. Crosswalks are provided at major intersections around the project site, including Moffett Boulevard/Leong Drive Access Road, Moffett Boulevard/US 101 Northbound Ramps, and Moffett Boulevard/SR 85 Ramps. The project site is approximately one mile north of the Mountain View Light Rail Station and Mountain View Caltrain Station with sidewalks and crosswalks between the site and station via Leong Drive and Moffett Boulevard. The pedestrian facilities in the project area are shown on Figure 3.13-3.

3.13.2.3 *Existing Vehicular Traffic Level of Service Methodology*

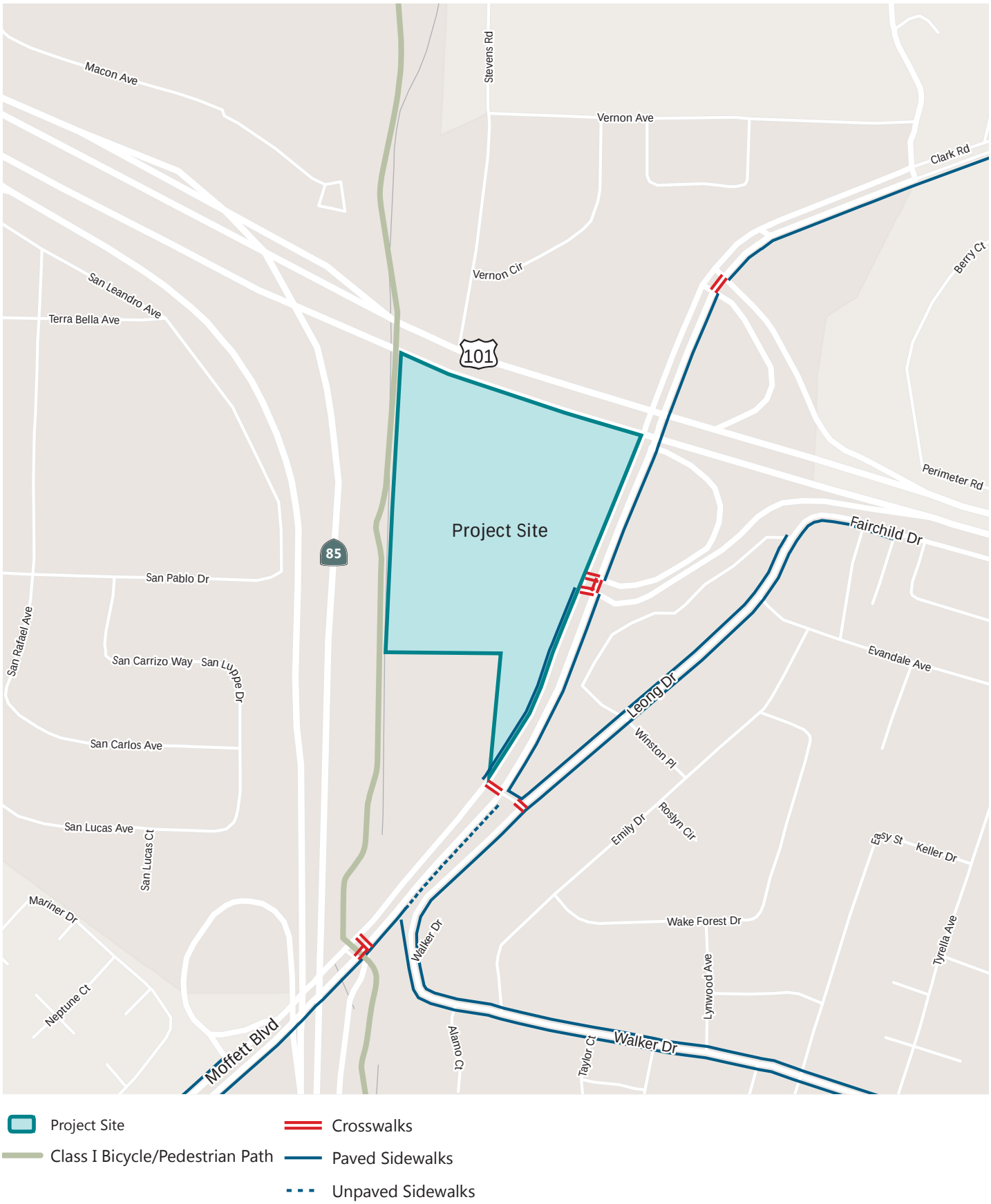
The Santa Clara Valley Transportation Authority (VTA) is the Congestion Management Agency (CMA) for Santa Clara County and oversees the Santa Clara County Congestion Management Program (CMP). The CMP identifies regional intersections in the County that are under the control of the CMA.



Project Site
Class I Bicycle Path
Class II Bicycle Lane
Class III Bicycle Route

BICYCLE FACILITIES MAP

FIGURE 3.13-2



PEDESTRIAN FACILITIES MAP FIGURE 3.13-3

Existing traffic conditions at project study intersections were evaluated using the level of service (LOS) standards of the City of Mountain View and the CMP. LOS is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little to no delay, to LOS F, or jammed conditions with excessive delays.

The LOS defined as acceptable by the City of Mountain View is LOS D or better for City controlled intersections. The VTA defines acceptable operating level as LOS E or better for CMP designated intersections. Table 3.13-2 shows the LOS descriptions and thresholds for signalized intersections.

Table 3.13-2: Signalized Intersection Level of Service Criteria

LOS	Description	Total Delay (seconds per vehicle)
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	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average 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

Source: Transportation Research Board. *2000 Highway Capacity Manual.* 2000. Page 10-16.

Existing Freeway Traffic Level of Service Criteria

Freeway segments within Santa Clara County were evaluated using the VTA analysis procedure, which is based on the density of the traffic flow using methods described in the 2000 Highway Capacity Manual (HCM). Density is expressed in passenger cars per mile per lane. The CMP ranges of densities for freeway segment levels of service are shown in Table 3.13-3. The VTA standard for the freeway segments is LOS E.

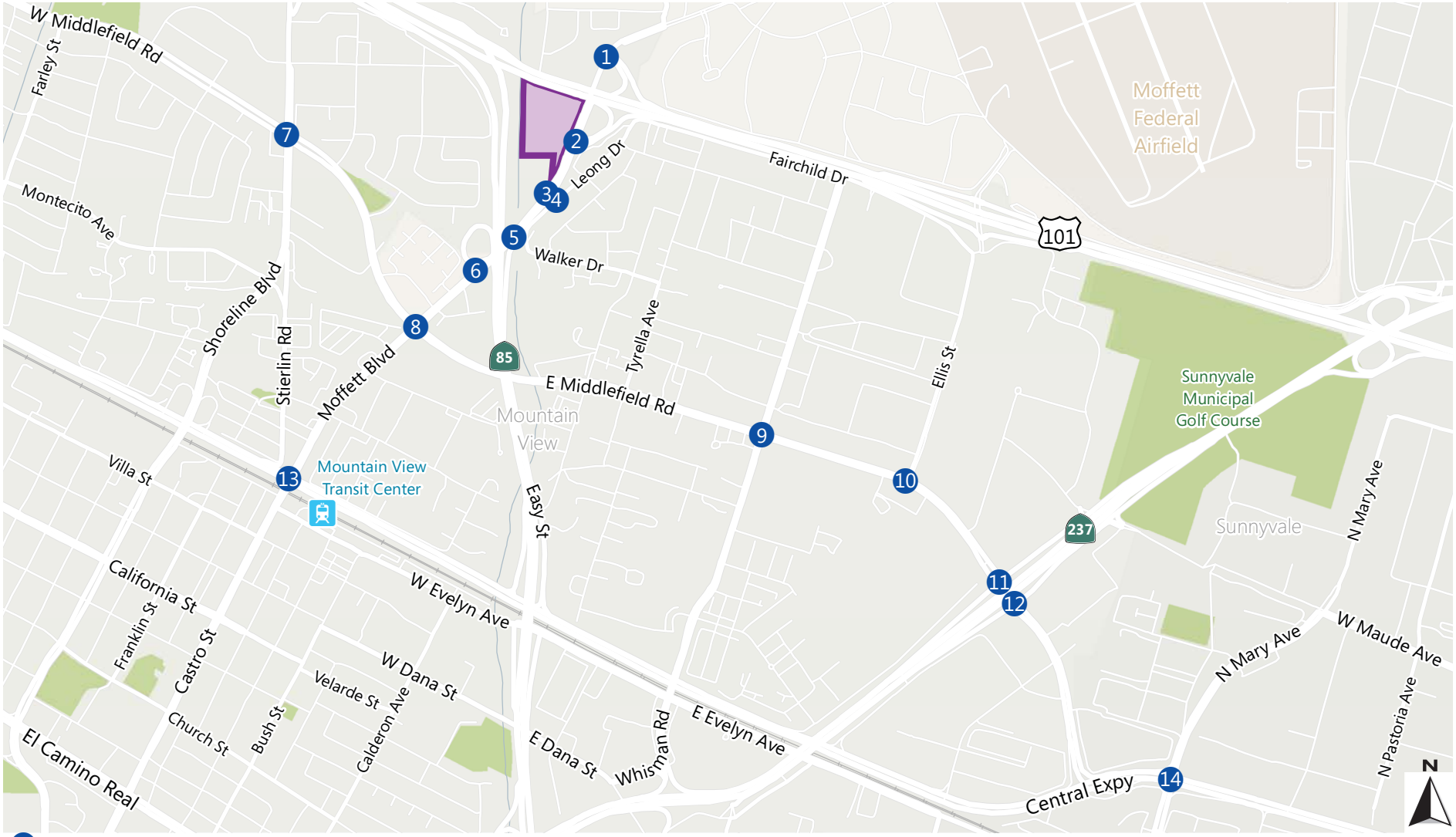
Table 3.13-3: Freeway Segment LOS Definitions	
LOS	**Density (Passenger cars per mile per lane)**
A	≤ 11
B	11.1
C	18.1
D	26.1
E	46.1
F	> 58.0
Source: Traffic Level of Service Analysis Guidelines, VTA Congestion Management Program, June 2003; Highway Capacity Manual, Transportation Research Board. 2000.	

3.13.2.4 *Baseline Traffic Conditions*

Intersection Analysis Scenario

A total of 14 intersections (refer to Figure 3.13-4, Study Intersections) were selected as study locations in consultation with City of Mountain View Staff and based on VTA's Transportation Impact Analysis Guidelines (adopted October 2014). These study intersections (and their respective jurisdictions) include:

1. US 101 Northbound Ramps and Moffett Boulevard (MV)
2. US 101 Southbound Ramps and Moffett Boulevard (MV)
3. Leong Drive Access Road and Moffett Boulevard (MV)
4. Leong Drive and Leong Drive Access Road (MV)
5. SR 85 Northbound Ramp and Moffett Boulevard (MV)
6. SR 85 Southbound Ramp and Moffett Boulevard (MV)
7. East Middlefield Road and North Shoreline Boulevard (MV)
8. East Middlefield Road and Moffett Boulevard (MV)
9. East Middlefield Road and North Whisman Road (MV)
10. East Middlefield Road and Ellis Street (MV)
11. East Middlefield Road and SR 237 Westbound Ramps (MV)
12. East Middlefield Road and SR 237 Eastbound Ramps (MV)
13. Central Expressway and Moffett Boulevard (CMP)
14. Central Expressway and North Mary Avenue (CMP)



Study Intersections

Project Site

PROJECT STUDY INTERSECTIONS

FIGURE 3.13-4

The study intersections were evaluated during the morning peak-hour occurring between 7:00 and 9:00 AM and the evening peak-hour occurring between 4:00 and 6:00 PM for the following scenarios:

Scenario 1: Existing Conditions – Existing volumes obtained from traffic counts.

Scenario 2: Existing with Project Conditions – Scenario 1 volumes plus traffic generated by the project.

Scenario 3: Background without Project Conditions – Existing volumes plus traffic from projects in the area that have been approved but have not yet been built or occupied.

Scenario 4: Background with Project Conditions – Scenario 3 volumes plus traffic generated by the project.

Scenario 5: Cumulative No Project Conditions –Scenario 3 volumes plus traffic from pending developments and a two percent annual growth rate.

Scenario 6: Cumulative with Project Conditions – Scenario 5 volumes plus traffic generated by the project.

Existing Intersection Levels of Service

Existing intersection lane configurations, signal timings, and peak hour turning movement volumes were used to calculate the levels of service for the study intersections during each peak hour using the TRAFFIX software program. The results of the LOS analysis for Existing Conditions are presented in Table 3.13-4. The results of the LOS calculations for Existing Conditions indicate that all of the study intersections operate at an acceptable LOS during both the AM and PM peak hours of traffic.

Table 3.13-4: Existing Intersection Levels of Service

Intersection (Jurisdiction)	Peak Hour[1]	Delay[2]	LOS[3]
1. US 101 Northbound Ramps and Moffett Boulevard (MV)	AM	16.8	B
	PM	24.7	C
2. US 101 Southbound Ramps and Moffett Boulevard (MV)	AM	18.8	B-
	PM	20.8	C+
3. Leong Drive Access Road and Moffett Boulevard (MV)	AM	23.5	C
	PM	21.0	C+
4. Leong Drive and Leong Drive Access Road (MV)*	AM	15.6	C
	PM	13.7	B
5. SR 85 Northbound Ramp and Moffett Boulevard (MV)	AM	12.7	B
	PM	13.6	B

Table 3.13-4: Existing Intersection Levels of Service			
Intersection (Jurisdiction)	**Peak Hour[1]**	**Delay[2]**	**LOS[3]**
6. SR 85 Southbound Ramp and Moffett Boulevard (MV)*	AM	10.0	A
	PM	12.8	B
7. East Middlefield Road and North Shoreline Boulevard (MV)	AM	37.6	D+
	PM	40.9	D
8. East Middlefield Road and Moffett Boulevard (MV)	AM	31.2	C
	PM	31.1	C
9. East Middlefield Road and North Whisman Road (MV)	AM	23.7	C
	PM	31.4	C
10. East Middlefield Road and Ellis Street (MV)	AM	18.0	B-
	PM	21.7	C+
11. East Middlefield Road and SR 237 Eastbound Ramps (MV)	AM	26.8	C
	PM	22.0	C+
12. East Middlefield Road and SR 237 Westbound Ramps (MV)	AM	20.4	C+
	PM	19.5	B-
13. Central Expressway and Moffett Boulevard (CMP)	AM	32.7	C-
	PM	39.7	D
14. Central Expressway and North Mary Avenue (CMP)	AM	36.1	D+
	PM	50.2	D

[1] AM = morning peak hour, PM = evening peak hour.
[2] Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[3] LOS calculations conducted using the TRAFFIX level of service analysis software package, which applies the method described in the *2000 Highway Capacity Manual*.
*Unsignalized

Existing Freeway Segment Levels of Service

The freeway study segments, existing AM and PM peak hour freeway segment densities, and corresponding LOS are shown in Table 3.13-5.[47] For mixed-flow lanes, freeway segment capacities are defined as 2,200 vehicles per hour per lane (vphpl) for four-lane freeway segments. HOV lane capacities are defined as 1,650 vphpl. The locations of the freeway study segments are shown on Figure 3.13-5.

[47]Santa Clara County Valley Transportation Authority. *2012 Monitoring and Conformance Report*. June 2012.

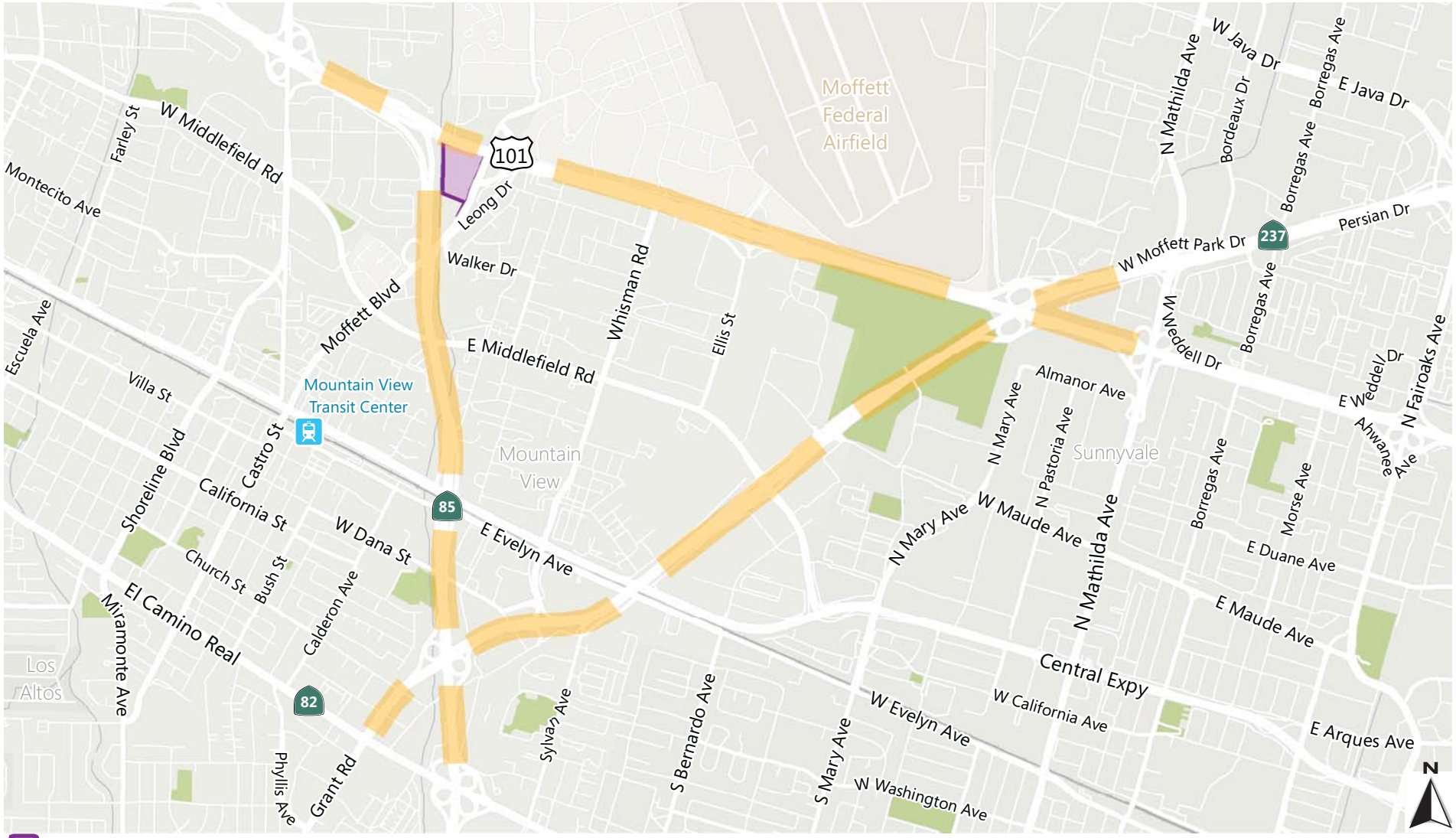
Table 3.13-5: Existing Freeway Segment Level of Service

