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INTRODUCTION

PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Burlingame (City), as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Carolan Avenue/Rollins Road Residential project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines. An EIR is an informational document used to inform 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 (CEQA Guidelines 15121(a)).

The project proposes to redevelop a 5.4-acre site located at 1008-1028 Carolan Avenue and 1007-1025 Rollins Road with up to 22 townhouses and 268 apartments, consistent with the existing General Plan land use designation and zoning district for the site.

The project site has a General Plan land use designation that allows for commercial uses, service, and special sales. The General Plan stipulates that multiple family (multi-family) residential is an acceptable alternative land use in the Carolan/Rollins Commercial Area, which includes the project site. The site is zoned C-2 with an R-4 overlay with special standards that apply to multi-family residential development.

The project requires conditional use or special permits to allow for multi-family residential uses onsite, proposed building heights, and vehicular circulation. The environmental impacts associated with the proposed development are primarily related to land use, transportation, noise and vibration, air quality, aesthetics, hazardous materials, and utilities. These issues are discussed in *Sections 2.1-2.4*, *2.6*, *2.9*, and *2.12* of this EIR, respectively.

The impact analyses in this report are based on a number of sources which are listed in *Section 8.0 References*. The references are available for public review at the City's Community Development Department, located at 501 Primrose Road, during normal business hours. The information contained in this EIR will be reviewed and considered by the Planning Commission and/or City Council prior to deciding to approve, disapprove, or modify the proposed project.

EIR PROCESS

Notice of Preparation and Scoping

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on June 16, 2014. The standard 30-day comment period concluded on July 15, 2014. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City also held a public scoping meeting on June 23, 2014 to discuss the project and solicit public input as to the scope and contents of this EIR. Appendix A of this EIR includes the NOP and comments received on the NOP. Minutes of the public scoping meeting are also included in Appendix A.

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:

Kevin Gardiner, Planning Manager City of Burlingame, Community Development Department 501 Primrose Road Burlingame, CA 94010

Email: kgardiner@burlingame.org

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 regularly scheduled Planning Commission meeting. The decision of the Planning Commission may be appealed to the City Council. Upon EIR certification, the City may proceed with project approval actions. The action the Planning Commission and/or City Council takes may be any of the following: 1) they may approve the project as proposed; 2) they may approve an alternative identified in the EIR; 3) they may ask for additional information and/or analysis; or 4) they may choose not to approve the project.

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)).

A flowchart of the EIR process is provided on the following page.

TYPICAL EIR PROCESS FLOW CHART

City circulates Notice of Preparation City prepares Draft EIR City files Notice of Completion and gives public notice of availability of Draft EIR 45-day Draft EIR Public Review Period City prepares Final EIR including responses to comments on the Draft EIR Consideration and approval of Final EIR by **Planning Commission** and/or City Council Decision on Project, including Statement of Overriding Considerations if needed City files Notice of

Determination with **County Clerk**

The project proposes to construct a residential development with 22 townhouses and 268 apartments, including on- and off-site improvements, on a 5.4-acre site currently developed with automobile repair, rental, and sales facilities. The 22 townhouses would be grouped into four buildings and located along the southern site boundary (refer to Figure 1.3-1). The townhouses would be two-stories with a maximum height of 34 feet and four inches. The townhouses would include two- and three-bedroom units, with flex space up to four bedrooms in some units, ranging from approximately 1,510 to 2,230 livable square feet in size. The apartments are proposed on the northern and central portion of the site. The project proposes to group the 268 apartments into two, five-story (up to 61.5 feet) buildings constructed on a podium with two levels of parking (one level semi-subterranean and the second level above ground). The apartments would include one- to three-bedroom units ranging from approximately 700 to 1,492 square feet in size.

The proposed project includes a work share space that would be available for community use. Please refer to *Section 1.0 Project Information* for additional details regarding the proposed project.

Summary of Significant Impacts and Mitigation Measures

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

The project would result in the following potential significant impacts that would be reduced to a less than significant level with the implementation of the proposed mitigation measures:

- Noise (Exterior and interior noise and construction noise);
- Air Quality (Construction emissions and air pollutants);
- Biological Resources (nesting birds and raptors);
- Cultural Resources (buried cultural resources);
- Hazardous Materials (soil and groundwater contamination); and
- Geology (undocumented fill).

Impact	Mitigation Measures
No	ise
Impact NOI-1: The proposed residences and	MM NOI-1.1: The proposed project includes a
Central Courtyard would be exposed to exterior	six-foot tall, acoustical glass fence at the
and interior noise levels greater than the City's	opening of the central courtyard along the
General Plan noise goals of 60 dBA CNEL and	northern boundary of the project site to shield
45 dBA CNEL, respectively.	the outdoor use area from traffic noise along
	Carolan Avenue. The total length of the
Less Than Significant Impact with Mitigation	proposed fence would be approximately 45.5
Incorporated	feet, stretching from unit 2A to unit 1G, with
	approximately 3.5 feet used as an access gate.

Impact Mitigation Measures

The proposed force shall be continu

The proposed fence shall be continuous from grade to top, with no cracks or gaps, and have a minimum surface density of three pounds per square feet [e.g., one-inch thick marine-grade plywood, ½-inch laminated glass, concrete masonry units (CMU)]. A fence height of six feet would be sufficient for reducing noise levels to 60 dBA CNEL or less. The fence height shall be measured relative to the elevation of the central courtyard.

MM NOI-1.2: At the time of final site design, a qualified acoustical consultant shall review the final site plan, building elevations, and floor plans prior to issuance of a building permit and project construction to calculate expected interior noise levels. Specific acoustical analyses shall be completed to confirm that the final site design results in interior noise levels reduced to 45 dBA CNEL or lower for all floors in each building on the project site. Buildings on the project site would need sound-rated construction methods and building facade treatments to maintain interior noise levels at or below acceptable levels. These treatments could include, but are not limited to, soundrated windows and doors, sound-rated wall constructions, acoustical caulking, and protected ventilation openings. Implementation of these measures will result in reductions of at least 33 dBA CNEL in interior noise levels nearest US 101 having the worst-case noise exposure, which will achieve resulting interior noise levels of 45 dBA CNEL or less at the units. Similarly, interior noise levels within the remaining units have a relatively lower future noise exposures will also be maintained at or below 45 dBA CNEL with the implementation of these measures.

The specific determination of what noise insulation treatments are necessary shall be conducted on a unit-by-unit basis during final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved design prior to issuance of a building permit.

Impact	Mitigation Measures
F	MM NOI-1.3: Building sound insulation requirements shall include the provision of forced-air mechanical ventilation for all perimeter residential units so that windows could be kept closed at the occupant's discretion to control noise.
Impact NOI 2. Construction of the proposed	MM NOL 2.1. The project shall implement the
Impact NOI-2: Construction of the proposed project would result in a significant, though	MM NOI-2.1: The project shall implement the following standard construction best
temporary, noise impact at nearby residences.	management practices during all phases of
r r r r r r r r r r r r r r r r r r r	construction:
Less Than Significant Impact with Mitigation	
Incorporated	• Construction activities shall be limited to the daytime hours between 7:00 AM and 7:00 PM, Monday through Friday, between 9:00 AM and 6:00 PM on Saturdays, and between 10:00 AM and 6:00 PM on Sundays and holidays (per Chapter 18.07.110 of the City of Burlingame Municipal Code).
	• Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
	• Unnecessary idling of internal combustion engines shall be strictly prohibited.
	• Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining sensitive land uses. Temporary noise barriers could reduce construction noise levels by five dBA.
	• Utilize "quiet" air compressors and other stationary noise sources where technology exists.
	• Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.

Impact	Mitigation Measures	
Impact	Wittigation Weasures	
	• The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.	
	• Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.	
Air Quality		
Impact AIR-1. The project would generate	MM AIR-1 1. The project shall implement the	

Impact AIR-1: The project would generate significant dust during construction activities that would affect nearby sensitive receptors, if best management practices are not implemented.

Less Than Significant Impact with Mitigation Incorporated

MM AIR-1.1: The project shall implement the following standard BAAQMD dust control measures during all phases of construction on the project site:

- 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 miles per hour (mph).
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible

Impact	Mitigation Measures
1	after grading unless seeding or soil binders are used.
	• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes [as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations (CCR)]. Clear signage shall be provided for construction workers at all access points.
	• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
	• A publicly visible sign shall be posted with the telephone number and person to contact at the City of Burlingame regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management Air District's phone number shall also be visible to ensure compliance with applicable regulations.
Impact AIR-2: Construction of the proposed project would result in significant health risks to nearby sensitive receptors from DPM emissions unless mitigated. Less Than Significant Impact with Mitigation	MM AIR-2.1: All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall meet US EPA particulate matter emission standards for Tier 2 engines or equivalent.
Incorporated	MM AIR-2.2: All portable pieces of construction equipment (i.e., air compressors, cement mixers, concrete/industrial saws, generators, and welders) shall meet US EPA particulate matter emissions standards for Tier 4 engines or equivalent.
	MM AIR-2.3: Avoid staging diesel-powered equipment within 100 feet of adjacent residences.
Impact AIR-3: Pollutant emissions from US 101 and Caltrain would pose significant health risk impacts to proposed residences on the	MM AIR-3.1: Install air filtration for residential units that have predicted cancer risks in excess of 10 in one million or PM2.5 concentrations above 0.3 micrograms per cubic

Impact

ground floor and podium-level located nearest the freeway and rail lines unless mitigated.

Less Than Significant Impact with Mitigation Incorporated

Please note that if the Caltrain Peninsula Corridor Electrification Project is approved and implemented as currently proposed, the health risk from locomotives on the Caltrain rail line would be less than significant and mitigation is not required for health risk impacts from the rail line (refer to *Section 4.0 Cumulative Impacts*), though the below mitigation would still be required to reduce health risk impacts from US 101 to a less than significant level.

Mitigation Measures

meter (µg/m3) from either US 101 or the Caltrain rail line. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors, a ventilation system shall meet the following minimal design standards (Department of Public Health, City and County of San Francisco, 2008):

- A MERV13 or higher rating;
- At least one air exchanges(s) per hour of fresh outside filtered air; and
- At least four air exchange(s) per hour recirculation.

Alternately, at the approval of the City, equivalent control technology may be used if it is shown by a qualified air quality consultant or heating, ventilation, and air conditioning (HVAC) engineer that it would reduce risk below significance thresholds.

MM AIR-3.2: Require an ongoing maintenance plan for the buildings' HVAC air filtration system. Recognizing that emissions from air pollution sources are decreasing, the maintenance period shall last as long as significant excess cancer risk or annual PM2.5 exposures are predicted. Subsequent studies shall be conducted by an air quality expert approved by the City to identify the ongoing need for the filtered ventilation systems as future information becomes available.

MM AIR-3.3: Ensure that the lease agreement and other property documents (e.g., CC&Rs):

- Require cleaning, maintenance, and monitoring of the affected units for air flow leaks;
- Include assurance that new owners and tenants are provided information on the ventilation system; and
- Include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.

Impact

Mitigation Measures

MM AIR-3.4: Require that, prior to building occupancy, an authorized air pollutant consultant or HVAC engineer verify the installation of all necessary measures to reduce toxic air contaminant (TAC) exposure.

MM AIR-3.5: The type of MERV-rated

MM AIR-3.5: The type of MERV-rated filtration required to be installed as part of the ventilation system in the residential building shall be as follows:

- A minimum of MERV13 shall be installed unless the increased cancer risk can be demonstrated to be less than 10 in one million; and
- MERV16 filtration shall be utilized for areas where the increased cancer risk is greater than 20.0 in one million for unmitigated cancer risks.

Note that PM2.5 concentrations at all sensitive receptor locations across the site would also be reduced to a level of less than significant by using MERV13 and MERV16 filters necessary to mitigate excess cancer risk.

Biological Resources

Impact BIO-1: Development of the project would impact nesting birds and raptors, if present on-site or in the immediate vicinity.

Less Than Significant Impact with Mitigation Incorporated

MM BIO-1.1: Avoidance and Inhibit Nesting. Construction and tree removal/pruning activities shall be scheduled to avoid the nesting season to the extent feasible. If feasible, tree removal and/or pruning shall be completed before the start of the nesting season to help preclude nesting. The nesting season for most birds and raptors in the San Francisco Bay area extends from 1 February through 31 August.

MM BIO-1.2: Preconstruction Survey(s). If it is not possible to schedule construction activities between 1 September and 31 January then a qualified ornithologist shall conduct a preconstruction survey to identify active bird nests that may be disturbed during project construction. This survey shall be completed no more than seven (7) days prior to the initiation of demolition/construction activities (including tree removal and pruning). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats in and immediately adjacent to the construction areas for nests.

If the survey does not identify any nesting birds that would be affected by construction activities, no further mitigation is required.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist (in consultation with the CDFW) shall designate a construction-free buffer zone (typically 300 feet for raptors and 100 feet for non-raptors) to be established around the nest to ensure that no nests of species protected by the FMBTA and California Fish and Game Code will be disturbed during construction activities. The buffer shall remain in place until a qualified ornithologist has determined that the nest is no longer active.

MM BIO-1.3: Reporting. A final report on nesting birds and raptors, including survey methodology, survey date(s), map of identified active nests (if any), and protection measures (if required), shall be submitted to the Planning Manager and be completed to the satisfaction of the Community Development Director prior to the start of grading.

Cultural Resources

Impact CUL-1: Construction of proposed project would result in significant impacts to archaeological resources, unique paleontological resources/sites, unique geologic features, or human remains, if present on-site.

Less Than Significant Impact with Mitigation Incorporated

MM CUL-1.1: Unique Paleontological and/or Geologic Features and Reporting. Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the City Planning Manager notified immediately. A qualified paleontologist shall evaluate the find and prescribe mitigation measures to reduce impacts to a less than significant level. The identified mitigation measures shall be implemented. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is carried out. Upon completion of the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

MM CUL-1.2: Undiscovered Cultural

Resources. A testing program to assess the potential presence or absence of undiscovered cultural resources shall be implemented by a qualified archaeologist after all buildings and other materials obscuring the ground surface have been removed, but before any construction related grading or trenching, in order to search for possible buried archaeological resources.

In the event archaeological deposits are discovered, work shall be halted within a sensitivity zone to be determined by the archaeologist. The archaeologist shall prepare a plan for evaluation of the resource to the California Register and submit the plan to the City's Planning Manager for review and approval prior to any construction related earthmoving within the identified zone of archaeological sensitivity. The plan shall also include appropriate recommendations regarding the significance of the find and the appropriate mitigation. The identified mitigation shall be implemented and can take the form of limited data retrieval through hand excavation coupled with continued archaeological monitoring inside of the archaeologically sensitive zone to ensure that significant data and materials are recorded and/or removed for analysis. Monitoring also serves to identify and thus limit damage to human remains and associated grave goods.

MM CUL-1.3: Human Remains. Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site within a 100-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The San Mateo 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 within 24 hours. The Native American Heritage Commission 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.

MM CUL-1.4: Report of Archaeological Resources. If archaeological resources are identified, a final report summarizing the discovery of cultural materials shall be submitted to the City's Planning Manager prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

Hazardous Materials

Impact HAZ-1: Construction workers and future residences could be exposed to contaminated soils and groundwater located onsite.

Less Than Significant Impact with Mitigation Incorporated

MM HAZ-1.1: Thirty-two above ground lifts were noted in the auto servicing areas of CalBay Collision, Anchor Auto Body & Detailing, Hyundai of Burlingame, Chilton Auto Body, Topline Automobile, and Cammisa Motor Car Company. Seven below ground lifts were observed inside the auto servicing area of CalBay Collision. Two above-ground auto lifts, two capped grouted lifts and six former lifts were noted at Chilton auto body. The existing lifts shall be removed in accordance with local regulations. Selective sampling shall also be conducted to confirm that residual contamination, if present, does not exceed residential ESLs and RSLs.

MM HAZ-1.2: A Health and Safety Plan (HSP) shall be developed to establish appropriate protocols for working in contaminated materials. Workers conducting Site investigation and earthwork activities in areas of contamination shall complete a 40-hour HAZWOPER training course (29 CFR 1910.120 I), including respirator and personal protective equipment training. Each contractor will be responsible for the health and safety of their employees as well as for compliance with all applicable federal, state, and local laws and

Impact

Mitigation Measures

guidelines. This document shall be provided to
the City and the oversight agency prior to
issuance of demolition and grading permits.

MM HAZ-1.3: A Ground Water Management
Plan shall be prepared to evaluate water quality
and discharge/disposal alternatives; the pumped

MM HAZ-1.3: A Ground Water Management Plan shall be prepared to evaluate water quality and discharge/disposal alternatives; the pumped water shall not be used for on-site dust control or any other on-site use. If long-term dewatering is required, the means and methods to extract, treat and dispose of ground water also shall be presented.

MM HAZ-1.4: Some components encountered as part of the building demolition waste stream may contain hazardous materials. Universal wastes, lubrication fluids, CFCs, and HCFC's shall be removed before structural demolition begins. Materials that may result in possible risk to human health and the environment when improperly managed include lamps, thermostats, and light switches containing mercury; batteries from exit signs, emergency lights, and smoke alarms; lighting ballasts which contain PCBs; and lead pipes and roof vent flashings. Demolition waste such as fluorescent lamps, PCB ballasts, lead acid batteries, mercury thermostats, and lead flashings have special case-by-case requirements for generation, storage, transportation, and disposal. Before disposing of any demolition waste, the Owner, Developer and Demolition Contractor shall determine if the waste is hazardous and shall ensure proper disposal of waste materials.

MM HAZ-1.5: Significant quantities of asphalt concrete (AC) grindings, aggregate base (AB), and Portland Cement Concrete (PCC) will be generated during demolition activities. AC/AB grindings shall not be reused beneath building areas.

MM HAZ-1.6: During demolition and construction activities, contaminated material may be encountered. A Soil Management Plan (SMP), prepared by ENGEO, establishing management practices for handling contaminated soil, groundwater, or other materials for the site has been approved by the

Impact Mitigation Measures

San Mateo County Environmental He

San Mateo County Environmental Health Department. The SMP (refer to Appendix H) includes the following protocols and safety measures:

- ENGEO will provide full-time observation services during demolition and grading activities. Soils encountered across the entire property will be observed for discoloration/staining or olfactory evidence of contaminant impacts, with particular attention given to the location of identified soil impacts. In the event unforeseen environmental conditions, such as those listed above, are encountered during demolition and pre-grading work, the site SMP shall be implemented.
- Once the buildings on-site have been demolished and the debris removed from the site, the soil beneath the buildings in the area of the planned underground parking structure will be characterized for removal to the appropriate landfill. The findings from this study will be used to begin to quantify the soil for the various disposal options prior to beginning the excavation. If determined to be prudent in the field prior to removal of the buildings and debris, additional samples could be taken to confirm the exact excavation boundaries. Refer to the SMP in Appendix H for a full methodology on soil characterization.
- Primarily, visual and olfactory evidence will be used to screen for contaminated soil; however, a photo-ionization detector (PID) will also be used to further screen soils for potential contaminates, as well as ambient air during excavation work. The specific locations of air monitoring will be field-adjusted based on potential access and safety limitations, but will generally include within the excavation area, along with the perimeter of the excavation. PID readings will generally be taken at least every hour and whenever suspect material is encountered. Refer to Appendix H for a complete methodology of the PID screenings.

With regard to ambient air screening, any PID reading for volatile organics that is 10 ppm above background for more than three minutes will result in a stop work order. Background

Mitigation Measures **Impact** shall be determined at the beginning of the day prior to excavation activities. Work shall not continue until PID readings have attenuated below the action level. The PID will provide real-time data on the presence of potentially hazardous compounds to provide for proper selection of Personnel Protection Equipment (PPE). The initial PPE will be Level D (modified) which includes safety glasses, hard hat, steel-toed boots, gloves, hearing protection, and high visibility vests. In the unlikely event significant unforeseen environmental conditions are discovered, work shall stop and San Mateo County Environmental Health will be contacted. A primary and backup PID unit will be maintained onsite for the duration of fieldwork. Each unit will be fully charged and calibrated daily. Work activities shall be conducted Monday through Friday between 7:00 AM and 6:00 PM. Excavation will be performed using a combination of scrapers, backhoes, trackmounted excavators and/or loaders. The contractor will adhere to OSHA guidelines. If excavations require shoring, it will be provided by the contractor. • The development will include an engineered cut of up to six (6) to nine (9) feet below the ground surface in the northern portion of the site for the construction of the underground parking. Prior to beginning the excavation, the soil in the planned excavation area will be characterized to determine the appropriate disposal options and to allow for excavation and off-haul without first stockpiling on site. A PID will be used to screen soils during the excavation. Also, if soils exhibiting evidence of environmental impact (e.g., odor or staining) are identified at the proposed margins or bottom of the excavation, the excavation shall be advanced to a greater depth and/or lateral

removed.

dimension as appropriate until impacted soils exhibiting evidence of impact have been

Impacted soils, if encountered, will be stockpiled onsite. To prevent potential impacts to underlying soils or surfaces, stockpiles shall be placed on 10-milimeter (mil) plastic sheeting, as appropriate. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. Appropriate dust control and stormwater best management practices (BMPs) shall be implemented during the soil mitigation activities.

The soil stockpiles shall be profiled for landfill disposal in general accordance with the "CAL-EPA Department of Toxic Substances Control (DTSC) Information Advisory – Clean Imported Fill Material" document. The specific laboratory profile will be determined prior to excavation activities; however, it is anticipated that as a minimum, the stockpile samples will be analyzed for Total Petroleum Hydrocarbons as diesel and motor oil with silica gel cleanup (EPA 8015) and CAM 17 metals (EPA 6010B).

• Where impacted soils are encountered and removed, verification samples shall be collected from the resulting excavations. Sample areas exhibiting levels (see list below) in excess of the corresponding screening levels will be excavated an additional 12 inches vertically and laterally, with subsequent confirmation sampling. This process shall continue until all concentrations are below the applicable screening levels.

Discrete soil samples shall be recovered from the center of 20 by 20 foot excavation grids identified with soil impact for laboratory testing (minimum one base sample per excavation). Sample grids exhibiting COPCs in excess of the corresponding residential ESLs will be excavated an additional twelve inches vertically with subsequent confirmation sampling. A minimum of one sample shall be recovered for each sidewall on a 20 lineal foot basis. Sidewall samples shall be recovered from the mid-point of the sidewall on a three vertical foot interval. This process shall continue until the laboratory testing shows that the soil left in

Impact

Mitigation Measures

place is below the corresponding ESLs. If
groundwater is encountered within any remedial
excavation, a grab water sample will be
recovered in addition to the base sample(s).
Refer to Appendix H for a full methodology of
the verification sampling.

It is anticipated that following soil stockpiling and characterization of impacted materials, these soil materials will be transported to an appropriate landfill facility. Prior to off-site disposal, soils shall be sampled and characterized. A minimum of one stockpile sample will be collected. As necessary, one sample per 250 cubic yards of stockpile volume will be collected.

MM HAZ-1.7: Upon completion of the soil excavation, confirmation sampling and backfill, a final report documenting the work performed shall be submitted to the County of San Mateo Environmental Health Department for review and approval prior to the issuance of a building permit. The report will include details regarding soil excavation, sampling, and landfill disposal documentation.

MM HAZ-1.8: A permit may be required for facility closure (i.e., demolition, removal, or abandonment) of any facility or portion of a facility (e.g., lab) where hazardous materials are used or stored. The Property Owner and/or Developer shall contact the Fire Department and San Mateo County Environmental Health Department to determine facility closure requirements prior to building demolition.

MM HAZ-1.9: Due to the age of the on-site structures, building materials may contain asbestos. Because demolition of the buildings is planned, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable asbestos containing building materials prior to building demolition or renovation that may disturb these materials.

Impact	Mitigation Measures
Impuet	MM HAZ-1.10: The Consumer Product Safety Commission banned the use of lead as an additive in paint in 1978. Based on the age of the buildings, lead-based paint may be present. Because demolition is planned, the removal of lead-based paint is not required if it is bonded to the building materials. However, if the lead-based paint is flaking, peeling, or blistering, it shall be removed prior to demolition. In either case, applicable OSHA regulations must be followed; these include requirements for worker training, air monitoring and dust control, among others. Any debris or soil containing lead must be disposed appropriately.
Geol	logy
Impact GEO-1: The presence of undocumented fill and expansive soils on-site would damage future buildings and improvements on-site unless mitigations are incorporated.	MM GEO-1.1: The project shall be designed and constructed in conformance with the recommendations in the design-level geotechnical report prepared for the project and peer review (see Appendix I), which includes the removal and replacement of undocumented fill with engineered fill; measures addressing construction dewatering, hydrostatic uplift, and building waterproofing; and seismic design standards.

Summary of Project Alternatives

The following is a summary of the project alternatives. Please refer to *Section 6.0 Alternatives* for the complete discussion of project alternatives. CEQA requires that an EIR identify alternatives to the project as proposed. The CEQA Guidelines specify that an EIR identify alternatives which "would feasibly attain the most basic objectives of the project but avoid or substantially lessen many of the significant environmental effects of the project," or would further reduce impacts that are considered less than significant with the incorporation of identified mitigation.

The proposed Project would not result in any significant and unavoidable impacts, so project alternatives do not present options that avoid or reduce a significant impact to a less-than-significant level. Rather, the project alternatives would incrementally reduce impacts, and in some instances could introduce additional impacts.

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration. The City and applicant's objectives for the project are listed below.

The City's goals and objectives for the areas designated for high-density residential uses, including the project site, are as follows:

- 1. In recognition of the area's special locational advantages of good access to all forms of transportation and proximity to the major downtown area, high-density, multi-story residential land use shall be encouraged.
- 2. Maintain and improve the quality of the environment, to preserve the public health, and to enhance the prospects for enjoyment by residents and visitors.
- 3. Preserve residential character by encouraging maintenance, improvement, and rehabilitation of the City's neighborhoods and housing stock.
- 4. Consider neighborhood quality when approving new and remodeled residences.
- 5. Provide variety and choice of housing by promoting housing opportunities for all persons.
- 6. Promote development of rental housing that is attractive to prospective residents.
- 7. Encourage the inclusion of communal amenities in new rental developments (i.e., community rooms, play structures, laundry facilities) where feasible and provision of which does not impair achievement of maximum densities or the financial feasibility of developing housing affordable to lower-income households.
- 8. Provide housing opportunities for city employees, teachers, hospital workers, and others in the service industry who work in Burlingame.
- 9. Reduce residential energy use to conserve energy and help reduce housing costs.
- 10. Achieve increased affordability of housing.

The project applicant's objectives for the project are as follows:

- 1. Develop a multi-family residential infill project that is consistent with the goals and vision of the City of Burlingame's General Plan, its Housing Element, and the Carolan/Rollins Commercial Area R-4 overlay zone, providing a diverse range of high quality rental and forsale housing that will satisfy a variety of household needs.
- 2. Redevelop an assemblage of parcels with a neighborhood-compatible, economically viable residential project in close proximity to transit, using sustainable design practices and methods that promote energy efficiency and resource conservation.
- 3. Provide housing with a wide range of amenities that is close to shopping, services, and transportation and that encourages walking, transit use, bicycling, and carpooling that reduces vehicle trips and supports local business.
- 4. Design a high density residential community that respects the surrounding neighborhood through appropriate building height transitions, siting, massing, bulk, character, and landscaping.

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- 5. Increase the permeability of the property and improve storm water quality and conditions.
- 6. Support reforestation philosophies on a 5.4-acre site, consistent with the City of Burlingame's Urban Forest Management Plan.

No Project Alternative

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

Currently, the project site is developed with eight, one-story buildings occupied by commercial automotive repair, rental, and sales facilities. Because the existing businesses on the site are currently operating, the No Project Alternative assumes that the project site would remain as it is today. However, it should be noted that under the No Project Alternative, redevelopment of the site under the current General Plan and zoning designations could be proposed by another party at some time in the future. The No Project Alternative would not meet the city and project applicant's goals of providing housing on the project site.

Alternative Locations

The City considered alternative locations for the proposed project. A suitable alternative site would need to be of similar size (approximately 5.4 acres), within the existing urbanized area of Burlingame, with adequate roadway access, as well as near public transit, employment, and commercial services. The alternative site would also need to have the appropriate General Plan land use designation (and zoning if possible) that would allow for the proposed residential uses. Based on these criteria, the City determined that there were no suitable alternative locations within the City. Most sites within the City that have the appropriate General Plan land use designation and zoning are less than one acre in size. There is an approximately 4.2-acre site that is part of the larger, existing Sutter Health Mills-Peninsula Health Services property located at the northeast quadrant of Marco Polo Way and Trousdale Drive. This 4.2-acre site has the appropriate General Plan land use designation, but would require rezoning and is not available for acquisition by the developer. Therefore, this site was considered but found infeasible and not analyzed further. In addition, alternative sites located within the City's Bayfront Area were considered, but the General Plan and Bayfront Specific Area Plan stipulate that no residential uses are allowed within this Specific Plan Area. Therefore, alternative sites within the Bayfront Area were considered but found infeasible and not analyzed further.

In conclusion, the City considered a number of alternative locations for the project but, due to their size, unavailability, and General Plan and zoning designations, found the alternative locations infeasible and, therefore, did not evaluate them further.

Alternative Land Use

An alternative land use was also considered and evaluated for the site. The existing General Plan and zoning designations on the site allow for a variety of uses. Besides the existing commercial uses on-site and the proposed residential uses, office uses would be consistent with the existing land use designations. Based on other existing office buildings located within the City, office uses on the project site would be anticipated to be either be a four-story office building or a group of office buildings with approximately 200,000 square feet of total floor area. In addition, 667 parking spaces would be required for an office complex of this size, most likely provided in a combination of low structures and surface lots. Under this alternative land use scenario, approximately 60 percent of the site would be covered by office buildings and parking structures, and approximately 25 percent of the site would be landscaped.

While office uses on the site would avoid the project's impact to sensitive receptors from TACs from US 101 and Caltrain (because office uses are not considered sensitive uses with sensitive receptors), an office development on the site would be subject to similar exterior noise impacts and would result in the same (or similar) impacts to nesting birds, potential unknown archaeological resources, and geologic hazards. In addition, an office development on the site would result in similar hazardous materials impacts and construction-related noise and air quality impacts to existing, nearby residents as the proposed project. An office development could also have increased net traffic impacts on nearby intersections as compared to a housing use. An alternative land use of office on the site would not be consistent with the City's General Plan and Housing Element goals, or with the City's long-term vision of higher density residential for the site.

Alternative Design (Increased Setback)

An Alternative Design (Increased Setback) Alternative was evaluated, which would avoid the significant (though mitigated) health risk impacts to the proposed residences nearest to US 101 and Caltrain (if not electrified). The Alternative Design (Increased Setback) assumes that the proposed project would have increased setbacks from the eastern and western property lines. Specifically, under this alternative, the project would be set back 250 feet from the eastern site boundary and 120 feet from the southern site boundary. As a result of the increased setbacks, only 205 apartments and five townhouses could be developed under this alternative without requiring a rezoning for an increase in maximum building height on-site. In addition, because of the reduced footprint under this alternative, the underground and structured parking would be removed to maximize available floor area for units within the building envelope, and surface parking would instead be developed. This configuration would have impacts on aesthetics which would need to be considered. The City Council will ultimately determine whether this is a feasible alternative (e.g., economically feasible, aesthetically acceptable, etc.) when making a decision on the project.

Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative to the proposed project is the No Project Alternative because all of the project's significant environmental impacts would be avoided. However, Section 15126.6(e)(2) states that "if the environmentally superior alternative is the No

Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." This would be the alternative that would result in fewer environmental impacts. Given this requirement, the Alternative Design would be considered the Environmentally Superior Alternative.

Known Views of Local Groups and Areas of Controversy

Concerns from residents and property owners about the project were primarily related to neighborhood parking, transportation, and circulation.

1.1 PROJECT LOCATION

The 5.4-acre project site is comprised of four parcels [Assessor Parcel Numbers (APNs): 026-240-290, -340, -360, and -370] located at 1008-1028 Carolan Avenue and 1007-1025 Rollins Road in the City of Burlingame. The project site is rectangular shaped and bounded by multi-family residences (Northpark Apartments) to the north, Rollins Road to the east, single- and multi-family residences to the south, and Carolan Avenue to the west. Regional and vicinity maps of the project site are provided on Figures 1.1-1 and 1.1-2, respectively. An aerial photograph of the project site and surrounding land uses is shown on Figure 1.1-3.

1.2 BACKGROUND INFORMATION

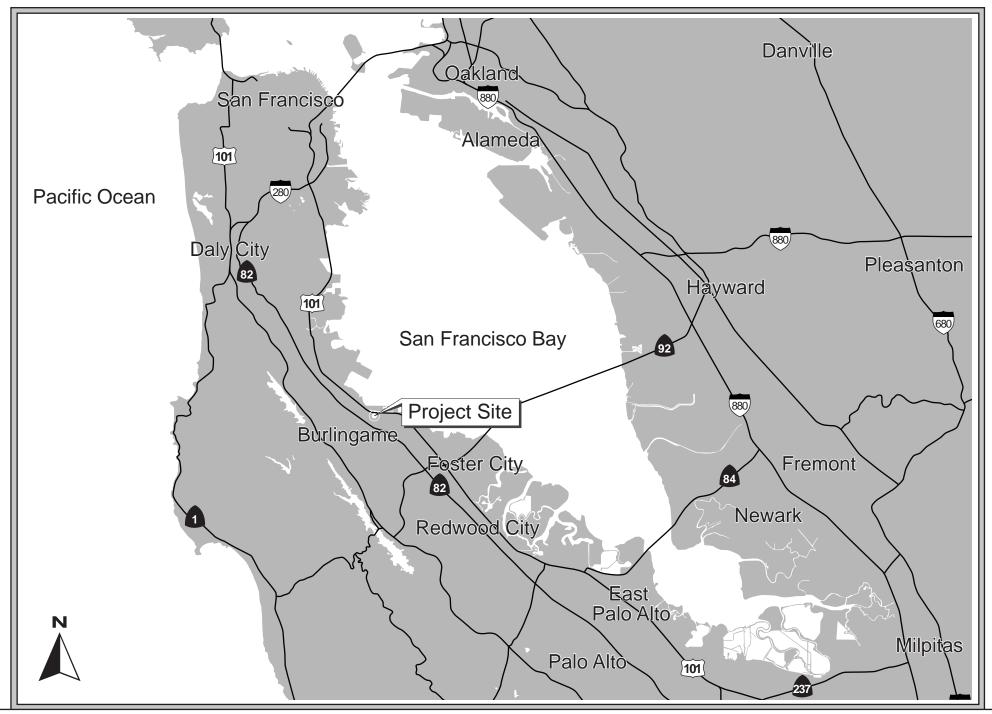
The project site is currently developed with eight, one-story buildings ranging from 3,480 to 53,140 square feet. The buildings were constructed between 1943 and 1982 and are currently occupied by automotive repair, rental, and sales facilities.

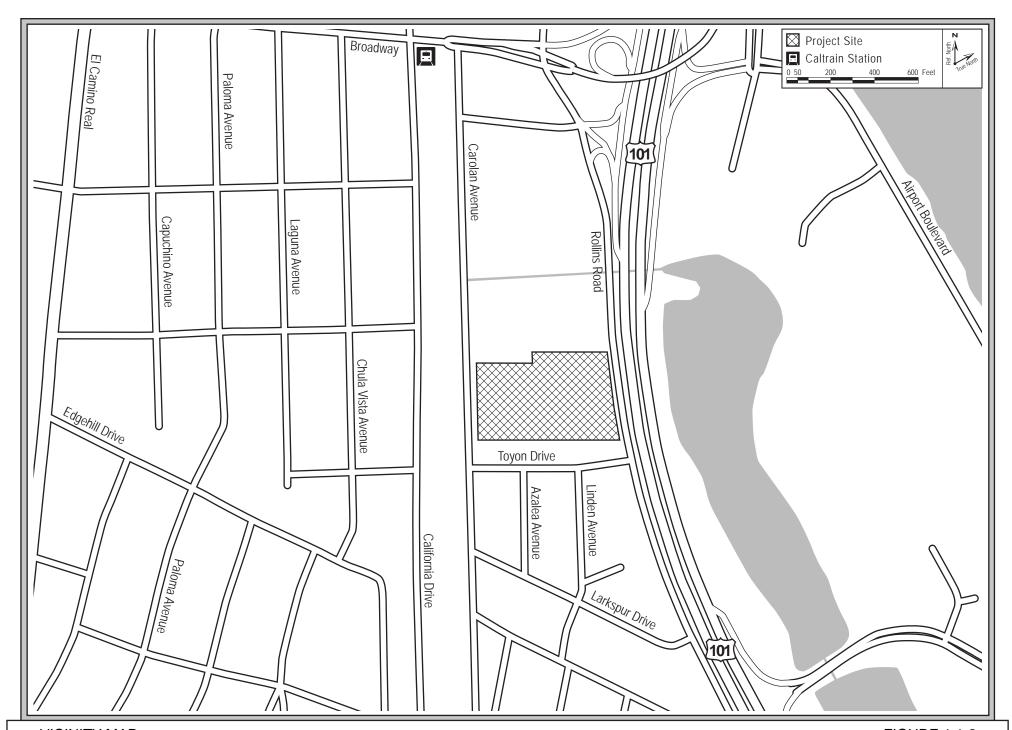
The project site is located in the Carolan/Rollins Commercial Area and designated for commercial, service, and special sales uses in the City's General Plan. In 2002, the Housing Element identified the property as also having the potential to be a housing site, noting that it is located between two residential areas and within proximity to transit. In April 2009, the City Council adopted Resolution No. 31-2009 to amend the Land Use Section of the General Plan to add a description of the Carolan/Rollins Commercial Area and allow multi-family residential as an alternative land use within this area.

The project site is zoned C-2 with an R-4 overlay with special standards that apply to multi-family residential development on the site. The existing zoning designations on-site and adjacent to the site are shown on Figure 1.2-1. The C-2 zoning district permits uses including retail, personal services, hotels, offices, automobile repair and sales uses, carpentry uses, laundry and dry cleaning uses, and commercial amusements. The C-2 zoning also incorporates uses allowed in the C-1 zoning district including business services, pet shops and grooming facilities, financial institutions, and food establishments. The R-4 overlay regulations in Section 25.31.065 of the Zoning Ordinance that are applicable to the project site include the requirement for a conditional use permit for multi-family residential uses. There is also a maximum building height of 2.5 stories (or 30 feet) within 100 feet of the southerly property line adjacent to R-1 and R-3 zoned properties, with the following exceptions:

- 1. A structure between 30 and 36 feet upon approval of a special permit, and
- 2. A structure of 36 feet or taller upon approval of a variance.
- 3. The R-4 overlay zone requires a special permit for vehicular circulation and/or parking within the required 20-foot setback from the southern property line.

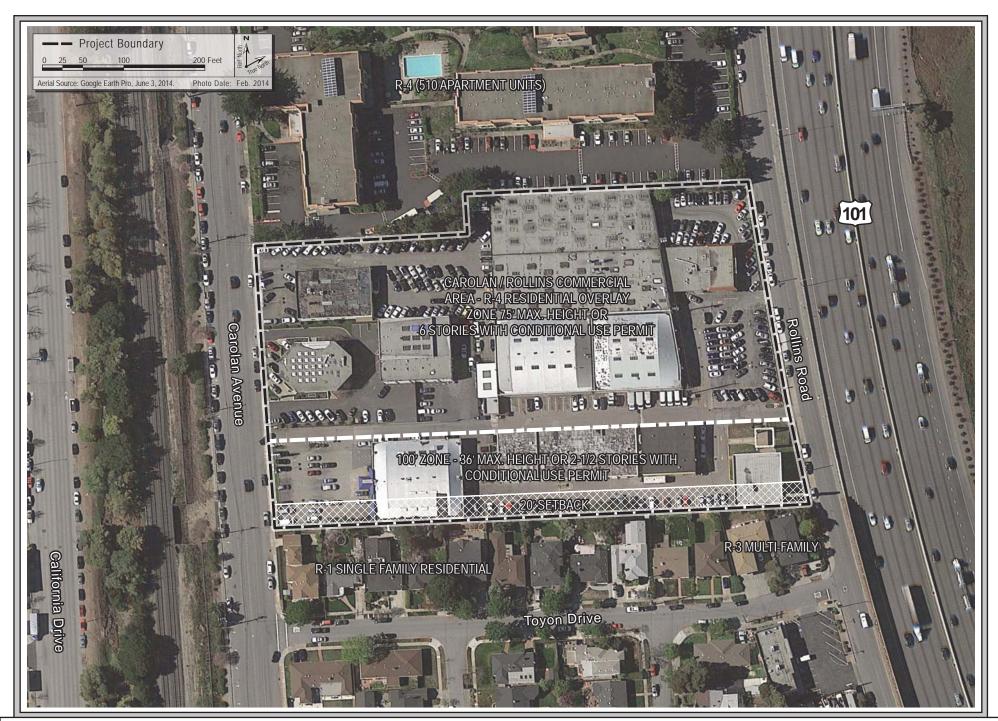
¹ For the purposes of this EIR and for ease of reference, Rollins Road is considered east of the site and Carolan Avenue is considered west of the site.





VICINITY MAP





AERIAL PHOTOGRAPH WITH EXISTING ZONING DESIGNATIONS

The Zoning Ordinance also stipulates that the minimum setback from the southerly property line adjacent to R-1 and R-3 zoned properties shall be 20 feet, which shall include a landscape screen containing large scale trees. Vehicular circulation and/or parking may be considered within this setback upon approval of a special permit.

1.3 PROJECT DESCRIPTION

The project proposes to construct a residential development with 22 townhouses and 268 apartments, including on- and off-site improvements. Figure 1.3-1 shows a conceptual site plan of the project. Conceptual cross-sections, a conceptual ground floor plan, and a circulation plan are shown on Figures 1.3-2, 1.3-3, and 1.3-4, respectively.

The primary components of the project are described below.

1.3.1 Residential Development

The project would be set back at least 19 feet from the northern property line, at least 20 feet from the eastern property line, at least 29 feet-10 inches from the southern property line, and at least 20 feet from the western property line (refer to Figure 1.3-3).

1.3.1.1 Townhouses

As shown on the conceptual site plan, the 22 townhouses would be grouped into four buildings and located along the southern site boundary (refer to Figure 1.3-1). The townhouses would be two-stories with a maximum height of 34 feet and four inches. The townhouses would include two- and three-bedroom units, with flex space up to four bedrooms in some units, ranging from approximately 1,510 to 2,230 livable square feet in size. A total of 58 parking spaces for the townhouse residents and guests would be provided within private garages and along the entry driveway.

1.3.1.2 Apartments

The apartments are proposed on the northern and central portion of the site. As shown on Figure 1.3-1, the project proposes to group the 268 apartments into two, five-story (up to 61.5 feet) buildings constructed on a podium with two levels of parking (one level semi-subterranean and the second level above ground). Conceptual cross-sections of the proposed project are shown on Figure 1.3-2. Residential units would wrap around the parking garage (except on the north side on the ground floor) and there are two courtyards located at podium level (refer to Figure 1.3-3).

The apartments would include one- to three-bedroom units ranging from approximately 700 to 1,492 square feet in size. A total of 466 parking spaces for the apartment residents and guests would be provided in the podium parking garage and at-grade in the arrival court area.

