November 6, 2019

State Clearinghouse Number 2019070377 | PUBLIC REVIEW DRAFT EIR

THE WESTPORT MIXED-USE PROJECT DRAFT EIR

for the City of Cupertino

CITY OF CUPERTINO EST. 1955

PLACEWORKS

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for the City of Cupertino

Prepared By:

PlaceWorks

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Sources

In addition to the appendices listed above, all documents cited in this report and used in its preparation are hereby incorporated by reference into this Environmental Impact Report. Copies of documents referenced herein are available for review at the City of Cupertino Community Development Department at 10300 Torre Avenue, Cupertino, California 95014.

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1. Introduction

Pursuant to Section 21080(d) of the California Environmental Quality Act (CEQA)[1] and Section 15378[a] of the CEQA Guidelines,[2] The Westport Mixed-Use Project is considered a "project" subject to environmental review because its approval is "an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment." This Draft Environmental Impact Report (Draft EIR) provides an assessment of the potential environmental consequences of approval, construction and operation of The Westport Mixed-Use project, herein referred to as "proposed project." This Draft EIR also identifies mitigation measures and alternatives to the proposed project that would avoid or reduce any of the significant effect of the project. This Draft EIR compares the development of the proposed project with the existing baseline condition, described in detail in each section of Chapter 4.0, Environmental Analysis. The City of Cupertino (City) is the lead agency for the proposed project. This assessment is intended to inform the City's decision-makers, responsible and trustee agencies, and the public-at-large of the nature of the proposed project and its effect on the environment.

1.1 PROPOSED PROJECT

The 8.1-acre project site is identified as Priority Housing Element Site A3 (The Oaks Shopping Center) in the City of Cupertino General Plan (Community Vision 2015-2040). The site is currently developed with a one-story shopping center (The Oaks Shopping Center) consisting of five buildings occupied with retail stores, restaurants, and offices, which were built between 1973 and 1976. Existing development on the site consists of an approximately 71,250-square-foot shopping center that is currently 85 percent occupied. The project site has 201,831 square feet of paved area, which includes associated parking, sidewalks, patios, and driveways, in addition to 45,486 square feet of native and non-native landscaping.

The proposed project would demolish the existing buildings onsite and construct 18 new buildings, that would have 242 residential units and 20,000 square feet of retail space, as well as below and at-grade parking, and associated landscape and hardscape areas. The proposed residential component would consist of three rowhouse buildings, 13 townhouse buildings (attached homes), and two mixed-use (residential and retail) buildings, including market-rate units and senior housing. The proposed retail component would be located on the ground level of the two mixed-use residential buildings. Residential-Retail Building 1 would have approximately 17,600 square feet of retail space located at the corner of Stevens Creek Boulevard and Mary Avenue. Residential-Retail Building 2 would have approximately 2,400 square feet of retail space on the ground level fronting Stevens Creek Boulevard. The proposed project would include one access point off Stevens Creek Boulevard and three additional access points off Mary

[1] The California Environmental Quality Act is found at California Public Resources Code, Division 13, Sections 21000-21177.
[2] The CEQA Guidelines are found at California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387.

Avenue. Below-grade parking would be located under Retail-Residential Building 1 and accessed from the central access point on Mary Avenue. Off-site improvements include the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. The proposed project is described in more detail in Chapter 3, Project Description, of this Draft EIR.

1.2 EIR SCOPE

This document is a project-level EIR that identifies and analyzes potential significant environmental impacts of the proposed project. As a project-level EIR, the environmental analysis describes the physical changes in the environment that would result from the development of the proposed project. This project-level EIR examines the short-term impacts (project construction) and long-term impacts (project operation) that would occur as a result of project approval. Prior to preparing this Draft EIR, the City of Cupertino conducted a scoping process. For a complete listing of environmental topics covered in this Draft EIR, see Chapter 4.0, Environmental Evaluation.