Freeway Segment	Peak Hour[1]	Lanes		Density[2]		Level of Service[3]	
		Mixed	HOV	Mixed	HOV	Mixed	HOV
US 101 – Northbound							
Mathilda Avenue to SR 237	AM	3	1	50	34	E	D
	PM	3	1	27	20	D	C
SR 237 to Moffett Boulevard	AM	3	1	**>70**	**67**	**F**	**F**
	PM	3	1	**>70**	21	**F**	C
Moffett Boulevard to SR 85	AM	3	1	**>70**	**>70**	**F**	**F**
	PM	3	1	**>70**	**54**	**F**	**F**
SR 85 to Shoreline Boulevard	AM	4	1	**>70**	**>70**	**F**	**F**
	PM	4	1	**>70**	22	**F**	C
US 101 – Southbound							
Shoreline Boulevard to SR 85	AM	3	1	33	38	D	D
	PM	3	1	29	22	D	C
SR 85 to Moffett Boulevard	AM	3	1	35	25	D	C
	PM	3	1	29	25	D	C
Moffett Boulevard to SR 237	AM	3	1	**64**	41	**F**	D
	PM	3	1	53	24	E	C
SR 237 to Mathilda Avenue	AM	3	1	25	34	C	D
	PM	3	1	28	28	D	D
SR 85 – Northbound							
El Camino Real to SR 237	AM	2	1	54	29	E	D
	PM	2	1	29	7	D	A
SR 237 to Central Expressway	AM	2	1	32	28	D	D
	PM	2	1	18	22	B	C
Central Expressway to US 101	AM	2	1	22	20	C	C
	PM	2	1	13	7	B	A
SR 85- Southbound							
US 101 to Central Expressway	AM	2	1	15	7	B	A
	PM	2	1	**>70**	25	**F**	C
Central Expressway to SR 237	AM	2	1	14	11	B	A
	PM	2	1	**>70**	30	**F**	D
SR 237 to El Camino Real	AM	2	1	28	9	D	A
	PM	2	1	**>70**	41	**F**	D
SR 237 – Westbound							
Mathilda Avenue to US 101	AM	2	0	41	N/A	D	N/A
	PM	2	0	**>70**		**F**	
US 101 to Middlefield Road/Maude Avenue	AM	2	0	39	N/A	D	N/A
	PM	2	0	**>70**		**F**	
Middlefield Road/MaudeAvenue to Central Expressway	AM	2	0	19	N/A	C	N/A
	PM	2	0	50		E	

Table 3.13-5: Existing Freeway Segment Level of Service

Freeway Segment	Peak Hour[1]	Lanes		Density[2]		Level of Service[3]	
		Mixed	HOV	Mixed	HOV	Mixed	HOV
Central Expressway to SR 85	AM	2	0	20	N/A	C	N/A
	PM	2	0	**>70**		**F**	
SR 85 to El Camino Real	AM	2	0	33	N/A	D	N/A
	PM	2	0	**>70**		**F**	
SR 237 - Eastbound							
El Camino Real to SR 85	AM	2	0	48	N/A	E	N/A
	PM	2	0	28		D	
SR 85 to Central Expressway	AM	2	0	**>70**	N/A	**F**	N/A
	PM	2	0	21		C	
Central Expressway to Middlefield Road/Maude Avenue	AM	2	0	31	N/A	D	N/A
	PM	2	0	14		B	
Middlefield Road/Maude Avenue to US 101	AM	2	0	**>70**	N/A	**F**	N/A
	PM	2	0	24		C	
US 101 to Mathilda Avenue	AM	2	0	**>70**	N/A	**F**	N/A
	PM	2	0	28		D	

[1] AM = morning peak hour, PM = evening peak hour.
[2] Measured in passenger car per mile per lane.
[3] Level of Service based on density.
Mixed = Mix-Flow Lane and HOV = High-Occupancy Vehicle Lane.



Project Site

Study Freeway Segments

PROJECT LOCATION AND FREEWAY SEGMENT LOCATION

FIGURE 3.13-5

As shown in Table 3.13-5, the following mixed-flow freeway segments exceed VTA's LOS E standard under existing conditions during the specified peak hour:

- US 101 Northbound Mixed-Flow Lanes
  - SR 237 to Shoreline Boulevard (3 segments) (AM and PM Peak Hour)

- US 101 Southbound Mixed-Flow Lanes
  - Moffett Boulevard to SR 237 (AM Peak Hour)

- SR 85 Southbound Mixed-Flow Lanes
  - US 101 to El Camino Real (3 segments) (PM Peak Hour)

- SR 237 Westbound Mixed-Flow Lanes
  - Mathilda Avenue to Middlefield Road/Maude Avenue (2 Segments) (PM Peak Hour)
  - Central Expressway to El Camino Real (2 segments) (PM Peak Hour)

- SR 237 Eastbound Mixed-Flow Lanes
  - SR 85 to Central Expressway (AM Peak Hour)
  - Middlefield Road/Maude Avenue to Mathilda Avenue (2 segments) (AM Peak Hour)

The following HOV lane freeway segments exceeds VTA's LOS E standard during the specified peak hour:

- US 101 Northbound HOV Lane
  - SR 237 to Shoreline Boulevard (3 segments) (AM Peak Hour)
  - Moffett Boulevard to SR 85 (PM Peak Hour)

3.13.3 Transportation Impacts

3.13.3.1 *Thresholds of Significance*

City of Mountain View

According to the City of Mountain View's traffic thresholds, the project would result in a significant traffic impact at a signalized intersection if the project results in one of the following:

- Causes a signalized City of Mountain View intersection to deteriorate from acceptable LOS D conditions or better to unacceptable LOS E or F conditions, or
- Causes a signalized City of Mountain View (local) intersection currently operating at LOS E or F conditions to increase in critical movement delay of four (4) seconds or more, and increase in the critical volume-to-capacity (V/C) ratio by 0.01 or more, or
- Causes a CMP intersection to deteriorate from acceptable LOS E conditions or better to unacceptable LOS F conditions, or
- Causes a CMP intersection currently operating a LOS F conditions to increase in critical movement delay of four (4) seconds or more, and increase in the volume-to-capacity (V/C) ratio by 0.01 or more.

Freeway Impacts

The CMP defines a project as having a significant impact on a freeway segment if:

- The addition of project traffic causes the operating level of service of a freeway segment to deteriorate from LOS E (or better) under Existing Conditions to LOS F; or
- The number of new trips added by a project to a segment already operating at LOS F under Existing Conditions is more than one percent of the freeway segment capacity.

Pedestrian, Bicycle, and Transit Impacts

A significant pedestrian, bicycle, or transit impact would occur if the proposed project:

- Conflicts with existing or planned pedestrian, bicycle, and/or transit facilities; or
- Creates pedestrian and bicycle demand without adequate and appropriate facilities for safe non-motorized mobility; or
- Generates potential transit trips without adequate transit capacity or access to transit stops.

3.13.3.2 *Trip Generation, Distribution, and Assignment*

Trip Generation

The project proposes to construct a 200,000-square-foot office building and an 180,000-square-foot hotel with 255 rooms on the project site. The traffic generated by the project was estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. As shown in Table 3.13-6, below, the proposed project is estimated to generate a total of 4,179 daily vehicle trips, with 401 trips and 209 trips occurring during the AM and PM peak hours of traffic, respectively. The daily and peak hour trips generated by the proposed project were estimated using the trip generation rates for office and hotel uses that are published by the Institute of Transportation Engineers (ITE).[48]

Table 3.13-6: Project Trip Generation Rates and Estimates

Land Use	Size	Weekday Daily		AM Peak Hour				PM Peak Hour			
		Rate	Total	Rate	In	Out	Total	Rate	In	Out	Total
General Office[1]	200 ksf	11.13	2.223	1.67	293	40	333	1.51	51	251	302
TDM Program Reduction[2]		*5.7%*	*(127)*	*20%*	*(59)*	*(8)*	*(67)*	*20%*	*(10)*	*(50)*	*(60)*

[48] ITE Code 710 (General Office) fitted curve equations and ITE Code 310 (Hotel) average Daily/AM Peak Hour /PM Peak Hour trip rates were used. In addition to hotel occupants, the ITE Code 310 (Hotel) trip rate accounts for trips generated by ancillary hotel uses such as restaurants and conference rooms.

Table 3.13-6: Project Trip Generation Rates and Estimates											
Land Use	**Size**	**Weekday Daily**		**AM Peak Hour**				**PM Peak Hour**			
		Rate	**Total**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
General Office Subtotal			2,096		234	32	266		41	201	242
Hotel[3]	255 room	8.17	2,083	0.53	80	55	135	0.60	24	24	48
Project Total			**4,179**		**314**	**87**	**401**		**65**	**225**	**290**

[1] ITE Code 710 (General Office) fitted curve equations used.
[2] Peak hour reduction percentages based on project TDM report – *Moffett Gateway TDM Plan*.
[3] ITE Code 310 (Hotel) average Daily/AM Peak Hour /PM Peak Hour trip rates used.

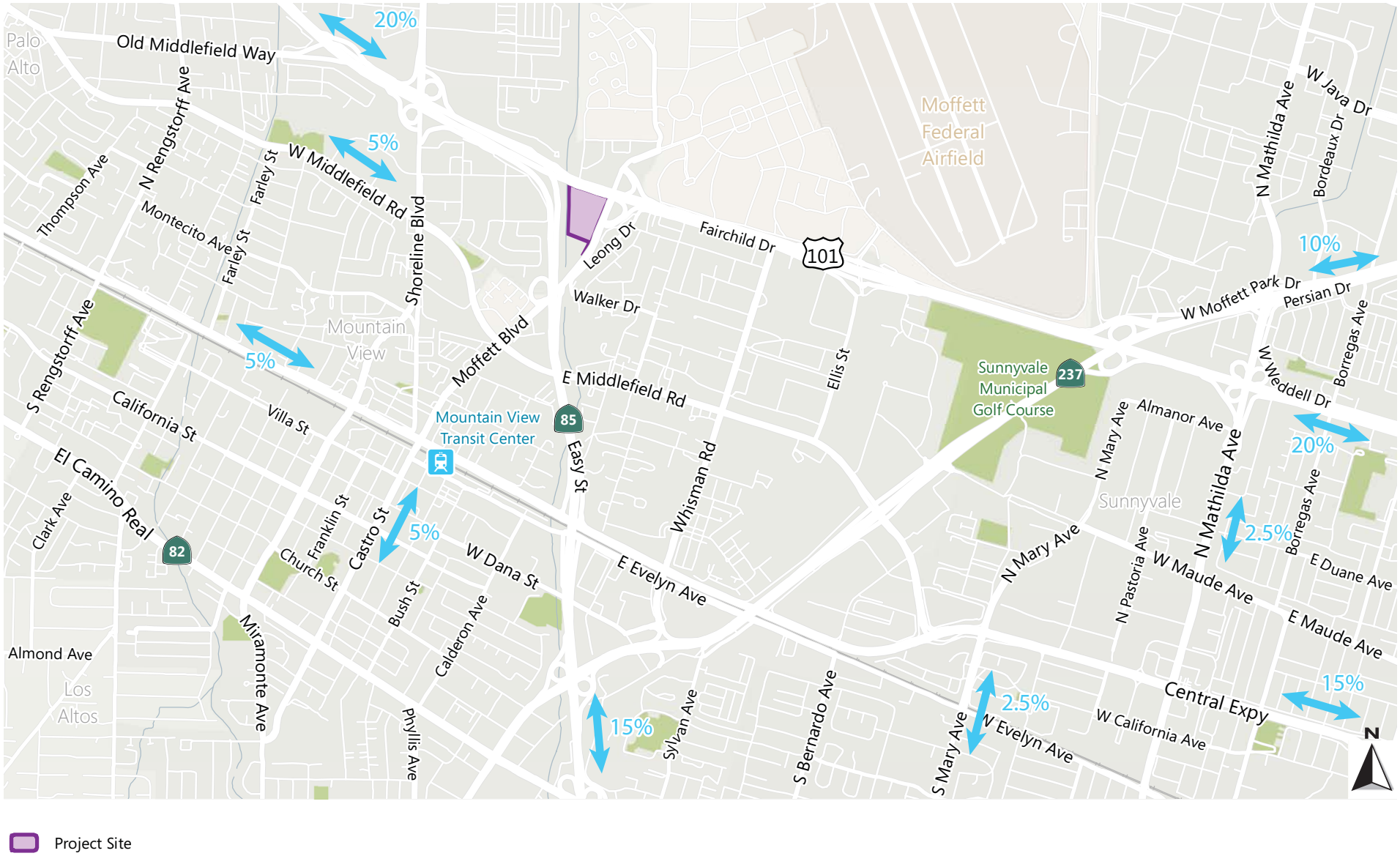
Transportation Demand Management Strategies

A Transportation Demand Management (TDM) Plan is a set of strategies, measures and incentives to encourage people to walk, bicycle, use public transportation, carpool or use other alternatives to driving alone. TDM measures can reduce the amount of traffic generated by a land use and the associated traffic impacts. In an effort to reduce vehicle traffic and parking demand, the project proposes a set of TDM measures including, a formal ridesharing program, the provision of long-haul bus service and short-distance shuttles to and from the Mountain View Transit Center, pedestrian improvements, bicycle amenities, employee transit passes, emergency-ride-home program, accessible bikesharing and carsharing, flexible work schedules, and financial incentives, employee shower facilities, and preferential carpool/vanpool parking. The Moffett Gateway TDM Plan is included in the TIA prepared for the proposed project (Appendix I).

Based on the Moffett Gateway TDM Plan, a 20 percent reduction was applied to peak hour trips generated by the proposed office space. The daily TDM reduction was conservatively estimated by adding together the trips from the AM and PM peak hour 20 percent reductions, and assuming no TDM reductions for off-peak hours. The future office tenants would be required to monitor the success of the proposed Moffett Gateway TDM Plan by submitting a monitoring report to the City of Mountain View. No TDM reductions were applied to the trips generated by the hotel.

Trip Distribution and Assignment

Trip distribution is defined as the directions of approach and departure that vehicles would use to arrive at and depart from the site. The trip distribution pattern was estimated based on the locations of complementary land uses, existing travel patterns, the proposed site access location, and a select zone analysis from the City of Mountain View Travel Demand Forecasting (TDF) model under Year 2030 conditions. The select zone analysis was used to guide the development of trip distribution and was not used to assign project trips. The project trip distribution is shown on Figure 3.13-6. Trip assignment, based on trip distribution, is defined as the net new project trips assigned to each turning movement by intersection.



Project Site

TRIP DISTRIBUTION

FIGURE 3.13-6

3.13.3.3 Intersection Level of Service

Existing with Project Conditions

Level of service calculations were conducted to evaluate intersection operations under existing with project conditions. The results of the LOS analysis are summarized in Table 3.13-7, below. Measured against the City of Mountain View and CMP LOS standards, the results show that all intersections would continue to operate acceptably under Existing with Project Conditions.

Impact TRANS-1: Implementation of the project would not result in significant impacts to the project study intersections under Existing with Project conditions. **[Less than Significant Impact]**

Table 3.13-7: Existing with Project Intersections Level of Service

Intersection (Jurisdiction)	Peak Hour[1]	Existing Conditions		Existing with Project Conditions			
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Δ in Crit. V/C[4]	Δ in Crit. Delay[5]
1. US 101 Northbound Ramps and Moffett Boulevard (MV)	AM PM	16.8 24.7	B C	25.1 27.2	C C	0.000 0.011	15.0 -0.3
2. US 101 Southbound Ramps and Moffett Boulevard (MV)	AM PM	18.8 20.8	B- C+	16.0 22.3	B C+	0.130 0.013	-3.9 1.1
3. Leong Drive Access Road and Moffett Boulevard (MV)	AM PM	23.5 21.0	C C+	20.1 30.4	C+ C	0.202 0.170	-12.0 12.1
4. Leong Drive and Leong Drive Access Road (MV)*	AM PM	15.6 13.7	C B	16.6 14.6	C B	N/A N/A	N/A N/A
5. SR 85 Northbound Ramp and Moffett Boulevard (MV)	AM PM	12.7 13.6	B B	13.0 13.2	B B	0.055 0.027	0.4 -0.5
6. SR 85 Southbound Ramp and Moffett Boulevard (MV)*	AM PM	10.0 12.8	A B	10.2 13.7	B B	N/A N/A	N/A N/A
7. East Middlefield Road and North Shoreline Boulevard (MV)	AM PM	37.6 40.9	D+ D	37.6 41.0	D+ D	0.001 0.001	0.1 0.1
8. East Middlefield Road and Moffett Boulevard (MV)	AM PM	31.2 31.1	C C	31.7 31.4	C C	0.019 0.015	0.6 0.3
9. East Middlefield Road and North Whisman Road (MV)	AM PM	23.7 31.4	C C	23.6 31.4	C C	0.009 0.004	-0.2 0.0
10. East Middlefield Road and Ellis St (MV)	AM PM	18.0 21.7	B- C+	18.0 21.7	B C+	0.011 0.002	-0.1 0.0
11. East Middlefield Road and SR 237 Eastbound Ramps (MV)	AM PM	26.8 22.0	C C+	26.9 21.9	C C+	0.011 0.005	0.0 0.0
12. East Middlefield Road and SR 237 Westbound Ramps (MV)	AM PM	20.4 19.5	C+ B-	20.3 19.4	C+ B-	0.006 0.008	-0.2 -0.2

Table 3.13-7: Existing with Project Intersections Level of Service							
Intersection (Jurisdiction)	**Peak Hour[1]**	**Existing Conditions**		**Existing with Project Conditions**			
		Delay[2]	**LOS[3]**	**Delay[2]**	**LOS[3]**	**Δ in Crit. V/C[4]**	**Δ in Crit. Delay[5]**
13. Central Expressway and Moffett Boulevard (CMP)	AM PM	32.7 39.7	C- D	33.6 40.4	C- D	0.017 0.007	1.6 0.7
14. Central Expressway and North Mary Avenue (CMP)	AM PM	36.1 50.2	D+ D	36.1 50.3	D+ D	0.011 0.003	0.1 0.0

[1] AM = morning peak hour; PM = evening peak hour.
[2] Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections. Intersections include adjusted saturation flow rates to reflect Santa Clara County conditions per VTA guidelines.
[3] LOS = Level of Service. LOS calculations conducted using the TRAFFIX level of service analysis software package, which applies the method described in the 2000 Highway Capacity Manual.
[4] Change in critical volume to capacity ratio between Existing and Existing with Project Conditions.
[5] Change in average critical movement delay between Existing and Existing with Project Conditions.

Background with Project Conditions

Level of service calculations were conducted to evaluate intersection operations under Background with Project Conditions. The results are summarized in Table 3.13-8 along with changes in intersection critical delay due to the addition of project traffic. Measured against the City of Mountain View LOS standards, the results show that all intersections would continue to operate at an acceptable level under background with project conditions.