Consistent with the City's Housing Element policies for accommodating households of moderate income, the project proposes 29 units (10 percent of the total) that would be rented at rates affordable to moderate income households, as defined in Sections 50052.5 and 50053 of the California Health and Safety Code, for 10 years. The moderate-income units would include 22 one-bedroom units, six

two-bedroom units, and one three-bedroom unit. They would be spread throughout the two buildings and would have similar sizes and layouts to the other apartment units.

1.3.2 <u>Common Outdoor Areas and Landscaping</u>

Each apartment building would have a central courtyard with amenities (see West and East Courtyards on Figure 1.3-1). The amenities would include a pool and spa, seating, fireplaces, outdoor kitchens, and landscaping (including trees). A plaza is proposed between the apartment buildings (see Central Courtyard in Figure 1.3-1) that would have additional seating and landscaping. A six-foot tall acoustic glass fence is proposed along the north side of the plaza.

A public pedestrian paseo is proposed between the apartment buildings and townhouses (see Pedestrian Paseo in Figure 1.3-1). The paseo would provide pedestrian access between Carolan Avenue and Rollins Road. The paseo would include landscaping (including trees), open areas, seating, and nighttime lighting.

Landscaping, including trees, is also proposed along the perimeter of the site. Overall, the project proposes to plant 171 new trees, including approximately 123 trees at-grade and approximately 48 trees within the podium courtyards.

1.3.3 <u>Community Room</u>

The proposed project includes a community room that would be available for community use. The community room would be located on the ground floor and would contain amenities such as collaboration work tables with chairs, a seating area, a conference room with AV screen and white board, a copy nook with a refrigerator and wet bar sink, and a small meeting lab. A cafe vending service and Wi-Fi service would also be provided.

The community room would be available for use to eligible community groups between the hours of 6:00 PM to 9:00 PM.

1.3.4 Site Access and Circulation

A circulation plan for the project, which shows pedestrian and vehicular access to the site, is provided on Figure 1.3-4. As shown on Figure 1.3-4, pedestrians would be able to access the project from Carolan Avenue, Rollins Road, and the proposed public pedestrian paseo. A pedestrian path is also proposed along the northern site boundary.

Vehicular access to the project would be provided via three driveways on Carolan Avenue and two driveways on Rollins Road. The northernmost driveways each on Carolan Avenue and Rollins Road would provide direct access with gated entries to the podium parking garage for the apartments. The middle driveway (i.e., the main entry drive) on Carolan Avenue would provide access to the apartments and townhouses. The townhouse garages would be accessible from both Carolan Avenue and Rollins Road via a private lane located along the southern site boundary. The private lane would be gated at both entrances to limit access to townhouse residents, guests, and emergency and service vehicles.

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Emergency vehicle access is proposed to be provided via the main entry drive and a 20-foot wide Emergency Vehicle Access (EVA) route connecting Carolan Avenue and Rollins Road. A second EVA route is proposed along the townhouse private lane.

1.3.5 Public Right-of-Way Improvements

The project proposes new sidewalks, curbs, and gutters on Carolan Avenue and Rollins Road along the project site frontage. New, 36-inch box street trees are proposed to be planted along Carolan Avenue and Rollins Road in the planting strip between the sidewalk and curb along the project site frontages. Other landscaping, including turf and shrubs, is proposed between the sidewalks and proposed buildings.

The project also proposes to extend the existing 16-foot soundwall along US 101 to a point even with the northern edge of the project site in order to reduce noise at the proposed residences from trafficgenerating noise on US 101. Currently, the soundwall terminates at a point even with the southern edge of the site.

1.3.6 Utility Connections and Improvements

The project proposes the following utility connections and improvements:

- Retain and treat stormwater runoff on-site in accordance with the municipal stormwater permit requirements. The project proposes to treat 100 percent of stormwater runoff with Low Impact Development (LID) treatment.
- Connect to the existing overhead line on the west side of Carolan Avenue and an existing overhead line at the southerly property line to provide electric service to the project. As part of the project, all existing overhead lines along the project site's frontages on Carolan Avenue and Rollins Road would be undergrounded.
- Remove the existing overhead power lines and utility poles that cross the project site from the Northpark Apartments to Toyon Drive and bury the line in a joint trench along Rollins Road.
- Connect to the existing two-inch gas line in Rollins Road to provide natural gas service to the project.
- Connect to the existing 12-inch water line in Carolan Avenue to provide water, fire, and irrigation service to the project. Install an additional fire hydrant on-site.
- Install an approximately 1,300 foot long eight-inch sewer main from the project site to the existing 36-inch sewer main in Cadillac Way to provide sewer service for the proposed apartments and 14 of the 22 townhouses.
- Install a 12-inch sewer main in the proposed private lane that would connect to the existing 27-inch sewer main in Rollins Road to provide sewer service for eight of the 22 townhouses proposed on-site. An easement is proposed within the private lane so that the sewer main is accessible for construction and maintenance. The proposed 12-inch sewer main would have a stub for connection to the existing residences on Toyon Drive when the existing 12-inch sewer main, which parallels the property line through the backyards of the Toyon Drive

residences and is currently serving the residences, is abandoned due to its poor condition and so that the sewer main will be accessible for construction and maintenance.

1.3.7 <u>Green Building Measures</u>

The project proposes to be constructed in compliance with the 2013 California Green Building Standards Code (Title 24), which requires efficient windows, insulation, lighting, ventilation systems, and other features that reduce water and energy consumption. Although recycled water service is not currently available in the project area, the project proposes to install "purple" irrigation lines to connect to such a system should it become available in the future.

The project also proposes the following Transportation Demand Management (TDM) amenities to encourage more sustainable modes of transportation:

- Four electric vehicle charging stations, with the potential for 10 additional electric vehicle charging stations,
- Two car-sharing vehicle reserved spaces (e.g., Zipcar),
- 134 secure bicycle parking spaces for apartment residents,
- 10 guest bicycle parking spaces,
- Bike repair station,
- Tenant web portal for carpooling, and
- Business center and conference room for telecommuting.

1.3.8 Other Design Features

The project proposes to have residential windows, wall, and flooring assemblies that would meet the Sound Transmission Class (STC) requirements to achieve the City and State interior noise standard. In addition, the project proposes to incorporate mechanical ventilation and air filtration systems (MERV filters) to reduce indoor air quality pollutants generated from vehicles on US 101 or Caltrain.

The project proposes to install six- to seven-foot tall fences along the northern and southern site boundaries between the project site and the existing residences.

1.3.9 Construction

It is anticipated that construction of the project would take approximately two years to complete, possibly starting as early as January 2017 and concluding at the end of 2018. Demolition and site preparation activities would occur in the first several months, followed by construction of the apartments and townhouses.

It is anticipated that the project would excavate approximately 29,000 cubic yards of soil (maximum depth of 13 feet) for the semi-subterranean parking garage level, elevators, and mechanical equipment, and require approximately 2,000 cubic yards of fill. The remaining 27,000 cubic yards of soil would be hauled off-site to an appropriate disposal facility.

1.4 PROJECT OBJECTIVES

The City's goals and objectives for the areas designated for high-density residential uses, including the project site, are as follows:

- 1. In recognition of the area's special locational advantages of good access to all forms of transportation and proximity to the major downtown area, high-density, multi-story residential land use shall be encouraged.
- 2. Maintain and improve the quality of the environment, to preserve the public health, and to enhance the prospects for enjoyment by residents and visitors.
- 3. Preserve residential character by encouraging maintenance, improvement, and rehabilitation of the City's neighborhoods and housing stock.
- 4. Consider neighborhood quality when approving new and remodeled residences.
- 5. Provide variety and choice of housing by promoting housing opportunities for all persons.
- 6. Promote development of rental housing that is attractive to prospective residents.
- 7. Encourage the inclusion of communal amenities in new rental developments (i.e., community rooms, play structures, laundry facilities) where feasible and provision of which does not impair achievement of maximum densities or the financial feasibility of developing housing affordable to lower-income households.
- 8. Provide housing opportunities for city employees, teachers, hospital workers, and others in the service industry who work in Burlingame.
- 9. Reduce residential energy use to conserve energy and help reduce housing costs.
- 10. Achieve increased affordability of housing.

The applicant's objectives for the project are as follows:

- 1. Develop a multi-family residential infill project that is consistent with the goals and vision of the City of Burlingame's General Plan, its Housing Element, and the Carolan/Rollins Commercial Area R-4 overlay zone, providing a diverse range of high quality rental and forsale housing that will satisfy a variety of household needs.
- 2. Redevelop an assemblage of parcels with a neighborhood-compatible, economically viable residential project in close proximity to transit, using sustainable design practices and methods that promote energy efficiency and resource conservation.

- 3. Provide housing with a wide range of amenities that is close to shopping, services, and transportation and that encourages walking, transit use, bicycling, and carpooling that reduces vehicle trips and supports local business.
- 4. Design a high density residential community that respects the surrounding neighborhood through appropriate building height transitions, siting, massing, bulk, character, and landscaping.
- 5. Increase the permeability of the property and improve storm water quality and conditions.
- 6. Support reforestation philosophies on a 5.4-acre site, consistent with the City of Burlingame's Urban Forest Management Plan.

1.5 USES OF THE EIR

This EIR provides decision makers in the City of Burlingame 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:

City of Burlingame

- Environmental Review
- Vesting Tentative Map and Final Map to merge and subdivide the existing four parcels
- Condominium Permit
- Design Review
- Conditional Use Permit for multiple family residential use in the Carolan Avenue/Rollins Road Commercial Area R-4 overlay zone
- Conditional Use Permit for building height which exceeds 35 feet up to a maximum of 75 feet (61-foot-6" proposed)
- Special Permit for vehicular circulation and/or parking within the 20-foot setback along the southern property line
- Special Permit for building height between 30 and 36 feet within 100 feet of the easterly property line (34'-4" proposed)

11

• Protected Tree Removal Permits for removal of any trees over 48" in circumference

California Department of Transportation (Caltrans)

• Encroachment Permit for construction of the soundwall along US 101



LEGEND:

Pedestrian Paseo

- 20' emergency access road w/
 6' wide pedestrian walk w/ grasses over permeable paving
 (eg. Grass Pave 2) on both sides, shrub planting, Gingko trees;
 4' wide access paths to townhomes entries w/ bollard lighting.
- Park area w/ accent paving, seating, pedestrian scale lighting, mix of accent grasses over permeable paving and stormwater treatment planting zone.
- Frontage plaza w/ colored pavers, seating, pedestrian scale lighting and mix of accent grasses over permeable paving.

Source: Summerhill. July 11, 2014

Arrival Court:

- 4 Turnaround plaza w/ vehicular colored pavers.
- (5) Lobby entrances w/ colored pavers, knock down bollards, planting with specimen Maple trees, accent planter pots and seating.
- (6) Fountain wall w/ seat walls.
- The Enhanced concrete sidewalk w/ Flowering Cherry trees in tree wells and street scale lighting.

Carolan Ave Frontage:

- 8 4'-6" wide planting strip w/ 36" box Red Maple street trees, 5' wide city sidewalk, private patio-access paths and shrub planting.
- (9) Building entry plaza w/ colored pavers and seating.

Northern Apartments Paseo:

4' wide access sidewalk w/ grasses over permeable paving w/ stormwater treatment planting zone, good neighbor fence and screen planting w/ Catalina Ironwood trees at property line. Wooden raised garden plots for communal gardening. Pedestrian and vehicular gate access on both ends.

- Exit plaza w/ seating.

 Acoustic glass fence @ podium stair entrance.
- Dog Run (artificial turf) w/ fencing.

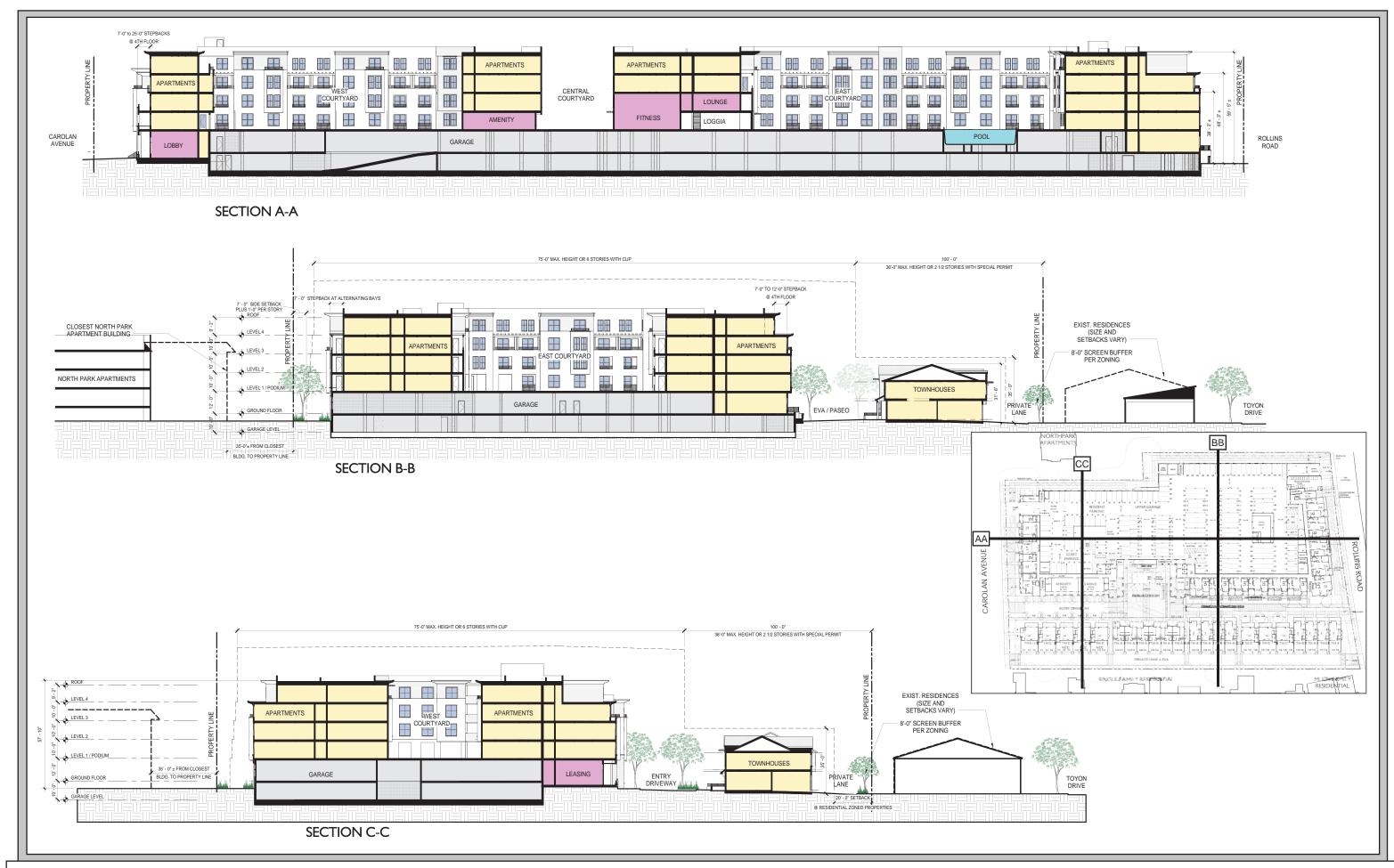
Rollins Rd Frontage:

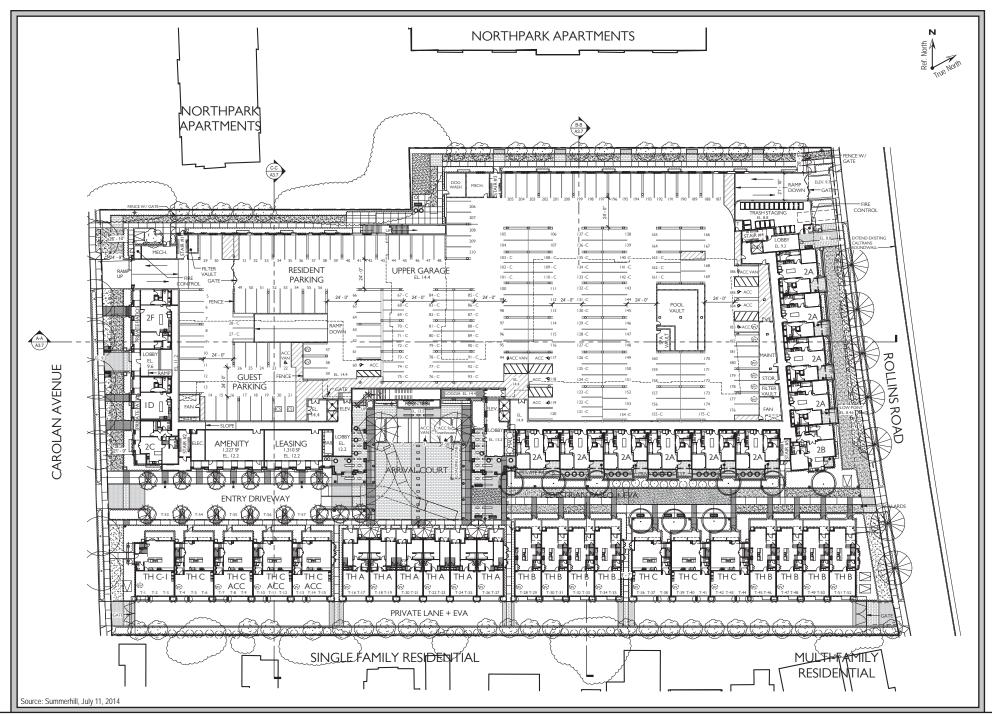
- Bldg Entry plaza w/ colored pavers and seating.
- 4'-6" wide planting strip w/ 36" box Magnolia street trees, 5' wide city sidewalk, turf and shrub planting.
- Rollins Rd entry plaza w/ colored pavers and knock down bollards.

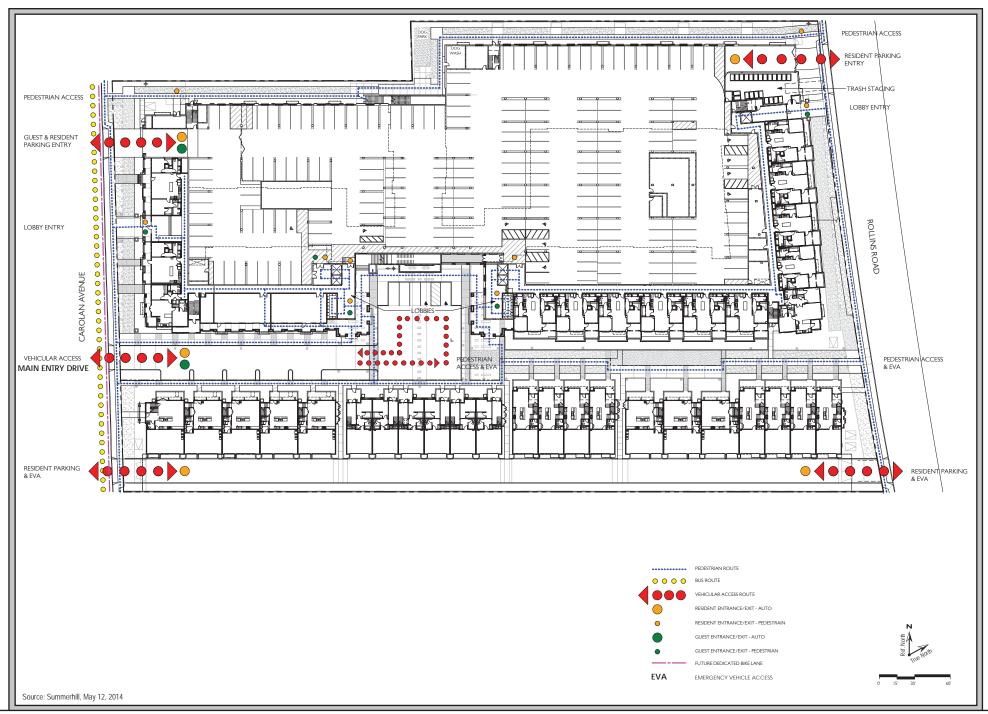
Townhome Lane:

- Driveway accent vehicular paving w/
 colored pavers and automatic vehicular gate
 w/ knox box lock.
- w/ knox box lock.
 4' wide access paths w/ shade planting.
- (8 Landscape screening (Planting w/ Brisbane Box tree) and stormwater treatment zones, 7' tall good neighbor fence at property line.

CONCEPTUAL SITE PLAN FIGURE 1.3-1







SECTION 2.0 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 Carolan Avenue/Rollins Road Residential Project.

Implementation of the proposed project would result in redevelopment of the project site with 22 townhouses and 268 apartments. 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 measures (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 environmental 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

2.1 LAND USE

2.1.1 Setting

2.1.1.3 Regulatory Framework

Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport and Federal Aviation Regulations, Part 77

In 1967, the State legislature adopted legislation requiring the establishment of airport land use commissions in counties with one or more airports serving the general public. Amendments adopted by the legislature in 1970 required each commission to develop comprehensive airport land use compatibility plans (ALUCPs). The purpose of the ALUCPs is to provide for the orderly growth of airports and the surrounding areas to minimize the public's exposure to excessive noise and safety hazards.

The project site is located within the Airport Influence Area (AIA) of the San Francisco International Airport (SFO). Properties within the AIA may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (e.g., noise, vibration, and odors). The airport/land use compatibility of a proposed development or land use policy action shall be determined by comparing the proposed development or land use policy action with the safety compatibility criteria, noise compatibility criteria, and airspace protection/height limitation criteria in the ALUCP.

The ALUCP for SFO identifies safety zones where certain land uses are incompatible and should be avoided. The project site is not located within an identified safety zone. Properties located within the 65 dB CNEL aircraft noise contour for SFO warrant land use controls to promote noise compatibility. The project site is not located within SFO's 65 dB CNEL aircraft noise contour.

The ALUCP also includes airspace protection/height limitation criteria based on Federal Avigation Regulations. Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any proposed structure of a height greater than approximately 100 feet above mean sea level is required under FAR Part 77 to be submitted to the FAA for review.

San Mateo Important Farmland

Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the California Government Code. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. FMMP produces Important Farmland Maps, which are a hybrid of resource quality (soils) and land use information.

According to the San Mateo County Important Farmland Map (2011), the site is designated as *Urban and Built-Up Land*, which is defined as land occupied with a building density of one unit to 1.5 acres or approximately six structures per 10-acre parcel. Common examples of *Urban and Built-Up Land* are residential, industrial, commercial purposes, golf courses, landfills, airports, and other utility uses.² The project site is not designated as *Prime Farmland* or other farmland, and is not subject the of a Williamson Act contract.^{3,4}

City of Burlingame General Plan

The project site is located in the Carolan/Rollins Commercial Area and designated for commercial, service, and special uses in the City's General Plan. In April 2009, the City Council amended the Land Use Section of the General Plan to add a description of the Carolan/Rollins Commercial Area to allow multi-family residential as an alternative land use in the area. The 2010 Housing Element Update identifies 1008, 1016, and 1028 Carolan Avenue and 935 Rollins Road (also known as 1007-1025 Rollins Road – properties that comprise the project site) as sites that can potentially be reused for residential uses.

The Land Use Element of the City's General Plan contains policies, recommendations, and actions to avoid or mitigate land use impacts resulting from development within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description
Policy L(A)	In recognition of its special locational advantages of good access to all forms of transportation and proximity to the major downtown area, high density, multi-story residential land use shall be encouraged.
Policy H(C-2)	Require inclusion of affordable dwelling units in multiple-family residential development.

City of Burlingame Zoning Ordinance

The Zoning Ordinance is provided in Title 25 of the Burlingame Municipal Code. The Zoning Ordinance helps promote public health, safety, morals, convenience, comfort, prosperity and general welfare of residents in the City.

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² California Department of Conservation. San Mateo County Important Farmland 2012 Map. August 2014.

³ Agricultural lands in California can be protected from development and reserved for agricultural purposes or openspace conservation under the California Land Conservation Act, commonly known as the Williamson Act.

⁴ California Department of Conservation. San Mateo County Williamson Act FY 2006/2007 Map. 2012.

The project site is zoned C-2 with an R-4 overlay. The existing zoning designations on-site and adjacent to the site are shown on Figure 1.2-1. The C-2 zoning district permits uses including retail, personal services, hotels, offices, automobile repair and sales uses, carpentry uses, laundry and dry cleaning uses, and commercial amusements. The C-2 zoning also incorporates uses allowed in the C-1 zoning district, including business services, pet shops and grooming facilities, financial institutions, and food establishments. Applicable R-4 overlay regulations in Section 25.31.065 of the Zoning Ordinance to the proposed project include the requirement of a conditional use permit for multifamily residential uses. Buildings in the R-4 zoning district have a maximum height limit of six stories (75 feet). In addition, there is also a maximum building height of 2.5 stories (or 30 feet) within 100 feet of the southerly property line adjacent to R-1 and R-3 zoned properties, with the following exceptions:

- 1. A structure between 30 and 36 feet upon approval of a special permit, and
- 2. A structure of 36 feet or taller upon approval of a variance.

2.1.1.2 Existing Conditions

The project site is located in an urban area with multi-family residential uses north of the project site and single- and multi-family residences south of the site (refer to Figure 1.1-3). The project site is bounded by Rollins Road to the east and Carolan Avenue to the west. US 101 is located east of Rollins Road and railroad tracks (Caltrain) are located on the west side of Carolan Avenue.

The project site is currently developed with eight, one-story buildings occupied by commercial automotive repair, rental, and sales facilities. There are no residences on-site and the site is not used for agricultural or forestry uses.

2.1.2 Land Use Impacts

2.1.2.1 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;
- 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;
- Result in substantial shading of existing residences and/or a public park or open space area;
- 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.

2.1.2.2 Impacts to an Established Community

The project site is located in a developed urban area with residential uses to the north and south of the site. Implementation of the proposed project would result in the removal of the existing automobile uses and the construction of residential uses (apartments and townhouses) on the site. The layout and design of the project does not include any features that would physically divide the community (e.g., impeding roadways or sidewalks). In fact, the project includes pedestrian access through the project site between Carolan Avenue and Rollins Road that could enhance pedestrian connectivity in the area (refer to Figure 1.3-4). For these reasons, the project would not physical divide an established community. (Less Than Significant Impact)

2.1.2.3 Population and Housing Impacts

There are no existing residential units or residents residing on-site. Therefore, the redevelopment of the site would not displace existing housing or residents. (**No Impact**)

Compared to existing conditions, the redevelopment of the project site with 290 new residential units would increase population growth in the area. The project site, however, is identified in the City's General Plan (including the Housing Element) for multi-family residential development. Therefore, the project does not propose housing where not already planned in the City's General Plan. In addition, the project does not propose new utilities or infrastructure in excess of what is needed for the proposed project. For these reasons, the proposed project would not induce substantial population growth in the area. (Less Than Significant Impact)

2.1.2.4 Shade and Shadow Impacts

The project proposes buildings that would be of greater mass and height than the existing buildings on-site. The shadows cast by the proposed buildings on-site were evaluated for three different times of the year: December 21, June 21, and March/September 21. Since the solar conditions on the latter

two dates (the spring and fall equinoxes) are identical, they are considered together as an intermediate between the two extremes. Maximum shading occurs on December 21, the winter solstice, when the sun is at the lowest angle above the horizon. Since the vast majority of solar energy is received between 9:00 AM and 3:00 PM, this period of the day is evaluated.

Shadow length and bearing calculations were estimated to determine the extent of shadows from the proposed buildings on adjacent uses. The shade and shadow diagrams (refer to Appendix B), show that the project would shade itself and, at times, the existing residences to the north and south of the site, Rollins Road, and US 101. As concluded in *Section 2.8 Cultural Resources*, the existing residences adjacent to the project site are not considered historic resources. Therefore, casting a shadow on these residences would not impact their historic integrity – such as shading of a stainglass window. In addition, there are no land uses that could be adversely affected by shade, such as public parks, that would be shaded as a result of the project. For these reasons, the project's shade and shadow impacts would not result in a significant land use impact. (Less Than Significant Impact)

2.1.2.5 Impacts to Agriculture and Forestry Resources

As discussed above, the project site is designated, developed, and zoned for urban uses. The site is not designated, used, or zoned for agricultural, forest, or timberland purposes. The project site is not part of a Williamson Act contract. The project site is surrounded by urban development and, therefore, its development would not result in the conversion of agricultural land to non-agricultural uses or forest land to non-forest uses. For these reasons, the proposed project would not impact agricultural and forestry resources. (**No Impact**)

2.1.2.6 Consistency with Applicable Plans, Policies, and Regulations

Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport and Federal Aviation Regulations, Part 77

As discussed previously, the project site is not located within the ALUCP 65 dB CNEL aircraft noise contour or safety zones for SFO. The project proposes buildings of up to 63 feet tall, and the site is about 10 feet above mean seal level (MSL), for a total height of 73 feet about MSL. This is below the imaginary slope of approximately 100 feet above MSL identified for the site in the ALUCP in Exhibit IV-12 FAA Notification Form 7460-1 (FAR Part 77). For these reasons, the project would not conflict with the ALUCP or FAR Part 77.

City of Burlingame General Plan

The project site is located in the Carolan/Rollins Commercial Area, which is designated for commercial and service uses; multi-family residential uses are also allowed as an alternative land use within this area. The project proposes to develop multi-family residential on the project site and is, therefore, consistent with the General Plan land use designation for the site.

As described in *Section 2.2 Transportation*, the project site is served by existing roadways and bicycle, pedestrian, and transit facilities. As concluded in *Section 2.2*, the project would be adequately served by the existing transportation infrastructure and no significant transportation impacts were identified. The project would be consistent with General Plan Policy L(A), which encourages high density, multi-story residential land use on the site. In addition, as described in *Section 1.3 Project Description*, consistent with the City's Housing Element policies for accommodating households of moderate income, the project proposes 29 units (10 percent of the total) that would be rented at rates affordable to moderate income households for 10 years. For this reason, the project would be consistent with General Plan Policy H(C-2).

Based on the above discussion, the project would be consistent with the City's General Plan land use designation and applicable land use policies.

City of Burlingame Zoning Ordinance

The project site is zoned C-2 with an R-4 overlay. Single family residential uses with an R-1 zoning designation and multiple family residential uses with an R-3 zoning designation (along Rollins Road) are located to the south of the project site, and multi-family residential uses with an R-4 zoning designation are located to the north of the project site. The project proposes to construct apartments in two, five-story (up to 63 feet) buildings and townhouses in four, two-story (to up 34 feet) buildings. The proposed townhouses are located within 100 feet of the R-1 and R-3 zoned properties to the south of the project site and, in accordance with the R-4 overlay provisions, the project requires a special permit prior to exceed 30 feet in height project approval. The proposed apartments would not exceed the 75 feet height limit for that portion of the project site. A special permit is also required for vehicular circulation for the townhomes within the 20-foot setback from the south property line. The project would be consistent with the City's Zoning Ordinance with the issuance of the aforementioned special permits.

Other

The project site is not located within an adopted habitat conservation plan or natural community conservation plan.

2.1.3 Conclusion

The proposed project would not result in significant land use impacts. (Less Than Significant Impact)

2.2 TRANSPORTATION

The following is based upon a transportation impact analysis prepared for the project by *Hexagon Transportation Consultants* in August 2014. The analysis was completed in accordance to the San Mateo County Congestion Management Program guidelines and the standards and methodologies set forth by the City of Burlingame, and has been peer reviewed by *Fehr & Peers*. Copies of the transportation analysis and peer review are included in Appendix C of this EIR.

2.2.1 Setting

2.2.1.1 Regulatory Framework

San Mateo County Congestion Management Program

The City/County Association of Governments (C/CAG), as the Congestion Management Agency for San Mateo County, is required to prepare and adopt a Congestion Management Program (CMP) on a biennial basis. The purpose of the CMP is to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and promote countywide solutions. Also included in the CMP is the Traffic Impact Analysis (TIA) Policy, which provides uniform procedures to analyze traffic impacts. As discussed above, the traffic analysis for the project was completed in accordance with the CMP guidelines, standards, and methodologies.

2.2.1.2 *Methodology*

Level of Service

Traffic conditions were evaluated using level of service (LOS). LOS is a qualitative description of operating conditions ranging from LOS A (free-flow conditions with little or no delay) to LOS F (jammed conditions with excessive delays). The analysis methods for signalized and unsignalized intersections are described below.

Signalized Intersections

The City of Burlingame evaluates LOS at signalized intersections based on the 2000 Highway Capacity Manual LOS methodology. This method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. While the City of Burlingame does not have a Council-adopted LOS threshold, a standard of LOS D or better has typically been applied in traffic studies and EIRs. The correlation between the levels of service and average control delay for signalized intersections is shown in Table 2.2-1 below.

	Table 2.2-1: Signalized Intersection Level of Service Standard	ls
Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay	10.0 or less
В	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop compared to LOS A, causing high levels of average vehicle delay.	10.1 to 20.0
С	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 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

Unsignalized Intersections

While the City of Burlingame does not have a Council-adopted LOS threshold for unsignalized intersections, a standard of LOS D or better has typically been applied in traffic studies. The correlation between the levels of service and average control delay for unsignalized intersections is provided in Table 2.2-2 below.

Table 2.2-2: Unsignalized Intersection Level of Service Standards							
Level of Service	Description	Average Control Delay Per Vehicle (seconds)					
A	Little or no traffic delay	10.0 or less					
В	Short traffic delays	10.1 to 15.0					
С	Average traffic delays	15.1 to 25.0					
D	Long traffic delays	25.1 to 35.0					
E	Very long traffic delays	35.1 to 50.0					
F	Extreme traffic delays	Greater than 50.0					

Study Intersections

The traffic analysis evaluated the impacts of the proposed project on eight signalized intersections and four unsignalized intersections during the weekday AM and PM peak hour periods of traffic. The AM peak hour is between 7:00 AM and 9:00 AM and the PM peak hour period is between 4:00 PM and 6:00 PM. The study intersections are listed below and shown on Figure 2.2-3.

- 1. US 101 Northbound Ramp and Bayshore Highway
- 2. Broadway/Airport Boulevard and Bayshore Highway
- 3. US 101 SB Ramps and Broadway
- 4. Rollins Road and Broadway
- 5. Rollins Road and Cadillac Way
- 6. Rollins Road and Toyon Drive (One-way stop)*
- 7. Carolan Avenue and Broadway
- 8. Carolan Avenue and Cadillac Way (One-way stop)*
- 9. California Drive and Broadway
- 10. Chula Vista Avenue and Broadway (Two-way stop)*
- 11. Carolan Avenue and Oak Grove Avenue (Three-way stop)*
- 12. California Avenue and Oak Grove Avenue

None of the study intersections are Congestion Management Program (CMP) intersections.

Traffic Scenarios Analyzed

Traffic conditions at study intersections were evaluated for three scenarios: existing conditions, baseline conditions, and baseline plus project conditions. Table 2.2-3 below describes each scenario.

Table 2.2-3: Traffic Scenarios Analyzed						
Scenario	Description					
Existing Conditions	Existing conditions are represented by existing peak hour traffic volumes on the existing roadway network.					
Baseline Conditions	Baseline conditions (also referred to as background conditions) are peak hour traffic conditions that would exist at the time the project would be constructed but prior to its occupancy. This condition includes traffic volumes associated with the completion of the approved US 101/Broadway interchange improvements and the Carolan Avenue Complete Streets projects. As a result, under baseline conditions, existing traffic is reassigned to the new interchange configuration at US 101 and Broadway which is currently under construction.					
Baseline Plus Project Conditions	Baseline plus project conditions were estimated by adding projected project peak hour trips generated by the proposed residential project to the baseline condition.					

^{*}denotes an unsignalized intersection

Table 2.2-3: Traffic Scenarios Analyzed					
Scenario	Description				
	Project generated traffic was estimated using the vehicular trip generation rates recommended by the Institute of Transportation Engineers manual entitled <i>Trip Generation</i> , 9 th Edition. Existing traffic generated by the automobile related businesses on site was subtracted from the project traffic volumes.				

2.2.1.3 Existing Conditions

Roadway Network

Regional access to the project site is provided by US Highway 101 (US 101). Local access to the project site is provided via Broadway, Carolan Avenue, Rollins Road, Cadillac Way, and California Drive. The existing roadway network is described in more detail below and shown on Figure 2-2-1.

Regional Access

US 101 is an eight-lane, north-south freeway that extends from San Francisco in the north to Gilroy in the south. Access to the project site is provided via the Broadway interchange.

Local Access

Broadway is a two- to four-lane, east-west arterial in the City of Burlingame. Broadway intersects Carolan Avenue and Rollins Road to the north of the project site. Access to the project site from Broadway is provided via Carolan Avenue and Rollins Road.

Carolan Avenue is a two- to four-lane street that extends between Broadway to the north and Burlingame Avenue to the south. The project site is located between Broadway and Oak Grove Avenue where Carolan Avenue consists of four lanes. The City of Burlingame is planning to redesign Carolan Avenue between Broadway and Oak Grove Avenue by converting it into a two-lane roadway with a center turn-lane to include bike lanes and retain on-street parking. Carolan Avenue provides direct access to the project site. On-street parking is available on both sides of Carolan Avenue.

Rollins Road is a two-lane, north-south collector road parallel to US 101 and Carolan Avenue. Rollins Road intersects Broadway, Cadillac Way, and the southbound US 101/Broadway on-ramp and off-ramp. Rollins Road provides direct access to the project site. On-street parking is available on the west side of Rollins Road.

Cadillac Way is a one-block long, two-lane street that extends between Rollins Road to the east and Carolan Avenue to the west, parallel to and south of Broadway. Cadillac Way connects Rollins Road with Carolan Avenue.

California Drive is a four-lane road that extends from Millbrae Avenue in the City of Millbrae to Peninsula Avenue in the City of San Mateo to the south. California Drive is parallel to and west of the railroad tracks.

Pedestrian and Bicycle Facilities

Pedestrian facilities in the project area include sidewalks on both sides of Broadway, Carolan Avenue, and Cadillac Way. Rollins Road has a sidewalk on the west side of the roadway. Crosswalks with pedestrian signal heads and push buttons are present at all signalized intersections in the project area. The unsignalized intersection of Oak Grove Avenue/Carolan Avenue has painted crosswalks on the north, south, and east legs. A pedestrian overcrossing (Rosalie O'Mahony Pedestrian Overcrossing) traverses US 101 north of the project site at the intersection of Rollins Road and Broadway. The pedestrian overcrossing also serves as a Class I Bikeway. A Class I Bikeway is defined as a paved multi-use trail that is separated from the road. The overcrossing connects to the Bay Trail which runs along Airport Boulevard, northeast of the project site; the Bay Trail is part of a larger 500-mile system of trails located around San Francisco Bay.

The City of Burlingame Bicycle Route Map (2008) identifies Bayshore Highway, Airport Boulevard, Broadway east of California Drive, Rollins Road north of Broadway, Carolan Avenue, and California Drive as official bike routes. The existing bicycle facilities in the project area are shown in Figure 2.2-2.

Transit Service

Existing transit service in the project area is provided by Bay Area Rapid Transit (BART), Caltrain and the San Mateo County Transit District (SamTrans). These services are further described below and shown in Figure 2.2-3.

Bay Area Rapid Transit (BART)

The BART system is a commuter rail service that connects the Peninsula with San Francisco and the East Bay. The Millbrae BART station is located approximately three miles north of the project site and is accessible via the free shuttle service from Broadway Caltrain Station, which his less than half a mile north of the project site. BART trains operate on 15-minute headways during peak commute periods.

Caltrain

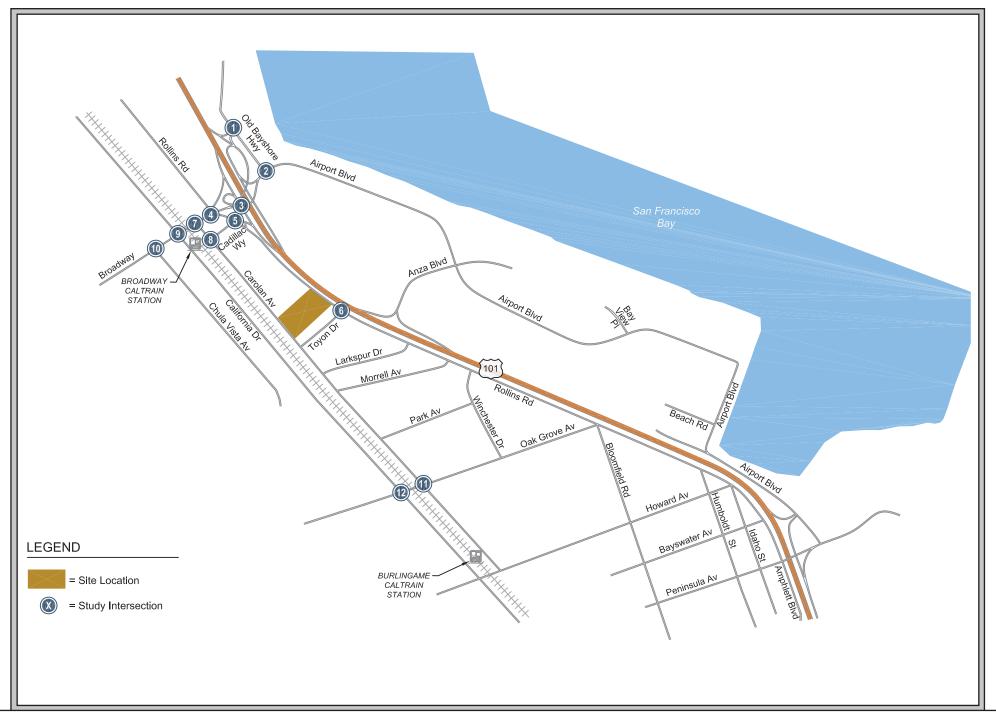
Caltrain provides commuter rail services between San Francisco and Gilroy. The project site is located approximately 0.5 miles south of the Broadway Caltrain Station, approximately 1.0 mile north of the Burlingame Caltrain Station, and approximately three miles south of the Millbrae Transit Station. Currently, the Broadway Station only provides train service on weekends. On weekdays, a shuttle service is provided between the Broadway Station and Millbrae Station. At the Millbrae Transit Station, Caltrain provides service with 20- to 30- minute headways during the weekday AM and PM commute hours. Riders are also able to connect to BART and SamTrans at the Millbrae Transit Station.

There is currently a proposal to electrify Caltrain (the Peninsula Corridor Electrification Project), which would improve Caltrain service and reestablish weekday service at the Broadway Station. An EIR is currently being prepared for that project.