1.3 ENVIRONMENTAL REVIEW PROCESS

1.3.1 DRAFT EIR

An Initial Study was prepared for the proposed project in July 2019. Pursuant to CEQA Section 21080(d) and CEQA Guidelines Section 15063, the City of Cupertino determined that the proposed project could result in potentially significant environmental impacts, and that an EIR would be required. In compliance with CEQA Section 21080.4, the City circulated the Initial Study and Notice of Preparation (NOP) of an EIR for the proposed project to the Office of Planning and Research (OPR) State Clearinghouse and to responsible and trustee agencies on Thursday, July 11, 2019 for a 30-day review period. OPR posted the NOP with a start date of Friday, July 12, 2019 and an end date of Monday, August 12, 2019 to submit comments on the scope and content of the environmental information in the EIR. The NOP was filed with the County Clerk pursuant to CEQA Guidelines Section 15082(a). While not required under CEQA, a public Scoping Meeting was held on Thursday, July 18, 2019 at 6:30 p.m. at the Cupertino Community Hall (10350 Torre Avenue). A notice of the Scoping Meeting was circulated consistent with CEQA Guidelines Section 15082(c)(2) and mailed to all addresses within a 3,000-foot radius of the project site. The NOP and scoping process solicited comments from interested parties regarding the scope of the Draft EIR. Appendix A of this Draft EIR contains the Initial Study and Appendix B includes the NOP as well as the comments received by the City in response to the NOP.

This Draft EIR will be available for public review for a 45-day comment period. During the comment period, the public is invited to submit written or e-mail comments on the Draft EIR or the proposed project to the City of Cupertino Community Development Department. Written comments should be submitted to:

Gian Martire, Senior Planner
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014
Phone: (408) 777-3319
Email: GianM@cupertino.org

1.3.2 FINAL EIR

Following the conclusion of the 45-day public review period for the Draft EIR, the City of Cupertino will review all comments received and prepare written responses to comments on environmental issues. A Final EIR will then be prepared, which contains all the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR (if necessary). Responses to comments submitted on the Draft EIR by public agencies will be provided to those agencies at least 10 days prior to certification of the EIR. All agencies, organizations, and individuals who commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearing before the City Council. The Final EIR will then be presented to the City Council for certification. Public input is encouraged at all public hearings before the City.

Prior to the approval of the proposed project, the City Council must certify that the Final EIR was completed in compliance with CEQA. The City Council will also make findings regarding each significant environmental effect of the proposed project as identified in the Final EIR. If the City Council certifies the Final EIR, it may then consider whether to approve The Westport Mixed-Use Project. If the proposed project is approved, the City Council will adopt and make conditions of project approval all feasible mitigation measures identified in the EIR.

In some cases, the City Council may find that certain mitigation measures are within the responsibility and jurisdiction of other public agencies, and not the City of Cupertino, to implement, or that no feasible mitigation measures have been identified for a significant impact. In that case, the City Council may nonetheless determine that economic, legal, social, technological, or other benefits of the proposed project outweigh the unavoidable, significant effects on the environment.

1.3.3 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that the lead agency adopt a mitigation monitoring or reporting program (MMRP) for any project for which it has adopted mitigation measures. The MMRP is intended to ensure compliance with the adopted mitigation measures during the project implementation. The MMRP for the proposed project will be completed as part of the environmental review process.

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2. Executive Summary

This chapter presents an overview of the proposed Westport Mixed-Use Project, referred to herein as the "proposed project." This executive summary also provides a list of each significant impact with proposed mitigation measures (see Table 2-2), provides a summary of the alternatives to the proposed project, as well as issues to be resolved, areas of controversy, and conclusions of the analysis contained in Chapters 4.1 through 4.9 of this Draft Environmental Impact Report (Draft EIR). For a complete description of the proposed project and the alternatives to the proposed project, see Chapter 3, Project Description, and Chapter 5, Alternatives to the Proposed Project, of this Draft EIR, respectively.

This Draft EIR addresses the significant environmental effects associated with implementation of the proposed project. The California Environmental Quality Act (CEQA) requires that public agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public and public agency decision-makers with an analysis of the potential environmental consequences of the proposed project to support informed decision-making.

This Draft EIR has been prepared pursuant to the requirements of CEQA[1] and the CEQA Guidelines[2] to determine whether approval of the proposed project could have a significant effect on the environment (i.e., significant impact). The City of Cupertino, as the lead agency, has exercised its independent judgment by reviewing and revising, as necessary, all drafts, technical studies, and reports submitted in preparation of this EIR, including reliance on applicable City technical personnel and review of all technical subconsultant reports. Information for this Draft EIR was obtained from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, hazards and hazardous materials, hydrology and water quality, noise, and transportation).

2.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared to assess the significant environmental effects associated with the construction and operation of the proposed project. The main purposes of this document as established by CEQA are:

- To disclose to decision-makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.

[1] CEQA is found at California Public Resources Code, Division 13, Sections 21000 et seq.