Table 3.13-8: Background with Project Intersections Level of Service							
Intersection (Jurisdiction)	**Peak Hour[1]**	**Background Conditions**		**Background with Project Conditions**			
		Delay[2]	**LOS[3]**	**Delay[2]**	**LOS[3]**	**Δ in Crit. V/C[4]**	**Δ in Crit. Delay[5]**
1. US 101 Northbound Ramps and Moffett Boulevard	AM PM	16.9 26.9	B C	16.9 22.2	B C+	0.128 0.096	0.1 2.2
2. US 101 Southbound Ramps and Moffett Boulevard	AM PM	22.6 21.9	C+ C+	17.0 23.2	B C	0.155 0.013	-9.4 0.8
3. Leong Drive Access Road and Moffett Boulevard	AM PM	27.1 22.3	C C+	21.9 31.2	C+ C	0.202 0.170	-16.3 11.6
4. Leong Drive and Leong Drive Access Road	AM PM	18.6 14.9	C B	20.1 15.8	C C	N/A N/A	N/A N/A
5. SR 85 Northbound Ramp and Moffett Boulevard	AM PM	12.8 13.7	B B	13.3 13.4	B B	0.043 0.027	0.3 -0.5

6. SR 85 Southbound Ramp and Moffett Boulevard	AM PM	10.7 14.5	B B	11.0 15.8	B C	N/A N/A	N/A N/A
7. East Middlefield Road and North Shoreline Boulevard	AM PM	38.6 43.9	D+ D	38.6 44.0	D+ D	0.002 0.001	0.1 0.1
8. East Middlefield Road and Moffett Boulevard	AM PM	32.6 32.3	C- C-	33.4 32.8	C- C-	0.036 0.015	1.3 0.4
9. East Middlefield Road and North Whisman Road	AM PM	25.3 33.9	C C-	25.3 33.9	C C-	0.009 0.009	0.0 0.3
10. East Middlefield Road and Ellis St	AM PM	22.7 23.2	C+ C	22.9 23.2	C+ C	0.012 0.002	0.2 0.0
11. East Middlefield Road and SR 237 Eastbound Ramps	AM PM	39.0 26.8	D+ C	39.6 26.9	D C	0.011 0.000	0.7 0.0
12. East Middlefield Road and SR 237 Westbound Ramps	AM PM	21.6 20.4	C+ C+	21.7 20.2	C+ C+	0.006 0.000	0.0 0.0
13. Central Expressway and Moffett Boulevard (CMP)	AM PM	35.6 47.6	D+ D	36.5 48.3	D+ D	0.018 0.007	1.6 0.8
14. Central Expressway and North Mary Avenue (CMP)	AM PM	37.6 52.8	D+ D-	37.8 53.3	D+ D-	0.011 0.003	0.3 0.0

[1] AM = morning peak hour, PM = evening peak hour.
[2] Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[3] LOS = Level of Service. LOS calculations conducted using the TRAFFIX level of service analysis software package, which applies the method described in the 2000 Highway Capacity Manual.
[4] Change in critical volume to capacity ratio between Background and Background with Project conditions.
[5] Change in average critical movement delay between Background and Background with Project conditions.

Impact TRANS-2: The project study intersections would operate at an acceptable LOS under the Background with Project Conditions. **[Less than Significant Impact]**

3.13.3.4 *Freeway Segment Level of Service*

Freeway segments of SR 85, US 101, SR 237, and I-280 were analyzed during the AM and PM peak hours to calculate the amount of project traffic projected to be added. The results of the freeway segments analysis are shown in Table 3.13-9.

Table 3.13-9: Existing with Project Freeway Segment Level of Service									
Freeway Segment	**Peak Hour[1]**	**Capacity**		**Project Trips**		**Level of Service[2]**		**Project Contribution to Capacity (%)**	
		Mixed	**HOV**	**Mixed**	**HOV**	**Mixed**	**HOV**	**Mixed[3]**	**HOV[4]**
US 101 – Northbound									
Mathilda Avenue to SR 237	AM PM	6,900	1,650	57 12	10 2	E D	D C	0.83% 0.17%	0.61% 0.12%
SR 237 to Moffett Boulevard	AM PM	6,900	1,650	98 20	0 0	**F** F	F C	**1.42%** 0.29%	0.00% 0.00%
Moffett Boulevard to SR 85	AM PM	6,900	1,650	17 45	0 0	F F	F E	0.25% 0.65%	0.00% 0.00%
SR 85 to Shoreline Boulevard	AM PM	9,200	1,650	14 38	3 7	F F	F C	0.15% 0.41%	0.18% 0.42%
US 101 – Southbound									
Shoreline Boulevard to SR 85	AM PM	6,900	1,650	54 11	9 2	D D	D C	0.78% 0.16%	0.55% 0.12%
SR 85 to Moffett Boulevard	AM PM	6,900	1,650	63 13	0 0	D D	C C	0.91% 0.19%	0.00% 0.00%
Moffett Boulevard to SR 237	AM PM	6,900	1,650	27 70	0 0	F E	D C	0.39% 1.01%	0.00% 0.00%
SR 237 to Mathilda Avenue	AM PM	6,900	1,650	15 41	3 7	C D	D D	0.22% 0.59%	0.18% 0.42%
State Route 85 – Northbound									
El Camino Real to SR 237	AM PM	4,600	1,650	40 9	7 1	E D	D A	0.87% 0.20%	0.42% 0.06%
SR 237 to Central Expressway	AM PM	4,600	1,650	40 8	7 2	D B	D C	0.87% 0.17%	0.42% 0.12%
Central Expressway to US 101	AM PM	4,600	1,650	47 10	0 0	C B	C A	1.02% 0.22%	0.00% 0.00%
State Route 85 – Southbound									
US 101 to Central Expressway	AM PM	4,600	1,650	13 34	0 0	B F	A C	0.28% 0.74%	0.00% 0.00%
Central Expressway to SR 237	AM PM	4,600	1,650	11 29	2 5	B F	A D	0.24% 0.63%	0.12% 0.3%
SR 237 to El Camino Real	AM PM	6,900	1,650	11 29	2 5	C F	A D	0.16% 0.42%	0.12% 0.30%
State Route 237 – Westbound									
Mathilda Avenue to US 101	AM PM	4,400	N/A	31 7	N/A	D F	N/A	0.70% 0.16%	0.00% 0.00%

Table 3.13-9: Existing with Project Freeway Segment Level of Service									
Freeway Segment	**Peak Hour[1]**	**Capacity**		**Project Trips**		**Level of Service[2]**		**Project Contribution to Capacity (%)**	
		Mixed	**HOV**	**Mixed**	**HOV**	**Mixed**	**HOV**	**Mixed[3]**	**HOV[4]**
US 101 to Middlefield Road/ Maude Avenue	AM PM	4,400	N/A	0 0	N/A	D F	N/A	0.00% 0.00%	0.00% 0.00%
Middlefield Road/ Maude Avenue to Central Expressway	AM PM	4,400	N/A	0 0	N/A	C E	N/A	0.00% 0.00%	0.00% 0.00%
Central Expressway to SR 85	AM PM	4,400	N/A	0 0	N/A	C F	N/A	0.00% 0.00%	0.00% 0.00%
SR 85 to El Camino Real	AM PM	4,400	N/A	0 0	N/A	D F	N/A	0.00% 0.00%	0.00% 0.00%
State Route 237 – Eastbound									
El Camino Real to SR 85	AM PM	4,400	N/A	0 0	N/A	E D	N/A	0.00% 0.00%	0.00% 0.00%
SR 85 to Central Expressway	AM PM	4,400	N/A	0 0	N/A	F C	N/A	0.00% 0.00%	0.00% 0.00%
Central Expressway to Middlefield Road/Maude Avenue	AM PM	4,400	N/A	0 0	N/A	D B	N/A	0.00% 0.00%	0.00% 0.00%
Middlefield Road/ Maude Avenue to US 101	AM PM	4,400	N/A	0 0	N/A	F C	N/A	0.00% 0.00%	0.00% 0.00%
US 101 to Mathilda Avenue	AM PM	4,400	N/A	6 22	N/A	F D	N/A	0.14% 0.50%	0.00% 0.00%

[1] AM = morning peak hour; PM = evening peak hour.
[2] Measured in passenger cars per mile per lane.
[3] For mixed-flow lanes, freeway segment capacities are defined as 2,200 vehicles per hour per lane (vphpl) for four-lane freeway segments and 2,300 vphpl for six-lane freeway segments.
[4] High-occupancy vehicle lane capacities are defined as 1,650 vphpl.

As shown in Table 3.13-9, the project traffic would add more than one percent of the freeway's capacity to the following study freeway segment currently operating at LOS F:

- US 101 Northbound between SR 237 and Moffett Boulevard (AM peak hour)

Therefore, the project would result in a significant impact to a segment on US 101 under Existing with Project Conditions.

Impact TRANS-3: Implementation of the proposed project would result in a significant impact to the US 101 Northbound freeway segment between SR 237 and Moffett Boulevard during the AM peak hour under the Existing with Project Conditions. **[Potentially Significant Impact]**

The mitigation for freeway impacts is typically the provision of increased capacity in the form of additional mainline or auxiliary lanes. The complete mitigation of freeway impacts is considered beyond the scope of an individual development project, due to the inability of any individual project or City to: 1) acquire right-of-way for freeway widening, and 2) fully fund a major freeway mainline improvement. Freeway improvements also would require approval by VTA and Caltrans, and as such neither the project applicant nor the City can guarantee their implementation.

The following freeway improvement is identified in the Valley Transportation Plan (VTP) 2040, which has the potential to improve freeway operations on the affected segment:

- US 101 Express Lanes: San Mateo County Line to Cochrane Road in Morgan Hill

A fair share contribution toward this freeway improvement project would be an acceptable mitigation measure for the project freeway impact. There is not, however, a fair share funding mechanism in place (e.g., regional impact fee). Furthermore, the significant impact would not be reduced or eliminated until the improvement project is constructed. To provide adequate funding for the improvement project, funding sources in addition to the project fair share contribution would be needed, which may include State Transportation Improvement Program funds, City impact fees, and/or a future regional impact fee.

For these reasons, feasible measures are not available to reduce the project freeway impact to a less than significant level, and the addition of project traffic results in a significant and unavoidable freeway segment impact. **[Significant Unavoidable Impact]**

3.13.3.5 *Parking and On-Site Circulation*

Shared Parking

The project would provide a total of approximately 830 vehicular spaces, including 808 spaces in the proposed parking garage and 22 surface parking spaces, which is 252 parking spaces fewer than the parking requirement for stand-alone uses in the Mountain View City Code. The Mountain View City Zoning Code, Chapter 36, Section A32 (2013), however, allows for providing less parking than required for stand-alone uses if parking facilities are shared between multiple uses. Shared parking occurs when complementary land uses on the same site or in close proximity are able to utilize the same parking spaces because they have different peak parking characteristics. In the case of the proposed project, the peak demand for the hotel occurs at night, when office parking is available. Therefore, a shared parking analysis was conducted to estimate the project peak parking demand, which accounted for the difference in the peak times of parking demand for the proposed office and hotel uses. Additionally, some internalization would occur as out of town visitors to the office building would utilize the hotel space for their visit. To be conservative, this internalization has not been accounted for in this analysis.

The Urban Land Institute (ULI) method was used to estimate the parking reductions based on the time of day activity for the land uses. The City zoning code parking rates were used to estimate the baseline supply for each use. The analysis was conducted for a typical weekday since office land uses are not active on the weekends and the hotel would cater to a business/office clientele. The results of the shared parking analysis for the proposed project show that the weekday peak parking demand for the hotel and conference rooms is estimated to be 186 spaces and 84 spaces, respectively, at 10:00 AM. The weekday peak parking demand for office is estimated to be 528 spaces at 10:00 AM. Combined, the total weekday peak parking demand for both the hotel and office uses is estimated to be 798 parking spaces at 10:00 AM. Therefore, the 830 parking spaces proposed by the project would be sufficient to serve the peak parking demand of the proposed project.

Pedestrian Circulation

The site plan was evaluated for internal circulation between the office buildings, hotel, and the open space areas. Pedestrian connections are provided between the different land uses and crosswalks are placed at pedestrian pathways that cross the proposed on-site private road. A pedestrian pathway through the open space areas provides pedestrians with a facility separate from vehicular traffic. Additionally, the proposed project includes a bicycle/pedestrian pathway along the on-site private road that provides connections between the on-site uses, Moffett Boulevard, and the proposed bicycle/pedestrian bridge connection to the Stevens Creek Trail.

Bicycle Circulation and Parking

The project does not conflict with existing or planned bicycle facilities. The proposed project includes a bicycle/pedestrian pathway along the on-site private road that provides connections between the on-site uses, Moffett Boulevard, and the proposed bicycle/pedestrian bridge connection to the Stevens Creek Trail. By installing a bicycle/pedestrian bridge to connect the project site with the Stevens Creek Trail, bicyclists and pedestrians can conveniently access the Stevens Creek Trail, which provides off-street bicycle and pedestrian access to north and south Mountain View.

Bicycle parking requirements were determined using the Mountain View Municipal Code. According to Section 36.32.50 of the City's Municipal Code, the project is required to provide 34 bicycle parking spaces for the office use and seven bicycle parking spaces for the hotel use. The project would provide 99 bicycle parking spaces (58 long-term, or Class I, and 41 short-term, or Class II). The proposed bicycle parking exceeds the bicycle parking requirement set forth by the Mountain View City Code, providing an additional 58 bicycle parking spaces to accompany its TDM goals, which includes actions to support alternate commute modes, such as construction of a direct connection to the Stevens Creek Trail.

Impact TRANS-4: Implementation of the project would not result in significant parking and on-site circulation impacts. **[Less than Significant Impact]**

3.13.3.6 *Pedestrian, Bicycle, and Transit Facility Impacts*

Pedestrian Facilities

Currently, the intersection of Moffett Boulevard and Leong Drive contains a single crosswalk on the north leg of the intersection, which provides east-west access across Moffett Boulevard; however, with no other crosswalks at the intersection, pedestrians approaching the intersection from the south along the Moffett Boulevard sidewalk have no Leong Drive crosswalk to connect to the Moffett Boulevard crosswalk. A crosswalk should be added to the east leg of the Moffett Boulevard/Leong Drive intersection to improve pedestrian access between the project site and the crosswalk on the east side of Moffett Boulevard to the south. The project site itself provides adequate pedestrian facilities for walking throughout the site. In addition, the proposed project includes the construction of a bicycle/pedestrian bridge over Stevens Creek that would connect the project site and surrounding area to the Stevens Creek Trail. The proposed bridge would provide a second means of safe and convenient access to the Mountain View Transit Center for pedestrians or bicyclists.

Impact TRANS-5: The existing crosswalk at the Moffett Boulevard/Leong Drive intersection is not sufficient to provide safe pedestrian access to the project site. **[Potentially Significant Impact]**

Mitigation Measure: The following measure is included in the proposed project to provide safe pedestrian access to the project site:

MM TRANS-5.1: A crosswalk shall be added to the east leg of the Moffett Boulevard/Leong Drive intersection to improve pedestrian access between the project site and Moffett Boulevard to the south.

The proposed project, with the implementation of the above mitigation measure (MM TRANS-5.1), would provide safe pedestrian access to the project. The potential for the addition of a crosswalk on the east leg of the Moffett Boulevard/Leong Drive intersection to affect intersection operations (e.g., increase delays) was evaluated during preparation of the TIA (Appendix I) for the proposed project. The crosswalk would not negatively affect intersection operations. **[Less than Significant Impact with Mitigation Incorporated]**

Bicycle Facilities

Moffett Boulevard provides a continuous bicycle facility between the Project site and the Mountain View Transit Center. Near the Project site, Class II Bicycle Lanes are provided on Moffett Boulevard between SR 85 and US 101. Between SR 85 and the Transit Center, Moffett Boulevard is designated a Class III Bicycle Route. Alternatively, bicyclists traveling between the Transit Center and the Project site can use the Stevens Creek Trail, which connects to Moffett Boulevard immediately north of the Project site. The Stevens Creek Trail provides access to the Transit Center via Class II Bicycle Lanes on Evelyn Avenue (refer to Figure 3.13-2). The Transit Center is located on Evelyn Avenue approximately 500 feet west of the Stevens Creek Trail. The Project proposes to construct a bicycle/pedestrian bridge over Stevens Creek that would connect the Stevens Creek Trail to the proposed on-site bicycle and pedestrian facilities and Moffett Boulevard.

Impact TRANS-6: Existing bicycle facilities in the project area are sufficient to serve the proposed project. **[Less than Significant Impact]**

Transit

Currently, the MVGo program, a service of the Transportation Management Association (TMA), provides Caltrain shuttles to participating employers in the City of Mountain View. Existing service does not stop within a 2,000-foot walking distance of the project site. Under the project's proposed TDM Program, if the TMA chooses not to extend the shuttle service to the site, then the office tenant would need to provide a separate shuttle service with headways of 20 to 30 minutes to the Mountain View Transit Center to achieve the anticipated TDM trip reduction. This service would provide convenient access between the site and the Mountain View Transit Center. Based on these criteria, the project would have a less than significant impact on transit service.

Impact TRANS-7: Implementation of the proposed project, in accordance with the proposed TDM Plan, would not result in a significant impact to transit services. **[Less than Significant Impact]**

3.13.5 Conclusion

Impact TRANS-1: Implementation of the project would not result in significant impact to the project study intersections under Existing with Project conditions. **[Less Than Significant Impact]**

Impact TRANS-2: The project study intersections would operate at an acceptable LOS under the Background with Project Conditions. **[Less Than Significant Impact]**

Impact TRANS-3: Implementation of the proposed project would result in a significant impact to the US 101 Northbound freeway segment between SR 237 and Moffett Boulevard during the AM peak hour under the Existing with Project Conditions. **[Significant Unavoidable Impact]**

Impact TRANS-4: Implementation of the project would not result in significant parking and/or on-site circulation impacts. **[Less Than Significant Impact]**

Impact TRANS-5: With implementation of MM TRANS-5.1, pedestrian facilities at the intersection of Moffett Boulevard/Leong Drive would be sufficient to provide safe pedestrian access to the project site. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact TRANS-6: Existing bicycle facilities in the project area are sufficient to serve the proposed project. **[Less Than Significant Impact]**

Impact TRANS-7: Implementation of the proposed project, in accordance with the proposed TDM plan, would not result in a significant impact to transit services. **[Less Than Significant Impact]**

3.14 UTILITIES AND SERVICE SYSTEMS

The following discussion is based, in part, upon a Water Supply Assessment and a Water and Sewer Utility Impact Analysis, which were both completed for the proposed project by *Schaaf & Wheeler* in April 2016. The results of the Water Supply Assessment and a Water and Sewer Utility Impact Analysis are attached as Appendices J and K of this EIR, respectively.

3.14.1 Regulatory Setting

3.14.1.1 *Water Supply and Water Quality*

The following discussion summarizes regulations that apply to water supply and water quality in Mountain View. Staff from the SFPUC, SCVWD and City regularly collect and test water samples from reservoirs, wells, and designated sampling points to ensure that the water supplied to Mountain View meets applicable drinking water standards. This monitoring and testing program evaluates water turbidity and odors, in addition to microorganisms, organic and inorganic compounds, and other potential pollutants.

Federal Statutes and Regulations

Drinking water is regulated by federal and state laws. The federal government sets minimum standards for water quality, including for drinking water and bodies of water. The Safe Drinking Water Act (SDWA) of 1974 and subsequent amendments gave the US Environmental Protection Agency (EPA) the authority to establish standards for contaminants in drinking water supplies. The National Primary Drinking Water Standards establish the maximum contaminant levels (MCLs) allowed in public distribution systems. The National Secondary Drinking Water Standards establish the MCLs that apply to potable water supplies at the point of delivery to the customer. The EPA administers the SDWA at the federal level and establishes MCLs for bacteriological, inorganic, organic and radiological contaminants.

State Statutes and Regulations

The California Environmental Protection Agency (Cal EPA) administers and enforces the drinking water program and has adopted its own SDWA, which incorporates the federal SDWA requirements, including some requirements specific only to California (California Health and Safety Code, Section 116350 and related sections).

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 Mountain View adopted its most recent Urban Water Management Plan (2010) in June 2011.