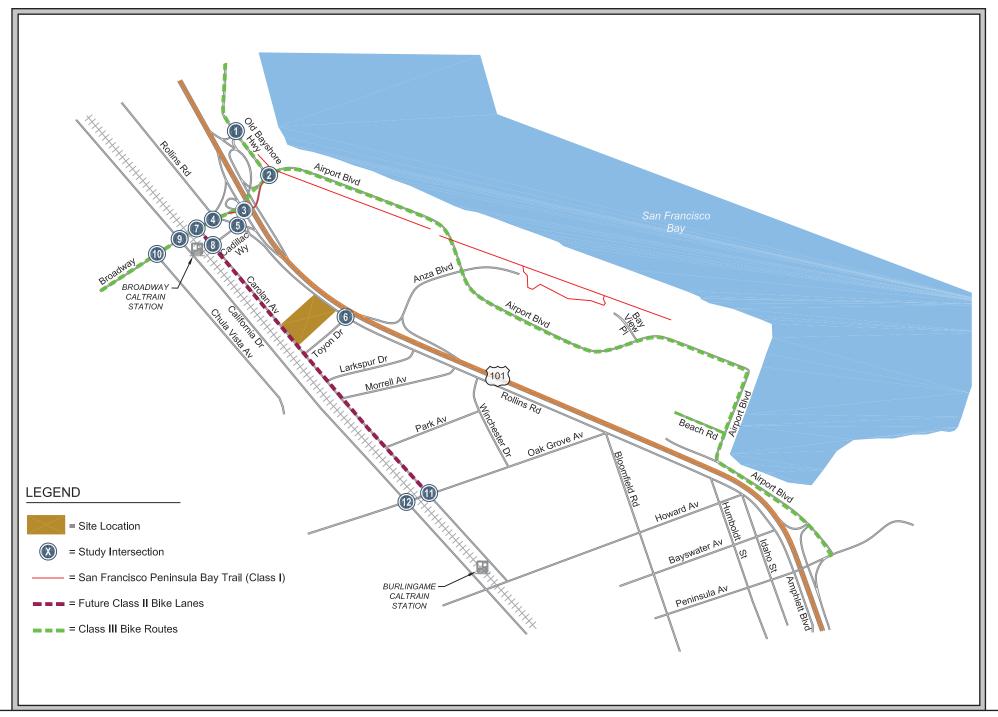
SamTrans

SamTrans is the administrative body for the principal public transit and transportation programs in San Mateo County. The project area is currently served by two SamTrans buses, the Broadway Millbrae shuttle, and the Burlingame Trolley. The closest bus stop is located less than 500 feet from the project site, served by Route 46. Route 46 provides a connection to Route 292 at the bus stop located near the intersection of Broadway and California Drive. A description of these routes are provided in Table 2.2-4.

The Broadway Millbrae shuttle operates every day and provides a connection between the Broadway Caltrain Station and the Millbrae Transit Station (as described previously). The Burlingame Trolley is a free service that operates daily and connects the hotels east of US 101 to Broadway, downtown Burlingame, and the Burlingame Caltrain Station.



EXISTING ROADWAYS FIGURE 2.2-1



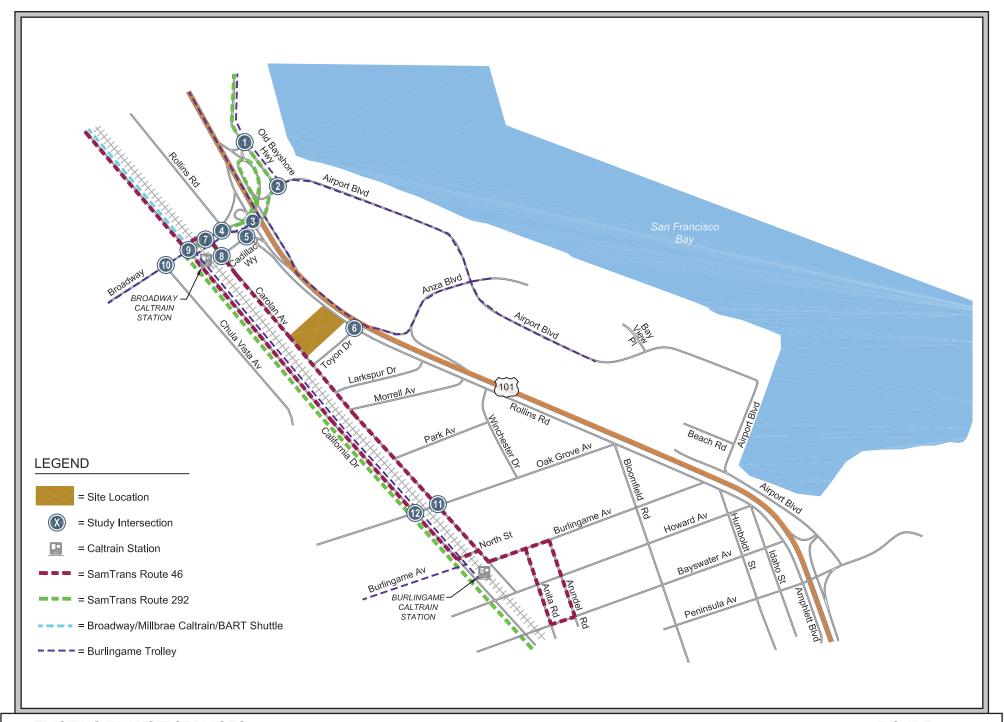


Table 2.2-4: Existing SamTrans Bus Service near the Project Site							
Bus Route	Route Description	Headway During Peak Periods (minutes)					
46	Local service between Burlingame Intermediate School and Burlingame High School, with a stop at 1060 Carolan Avenue.	Limited service on school days only. Adjacent to the project site, there are two trips in the morning and six trips in the afternoon.					
292	Hillsdale Shopping Center to San Francisco	20 to 30					

Existing Levels of Service

The results of the intersection LOS analysis under existing conditions are summarized in Table 2.2-4. The results show that all study intersections in the project area currently operate at LOS D or better during both AM and PM peak hours, except for the intersection of California Drive and Broadway. The intersection of California Drive and Broadway currently operates at LOS E during the AM peak hour due to the traffic volume on Broadway and railroad gate down times on Broadway between California Drive and Carolan Avenue. Additional information about existing levels of service, including the level of service calculation sheets, are included in Appendix C of this EIR.

Observed Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated intersection levels of service. The purpose of this effort was to identify: (1) any existing traffic problems that may not be directly related to level of service and (2) any locations where the level of service analysis does not accurately reflect existing traffic conditions.

The study intersections nearest to the project site operate well during the peak hours of traffic, and the level of service analysis reflects actual existing traffic conditions accurately.

Intersections Along Broadway

The study intersections along Broadway see relatively large traffic volumes to or from US 101. The close spacing of the intersections results in spill backs, vehicles not clearing in one signal cycle, and turning vehicles occasionally blocking through lanes. Although Broadway experiences long vehicular queues on the westbound approach at Rollins Road, the other movements at this intersection have short back-ups, and the overall intersection weighted average delay calculates to LOS D. The westbound through volumes on Broadway frequently backs up on the overpass resulting in extended wait times for vehicles attempting to access the US 101 southbound on ramp.

Rollins Road and Cadillac Way

Northbound vehicles at the intersection of Rollins Road and Cadillac Way were not all able to clear the intersection in one signal cycle. Approximately seven to eight out of observed queues of about 10 vehicles were able to clear the queue under both the AM and PM peak hours. The other movements at the intersection cleared in one cycle, so the overall weighted average delay calculates to LOS D.

Carolan Avenue and Oak Grove Avenue

The intersection of Carolan Avenue and Oak Grove Avenue was observed to experience short durations of severe congestion during the AM peak hour due to traffic associated with Burlingame High School. The school is located at the southeast corner of the intersection and vehicles on northbound Carolan Avenue were observed to queue past the school exit drive on Carolan Avenue (more than 25 cars). The westbound approach on Oak Grove Avenue had a queue length of approximately eight to 10 cars, and the southbound approach on Carolan Avenue was observed to have a queue length of approximately eight to 10 cars in each of the lanes. These queues were observed to occur over a period of 20 minutes around the start of school. The queues dissipated fairly quickly once school started and the intersection resumed operating at acceptable conditions without any significant delays.

During the PM peak hour, vehicular queues of approximately 15 to 20 cars were observed in the right turn lane on southbound Carolan Avenue. These queues primarily occurred when the railroad gate on Oak Grove Avenue between California Drive and Carolan Avenue came down. The southbound queue in the right-turn lane on Carolan Avenue cleared fairly quickly once the railroad gate opened and the signal turned green for the westbound approach on Oak Grove Avenue at California Drive. Thus, this intersection currently operates with LOS F conditions for the worst approach during portions of both the AM and PM peak hours. However, since the delays occur during short intervals of the peak hour periods and do not persist for the entire hour, the overall weighted average delay calculates to LOS B at this intersection.

2.2.1.4 Baseline Conditions

As described in Table 2.2-3 above, baseline conditions represent traffic volumes that would exist with the completion of the nearby US 101/Broadway Interchange Reconstruction and the Carolan Avenue Complete Streets projects. The baseline condition is analyzed because these projects would be constructed and fully operational prior to the completion of the proposed project. As a result, these improvements would change the existing conditions over the course of the project's environmental review, which means that the physical conditions at the start of the project's environmental review (i.e., existing conditions) would not be representative of the actual conditions at the time the project is completed (i.e., baseline conditions).

Baseline Transportation Network

It is assumed that the transportation network under baseline conditions would be the same as the existing transportation network with the exception of the US 101/Broadway Interchange Reconstruction and Carolan Avenue Complete Street projects. The intersection lane configurations at some of the study intersections would change with the completion of these two projects (refer to Appendix C for information about the lane configuration changes).

US 101/Broadway Interchange Reconstruction Project

The interchange reconfiguration would consist of a new seven-lane Broadway overcrossing. Broadway would be realigned to extend straight across US 101 from the Broadway/Rollins Road intersection on the west to the Bayshore Highway/Airport Boulevard intersection on the east; the northern terminus of Airport Boulevard would be moved approximately 100 feet north to meet the new overcrossing. The existing pedestrian overcrossing just south of Broadway would be retained and additional pedestrian and bicycle improvements would be provided at the interchange. The interchanges improvements are currently under construction and would be completed before the occupation of the proposed project (estimated to be at the end of 2018/beginning of 2019). The intersection reconfiguration is shown in Figure 2.2-4.

Carolan Avenue Complete Streets Project

The Carolan Avenue Complete Streets project would reconfigure Carolan Avenue from a four-to two-lane street, with one lane in each direction and a center-turn lane. Other improvements include Class II Bicycle lanes on both sides of Carolan Avenue between Broadway and Oak Grove Avenue. Class II bike lanes are separated from other traffic modes and intended solely for bicyclists. Onstreet parking would be retained with the Complete Streets Project.

Baseline Intersection Levels of Service

The results of the intersection LOS analysis under baseline conditions are summarized in Table 2.2-5 below. The results show that all study intersections would be improved to LOS C or better during both peak hours with the interchange improvements, except for the intersection of California Drive and Broadway. This intersection would continue to operate at an unacceptable LOS E during the AM peak hour period with the proposed interchange improvements at US 101/Broadway. Additional information about baseline levels of service, including the level of service calculation sheets, is included in Appendix C of this EIR.

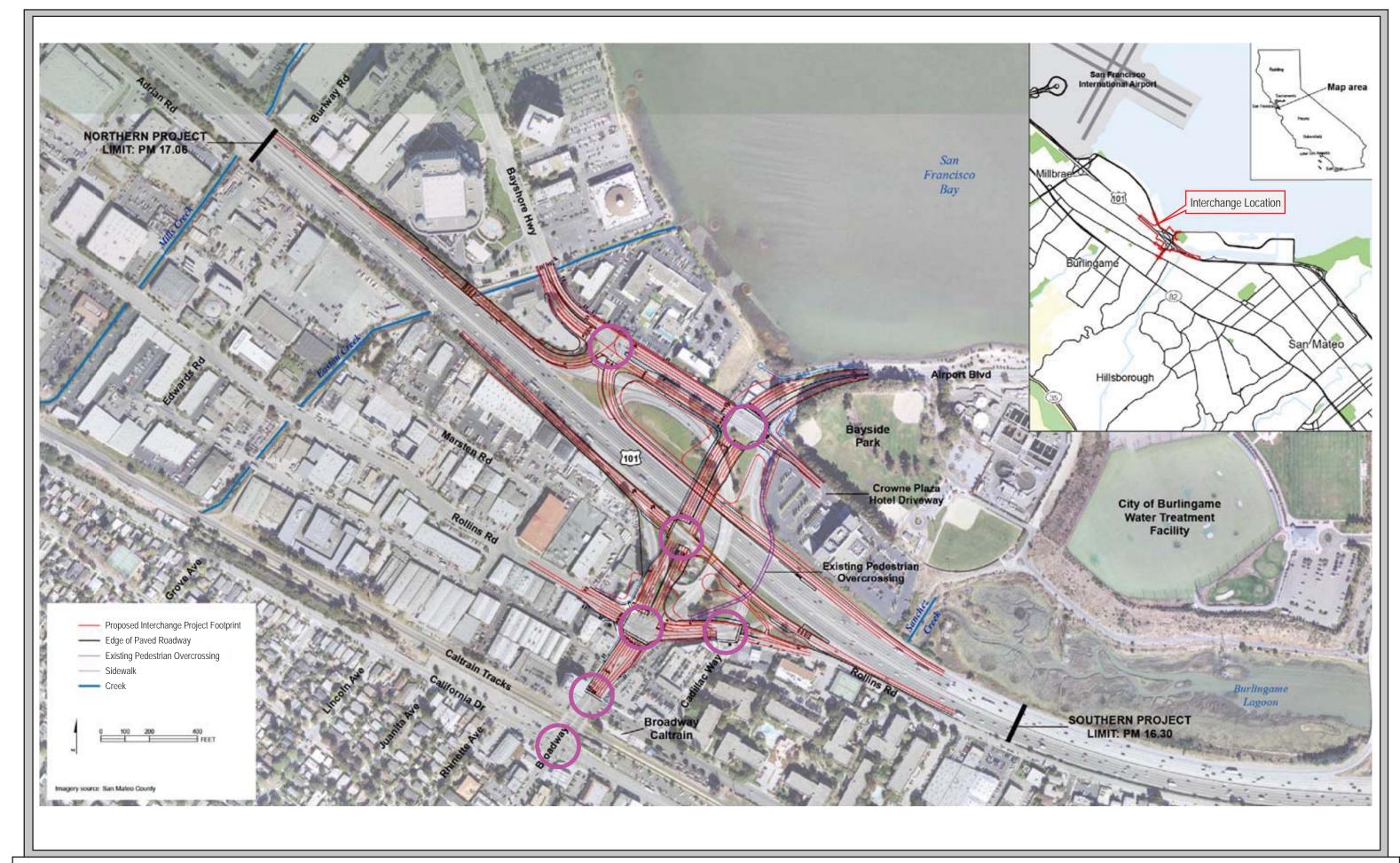


Table 2.2-5: Existing and Baseline Intersection Levels of Service

	Study Intersection	Peak	Existing Con	nditions	Baseline Conditions		
	Study Intersection	Hour	Average Delay (sec.) ^{3,4}	LOS	Average Delay (sec.) ^{3,4}	LOS	
1	US 101 NB Ramps &	AM	14.9	B	19.0	B	
	Bayshore Hwy.	PM	10.9	B	19.7	B	
2	Broadway/Airport Blvd.	AM	17.2	B	10.3	B	
	& Bayshore Hwy.	PM	11.0	B	12.2	B	
3	US 101 SB Ramps &	AM	0.0	A	22.7	C	
	Broadway ¹	PM	0.0	A	26.1	C	
4	Rollins Road &	AM	37.0	D	32.6	C	
	Broadway	PM	40.4	D	34.7	C	
5	Rollins Road &	AM	37.3	D	18.9	B	
	Cadillac Way	PM	38.3	D	8.5	A	
6	Rollins Road &	AM	13.2	B	n/c	n/c	
	Toyon Drive*	PM	15.9	C	n/c	n/c	
7	Carolan Avenue &	AM	29.7	C	n/c	n/c	
	Broadway	PM	42.1	D	n/c	n/c	
8	Carolan Avenue &	AM	20.6	C	n/c	n/c	
	Cadillac Way*	PM	17.5	C	n/c	n/c	
9	California Drive & Broadway	AM PM	60.2 52.8	E D	n/c n/c	n/c n/c	
10	Chula Vista Venue &	AM	14.1	B	n/c	n/c	
	Broadway*	PM	15.2	C	n/c	n/c	
11	Carolan Avenue & Oak Grove Avenue* ²	AM PM	14.7 11.8	B B	n/c n/c	n/c n/c	
12	California Avenue &	AM	34.6	C	n/c	n/c	
	Oak Grove Avenue	PM	25.0	C	n/c	n/c	

Notes:

n/c – No Change between existing and baseline conditions

^{*} Denotes an unsignalized intersection

¹ Currently this intersection is uncontrolled with no conflicting traffic movements. With the completion of the proposed US 101/Broadway Interchange Reconstruction project, this intersection will be signalized.

² Due to software limitations, this intersection was analyzed as an all-way stop (not as a three-way stop). Delay shown is the weighted average delay for all turning movements approaching the intersection.

³ Delay shown for the signalized intersections is the weighted average control delay for all turning movements approaching the intersection.

⁴ Delay shown for one-way and two-way stop controlled unsignalized intersections is the worst delay experienced by vehicles on the minor street approach and the delay shown for all-way stop controlled intersections is the average delay per vehicle of all vehicles approaching the intersection.

2.2.2 Transportation Impacts

2.2.2.1 Thresholds of Significance

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

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness
 for the performance of the circulation system, taking into account all modes of transportation
 including mass transit and non-motorized travel and relevant components of the circulation
 system, including but not limited to intersections, streets, highways and freeways, pedestrian
 and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to
 level of service standards and travel demand measures, or other standards established by the
 county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Intersection Impact Criteria

Significance criteria are used to establish what constitutes an impact. For the purposes of this EIR, the criteria used to determine significant impacts on signalized intersections are based on City of Burlingame LOS standards.

<u>Definition of Significant Signalized Intersection Impacts</u>

The City of Burlingame does not have Council-adopted definitions of significant traffic impacts. The following standards typically have been used in traffic studies and EIRs. The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of Burlingame if for any peak-hour:

- 1. The level of service at the intersection degrades from an acceptable LOS D or better under baseline conditions to an unacceptable LOS E or F under baseline plus project conditions; or
- 2. The level of service at the intersection is an unacceptable LOS E or F under baseline conditions and the addition of project trips causes average delay at the intersection to increase by five (5) or more seconds.

Definition of Significant Unsignalized Intersection Impacts

The City of Burlingame does not have any definitions or thresholds for significant traffic impacts at unsignalized intersections; however, previous traffic studies completed in the City of Burlingame have stated that a project would result in significant adverse impacts on traffic conditions at an unsignalized intersection with an unacceptable level of service (LOS E or F) if the project adds at least 10 trips total for any peak hour.

2.2.2.2 Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets. These procedures are summarized below and described in more detail in Appendix C of this EIR.

Trip Generation

Peak hour trip generation estimates for the proposed project are based on trip rates obtained from the Institute of Transportation Engineers' (ITE) publication *Trip Generation* (9th Edition, 2012). It is estimated that the proposed project would generate 151 AM peak hour trips and 182 PM peak hour trips on a regular weekday.

The existing businesses on-site are currently generating vehicular trips, which would no longer occur if the project were approved and implemented. Based on the driveway counts, existing uses on-site generate an average of 59 trips during the AM peak hour and 82 trips during the PM peak hour.⁵

Trips generated by existing uses were subtracted from the gross project trip generation estimates to determine the net trips that would be added to the roadway network. After receiving credit for trips generated by existing uses on-site, the project is expected to generate a total of 92 net new AM peak hour trips and 100 net new PM peak hour trips (refer to Table 2.2-6).

Trip Distribution Pattern and Trip Assignment

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. The trip distribution patterns for the proposed project are included in Appendix C of this EIR.

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⁵ It was observed that the existing businesses frequently moved their vehicles within the site via the existing driveways. These internal trips were excluded from the driveway counts.

	Dwelling	AM Peak Hour			PM Peak Hour			
	Units	In	Out	Total	In	Out	Total	
		P	roposed Uses	S				
Apartment ¹	268	27	109	136	107	58	165	
Townhomes ²	22	3	12	15	12	5	17	
Total	Project Trips	30	121	151	119	63	182	
		F	Existing Uses ³					
Rollins Road Driveways	1	13	6	19	8	16	24	
Carolan Avenue Drivew	ays	21	19	40	29	29	58	
Total H	Existing Trips	34	25	59	37	45	82	
NET PROJ (Project Trips – Ex	ECT TRIPS isting Trips)	-4	96	92	82	18	100	

Sources/Notes:

2.2.2.3 Baseline Plus Project Conditions

Baseline Plus Project Transportation Network

It is assumed that the transportation network under baseline plus project conditions would be the same as the baseline transportation network described in *Section 2.2.1.3*.

Baseline Plus Project Traffic Volumes

The net peak hour trips for the project were added to the baseline traffic volumes to obtain baseline plus project traffic volumes. Refer to Appendix C of this EIR for a tabulation of the baseline plus project traffic volumes.

Baseline Plus Project Intersection Levels of Service

CEQA Guidelines Section 15125(a) states that the existing environmental setting (i.e., existing traffic conditions in the case of a traffic analysis) will normally constitute the baseline physical conditions against which the impacts of a project are to be evaluated. The courts have held that a lead agency has the discretion to use an alternate baseline, as long as the exercise of discretion is supported by substantial evidence. For the analysis of traffic impacts, the City of Burlingame uses an alternate baseline, which includes projected traffic from approved but not yet constructed or occupied projects in addition to existing conditions. The purpose of identifying this alternative baseline condition to existing conditions for calculating impacts is to ensure that all possible care is taken to identify the actual capacity of the roadways that will be available to accommodate any newly proposed

¹ Apartment (220) ITE Trip Generation, 9th Edition, regression equations.

² Residential Condominium Townhouse (230) ITE Trip Generation, 9th Edition, regression equations.

³ Driveway counts for the existing automobile related businesses were based on the average trips counted on 12/18/2013, 1/10/14, and 1/14/14

development project. This methodology also more accurately characterizes the real world conditions under which the newly proposed project would be implemented, should it be approved.

The results of the intersection LOS analysis under baseline plus project conditions are summarized in Tables 2.2-7 and 2.2-8 and show that all of the study intersections would operate at an acceptable LOS C or better during the AM and PM peak hours of traffic, except for the intersection of California Drive and Broadway (see Table 2.2-7 below). This intersection would continue to operate at an unacceptable LOS E during the AM peak hour with the addition of project traffic. The addition of project traffic at this intersection, however, would not create a significant impact because the weighted average delay per vehicle would increase by only 0.4 seconds, which is less than the City's four second threshold for a significant impact. Note that the intersection of Rollins Road and Cadillac Way shows an improvement with the increased traffic from the project. This can happen when traffic is added to intersection turning movements that have low delay: the overall weighted average delay can improve.

None of the study intersections would be significantly impacted with the implementation of the proposed project. (Less Than Significant Impact)

Table 2.2-7: Baseline and Baseline Plus Project Intersection Levels of Service – Signalized Intersections

Study Intersection		Peak	Baseline (Condition	Baseline Plus Project Condition			
		Hour	Average Delay (sec.) ¹	LOS	Average Delay (sec.) ¹	LOS	Increase in Avg. Delay	
1	US 101 NB Ramps & Bayshore Hwy.	AM PM	19.0 19.7	B B	19.1 20.0	B B	+0.1 +0.3	
2	Broadway/Airport Blvd. & Bayshore Hwy.	AM PM	10.3 12.2	B B	10.3 12.2	B B	0.0 0.0	
3	US 101 SB Ramps & Broadway ²	AM PM	22.7 26.1	C C	22.7 26.2	C C	0.0 +0.1	
4	Rollins Road & Broadway	AM PM	32.6 34.7	C C	33.9 34.7	C C	+1.3 0.0	
5	Rollins Road & Cadillac Way	AM PM	18.9 8.5	B A	18.3 8.3	B A	-0.6 -0.2	
7	Carolan Avenue & Broadway	AM PM	29.7 42.8	C D	30.1 42.6	C D	+0.4 +0.5	
9	California Drive & Broadway	AM PM	60.2 52.8	E D	60.3 52.9	E D	+0.1 +0.1	

Table 2.2-7: Baseline and Baseline Plus Project Intersection Levels of Service – Signalized Intersections

Study Intersection		Peak	Baseline (Condition	Baseline Plus Project Condition		
		Hour	Average Delay (sec.) ¹	LOS	Average Delay (sec.)1	LOS	Increase in Avg. Delay
12	California Avenue & Oak Grove Avenue	AM PM	34.6 25.0	C C	34.9 25.4	C C	+0.3 +0.4

Notes:

BOLD text indicates an unacceptable LOS.

Table 2.2-8: Baseline and Baseline Plus Project Intersection Levels of Service – Unsignalized Intersections

Study Intersection		Peak	Baseline Condition		Baseline Plus Project Condition		
		Hour	Average Delay (sec.)1	LOS	Average Delay (sec.)1	LOS	Added Vehicles ³
6	Rollins Road & Toyon Drive (one-way stop)	AM PM	13.2 15.9	B C	13.2 16.0	B C	3 3
8	Carolan Avenue & Cadillac Way (one- way stop)	AM PM	20.6 17.5	C C	21.5 18.0	C C	25 27
10	Chula Vista Venue & Broadway (two-way stop)	AM PM	14.1 15.2	B C	14.2 15.4	B C	10 10
11	Carolan Avenue & Oak Grove Avenue (three-way stop) ²	AM PM	14.7 11.8	B B	15.0 12.2	B B	23 25

Notes:

¹ Delay shown for the signalized intersections is the weighted average control delay for all turning movements approaching the intersection.

² Currently, this intersection is uncontrolled with no conflicting traffic movements. With the proposed US 101/Broadway Interchange improvements, this intersection would be signalized.

¹ Delay shown for one-way and two-way stop controlled unsignalized intersections is the worst delay experienced by vehicles on the minor street approach and the delay shown for all-way stop controlled intersections is the average delay per vehicle of all vehicles approaching the intersection.

² Due to software limitations, this intersection was analyzed as an all-way stop (not as a three-way stop). Delay shown is the weighted average delay for all turning movements approaching the intersection.

³ The number of vehicles the project adds to the intersection.

2.2.2.4 Vehicular Access

Vehicular access to the project would be provided via driveways on Rollins Road and Carolan Avenue. Vehicular access to the arrival court (refer to Figure 1.3-1) would be provided via Carolan Avenue. There is also a gated private lane on the southern boundary of the project site for townhouse residents, garbage trucks, utility vehicles, and emergency vehicles. The private lane connects Carolan Avenue and Rollins Road, and is accessible from either side. An emergency access road and pedestrian walkway would connect the arrival court to Rollins Road.

Parking for the apartment units is proposed in a podium parking garage located on the ground floor and in the subterranean level of the apartment building. Vehicles would be able to access the parking garage via one driveway on Carolan Avenue and one driveway on Rollins Road. There would also be five at-grade guest parking spots for visitors located on the driveway leading to the arrival court. Loading and unloading for the apartment units would occur in the arrival court. The proposed townhouse units would each include a private parking garage.

It is anticipated that the Carolan Avenue Complete Streets project would be completed before the occupancy of the proposed project. As previously discussed, Carolan Avenue would be reconfigured to consist of two lanes, with one lane in each direction and a center-turn lane. Driveway operations on Carolan Avenue are expected to improve with the implementation of the Complete Streets project. With the implementation of the proposed center-turn lane, vehicles exiting the project can turn left into the turn-lane on Carolan Avenue before merging into southbound traffic; in addition, vehicles travelling southbound on Carolan Avenue turning left into the parking garage can wait in the center turn-lane to find gaps in the northbound traffic on Carolan Avenue without impeding southbound through traffic. (Less Than Significant Impact)

2.2.2.5 *Parking*

For duplexes, apartments, and condominiums, the City of Burlingame Municipal Code requires at least one and one-half permanently maintained parking spaces on the same lot for studio and one-bedroom dwelling units, at least two parking spaces for two-bedroom units, and 2.5 parking spaces for three or more bedroom units. In addition, at least three guest parking spaces should be provided for residential condominiums (or townhouses) with more than 15 dwelling units.

Based on the requirements set forth by the City of Burlingame Municipal Code, the proposed project would require a total of 521 parking spaces (466 parking spaces for the apartment units and 55 parking spaces for the townhouses). The project proposes to provide 466 parking spaces for the apartments and 58 parking spaces for the townhouses on-site. The project, therefore, would meet the City's parking requirements.

According to the conceptual site plan, a total of 462 parking spaces are provided for the apartments in the podium parking garage. All parking in the garage would be gated except for 27 parking spaces in the upper garage level that would be available to short-term visitors. In addition to the parking provided in the garage, four at-grade parking spaces would be provided for the apartments that could be accessed via the entryway on Carolan Avenue.

A total of 58 parking spaces would be provided for the townhouses. Two-bedroom townhouses would each have an attached two-car garage and townhouses with three or more bedrooms would each have an attached three-car garage. In addition, six at-grade parking spaces would be provided for short-term visitors to the townhouses that could be accessed via the secondary entryway on Carolan Avenue.

The proposed community room would typically be used by residents as a shared work space; however, the community room could also be used by residents and their guests, or by eligible community groups, for small parties or meetings. Guests using the Community Room would use the at-grade parking spaces provided at the entryway on Carolan Avenue or the guest parking spaces in the upper garage level; additional street parking is also available on Carolan Avenue. It is anticipated that events held at the Community Room would occur on an intermittent basis. Normally, the Community Room would be used by residents as a shared work space; when used by community members, it would function in a similar manner. For these reasons, the proposed Community Room would be served by adequate parking. Table 2.2-9 summarizes the amount of parking spaces required and proposed.

In addition, the project proposes a bike repair/storage room that would accommodate 134 bicycles in the lower garage level. The City does not have standards for bike parking in residential projects; therefore, these facilities would exceed the City's requirements.

Based on the above discussion, because the project would meet or exceed the City's parking requirements, the project would not result in significant impacts from parking. (Less Than Significant Impact)

	Municipal Code Parking Ratio Required	Number of Units	Required Spaces	Proposed Spaces	Project Meets City's Parking Requirement?	
Apartments						
1 bedroom	1.5	149	224	224	Yes	
2 bedroom	2	111	222	222		
3 bedroom	2.5	8	20	20		
	Total Spaces		466	466		
		Townho	uses			
2 bedroom	2	6	12	12		
3 bedroom	2.5	8	20	20		
3+ bedroom	2.5	8	20	20	Yes	
Guest			3	6		
	Total Spaces	•	55	58		

One of the primary concerns raised at the EIR Scoping meeting was parking, specifically whether the project would be adequately parked to accommodate total demand. Nearby residents expressed concern about potential spillover parking onto the adjacent residential streets. Typically, parking is an environmental issue that must be discussed in an EIR if a parking shortfall results in secondary

effects, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space.

As discussed above, based on the City's parking requirements, the project would be adequately parked. The project, therefore, would not result in a parking shortfall or significant secondary effects such as air quality and noise effects. To further address the community's concern, and while beyond the minimum requirements of CEQA, a parking study of similar, existing developments in the area was completed. A summary of the parking study is provided below and a copy of the complete parking study is included in Appendix C of this EIR.

A parking study was completed by *Hexagon Transportation Consultants*, *Inc.* in October 2014. The purpose of the parking study was to survey existing apartment complexes to determine the ratios of parked cars to units and to bedrooms in actual, built examples with similar characteristics to the project. The following four apartment complexes that are comparable to the project in terms of scale and amenities and have been constructed within the last 15 years in San Mateo County were surveyed:

- 1. The Plaza located at 1 Plaza View Lane in Foster City;
- 2. Avalon San Bruno located at 1099 Admiral Court in San Bruno;
- 3. Archstone San Mateo Apartments located at 1101 Park Plaza in San Mateo; and
- 4. Metropolitan Apartments located at 339 S. Fremont Street in San Mateo.

A map showing the location of these developments in relation to the project site is provided in Appendix C of this EIR. During the week of the parking survey, the existing apartment complexes were 90-95 percent occupied. According to industry standards, a 95 percent occupancy rate is considered fully occupied due to apartment turnover. Parking occupancy counts were completed after midnight to ensure peak residential parking demand. Results of the parking survey are summarized in Table 2.2-10 below. Additional detail regarding the parking survey, including count dates, unit breakdown, and total parking spaces is provided in Appendix C.

The data in Table 2.2-10 shows that the existing apartment complexes are adequately parked and the supply of off-street parking exceeded the total parking demand. Based on the project's ratio of total parking provided and the number of bedrooms proposed (1.19) compared to the average ratio of occupied parking spaces to bedrooms of the existing apartment complexes surveyed (0.83), the project is anticipated to be adequately parked and could have a parking surplus on-site.

Table 2.2-10: Summary of Parking Study for Informational Purposes Only Existing, Comparable Apartment Complexes Proposed						
	The Plaza	Avalon San Bruno	Metropolitan Apartments	Archstone San Mateo	Average	Proposed Project (Apartments Only)
Total Units	307	672	218	575		268
Total Bedrooms	483	1,116	333	1,022		393
Total Parking Spaces	729	1,223	507	1,153		466

Average Occupied Parking Spaces	421	918	302	730		n/a
Average % Occupied	58	75	60	63	64	n/a
Average Ratio of <i>Occupied</i> Parking Spaces to Units	1.37	1.37	1.39	1.27	1.35	n/a
Ratio of Total Parking Spaces to Bedrooms	1.51	1.10	1.52	1.13	1.32	1.19
Average Ratio of <i>Occupied</i> Parking Spaces to Bedrooms	0.87	0.82	0.91	0.71	0.83	n/a

2.2.2.6 Impacts to Pedestrian and Bicycle Facilities

Most of the roadways in the project vicinity have sidewalks on both sides of the street, with the exception of Rollins Road which only has sidewalks on the west side of the road. Crosswalks with pedestrian signal heads and push buttons are present at all signalized intersections in the project area. The unsignalized intersection of Oak Grove Avenue/Carolan Avenue has painted crosswalks on the north, south, and east legs. As described in *Section 1.3 Project Description*, the project proposes new sidewalks, curbs, and gutters on Carolan Avenue and Rollins Road along the project site frontage. New, 36-inch box street trees are proposed to be planted along Carolan Avenue and Rollins Road in the planting strip between the sidewalk and curb along the project site frontages.

Pedestrian traffic generated by the proposed project would primarily consist of residents walking to and from nearby transit stops, schools, and businesses. The proposed project would not conflict with or decrease the performance or safety of existing or planned pedestrian facilities.

The Burlingame Bicycle Route Map identifies Bayshore Highway, Airport Boulevard, Broadway (east of California Drive), Rollins Road (north of Broadway), and California Drive as official bike routes. There is an existing a Class I Bikeway on the Broadway/US 101 overcrossing. The Carolan Avenue Complete Streets project would add a Class II Bicycle lanes in both directions on Carolan Avenue between Broadway and Oak Grove Avenue. East of the interchange, Airport Boulevard has a shared sidewalk and bike path (the Bay Trail). Airport Boulevard has bike lanes on both sides between the intersection with the eastern touchdown of the Broadway overcrossing/US 101 northbound on-ramp and the southern Burlingame City limits near the Peninsula Avenue interchange. As described in *Section 1.3 Project Description*, the project proposes to construct bicycle amenities, including 134 secured bicycle parking spaces for apartment/townhouse residents, 10 guest bicycle parking spaces, and a bicycle repair shop. The bicycle demand created by the proposed project would not result in adverse impacts to existing or planned bicycle facilities.

Based on the above discussion, the project would not result in significant impacts to pedestrian or bicycle facilities. (Less Than Significant Impact)

2.2.2.7 Impacts to Transit Service

Transit service in the project vicinity is provided by BART (via shuttle service from the Broadway Caltrain Station), Caltrain, and Samtrans. Although only weekend Caltrain service is currently available at the Broadway Station, free shuttle service to the nearby Millbrae and Burlingame stations

is provided during weekdays. Given the existing transit service in the project area, the existing transit facilities would be adequate to serve the project's estimated transit demand. For these reasons, the proposed project would not have a significant impact on transit services or facilities. (Less Than Significant Impact)

2.2.2.8 Other Transportation Impacts

Air Traffic Patterns

As discussed in *Sections 2.1 Land Use* and *2.9 Hazards and Hazardous Materials*, the proposed project would not affect air traffic pattern or result in substantial aviation-related safety risks. (**No Impact**)

Sight Distance and Emergency Vehicle Access

Adequate sight distance reduces the likelihood of a collision at a driveway and provides drivers with the ability to safely exit a driveway or locate sufficient gaps in traffic. Based on review of the conceptual site plan, the project driveways would be free and clear of any obstructions, thereby ensuring that existing vehicles can see pedestrians on the sidewalk and other vehicles traveling on Carolan Avenue and Rollins Road. The proposed parking garage grade transition and ramp break are flat to allow a level exit approach onto Carolan Avenue, which allows for maximum visibility.

The design of the project would comply with the City's standards for emergency vehicle access (including providing adequate points of access, vertical clearance, and turning radius) and therefore, would not result in inadequate emergency access.

Based on the discussion above, the proposed project would not result in a substantial hazard from a design feature or inadequate emergency vehicle access. (Less Than Significant Impact)

2.2.2.9 Consistency with Applicable Plans, Policies, and Regulations

San Mateo County Congestion Management Program

As discussed previously, traffic analysis for the project was completed in accordance with the CMP guidelines, standards, and methodologies. In addition, the study intersections are not CMP designated intersections. The project, therefore, would not significantly impact any CMP intersections. The project is consistent with the San Mateo CMP.

2.2.3 Conclusion

The proposed project would not result in significant transportation impacts. (Less Than Significant Impact)

2.3 NOISE AND VIBRATION

This discussion is based on noise assessments completed for the project by *Charles M. Salter Associates Inc.* in March 2014 and *Illingworth & Rodkin, Inc.* in September 2014. *Illingworth & Rodkin* peer reviewed the noise assessment by *Charles M. Salter Associates Inc.* and incorporated applicable information and data from the report into their September 2014 noise assessment. Copies of these reports are provided in Appendix D.

2.3.1 Setting

2.3.1.1 Background Information

Fundamentals of Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level (dBA). 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, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called $L_{\rm eq}$. The most common averaging period is hourly, but $L_{\rm eq}$ can describe any series of noise events of arbitrary duration. Another noise measurement is $L_{\rm max}$, which is defined as the maximum A-weighted noise level during a measurement period.

Since the sensitivity to noise increases during the evening and at night (because excessive noise interferes with the ability to sleep), 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a five dB penalty added to evening (7:00 PM - 10:00 PM) and a 10 dB addition to nocturnal (10:00 PM - 7:00 AM) noise levels. The Day/Night Average Sound Level (L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period. The discrepancy between L_{dn} and CNEL is generally one dBA or less and, therefore, is assumed to be negligible for the purposes of this analysis.

Fundamentals of 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. This discussion uses Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. A PPV descriptor with units of millimeters per second (mm/sec) or inches per second (in/sec) are used to evaluate construction generated vibration for building damage and human complaints.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic (e.g., minor cracking of building elements), or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

Additional information on the fundamentals of noise and vibration are included in Appendix D.

2.3.1.2 Regulatory Framework

Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport

As discussed in more detail in *Section 2.1 Land Use*, the project site is located within the Airport Influence Area (AIA) of the San Francisco International Airport (SFO). Properties within the AIA may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (e.g., noise, vibration, and odors). The airport/land use compatibility of a proposed development or land use policy action shall be determined by comparing the proposed development or land use policy action with the safety compatibility criteria, noise compatibility criteria, and airspace protection/height limitation criteria in the ALUCP.

Properties located within the 65 dB CNEL aircraft noise contour for SFO warrant land use controls to promote noise compatibility. The project site is not located within SFO's 65 dB CNEL aircraft noise contour.

2014 State Building Code, Title 24, Part 2

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room.

City of Burlingame General Plan

The Noise Element of the General Plan sets forth noise and land use compatibility standards to guide development, and noise goals and policies to protect citizens from the harmful and annoying effects of excessive noise. According to the General Plan, suitable outdoor noise levels for residential land uses ranges up to 60 dBA CNEL and the indoor noise level for residential land uses is 45 dBA CNEL or lower.

The General Plan also identifies recommended noise emission standards for construction equipment operating within the City, which are summarized in Table 2.3-1. The General Plan states that no construction noise shall be emitted past the property line so as to create a noise level increase of more than five dBA L_{max} above the ambient L_{max} noise level.

The Noise Element of the City's General Plan contains policies, recommendations, and actions to avoid or mitigate land use impacts resulting from development within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description
Policy N(C)	Achieve a peaceful acoustic environment in portions of the City to be developed.

City of Burlingame Municipal Code

The Building Construction Section of the Municipal Code establishes daily hours for construction in the City of Burlingame. Chapter 18.07.110 states that no person shall erect, demolish, alter, or repair any building or structure other than between the hours of 7:00 AM and 7:00 PM on weekdays, 9:00 AM and 6:00 PM on Saturdays, and 10:00 AM and 6:00 PM on Sundays and holidays, except under circumstances of urgent necessity in the interest of public health and safety. An exception must be approved in writing by the building official and shall be granted for a period of no more than three days for projects including structures with a gross floor area of less than 40,000 square feet; when reasonable to accomplish the erection, demolition, alteration, or repair, the exception shall not exceed 20 days for projects including structures with a gross floor area of 40,000 square feet or greater.

2.3.1.3 Existing Conditions

The project site is bounded by Carolan Avenue to the west, Rollins Road to the east, and residences to the north and south. Railroad tracks are located on the west side of Carolan Avenue and US 101 is located on the east side of Rollins Road. There is an existing, 16-foot tall soundwall on the west side of US 101, which terminates at the southern boundary of the project site.

The noise environment in the project area results primarily from vehicular traffic along US 101 and the surrounding

Table 2.3-1: General Plan Maximum Allowable Noise Levels from Construction Equipment

Fauinment	Peak Noise Level in				
Equipment	dBA at 50 feet				
Earthmoving					
Front loader	75				
Backhoes	75				
Dozers	75				
Tractors	75				
Scrapers	80				
Graders	75				
Trucks	75				
Paver	80				
Material	s Handling				
Concrete mixer	75				
Concrete pump	75				
Crane	75				
Derrick	75				
Stat	ionary				
Pumps	75				
Generators	75				
Compressors	75				
In	npact				
Pile drivers	95				
Jackhammers	75				
Rock drills	80				
Pneumatic tools	80				
0	ther				
Saws	75				
Vibrator	75				

local roadways, as well as occasional train traffic along the Caltrain tracks located to the west of the project site and airplane flyovers from SFO, which is approximately 1.5 miles to the north of the project site.

Long-term noise measurements (24-hours) were taken to quantify the existing day/night average noise levels at the site. The average day/night noise levels on-site ranged from 63 to 78 dBA L_{dn} with the higher levels nearest Rollins Road/US 101 and Carolan Avenue/railroad tracks. The average day/night noise level was 63 dBA near the southern property boundary. Short-term noise measurements were also taken to confirm the long-term noise measurements. Additional detail, including the noise measurement locations and noise levels measured, are included in Appendix D of this EIR.

2.3.2 Noise and Vibration Impacts

2.3.2.1 Thresholds of Significance

For the purposes of this EIR, 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;
- 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, based on typical practice, are used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan.
- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Groundborne 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 dBA CNEL or greater, with a future noise level of less than 60 dBA CNEL, or b) the noise level increase is three dBA CNEL or greater, with a future noise level of 60 dBA CNEL 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 $60~\mathrm{dBA}~\mathrm{L_{eq}}$, and the ambient by at least five dBA $\mathrm{L_{eq}}$, for a period of more than one year would constitute a significant temporary noise increase at adjacent residential land uses.

As described in *Section 1.3 Project Description*, the project proposes to extend the existing soundwall along US 101 to the northern point of the project site and construct a six-foot tall acoustic glass fence along the north side of the Central Courtyard. Figure 2.3-1 shows the location of the proposed acoustic glass fence at the Central Courtyard.