Senate Bill 610

Senate Bill (SB) 610 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires preparation of a Water Supply Assessment (WSA) containing detailed information regarding water availability to be provided to the decision-makers prior to approval of specified large development projects that also require a General Plan Amendment. This WSA must be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to the CEQA

City of Mountain View

The City of Mountain View promotes the sustainable use of its water resources through outreach and education programs, financial incentive programs, and by implementing water conservation measures at City properties. Many of the City's water conservation measures are implemented in partnership with the SCVWD and the Bay Area Water Supply and Conservation Agency (BAWSCA), and in coordination with the California Urban Water Conservation Council (CUWCC). The City is committed to implementing the Foundational and Programmatic Best Management Practices (BMPs) identified by the CUWCC. Some of the BMPs include incorporating water waste prohibitions into the City Code, monitoring water losses, public information and outreach programs, and plumbing and rebate and retrofit programs for residential and business customers.

3.14.2 Existing Setting

The project site is located in the central portion of the City. The project site is bounded by Santa Clara Valley Water District (SCVWD) property and Stevens Creek to the west, US 101 to the north, Moffett Boulevard to the east, and a PG&E substation and Moffett Boulevard to the south.

The project site is composed of two parcels, Parcel 1 and Parcel 2, which are both currently undeveloped. Although the site is undeveloped, there are four major existing utilities that run through Parcel 1 in the east-west direction. The existing utilities are composed of three City utilities (an 81-inch storm drain, an 18-inch storm drain, and a 15-inch sanitary sewer line) that run in parallel through Parcel 1 and a 24-inch PG&E gas transmission line that runs in the north-south direction, and then turns towards Stevens Creek to run in the east-west direction.

3.14.2.1 *Water Supply*

The City of Mountain View owns and operates its own water utility. Most of the City's water (approximately 84 percent) comes from the City and the County of San Francisco Regional Water System, operated by the San Francisco Public Utilities Commission (SFPUC).[49] This water originates primarily in the Sierra Nevada and is transported via the Hetch-Hetchy Water System, but also includes treated water from facilities in Alameda and San Mateo Counties. Mountain View's remaining water comes from the Santa Clara Valley Water District System (SCVWD)

[49] City of Mountain View. *2010 Urban Water Management Plan.* June 2011.

(approximately ten percent), local groundwater wells (two percent), and recycled water delivered for non-potable irrigation purposes (five percent).

Climate change may affect future water supply availability for the City of Mountain View by reducing the Sierra snowpack and changing local precipitation patterns. The City's development of a diverse water supply portfolio supports flexibility and reliability in long term water supply planning.

The City of Mountain View municipal water system services 98 percent of the City of Mountain View including the project site. The City has three service areas: the area south of Cuesta Drive, the area between Cuesta Drive and Central Expressway, and the area north of Central Expressway to the San Francisco Bay. The remaining two percent of Mountain View's population is served by the California Water Service Company.

The City of Mountain View's 2010 Urban Water Management Plan (UWMP) forecasts that water supplies will be available to meet the City's projected future water demands during normal and wet years until 2035, based on general growth estimates and supplier projections. During single- and multiple-drought years, the City expects reductions in available supply from the SFPUC and SCVWD. This decrease in imported water is anticipated to be made up through implementation of drought-year water conservation measures, the potential increased use of recycled water, and as the groundwater basin allows, an increase in groundwater production.

The UWMP forecasted future water demand by applying estimated growth in the number of water service accounts in the City's service area. Accordingly, the land use intensification of the project site (among other projects) may be considered as accounted within the general water demand increases documented in the 2010 UWMP. Urban Water Management Plans must be updated every five years. The City of Mountain View is currently preparing the 2015 UWMP, which is expected to be adopted in mid-2016.

Water Conservation

As described in the 2010 UWMP, recent updates to the plumbing codes are expected to reduce Mountain View's water use by four percent in 2015, and up to nine percent in 2035. Recycled water is expected to reduce potable water use by seven percent in 2015 and nine percent in 2035. The implementation of new conservation measures is projected to reduce water use by three percent in 2015 and five percent in 2035, from the base-case scenario.

Current and near-term water conservation measures, as identified in the UWMP, include water waste prohibitions in the Municipal Code, programs to identify system audits, leak detection and repair, metering with commodity rates and conservation pricing, public information and outreach, and education programs.

Other City of Mountain View water conservation programs include residential water surveys, turf audits, plumbing retrofits, and washing machine incentives. The Mountain View City Council adopted the *Water Conservation in Landscaping Regulations* in May 2010 and adopted updates to these regulations in February 2016.

Existing Site Demand

The project site is currently undeveloped and does not generate water demand. The site is not currently served by City of Mountain View domestic water.

3.14.2.2 *Water Facilities*

The City owns and maintains the water infrastructure in Mountain View, including pipelines and valving, pump stations, water storage reservoirs, and groundwater wells. The potable water system is supplied by three different sources: the San Francisco Public Utilities Commission (SFPUC), Santa Clara Valley Water District (SCVWD), and local groundwater wells. This diversity of water supply allows the City to have flexibility in serving customers during water shortages or emergency curtailment conditions, whether local or regional.

The water system is generally able to supply adequate flow and pressure under normal water use conditions; however, improvements will be needed to meet peak demand and firefighting conditions as the existing infrastructure ages and as water demand increases due to new development. The City of Mountain View recently updated the water system model and Capital Improvement Program for water facilities.[50]

3.14.2.3 *Wastewater Services*

The City of Mountain View maintains its own wastewater collection system. The sanitary sewer system in the City of Mountain View is operated and maintained by the Wastewater Section of the Public Works Department. The City pumps its wastewater to the Palo Alto Regional Water Quality Control Plant (RWQCP) for treatment. The RWQCP has an overall 40 million gallons per day (mgd) average annual treatment capacity. The City of Mountain View has an annual wastewater capacity allotment of 15.1 mgd at the plant. As of 2010, approximately 8.8 mgd of wastewater from Mountain View was collected and treated by the RWQCP. This quantity is expected to increase to 12.6 mgd by the year 2035. The terms of Mountain View's agreement with the City of Palo Alto require that when the City of Mountain View reaches 80 percent of the 15.1 mgd allowed by the contract (approximately 12.08 mgd), additional work may be required of the City to assist in future plant expansions.

Mountain View's sanitary sewer system is a gravity system that consists of gravity pipelines, pressure pipelines, and pump stations. The Shoreline Sewage Wastewater Lift Station, located within the North Bayshore area, conveys the majority of sanitary sewer flow generated within the City to the RWQCP. The remaining flow is conveyed to the RWQCP through City of Los Altos sewer infrastructure, with the largest portion conveyed through a meter on Alma Road. The City of Mountain View sanitary sewer system also receives flow from groundwater pumping stations at six locations within the City boundary and sanitary sewer flow from neighboring municipalities.

As discussed in the Water and Sewer Utility Impact Analysis completed for the proposed project by *Schaaf & Wheeler*, the sanitary sewer system downstream of the project site does not have adequate

[50] Schaaf & Wheeler. Memorandum. "City of Mountain View – 2030 General Plan – Updated Water System Modeling." June 17, 2014.

hydraulic capacity under existing conditions. With implementation of the approved Capital Improvement Projects (CIP) identified in the 2030 General Plan Update Utility Impact Study (2030 GPUUIS) and being completed by the City, the sanitary sewer system downstream of the project site has sufficient capacity to serve buildout of the 2030 General Plan.

3.14.2.4 *Storm Drainage*

The City of Mountain View also owns and maintains the storm drain system serving the City. Stormwater runoff in Mountain View is collected by a municipal storm drain system consisting of storm drain inlets, stormwater pump stations, conveyance pipes, culverts, channels and retention basins operated by the City of Mountain View Public Works Department. Stormwater runoff is collected and discharged to local creeks, which flow to the San Francisco Bay. Stormwater runoff from Parcel 1 is collected and discharged directly to Stevens Creek, which is located adjacent the western border of the project site. Off-site runoff from Caltrans property passes through Parcel 2 to a 24-inch storm drain pipe approximately midway along the northern boundary of the project site. The 9.7-acre project site is undeveloped and is almost entirely pervious and, therefore, generates a very small amount of stormwater runoff.

3.14.2.5 *Solid Waste*

Solid waste collection and recycling services for residents and businesses in Mountain View are provided by Recology Mountain View (formerly known as Foothill Disposal). Once collected, solid waste and recyclables are transported to the SMaRT station in Sunnyvale for sorting. Additional small quantities of waste may be transported to other landfills within the area by private contractors.

The City's non-recyclable waste from the SMaRT Station is transported to the Kirby Canyon Landfill, located at 910 Coyote Creek Golf Drive in San Jose. Kirby Canyon Landfill has a total estimated permitted capacity of 36.4 million cubic yards and a remaining estimated capacity of approximately 57.3 million cubic yards.[51] The landfill receives a maximum disposal of 2,600 tons of garbage per day.[52]

The City of Mountain View is working to maintain the waste diversion goal of 50 percent set by state law in 1995. In 2006, the City of Mountain View achieved a diversion rate of 72 percent, which is the last year this rate was calculated.[53]

On March 24, 2009, the Mountain View City Council adopted an Environmental Sustainability Action Plan that calls for, among other actions, the creation of a Zero Waste Plan. The creation of this plan was one of 89 recommendations presented to the Council in the September 2008 final report of the Mountain View Sustainability Task Force. As a first step in this process, Mountain View

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[51] State of California Environmental Protection Agency. Memorandum. "Kirby Canyon Recycling and Disposal Facility City Of San Jose, Santa Clara County, California (43-AN-0008) Preliminary Closure and Postclosure Maintenance Plans Review Comments" October 14, 2014.
[52] CalRecycle. "Facility/Site Summary Details: Kirby Canyon Recycl.& Disp. Facility (43-AN-0008)." http://www.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0008/Detail/. Accessed January 25, 2016.
[53] CalRecycle, Solid Waste Facilities, Sites, and Operations. "Jurisdictional Profile for the City of Mountain View." http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=OriginJurisdictionIDs%3d328%26ReportYear%3d2012%26ReportName%3dReportEDRSJurisDisposalByFacility Accessed May 22, 2014.

recently completed a waste characterization study. For 2009, the disposal rate was 4.0 pounds per capita per day against a target of 7.8 pounds (based on population) as measured by CalRecycle's new methodology. The Zero Waste Plan will seek to reduce the per capita disposal rate for both residential and commercial waste.[54] Based on the total amount of solid waste disposed per year divided by the number of residents and number of employees in the City, the 2012 CalRecycle per capita disposal rates are 3.9 pounds per resident per day, and 4.1 pounds per employee per day.[55]

3.14.3 Utility and Service System Impacts

3.14.3.1 *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 water 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 stormwater 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, so that new or expanded entitlements are needed;
- Not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Not comply with federal, state, and local statutes and regulations related to solid waste.

3.14.3.2 *Water Supply Impacts*

Estimated Future Water Demand

Pursuant to SB 610, a WSA containing detailed information regarding the water availability was prepared for the project. The following discussion is based upon the information contained in the WSA, which is included as Appendix J to this EIR. The proposed project would result in a net increase in water usage due to the combined development of an 180,000-square-foot hotel with 255 rooms and a 200,000-square-foot office building. Therefore, the City has required a Water Supply Assessment for the Project. The water demand for the proposed project was estimated using the square footage of the proposed office building and the proposed number of hotel rooms. The water duty factors for the hotel and office are taken from the 2030 Mountain View General Plan Update Utility Impact Study. Table 3.14-1 details the project water demand estimation.

[54] City of Mountain View, Zero Waste Program. Accessed January 25, 2016. http://www.mountainview.gov/depts/pw/recycling/zero/default.asp
[55] Lori Topley, City of Mountain View. Email to DJP&A. July 2, 2014.

Table 3.14-1: Project Water Demand					
Proposed Zoning Land Use	**Individual Use Type**	**Area (sq ft) or Rooms**	**Water Duty Factor (gpd/1,000 sq ft) or (gpd/room)**	**Proposed Demand (gpd)**	**Proposed Demand (gpm)**
P-Planned Community	Hotel	255 Rooms	191	48,705	33.83
	Office	200,000	130	26,000	18.06
Totals		**356,330**	**-**	**74,705**	**51.89**

Sufficiency of Water Supply for the Project

The City's 2010 UWMP projected commercial and institutional water demands to increase by a total of 341 acre feet per year (AFY) by the year 2035. The project's water demand of 74,705 gpd (83.6 AFY) would not exceed the planned increase in commercial & institutional water demand of 341 AFY or the increase in total water demand of 5,062 AFY over the UWMP planning period (2010-2035).

The City of Mountain View water service has sufficient existing water supply to serve the project and other planned growth during normal water years. During single-dry water years, the City is projected to experience supply shortfalls of up to 14 percent. During multiple-dry water years, the City is projected to experience supply shortfalls of up to 24 percent of the total system demand. During shortfalls, the City may need to impose water rationing, per Mountain View Municipal Code, Section 35.28. Action Stage 2 calls for a supply reduction of 11-25 percent through seven percent indoor and 45 percent outdoor use reduction goals. Experience demonstrates that the projected 24 percent shortfall can be addressed; the City achieved a 28 percent reduction from January through November 2015.

Impact UTIL-1: Sufficient supplies of water are available to serve the proposed project during normal water years, and adopted and achievable water use reduction measures would ensure adequate supply in drought years. Therefore, the proposed project would not result in significant water supply impacts. **[Less than Significant Impact]**

3.14.3.3 *Water Facilities Impacts*

The following discussion is based upon a Water and Sewer Utility Impact Analysis that was prepared to evaluate the ability of the existing water system in combination with planned improvements to serve the proposed project. The Water and Sewer Utility Impact Analysis is included as Appendix K to this EIR. Existing water system performance was analyzed with demands and land use type in the water demand model for the City's 2010 Water Master Plan. New on-site pipes were added to the model for post-project analysis according to proposed utility plans. Off-site infrastructure improvements were updated in the model to reflect off-site improvements that would be implemented by the City pursuant to the City's Capital Improvement Program, including water mains along Leong

Drive that are upsized from an 8-inch main to a 12-inch main and two 12-inch laterals that are added connecting at Leong Drive and extending across Moffett Boulevard to the site.

Fire flow would be served from private hydrants downstream of detector backflow preventers. The 2010 existing model at the project site had a land use classification of *Agriculture* with no associated fire flow requirement. The existing fire flow requirement along Leong Drive is 1,500 gpm for adjacent residential parcels. The project development land use is evaluated with a required fire flow rate of 3,500 gpm.

Peak Hour Demand Scenario

Water system pressures were evaluated under the peak hour demand scenario (PHD) pre- and post-project. Under existing conditions, the system meets performance criteria system-wide, and project development does not impact the system under PHD.

Maximum Day Demand with Fire Flow Scenario

Under existing conditions pre-project, the water system does not meet all fire flow requirements in various locations across the City. There would be no additional deficiencies to the system post-project; however, the planning level fire flow requirement of 3,500 gpm is not met at the project site. As described in Section 5.0, *Cumulative Impacts*, the required fire flow rate for the proposed project (i.e., 3,500 gpm) would be achieved, due to the implementation of planned capital improvement projects (CIPs) to be completed. Preliminary discussions with the City Fire Marshal identify the potential to reduce the project fire flow requirement to 3,000 gpm, which can be met under existing conditions.

Impact UTIL-2: The planning level fire flow requirement of 3,500 gpm is not met at the project site. **[Potentially Significant Impact]**

Mitigation Measures: The following measure is included in the project to reduce the project fire flow requirement:

MM UTIL-2: Prior to issuance of a grading permit, the proposed project shall incorporate all measures deemed necessary by the City Fire Marshal to reduce the project fire flow requirement to 3,000 gpm.

The fire flow requirement for the proposed project, with the implementation of the above mitigation measure (MM UTIL-2), would be 3,000 gpm, which can be met at the project site under existing conditions. **[Less than Significant Impact with Mitigation Incorporated]**

3.14.3.4 *Wastewater Services Impacts*

Palo Alto Regional Water Quality Control Plant

The Mountain View 2030 General Plan EIR found that the Palo Alto RWQCP has more than adequate capacity to serve growth anticipated under the General Plan. According to the City of Palo Alto's *2010 Urban Water Management Plan*, the Palo Alto RWQCP's capacity is sufficient for

current dry and wet weather loads and for future load projections, and there are no plans for expanding the treatment plant.

Sanitary Sewer Infrastructure

The City of Mountain View entered into a joint agreement, referred to as the Basic Agreement, with the cities of Palo Alto and Los Altos in 1968 for the construction and maintenance of the joint sewer system addressing the need for conveyance, treatment, and disposal of wastewater to meet the Regional Water Quality Control Board requirements. In accordance with the Basic Agreement, Palo Alto owns the RWQCP and administers the Basic Agreement with the partnering agencies purchasing individual capacity rights in terms of an average annual flow that can be discharged to the RWQCP. Capacity rights of the three cities can be rented or purchased from other neighboring agencies and each partnering agency can sell their capacity to others.

The City's contractual capacity in million gallons per day (mgd) pre- and post-project can be seen below in Table 3.14-2. Sewer capacity is analyzed under Peak Wet Weather Flow (PWWF) and Average Dry Weather Flow (ADWF). PWWF is used to determine hydraulic deficiencies and ADWF is used to determine adequacy of treatment capacity and estimate project contribution for upsizing deficient sewer mains.

Table 3.14-2: Sanitary Sewer Capacity

RWQCP Joint Facility	Mountain View Contractual Capacity (mgd)	2010 Existing Pre-Project (mgd)[1]	2010 Existing Post-Project
Treatment	15.1	11.34	11.41
Joint Interceptor	50	19.06	19.12

* Treatment = Average Annual Flow; Interceptor = Peak Wet Weather Flow.
[1] Existing sewer pipes crossing through the project site are realigned in the post-project scenario per the Moffett Gateway Conceptual Utility Plans as part of the Moffett Gateway Formal Application dated October 29, 2015.

As shown in Table 3.14-2, the incremental increase in sanitary sewer discharge added to the system by the project would not result in the City of Mountain View reaching or surpassing its contractual capacity with the RWQCP Joint Facility.

The project site is not currently served by a sanitary sewer lateral under existing conditions. Sanitary sewer laterals for each of the three proposed buildings would connect to the City sanitary sewer main that is located on the project site. As discussed in the Water and Sewer Utility Impact Analysis completed for the proposed project by *Schaaf & Wheeler*, the sanitary sewer system downstream of the project site does not have adequate hydraulic capacity under existing conditions. The sanitary sewer system downstream of the project site is being upgraded by the City per the approved Capital Improvement Projects (CIP) that were identified in the 2030 General Plan Update Utility Impact Study (2030 GPUUIS) . Upon completion of these upgrades, the sanitary sewer system downstream of the project site would have sufficient capacity to serve buildout of the 2030 General Plan, including the proposed project.

Impact UTIL-3: The incremental increase in demand generated by the proposed project would not exceed the capacity of the sanitary sewer system serving the project site. **[Less than Significant Impact]**

3.14.3.5 *Storm Drain Capacity Impacts*

The project site is undeveloped and is almost entirely pervious. Development of the project would increase the impervious area of the site from the existing condition. As a result, the project would be required to implement detention measures to reduce stormwater flow to match the existing flow rate from the site.

The project would implement a stormwater management plan that utilizes existing discharge points for the project site and maintains the existing Caltrans storm drainage infrastructure along the northern boundary. Runoff from Parcel 1 would be collected and continue to be routed to Stevens Creek. In the existing condition, Caltrans runoff from off-site passes through Parcel 2 to an existing 24-inch storm drain pipe approximately midway along the northern boundary of the project site. This off-site runoff would be collected and routed across Moffett Boulevard to the adjacent cloverleaf to the east of the site. To facilitate this re-routing of drainage, a new storm drain pipe and outfall, as well as a drainage swale would be constructed on the adjacent cloverleaf. In addition, the existing 24-inch Caltrans drainage pipes, which meet at the northeast corner of the project site, would be relocated onto Caltrans right-of-way. The stormwater runoff generated by the proposed development on Parcel 2 would be collected, treated, and discharged to Stevens Creek, in order to separate the project site drainage from Caltrans drainage.