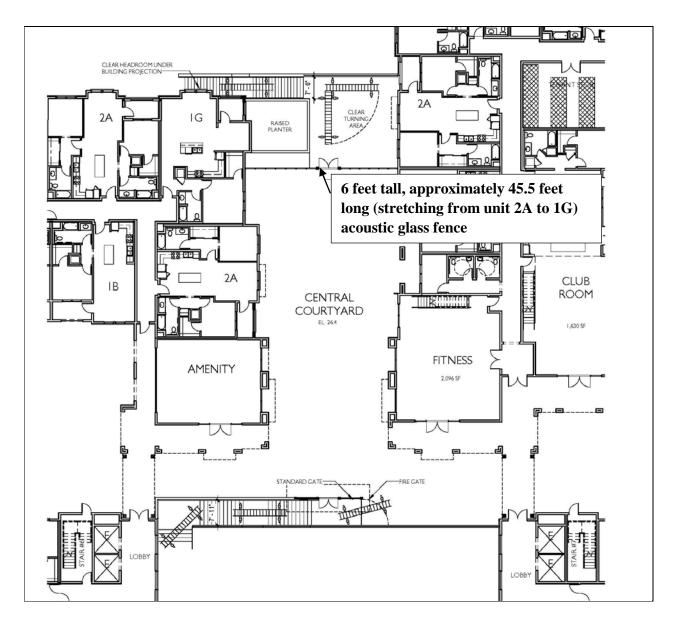


FIGURE 2.3-1: LOCATION OF PROPOSED SIX-FOOT TALL ACOUSTIC GLASS FENCE AT THE CENTRAL COURTYARD

2.3.2.2 Noise Impacts to the Project

Exterior and Interior Noise Impacts

Exterior Noise Impacts

The main source of noise environment at the project site would continue to be vehicular traffic along Carolan Avenue, Rollins Road, and US 101, in addition to Caltrain traffic along the railroad tracks. Based on the traffic analysis completed for the project, future traffic volumes would result in a one dBA L_{dn} increase at the project site.

An exterior noise impact would occur on the project site if noise levels exceed 60 dBA CNEL in a common outdoor area. Common outdoor use areas for the proposed project consist of the west, central, and east courtyards (refer to Figure 1.3-1). The west and east courtyards would be surrounded by buildings from the proposed project and, as a result, the calculated noise levels would be less than 60 dBA L_{dn} at these locations, which meets the City's General Plan exterior noise goal of 60 dBA CNEL.⁶ The central courtyard, however, would have a direct line-of-sight to Carolan Avenue and would be exposed to a future noise level of 66 dBA L_{dn}, which would exceed the General Plan exterior noise goal. The six-foot tall acoustic glass fence along the north side of the courtyard could reduce exterior noise levels within the central courtyard, if properly specified.

The proposed apartment units facing Carolan Avenue and Rollins Road would be exposed to the highest exterior noise levels. Along Carolan Avenue, the future exterior noise levels at the street-facing units would be approximately 72 dBA $L_{\rm dn}$. Some of the apartment units facing the northern boundary of the project site would not have direct line-of-sight to the roadways due to shielding provided by the existing Northpark Apartment complex. The worst-case future exterior noise levels at the units with direct line-of-sight to Carolan Avenue would range from approximately 66 to 76 dBA $L_{\rm dn}$.

The proposed townhouse units located along the southern boundary of the site would receive shielding from the row of existing residences adjacent to the project site on Toyon Drive, as well as partial shielding from the existing 16-foot soundwall along US 101. The future exterior noise levels at these units would range from below 60 dBA L_{dn} at the interior units to either 72 dBA L_{dn} at the Carolan Avenue corner unit or 76 dBA L_{dn} at the Rollins Road corner unit.

The height of the proposed soundwall extension would be 16 feet, similar to the existing soundwall located south of the project site. While the proposed soundwall extension would shield the project site from the traffic along US 101, the project site would still be exposed to traffic along Rollins Road. The contribution of traffic noise from Rollins Road, however, is relatively insignificant compared to the traffic noise from US 101. Future exterior noise levels measured at units facing Rollins Road would be approximately 70 to 71 dBA L_{dn} at the first and second floors. Since the proposed building height along Rollins Road is approximately 61.5 feet, the 16-foot proposed soundwall extension would only reduce noise levels at the first and second floors. The units facing Rollins Road in floors three through five would be exposed to traffic along Rollins Road and US 101 and would be exposed to a future exterior noise level of approximately 76 dBA L_{dn}.

Interior Noise Impacts

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. Standard residential construction provides approximately 15 dBA of exterior to interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces.

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 $^{^6}$ The noise measurements were recorded in L_{dn} rather than CNEL; however, the discrepancy between the two units is generally one dBA or less and, therefore, is assumed to be negligible for the purposes of this analysis.

Where exterior noise levels range from 60 to 65 dBA L_{dn} , the inclusion of adequate forced air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA L_{dn} , forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building facade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

In the noise study completed by *Charles M. Salter Associates Inc.*, it was determined that all of the building facades would need to be sound-rated (with and without the proposed soundwall extension). Future interior noise levels at the outward facing units on the project site would exceed the state and City's General Plan interior noise goal of 45 dBA CNEL, assuming standard residential construction methods only.

Impact NOI-1: The proposed residences and central courtyard would be exposed to exterior and interior noise levels greater than the City's General Plan noise goals of 60 dBA CNEL and 45 dBA CNEL, respectively. (Potentially Significant Impact)

<u>Mitigation Measures:</u> The project proposes to implement the following mitigation measures to reduce exterior noise levels at the central courtyard to 60 dBA CNEL or lower and reduce interior noise levels to 45 dBA CNEL or lower by incorporating specific noise attenuation measures for the units into the final design and construction of the project:

MM NOI-1.1: The proposed project includes a six-foot tall, acoustical glass fence at the opening of the central courtyard along the northern boundary of the project site to shield the outdoor use area from traffic noise along Carolan Avenue. The total length of the proposed fence would be approximately 45.5 feet, stretching from unit 2A to unit 1G, with approximately 3.5 feet used as an access gate.

The proposed fence shall be continuous from grade to top, with no cracks or gaps, and have a minimum surface density of three pounds per square feet [e.g., one-inch thick marine-grade plywood, ½-inch laminated glass, concrete masonry units (CMU)]. A fence height of six feet would be sufficient for reducing noise levels to 60 dBA CNEL or less. The fence height shall be measured relative to the elevation of the central courtyard.

MM NOI-1.2: At the time of final site design, a qualified acoustical consultant shall review the final site plan, building elevations, and floor plans prior to issuance of a building permit and project construction to calculate expected interior noise levels. Specific acoustical analyses shall be completed prior to issuance of occupancy permits to confirm that the final site design results in interior noise levels reduced to 45 dBA CNEL or lower for all floors in each building on the project site. Buildings on the project site would need sound-rated construction methods and building facade treatments to maintain interior noise levels at or below acceptable levels. These treatments could include, but are not limited to, sound-rated windows and doors,

sound-rated wall constructions, acoustical caulking, and protected ventilation openings. Implementation of these measures will result in reductions of at least 33 dBA CNEL in interior noise levels nearest US 101 having the worst-case noise exposure, which will achieve resulting interior noise levels of 45 dBA CNEL or less at the units. Similarly, interior noise levels within the remaining units have a relatively lower future noise exposures and will also be maintained at or below 45 dBA CNEL with the implementation of these measures.

The specific determination of what noise insulation treatments are necessary shall be conducted on a unit-by-unit basis during final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved design prior to issuance of a building permit.

MM NOI-1.3: Building sound insulation requirements shall include the provision of forced-air mechanical ventilation for all perimeter residential units so that windows could be kept closed at the occupant's discretion to control noise.

Aircraft Noise and Land Use Compatibility

San Francisco International Airport (SFO) is a major international airport located approximately 1.5 miles north of the project site. The project site is located within the Airport Influence Area (AIA for SFO. Although aircraft-related noise would occasionally be audible at the project site, the project site lies outside of the 65 dB CNEL contour for SFO, as established in the ALUCP. In addition, the vehicular traffic noise levels measured at the project site exceeded 65 dBA L_{dn}, therefore, any overhead aircraft noise would not be significant in relation to the existing, local traffic noise. (Less Than Significant Impact)

2.3.2.3 Noise and Vibration Impacts from the Project

Construction-Related Impacts

Construction-Related 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), 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 highest maximum noise levels generated by project construction would typically range from about 90 to 95 dBA L_{max} at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels are about 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Hourly average noise levels generated by the construction of the proposed project would range from about 65 to 88 dBA L_{eq} measured at a distance of 50 feet, depending upon the amount of activity at the site. The existing residences are setback from the common property lines with the project site by approximately seven to 78 feet. The proposed buildings on-site would be setback approximately 39 to 98 feet from the existing residences. Construction-generated noise levels drop off at a rate of about six 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 above discussion, noise from project construction activities would exceed 60 dBA L_{eq} and exceed the ambient noise environment by at least five dBA L_{eq} at noise-sensitive uses in the project vicinity (which was measured to be approximately 56-65 dBA L_{eq} , refer to Appendix D). In addition, it is anticipated that construction of the proposed project would take two years to complete, with demolition, site preparation, grading/excavation, trenching, and exterior building construction taking approximately 18 months and building interior/architectural coating (e.g., painting) taking the latter six months. Once construction moves indoors, minimal noise would be audible at off-site locations.

In addition, project construction activities would generate maximum instantaneous noise levels of about 90 to 95 dBA L_{max} at a distance of 50 feet from the noise source, exceeding ambient L_{max} noise levels (which were measured to be approximately 62-79 dBA L_{max} at nearby residences, refer to Appendix D) by more than five dBA.

Based on the above discussion, construction of the proposed project would result in a significant (though temporary) noise impact unless mitigated.

Impact NOI-2: Construction of the proposed project would result in a significant, though temporary, noise impact at nearby residences. (Potentially Significant Impact)

<u>Mitigation Measures:</u> The project proposes to implement the following mitigation measure to reduce construction-related noise impacts to a less than significant level by reducing construction noise levels emanating from the project site, limiting construction hours, and minimizing disruption and annoyance:

- **MM NOI-2.1:** The project shall implement the following standard construction best management practices during all phases of construction:
 - Construction activities shall be limited to the daytime hours between 7:00 AM and 7:00 PM, Monday through Friday, between 9:00 AM and 6:00 PM on

Saturdays, and between 10:00 AM and 6:00 PM on Sundays and holidays (per Chapter 18.07.110 of the City of Burlingame Municipal Code).

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or
 portable power generators, as far as possible from sensitive receptors. Construct
 temporary noise barriers to screen stationary noise-generating equipment when
 located near adjoining sensitive land uses. Temporary noise barriers could reduce
 construction noise levels by five dBA.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding
 to any complaints about construction noise. The disturbance coordinator will
 determine the cause of the noise complaint (e.g., bad muffler, etc.) and will
 require that reasonable measures be implemented to correct the problem.
 Conspicuously post a telephone number for the disturbance coordinator at the
 construction site and include in it the notice sent to neighbors regarding the
 construction schedule.

Construction-Related Vibration Impacts

Construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include demolition, site preparation work, foundation work, and new building framing and finishing. The proposed project would not require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation (Caltrans) recommends a vibration limit of 0.5 in/sec PPV for buildings 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 historic buildings or buildings that are documented to be structurally weakened. No historic buildings or documented,

structurally unsound buildings adjoin the project site. Therefore, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. 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. Refer to Appendix D of this EIR for additional information about vibration levels of typical construction equipment.

The nearby residences are located approximately 35 to 80 feet from the proposed buildings on-site. Vibration levels at these distances are anticipated to be less than 0.2 in/sec PPV, which would be below the Caltrans 0.3 in/sec PPV significance threshold. Vibration generated by construction activities near the common property line could be perceptible at times; however, vibration impacts as a result of construction would not be expected to result in "architectural" damage to existing, nearby buildings. Based on the above discussion, the project would have a less than significant construction-related vibration impact. (Less Than Significant Impact)

Project-Generated Traffic Noise

A significant impact would occur if project-generated traffic increased ambient noise levels at sensitive receptors in the vicinity (including existing residences to the north and south of the project site) by five dBA L_{dn} or greater with future levels less than 60 dBA L_{dn} , or by three dBA L_{dn} or greater with future levels of 60 dBA L_{dn} or greater.

Noise in the project area primarily results from traffic on Carolan Avenue, Rollins Road, and US 101, and occasional train passbys or airplane flyovers. The information in the traffic analysis completed for the project (which is included in Appendix C of this EIR) was used to estimate the noise level increase on nearby roadways due to project traffic.

Based on the information in the traffic analysis, vehicular traffic generated by the project would not increase noise levels substantially because the project traffic would make up a small percentage of the total traffic along the surrounding roadways. The calculated noise level increase due to the project-generated traffic would be less than one dBA L_{dn} , which is considered a less than significant impact. (Less Than Significant Impact)

2.3.2.4 Consistency with Applicable Plans, Policies, and Regulations

Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport

As discussed in *Section 2.3.2.1* above, the project is not located within the 65 dB CNEL noise contour for SFO and is considered a compatible land use with the airport. The project is, therefore, considered consistent with the ALUCP for SFO.

2014 State Building Code, Title 24, Part 2

Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. The proposed project, with the implementation of mitigation measure MM NOI-1.2 and -1.3 identified above, would achieve an interior noise standard of 45 dB L_{dn} or CNEL and be in conformance with Title 24, Part 2.

City of Burlingame General Plan

The proposed project, with the implementation of the mitigation measures identified above, would meet the General Plan exterior and interior noise goals of 60 dBA CNEL or lower and 45 dBA CNEL or lower, respectively. Project construction equipment may exceed the maximum allowable noise levels identified in the General Plan and may create a noise level increase of more than five dBA L_{max} above the ambient L_{max} noise level, however, the project proposes to implement mitigation measure MM NOI-2.1 to reduce construction noise levels to a less than significant level. For these reasons, the project is generally consistent with the noise policies in the City's General Plan.

City of Burlingame Municipal Code

The project shall comply with the construction hour limitations identified in the City's Municipal Code (refer to mitigation measures MM NOI-2.1, first bullet). The project, therefore, is consistent with the City's Municipal Code in regards to construction hours.

2.3.3 Conclusion

- Impact NOI-1: Development of the proposed project, with the implementation of mitigation measures MM NOI-1.1 through 1.3, would result in less than significant exterior and interior noise impacts to future residents on the project site. (Less Than Significant Impact with Mitigation Incorporated)
- Impact NOI-2: Development of the proposed project, with the implementation of mitigation measure MM NOI-2.1, would reduce noise impacts from project construction to a less than significant level. (Less Than Significant Impact with Mitigation Incorporated)

The proposed project would not result in other significant noise and vibration impacts. (Less Than Significant Impact)

2.4 AIR QUALITY

The following discussion is based on an air quality assessment prepared by *Illingworth & Rodkin*, *Inc.* in September 2014. A copy of this report is provided in Appendix E.

2.4.1 Setting

2.4.1.1 Regulatory Framework

The federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Protection Agency (USEPA) administers the federal Clean Air Act. The California Clean Air Act is administered by the California Air Resources Board (CARB) at the state level and by the Air Quality Management Districts at the regional and local levels. The Bay Area Air Quality Management District (BAAQMD) regulates air quality at the regional level, which includes the nine-county Bay Area.

United States Environmental Protection Agency and National Ambient Air Quality Standards

The USEPA is responsible for enforcing the federal Clean Air Act and establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 Clean Air Act and subsequent amendments. The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter $(\mu g/m^3)$.

As required by the federal Clean Air Act, NAAQS have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter, including PM_{10} and $PM_{2.5}$, sulfur oxides, and lead. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare. The NAAQS are summarized in Table 2.4-1.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

Table 2.4-1: Ambient Air Quality Standards

Dellutent	A mana aim a Tima	California	Nation	al Standards ^a
Pollutant	Averaging Time	Standards	Primary ^{b,c}	${f Secondary}^{b,d}$
Ozone (O ₃)	8-hour	0.07 ppm	0.075 ppm	Same as primary
Ozone (O ₃)	1-hour	0.09 ppm	^e	Same as primary
Carbon Monoxide (CO)	8-hour	9.0 ppm	9 ppm	
Carbon Monoxide (CO)	1-hour	20 ppm	35 ppm	
Nitrogen Dioxide (NO ₂)	Annual	0.030 ppm	0.053 ppm	Same as primary
Nitrogen Dioxide (NO ₂)	1-hour	0.18 ppm	0.100 ppm ^f	
	Annual		g	
Sulfur Dioxide (SO ₂)	24-hour	0.04 ppm	g	
Suntil Dioxide (302)	3-hour			0.5 ppm
	1-hour	0.25 ppm	0.075 ppm ^g	
PM_{10}	Annual	$20 \mu\text{g/m}^3$		Same as primary
r 1 v1 10	24-hour	$50 \mu g/m^3$	$150 \mu g/m^3$	Same as primary
PM _{2.5}	Annual	$12 \mu\text{g/m}^3$	$15 \mu g/m^3$	
1 1012.5	24-hour		$35 \mu g/m^3$	
Lead	Calendar quarter		$1.5 \mu g/m^3$	Same as primary
Leau	30-day average	$1.5 \mu g/m^3$		

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

California Air Resources Board and California Ambient Air Quality Standards

CARB, which is part of the California Environmental Protection Agency (CalEPA), is responsible for meeting the state requirements of the federal Clean Air Act, administering the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act requires all air districts in the state to endeavor to achieve and maintain the CAAQS. CARB regulates mobile air pollution sources, such as motor vehicles. CAAQS are generally the same or more stringent than NAAQS. The CAAQS are summarized in Table 2.4-1.

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

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

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

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

^e The national 1-hour ozone standard was revoked by USEPA on June 15, 2005. A new 8-hour standard was established in May 2008.

 $^{^{\}rm f}$ The form of the 1-hour NO₂ standard is the three year average of the 98th percentile of the daily maximum 1-hour average concentration.

 $^{^{}g}$ The annual PM $_{10}$ standard was revoked by USEPA on September 21, 2006 and a new PM $_{2.5}$ 24-hour standard was established.

The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB has established passenger vehicle fuel specifications and oversees the function of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. CARB also conducts or supports research into the effects of air pollution on the public and develops innovative approaches to reducing air pollutant emissions.

Bay Area Air Quality Management District

The BAAQMD is the regional agency tasked with managing air quality in the region. The BAAQMD is primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Air quality standards are set by the federal government (the 1970 Clean Air Act and its subsequent amendments) and the state (California Clean Air Act and its subsequent amendments). Regional air quality management districts such as BAAQMD must prepare air quality plans specifying how state standards would be met. The BAAQMD's most recently adopted Clean Air Plan is the 2010 Clean Air Plan (2010 CAP). The 2010 CAP provides an updated comprehensive plan to improve the Bay Area's air quality and protect public health, taking into account future growth projections to 2035. The BAAQMD has published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.

2.4.1.2 Background Information and Existing Conditions

Climate and Topography

The project site is located in San Mateo County, which is part of the San Francisco Bay Area Air Basin. The project area's proximity to both the Pacific Ocean and the San Francisco Bay has a moderating influence on its climate.

Regional and Local Criteria Pollutants

Major criteria pollutants, listed in "criteria" documents by the USEPA and CARB include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter. These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms.

Ambient air quality standards have been established at both the state and federal level (refer to Table 2.4-1). Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. Areas with air quality that exceed adopted air quality standards are designated as "nonattainment" areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (marginal, moderate, serious, severe, and extreme for ozone, and moderate and serious for carbon monoxide and PM₁₀) or status ("nonattainment-transitional"). Areas that comply with air quality standards are designated as "attainment" areas for the relevant air pollutants. "Unclassified" areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as

federal nonattainment areas to demonstrate how the area will come into attainment of the exceeded federal ambient air quality standard.

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter $(PM_{2.5})$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}) under the California Clean Air Act, but not the federal act.

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

Elevated concentrations of PM₁₀, and PM_{2.5} are the result of both region-wide (i.e. 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.

Local Community Risk/Toxic Air Contaminants and Fine Particulate Matter

Toxic air contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air and are caused by industry, agricultural, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source [e.g., diesel particulate matter (DPM) near a freeway]. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Refer to Appendix E for more information regarding the regulatory programs in place to reduce DPM emissions.

Fine particulate matter $(PM_{2.5})$ is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects.

Sensitive Receptors

There are groups of people more affected by air pollution than others. The BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These lands uses include residences,

schools playgrounds, child-care centers, retirement homes, convalescent homes, hospitals, and medical clinics.

Sensitive receptors near the project site include residences directly to the north and south of the site (refer to Figure 1.1-3).

2.4.2 <u>Air Quality Impact</u>

2.4.2.1 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.

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA.⁷ Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 2.4-2 below.

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⁷ The BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires the BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. This litigation, however, remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

D. II. d.	Construction Thresholds	Operation Thresholds			
Pollutant	Average Daily Emissions (pounds/day)	Annual Daily Emissions (pounds/year)	Annual Average Emissions (tons/year		
	Criteria Ai	· Pollutants			
ROG	54	54	10		
NO_x	54	54	10		
PM_{10}	82	82	15		
PM _{2.5}	54	54	10		
CO	Not Applicable	ble 9.0 ppm (8-hour avg.) or 20.0 ppm (1-hour avg.)			
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable			
	Health Risks and Haz	ards for New Sources			
Excess Cancer Risk	10 per one million	10 per one	e million		
Chronic or Acute Hazard Index	1.0	1.0			
Incremental Annual Average PM _{2.5}	0.3 μg/m ³	0.3 μι	g/m ³		
	Health Risks and Hazard and Cumulative Thres	_			
Excess Cancer Risk	100 per one million				
Chronic Hazard Index	10.0				
Annual Average PM _{2.5}	$0.8 \ \mu g/m^3$				
	Greenhouse (Gas Emissions			
GHG Annual Emissions	1,100 metric tons or 4.6 metric tons per capita				

Notes: ROG = reactive organic gases, NO_x = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (μ m) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5 (μ m) or less, and GHG = greenhouse gas.

2.4.2.2 Criteria Air Pollutant Emissions

As part of an effort to attain and maintain ambient air quality standards for ozone, PM_{10} , and $PM_{2.5}$, the BAAQMD has established thresholds of significance for air pollutants and their precursors. These thresholds (refer to Table 2.4-2) are for ozone precursor pollutants (ROG and NO_x), PM_{10} , and $PM_{2.5}$ and apply to both construction and operational air pollutant emissions impacts. Project construction and operational period emissions were modeled using the California Emission Estimator Model (CalEEMod) and the results are discussed below. Refer to Appendix E for model inputs and assumptions.

Construction-Related Emissions

Construction emissions would occur as exhaust emissions from construction equipment, truck travel and worker traffic, and from fugitive dust emission associated with demolition and ground disturbance. These two types of emissions (exhaust and fugitive dust emissions) are discussed below.

Construction Exhaust Emissions

Construction of the project is anticipated to begin in 2017 and last through 2018. Construction of the project would occur in phases and include: demolition of existing uses, site preparation, grading/excavation, trenching, building (exterior), building (interior)/architectural coating, and paving. It is estimated that 27,000 cubic yards of materials would be exported from the project site during grading and 12,770 cubic yards of cement and 2,000 cubic yards of asphalt would be imported. The project's estimated average daily emissions are summarized in Table 2.4-3 below. Average daily emissions were computed by dividing the total construction period emissions by the number of anticipated construction days.

As shown in Table 2.4-3, construction exhaust emissions would not exceed BAAQMD thresholds for significance. The construction of the project, therefore, would not contribute substantially to existing or projected violations of any criteria pollutant for which the region is non-attainment under a federal and/or state standard. (Less Than Significant Impact)

Table 2.4-3: Project Average Daily Construction Emissions						
	Reactive Organic	Nitrogen	PM ₁₀	PM _{2.5}		
	Gases (ROG)	Oxides (NO _x)	Exhaust	Exhaust		
Average Daily Emissions (pounds per day)	17.3	12.7	0.5	0.5		
BAAQMD Thresholds (pounds per day)	54	54	82	54		
Exceeds Threshold?	No	No	No	No		

Construction Fugitive Dust

Construction activities, particularly site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soil. Fugitive dust emissions would vary depending on the nature and magnitude of construction activity, soil conditions and properties, and local meteorological conditions. Large dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. Nearby residents could be adversely affected by dust generated during construction activities. The BAAQMD considers construction fugitive dust impacts to be less than significant if best management practices are employed to reduce these emissions.

Impact AIR-1: The project would generate significant dust during construction activities that would affect nearby sensitive receptors, if best management practices are not implemented. (Potentially Significant Impact)

<u>Mitigation Measure:</u> The project proposes to implement the following best management practices identified by the BAAQMD to reduce fugitive dust emissions impacts to a less than significant level:

- **MM AIR-1.1:** The project shall implement the following standard BAAQMD dust control measures during all phases of construction on the project site:
 - 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 miles per hour (mph).
 - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
 - Idling times shall be minimized either by shutting equipment off when not in use
 or reducing the maximum idling time to five minutes [as required by the
 California Airborne Toxics Control Measure Title 13, Section 2485 of California
 Code of Regulations (CCR)]. Clear signage shall be provided for construction
 workers at all access points.
 - All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
 - A publicly visible sign shall be posted with the telephone number and person to contact at the City of Burlingame regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operation-Related Emissions

Operational period air pollutant emissions associated with the full occupancy of the proposed project were calculated using the CalEEMod along with project vehicle trip generation rates. Model inputs and assumptions, including year of analysis, land use descriptions and assumptions, trip generation rates, travel distances, and area sources, are described in Appendix E. The project's predicted average daily operational emissions and annual operational emissions are summarized in Table 2.4-4.

As shown in Table 2.4-4, the project's average daily and annual operational emissions would not exceed the BAAQMD significance thresholds. The project, therefore, would not contribute substantially to existing or projected violations of ROG, NO_x, or particulate matter. (**Less Than Significant Impact**)

Table 2.4-4: Daily and Annual Project Operational Pollution Emissions						
	Reactive Organic	Nitrogen	PM ₁₀	PM _{2.5}		
	Gases (ROG)	Oxides (NO _x)	Exhaust	Exhaust		
Daily Project Emissions						
Proposed Project 2019	18.4	9.8	9.2	2.8		
Daily Emission Thresholds (pounds per day)	54	54	82	54		
Exceeds Threshold?	No	No	No	No		
Annual Project Emissions						
Proposed Project 2019	3.35	1.79	1.67	0.51		
Annual Emission Thresholds (pounds per day)	10	10	15	10		
Exceed Threshold?	No	No	No	No		

Carbon Monoxide Emissions

Carbon monoxide emissions from vehicular 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 standard.

Nevertheless, the project would generate traffic that could affect local carbon monoxide levels. BAAQMD screening guidance indicates that projects would have a less than significant impact to carbon monoxide levels if project generated traffic would not increase at any affected intersection to more than 44,000 vehicles trips per hour. The project would generate a relatively small amount of traffic: a net increase of 100 trips during the busiest hour. Intersections affected by the project site, therefore, would have traffic volumes less than the BAAQMD screening criteria. The project would not violate the ambient air quality standard for carbon monoxide. (Less Than Significant Impact)

2.4.2.3 Toxic Air Contaminant and Fine Particulate Matter Health Risks

Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. Project construction activities, however, would emit diesel exhaust which poses a health risk to nearby sensitive receptors. Project construction-related health impacts are discussed below.

On-Site Sources of TAC Emissions

Construction-Related Health Risks

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust (DPM), which is a known TAC. Diesel exhaust could pose both a health and nuisance impact to nearby receptors, including the existing residences to the north and south of the site (refer to Figure 1.1-3).

A health risk assessment of the project construction activities was completed to evaluate potential health effects to nearby sensitive receptors from construction emissions of DPM. The CalEEMod model was used to predict annual construction emissions and a dispersion model was used to predict the off-site DPM concentrations at nearby residences from project construction. The models, data input, and assumptions are described in detail in Appendix E.

Results of the health risk assessment indicate that the incremental residential cancer risk at the maximally exposed individual receptor would be 15.4 in one million, which is greater than the BAAQMD significance threshold of 10 in one million or greater.

The maximum modeled annual $PM_{2.5}$ concentration was 0.20 micrograms per cubic meter ($\mu g/m^3$) occurring at the same location as the maximum cancer risk. This $PM_{2.5}$ concentration is lower than the BAAQMD significance threshold of 0.3 $\mu g/m^3$ and is, therefore, considered a less than significant impact.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non-hazard health risks from TAC exposure are expressed in terms of a Hazard Index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is five $\mu g/m^3$. The maximum modeled annual residential DPM concentration was $0.12~\mu g/m^3$, which is lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.02, which is lower than the BAAQMD significance criterion of a hazard index greater than 1.0 and is, therefore, considered a less than significant impact.

Impact AIR-2: Construction of the proposed project would result in significant health risks to nearby sensitive receptors from DPM emissions unless mitigated. (Potentially Significant Impact)

<u>Mitigation Measures:</u> The project proposes to implement the following mitigation measures, in addition to MM AIR-1.1, to minimize emissions from diesel equipment and reduce DPM emission impacts to sensitive receptors to a less than significant level. The computed maximum excess cancer risk with the implementation of mitigation measures MM AIR-1.1, -2.1 through -2.3 would be 4.0 per million, which is below the BAAQMD threshold of significance.

- **MM AIR-2.1:** All diesel-powered off-road equipment larger than 50 horsepower and operating at the site for more than two days continuously shall meet US EPA particulate matter emission standards for Tier 2 engines or equivalent.
- MM AIR-2.2: All portable pieces of construction equipment (i.e., air compressors, cement mixers, concrete/industrial saws, generators, and welders) shall meet US EPA particulate matter emissions standards for Tier 4 engines or equivalent.
- **MM AIR-2.3:** Avoid staging diesel-powered equipment within 100 feet of adjacent residences.

Off-Site Sources of TAC Emissions

The proposed project would locate new residences near sources of TAC emissions, such as US 101, the Caltrain rail line, and several stationary sources that emit TACs. Proximity to busy surface streets is also associated with exposure to TACs or PM_{2.5}, predominantly from diesel exhaust emissions. The health risk associated with these TAC sources are discussed below.

The exposure level is determined by the modeled concentration; however, it has to be averaged over a representative exposure period. The averaging period is dependent on many factors, but mostly the type of sensitive receptor that would reside at a site. The health risk assessment for the project conservatively assumed long-term residential exposures. BAAQMD has developed exposure assumptions for typical types of sensitive receptors, including nearly continuous exposures of 70 years for residences. The cancer risk calculations for 70-year residential exposures reflect the use of BAAQMD's most recent cancer risk calculation method that uses age sensitivity factors in calculating cancer risks. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs.

US 101 Roadway Community Risk Impacts

Traffic on US 101 is a source of TAC emissions that may result in health risks to future residents on the project site. The CARB EMFAC2011 emission factor model and the CAL3QHCR dispersion model were used to estimate the health risk of the TAC emissions from traffic on US 101 to future residences on-site. Details regarding the models and assumptions are included in Appendix E of this EIR.

The maximum increased cancer risk was computed as 23.4 in one million at the proposed townhouse unit in the northeast corner of the project site, which exceeds the BAAQMD threshold of significance of 10 per million and is considered a significant impact. The maximum increased cancer risks for ground-level receptors in the apartment units were 22.7 in one million and 20.9 in one million for first floor (podium) level receptors in the apartment units, both of which exceed the BAAQMD

threshold of significance. Increased cancer risks at the project site would range from 4.6 to 23.4 in one million at ground-level residential locations and from 4.5 to 20.9 in one million at podium level apartment units. Cancer risks are greatest closest to US 101 and decrease with distance from the highway, and cancer risks at upper floor levels of the apartment units would be lower than those at ground level or the podium level. Maps showing the predicted maximum cancer risk at ground-floor and podium-level receptors on-site are included in Appendix E of this EIR.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. Non-cancer health hazards from TAC exposure are expressed in terms of a Hazard Index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). California's Office of Environmental Health and Hazards (OEHHA) has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The chronic inhalation REL for DPM is five $\mu g/m^3$. The maximum modeled annual residential DPM concentration was $0.05~\mu g/m^3$, which is lower than the REL. The maximum computed hazard index based on this DPM concentration is 0.01, which is lower than the BAAQMD significance criterion of a hazard index greater than 1.0 and considered a less than significant impact.

In addition, potential non-cancer health risks from PM_{2.5} emissions from vehicles traveling on US 101 were evaluated. The maximum annual average PM_{2.5} concentrations occurred at the same location that had the highest calculated maximum cancer risks, receptors located closest to US 101. The maximum average annual concentration at a townhouse unit was $0.75~\mu g/m^3$, which exceeds the BAAQMD threshold of significance of $0.3~\mu g/m^3$ or greater. The maximum average annual concentration at ground-level receptors in the apartment units was $0.72~\mu g/m^3$ and $0.67~\mu g/m^3$ for podium-level receptors in the apartment units, both of which exceed the BAAQMD threshold of significance. Increased PM_{2.5} concentrations at the project site would range from 0.14 to $0.75~\mu g/m^3$ at ground-level residential locations and from 0.14 to $0.67~\mu g/m^3$ at podium level apartment units. Maps showing the predicted maximum non-cancer health risk from PM_{2.5} emissions at ground-floor and podium-level receptors on-site are included in Appendix E of this EIR.

Railroad Impacts

The southern property boundary of the project site is about 130 feet from the Caltrain rail lines, which are used for passenger and freight service by trains using diesel fueled locomotives. Given the proximity of the rail line to the project site, potential health risks to proposed residents at the project site from DPM emissions from diesel locomotive engines were evaluated. Currently, all of Caltrain's trains use diesel locomotives. As part of the program to modernize operation of the Caltrain rail corridor between San José and San Francisco, Caltrain is planning to switch from diesel locomotives to electric trains in the near future. The electrification of Caltrain is currently undergoing environmental review and is evaluated in relation to the proposed project in *Section 4.0 Cumulative Impacts*.

Based on the current Caltrain schedule, there are 92 trains passing the project site during the weekdays, 32 trains during the weekend, and four trains that only run on Saturday. In addition to the Caltrain trains, there are about four freight trains that also use this rail line on a daily basis.

Modeling of locomotive emissions was conducted using the EPA's ISCST3 dispersion model and four years (2002-2005) of hourly meteorological data from the San Mateo STP obtained from the BAAQMD. Details regarding the model, assumptions, and emissions rates are provided in Appendix E of this EIR.

The maximum increased cancer risk was computed as 12.4 in one million at the proposed townhouse unit located at the southwest corner of the site closest to the railroad lines, which exceeds the BAAQMD threshold of significance of 10 per million and is considered a significant impact. Cancer risks at other areas within the project site would be lower than the maximum cancer risk. Maps showing the predicted maximum cancer risk at ground-level and podium-level receptors on-site are included in Appendix E.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. The maximum predicted annual DPM concentration from locomotives is $0.077~\mu g/m^3$, which is lower than the REL of five $\mu g/m^3$. Thus, the Hazard Index would be 0.015, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0 and is considered a less than significant impact.

In addition to evaluating the health risks from DPM, potential impacts from $PM_{2.5}$ emissions from the locomotives were evaluated. From the rail line modeling conducted for estimating cancer risks, the maximum $PM_{2.5}$ concentration was identified. The maximum average $PM_{2.5}$ concentrations of 0.077 $\mu g/m^3$ would occur at the same receptor that had the maximum cancer risk, which is below the BAAQMD $PM_{2.5}$ threshold of greater than 0.3 $\mu g/m^3$.

Permitted Stationary Sources Community Risk Impacts

Permitted stationary sources of air pollution near the project site were identified using the BAAQMD's Stationary Source Risk and Hazard Analysis Tool. The following gas stations presented some measurable risk or hazard and were identified within 1,000 feet of the site:

- Chevron gas station located at 1095 Carolan Road and
- Unocal gas station located at 1147 Rollins Road.

The sources within 1,000 feet of the project site were identified to have maximum reported risks or PM_{2.5} concentrations below the BAAQMD thresholds and therefore, considered a less than significant impact. Refer to Appendix E for details regarding the location of the nearby stationary sources and the screening level excess cancer risk to future residents on-site.

Local Roadway Community Risk Impacts

The BAAQMD provides Roadway Screening Analysis Tables that can be used to assess potential excess cancer risk and annual PM_{2.5} concentrations from surface streets for each Bay Area county. Rollins Road, Carolan Road and California Drive are the highest volume roadways within 1,000 feet of the project site. Traffic volumes for these roadways are not readily available, as the City has not updated traffic volume counts since 1995. According to the BAAQMD screening tables, however,

east-west roadways in San Mateo County that have average daily traffic volumes of less than 40,000 vehicles per day would pose less than significant excess cancer risk (i.e., less than 10 per million), hazard index (i.e., less than 1.0), and annual PM_{2.5} concentrations (i.e., less than 0.3 μg/m³). Based on a peak-hour volume of 922 vehicles per hour (as disclosed in the traffic report for the project, which is included in Appendix E of the EIR), Rollins Road appears to carry less than 10,000 vehicles per day, and therefore, would not contribute to the overall community risk impacts.

Impact AIR-3: Pollutant emissions from US 101 and Caltrain would pose significant health risk impacts to proposed residences on the ground floor and podium-level located nearest the freeway and rail lines unless mitigated. (Potentially Significant Impact)

Please note that if the Caltrain Peninsula Corridor Electrification Project is approved and constructed as currently proposed, the health risk from locomotives on the Caltrain rail line would be less than significant and mitigation is not required for health risk impacts from the rail line (refer to *Section 4.0 Cumulative Impacts*), though the below mitigation would still be required to reduce health risk impacts from US 101 to a less than significant level.

Mitigation Measures: The project proposes to implement the following mitigation measures, which would install filters that remove particulate matter and would require proper maintenance of the filtration systems to reduce excess cancer risk to 10.0 per million or less and lower PM_{2.5} exposure to $0.3 \mu g/m^3$ or less:

- MM AIR-3.1: Install air filtration for residential units that have predicted cancer risks in excess of 10 in one million or $PM_{2.5}$ concentrations above 0.3 micrograms per cubic meter ($\mu g/m^3$) from either US 101 or the Caltrain rail line. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors, a ventilation system shall meet the following minimal design standards (Department of Public Health, City and County of San Francisco, 2008):
 - A MERV13 or higher rating;
 - At least one air exchanges(s) per hour of fresh outside filtered air; and
 - At least four air exchange(s) per hour recirculation.

Alternately, at the approval of the City, equivalent control technology may be used if it is shown by a qualified air quality consultant or heating, ventilation, and air conditioning (HVAC) engineer that it would reduce risk below significance thresholds.

MM AIR-3.2: Require an ongoing maintenance plan for the buildings' HVAC air filtration system. Recognizing that emissions from air pollution sources are decreasing, the maintenance period shall last as long as significant excess cancer risk or annual PM_{2.5} exposures are predicted. Subsequent studies shall be conducted by an air quality

expert approved by the City to identify the ongoing need for the filtered ventilation systems as future information becomes available.

MM AIR-3.3: Ensure that the lease agreement and other property documents (including CC&Rs):

- Require cleaning, maintenance, and monitoring of the affected units for air flow leaks:
- Include assurance that new owners and tenants are provided information on the ventilation system; and
- Include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.
- **MM AIR-3.4:** Require that, prior to building occupancy, an authorized air pollutant consultant or HVAC engineer verify the installation of all necessary measures to reduce toxic air contaminant (TAC) exposure.
- **MM AIR-3.5:** The type of MERV-rated filtration required to be installed as part of the ventilation system in the residential building shall be as follows:
 - A minimum of MERV13 shall be installed unless the increased cancer risk can be demonstrated to be less than 10 in one million; and
 - MERV16 filtration shall be utilized for areas where the increased cancer risk is greater than 20.0 in one million for unmitigated cancer risks.

Note that PM_{2.5} concentrations at all sensitive receptor locations across the site would also be reduced to a level of less than significant by using MERV13 and MERV16 filters necessary to mitigate excess cancer risk.

On- and Off-Site Sources of TAC Emissions

Cumulative TAC impacts to proposed sensitive receptors were evaluated by adding the cancer risk, Hazard Index, and PM_{2.5} concentrations from each source and comparing those to the BAAQMD Community Risk significance thresholds for cumulative sources. Table 2.4-5 shows the community risk impacts from each source upon the maximally exposed individual on-site. As discussed above, traffic volumes along local surface streets were not available, as the City has not updated traffic volume counts since 1995.

As shown in Table 2.4-5, with the implementation of MM AIR-3.1 through -3.5 (which would reduce $PM_{2.5}$ concentrations from US 101 at the maximally exposed individual to below 0.3 $\mu g/m^3$), the cumulative health risk to sensitive receptors on-site would be below the BAAQMD thresholds of significance and is considered a less than significant impact. (**Less Than Significant Impact**)

Table 2.4-5: Cumulative Community Risk Impacts at the Project Site					
Distance from Maximally Exposed Individual On-Site (feet)	Facility Name	Address	Cancer Risk (per million)	Hazard Index	PM _{2.5} (μg/m ³)
~100	US 101 with imple measures MM AIF	6.1	<0.01	0.20	
~700	Caltrain		3.8	< 0.01	0.02
~1,000	Chevron	1095 Carolan Road	< 0.1	0.01	
~800	Unocal	1147 Rollins Road	0.5	< 0.01	
Total with implementation through -3.5	10.5	< 0.04	0.22		
BAAQMD Thresholds			100	10.0	0.8
Exceeds Threshold?			No	No	No

2.4.2.5 *Odors*

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 receptors. However, they would be localized and not likely to adversely affect people off-site by resulting in confirmed odor complaints. Operation of the project would not generate odors that would result in complaints. There were no identified odor sources that would affect the project in terms of generating frequent odor complaints. (Less Than Significant Impact)

2.4.2.2 Consistency with Applicable Plans, Policies, and Regulations

2010 Clean Air Plan

Determining consistency with the 2010 CAP involves assessing whether applicable control measures contained in the 2010 CAP are implemented. Implementation of control measures improve air quality and protect public health. These control measures are organized into five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures (TCMs), Land Use and Local Impact Measures, and Energy and Climate Measures. Applicable control measures and the project's consistency with them are summarized in Table 2.4-5 below.

The proposed project would not conflict with the 2010 CAP because: the project is consistent with applicable control measures (see Table 2.4-6), project emissions would be well below the BAAQMD screening threshold (as discussed in *Section 2.4.2.2* above), the project is an urban infill development, and the project is located near employment centers, shopping, and transit facilities.