Although the proposed project would increase the impervious area of the site, the project would include low impact development stormwater quality control measures that would avoid long term water quality impacts during operation of the project. These measures, such as directing stormwater runoff to detention areas, landscaped areas, and vegetative swales, would filter runoff while also reducing the rate and volume of runoff. The measures would be required as City of Mountain View Standard Conditions of Approval and implemented in accordance with the Municipal Regional Stormwater NPDES Permit issued by the San Francisco Bay RWQCB (refer to Section 3.9, *Hydrology and Water Quality*).

Impact UTIL-4: The proposed project, with implementation of City Standard Conditions of Approval requiring low impact development stormwater quality control measures in accordance with the Municipal Regional Stormwater NPDES Permit issued by the San Francisco Bay RWQCB, would not exceed the capacity of the City's existing stormwater drainage system. **[Less than Significant Impact]**

3.14.3.6 *Solid Waste Impacts*

The project would develop a total of approximately 200,000 square feet of office uses and approximately 180,000 square feet of hotel uses, where employees and hotel guests would generate solid waste and recyclables. In addition, large amounts of construction waste would be generated during construction and demolition activities. At least 50 percent of this construction waste would be recycled, in compliance with the City Municipal Code. The following City of Mountain View

Standard Condition of Approval would be incorporated into the project to require the project to meet the construction recycling requirement:

CONSTRUCTION AND DEMOLITION ORDINANCE: This project must comply with the City's Construction and Demolition Ordinance (Mountain View City Code Chapter 16, Article III).

The City of Mountain View has secured landfill disposal capacity at Kirby Canyon Landfill in San José. The proposed project would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity.

Impact UTIL-5: The proposed project would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity. **[Less Than Significant Impact]**

3.14.4 Conclusion

Impact UTIL-1: Sufficient supplies of water are available to serve the proposed project during normal water years, and adopted and achievable water use reduction measures would ensure adequate supply in drought years. Therefore, the proposed project would not result in significant water supply impacts. **[Less than Significant Impact]**

Impact UTIL-2: The fire flow requirement for the proposed project, with implementation of mitigation measure MM UTIL-2, would be 3,000 gpm, which can be met at the project site under existing conditions. **[Less than Significant Impact with Mitigation Incorporated]**

Impact UTIL-3: The incremental increase in demand generated by the proposed project would not exceed the capacity of the sanitary sewer system serving the project site. **[Less Than Significant Impact]**

Impact UTIL-4: The proposed project, with implementation of City Standard Conditions of Approval requiring low impact development stormwater quality control measures in accordance with the Municipal Regional Stormwater NPDES Permit issued by the San Francisco Bay RWQCB, would not exceed the capacity of the City's existing stormwater drainage system. **[Less than Significant Impact]**

Impact UTIL-5: The proposed project would not result in a substantial increase in waste landfilled at Kirby Canyon, or be served by a landfill without sufficient capacity. **[Less Than Significant Impact]**

SECTION 4.0 GROWTH-INDUCING IMPACTS

As stated in the CEQA Guidelines, Section 15126.2(d), a project is considered growth-inducing if it would:

- Directly or indirectly foster economic or population growth, or the construction of additional housing in the surrounding environment
- Remove obstacles to population growth or tax community service facilities to the extent that the construction of new facilities would be necessary.
- Encourage or facilitate other activities that would cause significant environmental effects.

Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped. The project site is located within the incorporated limits of the City of Mountain View near existing urban development, and the development of the project site would not result in an expansion of urban services or the pressure to expand beyond the City's existing Sphere of Influence.

Currently, the City of Mountain View has a "surplus" number of jobs compared to the number of housing units located within the City.[56] The 2030 General Plan states that the jobs/housing ratio in the City will improve from 1.51 in 2010 to 1.37 at General Plan buildout, based on the projected housing growth within the City. The proposed project, which would construct 200,000 square feet of office space and an 180,000-square-foot, 255-room hotel on an undeveloped project site, would result in employment growth in the City. The proposed office building and hotel would create approximately 784 jobs (720 office-related jobs and 64 hotel-related jobs). Therefore, the proposed project would incrementally worsen the jobs/housing ratio that is projected in the 2030 General Plan.

The incremental increase in jobs is not anticipated to substantially increase growth in the project area, because the project would not open additional undeveloped land to further growth, or provide expanded utility capacity that would be available to serve future unplanned development. Instead, it would facilitate the re-use of underutilized commercial land in an existing urban setting. For these reasons, the project would not result in a significant growth-inducing impact.

Impact GRO-1: The proposed project, which would facilitate the re-use of underutilized commercial land in an existing urban setting, would not open additional undeveloped land to further growth, or provide expanded utility capacity that would be available to serve future unplanned development. **[Less Than Significant Growth-Inducing Impact]**

[56] Association of Bay Area Governments. *Jobs-Housing Connection Strategy*. May 2012.

SECTION 5.0 CUMULATIVE IMPACTS

5.1 INTRODUCTION

Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, are considerable or which compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant projects 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 CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence.

The purpose of the cumulative analysis is to allow decision-makers to better understand the potential impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this Draft EIR. Cumulative analyses are based on the premise that impacts of specific actions may be less than significant when viewed on a project-by-project basis, but when considered together with the impacts of other projects involving similar activities, these specific actions may be cumulatively considerable.

5.2 LIST OF CUMULATIVE PROJECTS

Table 5.2-1 identifies all the approved and pending projects which are considered in this cumulative analysis. These recently approved or reasonably foreseeable projects include the development or redevelopment of sites with residential uses, as well as the development or redevelopment of sites occupied by industrial or commercial uses. This list has been assembled by the City of Mountain View, in consultation with the City of Sunnyvale.

For each environmental issue, cumulative impacts may occur over different geographic areas. For example, emissions of regional pollutants affect pollutant concentrations within the regulatory limits of the San Francisco Bay Air Basin, but the influence will be more substantial downwind of the sources. As appropriate, geographic considerations are discussed in individual issue areas, such as transportation and construction noise.

While the individual projects listed in Table 5.2-1 may result in significant impacts in particular issue areas, it is assumed that the projects will comply with existing regulations and statutes, and will incorporate mitigation and avoidance measures to reduce potential impacts to a less than significant level, if feasible and necessary. For example, all projects are required to incorporate best management practices and comply with local and regional regulations to reduce impacts to hydrology and water quality to the maximum extent feasible.

Table 5.2-1: Cumulative Projects List		
Site #	**Name of Site**	**Description**
1	690 East Middlefield Road	Office – 340,000 square feet
2	575 East Middlefield Road	Office – 102,000 square feet
3	369 North Whisman Road	Office – 180,000 square feet
4	Ferguson Drive	Residential – South Whisman Project (Precise Plan)
5	331 Fairchild Drive	Office – 87,500 square feet
6	340 East Middlefield Road	Office – 17,740 square feet
7	115 Evandale Avenue	Rowhouses – 6 units
8	600 National Avenue	Office – 140,000 square feet
9	135 Ada Avenue	Rowhouses – 59 units
10	137 Easy Street	Rowhouses – 21 units
11	129 Ada Avenue	Rowhouses – 4 units
12	405 West Evelyn Avenue	Townhouse – 36 units
13	365 Villa Street	Single Family Homes – 12 units
14	871 West Evelyn Avenue	Office – 65,000 square feet
15	525 East Evelyn Avenue	Rowhouses – 70 units
16	Pacific Drive	Single Family Homes – 18 units
17	2600 Marine Way	Office – 231,000 square feet
18	250 Bryant Street	Office – 56,000 square feet
19	1951 Colony Street	Rowhouses – 33 units
20	1946 San Luis Avenue	Rowhouses – 28 units
21	100 Moffett Boulevard	Apartments – 190 units
22	450 North Whisman Drive	Rowhouses – 37 units
23	111 & 123 Fairchild Drive	Rowhouses – 18 units
24	277 Fairchild Drive	Rowhouses – approximately 25 units
25	870 Leong Drive	Hotel – 78 rooms
26	580-620 Clyde Avenue	Office – 178,477 square feet
27	1045-1085 La Avenida Street	Office – 128,000 square feet
28	1625 Shoreline Boulevard	Hotel – 200 rooms
29	430 San Antonio Road	Apartments – 373 units Retail – 3,000 square feet Office – 80,670 square feet
30	333 North Rengstorff Avenue	Rowhouses – 29 units
31	1998-2024 Montecito Avenue	Condominium – 13 units
32	647 Sierra Vista Avenue	Rowhouses – 30 units
33	2065 San Luis Avenue	Rowhouses – 9 units
34	1075 Terra Bella	Office (R&D) – 13,046 square feet
35	133-149 Fairchild Drive	Rowhouses – 35 units
36	700 East Middlefield Road	Office – 658,094 square feet
37	NASA Ames Bayshore Campus (Bay View)	Office - 1,100,000 square feet

CUMULATIVE PROJECT LOCATIONS

FIGURE 5.2-1

5.3 ANALYSIS OF CUMULATIVE IMPACTS

For each impact area discussed in this Draft EIR, the following aspects of cumulative impacts are discussed in this section:

- Would the effects of the proposed project, when combined with the effects of all past, present, and pending development result in a cumulatively significant impact on the resources in question?

- If a cumulative impact is likely to be significant, would the contribution of the proposed project to that impact be cumulatively considerable?

Section 15130(B) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. For example, the project effects on air quality would combine with the effects of projects in the entire San Francisco air basin, whereas noise impacts would primarily be localized to the surrounding area. The proposed project would primarily contribute to the cumulative effects of development in Mountain View.

Please note, the discussion in Section 3.13, *Transportation*, uses a different cumulative basis than the discussion in the remaining sections. Cumulative traffic conditions include the traffic from projects that have been approved, but not yet constructed or occupied; reasonably foreseeable pending development; and a two percent per year growth factor compounded for five years.

5.3.1 Cumulative Aesthetic and Visual Impacts

The cumulative projects analyzed in this Draft EIR may demolish existing buildings, construct taller buildings, remove Heritage trees, and possibly affect views of the Santa Cruz Mountains and other scenic resources. As discussed previously, the project would not affect scenic views or scenic resources. All of the cumulative projects would be subject to the City of Mountain View design guidelines, lighting standards, and signage regulations. Implementation of these measures and requirements would minimize or reduce visual impacts to a less than significant level. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative aesthetic or visual impacts.

Impact C-AES-1: The project, along with the cumulative projects in the area, would not result in significant cumulative aesthetic or visual impacts. **[Less Than Significant Cumulative Impact]**

5.3.2 Cumulative Air Quality Impacts

5.3.2.1 *Cumulative Air Quality*

The San Francisco Bay Area Air Basin (SFBAAB) is currently designated as a non-attainment area for state and national ozone standards and national particulate matter ambient air quality standards. SFBAAB's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. 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. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

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 described above and in the air quality and greenhouse gas emissions assessment for the project (refer to Appendix B), with implementation of the standard construction BMPs recommended in the BAAQMD CEQA Air Quality Guidelines to reduce emissions, the project would not exceed the thresholds for criteria pollutants and, therefore, would not make a cumulatively considerable contribution to regional criteria pollutant air quality impacts.

Impact C-AQ-1: The proposed project would not make a cumulatively considerable contribution to cumulative criteria pollutant air quality impacts. **[Less than Significant Cumulative Criteria Pollutant Air Quality Impact]**

5.2.3.2 *Cumulative Construction Air Quality*

Construction activities associated with all of the cumulative projects would temporarily affect local air quality. Construction activities such as demolition, earthmoving, construction vehicle traffic, and wind blowing over exposed earth would generate diesel exhaust emissions and fugitive particulate matter emissions that would affect local and regional air quality. However, the cumulative projects are scattered throughout the City, and their schedules for construction are different and likely to occur over the next several years. Construction of the cumulative project that that is proximate enough to the project site (870 Leong Drive) to possibly result in cumulative construction air quality impacts is not expected to occur simultaneously with the proposed project.

As discussed previously, the proposed project would implement mitigation measures to reduce its construction-related impacts to a less than significant level. For these reasons, the proposed project in combination with the cumulative projects, would not result in a significant short-term cumulative construction air quality impact.

Impact C-AQ-2: The proposed project would not result in or substantially contribute to a significant short-term cumulative air quality impact. **[Less than Significant Cumulative Construction Air Quality Impact]**

5.3.3 Cumulative Biological Resources Impacts

Given the project's biological resources impacts and the nature of the cumulative projects, the discussion below focuses on cumulative impacts related to steelhead, nesting birds, invasive plants, and trees.

5.3.3.1 *Cumulative Impacts: Steelhead and Nesting Birds*

The cumulative projects analyzed in this Draft EIR may affect sensitive habitats, special-status species, and/or other native species, many of which are protected by state or federal law. As described above, nesting raptors and migratory birds could be present on and/or adjacent to the project site or areas of proposed off-site construction. The project would not result in significant direct impacts to sensitive habitats or special status species.

It is possible that the water quality of Stevens Creek could be impacted during bridge construction as a result of erosion/sedimentation or contaminants entering the creek, which could impact steelhead, if construction occurs when spawning steelhead are passing through the section of Stevens Creek adjacent to the project site. Mitigation measures, however, are included in the proposed project to reduce this impact to a less than significant level, and the project's contribution to cumulative impacts to the water quality of Stevens Creek and steelhead would not be significant.

Similarly, measures would be implemented to avoid impacts to nesting birds, which would reduce the project's contribution to nesting bird cumulative impacts. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative impacts to special status species or nesting birds.

Impact C-BIO-1: The proposed project, in combination with the cumulative projects, would not result in significant cumulative impacts to special status species or nesting birds. **[Less than Significant Cumulative Biological Resources Impact]**

5.3.3.2 *Cumulative Impacts: Indirect Nitrogen Deposition*

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (SCV Habitat Plan) identified nitrogen deposition as an indirect cause of impacts to rare species in southern Santa Clara County, particularly those located on serpentine soils. Nonpoint air pollution sources such as automobiles emit nitrogen compounds into the air. Because serpentine soils tend to be nutrient poor, and nitrogen deposition artificially fertilizes serpentine soils, nitrogen deposition from vehicle traffic and other sources facilitates the spread of invasive plant species. Non-native annual grasses grow rapidly, enabling them to out-compete serpentine species. The displacement of these species, and subsequent decline of several federally-listed species, including the Bay Checkerspot butterfly and its larval host plants, has been documented on Coyote Ridge in central Santa Clara County (the last remaining major population of these butterflies). The invasion of native grasslands by invasive and/or non-native species is now recognized as one of the major causes of the decline of the federally endangered Bay Checkerspot butterfly.

Modeling completed as a part of the development of the SCV Habitat Plan identifies cumulative effects to serpentine habitats and serpentine species on Coyote Ridge and other areas in central and southern Santa Clara County. As discussed in Section 3.3, *Biological Resources*, nitrogen deposition on the effected serpentine habitats from areas of Santa Clara County not covered by the SCV Habitat Plan is about 17 percent. The proposed project would cause an extremely small portion of these emissions, which would not be cumulatively considerable.

Impact C-BIO-2: The cumulative projects, including the proposed project, would not result in a significant cumulative impact to special status species as a result of nitrogen deposition. **[Less than Significant Cumulative Biological Resources Impact]**

5.3.3.3 *Cumulative Impacts: Heritage Trees*

The City of Mountain View Tree Preservation Ordinance defines "Heritage" trees based on their size, species, or special designation. A tree removal permit is required from the City for the removal of any Heritage trees, and it is unlawful to willfully injure, damage, destroy, move, or remove a Heritage tree without a tree removal permit.

All projects in the City of Mountain View are required to mitigate the removal of Heritage trees and protect all trees proposed to remain on-site from potential damage during construction. For these reasons, the cumulative projects, including the proposed project, would not result in a significant cumulative loss of Heritage trees.

Impact C-BIO-3: The proposed project, together with the cumulative projects, would not result in a cumulatively considerable contribution to a significant cumulative loss of Heritage trees. **[Less Than Significant Cumulative Biological Resources Impact]**

5.3.4 Cumulative Cultural Resources Impacts

5.3.4.1 *Cumulative Impacts: Prehistoric Resources*

The cumulative projects analyzed in this Draft EIR may require excavation and grading or other activities that may affect unknown prehistoric cultural resources. As with the proposed project, all projects with the potential to impact unknown cultural resources would be required to implement measures as conditions of approval to avoid impacts to prehistoric resources and/or reduce them to a less than significant level. As with the proposed project, the cumulative projects would also be subject to federal, state, and county laws regulating cultural or paleontological resources. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative impacts to prehistoric resources.

Impact C-CR-1: The cumulative projects, including the proposed project, would not result in significant cumulative prehistoric resource impacts. **[Less Than Significant Cumulative Cultural Resources Impact]**

5.3.4.2 *Cumulative Impacts: Historic Resources*

As previously discussed, there are no listed historic resources on or adjacent to the project, and the potential for historic archaeological resources within the project site is low. For these reasons, the proposed project would not result in impacts to historic resources and, therefore, would not contribute to a cumulative historic resources impact.

Impact C-CR-2: The proposed project would not affect historic resources and, therefore, would not contribute to a cumulative historic resources impact. **[Less Than Significant Cumulative Cultural Resources Impact]**

5.3.5 Cumulative Energy Impacts

Future development within the PG&E service area will increase residential, commercial, office, and other non-residential needs for electricity and gas. PG&E is expected to meet future energy demand through increasing reliance on renewable resources in response to regulatory requirements intended to address global climate change. If large-scale power sources were to be implemented in the future, they would be subject to environmental review and permitting requirements.

The proposed project, together with the cumulative projects, would result in a small increment of increased energy demand that is considered less than significant. This is due to the energy conservation requirements and programs that have been established under the Mountain View 2030 General Plan and Greenhouse Gas Reduction Program. Additionally, with the implementation of AB 32 and Title 24 requirements, future development throughout California would be required to integrate energy efficiency measures that would reduce average demand per type of use.
All cumulative development would be required to increase energy efficiency and, therefore, would not encourage wasteful or inefficient use of energy. For these reasons, implementation of the proposed project would not make a cumulatively considerable contribution to impacts resulting from energy production and use.

Impact C-EN-1: The proposed project, consistent with the energy conservation requirements and programs that have been established under the Mountain View 2030 General Plan and Greenhouse Gas Reduction Program and state energy requirements, would not make a cumulatively considerable contribution to impacts resulting from energy production and use. **[Less than Significant Cumulative Energy Impact]**

5.3.6 Cumulative Geology and Soils Impacts

Similar to the proposed project, the cumulative projects analyzed in this Draft EIR could also have the potential to result in geology, soils, and seismicity impacts. Therefore, the cumulative projects would each also be required to implement measures as conditions of approval to avoid and/or reduce the potential for geology and soils impacts to a less than significant level. As with the proposed project, the cumulative projects would also be subject to federal and state laws for building and construction in seismic hazard areas. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative geology and soils impacts.

Impact C-GEO-1: The cumulative projects, including the proposed project, would not result in significant cumulative geology and soils impacts. **[Less than Significant Cumulative Geology and Soils Impact]**

5.3.7 Cumulative Greenhouse Gas Emissions Impacts

The discussion in Section 3.7, *Greenhouse Gas Emissions* addresses the project's contribution to cumulative greenhouse gas emissions impacts on a regional, statewide, and global basis. Cumulatively considerable greenhouse gas emission impacts from the cumulative development in Mountain View would be avoided by measures included in the City's GGRP.