Tabl	Table 2.4-6: Bay Area 2010 Clean Air Plan Applicable Control Measures						
Control Measures	Description	Project Consistency					
	Transportation Control Measures						
Improve Bicycle Access and Facilities	Expand bicycle facilities serving transit hubs, employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers.	The project proposes bicycle parking facilities for residents and guests, and a bike repair station on-site. For this reason, the project is consistent with this control measure.					
Improve Pedestrian Access and Facilities	Improve pedestrian access to transit, employment, and major activity centers.	As described in <i>Section 2.2 Transportation</i> , the project site is served by existing pedestrian, bicycle, and transit facilities. The project proposes sidewalk improvements along project frontages (as described in <i>Section 1.3</i>) and would provide pedestrian access through the project site between Carolan Avenue and Rollins Road. For this reason, the project is consistent with this control measure.					
Support Local Land Use Strategies	Promote land use patterns, policies, and infrastructure investments that support mixeduse, transit-oriented development that reduce motor vehicle dependence and facilitate walking, bicycling, and transit use.	The project is consistent with the existing General Plan land use designation and proposes infill residential uses that would be served by existing pedestrian, bicycle, and transit facilities. In addition, the proposed project includes bicycle parking for residents and guests, and a bike repair station. For these reasons, the project would be consistent with this control measure.					
		Climate Measures					
Energy Efficiency	Increase efficiency and conservation to decrease fossil fuel use in the Bay Area.	The project site is served by existing pedestrian, bicycle, and transit facilities. The project also proposes bicycle amenities on-site, electric vehicle charging stations, and a business center to support telecommuting. In addition, the project would be constructed in conformance with the 2013 California Green Building Standards. The project, therefore, would be consistent with this control measure.					
Urban Heat Island Mitigation	Mitigate the "urban heat island" effect by promoting the implementation of cool roofing, cool paving, and other strategies.	While the project does not propose the use of cool roofing or paving, it includes trees and other landscaping that would reduce the urban heat island effect. The project is, therefore, consistent with this control measure.					
Tree-Planting	Promote planting of low-VOC- emitting shade trees to reduce urban heat island effects, save energy, and absorb CO ₂ and other air pollutants.	While 12 existing trees on-site would be removed as a result of project construction, 171 new trees would be planted. Therefore, the project would result in a net increase of 159 trees. For this reason, the project is consistent with this control measure.					

2.4.3 Conclusion

- Impact AIR-1: The project, with the implementation of the standard BAAQMD dust control measures identified in mitigation measure MM AIR-1.1, would not result in significant dust impacts. (Less Than Significant Impact with Mitigation Incorporated)
- Impact AIR-2: Construction of the proposed project, with the implementation of mitigation measures MM AIR-1.1 and -2.1 through -2.3, would not result in significant health risks to nearby sensitive receptors from DPM emissions. (Less Than Significant Impact with Mitigation Incorporated)
- Impact AIR-3: With the implementation of mitigation measures MM AIR-3.1 through -3.5, pollutant emissions from US 101 and Caltrain (and cumulative on- and off-site sources of TAC emissions) would not pose significant health risk impacts to proposed residences. (Less Than Significant Impact with Mitigation Incorporated)

The proposed project would not result in other significant impacts to air quality. (**Less Than Significant Impact**)

2.5 GREENHOUSE GAS EMISSIONS

The following discussion is based in part on a greenhouse gas emissions assessment completed for the project by *Illingworth & Rodkin*, *Inc.* in October 2014. A copy of this assessment is included in Appendix E of this EIR.

2.5.1 Setting

2.5.1.1 Background Information

Unlike emissions of criteria and toxic air pollutants, which are discussed in *Section 2.4* 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 (CO₂), methane (CH₄), nitrous oxide (N₂O), 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.

2.5.1.2 Regulatory Framework

State of California

Assembly Bill 32 and Executive Order S-3-05

Assembly Bill 32 (AB 32), also known as the Global Warming Solutions Act, was passed in 2006 and established a goal to reduce GHG emissions to 1990 levels by 2020. Prior to the adoption of AB 32, the Governor of California also signed Executive Order S-3-05 into law, which set a long term objective to reduce GHG emissions to 90 percent below 1990 levels by 2050. The CalEPA is the state agency in charge of coordinating the GHG emissions reduction effort and establishing targets along the way.

In December 2008, 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. The First Update to the Scoping Plan was approved on May 22, 2014 and builds upon the Scoping Plan with new strategies and recommendations. The First Update defines CARB's priorities over the next five years and lays the groundwork to reach long-term goals set forth in Executive Order S-3-05.8

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⁸ California Environmental Protection Agency, Air Resources Board. First Update to the AB 32 Scoping Plan. May 2014.

Senate Bill 375

Senate Bill 375 (SB 375), known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds on AB 32 by requiring CARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 in comparison to 2005 emissions. 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. The four major requirements of SB 375 are:

- 1. Metropolitan Planning Organizations (MPOs) must meet greenhouse gas emission reduction targets for automobiles and light trucks through land use and transportation strategies.
- 2. 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).
- Regional housing elements and transportation plans must be synchronized on eight-year schedules, with Regional Housing Needs Assessment (RHNA) allocation numbers conforming to the SCS.
- 4. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC).

MTC and ABAG adopted *Plan Bay Area* in July 2013 in response to SB 375. 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 located within a PDA.

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 2010 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.

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⁹ The emission reduction targets are for those associated with land use and transportation strategies, only. Emission reductions due to the California Low Carbon Fuel Standards or Pavley emission control standards are not included in the targets.

City of Burlingame

General Plan

The Housing Element of the City's General Plan contains policies, recommendations, and actions to promote energy conservation. Through energy conservation, GHG emissions are reduced. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including the policy listed below.

Policy	Description
Policy H (E-1)	Promote the use of energy conservation in residential construction

Climate Action Plan

The City's Climate Action Plan serves as a guiding document to identify methods that the City and community can implement to significantly reduce GHG emissions. Adopted in 2009, the Climate Action Plan establishes a framework of action that the City and community can implement and also provides a statement of intent for long-term and short-term priorities. In addition, it creates a baseline of emissions, sets achievable targets stipulated by AB 32, and recommends steps to be taken to reduce emissions, increase sustainability, and improve quality of life.

Green Building Ordinance

In 2010, the City of Burlingame adopted the Green Building Ordinance, which required enhanced green building measures for non-residential projects and residential construction projects with a value of \$50,000 or more. For residential construction, compliance with the Green Building Ordinance requires the submittal of a GreenPoint checklist, or equivalent, with a minimum rating of 50 points to the Planning Division or Building Division, depending on whether Planning Commission approval is required.

The means by which compliance measures are achieved shall be by Build It Green "GreenPoints," LEED, Energy Efficiency Standards, other recognized point systems, or equivalent approved methods. Compliance measures shall be approved by the Chief Building Official prior to issuance of a building permit. Projects must show verification of energy savings which exceed the 2008 Building Energy Efficiency Standards (Title 24, Part 6) of the California Building Code by 15 percent.

Construction and Demolition Ordinance

Demolition, new construction projects, and alterations over \$50,000 are subject to the City of Burlingame's Construction and Demolition Ordinance (C&D Ordinance). The C&D Ordinance requires applicable projects to recycle at least 60 percent of total waste during demolition or construction.

2.5.1.3 Existing Conditions

The project site is currently developed with buildings occupied by automotive repair, rental, and sales businesses. GHG emissions from existing uses on-site include emissions resulting from building and operations (e.g., heating/cooling, machinery operations, and lighting) and vehicular travel to and from the site.

2.5.2 Greenhouse Gas Impacts

2.5.2.1 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.

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

BAAQMD Threshold of Significance

The BAAQMD May 2011 CEQA Guidelines included GHG emissions-based significance thresholds. These thresholds include a "bright-line" emissions level of 1,100 metric tons per year (MT/year) for land-use type projects and 10,000 MT/year for stationary sources. Land use projects with emissions above the 1,100 MT/year threshold would then be subject to a GHG efficiency threshold of 4.6 metric tons per year per capita (MT/year/capita). Projects with emissions above the thresholds would be considered to have an impact, which, cumulatively, would be significant.

2.5.2.3 Project Emissions

As recommended by the BAAQMD, the CalEEMod model was used to predict GHG emissions from project construction and operation. Details regarding the model and assumptions are included in Appendix E of this EIR.

Construction Emissions

GHG emissions associated with project construction activities (including operation of construction equipment, hauling truck trips, vendor truck trips, and worker trips) were estimated to be 827 MT of

carbon dioxide equivalents (CO₂e). The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions, though total construction period emissions would be less than the BAAQMD operational threshold of 1,100 MT CO₂e per year. The BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction.

The BAAQMD also encourages the incorporation of best management practices, including recycling and reusing construction waste or demolition materials, to reduce GHG emissions during construction where feasible and applicable. The project, in compliance with the City's C&D Ordinance, would recycle at least 60 percent of construction waste or demolition materials.

Operational Emissions

Project operation would generate GHGs primarily through electricity generation/use and generation of vehicle trips. At full buildout, operational GHG emissions from the project are estimated to be 2,474 MT of CO₂e/year, which exceeds the BAAQMD threshold of 1,100 MT of CO₂e/yr. As discussed in *Section 2.5.2.1* above, land use projects with emissions above the 1,100 MT/year threshold are then be subject to the GHG efficiency threshold of 4.6 metric tons per year per capita (MT/year/capita) to determine impact significance.

Based on the latest US Census data for the City of Burlingame, the average residents per household is 2.26. The project's emissions per capita, therefore, is 3.8 MT of CO2e/year/capita. The project's emissions per capita is below the BAAQMD efficiency threshold of 4.6 MT/year/capita and is considered a less than significant impact. (Less Than Significant Impact)

2.5.2.4 Consistency with Applicable Plans, Policies, and Regulations

Bay Area 2010 Clean Air Plan

As discussed in *Section 2.4 Air Quality*, the proposed project would not conflict with the 2010 CAP because the project is consistent with applicable control measures (see Table 2.4-6), project emissions would be well below the BAAQMD screening threshold (as discussed in *Section 2.4.2.2* above), the project is an urban infill development, and the project is located near employment centers, shopping, and transit facilities.

City of Burlingame General Plan, Climate Action Plan, and Green Building Ordinance

The project would be consistent with the City's General Plan [specifically Policy H (E-1) of promoting energy conservation in residential construction], Climate Action Plan, and Green Building Ordinance because the project, as described in *Section 1.3.7 Green Building Measures*, proposes to be constructed in compliance with the 2013 California Green Building Standards Code (Title 24), which requires efficient windows, insulation, lighting, ventilation systems, and other features that

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¹⁰ The project proposes 290 units. 290 units x 2.26 residents/unit = 655 residents. 2,474 MT of CO2e/year \div 655 residents = 3.8 MT of CO2e/year/resident.

reduce water and energy consumption. The project proposes to install "purple" irrigation lines to connect to such a system should it become available in the future.

The project also includes the following Transportation Demand Management (TDM) amenities to encourage more sustainable modes of transportation:

- Four electric vehicle charging stations, with the potential for 10 additional electric vehicle charging stations,
- Two car-sharing vehicle reserved spaces (e.g., Zipcar),
- 134 secure bicycle parking spaces for apartment residents,
- 10 guest bicycle parking spaces,
- Bike repair station,
- Tenant web portal for carpooling, and
- Business center and conference room for telecommuting.

With the incorporation of the above green building measures and TDM amenities, the project would reduce energy consumption and promote alternatives to single-occupancy vehicle trips (thereby reducing fuel consumption), which would reduce GHG emissions. For this reason, the project would be consistent with the City's General Plan, Climate Action Plan, and Green Building Ordinance.

2.5.3 <u>Conclusion</u>

The proposed project would not result in significant GHG emission impacts. (Less Than Significant Impact)

2.6 VISUAL AND AESTHETICS

2.6.1 Setting

2.6.1.1 Regulatory Framework

City of Burlingame Municipal Code

Chapter 11.06 of the City's Municipal Code, Urban Reforestation and Tree Protection, establishes conditions and regulations for the removal and replacement of existing trees and the installation of new trees in new construction and development. As further described in *Section 2.7 Biological Resources*, a permit is required for the removal (and heavy pruning) of a protected tree. In addition, removal of each protected tree shall be replaced by three 15-gallon, one 24-inch box, or one 36-inch box size landscape tree(s); the size and number of replacement tree(s) shall be determined by the Director of Parks and Recreation based on the species, location, and value of the tree(s) removed.

Municipal Code Section 18.16.030 regulates the usage and placement of exterior lighting (including security lighting). In accordance with Municipal Code Section 18.16.030, exterior lighting on all residential and commercial properties shall be designed and located so that the cone of light and/or glare from the lighting element is kept entirely on the property or below the top of any fence, edge, or wall.

City of Burlingame Urban Forest Management Plan

The City of Burlingame's Urban Forest Management Plan (UFMP) is a compilation of information, statistics, policies, and procedures intended to manage the community's urban forest and enhance the quality of life. The UFMP describes the background of the City's vision and tree philosophy, the benefits of an urban forest, the criteria used to consider tree removals, tree types that are allowed as replacements, and the process for public appeals of staff decisions.

Consistent with the City's Municipal Code (see discussion above), the UFMP has a policy that requires a permit be obtained for the removal or heavy pruning of protected trees on private property and planting of replacement trees or payment of an in-lieu fee.

2.6.1.2 Existing Conditions

The 5.4-acre project site is generally rectangular in shape and located in an urban, developed area. The project site is bounded by Carolan Avenue (a four-lane roadway) and railroad tracks to the west, four-story multi-family residential buildings (Northpark Apartments) to the north, Rollins Road (a two-lane roadway) and US 101 (an eight-lane freeway) to the east, and one- and two-story single- and multi-family housing to the south (refer to Figure 1.1-3).

Given the generally flat topography of the project area, the project site is mostly visible from surrounding roadways (e.g., Carolan Avenue, Rollins Road, and US 101). The site is also visible from elevated views provided on the Rosalie O'Mahony Pedestrian Overcrossing, Bayside Park, and the recreational trail located on the east side of US 101. The project site is developed with eight,

one- and two-story warehouse and commercial buildings occupied by automotive repair, rental, and sales businesses. Buildings on-site are modern in character and constructed primarily from glass, steel, concrete, and stucco. Minimal landscaping, consisting of small grass areas and bushes, exist along the eastern and western boundary of the site. There are 12 trees located throughout the site adjacent to existing buildings and along the western boundary of the site near Rollins Road.

Views of the project site and area are shown in Photos 1-6 on the following pages.

Surrounding Visual Character

As described above, the project site is surrounded by development. The Northpark Apartment complex located north of the site consists of 10, four-story contemporary buildings with three stories of residential units on top of a podium parking garage. The lower level consists of painted concrete block and the upper levels are clad in stucco. The single- and multi-family houses south of the project site on Toyon Drive are all over 50 years old and include modern style apartment buildings (at the east end of Toyon Drive) and Minimal Traditional, bungalows, and ranch-style single-family houses. The houses are primarily wood-frame, stucco-clad buildings with asphalt shingle-clad roofing.

Scenic Vistas and Resources

Views of the San Francisco Bay and other scenic resources are not available from the project site. The project site has been developed for over 60 years and no scenic resources, such as rock outcroppings or historic buildings (refer to *Section 2.8 Cultural Resources*), are present on the site or in the project area. There are 12 trees on-site, including one protected tree (refer to *Section 2.7 Biological Resources*).

The project site is not visible from any state or County designated scenic highways or roadways.



PHOTO 1: View of the project site and surrounding development from the intersection of Carolan Avenue and Toyon Drive looking northeast.



PHOTO 2: View of the project site and adjacent Northpark Apartment complex.



PHOTO 3: View of existing development on the project site from Rollins Road looking west.



PHOTO 4: View of existing development on-site from Rollins Road looking northwest. Rollins Road and US 101 are visible on the right side of the photo.

2.6.2 Visual and Aesthetic Impacts

2.6.2.1 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.

Aesthetic values are, by their nature, subjective. Opinions as to what constitutes a degradation of visual character will differ among individuals. The primary criteria that are considered in this assessment include: 1) the spatial relationship of the proposed structures to neighboring land uses; 2) the mass, scale, and height of the proposed structures and their visibility from the surrounding areas; 3) the degree to which the project would contrast with the surrounding development in design and materials; and 4) whether the project is likely to result in visual impacts including glare, nighttime lighting, or provide elevated views of nearby residences.

2.6.2.2 Change in Visual Character

The project proposes to demolish the existing one-story warehouse and commercial buildings and redevelop the project site with two, five-story apartment buildings with 268 units on the northern portion of the site and four, two-story townhouse buildings with 22 units on the southern portion of the site. Refer to the conceptual site plan and cross-sections shown in Figures 1.3-1 and 1.3-2.

While the existing 12 trees on-site would be removed as a result of the project, the project proposes to plant 171 new trees, including approximately 123 trees at-grade and approximately 48 trees within the podium courtyards. Consistent with the City of Burlingame Zoning Ordinance, the project would be set back at least 19 feet from the northern property line, at least 20 feet from the eastern property line, at least 29-feet 10-inches from the southern property line, and at least 20 feet from the western property line. The project would be constructed with a variety of materials including stucco, brick, metal, wood, and concrete. In addition, the project proposes sidewalk improvements along the project frontage on Carolan Avenue and Rollins Road, including new 36-inch box street trees. The project also proposes to extend the existing 16-foot soundwall along US 101 to a point even with the northern edge of the project site.

Photosimulations of the project were completed from select vantage points (see Figures 2.6-1 to 2.6-6).







VIEW 1 - View of the proposed project from the Roselie O'Mahoney pedestrian over-crossing looking east.

















As illustrated in the photosimulations, development of the proposed project would change the visual character of the site. Compared to existing conditions on-site, the proposed development would be of greater mass and height and include more landscaping. In addition, the look and feel of the site would change from a commercial and automobile service oriented site to a residential site. While the visual character of the site would change, the change is not considered a substantial degradation. Construction of the proposed four-story apartment buildings on the northern portion of the project site (adjacent to four-story Northpark Apartment complex) and proposed two-story townhouse buildings on the southern portion of the project site (adjacent to one- and two-story single- and multifamily houses) would help visually connect the existing residential developments on either side of the project site. The development proposed on-site is also of similar mass and scale to the existing, adjacent residential developments. The proposed apartment buildings would also step back from Carolan Avenue and Rollins Road to create a more pedestrian scale along the street frontages.

Extending the existing soundwall to a point even with the northern edge of the project site would not obstruct views of any scenic vistas or resources from the project site, nor introduce a new visual element into the surrounding neighborhood.

The project would enhance the visual character of the site by planting trees, consistent with the City's Municipal Code and Urban Forest Management Plan, and placing the existing overhead power lines along the project site frontages on Carolan Avenue and Rollins Road underground. For these reasons, construction of the proposed project would not substantially degrade the existing visual character of the site and its surroundings. (Less Than Significant Impact)

2.6.2.3 Impacts to Scenic Vistas and Resources

As previously discussed, views of the San Francisco Bay or other scenic resources are not available from the project site. The site is not visible from state or County designated scenic highways or roadways. There are no scenic resources, such as rock outcroppings or historic buildings, on or adjacent to the project site. While the project would require the removal of all 12 existing trees onsite, the project proposes to plant 171 new trees, including approximately 123 trees at-grade and approximately 48 trees within the podium courtyards. As discussed in *Section 2.7 Biological Resources*, the removal of the 12 existing trees on-site is not a significant impact given the project's conformance with the City's Municipal Code and Urban Forest Management Plan regarding tree replacements and planting. For these reasons, the proposed project would not have a substantial adverse impact on scenic vistas or resources. (Less Than Significant Impact)

2.6.2.4 Light and Glare Impacts

The proposed project would have outdoor security night lighting on the site along walkways and roadways. Consistent with the City's Zoning Ordinance (Municipal Code Section 18.16.030), project lighting would be designed and located so that light emitted from on-site lighting is kept entirely on the property or below the top of any fence, edge, or wall. The outside lighting would generally increase light spillover in the area, but would not cause significant glare or spillover into adjacent properties. Furthermore, the project would be constructed with materials such as wood and stucco, which are generally non-reflective materials and, therefore, would not create a new source of

glare. For these reasons, the proposed project would not result in significant light and glare impacts. (Less Than Significant Impact)

2.6.2.5 Consistency with Relevant Plans, Policies, and Regulations

As discussed in *Section 2.6.2.3* above and *Section 2.7 Biological Resources*, the project would remove the existing trees on-site in accordance with the City's Municipal Code and Urban Forest Management Plan regarding tree replacements and plantings. In addition, as discussed above in *Section 2.6.2.4*, project lighting would be designed and located in conformance with Municipal Code Section 18.16.030 regarding exterior lighting (including security lighting). The project, therefore, would be consistent with the City's Municipal Code and Urban Forest Management Plan regarding tree removal and lighting.

2.6.3 Conclusion

The proposed project would not result in significant visual or aesthetic impacts. (Less Than Significant Impact)

2.7 BIOLOGICAL RESOURCES

2.7.1 Setting

2.7.1.1 Regulatory Framework

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) is part of a coordinated effort between the United States, Canada, Mexico, Japan, and Russia to help protect migratory birds in this part of the world. It prohibits the taking of migratory birds, which is defined as the killing, taking, selling, 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.

State Fish and Game Code

Birds of prey, such as owls and hawks, are protected in California under provisions of the State Fish and Game Code, Section 3503.5 (1992), 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 California Department of Fish and Wildlife (CDFW).

City of Burlingame Municipal Code

Chapter 11.06 of the City's Municipal Code, Urban Reforestation and Tree Protection, establishes conditions and regulations for the removal and replacement of existing trees and the installation of new trees in new construction and development. A "protected tree" is defined as (1) any tree with a circumference of 48 inches or more (or diameter of 15 inches or more) when measured at 54 inches above natural grade; (2) a tree or stand of trees so designated by the City Council based upon findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance or other factor; or (3) a stand of trees in which the Parks and Recreation Director has determined each tree is dependent upon the others for survival [Municipal Code, Chapter 11.06, Section 11.06.020(f)].

A permit is required for the removal (and heavy pruning) of a protected tree. The permit process involves a formal inspection by the City Arborist to determine the tree's health, structure, and impacts to neighboring properties, as well as replacement requirements (Municipal Code, Chapter 11.06, Section 11.06.090). Permits for removal of protected trees shall include replanting conditions with the following guidelines:

• Replacement trees shall be three 15-gallon, one 24-inch box, or one 36-inch box size landscape tree(s) for each tree removed.

- Size and number of the replacement tree(s) shall be determined by the Director and shall be based on the species, location, and value of the tree(s) removed.
- If replacement trees cannot be planted on the property, payment of equal value shall be made to the City. The payment shall then be deposited in the tree planting fund to be drawn upon for public tree planting. The replacement of a tree can be waived by the Parks and Recreation Department Director if a sufficient number of trees exists on the property to meet all other requirements of the Code.

City of Burlingame Urban Forest Management Plan

The City of Burlingame's Urban Forest Management Plan (UFMP) is a compilation of information, statistics, policies, and procedures intended to manage the community's urban forest and enhance the quality of life. The UFMP describes the background of the City's vision and tree philosophy, the benefits of an urban forest, the criteria used to consider tree removals, tree types that are allowed as replacements, and the process for public appeals of staff decisions.

Consistent with the City's Municipal Code (see discussion above), the UFMP has a policy that requires protected trees on private property obtain a permit for removal or heavy pruning and plant a replacement tree or pay an in-lieu fee.

2.7.1.2 Existing Conditions

The project site is located in an urban area surrounded by development (refer to Figure 1.1-3). The project site itself is developed with buildings and paved parking lots and surfaces. The buildings are currently occupied and used for automotive repair, rental, and sales. Minimal landscaping, consisting of small grass areas and bushes, exist along the northern and southern perimeter of the site. There are 12 trees on-site located adjacent to existing buildings and along the western boundary of the site near Rollins Road.

Habitats in developed, urban areas such as the project site are extremely low in species diversity. The wildlife species most often associated with developed areas include urban adapted birds such as the rock dove, mourning dove, house sparrow, and European starling. There are no sensitive habitats or wetlands on or adjacent to the project site. Due to the lack of sensitive habitats and the development of the project site, special-status plant and animal species are not expected to occur on the project site. The primary biological resources on-site are trees, which are described in more detail below.

A tree survey was completed for the project site in March 2014 by *HortScience, Inc.* A copy of the tree survey is included in Appendix F of this EIR. The tree species on-site are hackberry (six trees), sweetgum (three trees), African fern pine (two trees), and Callery pear (one tree). The trees on-site have a low or moderate suitability for preservation based on tree health, structural integrity, species response, age and longevity, and species invasiveness. All trees on-site are less than 15 inches in diameter, except for the Callery pear which is 15 inches in diameter and, therefore, considered a "protected" tree per the City of Burlingame Municipal Code Section 11.06.020 (see *Section 2.7.1.1* for more detail). The Callery pear tree is located along the western site boundary near Rollins Road

and has been topped due to existing overhead utility lines. The Callery pear has a moderate preservation suitability. No other trees on-site are considered protected trees. A summary of the trees on-site, including their diameter, and suitability for preservation is provided in Table 2.7-1. A map showing the location of the trees on-site is provided on Figure 2.7-1.

Table 2.7-1: Summary of On-Site Trees				
Tree Number	Common Name	Trunk Diameter (inches)	Suitability for Preservation	
17	Hackberry	6	Low	
18	Hackberry	6	Low	
19	Hackberry	11	Low	
20	Hackberry	6	Low	
21	Hackberry	8	Low	
22	Hackberry	6	Low	
23	African fern pine	6	Low	
24	African fern pine	7	Low	
25*	Callery pear	15	Moderate	
26	Sweetgum	7	Moderate	
27	Sweetgum	7	Moderate	
28	Sweetgum	7	Moderate	

Note: * Indicates a Protected tree as defined by the City of Burlingame Municipal Code (Section 11.06.020)



2.7.2 Biological Resource Impact

2.7.2.1 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.

2.7.2.2 Impacts to Sensitive Habitats and Special-Status Species

Since the entire project site is developed, disturbed by human use, and located in an urbanized area, the site does not contain sensitive habitats (such as wetlands and riparian habitats) or act as a wildlife corridor. Due to the lack of sensitive habitats on-site, no special-status plant or animal species are expected to be present on-site.

Nesting birds, however, may be present in trees on and adjacent to the project site. The trees could provide nesting habitat for birds, including migratory birds and raptors. Nesting birds are protected under provisions of the Migratory Bird Treaty Act and Fish and Game Code Sections 3503, 3503.5, and 2800.

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 abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal and site grading that disturb a nesting bird or raptor onsite or immediately adjacent to the construction zone would constitute a significant impact.

Impact BIO-1: Development of the project would impact nesting birds and raptors, if present onsite or in the immediate vicinity. (Potentially Significant Impact)

<u>Mitigation Measures:</u> In conformance with the Fish and Game Code and the provisions of the FMBTA, the project shall implement the following mitigation measures to reduce impacts to nesting birds (if present on or adjacent to the site) to a less than significant level by avoiding construction activities during the nesting season, inhibiting nesting, and conducting preconstruction surveys in order to avoid disturbance of active nests that may be affected by project construction:

- MM BIO-1.1: Avoidance and Inhibit Nesting. Construction and tree removal/pruning activities shall be scheduled to avoid the nesting season to the extent feasible. If feasible, tree removal and/or pruning shall be completed before the start of the nesting season to help preclude nesting. The nesting season for most birds and raptors in the San Francisco Bay area extends from 1 February through 31 August.
- MM BIO-1.2: Preconstruction Survey(s). If it is not possible to schedule construction activities between 1 September and 31 January then a qualified ornithologist shall conduct a preconstruction survey to identify active bird nests that may be disturbed during project construction. This survey shall be completed no more than seven (7) days prior to the initiation of demolition/construction activities (including tree removal and pruning). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats in and immediately adjacent to the construction areas for nests.

If the survey does not identify any nesting birds that would be affected by construction activities, no further mitigation is required.

If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist (in consultation with the CDFW) shall designate a construction-free buffer zone (typically 300 feet for raptors and 100 feet for non-raptors) to be established around the nest to ensure that no nests of species protected by the FMBTA and California Fish and Game Code will be disturbed during construction activities. The buffer shall remain in place until a qualified ornithologist has determined that the nest is no longer active.

MM BIO-1.3: Reporting. A final report on nesting birds and raptors, including survey methodology, survey date(s), map of identified active nests (if any), and protection measures (if required), shall be submitted to the Planning Manager and be completed to the satisfaction of the Community Development Director prior to the start of grading.

2.7.2.3 Impacts to Trees

On-Site Trees

Construction of the proposed project would require the removal of all 12 trees on-site, one of which is a protected tree. As discussed in *Section 2.7.1.1*, removal of a protected tree (with a valid permit) shall be replaced by three 15-gallon size trees or one 24-inch box size tree or one 36-inch box size tree for each protected tree removed; replacement of a removed protected tree may also be waived by the Director if a sufficient number of trees exists on the property to meet all other requirements of the Code. As part of the project, and in accordance with the City of Burlingame Municipal Code Section 11.06.090 and the Urban Forest Management Plan, 171 new trees would be planted on-site, resulting in a tree replacement ratio of over 14 new trees for each existing tree removed (14 new trees: 1 existing tree removed). The project shall comply with the City's Municipal Code and Urban Forest Management Plan by obtaining the necessary tree permit(s) and adhering to the tree plantings/replacements requirements. Therefore, removal of the protected tree would not result in a significant impact.

Off-Site Trees

The tree survey in Appendix F of this EIR also included trees on adjacent properties that may be affected by project construction. Thirteen off-site trees have canopies extending onto the project site that may require pruning to provide construction clearance, but the trees would be preserved. The construction of the proposed project would not require the removal of any off-site trees. The project shall implement the recommendations identified in the tree survey included in Appendix F of this EIR to protect off-site trees during project construction.

Based on the above discussion, the project would not conflict with local policies or ordinances protecting biological resources, including the City's Municipal Code and Urban Forest Management Plan. (Less Than Significant Impact)

2.7.2.4 Consistency with Applicable Plans, Policies, and Regulations

Federal Migratory Bird Treaty Act and State Fish and Game Code

As discussed previously, the project shall implement mitigation measures MM BIO-1.1 through -1.3 to comply with the FMBTA and state Fish and Game Code. For this reason, the project is consistent with the FMBTA and state Fish and Game Code.

City of Burlingame Municipal Code and Urban Forest Management Plan

As discussed in *Section 2.7.2.3* above, the project would remove the existing trees on-site in accordance with the City's Municipal Code and Urban Forest Management Plan regarding tree replacements and plantings. The project, therefore, would be consistent with the City's Municipal Code and Urban Forest Management Plan.

Other

The project site is not located within an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would not conflict with any provisions of an adopted local, regional, or state conservation plan.

2.7.3 Conclusion

Impact BIO-1: Development of the proposed project, with the implementation of mitigation measures MM BIO-1.1 through 1.3, would not result in a significant impact to nesting birds and raptors. (Less Than Significant Impact with Mitigation Incorporated)

The proposed project would not result in other significant impacts to biological resources. (**Less Than Significant Impact**)

2.8 CULTURAL RESOURCES

The following discussion is based in part on a historical resources report prepared by *Carey & Co.*, *Inc.* in June 2014 (which is included in Appendix G of this EIR) and an archaeological report prepared by *Holman & Associates* in June 2014 for the project site. A copy of the archaeological report is on file at the City of Burlingame Community Development Department.

2.8.1 Setting

2.8.1.1 Regulatory Framework

A summary of applicable federal and state regulations are provided below. Refer to Appendix G for additional details regarding the regulations.

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's most comprehensive list of historic resources and includes historic resources significant in American history, architecture, archeology, engineering and culture, at the local, state, and national level. National Register Bulletin Number 15, *How to Apply the National Register Criteria for Evaluation*, describes the Criteria for Evaluation as being composed of two factors. First, the property must be "associated with an important historic context" and second, the property must retain integrity of those features necessary to convey its significance.

The National Register identifies four possible context types or criteria, at least one of which must be applicable at the national, state, or local level. As listed under Section 8, "Statement of Significance," of the National Register Registration Form, these are:

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important to prehistory or history.

Second, for a property to qualify under the National Register's Criteria for Evaluation, it must also retain historic integrity of those features necessary to convey its significance. While a property's significance relates to its role within a specific historic context, its integrity refers to a property's physical features and how they relate to its significance. To determine if a property retains the physical characteristics corresponding to its historic context, the National Register has identified seven aspects of integrity:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;

- 2. Design the combination of elements that create the form, plan, space, structure, and style of a property;
- 3. Setting the physical environment of a historic property;
- 4. Materials the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- 5. Workmanship the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- 6. Feeling a property's expression of the aesthetic or historic sense of a particular period of time; and
- 7. Association the direct link between an important historic event or person and a historic property.

There are no National Register listed or eligible resources on or in the vicinity of the project site; see discussion in Section 2.8.1.2 for more detail.

California Register of Historic Resources

The California Register of Historic Resources (CRHR) establishes a list of properties that are to be protected from substantial adverse change (PRC Section 5024.1). The California Office of Historic Preservation's Technical Assistance Series #6, California Register and National Register: A Comparison, outlines the differences between the federal and state processes. The context types to be used when establishing the significance of a property for listing on the California Register are very similar, with emphasis on local and state significance. They are:

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

No California Register listed or eligible resources are present on or in the vicinity of the project site, see discussion in Section 2.8.1.2 for more detail.

2.8.1.2 **Existing Conditions**

Paleontological Resources

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geologic record. They range from the well-known and well publicized (such as mammoth and dinosaur bones) to scientifically important fossils. There are no recorded paleontological resources in the project area.

Prehistoric and Historic Resources

Prehistoric and historic resources are resources associated with human activity in the past. These resources may be located above ground or underground and have significance in the history, prehistory, architecture, culture of the nation, State of California, or local or tribal communities. Prehistoric resources are resources that have significance in prehistory, which is defined as events of the past occurring prior to the advent of written records. Historic resources are generally 50 years or older in age and include, but are not limited to, buildings, districts, structures, sites, objects, and areas.

Prehistoric Context

In this area of San Mateo County, Native American sites have been identified adjacent to former bay margins and on terraces adjacent to watercourses. According to an 1854 map depicting the San Francisco Bay, the shoreline for this area of Burlingame was along the current route of US 101. For these reasons, the project site appears to be moderate to highly sensitive for prehistoric archaeological sites. The closest Native American resource was recorded in 1990 near the intersection of Carolan and Broadway at the edge of former bay marshland and described as isolated pockets of Native American shell-rich black midden scattered over a few blocks. All other recorded cultural resources located within a quarter mile of the project site are associated with post-World War II development. No cultural resources have been recorded within or adjacent to the project site.

Historic Context

The history of the City of Burlingame includes a pre-American period, the gold rush, establishment of the San Francisco and San José Railroad, incorporation, development, and growth which has led to where the City is today. Details about the history of the City is included in Appendix G of this EIR.

The project site is developed with eight buildings which were constructed between 1943 and 1982. Half of the buildings on-site are over 50 years old. In addition, the existing residences on Toyon Drive immediately east of the project site are all over 50 years old. The existing buildings on-site, as well as the adjacent residences to the east and west (i.e., residences along Toyon Drive and the Northpark Apartment complex), were evaluated in the historic resources technical report to determine if the structures qualified as potentially historic resources per federal and state criteria. While many buildings are over 50 years old, the analysis found that none of the buildings are associated with a significant event or person and none are architecturally important (refer to Appendix G). Therefore, the buildings on and adjacent to the site are not eligible for listing in the NRHP nor the CRHR, and are not considered historic or potentially historic resources.

2.8.2 Cultural Resources Impacts

2.8.2.1 Thresholds of Significance

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

- Cause a substantial adverse change in the significance of a historical resource as defined in §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.

2.8.2.2 Impacts to Buried Unique Paleontological, Unique Geological Features, and Archaeological Resources

Although no archaeological resources have been recorded on or adjacent to the project site, the project site is located in an area with a moderate to high sensitivity for buried archaeological resources. Construction of the proposed project includes excavating approximately 29,000 cubic yards of soil (to maximum depth of 13 feet) for a semi-subterranean parking garage, elevators, and mechanical equipment. Should any archaeological resource, unique paleontological resource/site, unique geologic feature, or human remains be found during project excavation and grading activities, their disturbance would be a significant impact.

Impact CUL-1: Construction of proposed project would result in significant impacts to archaeological resources, unique paleontological resources/sites, unique geologic features, or human remains, if present on-site. (Potentially Significant Impact)

<u>Mitigation Measures:</u> The project shall implement the following mitigation measures to reduce and/or avoid impacts to unknown buried paleontological and archaeological resources to a less than significant level by completing a subsurface exploration of the site prior to subsurface construction in order to search for possible buried cultural resources, halting ground disturbing activities in the vicinity of a resource, and developing a specific plan with mitigation to avoid significantly impacting the resource(s) (if found on-site):

MM CUL-1.1: Unique Paleontological and/or Geologic Features and Reporting. Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the City Planning Manager notified immediately. A qualified paleontologist shall evaluate the find and prescribe mitigation measures to reduce impacts to a less than significant level. The identified mitigation measures shall be implemented. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is carried out. Upon completion of

the paleontological assessment, a report shall be submitted to the City and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

MM CUL-1.2: <u>Undiscovered Cultural Resources.</u> A testing program to assess the potential presence or absence of undiscovered cultural resources shall be implemented by a qualified archaeologist after all buildings and other materials obscuring the ground surface have been removed, but before any construction related grading or trenching, in order to search for possible buried archaeological resources.

In the event archaeological deposits are discovered, work shall be halted within a sensitivity zone to be determined by the archaeologist. The archaeologist shall prepare a plan for evaluation of the resource to the California Register and submit the plan to the City's Planning Manager for review and approval prior to any construction related earthmoving within the identified zone of archaeological sensitivity. The plan shall also include appropriate recommendations regarding the significance of the find and the appropriate mitigation. The identified mitigation shall be implemented and can take the form of limited data retrieval through hand excavation coupled with continued archaeological monitoring inside of the archaeologically sensitive zone to ensure that significant data and materials are recorded and/or removed for analysis. Monitoring also serves to identify and thus limit damage to human remains and associated grave goods.

- MM CUL-1.3: Human Remains. Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site within a 100-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The San Mateo 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 within 24 hours. The Native American Heritage Commission 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.
- MM CUL-1.4: Report of Archaeological Resources. If archaeological resources are identified, a final report summarizing the discovery of cultural materials shall be submitted to the City's Planning Manager prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

2.8.2.3 Impacts to Historic Resources

As discussed in *Section 2.8.1.2*, there are no historic (or potentially historic) structures or resources on or adjacent to the project site. Therefore, the development of the project would not impact historic resources. (**No Impact**)

2.8.3 <u>Conclusion</u>

Impact CUL-1: Construction of proposed development, with the implementation of mitigation measures MM CUL-1.1 through MM CUL-1.3, would not result a significant impact to buried cultural resources. (Less Than Significant Impact with Mitigation Incorporated).

The project would not result in a significant impact to historic resources. (**No Impact**)

2.9 HAZARDS AND HAZARDOUS MATERIALS

The following is based on a Pre-Demolition Environmental Summary Report, Phase I Environmental Site Assessment, Phase II Environmental Site Assessment, and Soil Management Plan completed by *Engeo*. A peer review of the reports was completed by *Cornerstone Earth Group* in June 2014. The reports and peer review are included in Appendix H of this EIR.

2.9.1 Setting

2.9.1.1 *Overview*

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include motor oil and fuel, metals (e.g., lead, mercury, and arsenic), asbestos, pesticides, herbicides, and chemical compounds used in manufacturing and other uses. A substance may be considered hazardous if, due to its chemical and/or physical properties, it poses a substantial hazard when it is improperly treated, stored, transported, disposed of, or released into the atmosphere in the event of an accident. Determining if such substances are present on or near project sites is important because exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology.

2.9.1.2 Regulatory Framework

Storage of Petroleum Fuels and Other Hazardous Materials

In California, the United States Environmental Protection Agency (USEPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies including the Central County Fire Department (CCFD), which serves the City of Burlingame and Town of Hillsborough, and the San Mateo County Environmental Health Department (SMCEHD) have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

The CUPA program was created by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for several environmental and emergency management programs. The following six programs are administered locally under the State's Unified Program: 1) Hazardous Materials Business Plans; 2) Hazardous Waste Generator Program; 3) Hazardous Waste Tiered Permitting; 4) Underground Storage Tanks; 5) Aboveground Storage Tank Spill Prevention Control and Countermeasure Plans; and 6) California Accidental Release Prevention Program (CalARP).

The SMCEHD is the CUPA for the City of Burlingame and administers the hazardous materials related programs listed above.

City of Burlingame General Plan

The Seismic Safety Element, as well as the Safety Element of the City's General Plan contains policies, recommendations, and actions to avoid or mitigate hazards and hazardous material impacts resulting from development within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description	
Policy SS(B)	Require that new development incorporate seismic hazard mitigation measures to reduce risk to an acceptable level.	
Policy S(A)	Identify existing natural and man-made safety hazards, and devise a reasonable assignment of responsibility for their correction or reduction which will be within limits of economic acceptability.	
Policy S(C)	Identify any urgently needed implementation measures or new legislation.	

2.9.1.3 Existing Conditions

Possible On-Site Sources of Contamination

Database Records Search

A database search was completed to determine whether the project is listed on any federal, state, local, historical, and/or brownfield databases as a known or suspected source of contamination, or a site that handles or stores hazardous materials. The project site is not listed on Federal or State American Society for Testing and Materials (ASTM) standard or supplemental sources, but is listed on local and other ASTM supplemental databases (Appendix H).

Site History

Prior to the mid-1940s, the project site was undeveloped open space near the shoreline that was later reclaimed using fill materials. The site was initially developed with a lumber planing facility with lumber and coal storage areas, and later developed with commercial and automotive service structures by the 1950s. Today, the site is developed with seven buildings occupied by automotive repair, rental, and sales facilities. Asphalt-paved driveways and parking lots are also located throughout the site.

Site Observations

Hazardous materials, consisting of motor oil, antifreeze, automatic transmission fluid, absorbent, and used oil filters, in connection with on-site automotive repair, rental, and sale facilities were observed on the project site. Two unlabeled 55-gallon drums were observed on-site but no staining was observed around the drums, and the drums were not located in the immediate vicinity of a drain. Seven below ground hydraulic lifts were also observed. Eight aboveground and seven underground storage tanks are believed to have been installed and removed in various locations throughout the history of the project site (Figure 2.9-1). Records documenting the installation and removal of the

underground storage tanks on-site are complicated by the fact that there have historically been multiple formal and informal addresses for the site. In addition, there is no clear delineation on-site (e.g. fencing) that would allow regulators to clearly associate a particular tank location with a particular address. Consequently, there are discrepancies and inconsistencies with regard to the number of underground storage tanks that have been installed, and/or removed, on-site.

No odors indicative of hazardous or petroleum materials, or pools of potentially hazardous liquid were found on the project site. Minor soil staining, likely due to oil, was observed in the rear parking lot.

Soil Sampling

A total of 12 soil samples were taken at seven locations where former aboveground and underground storage tanks were known to be located (Figure 2.9-1). The soil samples were submitted to a State-accredited fixed-base analytical laboratory for analysis.

Review of the laboratory test results found that the soils in the area of the former storage tanks were not significantly impacted by the former tank or sump use. The laboratory test results generally confirm that the excavation and removal of the former underground tanks had reduced most of the soil contamination associated with each of the tanks. In some locations, residual concentrations remain, but appear to be isolated to the area of the former tank and do not appear to represent a significant contamination concern. The soil in the sampling locations was clayey, and residual contaminated soil left in place at the time of the cleanup and removal appeared to be limited in its extent. Soil samples collected from 1028 Carolan Avenue found trace amounts of total petroleum hydrocarbons (TPH); however, this sampling location was not in an area of a former underground storage tank or sump.

Groundwater Sampling

Groundwater at the project site was detected at a depth of approximately 6.5 feet below ground surface (bgs), generally flowing in a northeast direction. Fluctuations in the groundwater level may occur due to seasonal changes, variations in rainfall and underground drainage patterns, and other factors. It is estimated that the highest groundwater levels on-site could be approximately three feet higher than the readings obtained.¹¹

Groundwater samples were collected to identify potential groundwater impacts on-site near the locations of known storage tanks (Figure 2.9-1); however, groundwater was not encountered at all the sampling locations during field activities. As a result, two grab groundwater samples were collected for laboratory testing. A groundwater sample collected from a depth of six feet bgs at a former underground storage tank location at 1008 Carolan Avenue detected TPH as gasoline at 910 μ g/L and TPH as diesel at 680 μ g/L. The residential groundwater environmental screening level (ESL) for both TPH as gasoline and TPH as diesel is 100 μ g/L. ESLs are a conservative screening level to help expedite the identification and evaluation of potential environmental concerns at a contaminated site.

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¹¹ ENGEO. Phase I Environmental Site Assessment: 1028 Carolan Avenue. July 22, 2013.

Soil Vapor Gas Sampling

Four soil vapor gas monitoring wells were installed throughout the project site to collect soil gas samples and determine if a vapor intrusion health risk exists on the site. Review of the laboratory results did not find significant levels of TPH or Volatile Organic Compounds (VOCs) on the site.

Possible Off-site Sources of Contamination

Database Records Search

A database search was completed for the site to evaluate the likelihood of contamination incidents near the project site that could impact the proposed project. A list of the database sources reviewed, a description of the sources, and a radius map showing the location of reported facilities relative to the project site are included in Appendix H. According to the database search, there are 15 reported incidents within 0.25 miles of the site.

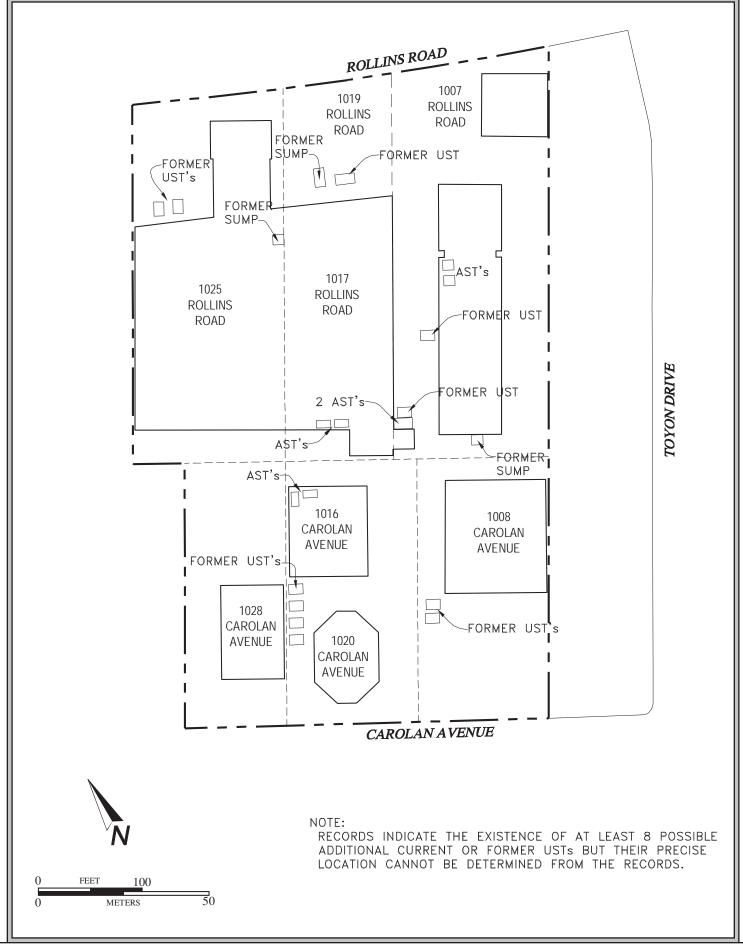
Other Hazards

Airports

As previously discussed in *Section 2.1 Land Use*, the project site is located within the Airport Influence Area (AIA) of the San Francisco International Airport (SFO).

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace" (referred to as FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above ground. For the project site, any proposed structure of a height greater than approximately 100 feet above mean sea level is required under FAR Part 77 to be submitted to the FAA for review.

The project is not located in the vicinity of a private airstrip.



2.9.2 Hazards and Hazardous Material Impacts

2.9.2.1 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.

2.9.2.2 On-site Soil and Groundwater Contamination

The site was initially developed with a lumber planing facility with lumber and coal storage areas in the 1940s, and later developed with commercial and automotive service structures by the 1950s, which are currently on the site today. Analysis of soil samples detected trace amounts of chemicals of potential concern, including TPH, in areas where former storage tanks and hydraulic lifts were located. In addition, groundwater analysis found TPH as diesel and gasoline above the respective ESLs.

Given the previous uses on-site and the results of soil and groundwater samples completed to date, construction workers and future residences could be exposed to contaminated soils and groundwater.

Impact HAZ-1: Construction workers and future residences could be exposed to contaminated soils and groundwater located on-site. (Potentially Significant Impact)

Mitigation Measures: The project proposes to implement the following mitigation measures to reduce soil and groundwater contamination impacts to construction workers and future residences to a less than significant level.

Building Demolition and Construction

- MM HAZ-1.1: Thirty-two above ground lifts were noted in the auto servicing areas of CalBay Collision, Anchor Auto Body & Detailing, Hyundai of Burlingame, Chilton Auto Body, Topline Automobile, and Cammisa Motor Car Company. Seven below ground lifts were observed inside the auto servicing area of CalBay Collision. Two above-ground auto lifts, two capped grouted lifts and six former lifts were noted at Chilton auto body. The existing lifts shall be removed in accordance with local regulations. Selective sampling shall also be conducted to confirm that residual contamination, if present, does not exceed residential ESLs and RSLs.
- MM HAZ-1.2: A Health and Safety Plan (HSP) shall be developed to establish appropriate protocols for working in contaminated materials. Workers conducting Site investigation and earthwork activities in areas of contamination shall complete a 40-hour HAZWOPER training course (29 CFR 1910.120 (e)), including respirator and personal protective equipment training. Each contractor will be responsible for the health and safety of their employees as well as for compliance with all applicable federal, state, and local laws and guidelines. This document shall be provided to the City and the oversight agency prior to issuance of demolition and grading permits.
- **MM HAZ-1.3:** A Ground Water Management Plan shall be prepared to evaluate water quality and discharge/disposal alternatives; the pumped water shall not be used for on-site dust control or any other on-site use. If long-term dewatering is required, the means and methods to extract, treat and dispose of ground water also shall be presented.
- MM HAZ-1.4: Some components encountered as part of the building demolition waste stream may contain hazardous materials. Universal wastes, lubrication fluids, CFCs, and HCFC's shall be removed before structural demolition begins. Materials that may result in possible risk to human health and the environment when improperly managed include lamps, thermostats, and light switches containing mercury; batteries from exit signs, emergency lights, and smoke alarms; lighting ballasts which contain PCBs; and lead pipes and roof vent flashings. Demolition waste such as fluorescent lamps, PCB ballasts, lead acid batteries, mercury thermostats, and lead flashings have special case-by-case requirements for generation, storage, transportation, and disposal. Before disposing of any demolition waste, the Owner, Developer and Demolition Contractor shall determine if the waste is hazardous and shall ensure proper disposal of waste materials.
- MM HAZ-1.5: Significant quantities of asphalt concrete (AC) grindings, aggregate base (AB), and Portland Cement Concrete (PCC) will be generated during demolition activities. AC/AB grindings shall not be reused beneath building areas.

Soil Management Plan

- MM HAZ-1.6: During demolition and construction activities, contaminated material may be encountered. A Soil Management Plan (SMP), prepared by ENGEO, establishing management practices for handling contaminated soil, groundwater, or other materials for the site has been approved by the San Mateo County Environmental Health Department. The SMP (refer to Appendix H) includes the following protocols and safety measures:
 - ENGEO will provide full-time observation services during demolition and grading activities. Soils encountered across the entire property will be observed for discoloration/staining or olfactory evidence of contaminant impacts, with particular attention given to the location of identified soil impacts. In the event unforeseen environmental conditions, such as those listed above, are encountered during demolition and pre-grading work, the site SMP shall be implemented.
 - Once the buildings on-site have been demolished and the debris removed from the site, the soil beneath the buildings in the area of the planned underground parking structure will be characterized for removal to the appropriate landfill. The findings from this study will be used to begin to quantify the soil for the various disposal options prior to beginning the excavation. If determined to be prudent in the field prior to removal of the buildings and debris, additional samples could be taken to confirm the exact excavation boundaries. Refer to the SMP in Appendix H for a full methodology on soil characterization.
 - Primarily, visual and olfactory evidence will be used to screen for contaminated soil; however, a photo-ionization detector (PID) will also be used to further screen soils for potential contaminates, as well as ambient air during excavation work. The specific locations of air monitoring will be field-adjusted based on potential access and safety limitations, but will generally include within the excavation area, along with the perimeter of the excavation. PID readings will generally be taken at least every hour and whenever suspect material is encountered. Refer to Appendix H for a complete methodology of the PID screenings.

With regard to ambient air screening, any PID reading for volatile organics that is 10 ppm above background for more than three minutes will result in a stop work order. Background shall be determined at the beginning of the day prior to excavation activities. Work shall not continue until PID readings have attenuated below the action level.

The PID will provide real-time data on the presence of potentially hazardous compounds to provide for proper selection of Personnel Protection Equipment (PPE). The initial PPE will be Level D (modified) which includes safety

glasses, hard hat, steel-toed boots, gloves, hearing protection, and high visibility vests. In the unlikely event significant unforeseen environmental conditions are discovered, work shall stop and San Mateo County Environmental Health will be contacted.

A primary and backup PID unit will be maintained onsite for the duration of fieldwork. Each unit will be fully charged and calibrated daily.

Work activities shall be conducted Monday through Friday between 7:00 AM and 6:00 PM. Excavation will be performed using a combination of scrapers, backhoes, track-mounted excavators and/or loaders. The contractor will adhere to OSHA guidelines. If excavations require shoring, it will be provided by the contractor.

• The development will include an engineered cut of up to six (6) to nine (9) feet below the ground surface in the northern portion of the site for the construction of the underground parking. Prior to beginning the excavation, the soil in the planned excavation area will be characterized to determine the appropriate disposal options and to allow for excavation and off-haul without first stockpiling on site.

A PID will be used to screen soils during the excavation. Also, if soils exhibiting evidence of environmental impact (e.g., odor or staining) are identified at the proposed margins or bottom of the excavation, the excavation shall be advanced to a greater depth and/or lateral dimension as appropriate until impacted soils exhibiting evidence of impact have been removed.

Impacted soils, if encountered, will be stockpiled onsite. To prevent potential impacts to underlying soils or surfaces, stockpiles shall be placed on 10-milimeter (mil) plastic sheeting, as appropriate. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. Appropriate dust control and stormwater best management practices (BMPs) shall be implemented during the soil mitigation activities.

The soil stockpiles shall be profiled for landfill disposal in general accordance with the "CAL-EPA Department of Toxic Substances Control (DTSC) Information Advisory – Clean Imported Fill Material" document. The specific laboratory profile will be determined prior to excavation activities; however, it is anticipated that as a minimum, the stockpile samples will be analyzed for Total Petroleum Hydrocarbons as diesel and motor oil with silica gel cleanup (EPA 8015) and CAM 17 metals (EPA 6010B).

 Where impacted soils are encountered and removed, verification samples shall be collected from the resulting excavations. Sample areas exhibiting levels (see list below) in excess of the corresponding screening levels will be excavated an additional 12 inches vertically and laterally, with subsequent confirmation sampling. This process shall continue until all concentrations are below the applicable screening levels.

Discrete soil samples shall be recovered from the center of 20 by 20 foot excavation grids identified with soil impact for laboratory testing (minimum one base sample per excavation). Sample grids exhibiting COPCs in excess of the corresponding residential ESLs will be excavated an additional twelve inches vertically with subsequent confirmation sampling. A minimum of one sample shall be recovered for each sidewall on a 20 lineal foot basis. Sidewall samples shall be recovered from the mid-point of the sidewall on a three vertical foot interval. This process shall continue until the laboratory testing shows that the soil left in place is below the corresponding ESLs. If groundwater is encountered within any remedial excavation, a grab water sample will be recovered in addition to the base sample(s). Refer to Appendix H for a full methodology of the verification sampling.

It is anticipated that following soil stockpiling and characterization of impacted materials, these soil materials will be transported to an appropriate landfill facility. Prior to off-site disposal, soils shall be sampled and characterized. A minimum of one stockpile sample will be collected. As necessary, one sample per 250 cubic yards of stockpile volume will be collected.

Closure and Reporting

- MM HAZ-1.7: Upon completion of the soil excavation, confirmation sampling and backfill, a final report documenting the work performed shall be submitted to the County of San Mateo Environmental Health Department for review and approval prior to the issuance of a building permit. The report will include details regarding soil excavation, sampling, and landfill disposal documentation.
- MM HAZ-1.8: A permit may be required for facility closure (i.e., demolition, removal, or abandonment) of any facility or portion of a facility (e.g., lab) where hazardous materials are used or stored. The Property Owner and/or Developer shall contact the Fire Department and San Mateo County Environmental Health Department to determine facility closure requirements prior to building demolition.

Asbestos and Lead-based Paint

MM HAZ-1.9: Due to the age of the on-site structures, building materials may contain asbestos. Because demolition of the buildings is planned, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable asbestos containing building materials prior to building demolition or renovation that may disturb these materials.

MM HAZ-1.10: The Consumer Product Safety Commission banned the use of lead as an additive in paint in 1978. Based on the age of the buildings, lead-based paint may be present. Because demolition is planned, the removal of lead-based paint is not required if it is bonded to the building materials. However, if the lead-based paint is flaking, peeling, or blistering, it shall be removed prior to demolition. In either case, applicable OSHA regulations must be followed; these include requirements for worker training, air monitoring and dust control, among others. Any debris or soil containing lead must be disposed appropriately.

2.9.2.3 Off-Site Sources of Contamination

As previously discussed, there are 15 reported incidents within 0.25 miles of the site; however, based on the groundwater flow direction, case status, and/or distance of the facility in relation to the project site, nearby incidents are not likely to have significantly impacted the project site.

2.9.2.4 Other Hazards

The project site is located within the SFO AIA and is subject to FAR Part 77 regulations. For the project site, any proposed structure of a height greater than approximately 100 feet above mean sea level is required under FAR Part 77 to be submitted to the FAA for review. The project proposes to construct an apartment building approximately 61 feet tall and townhouses approximately 34 feet tall. The proposed project would not exceed the 100 feet in height and, therefore, is not required to be submitted to the FAA for review; implementation of the proposed project would have a less than significant impact on airport operations and air traffic safety.

The project site is not located in the vicinity of a private airstrip. The project site is not located within one-quarter mile of a school. The project would not interfere with an adopted emergency response plan or emergency evacuation plan. Given the project's infill, urbanized location, the project site is not subject to wildland fires. Therefore, the project would have no impact regarding these resources.

2.9.3 Conclusion

Impact HAZ-1: With the implementation of the identified mitigation measures (MM HAZ-1.1 to -1.10), the project would not result in significant impacts from contaminated soils and groundwater located on-site. (Less Than Significant Impact with Mitigation)

2.10 GEOLOGY AND SOILS

The following is based on a geotechnical investigation prepared by *Rockridge Geotechnical* in February 2014, a peer review of the report, prepared by *Cornerstone Earth Group* in June 2014, and a response to the peer review prepared by *Rockridge Geotechnical* in November 2014. The report, peer review, and response to the peer review are included in Appendix I of this EIR.

2.10.1 Setting

2.10.1.1 Regulatory Framework

California Building Code

The State of California provides minimum standards for structural design and site development through the California Building Code [CBC – California Code of Regulations (CCR), Title 24, part 2]. Local codes are permitted to be more stringent than Title 24 but, at minimum, are required to meet all state standards and enforce the regulations of the 2010 CBC. The City's enforcement of its Building Code ensures the project would be consistent with the CBC.

Chapter 16 of the CBC deals with structural design requirements governing seismically resistant construction. Chapter 18 of the CBC includes the requirements for foundation and soil investigations; excavation, grading, and fill; allowable load-bearing values of soils; and design of foundation walls, retaining walls, embedded post and poles. Chapter 33 of the CBC includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes and the protection of pedestrians and adjoining properties from damage caused by such work. Appendix J of the CBC includes grading requirements for design of excavation of fills and for erosion control.

City of Burlingame General Plan

The Seismic Safety Element, as well as the Safety Element of the City's General Plan contains policies, recommendations, and actions to avoid or mitigate geology and soils impacts resulting from development within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description
Policy SS(B)	Require that new development incorporate seismic hazard mitigation measures to reduce risk to an acceptable level.
Policy S(A)	Identify existing natural and man-made safety hazards, and devise a reasonable assignment of responsibility for their correction or reduction which will be within limits of economic acceptability.
Policy S(C)	Identify any urgently needed implementation measures or new legislation.

2.10.1.2 Existing Conditions

Regional Geology

The site is located in the Coast Ranges geomorphic province of California which is characterized by a series of northwest-trending folded and faulted mountain chains and intervening valleys. The oldest rocks exposed near the site belong to the Franciscan Complex which underlies the ridgelines to the west. The Franciscan Complex is composed of altered sea floor sediments deposited during Cretaceous to Jurassic Periods of geologic time (roughly 65 to 205 million years before present).

On-Site Geologic Conditions

Soils

The project site is located on reclaimed lands artificially filled along the western margin of the San Francisco Bay. Alluvial fans generated from Sanchez Creek were deposited near the site and overlap the young bay sediments. Artificial fill underlies the site and overlaps the younger basin deposits to the east. To the south and west, the fill covers sediments from older fan deposits and Colma formation.

Results of soil testing completed on-site indicated that the project site is generally covered with two to five feet of heterogeneous undocumented fill and native material that consists of stiff to very stiff fine grained soil with varying sand and gravel. Beneath the southwest edge of the site, weak deposits (likely former marsh deposits) were found beneath the fill between depths of approximately four to eight feet below ground surface (bgs). Fill and/or weak deposits throughout the project site are generally underlain by stiff to very stiff consolidated clay with varying sand and gravel. The soils on-site have expansion potential. Refer to Appendix I for additional detail on on-site soil conditions.

Groundwater

Groundwater in the project area slopes gently to the northeast. Based on groundwater data on-site and in the area, it is estimated that the groundwater surface slopes from three feet below ground surface (bgs) at the northeast end of the site to six feet bgs at the southwest end of the project site. Fluctuations in the level of subsurface water can occur due to variations in rainfall, temperature, and other factors.

Seismicity and Seismic-Related Hazards

The San Francisco Bay Area is one of the most seismically active regions in the United States. The major active faults in the project area are the San Andreas, San Gregorio, and Hayward faults located approximately 3.7 miles west, 14 miles west, and 26 miles northeast of the project site, respectively. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site. Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, lateral spreading, and differential compaction. These seismic-related hazards are discussed below.

The site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site.

Liquefaction

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. On-site soils were analyzed and found to have the potential for liquefaction (refer to Appendix I).

Lateral Spreading

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open face, such as the steep bank of a stream channel. Considering the relatively flat site grades and the absence of a free face on or adjacent to the site, as well as the depth and relative thickness of the potentially liquefiable layers, the risk of lateral spreading on the site is low.

Differential Compaction

Differential compaction of non-saturated sand (sand above the groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. Analysis of subsurface exploration tests indicate that the soil above groundwater on the site is generally cohesive and not susceptible to differential compaction. One exception was in the southeast portion of the site where loose to medium dense silty gravel with sand fill was encountered in the upper four feet.

2.10.2 Geology and Soil Impacts

2.10.2.1 Thresholds of Significance

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

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo
 Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other
 substantial evidence of a known fault (refer to Division of Mines and Geology Special
 Publication 42);
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction; 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.

2.10.2.2 Soil and Groundwater Impacts

Soil Impacts

The project does not propose the use of septic tanks or alternative wastewater disposal systems and, therefore, the last threshold is not discussed further. Due to the relatively flat topography of the site and surrounding area, the project would not be exposed to substantial slope instability, erosion, or landslide related hazards. (**No Impact**)

As discussed in *Section 2.10.1.2* above, the project site contains about five feet of undocumented fill below the existing grade. The undocumented fill was encountered within the footprint of the proposed townhouse buildings which are to be constructed at grade. The presence of undocumented fill and expansive soil conditions could damage future buildings and improvements on-site, which would represent a significant impact unless avoided by incorporating appropriate engineering into grading and foundation designs.

Impact GEO-1: The presence of undocumented fill and expansive soils on-site would damage future buildings and improvements on-site unless mitigations are incorporated. (Potentially Significant Impact)

<u>Mitigation Measure:</u> The project proposes to be constructed in accordance with the CBC as adopted by the City of Burlingame and to implement the following mitigation measure to reduce geology and soil impacts to a less than significant level:

MM GEO-1.1: The project shall be designed and constructed in conformance with the recommendations in the design-level geotechnical report prepared for the project and peer review (see Appendix I), which includes the removal and replacement of undocumented fill with engineered fill; measures addressing construction dewatering, hydrostatic uplift, and building waterproofing; and seismic design standards.

Groundwater Impacts

The construction of the project (specifically the below ground parking garage) would require excavation to a depth of approximately 13 feet bgs in an area of where groundwater is relatively shallow (three to six feet bgs). Depending on the time of year that excavation is performed, the foundation subgrade may be more than six feet below the groundwater. The below ground parking garage, therefore, would be exposed to hydrostatic uplift pressure which would compromise the integrity of the structure. The project, constructed in accordance with the recommendations in the design-level geotechnical report and peer review completed for the project (refer to Appendix I) as required in MM GEO-1.1 above, would not result in significant impacts from groundwater. (Less Than Significant Impact)

2.10.2.3 Seismicity and Seismic-Related Impacts

While the likelihood of fault rupture at the project site is extremely low, the project site is located in a seismically active region and strong ground shaking would likely occur at the project site during seismic activity throughout the life of the project. If liquefaction were to occur in soils beneath the site, the ground surface would be susceptible to up to two inches of liquefaction-induced settlement, which could damage structures. Soils on the project site include clays which have varying soil moisture. Clay soils are expansive and shrink and swell, which could also result in damage to structures on the project site.

The project would conform to the standard engineering and building practices and techniques specified in the CBC. The proposed buildings would be designed and constructed in accordance with the recommendations of a design-level geotechnical report prepared for the site (refer to Appendix I), which identifies the specific design features related to geologic and seismic conditions. The buildings would meet the requirements of appropriate Building and Fire Codes, as adopted by the City of Burlingame. The project, in conformance to applicable regulations and with the implementation of the recommendations in the design-level geotechnical report (as required by MM GEO-1.1 above), would not result in significant impacts from seismicity and seismic-related hazards including ground shaking, liquefaction, and differential compaction. (Less Than Significant Impact)

2.10.2.4 Construction-Related Impacts

Removal of trees and landscaping on the site, and subsequent grading activities could increase erosion and sedimentation from the site. Compliance with the construction measures described in *Section 4.9 Hydrology and Water Quality* would reduce these impacts to a less than significant level. (**Less Than Significant Impact**)

2.10.2.5 Consistency with Applicable Plans, Policies, and Regulations

California Building Code

As discussed above, the project shall be constructed in accordance with the CBC. Therefore, the project would be consistent with the Code.

City of Burlingame General Plan

The project would be consistent with General Plan policies SS(B), S(A), and S(C) in the Seismic Safety Element, as identified in *Section 2.10.1.1*, by incorporating mitigation measures to reduce seismic hazards (refer to mitigation measure MM GEO-1.1). The project, therefore, is consistent with applicable General Plan policies regarding geology and soils.

2.10.3 Conclusion

Impact GEO-1: Construction of the proposed project, in conformance with the CBC as adopted by the City of Burlingame and in accordance with the recommendations in the design-level geotechnical report and peer review completed for the project (refer to Appendix I), would not result in significant soil, groundwater, or seismic and seismic-related impacts. (Less Than Significant Impact with Mitigation Incorporated)

The proposed project would not result in other significant geology and soil impacts. (**Less Than Significant Impact**)

2.11 HYDROLOGY AND WATER QUALITY

2.11.1 Setting

2.11.1.1 Regulatory Framework

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 floodplain zones and delineate other flood hazard areas. A 100-year floodplain zone is the area that has a one in 100 (one percent) chance of being flooded in any one year based on historical data. As discussed in more detail in *Section* 2.11.1.2 below, the project site is not located in a 100-year floodplain.

Clean Water Act and Porter-Cologne Water Quality Control Act

The federal Clean Water Act (CWA) and state Porter-Cologne Water Quality Control Act are the primary laws related to water quality. The CWA forms the basis for several state and local laws throughout the nation. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA outlines the federal laws for regulating discharges of pollutants as well as sets minimum water quality standards for all "Waters of the United States." The Porter-Cologne Act established the State Water Resources Control Board (SWRCB).

Several mechanisms are employed to control domestic, industrial, and agricultural pollution under the CWA. At the federal level, the CWA is administered by the EPA. At the state and regional level, the CWA is administered and enforced by the SWRCB and the nine Regional Water Quality Control Boards (RWQCBs). The City of Burlingame is within the jurisdiction of the San Francisco RWQCB. The State of California has developed a number of water quality laws, rules, and regulations, in part to assist in the implementation of the CWA and related federally-mandated water quality requirements. In many cases, the federal requirements set minimum standards and policies and the laws, rules, and regulations adopted by the state and regional boards exceed the federal requirements.

CWA Section 303(d) lists polluted water bodies which require further attention to support future beneficial uses. San Francisco Bay is on the Section 303(d) list as an impaired water body for several pollutants. Sanchez Creek, which site runoff drains to, is not on the Section 303(d) list.¹²

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¹² California Environmental Protection Agency, State Water Resources Control Board. "2006 Impaired Water Bodies, California's 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments." August 5, 2013. Accessed September 15, 2014.

< http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml>

California Department of Water Resources, Division of Safety of Dams

The California Department of Water Resources (DWR), Division of Safety of Dams (DSOD) is responsible for regular inspection of dams in California. The project site is subject to inundation from the Spencer and Crocker dams located in the Town of Hillsborough.

DSOD requires the Town of Hillsborough to have an Emergency Action Plan for each dam and with the Central County Fire Authority, which provides fire protection and other emergency services for the Town of Hillsborough and the City of Burlingame. The Emergency Action Plan includes emergency procedures and contact lists in the event of an emergency involving one of the dams. ¹³

Non-Point Source Pollution Program

In 1988, the State Water Resources Control Board (SWRCB) adopted the Non-Point Source (NPS) Program in an effort to control nonpoint source pollution in California. The NPS Program requires individual permits to control discharge associated with construction activities. The NPS Program is administered by RWQCB under the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities. Projects must comply with the requirements of the NPS Program if:

- They disturb one acre or more of soil; or
- They disturb less than one acre of soil but are part of a larger development that, in total, disturbs one acre or more of soil.

The NPDES General Permit for Construction Activities requires the developer to submit a Notice of Intent (NOI) to the RWQCB and to develop a Stormwater Pollution Prevention Plan (SWPPP) to control discharge associated with construction activities.

Municipal Regional Stormwater NPDES Permit (MRP)/C.3 Requirements

The San Francisco Bay RWQCB also has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP). In an effort to standardize stormwater management requirements throughout the region, this permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 77 Bay Area municipalities, including the City of Burlingame. Under provisions of the MRP, redevelopment projects that add and/or replace more than 10,000 square feet of impervious surface are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Redevelopment projects, such as the proposed project, are required to treat 100 percent post-construction runoff with Low Impact Development (LID) treatment controls, such as biotreatment facilities, unless a full or partial exemption applies.

¹³ Daniel Gonzales (Town of Hillsborough Engineering Department). *Personal Communications*. September 24, 2014.

City of Burlingame Municipal Code

Chapter 15.14 of the City's Municipal Code, Storm Water Management and Discharge Control, ensures the future health, safety, and general welfare of City of Burlingame citizens by: (a) eliminating non-storm water discharges to the municipal separate storm sewer, (b) controlling the discharge to municipal separate storm sewers from spills, dumping or disposal of materials other than storm water, and (c) reducing pollutants in storm water discharges to the maximum extent practicable in compliance with applicable permits (e.g., NPDES Permit and MRP) and with the implementation of best management practices.

City of Burlingame Climate Action Plan

The City's Climate Action Plan serves as a guiding document to identify methods that the City and community can implement to significantly reduce GHG emissions. The Climate Action Plan includes background information regarding the City's current level of GHG emissions, an assessment of potential impacts of climate change as a result of GHG emissions, as well as policies and strategies to reduce the City's future output of emissions. According to the Climate Action Plan, sea levels could rise up to three feet by 2099, as a result of climate change, and could inundate the entire area east of the Bayshore Freeway if levees are not built or existing flood control structures upgraded. A sea level rise of one foot would result in "100-year" flood events occurring on average every 10 years.

2.11.1.2 Existing Conditions

Hydrology and Drainage

The project site is located within the Sanchez/Terrace Creek Watershed, which includes the City of Burlingame and Town of Hillsborough. Most of the project site (97 percent or 5.2 acres) is covered with impervious materials. Surface runoff from the project site flows into inlets to a 12-inch storm drain line in Carolan Avenue and an 18-inch storm drain line in Rollins Road. The runoff then drains into Sanchez Creek and ultimately flows to the San Francisco Bay.

Groundwater on the project site was recorded to range from approximately five to 15 feet below ground surface (bgs). He Fluctuations in the groundwater level in the area may occur due to seasonal changes, variations in rainfall and underground drainage patterns, and other factors. The City of Burlingame does not use local groundwater for its drinking water supply, nor does it participate in active groundwater recharge activities. He for the supply of the suppl

¹⁴ Rockridge Geotechnical. Final Geotechnical Investigation: Proposed Residential Development 1008, 1016, and 1028 Carolan Avenue/935 Rollins Road. February 28, 2014.

¹⁵ City of Burlingame. *Urban Water Management Plan*. June 2011.

Flooding and Other Inundation Hazards

The project site is not located in a 100-year floodplain. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the project site is designated Zone X which are areas of moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of one-percent-annual-chance flooding where average depths are less than one foot, areas of one-percent-annual-chance flooding where the contributing drainage area is less than one square mile, and areas protected from the one-percent-annual-chance flood by a levee. ¹⁶

Given the topography of the project site and area, the project site is not subject to seiche, tsunami, or mudslide hazards.¹⁷ The project site is, however, subject to inundation from the Spencer and Crocker dams.¹⁸ Both dams are located within the Town of Hillsborough. In addition, the San Francisco Bay Conservation and Development Commission (BCDC) predicts sea-level will rise by 55 inches (or about 4.5 feet) by the end of the century (2099) and inundate portions of the City including the project site.¹⁹

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. Surface runoff from the project area is collected in storm drains and discharged into Sanchez Creek and ultimately the San Francisco Bay. The project site is developed with automobile repair and sale facilities; runoff from the site may contain contaminants such as oil and grease, plant and debris (e.g., leaves, dust, and animal feces), pesticides, litter, coolants, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

2.11.2 Hydrology and Water Quality Impacts

2.11.2.1 Thresholds of Significance

For the purposes of this EIR, a hydrology and water quality impact is considered significant if the project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local

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¹⁶ Federal Emergency Management Agency. Flood Insurance Rate Map. Map 06081C0153E. October 16, 2012.

¹⁷ California Department of Conservation. *Tsunami Inundation Map for Emergency Planning: San Mateo Quadrangle*. June 15, 2009.

¹⁸ County of San Mateo Planning and Building. *San Mateo County Hazards Dam Failure Inundation Areas*. Accessed July 8, 2014. Available here: < http://planning.smcgov.org/documents/san-mateo-county-hazards-dam-failure-inundation-areas>

¹⁹ San Francisco Bay Conservation and Development Commission. *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline*. October 2011.

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;
- 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.

2.11.2.2 Hydrology and Drainage Impacts

There are no waterways on the project site and, therefore, redevelopment of the project site would not alter the course of a stream or river. The project site is currently developed with eight buildings and pavement and 97 percent of the project site (or 5.2 acres) is covered with impervious materials.

Development of the proposed project would reduce the amount of impervious surfaces on-site by 20 percent, from 5.2 to 4.2 acres. Since the project would reduce the amount of impervious surfaces on-site, which would in turn reduce the amount of surface runoff from the project site compared to existing conditions, it is assumed that the existing storm drain system would continue to have sufficient capacity to accommodate runoff from the project site. (Less Than Significant Impact)

Groundwater

As discussed in *Section 2.11.1.1* above, the project site is not located within a natural or facility groundwater recharge area. The project does not propose to draw upon groundwater supplies. For these reasons, the project would not substantially deplete groundwater supplies or interfere with groundwater recharge. (**No Impact**)

Construction of the project requires excavation to a maximum depth of 13 feet. As previously discussed, groundwater on the project site ranges from approximately five to 15 feet below ground surface (bgs). As a result, excavation and construction of the project could encounter groundwater and dewatering would be required. Minor construction dewatering would be covered under the statewide Construction General Permit. If substantial construction dewatering is required, a Report of Waste Discharge (ROWD) must be filed with the RWQCB to obtain a Waste Discharge

Requirement (WDR). The WDR would describe the specific treatment (e.g., desedimentation, filtration, flocculation, and others) and discharge (e.g., maximum rate and volume of discharge) requirements, as needed, to ensure discharges do not cause or contribute to water quality degradation.

2.11.2.3 Flood Impacts and Other Inundation Hazards

The project site is not located in a 100-year floodplain and, therefore, would not place housing within a 100-year flood hazard area or impede or redirect flood flows within a 100-year flood hazard area. The project site, due to its topography, is not subject to seiche, tsunami, or mudslide hazards. (**No Impact**)

The project site is, however, subject to inundation from the Burlingame and Crocker dams and predicted sea-level rise attributed to climate change.

Dam Inundation Impacts

While the project site is located in the inundation areas of Spencer Dam and Crocker Dam, both dams are inspected annually by the California Department of Water Resources (DWR) Division of Safety of Dams (DSOD). The regular inspection and maintenance (if required) of the dams coupled with the Emergency Action Plan for each dam would reduce impacts from dam inundation to a less than significant level. (Less Than Significant Impact)

Sea-Level Rise Impacts

As discussed in *Section 2.11.1.1*, portions of the project site were identified by Bay Conservation and Development Commission (BCDC) as possibly being inundated as a result of the predicted 55-inch (or about 4.5 foot) sea-level rise. Currently, the project site is 8.5 feet above mean sea level (NGVD29) and the proposed residential units would be constructed to have a minimum finished floor of 10 feet above mean sea level. Given the fact that the finished floor elevation of the ground floor residential units (at least 10 feet above mean sea level) would be above the predicted sea-level rise (about 4.5 feet above mean sea level), it is not anticipated that the proposed project would be significantly impacted by the predicted sea-level rise. (**No Impact**)

2.11.2.4 Water Quality Impacts

Construction Impacts

Construction of the proposed project, including grading and excavation activities, may result in temporary impacts to surface water quality. When disturbance of underlying soils occur, the surface runoff that flows across the site may contain sediments and other manmade products that are ultimately discharged into the storm drain system. Construction of the project would disturb more than one-acre of soil and, therefore, the project shall comply with the NPDES General Permit for Construction Activities. Prior to the issuance of a grading permit, the project applicant shall submit a NOI to the RWQCB and develop a SWPPP to control discharge associated with construction activities. The SWPPP shall identify the appropriate best management practices (BMPs) and control measures to prevent stormwater pollution and minimize potential sedimentation during construction.

The project shall comply with applicable water quality regulations, including the NPDES General Permit and applicable Municipal Code requirements, to reduce construction-related water quality impacts to a less than significant level. (Less Than Significant Impact)

Post-Construction Impacts

Construction of the project would replace more than 10,000 square feet of impervious surfaces, therefore, the project shall comply with the Municipal Regional NPDES (MRP) and retain and treat 100 percent of the stormwater runoff from impervious surfaces on-site with Low Impact Development (LID) treatments (e.g., properly engineered and maintained biotreatment systems).

The project shall comply with applicable water quality regulations, including the MRP and applicable Municipal Code requirements, to reduce post-construction water quality impacts to a less than significant level. (Less Than Significant Impact)

2.11.2.5 Consistency with Applicable Plans, Policies, and Regulations

The project shall comply with existing hydrology and water quality regulations, including the federal CWA, Porter-Cologne Water Quality Control Act, NPS Pollution Program, MRP/C.3 Requirements, and Municipal Code Chapter 15.14. The project shall develop a SWPPP, incorporate BMPs and control measures to prevent stormwater pollution and minimize sedimentation during construction, and retain and treat 100 percent of the stormwater runoff on-site with LID treatments.

2.11.3 Conclusion

The proposed project, in compliance with applicable water quality regulations, would not result in significant impacts to hydrology and water quality. (Less Than Significant Impact)

2.12 UTILITIES AND SERVICE SYSTEMS

2.12.1 Setting

2.12.1.1 Regulatory Framework

Assembly Bill 939

Assembly Bill 939 was established by the California Integrated Waste Management Board and requires all California counties to prepare integrated waste management plans. AB 939 required all municipalities to divert 25 percent of their solid waste from landfill disposal by January 1, 1995. Fifty percent of the waste stream was to be diverted by the year 2000.

Assembly Bill 341

As of July 1, 2012, per Assembly Bill 341, all businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. Multi-family dwellings include: apartments, townhouses, and condominiums. The purpose of the law is to reduce garbage sent to landfills and reduce greenhouse gas emissions.

City of Burlingame Construction and Demolition Ordinance

Demolition, new construction projects, and alterations over \$50,000 are subject to the City of Burlingame's Construction and Demolition Ordinance (C&D Ordinance). The C&D Ordinance requires applicable projects to recycle at least 60 percent of total waste during demolition or construction.

2.12.1.2 Existing Conditions

Water Service

The City of Burlingame provides potable water service to its business and residential customers within the City limits, and to residents of the unincorporated Burlingame Hills area. The City purchases its potable water from the San Francisco Public Utilities Commission (SFPUC). The City also uses well water and recycled water for supplying non-potable water.

The SFPUC has several large pipelines running through the City of Burlingame. The City's water system facilities include six pumping stations, seven water storage tanks, and buried pipes of varying compositions, ages, and sizes. Water is pumped to the higher elevations of the City by booster pump stations to storage reservoirs.²⁰ Water is stored in the City's seven water storage tanks, which have a total water storage volume of 2.94 million gallons (mg).²¹

²⁰City of Burlingame. Water Quality Report. 2013. Available at:

http://www.burlingame.org/modules/showdocument.aspx?documentid=11292. Accessed July 2, 2014.

²¹ City of Burlingame. *Urban Water Management Plan*. June 2011.

http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Burlingame,%20City%20of/Burlingame%20UWMP.pdf. Accessed July 2, 2014

The City of Burlingame receives water from the City and County of San Francisco's Regional Water System ("Regional System"), which is operated by the SFPUC. This supply originates predominantly from the Sierra Nevada and is delivered through the Hetch-Hetchy aqueducts, but it also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. Approximately 85 percent of the Regional System supply comes from the Tuolumne River and the Hetch-Hetchy Reservoir. The remaining 15 percent comes from local watersheds through the San Antonio, Calaveras, Crystal Springs, Pilarcitos and San Andreas Reservoirs.

The business relationship between San Francisco and its wholesale customers (including the City of Burlingame) is largely defined by the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County ("Agreement") entered into in July 2009. The Agreement, which has a 25-year term, addresses water supply availability for the Regional System as well as the methodology used by the SFPUC in setting wholesale water rates. This agreement succeeds an earlier 25-year agreement signed in 1984.

The Agreement provides 184 million gallons per day ("mgd") to the wholesale customers during normal water years. This volume, referred to as the "Supply Assurance" is subject to reduction during periods of water shortage due to drought, emergencies or other scenarios resulting in a water shortage. Each wholesale customer's share of the 184 mgd is referred to as their Individual Supply Guarantee ("ISG"). Burlingame's ISG is 5.23 mgd (or approximately 5,857 AFY). Although the Agreement expires in 2034, the Supply Assurance and ISG continue in perpetuity.

The Agreement also recognizes the SFPUC's decision made in October 2008 to (a) defer any consideration of an increase to the 184 mgd Supply Assurance until 2018, (b) place an interim limit on sales of 184 mgd for all wholesale customers, including San Jose and Santa Clara, (i.e., who do not have ISGs), (c) establish interim supply allocations ("ISAs") for each wholesale customer through 2018, and (d) develop an environmental enhancement surcharge to be applied to wholesale agencies that exceed their ISA, if total use by SFPUC's retail customers and wholesale customers exceeds 265 mgd.

However, these ISAs are entirely distinct from the permanent ISGs as they will last only until 2018 and will solely be used to determine when the surcharge will apply. Therefore, although the establishment of such ISA's may potentially increase the cost of water supplied by SFPUC to the City of Burlingame (i.e., if it exceeds its ISA at a time when collective deliveries from the Regional System exceed 265 mgd) it will not affect the City's ISG of 5.23 mgd. Therefore, projected water supplies to the City of Burlingame from SFPUC that are identified in the 2010 UWMP and rely on the City's ISG have not been modified based upon the provisions of the new Agreement.

For 2009-2010, the City's total water demand was 4.24 mgd (3.94 mgd of which was potable water demand). The potable water demand for 2010-2011 was 4.04 mgd; for 2011-2012 was 4.12 mgd; and for 2012-2013 was 4.00 mgd.

Currently the project site is developed with automotive repair, rental, and sales businesses. The uses on-site currently use approximately 5,789 gallons of water per day.²²

²² BKF. RWQCB Special Project Status Memorandum (Transit-Oriented Development). May 8, 2014.

Wastewater Treatment/Sanitary Sewer System

The City maintains the sewer system within the City boundaries. With few exceptions, the sewer system is gravity fed to lift stations located in the industrial sections of town, then to the Burlingame Waste Water Treatment Plant (WWTP) at 1103 Airport Boulevard. The WWTP provides treatment of domestic and commercial wastewater originating from the City of Burlingame, Town of Hillsborough, and the Burlingame Hills Sewer Maintenance District. The treatment process consists of influent screening, grit removal, primary clarification, activated sludge biological treatment, secondary clarification, and disinfection using sodium hypochlorite.

The WWTP is part of the North Bayside System Unit (NBSU), a joint powers authority that includes the cities of Burlingame, Millbrae, South San Francisco and San Bruno, as well as the San Francisco International Airport. Based on the joint use agreement, the WWTP discharges treated and disinfected effluent through the NBSU force main to the South San Francisco, and San Bruno Water Quality Control Plant, where the effluent is dechlorinated before being discharged into the Lower San Francisco Bay.

The WWTP has an average dry weather design capacity to treat 5.5 mgd of wastewater and a peak wet weather flow capacity to treat 16 mgd of wastewater. The City's average dry weather flow to the WWTP has consistently been below the WWTP average dry weather capacity in the recent years at approximately 3.0-3.5 mgd and is not anticipated to increase substantially in the future.

In the past, the City's peak wet weather flow exceeded the treatment capacity at the WWTP and portions of primary treated wastewater was diverted around the secondary treatment system. The diverted flows were then blended with secondary effluent prior to discharge. Blended flows of 16 mgd or less were discharged to the NBSU forcemain. Dechlorination and discharge occurred at the NBSU forcemain. Flow rates greater than 16 mgd were fully treated, disinfected, and dechlorinated at the WWTP and bypassed to an emergency outfall. Exceedance of the WWTP's peak wet weather capacity was primarily due to the inflow and infiltration caused by older lines that are broken and leaking. Through its Capital Improvement Projects (CIPs), the City has been replacing older lines over the years to reduce infiltration. In addition, in 2011, the City constructed a 1.6 million gallon stormwater retention basin to manage wet weather inflow to the WWTP to avoid blending events.