Impact C-GHG-1: Implementation of the City's qualified GGRP would avoid the potential for the proposed project, in combination with the cumulative projects, to make a cumulatively considerable contribution to greenhouse gas emission impacts. **[Less than Significant Cumulative Greenhouse Gas Emissions Impact]**

5.3.8 Cumulative Hazardous Materials Impacts

Similar to the proposed project, some of the projects that would be built out under the cumulative scenario are proposed on properties that were previously developed with industrial or commercial uses or that are impacted from off-site hazardous material contamination. It is likely that hazardous materials may have been stored and used on some or all of the cumulative project sites at some point in the past. For example, many properties with the City were used for agricultural production and, as a result, on-site soils may contain elevated levels of agricultural chemicals such as pesticides and fertilizers. Existing buildings to be demolished by the cumulative projects could may contain asbestos-containing materials (ACMs), lead-based paint, or polychlorinated biphenyls (PCBs). As a result, demolition of these structures could expose construction workers, persons in the immediate vicinity, and or the environment to these hazardous materials, if they are not handled properly.

Similar to the proposed project, all cumulative projects with the potential to result in risks associated with exposure to hazardous materials would be required to implement measures as conditions of approval. These measures could include incorporating the requirements of applicable existing local, state, and federal laws, regulations, and agencies such as the State Department of Toxic Substances (DTSC), Regional Water Quality Control Board, and the California Occupational Safety and Health Administration (Cal/OSHA), during one or more phases of project development.

If chemical releases have occurred on the cumulative sites, it is possible that contaminated soils could be overexcavated and transported to appropriate landfills or treated on-site. If groundwater is affected, remediation and ongoing groundwater sampling both on the site and on surrounding downgradient properties could be warranted. Finally, prior to the demolition of structures with the potential to contain hazardous building materials (e.g., ACMs or lead-based paint), surveys would be required as conditions of approval to determine if hazardous building materials are present. If determined to be present, the hazardous building materials would be handled and disposed of in a manner that minimizes exposure to people and the environment. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative hazardous materials impacts.

Hazardous materials and other public health and safety issues are generally specific to the area of concern and would not combine with contamination on other sites in Santa Clara County that are not

geographically related. For example, investigation and possible subsequent remediation of a development or redevelopment site in the City of Mountain View would not typically affect the investigation and remediation of sites in other cities.

Impact C-HAZ-1: Construction of the proposed project, in combination with the cumulative projects, would not result in a significant cumulative hazardous materials impact. **[Less than Significant Cumulative Hazardous Materials Impact]**

5.3.9 Cumulative Hydrology and Water Quality Impacts

5.3.9.1 *Cumulative Stormwater Impacts*

Build-out of the cumulative projects would generally involve redevelopment of existing developed sites that contain substantial impervious surfaces, and these projects would be required to conform to applicable General Plan goals, policies, and action statements, the City of Mountain View Municipal Zoning Code, and the City's stormwater management guidelines regarding stormwater runoff and infrastructure.

Additionally, these projects would be required to implement stormwater pollution best management practices (BMPs) during construction and incorporate low impact development (LID) project design measures to reduce water quality impacts and to comply with the NPDES Municipal Regional Permit (MRP). For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative hydrology and water quality impacts.

Impact C-HYDRO-1: The proposed project, in combination with the cumulative projects, would not result in significant cumulative hydrology and water quality impacts. **[Less Than Significant Cumulative Hydrology and Water Quality Impact]**

5.3.9.2 *Cumulative Flooding Impacts*

The project site is subject to 100-year flood events. Consistent with the Mountain View Flood Ordinance, the project has been designed to avoid on-site flooding impacts, while not substantially increasing off-site flooding. It is possible that one or more of the cumulative projects would also be located within a 100-year floodplain and, if so, would also be subject the City of Mountain Flood Ordinance. Cumulative projects located within a FEMA flood hazard zone would also be subject to FEMA regulations.

The floodplain modeling completed for the proposed project shows that the proposed project would minimally effect off-site water surface elevations. The maximum increase in water surface elevation off-site resulting from the proposed project is less than 0.25 feet (*Schaaf & Wheeler*, 2016). In the residential areas adjacent to the site, increases in water surface elevation larger than a tenth of a foot are confined to the street or Caltrans right-of-way (*Schaaf & Wheeler*, 2016) and, therefore, would not affect the surrounding residences. All cumulative projects within a floodplain would be governed under the same regulations as the proposed project (i.e., would not be allowed to substantially increase off-site flooding). Therefore, the cumulative projects would not substantially increase water

surface elevations in the project area during a flood event at the project site. For these reasons, the incremental increase in water surface elevation that could occur off-site as a result of the proposed project would not contribute to a significant cumulative flood impact.

The proposed project, which is located on a site well above sea level, would not contribute to critical infrastructure impacts that could result from sea-level rise in Mountain View and the greater Bay Area.

Impact C-HYDRO-2: The proposed project, in combination with the cumulative projects, would not result in significant cumulative flood impacts. **[Less Than Significant Cumulative Hydrology and Water Quality Impact]**

5.3.10 Cumulative Land Use Impacts

Since little open land is available in the City of Mountain View, including in the area of the project site, projects constructed under the cumulative conditions scenario generally would consist of redevelopment of previously developed sites. Development on a number of these sites could result in a change of uses and/or an intensification of development.

The compatibility of new development with adjacent land uses, and the general character of surrounding areas are considered as a part of the City of Mountain View's architectural and environmental review processes for its projects. Through appropriate site design and review of these urban projects, land use compatibility impacts such as visual intrusion and noise would be avoided. All development projects in the City would be subject to 2030 General Plan goals, policies, and action statements that require appropriate buffers, edges, and transition areas between dissimilar land uses. In addition, the setback, design, and operational requirements of the Mountain View City Code should minimize land use compatibility issues.

The project, in conformance with the applicable 2030 General Plan goals, policies, and action statements and with the implementation of mitigation measures, would not result in significant land use compatibility impacts or conflict with a policy or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Additionally, new development would have been reviewed under the appropriate design and environmental review process. The project, therefore, in combination with other development in the area, would not result in significant land use impacts.

Impact C-LU-1: The cumulative projects, including the proposed project, would not result in significant cumulative land use impacts. **[Less Than Significant Cumulative Land Use Impact]**

5.3.11 Cumulative Noise Impacts

A significant cumulative impact would occur if the cumulative traffic noise level increase would be three dBA L_{dn} or greater for cumulative noise levels exceeding 55 dBA L_{dn} or would be five dBA L_{dn} or greater for cumulative noise levels at or below 55 dBA L_{dn}. A "cumulatively considerable" contribution would be defined as an increase of one dBA L_{dn} or more attributable solely to the proposed project.

Based on the information contained in the traffic study prepared for 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. The traffic noise increases calculated under both cumulative scenarios were approximately two dBA L_{dn} along Moffett Boulevard and less than two dBA L_{dn} along connecting roadways in the project vicinity. Since the traffic noise level increase of both cumulative scenarios is less than three dBA L_{dn}, the proposed project would not make a cumulatively considerable contribution to a cumulative noise impact.

The project site is located in an essentially "built-out" area of Mountain View. Most projects on the cumulative list are not located close enough to the project site to result in a cumulative noise impact, because they are too far away, too small, are near intervening structures would reduce noise, and/or ambient noise levels at the site are too high. Furthermore, construction of the cumulative project that is proximate enough to the project site (870 Leong Drive) to cause cumulative effects is not expected to occur simultaneously with the proposed project. For these reasons, construction noise impacts or operational noise impacts resulting from the project would not combine with noise from other projects in the vicinity, or increased noise levels resulting from the general growth of the area, to increase the severity of project noise impacts as discussed above.

Impact C-NOI-1: The proposed project, in combination with the cumulative projects, would not result in significant cumulative noise impacts. **[Less than Significant Cumulative Noise Impact]**

5.3.12 Cumulative Public Services Impacts

The cumulative projects analyzed in this Draft EIR may require provision of public services, including, like the project site, increased fire and police services. All cumulative projects occurring within Mountain View, however, would implement conditions of approval or mitigation measures that would avoid impacts to public services and/or reduce them to a less than significant level. These projects would also be subject to state, county, and City codes regulating these resources. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative impacts to public services.

Impact C-PS-1: The project would not contribute to a cumulatively considerable contribution to a significant public services impact. **[Less Than Significant Impact]**

5.3.13 Cumulative Transportation Impacts

5.3.13.1 *Cumulative Intersection Impacts*

Cumulative intersection impacts are evaluated by comparing intersection operations under Cumulative Conditions without Project Conditions to intersection operations under Cumulative with Project Conditions. Traffic volumes under Cumulative without Project Conditions include existing volumes multiplied by a growth factor plus the traffic from approved but not yet constructed or occupied projects and pending projects that would affect the transportation system in the project

area.[57] Traffic volumes under Cumulative with Project Conditions include the traffic volumes under Cumulative without Project Conditions plus the traffic generated by the proposed project.
Level of service calculations were completed to evaluate intersection operations under Cumulative Conditions without and with the proposed project. The results of the LOS analysis are summarized in Table 5.3-1, along with changes in intersection critical delay and critical volume-to-capacity (V/C) ratios due to the addition of project traffic. As shown in Table 5.3-1, all but one of the study intersections would operate at acceptable levels of service according to their designed LOS standard. The intersection of East Middlefield Road and North Shoreline Boulevard does not meet its LOS D standard under Cumulative without Project Conditions and Cumulative with Project Conditions during the PM peak hour.

Table 5.3-1: Cumulative with Project Intersections Level of Service

Intersection (Jurisdiction)	Peak Hour[1]	Cumulative Conditions		Cumulative with Project Conditions			
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Δ in Crit. V/C[4]	Δ in Crit. Delay[5]
1. US 101 Northbound Ramps and Moffett Boulevard (MV)	AM PM	17.1 29.4	B C	16.9 22.7	B C+	0.137 0.105	-0.1 2.5
2. US 101 Southbound Ramps and Moffett Boulevard (MV)	AM PM	23.1 23.2	C C	17.2 18.9	B B-	0.168 0.154	-9.9 -4.8
3. Leong Drive Access Road and Moffett Boulevard (MV)	AM PM	38.2 23.9	D+ C	21.5 32.5	C+ C-	0.233 0.169	-30.1 11.4
4. Leong Drive and Leong Drive Access Road (MV)	AM PM	30.8 20.0	D C	35.0 21.6	D C	N/A N/A	N/A N/A
5. SR 85 Northbound Ramp and Moffett Boulevard (MV)	AM PM	13.2 14.1	B B	13.8 13.8	B B	0.040 0.027	0.3 -0.4
6. SR 85 Southbound Ramp and Moffett Boulevard (MV)	AM PM	11.6 17.4	B C	11.9 19.3	B C	N/A N/A	N/A N/A
7. East Middlefield Road and North Shoreline Boulevard (MV)	AM PM	43.5 **55.6**	D **E+**	43.6 **55.7**	D **E+**	0.001 0.001	0.1 0.2
8. East Middlefield Road and Moffett Boulevard (MV)	AM PM	34.1 34.0	C- C-	35.0 34.6	C- C-	0.031 0.015	2.0 0.5
9. East Middlefield Road and North Whisman Road (MV)	AM PM	26.0 35.4	C D+	26.1 35.5	C D+	0.009 0.009	0.1 0.3
10. East Middlefield Road and Ellis St (MV)	AM PM	26.1 24.5	C C	26.6 24.5	C C	0.012 0.002	0.6 0.0
11. East Middlefield Road and SR 237 Eastbound Ramps (MV)	AM PM	44.8 28.2	D C	45.9 28.3	D C	0.011 0.000	1.2 0.0

[57] A growth factor of two percent per year, compounded annually for five years, was applied to the existing volumes on each movement at every intersection.

12. East Middlefield Road and SR 237 Westbound Ramps (MV)	AM PM	22.0 20.6	C+ C+	22.0 20.5	C+ C+	0.006 0.000	0.0 0.0
13. Central Expressway and Moffett Boulevard (CMP)	AM PM	37.1 51.2	D+ D-	38.0 52.2	D+ D-	0.017 0.007	1.6 1.1
14. Central Expressway and North Mary Avenue (CMP)	AM PM	40.1 51.9	D D-	40.5 52.2	D D-	0.011 0.007	0.6 0.5

[1] AM = morning peak hour, PM = evening peak hour.
[2] Whole intersection weighted average control delay expressed in second per vehicle for signalized intersections, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections. Intersections include adjusted saturation flow rates to reflect Santa Clara County conditions per VTA guidelines.
[3] LOS = Level of Service. LOS calculations conducted using the TRAFFIX level of service analysis software package, which applies the method described in the 2000 Highway Capacity Manual.
[4] Change in critical volume to capacity ratio between Cumulative and Cumulative with Project conditions.
[5] Change in average critical movement delay between Cumulative and Cumulative with Project conditions.

The proposed project would not exacerbate unacceptable operations at the intersection of East Middlefield Road and North Shoreline Boulevard by increasing the average critical delay by four seconds or more and increasing the critical volume-to-capacity (V/C) ratio by 0.01 or more; therefore, based on the City of Mountain View and the Santa Clara County Congestion Management Program significance criteria, the impact is considered less than significant.

Impact C-TRANS-1: Implementation of the project would not result in significant impacts to the project study intersections under cumulative conditions. **[Less than Significant Cumulative Traffic Impact]**

5.3.13.3 *Cumulative Transit, Pedestrian, and Bicycle Facility Impacts*

Cumulative Transit Vehicle Delay

Transit vehicle delay on Moffett Boulevard, between US 101 and Central Expressway, was assessed under Cumulative Conditions. The projected additional vehicle transit delay is provided in Table 5.3-2.

Table 5.3-2: Additional Transit Vehicle Delay (Seconds) Under Cumulative With Project Conditions

Roadway (Direction)	AM Peak Hour	PM Peak Hour
Moffett Boulevard (Northbound)	-35.6	-10.1
Moffett Boulevard (Southbound)	-17.3	-6.7

Note: Delay quantified for Moffett Boulevard between US 101 and Central Expressway.
Source: Fehr & Peers, 2016.

As shown in Table 5.3-2, transit vehicle delay under Cumulative Conditions with the addition of project traffic would be reduced during both the AM and PM peak hours. The reduced transit vehicle delay results from the addition of project traffic to non-critical movements and the redistribution of green time.

Impact C-TRANS-2: Implementation of the project would not increase transit vehicle delay under cumulative conditions. **[Less than Significant Cumulative Traffic Impact]**

Cumulative Pedestrian Facility Impacts

The proposed project, with the implementation of mitigation measure (MM TRANS-3.1), would provide safe pedestrian access to and from the project site. On-site, the proposed project provides adequate pedestrian facilities for walking throughout the site. In addition, the proposed project includes the construction of a bicycle/pedestrian bridge over Stevens Creek that would connect the project site and surrounding area to the Stevens Creek Trail. The proposed bridge would provide a second means of safe and convenient access to the Mountain View Transit Center for pedestrians or bicyclists.

The proposed project would not conflict with existing or planned pedestrian facilities. With the implementation of mitigation measure (MM TRANS-3.1), the project would provide safe pedestrian access to and from the project and, therefore, would not create pedestrian demand without adequate and appropriate facilities for safe mobility. For these reasons, the project would not contribute to cumulative pedestrian facility impacts.

Impact C-TRANS-3: The project, with the implementation of mitigation measure (MM TRANS-3.1), would not contribute to cumulative pedestrian facility impacts. **[Less than Significant Cumulative Traffic Impact]**

Cumulative Bicycle Facility Impacts

The proposed project does not include features that would conflict with existing or planned bicycle facilities. Moffett Boulevard provides a continuous bicycle facility between the project site and the Mountain View Transit Center. Alternatively, bicyclists traveling between the Transit Center and the Project site can use the Stevens Creek Trail, which connects to Moffett Boulevard immediately north of the Project site. On-site, the proposed project provides adequate bicycle facilities throughout the site. Additionally, the project proposes to construct a bicycle/pedestrian bridge over Stevens Creek that would connect the Stevens Creek Trail to the proposed on-site bicycle and pedestrian facilities and Moffett Boulevard. For these reasons, the project would not create bicycle demand without adequate and appropriate facilities for safe mobility and would not contribute to a significant cumulative bicycle facilities impact.

Impact C-TRANS-4: The project would not conflict with existing or planned bicycle facilities and existing and proposed facilities would provide safe bicycle mobility on and off the site. **[Less than Significant Cumulative Traffic Impact]**

5.3.14 Cumulative Utilities Impacts

Utilities are generally provided or delivered on a local level, but often originate from sources outside of the City and/or as a part of a regional distribution system. Development associated with the project could contribute to City-wide or regional impacts associated with the provision of utilities.

5.3.14.1 *Cumulative Water Supply Impacts*

The majority of potable water supplies in Mountain View originate from outside the City. In addition to Santa Clara County, the water supply from the SFPUC is distributed to other wholesale customers in Alameda and San Mateo counties. The SCVWD is Santa Clara County's principal water wholesaler, and serves surrounding communities, like Palo Alto and Sunnyvale. Most new urban land uses within the surrounding area and development associated with implementation of the project and the cumulative projects would be dependent on these two water supply sources.

As discussed in the Water Supply Assessment (WSA) completed for the proposed project, the City of Mountain View water service has sufficient existing water supply to support future planned growth in the City during normal water years and single-dry water years. During multiple-dry water years, the City is projected to experience supply shortfalls of up to 24.4% of the total system demand and may need to impose water conservation measures, per Mountain View Municipal Code, Section 35.28. The proposed project would be required to implement the water conservation measures, as would all existing and planned development within the City. For these reasons, the water demand from the proposed project and existing and planned development within the City would not result in a significant cumulative water supply impact.

Impact C-UTIL-1: Implementation of the proposed project in combination with the cumulative projects would not result in significant cumulative water supply impact. **[Less Than Significant Cumulative Utilities Impact]**

5.3.14.2 *Cumulative Water Facilities Impacts*

The water system performance under cumulative conditions was analyzed assuming that all recommended capital improvement projects (CIPs) identified in the 2030 General Plan - Updated Water System Modeling (Schaaf & Wheeler, May 2014) have been constructed. Off-site infrastructure improvements were updated in the model to reflect improvements planned and approved by the City pursuant to the City's CIP, including water mains along Leong Drive that are upsized from an 8-inch main to a 12-inch main and two new 12-inch laterals connecting at Leong Drive and extending across Moffett Boulevard to the site. New on-site pipes were added to the model for the cumulative with project analysis according to proposed utility plans. As described under project conditions, fire flow will be served from private hydrants. The required fire flow rate for the proposed project is 3,500 gpm.

Peak Hour Demand Scenario

Water system pressures were evaluated under cumulative conditions for the peak hour demand scenario (PHD) with and without the project. Under cumulative conditions, the water system has

adequate pressures and is able to satisfy the demand generated by the project while meeting the design criteria at PHD.

Maximum Day Demand with Fire Flow Scenario

Under cumulative conditions, the water system failed to meet the required fire flow at a single node. The deficiency is independent of the project and is not located in the immediate vicinity of the project area. The proposed project does not increase the number of system deficiencies and does not contribute to deficiencies. The required fire flow rate for the proposed project (i.e., 3,500 gpm) would be achieved at the project site under cumulative conditions, due to the implementation of the CIPs. For these reasons, the proposed project would not make a cumulatively considerable contribution to water system deficiencies that are projected to occur under cumulative conditions.