The existing sanitary sewer mains in the project area include a 27-inch sewer main in Rollins Road, an eight-inch sewer main in Carolan Avenue, a 12-inch sewer main in the backyards of the Toyon Drive residences adjacent to the site, and a 15-inch sewer main that runs through the Northpark Apartment complex property. The eight-inch sewer main in Carolan Avenue connects to the 12-inch sewer main in Toyon Drive neighborhood, which, in turn, connects to the 27-inch main in Rollins Road.

Existing uses on-site generate approximately 5,789 gallons of sewage per day.²³ Currently, sewage generated on-site discharges to the existing eight-inch sewer main in Carolan Avenue (which

²³ BKF. Sanitary Sewer Demands and Impacts Memorandum. November 25, 2013.

ultimately discharges to the 27-inch sewer main in Rollins Road) or directly discharges to the 27-inch sewer main in Rollins Road. According to the City's Wastewater Collection System Master Plan, the above mentioned sewer mains are at or exceeding their capacity.

Storm Drainage System

The Citywide storm drainage system includes five major watershed areas: Easton, Burlingame/Ralston, Sanchez/Terrace, Mills, and El Portal/Trousdale. The project site is located within the Sanchez/Terrace Creek watershed.

The project site is currently 97 percent (or 5.2 acres) covered with impervious materials. Under existing conditions, approximately 40 percent of site runoff drains to inlets in Carolan Avenue and flows to an existing 54-inch storm drain main in Carolan Avenue. The remaining 60 percent of site runoff drains to inlets in Rollins Road and flows to an existing 18-inch storm drain line in Rollins Road that runs underneath US 101. Stormwater runoff from the site ultimately discharges to Sanchez Creek.

Solid Waste System

The City of Burlingame is a member of Rethink Waste, South Bayside Waste Management Authority (Rethink Waste). Rethink Waste is a joint powers authority comprised of the cities of Atherton, Belmont, Burlingame, East Palo Alto, Foster City, Hillsborough, Menlo Park, Redwood City, San Carlos, San Mateo, unincorporated San Mateo, and West Bay Sanitary District. Corinda Los Trancos Landfill (Ox Mountain Landfill), is the principal landfill for ReThink Waste.²⁴ Ox Mountain Landfill has a remaining capacity of approximately 69 million cubic yards and has an estimated closure date of 2040.²⁵ ReThink Waste contracts with Ox Mountain Landfill for disposal of its member agencies, including the City of Burlingame. The contract expires in 2019. It is unknown at this time if ReThink Waste will renew its disposal contract with Ox Mountain Landfill.²⁶ Other landfills in the area include Newby Island Sanitary Landfill (NISL) and Zanker Material Processing Facility, both located in the City of San José. Currently, NISL has approximately 20 million cubic yards of capacity remaining.²⁷ Zanker Material Processing Facility has approximately 640,000 cubic yards of capacity remaining with an expected closure date of 2025.²⁸

Recology San Mateo (Recology) provides solid waste, recycling, and organics collection services to all residential and commercial customers within the 12 member agencies of the Rethink Waste. Solid waste, recyclables, and organics collected by Recology within the City are taken to Shoreway Environmental Center for processing, staging, and shipment. The Shoreway Environmental Center includes a transfer station, materials recovery facility, public recycling center (which offers the buyback of recyclables and free drop off of e-waste and household hazardous waste), and

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 ²⁴ Feldman, Cliff. Personal Communications with ReThink Waste Recycling Programs Manager. December 8, 2014.
 ²⁵ McGourty, Scott. Personal Communications with Environmental Manager at Ox Mountain Landfill. November 6, 2014.

 ²⁶ Feldman, Cliff. Personal Communications with ReThink Waste Recycling Programs Manager. December 4, 2014.
 ²⁷ McGourty, Scott. Personal communications with Republic Services, Inc. Environmental Manager at NISL. May
 19, 2014

²⁸ Yeates, Nevin. Personal communications with CalRecycle Senior Environmental Scientist. December 9, 2014.

environmental education center. After processing, the solid waste collected is hauled to Ox Mountain Landfill for disposal.

In 2010, the City disposed of a total 26,018 tons of solid waste. The City's disposal tonnage in 2011, 2012, and 2013 were 17,536, 17,926, and 16,655, respectively. There is no contractual limit as to landfill disposal. Since 2011, the City of Burlingame has decreased the total amount of residential waste disposed and increased the total amount of residential waste diverted. In 2013, the City diverted 69 percent of its residential waste, disposing of 3,710 tons of residential waste at Ox Mountain Landfill.²⁹

Other Utility Services

Natural gas lines in the City are maintained by Pacific Gas and Electric (PG&E). Existing gas lines in the project area include two-inch gas lines in Rollins Road and Toyon Drive. There is also a 24-inch gas transmission line located in Rollins Road. PG&E has a comprehensive inspection and monitoring program through regular surveys and patrols to ensure the safety of its natural gas transmission pipeline system, as outlined in PG&E's 2013 Gas Safety Plan.

2.12.2 Utility and Service System Impacts

2.12.2.1 Thresholds of Significance

For the purposes of this EIR, a utilities and service systems impact is considered significant if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board:
- Require or result in the construction of new 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 storm water drainage facilities or expansion of
 existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- 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;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Comply with federal, state, and local statutes and regulations related to solid waste.

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²⁹ Recology. *Annual Report to the SBWMA for the Year 2013*. February 14, 2014.

2.12.2.2 Water Service and Supply Impacts

The project proposes to construct 268 apartments and 22 townhouses on-site, which are anticipated to use approximately 84,383 gallons of water per day. The project would require a connection to the existing 12-inch water line in Carolan Avenue.

The project would result in a net increase in water demand of approximately 78,594 gallons per day compared to existing conditions. Currently, the City's water demand is 4.24 mgd. With the implementation of the proposed project, the City's water demand would increase to approximately 4.32 mgd. Given the City's water supply guarantee (5.23 mgd), the City's existing water demand (4.24 mgd), and the project's estimated increase in water demand (0.079 mgd), it is anticipated that there would be sufficient water supply to serve the proposed project.

Based on the above discussion, the project would not require or result in the construction of new or expanded water facilities or require new or expanded water entitlements. (Less Than Significant Impact)

2.12.2.3 Wastewater Treatment/Sanitary Sewer System Impacts

Wastewater Treatment Capacity

The WWTP is permitted to treat an average dry weather flow of up to 5.5 mgd and the City's current average dry weather flow to the WWTP is approximately 3.0-3.5 mgd. The project is estimated to generate 31,487 gallons of sewage per day that would need to be treated.³⁰ Implementation of the proposed project would result in a net increase of 25,698 gallons per day of sewage in comparison to existing conditions.

Based on the WWTP's permitted average dry weather flow capacity (5.5 mgd), the City's existing average dry weather flow to the WWTP (3.0-3.5 mgd), and the project's estimated new sewage generation (0.03 mgd), the WWTP would have sufficient dry weather flow capacity to treat sewage generated by the proposed project.

Given the City's CIPs and recently constructed stormwater retention basin, and the fact that the project would construct new sanitary sewer lines to convey project sewage, the project would not contribute inflow and infiltration during peak wet weather events. Because the project would be constructing new sewer lines which will not contribute to inflow and infiltration, no additional wet weather flows will be added to the system.

The project's incremental increase in sewage that would need to be conveyed and treated at the WWTP is not substantial and would not require or result in the construction of new or expanded wastewater treatment facilities. (Less Than Significant Impact)

³⁰ BKF. Sanitary Sewer Demands and Impacts Memorandum. November 25, 2014.

Wastewater Treatment Requirements

Pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the RWQCB regulates wastewater discharges to surface waters, such as San Francisco Bay, through the NPDES program (described in Section 2.11, *Hydrology*). Wastewater permits contain specific requirements that limit the pollutants in discharges. As required by the RWQCB, the WWTP monitors its wastewater to ensure that it meets all requirements. The RWQCB routinely inspects treatment facilities to ensure permit requirements are met.

Sewage from development on the project site would be treated at the WWTP in accordance with the existing NPDES permit. It is not anticipated that the sewage generated by the project would exceed wastewater treatment requirements of the RWQCB. (Less Than Significant Impact)

Sanitary Sewer System

As discussed above, the proposed project is estimated to generate 31,487 gpd of sewage. Given that the existing sewer mains serving the project site are at, or exceeding, their capacity, the project shall connect to an existing 36-inch sewer main in Cadillac Way that is not surcharged and has capacity to serve the proposed project.

In order to connect to the sewer main in Cadillac Way, the project proposes to extend a new eight-inch sewer line approximately 1,300 feet in Carolan Avenue from the project site to the sewer main in Cadillac Way.³¹ In addition, the project proposes to construct a 12-inch sewer main in the private drive on-site that would connect to the existing 27-inch sewer main in Rollins Road. The proposed 12-inch sewer main would have a stub for connection to the existing residences on Toyon Drive when the existing 12-inch sewer main that serves the existing Toyon Drive residences is abandoned.

All of the proposed apartment units and 14 of the 22 townhouses would connect to the new eightinch sewer line in Carolan Avenue (which would discharge to the existing 36-inch sewer main in Cadillac Way) and eight of the 22 townhouses would connect to the 12-inch sewer main proposed in the private lane on-site (which would discharge to the existing 12-inch sewer main in Rollins Road). The proposed project would result in a net decrease of 4,496 gpd (or 82 percent) of sewer demand from the project site to the Rollins Road sewer system in comparison to existing conditions.³²

Based on the above discussion, besides the sewer lines and connections described above, the proposed project would not require the construction or expansion of sewer facilities. (Less Than Significant Impact)

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³¹ The construction of the proposed below-ground, 1,300 foot long, eight-inch sewer line in Carolan Avenue extending from the project site and connecting to the existing 36-inch sewer main in Cadillac Way would occur within the existing right-of-way that consists of paved surfaces. Given the nature of the improvement and the lack of environmental resources (e.g., vistas, trees, sensitive habitat, etc.) within the right-of-way and the vicinity that could be affected by development, no significant environmental impacts are anticipated from the construction of the proposed sewer main in Carolan Avenue.

³² BKF. Sanitary Sewer Demands and Impacts Memorandum. November 25, 2014.

2.12.2.4 Storm Drainage System

Implementation of the proposed project would reduce the amount of impervious surfaces on-site from 97 to 77 percent. The project would result in a 20 percent (or one acre) decrease in impervious surfaces, thereby resulting in a decrease in runoff from the site. Specifically, the peak stormwater discharge to Carolan Avenue would be reduced by approximately 16 percent and to Rollins Road by approximately 0.2 percent.³³ For these reasons, it is concluded that the existing storm drain system would continue to adequately serve the project site and the project would not require the construction of new or expanded storm drain facilities. (**Less Than Significant Impact**)

2.12.2.5 Solid Waste System

The proposed project would generate approximately 906 pounds of solid waste per day (or 330,690 pounds per year or 104,072 cubic yards per year). The project's waste generation of 661 cubic yards per year represents a one percent increase in the City's solid waste generation. Given Ox Mountain Landfill's remaining capacity (69 million cubic yards), ReThinkWaste's contract with the landfill with no contractual limit on disposal, the City's current solid waste generation (104,072 cubic yards per year), and the project's estimated solid waste generation (661 cubic yards per year), there is sufficient capacity at Ox Mountain Landfill to serve the proposed project. If ReThink Waste decides not to renew its disposal contract with Ox Mountain Landfill, other local landfills where the project's solid waste could be disposed of include NISL and Zanker Material Processing Facility. These other local landfills have sufficient capacity to accommodate solid waste generated by the project.

Construction and operation of the proposed project, including disposal of contaminated soil (refer to *Section 2.9 Hazards and Hazardous Materials*), would comply with applicable federal, state, and local regulations related to appropriate disposal of solid waste, including the City's Construction and Demolition (C&D) Ordinance as discussed further in *Section 2.13 Energy*.

Based on the above discussion, the proposed project would be served by a landfill with sufficient capacity and comply with applicable federal, state, and local regulations related to appropriate disposal of solid waste. (Less Than Significant Impact)

2.12.2.6 Consistency with Relevant Plans, Policies, and Regulations

In the most recent reporting year, Burlingame had a landfill waste diversion rate of 60 percent, exceeding the 50 percent standard set by AB 939. ³⁶ Recycling collection services would be provided to the proposed residences by Recology of San Mateo, consistent with Assembly Bill 341, and the

³³ BKF. Preliminary Hydrology Memorandum. March

³⁴ Illingworth & Rodkin, Inc. *Carolan Avenue/Rollins Road Air Quality and GHG Emissions Assessment*. October 23, 2014.

³⁵ A common conversion factor used for municipal solid waste as it is collected and transported in compaction vehicles is 500 pounds per cubic yards.

³⁶ RecycleWorks. *Diversion Rates of San Mateo County Jurisdictions*.

< http://www.recycleworks.org/div_rates.html > Accessed July 7, 2014.

project shall successfully participate in the City's C&D Ordinance. For these reasons, the project would be consistent with Assembly Bills 939 and 341 and the City's C&D Ordinance.

2.12.3 <u>Conclusion</u>

The project would not result in significant utilities and service system impacts. (**Less Than Significant Impact**)

2.13 ENERGY

This section was prepared pursuant to CEQA Guidelines Section 15126(c) and Appendix F (Energy Conservation of the Guidelines), which require that EIRs include a discussion of the potential energy impacts of proposed projects with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The information in this section is largely based on data and reports produced by the California Energy Commission and Energy Information Administration of the US Department of Energy.

2.13.1 Setting

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

Energy usage is typically quantified using the British Thermal Unit (BTU). The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity are 123,000 BTU, 1,000 BTU, and 3,400 BTU, respectively. Natural gas usage is expressed in terms of therms. A therm is equal to 100,000 BTU.

Electrical energy is expressed in units of kilowatts (kW = 1,000 watts), kW = 1,000 kW), gigawatts (kW = 1,000 watts), or terawatts hours (kW = 1,000 watts). One kilowatt hour (kW = 1,000 watts) is equal to 1,000 watts supplied or consumed over the period of an hour. For example, running a 1,000 watt hand-held hair dryer for one hour consumes one kW = 1,000 watts.

2.13.1.1 Regulatory Framework

Many federal, state, and local statutes and policies address energy conservation. At the federal level, energy standards apply to numerous products (e.g., the *EnergyStar*TM program) and transportation (fuel efficiency standards). At the state level, Title 24 of the California Administrative 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. In addition, in January 2010, the State of California adopted the California Green Building Standards Code (CALGreen) that establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of minimum guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels. The current version of the Code is the 2013 California Green Building Standards.

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³⁷ Under the International System of Units (SI), one kWh is equivalent to 3.6 megajoules, which is the amount of energy converted if work is done at an average rate of one thousand watts for one hour.

City of Burlingame General Plan

The City of Burlingame's General Plan's Housing Element includes specific goals and policies to address energy conservation opportunities within the City. Goal E of the housing element is to "reduce residential energy use to conserve energy and help reduce housing costs." All new residential and nonresidential construction in the City must abide by the State of California's residential building standards for energy efficiency (Title 24 of the California Administrative Code). Title 24 Standards were established in 1978 to ensure that all new construction meets a minimum level of energy efficiency. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including Policy H (E-1) listed below.

Policy	Description
Policy H (E-1)	Promote the use of energy conservation in residential construction.

City of Burlingame Climate Action Plan

The City's Climate Action Plan serves as a guiding document to identify methods that the City and community can implement to significantly reduce GHG emissions. Adopted in 2009, the Climate Action Plan establishes a framework of action that the City and community can implement and also provides a statement of intent for long-term and short-term priorities. In addition, it creates a baseline of emissions, sets achievable targets stipulated by AB 32, and recommends steps to be taken to reduce emissions, increase sustainability, and improve quality of life.

City of Burlingame Green Building Ordinance

On January 1, 2014, the City of Burlingame began implementing the 2013 Green Building Standards, which required enhanced green building measures for non-residential projects, new residential construction projects, and residential projects which increase the building's conditioned area. For residential construction, compliance with the California Green Building Standards requires the submittal of a 2013 California Green Building Code checklist and include the Green Building mandatory measures specified in the checklist to the Planning Division or Building Division, depending on whether Planning commission approval is required.

Compliance measures shall be approved by the Chief Building Official prior to issuance of a building permit.

City of Burlingame Construction and Demolition Ordinance

Demolition, new construction projects, and alterations over \$50,000 are subject to the City of Burlingame's Construction and Demolition Ordinance (C&D Ordinance). The C&D Ordinance requires applicable projects to recycle at least 60 percent of total waste during demolition or construction.

2.13.1.2 Existing Conditions

Electricity and Natural Gas Supply and Demand

Electricity supply in California involves a complex grid of power plants and transmission lines located in-state (71 percent), the southwest United States (21 percent), and the Pacific Northwest (eight percent). The electricity is produced from natural gas (53 percent), renewable resources (14.5 percent), nuclear (15.5 percent), and coal (two percent). In 2012, the state's total electricity system generation (in-state and imported power) was approximately 302,000 GWh. The state's total demand for electricity was approximately 282,000 GWh in 2012, 4,560 GWh of which was used in San Mateo County (which includes the City of Burlingame).

It is estimated that Californians will consume up to approximately 321,374 GWh of electricity in 2024. Five companies, Pacific Gas & Electric (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), Los Angeles Department of Water and Power (LADWP), and Sacramento Municipal Utility District (SMUD) provide most of the electricity used in California.

California's supplies of natural gas come from four areas: Southwestern United States (42 percent), the Rocky Mountain Region (23 percent), Canada (22 percent), and in-state production (12 percent). Once natural gas arrives in California, it is distributed by the natural gas utility companies. The three major natural gas utility companies are SCE, SDG&E, and PG&E. In 2012, statewide natural gas consumption was approximately 24 billion therms, 282 million therms of which was used in San Mateo County (which includes the City of Burlingame). Natural gas demand in California is estimated to decrease to approximately 21 billion therms per year by 2025 due to increased efficiency and an increase in energy generated from renewable resources.

On-Site Conditions

PG&E transmits and delivers electricity and natural gas to residents and businesses in the City of Burlingame. Electricity and natural gas are used for operating on-site machinery and appliances, lighting, and general building operations (such as heating and cooling) for the automotive repair, rental, and sales uses on-site.

³⁸ California Energy Commission. "California's Major Sources of Energy." Accessed November 8, 2014. Available at: http://www.energyalmanac.ca.gov/overview/energy_sources.html>

³⁹ ---. "Energy Almanac, California Electricity Statistics & Data, California Electrical Energy Generation 1997 to 2011." Accessed: November 20, 2014. Available at:

http://energyalmanac.ca.gov/electricity/electricity_generation.html>.

⁴⁰ California Energy Commission. "Electricity Consumption by County." Accessed November 8, 2014. Available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx

⁴¹ ---. 2013 Integrated Energy Policy Report. 2013. Page 118.

⁴² ---. "California's Major Sources of Energy." Accessed November 8, 2014. Available at:

http://www.energyalmanac.ca.gov/overview/energy_sources.html

⁴³ Likely due to rounding, the percentages do not add up perfectly to 100 percent.

⁴⁴ United States Energy Information Administration. "Natural Gas Consumption by End Use." Accessed November 21, 2014. Available at: http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm

⁴⁵ California Energy Commission. "Electricity Consumption by County." Accessed November 8, 2014. Available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx

⁴⁶ ---. 2013 Integrated Energy Policy Report. 2013. Page 238.

Fuel Supply and Demand

More than 40 percent of all energy used in California is for the transportation of people and goods. Transportation fuels (including gasoline and diesel) are produced by refining crude oil. Approximately 38 percent of crude oil used in California is produced in-state, while 14 percent comes from Alaska and 48 percent from foreign sources.⁴⁷

In 2013, California ranked third in the nation in crude oil production and refining capacity, with a combined capacity of almost two million barrels from its 18 operable refineries, despite an overall decline in production rates since the mid-1980s.⁴⁸

In recent years, Californians consumed approximately 16 billion gallons of gasoline and four billion gallons of diesel annually. Overall, California is experiencing a downward trend in sales for gasoline, diesel, and jet fuel. It is anticipated that this downward trend would continue due to high fuel prices, efficiency gains, competing fuel technologies, and mandated increases of alternative fuel use. For example, the average fuel economy for the fleet of model year 2013 light-duty vehicles (autos, pickups, vans, and SUVs) was 24.1 mpg, which is 0.5 mpg higher than model year 2012 vehicles.⁴⁹

According to the 2013 Integrated Energy Policy Report, California is projected to experience a two-billion-gallon decline in gasoline consumption from 14.6 billion gallons in 2012 to 12.7 billion gallons by 2022.⁵⁰ In contrast, alternative fuels, including liquid and gaseous biofuels and electricity, are anticipated to increase in production and usage in the coming years.

The project site is currently developed with automotive repair, rental, and sales uses. Fuel use associated with the project site includes vehicles traveling to and from the project site.

2.13.2 <u>Energy Impacts</u>

2.13.2.1 Thresholds of Significance

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

- Result in a wasteful, inefficient, and unnecessary consumption of energy;
- Result in a substantial increase in demand upon energy resources in relation to projected supplies; or
- Result in longer overall distances between jobs and housing.

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⁴⁷ California Energy Almanac. "California Petroleum Statistics and Data." Accessed December 8, 2014. Available at: < http://energyalmanac.ca.gov/petroleum/>

⁴⁸ United States Energy Information Administration. "California: Profile Overview." Accessed November 6, 2014. Available at: < http://www.eia.gov/state/?sid=CA>.

⁴⁹ United States Environmental Protection Agency. 2014. *Light Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2014.* Available at: http://www.epa.gov/otaq/fetrends.htm. Accessed November 12, 2014.

⁵⁰ California Energy Commission. 2013 Integrated Energy Policy Report. 2013.

2.13.2.2 Project Energy Consumption

The project proposes to redevelop the 5.4-acre project site with 268 apartments, 22 townhouses, common outdoor areas, amenities (including a pool, spa, fireplaces, and outdoor kitchens), and a semi-subterranean parking garage.

Energy would be consumed during both the construction and operational phases of the proposed project. Energy requirements throughout the demolition and construction phase include energy for the manufacturing and transportation of building materials, preparation of the site, and operation of construction equipment. The operation of the project would consume both electricity and natural gas for building heating and cooling, lighting, cooking, appliances, and water heating. Fuel would also be consumed during vehicle trips to and from the project site.

The proposed project is estimated to use 2.3 GWh of electricity and 29,071 therms of natural gas per year. It is estimated that project-generated vehicle trips would use approximately 173,000 gallons of gasoline per year. The project is required to comply with the City's C&D Ordinance by recycling at least 60 percent of total waste during demolition or construction. In addition, as described in *Section 1.3 Project Description*, the project proposes to be constructed in compliance with the 2013 California Green Building Standards Code (Title 24), which requires features that reduce water and energy consumption. The project also includes the following Transportation Demand Management (TDM) amenities to encourage more sustainable modes of transportation:

- Four electric vehicle charging stations, with the potential for 10 additional electric vehicle charging stations,
- Two car-sharing vehicle reserved spaces (e.g., Zipcar),
- 134 secure bicycle parking spaces for apartment residents,
- 10 guest bicycle parking spaces,
- Bike repair station,
- Tenant web portal for carpooling, and
- Business center and conference room for telecommuting.

Given the infill location of the project site, the existing pedestrian, bicycle, and transit services in the project area, and the project's compliance with the City's C&D Ordinance and 2013 California Green Building Code, the proposed project would not result in a wasteful, inefficient, and unnecessary consumption of energy. (Less Than Significant Impact)

2.13.2.3 Project Demand Upon Energy Resources

According to the 2013 Integrated Energy Policy Report, in order to meet future energy demand, the state needs sufficient, reliable, and safe energy infrastructure. This includes:

⁵¹ The project's estimated energy use was derived from the air quality and greenhouse gas emissions modeling completed for the project and included in Appendix E of this EIR. The project's estimated gasoline consumption was based on the project's estimated average daily trips average fuel economy of 24.7 miles per gallon.

- Improving energy efficiency in California's existing buildings;
- Achieving 10-year energy efficiency targets;
- Inclusion of zero-net-energy buildings in state building standards;
- Overcoming challenges to increased use of geothermal heat and procurement of biomethane;
- Using demand response to meet California's energy needs
- Integrating renewable technologies;
- Developing bioenergy; and
- Evaluating the need for and developing new electricity, natural gas, and transportation fuel infrastructure to maintain energy reliability and support clean energy polices.

The project would result in an increase in demand on existing energy resources, however, the project is required to comply with applicable regulations and City policies (including the C&D Ordinance) that would conserve energy and water, as well as reduce fuel consumption and waste generation.

California's overall electricity demand is anticipated to increase in the next decade, improvements in efficiency and production capabilities would help mitigate impacts resulting from increased demand. For example, the production of natural gas is anticipated to increase in the future due to recent technological advances and improvements in efficiency. In contrast, demand for natural gas is anticipated to decrease as more energy is generated from renewable sources and efficiency measures reduce the need for additional generation.⁵² Based on the above discussion, the existing energy supply and demand described in *Section 2.13.1.2*, and the project's incremental demand, the proposed project is not anticipated to result in a substantial increase in demand on energy resources in relation to existing supplies. (Less Than Significant Impact)

2.13.2.4 Impact to Overall Distances between Jobs and Housing

The project site is an urban, infill site. As discussed in *Section 2.2 Transportation*, the project site is served by existing transit, bicycle, and pedestrian facilities. Give the accessibility of automobile-alternative modes of transportation, and the TDM amenities proposed on-site, the project provides opportunities for alternatives to single-occupancy vehicle trips for future residents. The project site is located adjacent to existing residences and near existing jobs. For these reasons, the project would not result in substantially longer overall distances between jobs and housing. (**Less Than Significant Impact**)

2.13.2.3 Consistency with Applicable Plans, Policies, and Regulations

As discussed previously, the project shall comply with the City's C&D Ordinance, implement green building measures, and include TDM amenities on-site. The project would also be constructed in compliance with the new 2013 California Green Building Standards Code (Title 24), which are more efficient than the 2008 standards. For these reasons, the project would also be consistent with General Plan Policy H (E-1).

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⁵² California Energy Commission. 2013 Integrated Energy Policy Report. 2013.

In addition, as discussed in Sections 2.4 Air Quality and 2.5 Greenhouse Gas Emissions, the project would not conflict with the Bay Area 2010 CAP, City of Burlingame Climate Action Plan, nor other applicable plans, policies, and regulations pertaining to the regulation of GHG emissions. Implementation of the project would result in less than significant GHG impacts and, therefore, no mitigation regarding energy efficiency and GHG emissions is required.

Based on the above discussion, the proposed project would not conflict with any applicable plans, policies, and regulations regarding energy.

2.13.3 <u>Conclusion</u>

The proposed project would not result in significant energy impacts. (Less Than Significant Impact)

2.14 PUBLIC SERVICES

2.14.1 Setting

Public facilities and services are provided to the community as a whole, usually from a central location or from a defined set of nodes. The resource base for delivery of these 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 special district. Usually, new development will create an incremental increase in the demand for these services. The amount of demand will vary widely, depending on both the nature of the development (residential vs. commercial, for instance) and the type of services, as well as on the specific characteristics of the development (such as senior housing vs. family housing).

A project's impact on public facility services is generally a fiscal impact. By increasing the demand for a type of service, a group of projects could cause an eventual 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.). That 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 school 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 that such a facility would have. To reiterate, the impact that must be analyzed in an EIR is the impact that would result from constructing a new public facility (should one be required), not the fiscal impact of a development on the capacity of a public service system.

2.14.1.1 Regulatory Framework

Government Code Section 65996

State law (Government Code Section 65996) specifies an acceptable method of offsetting a project's effect on the adequacy of school facilities as the payment of a school impact fee prior to issuance of a building permit. California Government Code Sections 65995-65998, sets forth provisions for the payment of school impact fees by new development as exclusive means of "considering and mitigating impacts on school facilities that occur or might occur as a result of any legislative or adjudicative act, or both, by any state or local agency involving, but not limited to, the planning, use, or development of real property" [§65996(a)]. The legislation goes on to say that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA [§65996(b)]. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would mitigate project-related increases in student enrollment.

In the City of Burlingame, fees are collected on all new construction projects and residential remodels that add 500 square feet or more. School fees are collected to offset costs of rehabilitation and maintenance of school buildings; the fees are split between the Burlingame School District and San Mateo Union High School District.

City of Burlingame General Plan

The Open Space and Land Use Elements of the City's General Plan contain policies, recommendations, and actions to protect and enhance existing and future open space areas within the City. All future development allowed by the project would be subject to conformance with applicable General Plan policies, including those listed below.

Policy	Description
Policy OS(B)	Increase privacy, amenity and safety, and assure provision of light and air.
Policy OS(D)	Provide open space for recreational needs and for the preservation of sites of historical and cultural significance.

2.14.1.2 Existing Conditions

Fire Protection Services

Fire protection services for the project site are provided by the Central County Fire Department (CCFD), which serves the City of Burlingame and Town of Hillsborough. The CCFD provides allrisk services and plays a role in fire suppression, rescue, emergency medicine, operational training, fire prevention and investigation, and community education. The CCFD also participates in a Joint Powers Agreement within San Mateo County, providing Advanced Life Support as part of a 20-city, 56 engine company workforce. In addition, the CCFD is part of the San Mateo County Fire Services Automatic Aid Agreement, which calls for the CCFD to assist neighboring fire departments (and vice versa) in providing fire protection services (as needed) throughout the County.

The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for fire services. The CCFD, however, has a 6:59 minute response time standard for emergency medical services, and a minimum goal of 13 personnel to a structure fire within eight minutes. The closest station to the project site is CCFD Fire Station 34, located at 799 California Drive, approximately 0.4 miles southeast of the project site.

Police Protection Services

Police protection services for the project site are provided by the Burlingame Police Department (BPD), headquartered at 1111 Trousdale Drive, approximately 1.5 miles west of the project site. The BPD currently consists of 37 police officers and 25 professional staff, and includes an Operations Division, Administration Division, Traffic Division, and Investigations Section. Select members of the BPD also belong to a regional Special Operations Unit, which includes Special Weapons and Tactics (SWAT). The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for police services.

Schools

The project site is located in the Burlingame School District and the San Mateo Union High School District. Students in the project area attend Roosevelt Elementary School, Burlingame Intermediate School, and Burlingame High School.⁵³ Roosevelt Elementary School is located approximately 1.1 miles southwest of the project site, Burlingame Intermediate School is located approximately 2.0 miles west of the project site, and Burlingame High School is located approximately 0.6 miles east of the project site.

Parks

The City of Burlingame provides and maintains developed parkland and open space to serve its residents. Residents of Burlingame are served by regional and community park facilities, including regional open space, community and neighborhood parks, playing fields, and trails. The City of Burlingame Parks and Recreation Department is responsible for development, operation, and maintenance of all City park facilities. The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for park facilities.

Nearby park facilities include Alpine Park located 0.3 miles southeast of the project site, Bayside Park located 0.6 miles north of the project site, Paloma Playground located 0.7 miles south of the project site, and Washington Park located 1.0 miles southeast of the project site.

Libraries

The Burlingame Public Library System consists of one main library and one branch library. The Main Library is located at 480 Primrose Road, 0.8 miles southeast of the project site, and the Easton Branch Library is located at 1800 Easton Drive, one mile southwest of the project site. The Main Library is currently under renovation. The renovation is anticipated to be completed in April 2015 and will include the following additions:

- Large conference room,
- State-of-the-art technology lab,
- Expanded teen room with a separate teen study room,
- Café,
- Four study rooms,
- Expanded foundation book store, and
- Automated materials check-in system.

The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for library services.

⁵³ Burlingame School District. *District Boundaries*. Available here: http://www.bsd.k12.ca.us/cms/page_view?d=x&piid=&vpid=1406631635571 Accessed: October 27, 2014.

2.14.2 Public Service Impacts

2.14.2.1 Thresholds of Significance

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

- Result in substantial adverse physical impacts associated with the provision of new or
 physically altered governmental facilities, need for new or physically altered governmental
 facilities, the construction of which could cause significant environmental impacts, in order
 to maintain acceptable service ratios, response times or other performance objectives for any
 of the public services:
 - Fire protection;
 - Police protection;
 - Schools;
 - Parks: or
 - Other public facilities.
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

2.14.2.2 Impacts to Fire and Police Protection Services

The project proposes to replace existing automotive retail, repair, and rental uses on-site with residential uses. Implementation of the proposed project would intensify the use of the site and generate additional residents in the area, which would incrementally increase the demand for fire and police protection services compared to existing conditions. The project site, however, is within the existing service area of both the CCFD and BPD. Development of the project would not expand the service area of each respective agency or substantially affect the response time of CCFD or BPD to the site. In addition, the proposed project would be constructed in accordance with current building and fire codes. For these reasons, the construction of new or expanded fire or police facilities would not be needed to serve the project. (Less Than Significant Impact)

2.14.2.3 Impacts to Schools

The project proposes 290 new residential units that would generate school-aged children. The proposed project (if approved) is anticipated to be constructed and occupied in 2019. The capacity of the local schools (Roosevelt Elementary School, Burlingame Intermediate School, and Burlingame High School) in 2019 cannot be determined at this time. If the local elementary, middle, and high schools are at capacity at the time the project is constructed and occupied, project-generated students may need to attend another school within the Burlingame School District and San Mateo Union High School District.⁵⁴

⁵⁴ Sources: 1) Burlingame School District. "New Student Enrollment." Accessed December 4, 2014.
http://www.bsd.k12.ca.us/enrollment> 2) Elizabeth McManus. Personal communications with Deputy Superintendent of Business Services for San Mateo Union High School District. November 17, 2014.

In compliance with State Law (Government Code Section 65996), as described in *Section 2.14.1.1* above, the project shall pay the affected school districts an impact fee prior to issuance of a building permit to mitigate the project's impact on school facilities to a less than significant level. (**Less Than Significant Impact**)

2.14.2.4 Impacts to Parks

The City of Burlingame provides and maintains parkland and open space within the City for residents and visitors to enjoy. Based on the latest US Census data for the City, it is estimated that the project would generate approximately 655 new residents. The project residents would be served by existing parks in the project area and other open space and recreational facilities in the region. In addition, the project proposes common open space and recreational facilities (i.e., pool) on-site that would partially offset the park demand from project residents. The environmental impacts of the project, including the construction of the common open spaces on-site, are evaluated throughout this EIR. The development of the project (including the common open spaces) would not result in significant and unavoidable environmental impacts.

It is not anticipated that the project's incremental demand for park and recreational facilities in the area would result in the substantial, physical deterioration of existing park and recreational facilities or require the expansion or construction of new facilities. (Less Than Significant Impact)

2.14.2.5 Impacts to Libraries

Implementation of the proposed project would generate new residents in the City of Burlingame who would use the community libraries. The City currently has a population of approximately 29,892. The project's addition of approximately 655 new residents represents a two percent increase in the City's population, which would use the existing and planned library services in the City. It is not anticipated that the project's incremental increase in demand on library services would require the construction of new or expanded library facilities. (Less Than Significant Impact)

2.14.3 Conclusion

The project would not result in significant impacts to public services. (Less Than Significant Impact)

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⁵⁵ Based on the latest US Census data for the City, the average residents per household is 2.26. 2.26 residents per household x 290 proposed units = approximately 655 new residents.

SECTION 3.0 GROWTH-INDUCING IMPACTS

In general, new development is "growth." The proposed growth on the project site, however, would not be "induced" by the proposed project – it <u>is</u> the proposed project. The CEQA Guidelines require that an EIR identify the likelihood that a proposed project could "foster" or stimulate "economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" (§15126.2(d)). This section of the EIR is intended to evaluate the impacts of such growth in the surrounding environment.

The proposed project is considered "infill," meaning that the project site is well within the City's existing urban boundaries, is currently developed with urban uses, and is already served by existing infrastructure. Compared to existing condition, implementation of the project would increase population on the site. The project, however, is consistent with the City's General Plan, zoning, and vision for higher density residential development on a site that is proximate to transit facilities and that would connect two existing residential areas that are currently divided by non-residential uses. The project, therefore, would not result in growth beyond what is already anticipated for in the City's General Plan.

The project proposes residential uses in an area that is built-out, predominately residential, and isolated by major infrastructure including US 101, US 101/Broadway interchange, and Carolan Avenue/railroad tracks. In addition, as discussed in *Section 2.1.2.3 Population and Housing Impacts*, the identified mitigation and infrastructure improvements for the project would not create capacity for additional development beyond the scope of the project (i.e., improvements are not growth inducing). For these reasons, it is not likely that the development of the proposed project would foster or stimulate the construction of additional housing in the surrounding environment.

The development of the residential units on-site would generate revenue for the City in terms of taxes (e.g., property tax), however, this revenue would not result in substantial economic growth for the City.

Based on the above discussion, the project would not result in substantial growth-inducing impacts since the project is:

- Consistent with the City's General Plan, zoning, and vision for the site;
- Does not propose growth beyond what is anticipated in the City's General Plan;
- Would not create capacity for additional development beyond the scope of the project;
- Would not likely foster or stimulate the construction of additional housing in the surrounding environment given the context of the site; and
- Would not generate substantial economic growth for the City.

(Less Than Significant Impact)

SECTION 4.0 CUMULATIVE IMPACTS

4.1 INTRODUCTION

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

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

The discussion below addresses two aspects of cumulative impacts: 1) would the effects of all of the pending development listed result in a cumulatively significant impact on the resources in question? And, if that cumulative impact is likely to be significant, 2) would the contributions to that impact from the proposed project make a cumulatively considerable contribution to those cumulative impacts?

4.2 LISTS OF CUMULATIVE PROJECTS

Table 4.2-1 identifies the pending and approved projects in the project vicinity that are evaluated in this cumulative analysis. There are no recently completed projects in the area that would contribute to cumulative impacts with the proposed project.

Project Name	Location	Description
	Pending 1	•
Carolan Avenue/ Rollins Road Residential Project	1008-1028 Carolan Avenue and 1007-1025 Rollins Road in the City of Burlingame	22 townhouses and 268 apartments
*Project evaluated in this EIR		
Sites 5 and 6 – Republic Urban	Total of approximately 10 acres located east of the existing Millbrae Transit Station at the intersection of Millbrae Avenue and Rollins Road in the City of Millbrae	263 residential units, 136,600 square feet of commercial space, 84,880 square feet of retail space, and 110 hotel rooms.
Site 1 – Serra Station Properties	Approximately four acre site located west of the existing Millbrae Transit Station at the northeast corner of El Camino Real and East Millbrae Avenue in the City of Millbrae	 Five alternatives for consideration: 271,868 square feet of office and 24,220 square feet of retail space; 500 residential units, 257,500 square feet of office, 25,000 square feet of retail space; 500 residential units, 535,000 square feet of office, 46,550 square feet of retail space, and 124 hotel rooms; 500 residential units, 665,000 square feet of office, 75,000 square feet of retail space, and 124 hotel rooms; and 500 residential units, 916,000 square feet of office, 75,000 square feet of retail space, and 124 hotel rooms.
Caltrain Peninsula Corridor Electrification Project (PCEP)	Caltrain corridor from San Francisco to San José	The PCEP is a key component of the Caltrain Modernization program. The PCEP would electrify the Caltrain Corridor from San Francisco's 4th and King Caltrain Station to approximately the Tamien Caltrain Station in San José, convert diesel-hauled to Electric Multiple Unit (EMU) trains, and increase service up to six Caltrain trains per peak hour per direction by 2019.
	Approved	-
Broadway/US 101 Interchange Reconstruction	Intersection of Broadway and US 101 in the City of Burlingame	The interchange reconfiguration will consist of a new seven-lane Broadway overcrossing. Broadway will be realigned to extend straight across US 101 from the Broadway/Rollins Road intersection on the west to Bayshore Highway on the east, and the northern terminus of Airport Boulevard will be moved approximately 100 feet to the north to meet the new overcrossing. The existing on- and off-ramps will be replaced, and ramp metering equipment will be installed. The existing pedestrian overcrossing just south of Broadway will be retained and additional

Table 4.2-1: List of Cumulative Projects						
Project Name	Location	Description				
		pedestrian and bicycle improvements will be provided at the interchange. The interchange improvements are currently under construction. Also refer to Figure 2.2- 4.				
Carolan Avenue	On Carolan Avenue from	The project will reconfigure the roadway to				
Complete Streets	Broadway to Oak Grove	accommodate one through traffic lane in each				
Project	Avenue in the City of	direction coupled with a center turn lane. The design				
	Burlingame	of the project is anticipated to be completed by June				
		2015 and construction is expected to begin by Fall 2015.				
1818 Trousdale Drive	1818 Trousdale Drive in the	79-unit assisted living facility. This project is				
	City of Burlingame	currently under construction.				
60 Edwards Court	60 Edwards Court in the City	61,700 square foot indoor tennis facility. This project				
	of Burlingame	has been approved, but not yet constructed.				
300 Airport Boulevard	300 Airport Boulevard (also	767,000 square feet of office and ancillary uses. This				
	known as 350 beach Road) in	project has been approved, but not yet constructed.				
	the City of Burlingame					
1800 Trousdale Drive	1800 Trousdale Drive in the	25-unit residential condominium. This project has				
	City of Burlingame	been approved, but not yet constructed.				
1600 Trousdale Drive	1600 Trousdale Drive in the City of Burlingame	124 unit assisted living facility. This project has been approved, but not yet constructed.				

4.3 ANALYSIS OF CUMULATIVE IMPACTS

Based on the analysis in this EIR, development of the project with other pending and approved development could have cumulatively significant impacts in the following areas: transportation, noise and vibration, air quality, biological resources, hydrology and water quality, utilities and service systems, energy, and public services. The thresholds of significance used for the analyses of cumulative impacts are the same as those listed in *Section 2.0 Environmental Setting, Impacts, and Mitigation* of this EIR, unless otherwise noted. The project's contribution to the cumulative greenhouse gas emissions impact is discussed in *Section 2.5 Greenhouse Gas Emissions*.

The project's land use, visual and aesthetics, cultural resources, hazards and hazardous materials, and geology and soils impacts are specific to the project site and would not result in cumulative impacts with other projects. For this reason, cumulative impacts to these resources are not discussed.

4.3.1 Cumulative Transportation

4.3.1.1 Cumulative Transportation Network and Traffic Volumes

Cumulative traffic conditions are conditions that would occur in the near-term (2020). It is assumed in this analysis that the transportation network under cumulative conditions would be the same as baseline conditions discussed in *Section 2.2 Transportation*. Under cumulative conditions, it is assumed that the proposed Peninsula Corridor Electrification Project (PCEP), which is a key component of the Caltrain Modernization program, would be implemented. With the implementation of the PCEP project, weekday service at the Broadway station is expected to be restored. The PCEP is expected to increase service by up to six Caltrain trains per peak hour per direction by 2020.

Cumulative traffic volumes for the Broadway and Oak Grove Avenue intersections on Carolan Avenue and California Drive were obtained directly from the cumulative year 2020 volumes presented in the PCEP EIR. For the rest of the study intersections, growth rates of 8.6 and 13.0 percent were applied to the AM and PM peak hour baseline volumes, respectively, to derive year 2020 cumulative volumes. These growth factors represent an average of the growth at all of the intersections in the study area presented in the PCEP EIR.