Impact C-UTIL-2: Implementation of the proposed project in combination with the cumulative projects would not result in significant cumulative impacts to water facilities. **[Less Than Significant Cumulative Utilities Impact]**

5.3.14.3 *Cumulative Wastewater Impacts*

Implementation of the proposed project would generate additional wastewater treatment demand. As described in the 2030 General Plan EIR, the Palo Alto RWQCP, which serves the City and surrounding communities such as Los Altos, Los Altos Hills, and Palo Alto, has sufficient capacity for current dry and wet weather loads and for future load projections, and there are no plans for expansion of the plant. As shown in Table 5.3-3, below, the total amount of wastewater generated by the City under 2030 cumulative conditions with the proposed project would remain below the City's contractual limit. For these reasons, implementation of the proposed project, together with the cumulative projects, would not result in cumulative wastewater impacts.

Table 5.3-3: Sanitary Sewer Capacity – 2030 Cumulative Conditions

RWQCP Joint Facility	Mountain View Contractual Capacity (mgd)	2030 No Project (mgd)[1]	2030 Project (mgd)
Treatment	15.1	13.98	14.02
Joint Interceptor	50	21.84	21.90

* Treatment = Average Annual Flow; Interceptor = Peak Wet Weather Flow.
[1] Existing sewer pipes crossing through the project site are realigned in the post-project scenario per the Moffett Gateway Conceptual Utility Plans as part of the Moffett Gateway Formal Application dated October 29, 2015.

Impact C-UTIL-3: Implementation of the proposed project in combination with the cumulative projects would not result in significant cumulative impacts to wastewater facilities. **[Less Than Significant Cumulative Utilities Impact]**

5.3.14.4 *Cumulative Stormwater System Impacts*

New stormwater infrastructure that would be required to serve expected growth under cumulative conditions would be developed in compliance with existing local, state, and federal regulations, and would be appropriately sized for each development. As described above, the project would be required to implement best management practices (BMPs) and site design and source control measures to address long term water quality impacts in accordance with the Municipal Regional Stormwater NPDES Permit issued by the San Francisco Bay RWQCB. These measures are intended to reduce the rate of stormwater runoff from the project site and improve the quality of stormwater runoff (refer to Section 3.9, *Hydrology and Water Quality*). For these reasons, implementation of the project together with the cumulative projects, would not result in significant cumulative stormwater drainage system impacts.

Impact C-UTIL-4: Implementation of the proposed project, in combination with the cumulative projects, would not result in significant cumulative stormwater drainage system impacts. **[Less Than Significant Cumulative Utilities Impact]**

5.3.14.5 *Cumulative Solid Waste Impacts*

The proposed project, together with the cumulative projects, would increase the generation of solid waste in Mountain View. As described in the 2030 General Plan EIR, since growth associated with the General Plan buildout would represent 3.1 percent of the permitted daily throughput of the Kirby Canyon Landfill, it is anticipated the landfill would have adequate capacity to accommodate solid waste generation from its surrounding communities. The proposed project would represent a small contribution to this amount. Therefore, implementation of the project would not make a cumulative considerable contribution to impacts on solid waste management.

Impact C-UTIL-5: Implementation of the proposed project in combination with the cumulative projects would not result in significant cumulative impacts to utilities and service systems. **[Less Than Significant Cumulative Utilities Impact]**

SECTION 6.0 CONSISTENCY WITH RELEVANT PLANS

The CEQA Guidelines [Section 15125(d)] require that an EIR discuss any inconsistencies between a proposed project and applicable general plans, specific plans, and regional plans. Consistency with adopted plans is addressed throughout the Draft EIR. Plans that may be relevant to implementation of the proposed project are listed below, and references to the sections of the Draft EIR where they are discussed are listed.

Relevant Regional and Local Plans	Section Discussed
Airport Comprehensive Land Use Plans *Santa Clara County Airport Land Use Commission*	Section 3.8, Hazards and Hazardous Materials Section 3.10, Land Use Section 3.11, Noise and Vibration
Water Quality Control Plan/Basin Plan *SF Regional Water Quality Control Board*	Section 3.9, Hydrology and Water Quality
Clean Air Plan *Bay Area Air Quality Management District*	Section 3.2, Air Quality
Congestion Management Program *Santa Clara County*	Section 3.13, Transportation and Traffic
Climate Change Scoping Plan *State of California*	Section 3.7, Greenhouse Gas Emissions
Plan Bay Area *MTC, ABAG, BAAQMD*	Section 3.7, Greenhouse Gas Emissions
Santa Clara Valley Habitat Plan *Local Partners and Wildlife Agencies*	Section 3.3, Biological Resources
2030 General Plan *City of Mountain View*	Section 3.10, Land Use (and other sections)
Greenhouse Gas Reduction Program *City of Mountain View*	Section 3.7, Greenhouse Gas Emissions
Pedestrian and Bicycle Master Plans *City of Mountain View*	Section 3.13, Transportation and Traffic

SECTION 7.0 ALTERNATIVES

7.1 INTRODUCTION

The CEQA Guidelines give extensive direction on identifying and evaluating alternatives to a proposed project (Section 15126.6). The purpose of analyzing alternatives is to identify ways to substantially lessen or avoid the significant effects that a proposed project may have on the environment. 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. Although the alternatives do not have to meet every goal and objective set for the proposed project, they should attempt to "feasibly attain most of the basic objectives of the project."

The CEQA Guidelines (Section 15126.6) do not require that all possible alternatives be evaluated, only that a range of feasible alternatives be discussed so as to encourage both meaningful public participation and informed decision making. In selecting alternatives to be evaluated, consideration may be given to their potential for reducing significant unavoidable impacts, reducing significant impacts that are mitigated to less than significant levels by the project, and further reducing less than significant impacts.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: (1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) the project's objectives, and (3) the potential feasibility of the alternatives available. Each of these factors is described below.

7.1.1 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 project objectives. As discussed previously in this EIR, the project would result in the following significant unavoidable impact to one freeway segment under project conditions:

Impact TRANS-3: Implementation of the proposed project would result in a significant impact to the US 101 Northbound freeway segment between SR 237 and Moffett Boulevard during the AM peak hour under the Existing with Project Conditions. **[Significant Unavoidable Impact]**

Alternatives may also be considered if they would further reduce impacts that are already less than significant because of required or proposed mitigation. Impacts that would be significant, but for which the project includes mitigation to reduce them to less than significant levels include:

Impact AQ-4: Project construction, with implementation of mitigation measures MM AQ-4, would not result in significant dust emissions. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-5: Project construction, with implementation of mitigation measures MM AQ-4 and MM AQ-6, would not generate substantial NOx emissions. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-6: The proposed project, with implementation of mitigation measures MM AQ-4 and MM AQ-6, would not expose sensitive receptors in the project area to substantial $PM_{2.5}$ concentrations. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-7: DPM emissions during project construction, with implementation of mitigation measure MM AQ-6, would not substantially increase cancer risk at the residences across Moffett Boulevard and nearest the project site. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-9: Project construction emissions together with emissions from existing nearby TAC sources would not result in a significant cumulative community risk impacts. **Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-12: The project, with implementation of mitigation measures MM AQ-4 and MM AQ-5, would not conflict with the Bay Area 2010 Clean Air Plan. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-13: Project construction, including the proposed off-site improvements, would not generate substantial NOx emissions with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-14: During construction of the proposed project, including the off-site improvements, sensitive receptors in the project area would not be exposed to substantial $PM_{2.5}$ concentrations with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-15: During construction of the proposed project, including the off-site improvements, DPM emissions would not substantially increase cancer risk with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact AQ-16: Construction emissions from the proposed project, including the off-site improvements, together with emissions from existing nearby TAC sources would not result in a significant cumulative community risk impact with implementation of mitigation measures MM AQ-4 and MM AQ-6. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact BIO-7: The installation of the proposed bicycle and pedestrian bridge, with implementation of MM BIO-7.1 and MM BIO-7.2, would not significantly impact migrating steelhead. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact CR-2: Prior investigations completed as part of the US 101 and S 85 Improvement Project, have demonstrated that archaeological resources are not likely present in Parcel 2 or the southeast cloverleaf. Parcel 1 and the locations of the proposed off-site bicycle/pedestrian bridge and screening wall are considered moderate to highly sensitive for buried archaeological resources. Implementation of the mitigation measures MM CR-2.1 through MM CR-2.4 would reduce potential impacts to archaeological resources to a less than significant level. **[Less than Significant with Mitigation Incorporated]**

Impact HAZ-1: Hazardous materials contamination in site soils, soil vapor, and groundwater could expose construction workers and/or future hotel employees and visitors and office employees to the hazardous materials on site. Implementation of the MM HAZ-1.1 through MM HAZ-1.11 would reduce these impacts to a less than significant level. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact HAZ-2: Construction personnel working on the proposed project could be exposed to harmful levels of lead. Implementation of MM HAZ-2.1 through MM HAZ-2.4 would reduce this impact to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Impact HAZ-3: Construction personnel working on the proposed project could be exposed to harmful pesticides and/or heavy metals. Implementation of MM HAZ-3.1 through MM HAZ-3.4 would reduce the impact to a less than significant level. **[Less than Significant Impact with Mitigation Incorporated]**

Impact TRANS-5: With implementation of MM TRANS-5.1, pedestrian facilities at the intersection of Moffett Boulevard/Leong Drive would be sufficient to provide safe pedestrian access to the project site. **[Less Than Significant Impact with Mitigation Incorporated]**

Impact UTIL-2: The fire flow requirement for the proposed project, with implementation of mitigation measure MM UTIL-2, would be 3,000 gpm, which can be met at the project site under existing conditions. **[Less than Significant Impact with Mitigation Incorporated]**

7.1.2 Objectives of the Project

The following are the applicant's stated objectives for the project:

- Provide a hotel and office development on Moffett Boulevard consistent with the Mixed Use Corridor Land Use Designation of the 2030 General Plan.
- Provide high-quality, highly sustainable office space, with increased development intensity that targets LEED Gold standards and incorporates a TDM Plan, consistent with the Mountain View 2030 General Plan and the Greenhouse Gas Reduction Program.
- Provide sustainable development convenient to public transportation and bicycle/pedestrian facilities.
- Enhance publicly accessible bicycle and pedestrian connections.
- Provide land uses that generate City revenue and maintain and improve the City's long-term fiscal health.
- Provide beneficial, revenue-generating reuse of vacant and landlocked Caltrans right-of-way.

7.1.3 Feasibility of Alternative Sites

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) the suitability of an alternate site, 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)].

7.1.4 Selection of Alternatives

In addition to the "No Project Alternative," 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 impacts of the project" [§15126.6(f)]. The discussion below addresses a reduced scale alternative which could reduce project impacts.

A stated previously, the project would result in a significant unavoidable impact from traffic on one freeway segment under project conditions; therefore, a project scenario that would decrease the number of trips is generated by the proposed project is evaluated. The components of this alternative are described below, followed by a discussion of impacts and how they would differ from those of the proposed project.

7.2 PROJECT ALTERNATIVES

7.2.1 No Project Alternative

The CEQA Guidelines stipulate that an EIR specifically include a "No Project" alternative. The purpose in 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 is 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 project site is currently undeveloped; therefore, the "No Project" alternative includes two scenarios, the No Project – No Development Alternative and the No Project – Existing General Plan Designation Alternative. The No Project – No Development Alternative assumes the project site would remain undeveloped. The No Project – Existing General Plan Designation Alternative assumes the project site would be developed in a manner consistent with the existing General Plan designation on Parcel 1 (i.e., *Mixed-Use Corridor*). Each of these scenarios is discussed in further detail below.

7.2.1.1 *No Project - No Development Alternative*

Under the No Project - No Development Alternative, the project site would remain undeveloped, and all of the environmental impacts anticipated to occur under the proposed project would be avoided.

Relationship to Project Objectives

The No Project - No Development Alternative would not meet any of the project objectives.

Conclusion: No Project - No Development Alternative

The No Project - No Development Alternative would avoid the project's significant unavoidable freeway impact. The No Project - No Development Alternative would also avoid the other significant impacts resulting from the project that would be reduced to a less than significant level with the incorporation of mitigation measures.

None of the project objectives would be met under the No Project - No Development Alternative.

7.2.1.2 *No Project – Existing General Plan Alternative*

Under the No Project – Existing General Plan Alternative, Parcel 1 of the project site could be developed in a manner consistent with the existing General Plan designation (i.e., *Mixed-Use Corridor*) on Parcel 1. Parcel 2 is assumed to not be redeveloped under the No Project – Existing General Plan Alternative, because Parcel 2 is US 101 right-of-way that is currently owned by the California Department of Transportation (Caltrans) and, therefore, has no General Plan designation. The density of future development under the *Mixed-Use Corridor* General Plan designation could be up to 1.85 FAR, which is over twice the density of the proposed project (i.e., 0.90 FAR). Higher density development on the project site would likely result in additional freeway segment impacts and new intersection impacts. Regardless of density, future development under the No Project – Existing General Plan Alternative would likely result in similar impacts to those that could occur under the proposed project. Mitigation measures are included in the proposed project to reduce all impacts to less than significant, except for the freeway segment impact. This would also likely be the case for future development on the site under the No Project – Existing General Plan Alternative.

Relationship to Project Objectives

Depending on the design, future development under the No Project - No Development Alternative could partially meet most of the project objectives. For example, if future development does not include a pedestrian and bicycle bridge over Stevens Creek, then it may not improve pedestrian and bicycle facilities in the project area. As stated above, future development under the No Project – Existing General Plan Alternative would not include revenue-generating reuse of vacant and landlocked Caltrans right-of-way; this would impair the project objective of generating City revenue and maintaining and improving the City's long-term fiscal health.

Conclusion: No Project – Existing General Plan Alternative

The No Project – Existing General Plan Alternative would not avoid the freeway segment impact anticipated to occur under the proposed project and would likely result in similar impacts to those anticipated to occur under the proposed project. The density of future development could be over twice the density of the proposed project, possibly resulting in more or greater impacts compared to the proposed project.

7.2.2 Reduced Density Alternative

The proposed project would add more than one percent of the existing freeway capacity to a freeway segment currently operating at LOS F, which is a significant impact. This would occur at the US 101 Northbound freeway segment between SR 237 and Moffett Boulevard. To determine the amount of development that could occur on the project site without triggering a significant freeway impact, a freeway segment sensitivity analysis was completed by the project traffic engineering firm, Fehr & Peers.[58]

The sensitivity analysis determined that a total trip reduction of 94 AM peak hour trips would be needed to avoid the freeway segment impact. The proposed hotel generates substantially fewer AM peak hour trips compared to the office building. Therefore, the trip reduction focused on reducing the square footage of the proposed office building. In order to achieve a 94 AM peak hour trip reduction, the freeway segment sensitivity analysis determined the square footage of the proposed office building would need to be reduced by half, from 200,000 square feet to 100,000 square feet.

While reducing the size of the proposed office building by 100,000 square feet would avoid the freeway segment impact, it would not substantially reduce the other impacts anticipated to occur under the proposed project. Development under the Reduced Density alternative would continue to result in hazardous material, construction air quality, noise, and water quality, noise, biology, and utilities impacts. As with the proposed project, however, these impacts would be reduced to a less than significant level with the incorporation of mitigation measures. It is assumed that site clearing activities would be similar to the proposed project. To the extent that construction activities could occur over a shorter period due to construction of smaller buildings, less than significant construction impacts such as construction air quality emissions, would be incrementally reduced.

[58] Fehr & Peers. Email and phone correspondence with DJP&A. January 2016.

Relationship to Project Objectives

The Reduced Intensity Alternative would reduce but not eliminate achievement of the project objectives. The Reduced Density Alternative would not maximize revenue from City –owned land, because the Reduced Density Alternative would generate less revenue. The low FAR under the Reduced Density Alternative would not conform to the land use intensities envisioned in the City of Mountain View 2030 General Plan. The General Plan includes land use designations supporting higher density mixed-use development as part of strategies to preserve land uses and intensities in existing neighborhoods, while focusing change in areas planned for change.

Conclusion: Reduced Density Alternative

A freeway segment sensitivity analysis was completed to determine how large the proposed office building could be before it triggered a significant freeway impact. The freeway segment sensitivity analysis determined the square footage of the proposed office building would need to be reduced by half, from 200,000 square feet to 100,000 square feet, in order to avoid the freeway segment impact.

The Reduced Density Alternative would partially achieve project objectives. The Reduced Density Alternative would not maximize revenue to from City-owned land. The low FAR under the Reduced Density Alternative would not conform to the land use intensities envisioned in the City of Mountain View 2030 General Plan.

7.2.3 Location Alternative

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need be considered for inclusion in the EIR.

The Moffett Gateway project proposes to develop the approximately 9.7-acre project site with a new 200,000 sf office building, 255-room hotel, and above-grade parking garage. An alternative site would need to be at least of comparable size, within the urbanized area of Mountain View, and have adequate transit access, roadway access, and utility capacity to serve the development proposed.

In order to identify an alternative site that might be reasonably considered to “feasibly accomplish most of the basic purposes” of the project, and would also reduce significant impacts, it was assumed that such as site would ideally have the following characteristics:

- Approximately 10 acres in size;
- Located near transit facilities;
- Have good pedestrian and bicycle access;
- Located near freeways and/or major roadways;
- Served by available infrastructure;
- Available for development;
- Allow high intensity office and commercial development at an intensity up to a 1.0 FAR.

A review of sites in Mountain View was completed in order to identify potentially suitable locations for the proposed project. Potential alternative sites were evaluated in terms of whether they would: 1) reduce or avoid some or all of the environmental impacts of the proposed project; 2) be of sufficient size to meet most of the basic project objectives; and 3) be available in the near-term to be acquired or controlled by the applicant.

The following three sites in Mountain View met most of the desirable characteristics described above and were considered as alternative locations for the project.

7.2.3.1 1625 Plymouth Street

1625 Plymouth Street is a 5.2-acre parcel located within the Core Character Area of the North Bayshore Precise Plan, which allows office, research and development (R&D), retail and service uses with maximum building heights allowed ranging from 95 to 110 feet above ground surface and a maximum allowable floor area ratio (FAR) of 1.5. There are no creeks or waterways immediately adjacent to this site. The site is currently vacant. It was previously developed, however, so it lacks natural or sensitive habitat. Therefore, development of the site would not result in biological impacts, other than removal of several trees.

This alternative site is only about one-half the size of the proposed project site and it is unlikely the full project could be accommodated at this location. At the maximum FAR currently allowed on this site, the maximum development could be 339,768 square feet (sf) [5.2 acres = 226,512 sf x 1.5 FAR = 339,768 sf). The project proposes an 180,000 sf hotel and 200,000 sf office, plus an 808-space parking garage.

Located within the North Bayshore area, this alternative location is accessed via US 101, which is highly congested during peak commute periods; therefore, it is likely development of the project at this site would result in freeway impacts similar to or worse than the proposed project.

This site is located immediately north of US 101 and would be subject to high noise levels, likely similar to the noise levels at the project site generated by US 101 and SR 85 traffic. This site is not on a creek and does not contain trees or other natural habitat that could result in biologic impacts. This site is outside the FEMA one percent floodplain, so the flooding impacts of the proposed project site would be avoided at this alternative location. This site is affected by Superfund sites located to the south and may have hazardous materials issues similar to the project site.

This alternative location is owned by the same entity as the proposed project applicant, Broadreach Capital Partners; therefore, they control the site and could develop it with the project uses. The site is currently proposed for a different office development.

7.2.3.2 1925 Amphitheater Parkway

1925 Amphitheater Parkway is an approximately 7-acre parcel designated as Edge Character Area within the North Bayshore Precise Plan. This area is designated for lower scale development, due to the adjacent sensitive habitat of Shoreline Park. The maximum FAR allowed is 0.65 and maximum building heights are two-stories or 30 feet. While office is a permitted use, hotels are not permitted

in this area of the North Bayshore Precise Plan. The site is currently developed as a private outdoor recreation complex for Google and includes sports courts, soccer fields, and other uses.

Located within the North Bayshore area, this alternative site is accessed via US 101, which is highly congested during peak commute periods; therefore, it is likely development of the project at this site would result in freeway impacts similar or worse than the proposed project. Additionally, several segments of and intersections along Shoreline Boulevard, the primary access into North Bayshore, currently operate at unacceptable levels of service, and could result in significant project intersection impacts.

This alternative site is within the FEMA AE zone, subject to the one percent flood. The flooding impacts of the proposed project site would not be avoided at this alternative location. This alternative site is proximate to listed hazardous materials sites and may have hazardous materials issues, similar to the proposed site.

This site is immediately south of the City's Shoreline Burrowing Owl Mitigation Area. Congdon's tarplant is recorded to the northwest of this alternative site. There are no creeks or waterways immediately adjacent to this site. There are no residential uses in the vicinity of this alternative site.

This site is owned by Google and is unlikely to be released for development of the project.

7.2.3.3 Francia Property

The Francia property is approximately 10 acres in size and is located at 247-257 N. Whisman Road, southeast of the proposed project site. This alternative location is designated *High Intensity Office* by the General Plan, which allows development up to a FAR of 1.0, but is zoned Agriculture and is the only remaining orchard in the City. The site is under Williamson Act Contract as an active agricultural property. This site is within the General Plan's East Whisman Change Area and proposed East Whisman Precise Plan area, which is considering more intense commercial development, as well as residential uses, for the area.

The proposed hotel and office development could be accommodated at this alternative site, in terms of size, allowed uses, and development scale. This alternative site would require removal of the orchard trees and may have additional biological resource impacts. It is not located on a creek, so removal of riparian vegetation and potential impacts to steelhead would not be an issue. This alternative site is within the Middlefield-Ellis-Whisman (MEW) Superfund site, so remediation of soil and groundwater contamination would be required, similar to the project site. Development of the project at this location would likely still have freeway impacts, due to the generally congested condition of the freeway segments serving Mountain View. This alternative site is not adjacent to a freeway, so it is likely exposed to lower levels of traffic noise and air pollutant emissions. Residential uses are located across Whisman Road at this location. This alternative site is not controlled by the project applicant.

Relationship to Project Objectives

A location alternative would not achieve the following project objectives:

- Provide hotel and office Mixed-Use Corridor development on Moffett Boulevard consistent with General Plan 2030.
- Provide beneficial, revenue-generating reuse of vacant and landlocked Caltrans right-of-way.

A location alternative would substantially impair achievement of the following project objective because it would not be constructed on City-owned land:

- Provide land uses that generate City revenue and maintain and improve the City's long-term fiscal health.

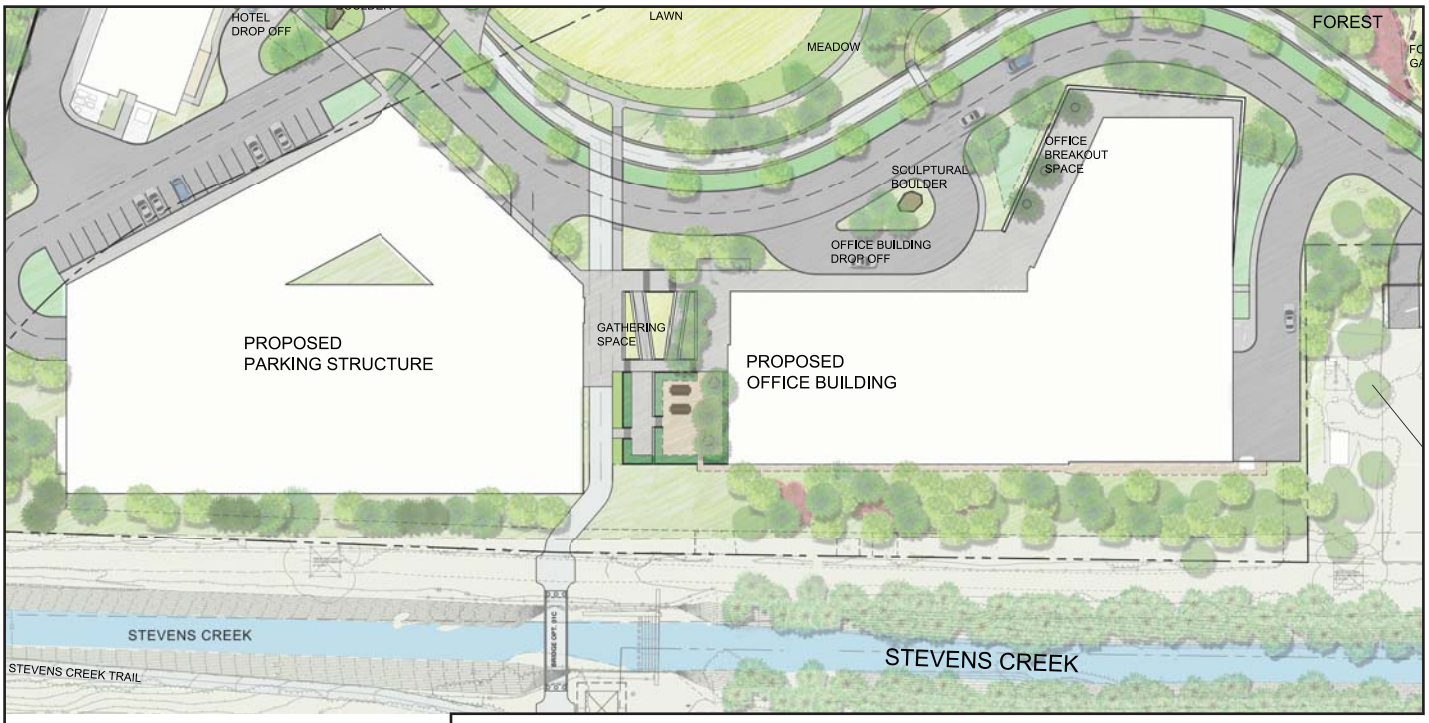
Conclusion: Location Alternative

There are few undeveloped and available parcels in the City of sufficient size to accommodate the proposed project. Of the three sites evaluated, one (1925 Amphitheater Parkway) is identified for lower intensity development, due to its location near sensitive biological resources. One of the sites (1625 Plymouth Street) is too small to accommodate the project at the allowed FAR. The Francia site is of sufficient size, but would likely result in similar freeway and hazardous materials impacts as the project site. The Francia site is not subject to flooding and is not located adjacent to a waterway; therefore, development of the project at the Francia site would avoid issues related to flooding and construction adjacent to a creek channel. Development of the Francia property would result in the nonrenewal of the property's existing Williamson Act contract.

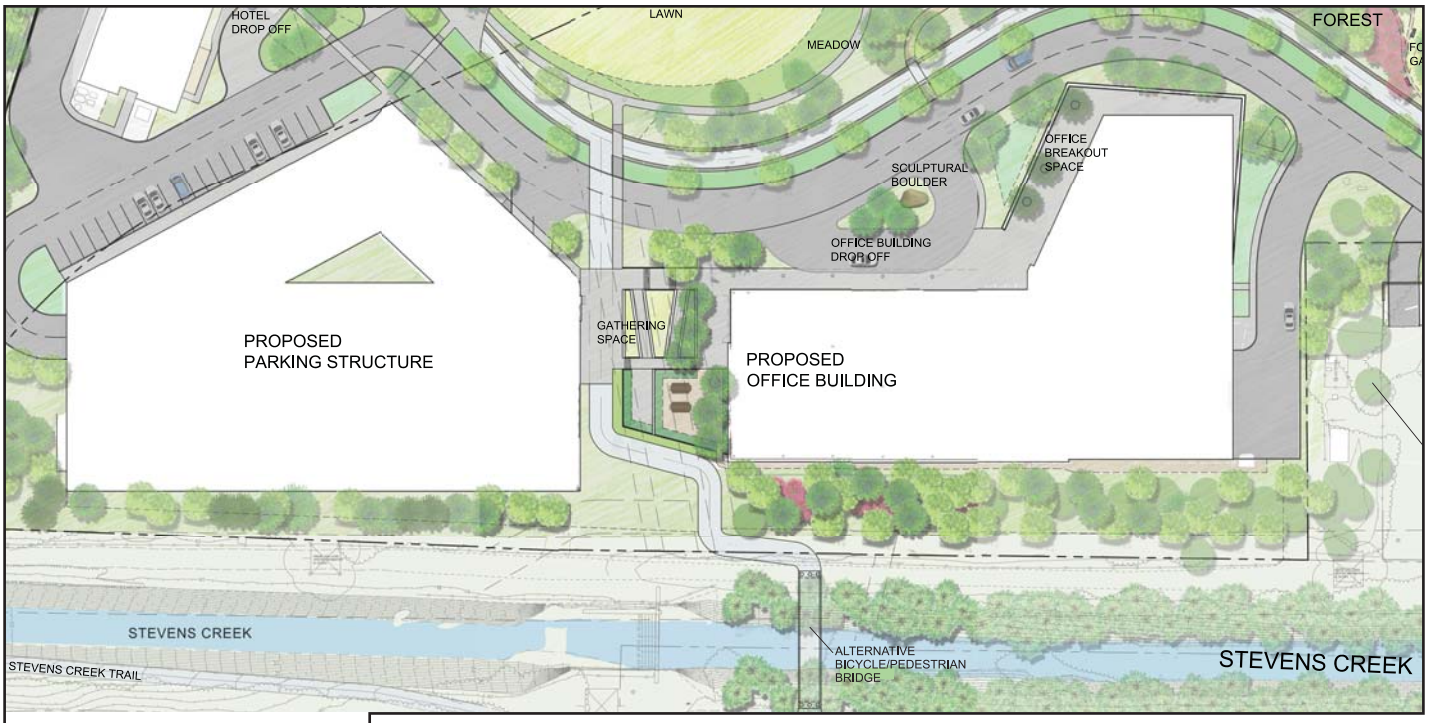
Development of the project at the Francia alternative site would not meet several of the City's objectives (described above) and be unlikely to avoid the project's significant unavoidable freeway impact. This site is also not under the control of the applicant to develop. No suitable alternative site was found that could meet the basic objectives of the project while also avoiding or reducing significant impacts.

7.2.4 Proposed Project with Alternative Pedestrian/Bicycle Bridge Location

The project includes a clear span pedestrian/bicycle bridge across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. The proposed bridge location is shown on Figure 2.2-1 and is downstream of the existing PG&E gas line crossover and adjacent to the proposed parking garage. Construction of the proposed pedestrian/bicycle bridge over Stevens Creek would require a Special Permit from the Santa Clara Valley Water District (District). In the event the proposed bridge location is not feasible or acceptable to the District, an alternative bridge location has been identified upstream of the PG&E gas line crossover and adjacent to the office building, as shown on Figure 7.2-1.



Proposed Project Bridge Location



Alternative Bridge Location

ALTERNATE PEDESTRIAN/BICYCLE BRIDGE LOCATION FIGURE 7.2-1

The alternative bridge location does not provide as direct a route from the internal drive across Stevens Creek, since the path must travel upstream a short way (approximately 160 feet) before turning west to cross the creek. For this reason, for ease of use, it is not as efficient a route as the proposed bridge location.

Due to the design of the bridge and the installation process, the alternative bridge location is not anticipated to impact the creek bed during or following installation. Similar to the proposed bridge location, the primary habitat modifications at the alternative bridge location would occur at the top of the bank to install the footings and bridge foundation. Installation of the bridge at either location would occur at the top of bank in previously developed areas.

At the alternative bridge location, both banks are vegetated, but the tops of banks are developed (i.e., SCVWD access road and Stevens Creek Trail). Installation of the bridge at the alternative location may require the removal of vegetation including non-native trees as well as development of a portion of the banks for bridge foundations. Similar to the proposed bridge location, installation of the bridge at the alternative location would require the pruning or removal of shrubs and non-riparian vegetation, but the removal of large riparian trees would not be required. Vegetation at the alternative bridge location was not classified as riparian vegetation; however, riparian woodland does occur directly adjacent to the alternative bridge location, which could be affected. Therefore, installation of the bridge at the alternative location may affect riparian vegetation. As long as installation avoids impacts to the riparian overstory, placement of the bridge at the alternative location is unlikely to increase exposure or temperatures within the creek. Both the proposed and alternative bridge locations have either no shade or only partial shade throughout the day; therefore, the addition of the bridge at either location may serve to infinitesimally increase habitat value for steelhead by increasing shade cover over Stevens Creek. For these reasons and those stated above, the installation of a bridge at either location would not substantially affect sensitive habitat or steelhead in the long term.

With regards to other environmental issues, the proposed and alternative bridge locations are close enough that they would have similar geologic conditions and would be exposed to similar ambient noise levels and air quality. Both locations along Stevens Creek are considered moderate to highly sensitive for archaeological resources.

Relationship to Project Objectives

Construction of the pedestrian/bicycle bridge at the alternative location would meet the project objectives for the bridge, to enhance publicly accessible bicycle and pedestrian connections.

Conclusion: Alternative Bridge Location

Construction of the pedestrian/bicycle bridge at either the proposed or alternative location would meet the objective of the project enhance bicycle and pedestrian connections. The proposed and alternative bridge locations are close enough that they would be subject to generally the same environmental issues and neither location would result in a significant unavoidable environmental impact. Given the presence of riparian woodland vegetation directly adjacent to the alternative bridge location, there is the potential that installation of a bridge at the alternative location may affect riparian vegetation, a potential impact that does not exist at the proposed bridge location. For this

reason, the alternative bridge location is not considered environmentally superior to the proposed bridge location.

7.2.4 No Pedestrian/Bicycle Bridge Alternative

The proposed project includes a clear span pedestrian/bicycle bridge across Stevens Creek, connecting the project site and surrounding area to the Stevens Creek Trail. The proposed bridge location is shown on Figure 2.2-1 and is downstream of the existing PG&E gas line crossover and adjacent to the proposed parking garage. An alternative bridge location is evaluated above and shown in Figure 7.2-1. Construction of the proposed pedestrian/bicycle bridge over Stevens Creek will require a Special Permit from the Santa Clara Valley Water District (District). In the event the proposed bridge or the alternative bridge location is not acceptable to the District, no pedestrian/bicycle bridge would be constructed.

Under the No Pedestrian/Bicycle Bridge Alternative, no bridge would be constructed. There would not be a direct pedestrian/bicycle connection to the project site. Therefore, pedestrians and bicyclists going to and from the project site would need to use the existing Stevens Creek Trail access point, which is located on Moffett Boulevard approximately 500 feet south of the project driveway onto Moffett Boulevard. The existing Class II bicycle lanes on Moffett Boulevard would provide bicyclists safe access to the project site from the existing Stevens Creek Trail access point. The combination of existing pedestrian facilities, with the implementation of MM TRANS-5.1 (i.e., adding a crosswalk to the east leg of the Moffett Boulevard/Leong Drive intersection), would provide safe pedestrian access between the project site and the existing Stevens Creek Trail access point. For these reasons, the No Pedestrian/Bicycle Bridge Alternative would not result in new or more significant impacts compared to the proposed project.

With the implementation of the mitigation measures identified in this EIR (e.g., MM BIO-7.1 and MM BIO-7.2) and due to the design of the bridge and the installation process, both the proposed bridge and alternative bridge location are not anticipated to result in significant impacts to migrating steelhead or sensitive habitat. Therefore, the No Pedestrian/Bicycle Bridge Alternative would not result in fewer impacts than the proposed project.

Relationship to Project Objectives

The No Pedestrian/Bicycle Bridge Alternative would not meet the project objectives for the bridge, to enhance publicly accessible bicycle and pedestrian connections.

Conclusion: No Pedestrian/Bicycle Bridge Alternative

Compared to the proposed project, the No Pedestrian/Bicycle Bridge Alternative would not result in new impacts or result in fewer impacts. The No Pedestrian/Bicycle Bridge Alternative would avoid the potential for impacts to Stevens Creek and associated special status habitat and species and, as a result, mitigation required under the proposed project (e.g., MM BIO-7.1 and MM BIO-7.2) would not be required under the No Pedestrian/Bicycle Bridge Alternative.

7.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE(S)

The CEQA Guidelines state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).
Based upon the previous discussion, the environmentally superior alternative would be the No Project - No Development Alternative, which would avoid all project impacts. This alternative would not meet any project objectives.

The Reduced Density Alternative would reduce the significant freeway segment impact to a less than significant level and would reduce, but not eliminate, achievement of the project objectives. The Reduced Density Alternative would be the environmentally superior alternative to the proposed project.

SECTION 8.0 SIGNIFICANT UNAVOIDABLE IMPACTS

The project would result in the significant unavoidable impact described below. All other significant impacts of the proposed project would be mitigated to a less than significant level with incorporation of applicable project-level mitigation measures identified in this EIR.

- **Freeway Impacts:** As shown in Table 3.13-9, project traffic would add more than one percent of the freeway's capacity to one segment:

  – US 101 Northbound between SR 237 and Moffett Boulevard (AM peak hour)

The mitigation for freeway impacts is typically the provision of increased capacity in the form of additional mainline or auxiliary lanes. The complete mitigation of freeway impacts is considered beyond the scope of an individual development project, due to the inability of any individual project or City to: 1) acquire right-of-way for freeway widening, and 2) fully fund a major freeway mainline improvement. Freeway improvements also would require approval by VTA and Caltrans, and as such neither the project applicant nor the City can guarantee their implementation.

The following freeway improvement is identified in the Valley Transportation Plan (VTP) 2040, which has the potential to improve freeway operations on the affected segment:

- US 101 Express Lanes: San Mateo County Line to Cochrane Road in Morgan Hill

A fair share contribution toward this freeway improvement project would be an acceptable mitigation measure for the project freeway impact. There is not, however, a fair share funding mechanism in place (e.g., regional impact fee). Furthermore, the significant impact would not be reduced or eliminated until the improvement project is constructed. To provide adequate funding for the improvement project, funding sources in addition to the project fair share contribution would be needed, which may include State Transportation Improvement Program funds, City impact fees, and/or a future regional impact fee.

For these reasons, feasible measures are not available to reduce the project freeway impact to a less than significant level, and the addition of project traffic results in a significant and unavoidable freeway segment impact. **[Significant Unavoidable Impact]**

SECTION 9.0 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.

9.1 USE OF NONRENEWABLE RESOURCES

The construction of the proposed office building, hotel, and above-grade parking garage would require the use and consumption of nonrenewable resources. Nonrenewable resources include fossil fuels and metals, and cannot be regenerated over time.

As discussed in Section 3.5, *Energy*, energy would be consumed during both the construction and operational phases of the project. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., grading), and the actual construction of the buildings. The operation of the proposed uses would consume energy (in the form of electricity and natural gas) for building heating and cooling, lighting, water heating, and the operation of appliances, electronic equipment, and commercial machinery. Operational energy would also be consumed during each vehicle trip associated with these proposed uses.

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SECTION 11.0 LEAD AGENCY AND CONSULTANTS

11.1 LEAD AGENCY

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Acoustical & Air Quality Consulting

Schaaf & Wheeler
Consulting Engineers

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