In addition, with the implementation of Caltrain PCEP, transit ridership at the Broadway station is expected to increase. Given the nearby Caltrain station, development of the proposed project would result in new transit riders, thus reducing vehicle trips. It is estimated that project vehicle trips would be reduced by nine percent with the Caltrain service restored at the Broadway station. The cumulative traffic analysis, however, was conservative and did not account for this anticipated project trip reduction.

4.3.1.2 Cumulative and Cumulative Plus Project Intersection Levels of Service

Tables 4.3-1 and 4.3-2 below summarizes the results of the cumulative intersection levels of service analysis. As shown in these tables, all study intersections would continue to operate at LOS D or better during both peak hours under cumulative conditions with and without the project, except for the intersection of California Drive and Broadway. The intersection of California Drive and Broadway would continue to operate at unacceptable LOS E under cumulative conditions with and without the project. The project would add very little traffic to this intersection and would increase the average weighted delay by only 0.4 seconds, resulting in a less than significant impact.

The unsignalized intersection of Carolan Avenue and Oak Grove Avenue was analyzed in great detail. This intersection has three-way stop control with the eastbound movement uncontrolled. The Highway Capacity Manual, which is the basis for defining traffic methodologies and levels of service, does not speak to three-way stop controlled situations. There is a methodology for two-way stop intersections, which bases LOS on the worst movement, and a methodology for all-way stop intersections, which bases LOS on an average of all movements. The PCEP EIR used the two-way stop criterion and evaluated the worst movement for the intersection of Carolan Avenue and Oak Grove Avenue.

Table 4.3-1: Cumulative and Cumulative Plus Project Intersection Levels of Service – Signalized Intersections

Study Intersection		Peak	Cumulative Conditions		Cumulative Plus Project Conditions		
		Hour	Average Delay (sec.) ¹	LOS	Average Delay (sec.) ¹	LOS	Increase in Avg. Delay
1	US 101 NB Ramps & Bayshore Hwy.	AM PM	20.8 22.5	C C	21.1 22.9	C C	0.3 0.4
2	Broadway/Airport Blvd. & Bayshore Hwy.	AM PM	10.8 12.6	B B	10.9 12.6	B B	0.1 0.0
3	US 101 SB Ramps & Broadway ²	AM PM	23.5 27.4	C C	23.5 27.5	C C	0.0 0.1
4	Rollins Road & Broadway	AM PM	33.3 35.7	C D	34.6 35.7	C D	1.3 0.0
5	Rollins Road & Cadillac Way	AM PM	19.2 8.7	B A	18.7 8.6	B A	-0.5 -0.1
7	Carolan Avenue & Broadway	AM PM	31.5 44.3	C D	31.9 44.9	C D	0.4 0.6
9	California Drive & Broadway	AM PM	66.0 62.1	E E	66.1 62.4	E E	0.1 0.3
12	California Avenue & Oak Grove Avenue	AM PM	52.1 32.7	D C	53.1 33.0	D C	1.0 0.3

Notes:

BOLD text indicates an unacceptable LOS.

¹ Delay shown for one-way and two-way stop controlled unsignalized intersections is the worst delay experienced by vehicles on the minor street approach and the delay shown for all-way stop controlled intersections is the average delay per vehicle of all vehicles approaching the intersection.

² Currently this intersection is uncontrolled with no conflicting traffic movements. With the completion of the proposed US 101/Broadway Interchange Reconstruction project, this intersection will be signalized.

Table 4.3-2: Cumulative and Cumulative Plus Project Intersection Levels of Service – Unsignalized Intersections

Study Intersection		Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions		
			Average Delay (sec.)1	LOS	Average Delay (sec.)1	LOS	Added Vehicles ³
6	Rollins Road & Toyon Drive (one-way stop)	AM PM	13.9 17.9	B C	13.9 18.0	B C	3
8	Carolan Avenue & Cadillac Way (one-way stop)	AM PM	24.2 21.7	C C	25.5 22.5	D C	25 27
10	Chula Vista Venue & Broadway (two-way stop)	AM PM	15.1 17.5	C C	15.2 17.6	C C	10 10
11	Carolan Avenue & Oak Grove Avenue (three-way stop) ²	AM PM	17.0 23.8	C C	17.2 26.1	C D	23 25

Notes:

The intersection of Carolan Avenue and Oak Grove Avenue operates with long delays on Carolan Avenue during a portion of the AM peak hour due to traffic generated by the adjacent high school. Consequently, the PCEP EIR showed this intersection operating at LOS F under existing conditions. The railroad electrification project was found to create a significant impact at this intersection. The PCEP EIR analyzed a potential traffic signal as a mitigation measure. Signalization of the Carolan Avenue and Oak Grove intersection, however, would result in secondary impacts at the intersection of California Drive and Oak Grove Avenue. For this reason, a traffic signal was not recommended.

Caltrain, the lead agency for the PCEP project, was consulted and it was determined that a better way to characterize this intersection is to look at the weighted average delay of all movements and to consider that the high school congestion lasts for only about 20 minutes out of the AM peak hour. Based on these criteria, the intersection operates at LOS B under existing conditions and would operate at LOS D or better under cumulative conditions with the project. Therefore, the project is found to have a less than significant impact at the Carolan Avenue and Oak Grove intersection. Also, as a practical matter, it is unlikely that project traffic would choose to travel through the Carolan Avenue and Oak Grove intersection during the high school drop-off period. Project traffic would likely either travel earlier or later or would use alternate routes, such as Rollins Road or California Drive.

¹ Delay shown for one-way and two-way stop controlled unsignalized intersections is the worst delay experienced by vehicles on the minor street approach and the delay shown for all-way stop controlled intersections is the average delay per vehicle of all vehicles approaching the intersection.

² Due to software limitations, this intersection was analyzed as an all-way stop (not as a three-way stop). Delay shown is the weighted average delay for all turning movements approaching the intersection.

³ The number of vehicles the project adds to the intersection.

Based on the above discussion, the proposed project would not result in a considerable contribution to a cumulative transportation level of service impact. (Less Than Significant Cumulative Impact)

4.3.2 <u>Cumulative Noise and Vibration</u>

Given the project's noise and vibration impacts (refer to *Section 2.3*) and the nature of the cumulative projects, the following discussion focuses on cumulative transportation noise impacts. While it is possible that the proposed project could be developed at the same time as the some of the cumulative projects, there are no existing sensitive receptors that would be subject to construction noise from the project and a nearby cumulative project because the cumulative projects are not adjacent to the project site. For this reason, cumulative construction noise impacts are not discussed further.

The project would result in a significant cumulative traffic noise impact if existing sensitive receptors would be exposed to cumulative traffic noise level increases greater than three dBA L_{dn} above existing traffic noise levels and if the project would make a cumulatively considerable contribution to the overall traffic noise level increase. A cumulatively considerable contribution is defined as an increase of one dBA L_{dn} or more attributable solely to the project.

Based on the cumulative traffic data in the traffic analysis completed for the project (refer to Appendix C), traffic noise levels are estimated to increase by approximately two dBA L_{dn} under cumulative conditions. There was no measurable difference in noise increase between the traffic volumes under cumulative (no project) conditions and cumulative plus project conditions. Since the cumulative traffic noise level increase is less than three dBA L_{dn} , the cumulative projects would not result in a significant cumulative traffic noise impact and the project would not have a considerable contribution to a cumulatively significant traffic noise impact. (Less Than Significant Cumulative Impact)

4.3.3 <u>Cumulative Air Quality</u>

Given the project's air quality impacts (refer to *Section 2.4*) and the nature of the cumulative projects, the below discussion focuses on cumulative criteria air pollutant emissions. While the proposed project could be constructed at the same time as some of the cumulative projects, there are no existing sensitive receptors that would be exposed to construction emissions from the project and another cumulative project because the cumulative projects are not adjacent to the project site. Therefore, the project would not contribute to a cumulative construction emission-related air quality impact.

4.3.3.1 Cumulative Criteria Air Pollutant Emissions

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 other words, if the project would generate emissions that exceed the thresholds and results in a significant air quality impact, then the

project is also deemed to have a cumulative considerable contribution to cumulative air quality impacts.

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in *Section 2.4*, the proposed project would not result in significant operational emissions of criteria pollutants. Therefore, the project would not have a considerable contribution to significant cumulative regional criteria air pollutant emissions. (Less Than Significant Cumulative Impact)

4.3.3.2 Cumulative On- and Off-Site Sources of Toxic Air Contaminant (TAC) Emissions

The closest off-site receptors to the project site would not be adversely affected by TACs from the project in combination with another cumulative project TAC source(s) due to the location of the other cumulative projects. The cumulative Peninsula Caltrain Electrification Project (PCEP), which would result in the electrification of the Caltrain trains, however, would reduce diesel particulate matter (DPM) emissions to off-site and on-site receptors that are proximate to the Caltrain railroad.

Currently, all of Caltrain's trains use diesel locomotives. With the approval and implementation of PCEP, DPM emissions from Caltrain trains would be eliminated. Under the PCEP, 2019 Caltrain service between San José and San Francisco would use a mixed fleet of electric multiple unit (EMU) and diesel locomotives, with approximately 75 percent of the service being electric and 25 percent being diesel. In 2019, some peak service trains would be diesel on weekdays. All other service, including off-peak periods, would be EMU-based. Off-peak periods include early morning, midday, and after 7:00 AM. After 2019, diesel locomotives would be replaced with EMUs over time as they reach the end of their service life. Caltrain's diesel-powered locomotives would continue to be used to provide service between the San José Diridon Station and Gilroy. It is expected that 100 percent of the San José to San Francisco fleet would be EMUs by 2026 to 2029. Details regarding the model, assumptions, and emissions rates used to predict the health risk resulting from the implementation of the PCEP are provided in Appendix E of this EIR.

With the implementation of the PCEP, the maximum increased cancer risk was computed as 3.6 in one million at the proposed townhouse unit located at the southwest corner of the site closest to the railroad lines, which is below the BAAQMD threshold of significance of 10 per million and is considered a less than significant impact. Cancer risks at other areas within the project site would be lower than the maximum cancer risk.

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. The maximum predicted annual DPM concentration from locomotives is 0.019 $\mu g/m^3$, which is lower than the reference exposure level (REL) of five $\mu g/m^3$. Thus, the Hazard Index (HI) would be 0.004, which is lower than the BAAQMD significance criterion of a HI greater than 1.0 and is considered a less than significant impact.

In addition to evaluating the health risks from DPM, potential impacts from $PM_{2.5}$ emissions from the electrification of the locomotives were evaluated. From the rail line modeling conducted for

estimating cancer risks, the maximum $PM_{2.5}$ concentration was identified. The maximum average $PM_{2.5}$ concentrations of 0.019 μ g/m³ would occur at the same receptor that had the maximum cancer risk, which is below the BAAQMD $PM_{2.5}$ threshold of greater than 0.3 μ g/m³.

Cumulative TAC impacts to proposed sensitive receptors were evaluated by adding the cancer risk, Hazard Index, and PM_{2.5} concentrations from each nearby source (which are the same under existing and cumulative conditions) and comparing those to the BAAQMD Community Risk significance thresholds for cumulative sources. Table 4.3-3 shows the community risk impacts from each source upon the maximally exposed individual on-site.

As shown in Table 2.4-5, cumulative health risks to sensitive receptors on-site would be below the BAAQMD cumulative thresholds of significance and are considered less than significant. (Less Than Significant Impact)

Table 4.3-3: Cumulative Community Risk Impacts at the Project Site						
Distance from Maximally Exposed Individual On-Site (feet)	Facility Name	Address	Cancer Risk (per million)	Hazard Index	PM _{2.5} (μg/m ³)	
~100	US 101 with imple measures MM AIF	6.1	< 0.01	0.20		
~700	Caltrain with imple	<1.0	< 0.01	0.01		
~1,000	Chevron	1095 Carolan Road	< 0.1	0.01		
~800	Unocal	1147 Rollins Road	0.5	< 0.01		
Total with implementation of mitigation measures MM AIR-3.1 through -3.5 and implementation of PCEP			7.1	< 0.04	0.21	
BAAQMD Cumulative Thresholds			100	10.0	0.8	
Exceeds Threshold?	No	No	No			

4.3.4 Cumulative Biological Resources

Given the project's biological resources impacts (refer to *Section 2.7*) and the nature of the cumulative projects, the below discussion focuses on cumulative impacts to trees and nesting birds.

4.3.4.1 Cumulative Impacts to Nesting Birds

As discussed in *Section 2.7*, the project would impact nesting birds, if present on-site. Nesting birds, including migratory birds and raptors, are protected under provisions of the Migratory Bird Treaty Act and Fish and Game Code Sections 3503, 3503.5, and 2800.

Construction of the cumulative projects during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of

fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal and site grading that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would constitute a significant impact.

All cumulative projects (including the proposed project) shall be required to comply with the Fish and Game Code and the provisions of the Migratory Bird Treaty Act (refer to mitigation measures MM BIO-1.1 through -1.3 in *Section 2.7*) to reduce and/or avoid impacts to nesting birds to a less than significant level. For this reason, the cumulative projects would not have a significant cumulative impact on nesting birds. (**Less Than Significant Cumulative Impact**)

4.3.4.2 Cumulative Impacts to Trees

The development of the cumulative projects would result in the removal of trees. As discussed in *Section 2.7*, the project would result in the removal of 12 existing trees but would be required to replace them per the City's Municipal Code and Urban Forest Management Plan. All cumulative projects located within the City of Burlingame would be required to do the same. The proposed project would in fact replace the removed trees at a ratio of over 14 new trees for each existing tree removed. As concluded in *Section 2.7*, the project would not result in a significant impact to trees.

Given that the project would replace removed trees at a ratio of over 14 new trees for each existing tree removed and that the cumulative projects in the City of Burlingame would be required to replace removed trees per the City's Municipal Code and Urban Forest Management Plan standards, the cumulative projects (including the proposed project) would not result in a cumulative impact to trees. (Less Than Significant Cumulative Impact)

4.3.5 Cumulative Hydrology and Water Quality

Given the project's hydrology and water quality impacts (refer to *Section 2.10*), the following discussion focuses on cumulative water quality impacts.

Various federal, state, and local laws and regulations have been enacted for the purpose of improving/maintaining the quality of surface waters. Such legislation and regulations include, but are not limited to, the federal Clean Water Act, California Porter-Cologne Water Quality Control Act, Basin Plan, and NPDES permit. As a direct result of such legislation and regulation, development projects are required to undertake steps to avoid, minimize, and/or mitigate flooding and water quality impacts. These steps can include: 1) modifying site designs to reduce impervious surfaces; 2) constructing on-site stormwater detention facilities; and 3) incorporating best management practices (BMPs) into the construction and post-construction phases of development. In addition, these requirements are applied to projects that seek to redevelop areas that were previously urbanized, the result of which optimally is a reduction in impervious surfaces on such sites.

In view of the applicability of laws and regulations to avoid the occurrence of significant hydrological and water quality impacts, including Chapter 15.14 of the City's Municipal Code, the cumulative hydrology and water quality impacts would not be significant. (Less Than Significant Cumulative Impact)

4.3.6 Cumulative Utilities and Service Systems

4.3.6.1 Cumulative Impacts to Water Service

The Urban Water Management Planning Act of 1983 requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of water service reliability to meet the needs of its customers are met. In conformance with this Act, the City prepares and periodically updates it Urban Water Management Plan (UWMP).

The City's 2010 UWMP describes how the City intends to manage its current and future water resources and demands to continue providing its customers with an adequate and reliable water supply. The City's service area population includes people within the City limits and residents of the unincorporated Burlingame Hills area. Much of the City is built-out, allowing for only modest population increases in the future assuming continuation of current zoning and densities. Future water demand is based in part on future population projections, which are based on the addition of the Association of Bay Area Governments (ABAG) estimate of people within the City limits, residents within the unincorporated Burlingame Hills, and the additional people projected in the City's Downtown Specific Plan.

The City plans on achieving future water demand using a combination of water conservation and regionalization. Specifically, the City will create and implement a water conservation plan, finalize and implement a recycled water plan, and analyze the possibility of regionalizing water use targets with surrounding communities. In addition, the City currently implements demand management measures to conserve water including:

- Coordinating regional water conservation efforts,
- Performing residential surveys to check for leaks and identify recommendations for water conservation,
- Implementing Ordinance 1846-2010 that establishes indoor water conservation regulations,
- Conducting system water audits to investigate and repair leaks,
- Implementing public information programs about water conservation (including school education programs),
- Conducting water audits for commercial and industrial customers,
- Implementing conservation pricing,
- Implementing the City's Water Rationing Plan when required, and
- Participating in the Bay Area Water Supply and Conservation Agency's toilet rebate program.

The cumulative projects, including the proposed project, would not result in population growth beyond what is projected for the City by ABAG or in the City's 2010 UWMP. For this reason, it is anticipated that the City would have sufficient water supplies available to serve the existing customers and the cumulative projects from existing entitlements and resources. (Less Than Significant Cumulative Impact)

4.3.6.2 Cumulative Impacts to Wastewater Treatment/Sanitary Sewer System

Wastewater Treatment

As discussed in *Section 2.12 Utilities and Service Systems*, the WWTP is permitted to treat an average dry weather flow of up to 5.5 mgd. The City's current average dry weather flow to the WWTP is approximately 3.0-3.5 mgd⁵⁶ The WWTP has a wet weather discharge capacity of 16 mgd. An aggressive citywide sewer lateral testing program and significant investment in its capital improvement program have reduced inflow and infiltration (I/I) of storm water runoff to the sewer system and has reduced wet weather flows to the WWTP. Additionally, the construction of a 1.6 million gallon retention basin at the WWTP has improved the operational capabilities of the WWTP to manage wet weather flows.

Exceedance of the WWTP's peak wet weather capacity is primarily due to the inflow and infiltration caused by older lines that are broken and leaking. Through its Capital Improvement Projects (CIPs), the City has been replacing older lines over the years to reduce infiltration. In addition, in 2011, the City constructed a 1.6 million gallon stormwater retention basin to manage wet weather inflow to the WWTP to avoid blending events. Even with the current improvements in place, during storm events, flows to the WWTP can still exceed the plant's peak wet weather treatment capacity of 16 mgd. The WWTP, however, has been able to hold and process the excess flow without the use of the emergency outfall.⁵⁷ Planned CIPs over the next 10 years for the WWTP and sanitary sewer collection system would further reduce wet weather inflows and the probability of future blending events at the WWTP.

It is anticipated that the wastewater treatment demand from the cumulative projects located in the City of Burlingame (the WWTP would not treat wastewater generated from cumulative projects located in the City of Millbrae identified in Table 4.2-1), would not require the construction or expansion of the WWTP (beyond currently planned CIPs). For this reason, the cumulative projects (including the proposed project) that would not have a significant cumulative impact on wastewater treatment facilities (i.e., the WWTP). (Less Than Significant Cumulative Impact)

Sanitary Sewer System

None of the cumulative projects identified in Table 4.2-1 would generate sewage that would be conveyed through the same sewer lines as the proposed project. For this reason, the project would not contribute to a significant cumulative impact on the sanitary sewer system. The project's individual impact on the sewer system is discussed in *Section 2.12 Utilities and Services Systems*. (Less Than Significant Cumulative Impact)

4.3.6.3 Cumulative Impacts to Storm Drainage System

As discussed in *Section 2.11 Hydrology and Water Quality*, the proposed project would result in a net decrease in impervious surfaces on-site compared to existing conditions. As a result, the amount

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⁵⁶ Toci, William. Personal communications with WWTP Plant Manager. November 20, 2014.

⁵⁷ Ibid.

of runoff from the site would also decrease. Since the proposed project would decrease flows to the existing storm drainage system, the project would not adversely affect the storm drainage system. The project would not contribute to a cumulatively significant impact to the storm drainage system. (Less Than Significant Cumulative Impact)

4.3.6.4 Cumulative Impacts to Solid Waste Systems

As described in more detail in *Section 2.12 Utilities and Service Systems*, the City of Burlingame is a member of Rethink Waste. Rethink Waste has a contract to dispose solid waste at Ox Mountain Landfill, which expires in 2019; ReThink Waste does not have a contractual limit with Ox Mountain Landfill.⁵⁸ Ox Mountain Landfill has a remaining capacity of approximately 69 million cubic yards and has an estimated closure date of 2040.⁵⁹ It is unknown at this time if ReThink Waste will renew its disposal contract with Ox Mountain Landfill.⁶⁰

Recology provides solid waste, recycling, and organics collection services to all residential and commercial customers within the City. Recology hauls the solid waste, recyclables, and organics to Shoreway Environmental Center for processing, staging, and shipment. The Shoreway Environmental Center includes a transfer station, materials recovery facility, public recycling center (which offers the buyback of recyclables and free drop off of e-waste and household hazardous waste), and environmental education center. The solid waste collected is then hauled to Ox Mountain Landfill for disposal.

The cumulative projects (including the proposed project) would generate solid waste that would need to be disposed of at Ox Mountain Landfill.⁶¹ The City's overall disposal tonnage in 2011, 2012, and 2013 were 17,536, 17,926, and 16,655, respectively.

Based on the diversion services provided by Recology (collection of recyclables and organics) and at the Shoreway Environmental Center, increasing residential waste diversion in the City (as discussed in *Section 2.12*), the City's C&D Ordinance, and remaining capacity at Ox Mountain Landfill, it is anticipated that there would be sufficient capacity at Ox Mountain Landfill to serve the cumulative projects. If ReThink Waste does not renew its disposal contract with Ox Mountain, as discussed in *Section 2.12*, other landfills including NISL and Zanker Materials Processing Facility have sufficient capacity to accommodate waste generated by the cumulative projects. (Less Than Significant Cumulative Impact)

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⁵⁸ Feldman, Cliff. Personal Communications with ReThink Waste Recycling Programs Manager. December 4, 2014.

⁵⁹ McGourty, Scott. Personal Communications with Environmental Manager at Ox Mountain Landfill. November 6, 2014.

⁶⁰ Feldman, Cliff. Personal Communications with ReThink Waste Recycling Programs Manager. December 4, 2014.

⁶¹ Note that the City of Millbrae is not a member of ReThink Waste, as the City of Burlingame. The cumulative projects in Table 4.2-1 in the City of Millbrae, therefore, are not part of ReThink Waste's contract with Ox Mountain Landfill.

4.3.7 Cumulative Energy

The cumulative projects are located in infill areas and are required to meet applicable state and federal requirements for energy efficiency (e.g., National Energy Policy, Federal EnergyStarTM Program, Title 24 of the California Administrative Code as it pertains to energy efficiency, and California Green Building Standards Code). The cumulative projects located in the City of Burlingame are also required to comply with the City's Climate Action Plan and California Green Building Standards. The cumulative projects would be constructed in conformance with applicable local, state, and federal requirements for energy efficiency and, therefore, would not consume energy in a manner that is wasteful, inefficient, or unnecessary.

In addition, the project proposes housing in an infill location that predominately consists of residential development. The project site is adequately served by the existing transportation network (including pedestrian, bicycle, and transit facilities). For these reasons, it is not anticipated that the project would contribute to a cumulative impact on increasing overall distances between jobs and housing.

The proposed project would not have a considerable contribution to a significant cumulative energy impact. (Less Than Significant Cumulative Impact)

4.3.7 <u>Cumulative Public Services</u>

4.3.7.1 Cumulative Impacts to Fire and Police Protection Services

Implementation of the proposed cumulative projects would intensify the use of those sites, which would incrementally increase the demand for fire and police protection services compared to existing conditions. The cumulative projects, however, are within the service areas of both existing CCFD and BPD services. Development of the projects would not expand the service area of fire or police agencies or substantially affect the response time of CCFD or BPD to the sites. The cumulative projects would be constructed in accordance with current building and fire codes. In addition, as described in *Section 2.14.1.2*, CCFD is part of the San Mateo County Fire Services Automatic Aid Agreement where neighboring fire departments would provide aid, if needed. For these reasons, it is not anticipated that the cumulative projects would require the construction of new or expanded fire or police facilities. (Less Than Significant Cumulative Impact)

4.3.7.2 Cumulative Impacts to Schools

Each cumulative project that includes new residences (including the proposed project) is required to comply with State Law (Government Code Section 65996), as described previously in *Section* 2.14.1.1, and pay the affected school districts an impact fee prior to issuance of a building permit to mitigate the project's impact on school facilities to a less than significant level. For this reason, the cumulative residential projects would not result in a significant cumulative impact to schools. (Less Than Significant Cumulative Impact)

4.3.7.2 Cumulative Impacts to Parks

Based on the latest US Census data for the City, it is estimated that the cumulative projects (which would allow for 964 new residences in the City of Burlingame) would generate approximately 2,179 new residents.⁶² The project residents would be served by existing parks in the project area and other open space and recreational facilities in the region. In addition, each cumulative residential project that proposes new residences includes common open space and recreational facilities on-site that would partially offset the park demand from project residents.

It is not anticipated that the incremental demand for park and recreational facilities in the area from the cumulative projects would result in the substantial, physical deterioration of existing park and recreational facilities or require the expansion or construction of new facilities. (Less Than Significant Cumulative Impact)

4.3.7.2 Cumulative Impacts to Libraries

Implementation of the cumulative projects would generate new residents in the City of Burlingame who would use the community libraries. The City currently has a population of approximately 29,892. The cumulative projects (which include 964 new residences in the City of Burlingame) would result in an approximately seven percent increase in the City's population. It is not anticipated that the project's incremental increase in demand on library services would require the construction of new or expanded library facilities, especially given the renovations underway to expand the existing library services. (Less Than Significant Cumulative Impact)

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⁶² Based on the latest US Census data for the City, the average residents per household is 2.26.

SECTION 5.0 SIGNIFICANT, UNAVOIDABLE IMPACTS

SECTION 6.0 ALTERNATIVES

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The purpose of this section is to determine whether there are alternatives of design, scope, or location which would substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives" or are more expensive (§15126.6).

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts which are anticipated to occur if the project is implemented, but to try to meet as many of the project's objectives as possible. The Guidelines emphasize a common sense approach – the alternatives should be reasonable, "foster informed decision making and public participation," and focus on alternatives that avoid or substantially lessen the significant impacts. The range of alternatives selected for analysis is governed by the "rule of reason" which requires the EIR to discuss only those alternatives necessary to permit a reasoned choice.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: 1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, 2) the project's objectives, and 3) the feasibility of the alternatives available. Each of these factors is discussed below.

6.1 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 throughout Section 2.0 Environmental Setting, Mitigation, and Impacts and summarized in Section 5.0 Significant, Unavoidable Impacts, the project would not result in any significant and unavoidable impacts.

Alternatives may be considered if they would further reduce impacts that are being mitigated to a less than significant level by the project. The proposed project's impacts that would be significant in the absence of proposed mitigation include noise (i.e., exterior and interior noise and construction-related noise), air quality (i.e., health risk from TACs from US 101, Caltrain, and construction activities and construction-related dust emissions), biological resources (specifically nesting birds, if present), unknown archaeological resources if present on-site, geology and soils (i.e., seismicity, liquefaction, undocumented fill, and expansive soils), and hazardous materials (i.e., contaminated soils and groundwater). The alternatives discussion does not focus on project impacts that are less than significant.

CEQA encourages consideration of an alternative site when impacts of the project might be avoided or substantially lessened. Only locations that would avoid or substantially lessen any of the impacts of the project and meet most of the project objectives need to be considered for inclusion in the EIR.

6.2 OBJECTIVES OF THE PROJECT

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration. The City and applicant's objectives for the project are listed below.

The City's goals and objectives for the areas designated for high-density residential uses, including the project site, are as follows:

- In recognition of the area's special locational advantages of good access to all forms of transportation and proximity to the major downtown area, high-density, multi-story residential land use shall be encouraged.
- 2. Maintain and improve the quality of the environment, to preserve the public health, and to enhance the prospects for enjoyment by residents and visitors.
- 3. Preserve residential character by encouraging maintenance, improvement, and rehabilitation of the City's neighborhoods and housing stock.
- 4. Consider neighborhood quality when approving new and remodeled residences.
- 5. Provide variety and choice of housing by promoting housing opportunities for all persons.
- 6. Promote development of rental housing that is attractive to prospective residents.
- 7. Encourage the inclusion of communal amenities in new rental developments (i.e., community rooms, play structures, laundry facilities) where feasible and provision of which does not impair achievement of maximum densities or the financial feasibility of developing housing affordable to lower-income households.
- 8. Provide housing opportunities for city employees, teachers, hospital workers, and others in the service industry who work in Burlingame.
- 9. Reduce residential energy use to conserve energy and help reduce housing costs.
- 10. Achieve increased affordability of housing.

The project applicant's objectives for the project are as follows:

1. Develop a multi-family residential infill project that is consistent with the goals and vision of the City of Burlingame's General Plan, its Housing Element, and the Carolan/Rollins Commercial Area R-4 overlay zone, providing a diverse range of high quality rental and forsale housing that will satisfy a variety of household needs.

- 2. Redevelop an assemblage of parcels with a neighborhood-compatible, economically viable residential project in close proximity to transit, using sustainable design practices and methods that promote energy efficiency and resource conservation.
- 3. Provide housing with a wide range of amenities that is close to shopping, services, and transportation and that encourages walking, transit use, bicycling, and carpooling that reduces vehicle trips and supports local business.
- 4. Design a high density residential community that respects the surrounding neighborhood through appropriate building height transitions, siting, massing, bulk, character, and landscaping.
- 5. Increase the permeability of the property and improve storm water quality and conditions.
- 6. Support reforestation philosophies on a 5.4-acre site, consistent with the City of Burlingame's Urban Forest Management Plan.

6.3 FEASIBILITY OF ALTERNATIVES

CEQA, the CEQA Guidelines, and 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 [$\S15126.6(f)(1)$]."

6.4 SELECTION OF ALTERNATIVES

In addition to "No Project," the CEQA Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that "would avoid or substantially lessen any of the significant effects of the project," or in the case of the proposed project, would further reduce impacts that are considered less than significant with the incorporation of identified mitigation [§15126.6(f)]. For example, the project would result in significant health risks (without implementation of identified mitigation) to future residences from toxic air contaminants (TACs) from US 101 and Caltrain (if not electrified). Therefore, alternative locations that were not proximate to existing TAC sources were considered and an Alternative Design (Increased Setback) was considered, which would develop the proposed project on-site but with increased setbacks from US 101 and the Caltrain rail lines.

The components of these alternatives are described below, followed by a discussion of their impacts and how they would differ from those of the proposed project. A summary of the environmental impacts of the proposed project and the project alternatives is provided in Table 7.5-1.

6.5 PROJECT ALTERNATIVES

6.5.1 Project Alternatives Considered but Found Infeasible

6.5.1.1 *Alternative Locations*

The City considered alternative locations for the proposed project. A suitable alternative site would need to be of similar size (approximately 5.4 acres), within the existing urbanized area of Burlingame, with adequate roadway access, as well as near public transit, employment, and commercial services. The alternative site would also need to have the appropriate General Plan land use designation (and zoning if possible) that would allow for the proposed residential uses. Based on these criteria, the City determined that there were no suitable alternative locations within the City. Most sites within the City that have the appropriate General Plan land use designation and zoning are less than one acre in size. There is an approximately 4.2-acre site that is part of the larger, existing Sutter Health Mills-Peninsula Health Services property located at the northeast quadrant of Marco Polo Way and Trousdale Drive. This 4.2-acre site has the appropriate General Plan land use designation, but would require rezoning and is not available for acquisition by the developer. Therefore, this site was considered but found infeasible and not analyzed further.

In addition, alternative sites located within the City's Bayfront Area were considered, but the General Plan and Bayfront Specific Area Plan stipulate that no residential uses are allowed within this Specific Plan Area. Therefore, alternative sites within the Bayfront Area were considered but found infeasible and not analyzed further.

In conclusion, the City considered a number of alternative locations for the project but, due to their size, unavailability, and General Plan and zoning designations, found the alternative locations infeasible and, therefore, did not evaluate them further.

6.5.1.2 Alternative Land Use

An alternative land use was also considered and evaluated for the site. The existing General Plan and zoning designations on the site allow for a variety of uses. Besides the existing commercial uses on-site and the proposed residential uses, office uses would be consistent with the existing land use designations. Based on other existing office buildings located within the City, office uses on the project site would be anticipated to be either be a four-story office building or a group of office buildings with approximately 200,000 square feet of total floor area. In addition, 667 parking spaces would be required for an office complex of this size, most likely provided in a combination of low structures and surface lots. Under this alternative land use scenario, approximately 60 percent of the site would be covered by office buildings and parking structures, and approximately 25 percent of the site would be landscaped, and the remainder of the site would consist of surface parking.

While office uses on the site would avoid the project's impact to sensitive receptors from TACs from US 101 and Caltrain (because office uses are not considered sensitive uses with sensitive receptors), an office development on the site would be subject to similar exterior noise impacts and would result in the same (or similar) impacts to nesting birds, potential unknown archaeological resources, and geologic hazards. In addition, an office development on the site would result in similar hazardous

materials impacts and construction-related noise and air quality impacts to existing, nearby residents as the proposed project. An office development could also have increased net traffic impacts on nearby intersections as compared to a housing use.

As described above under 6.3, inconsistency with a general plan or with other plans or regulatory limitations can be a reason to find an alternative infeasible under CEQA. An alternative land use of office on the site would not be consistent with the City's General Plan and Housing Element goals, or with the City's long-term vision of higher density residential for the site. For these reasons, this alternative is not considered feasible and is not evaluated further.

6.5.2 <u>Project Alternatives Analyzed</u>

6.5.2.1 No Project Alternative

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

Currently, the project site is developed with eight, one-story buildings occupied by commercial automotive repair, rental, and sales facilities. Because the existing businesses on the site are currently operating, the No Project Alternative assumes that the project site would remain as it is today. However, it should be noted that under the No Project Alternative, redevelopment of the site under the current General Plan and zoning designations could be proposed by another party at some time in the future.

Comparison of Environmental Impacts

Because no redevelopment would occur under this alternative, the No Project Alternative would avoid all of the project's impacts.

Relationship to Project Objectives

The No Project Alternative would not meet any of the project objectives because it would not result in the development of housing on the site, consistent with the City's updated Housing Element, and would not result in redevelopment of the site, which would improve permeability and stormwater quality. In addition, the No Project Alternative would not result in a net increase in trees on-site.

Conclusion

Because the No Project Alternative would not result in redevelopment on the site, this Alternative would avoid all of the environmental impacts from the project. This Alternative, however, would not meet any of the City's goals for the site or the applicant's project objectives.

6.5.2.2 Alternative Design (Increased Setback)

An Alternative Design (Increased Setback) was evaluated, which would avoid the significant (though mitigated) health risk impacts to the proposed residences nearest to US 101 and Caltrain (if not electrified). The Alternative Design (Increased Setback) assumes that the proposed project would have increased setbacks from the eastern and western property lines. Specifically, under this alternative, the project would be set back 250 feet from the eastern site boundary and 120 feet from the western site boundary. As a result of the increased setbacks, only 205 apartments and five townhouses could be developed under this alternative without requiring a rezoning for an increase in maximum building height on-site. In addition, because of the reduced footprint under this alternative, the underground and structured parking would be removed to maximize available floor area for units within the building envelope, and surface parking would instead be developed, resulting in a reduction of the proposed site landscaping. In order to maximize the development potential with the increased setbacks on the eastern and western boundaries, the setback to the apartment building from the southerly property line would be reduced from 120 feet to 100 feet, and the height would be increased from 61.5 feet to 75 feet. The setback from the southerly property line to the townhomes would also be reduced from 30 feet to 20 feet.

Comparison of Environmental Impacts

The Alternative Design (Increased Setback) would lessen the project's significant (though mitigated) impact from TACs from US 101 and Caltrain (if not electrified). Nevertheless, because this alternative would result in redevelopment of most of the site, this alternative would result in similar exterior and interior noise impacts, construction-related TAC impacts, construction-related dust emissions, nesting bird impacts (if present on-site), geology and soils, and hazardous materials impacts as the proposed project.

Implementation of the Alternative Design (Increased Setback) would also result in increased hydrological impacts related to stormwater runoff due to the additional amount of impervious surfaces from surface parking. Under this alternative, the apartment building would also be taller (75 feet) and narrower, resulting in a slightly worse aesthetic impact and change in visual character as compared to the proposed project.

Relationship to Project Objectives

The City's Updated Housing Element anticipates the development of 290 residential units on the project site. The Alternative Design (Increased Setback) Alternative would only provide 210 residential units and, therefore, would not meet the City's job/housing balance goal for the site. For the same reason, the Alternative Design would also fail to meet project objective 1, which

incorporates the City's General Plan, Housing Element, Carolan/Rollins Commercial R-4 Overlay zone objectives.

The Alternative Design (Increased Setback) would not meet project objective 2. Project objective 2 includes developing a "neighborhood-compatible, economically viable residential project." Under this alternative, the project would be substantially taller compared to the Northpark Apartments to the north and the single-family residential uses to the south and, therefore, would not be as compatible with the surrounding neighborhood. The Alternative Design (Increased Setback) fails project objective 4 for the same reason, in that the taller design would not "respect the neighborhood through appropriate building height transitions…". The Alternative Design (Increased Setback) could fail to meet project objective 5, in that increased surface parking could decrease the permeability and storm water quality of the site relative to the proposed project.

As previously discussed, CEQA does not require that alternatives must be capable of meeting all of the project objectives; however, their ability to meet most of the objectives is considered relevant to their consideration. In this case, the proposed alternative would fail four of six project objectives.

Per CEQA Guidelines Section 15091(a)(3), the City Council must make findings whether an environmentally superior alternative to the project is feasible based on substantial evidence in the record. For this reason, consistent with CEQA, the City Council will ultimately determine whether this is a feasible alternative (e.g., economically feasible, aesthetically acceptable, etc.) when making a decision on the project.

Conclusion

Though the Alternative Design (Increased Setback) would lessen the proposed project's significant health risk impacts from US 101 and Caltrain (if not electrified), this alternative would result in similar environmental impacts to the proposed project in other areas including noise, construction-related impacts, nesting birds (if present), unknown archaeological resources (if present), geology and soils, and hazardous materials. However, impacts to hydrological resources and aesthetics would increase under this alternative. Although the Alternative Design (Increased Setback) could meet some of the project applicant's objectives, it would not meet the City's goal of providing 290 residential units of housing on the project site, per the City's Updated Housing Element. It is ultimately the City Council that will determine whether the Alternative Design is feasible, including economically feasible.

6.5.3 Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative to the proposed project is the No Project Alternative because all of the project's significant environmental impacts would be avoided. However, Section 15126.6(e)(2) states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." This would be the alternative that would result in fewer environmental impacts. Given this requirement, the Alternative Design would be considered the Environmentally Superior Alternative (refer to Table 6.5-1 below).

Table 6.5-1: Matrix Comparison of Project and Alternative Impacts

Impacts	Proposed Project	No Project Alternative	Alternative Design
Noise (exterior, interior, and construction-related)	SM	NI	SM
Health Risk from TACs from US 101 and Caltrain (if not electrified)	SM	NI	LTS
Health Risk from Construction Activities	SM	NI	SM
Construction-Related Dust Emissions	SM	NI	SM
Aesthetics	LTS	NI	LTS
Nesting Birds (if present)	SM	NI	SM
Unknown Archaeological Resources	SM	NI	SM
Geology and Soils	SM	NI	SM
Hydrology	LTS	NI	LTS*
Hazardous Materials	SM	NI	SM
Meets Project Objectives?	Yes	No	Partially

Notes: SM = Significant Impact, but can be mitigated to a less than significant level; LTS = Less Than Significant impact; and NI = No Impact.

Bold text indicates being environmentally superior to the proposed project.

* Hydrology impacts under the Alternative Design would likely increase compared to the proposed project

SECTION 7.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources. Applicable environmental changes are described in more detail below.

7.1 USE OF NONRENEWABLE RESOURCES

The proposed project, during construction and operation, would require the use and consumption of nonrenewable resources. Renewable resources, such as lumber and other wood byproducts, would also be used. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals.

Energy would be consumed during both the construction and operational phases of the project. The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the sites, and construction of the buildings. The operational phase would consume energy for multiple purposes including, building heating and cooling, lighting, appliances, and electronics. Energy, in the form of fossil fuels and electricity, would be used to fuel vehicles traveling to and from the project sites.

The project would result in substantial increase in demand upon nonrenewable resources. The project would be constructed in compliance with the 2013 Building Energy Efficiency Standards (refer to *Section 1.3 Project Description*), which have more stringent energy standards compared to the 2008 standards. Therefore, the project would be consistent with the 2013 California Green Building Code.

In addition, as described in *Section 1.3 Project Description*, although recycled water service is not currently available in the project area, the project proposes to install "purple" irrigation lines to connect to that system should it become available in the future. The project also includes the following Transportation Demand Management (TDM) amenities to encourage more sustainable modes of transportation:

- Four electric vehicle charging stations, with the potential for 10 additional electric vehicle charging stations,
- Two car-sharing vehicle reserved spaces (e.g., Zipcar),
- 134 secure bicycle parking spaces for apartment residents,
- 10 guest bicycle parking spaces,

- Bike repair station,
- Tenant web portal for carpooling, and
- Business center and conference room for telecommuting.

7.2 COMMITMENT OF FUTURE GENERATIONS TO SIMILAR USE

The project proposes residential uses. The development of the proposed project would commit a substantial amount of resources to prepare the site, construct the buildings, and operate them.

7.3 IRREVERSIBLE DAMAGE RESULTING FROM ENVIRONMENTAL ACCIDENTS ASSOCIATIED WITH THE PROJECT

The project does not propose any new or uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would impact other areas. As discussed in *Section 2.9 Hazards and Hazardous Materials*, there are no significant unmitigatable on-site or off-site sources of contamination (such as on-site soil or groundwater contamination) that would substantially affect the proposed residences on-site.

The project site is located within a seismically active region and the proposed project would be subject to soil hazards related to undocumented fill and expansive soils on-site. Conformance with the standard engineering practices in the Uniform Building Code and implementation of the recommendations in the project-specific geotechnical report to be prepared for the project would not result in significant geological impacts (refer to *Section 2.10 Geology and Soils*).

The project, with the implementation of the identified mitigation measures to reduce hazards and hazardous material impacts (refer to *Section 2.9 Hazards and Hazardous Materials*) and standard measures to reduce geology and soil impacts (refer to *Section 2.10 Geology and Soils*), would not likely result in irreversible damage that may result from environmental accidents.

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SECTION 9.0 LEAD AGENCY AND CONSULTANTS

9.1 LEAD AGENCY

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Transportation Consultants

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Anjuli Bakhru, Transportation
Engineer

Hexagon Transportation Consultants

Transportation Consultants
Gary Black, President
Trisha Dudala, Associate

Holman & Associates

Archaeological Consultants
Sunshine Psota, Senior Associate

HortScience, Inc.

Consulting Arborist

John Leffingwell, Consulting Arborist

Illingworth & Rodkin, Inc.

Acoustical and Air Quality Consultants
Michael Thill, Principal
James Reyff, Principal
Bill Popenuck, Consultant

Previsualists Inc.

Visual Photosimulations

Don Carmickle, Principal

Rockridge Geotechnical

Geotechnical Consultants

Logan Medeiros, Senior Project Engineer

Craig Shields, Principal Geotechnical Engineer