[2] The CEQA Guidelines are found at California Code of Regulations, Title 14, Sections 15000 et seq.

- To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- To disclose to the public the reasons for agency approval of projects with significant environmental effects.
- To foster interagency coordination in the review of projects.
- To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a project that has the potential to result in significant adverse environmental impacts. Prior to approving a project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in compliance with CEQA, find that the EIR reflects the independent judgment of the lead agency, adopt findings concerning each of the project's significant environmental impacts, mitigation measures and alternatives, and adopt a Statement of Overriding Considerations finding that specific overriding benefits of the project outweigh the significant environmental if the project would result in significant impacts that cannot be avoided.

2.1.1 REPORT ORGANIZATION

This Draft EIR is organized into the following chapters:

- Chapter 1: Introduction. Describes the purpose of this Draft EIR, background of the proposed project, the Notice of Preparation, the use of incorporation by reference, and Final EIR certification.
- Chapter 2: Executive Summary. Summarizes the background and description of the proposed project, the format of this Draft EIR, the environmental consequences that would result from the proposed project, the alternatives to the proposed project, the recommended mitigation measures, and indicates the level of significance of environmental impacts with and without mitigation.
- Chapter 3: Project Description. Provides a detailed description of the proposed project location and the environmental setting on and surrounding the project site, the proposed project, the objectives of the proposed project, approvals anticipated to be required as a part of proposed project, and the intended uses of this EIR.
- Chapter 4: Environmental Evaluation. This chapter is organized into 9 sub-chapters corresponding to the environmental resource categories identified in CEQA Guidelines Appendix G, Environmental Checklist. This chapter provides a description of the physical environmental conditions in the City of Cupertino as they existed at the time the Notice of Preparation was published, from both a local and regional perspective, as well as an analysis of the potential environmental impacts of the proposed project, and recommended mitigation measures, if required, to lessen or avoid significant impacts. The environmental setting included in each sub-chapter provides baseline physical conditions from which the City of Cupertino will determine the significance of environmental impacts resulting from the proposed project. Each sub-chapter also contains a description of the thresholds of significance used to determine whether a significant impact would occur; the methodology used to identify and

evaluate the potential significant impacts of the proposed project; and the potential significant cumulative impacts to which the proposed project provides a cumulative contribution.

- Chapter 5: Alternatives to the Proposed Project. Provides an evaluation of alternatives to the proposed project, including the required "No Project" alternative, and identifies the environmentally superior alternative.
- Chapter 6: CEQA-Required Assessment Conclusions. Discusses growth inducement, cumulative impacts, significant unavoidable effects, and significant irreversible changes as a result of the proposed project. This chapter also identifies environmental issues that were determined not to require further environmental review as provided for in CEQA Guidelines Section 15128.
- Chapter 7: Organizations and Persons Consulted. Lists the people and organizations that contributed to the preparation of this EIR for the proposed project.
- Appendices: The appendices for this document (presented in PDF format on a CD attached to the back cover) contain the following supporting documents:
    - Appendix A: Initial Study
    - Appendix B: Notice of Preparation and Scoping Comments
    - Appendix C: Air Quality Assessment
    - Appendix D: Arborist Report & Tree Removal Plan
    - Appendix E: Greenhouse Gas Emissions Assessment
    - Appendix F: Limited Environmental Site Characterization
    - Appendix G: Acoustical Assessment
    - Appendix H: Transportation Assessment

2.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

According to Section 15121(a) of the CEQA Guidelines, the purpose of an EIR is to:

> *Inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

This Draft EIR has been prepared as a project EIR, pursuant to Section 15161 of the CEQA Guidelines. As a project EIR, the environmental analysis will discuss the changes in the environment that would result from the construction and operation of The Westport Mixed-Use Project. This project EIR will examine the short-term impacts (project construction) and long-term impacts (project operation) that may occur as a result of project approval by the City of Cupertino City Council, as well as cumulative impacts.

2.2 SUMMARY OF PROPOSED PROJECT

The 8.1-acre project site is identified as Priority Housing Element Site A3 (The Oaks Shopping Center) in the City of Cupertino General Plan (Community Vision 2015-2040). The site is currently developed with a one-story shopping center (The Oaks Shopping Center) consisting of five buildings occupied with retail

stores, restaurants, and offices, which were built between 1973 and 1976. Existing development on the site consists of approximately 71,250 square feet of shopping center development. The project site also includes 201,831 square feet of paved area, which includes associated parking, sidewalks, patios, and driveways, in addition to 45,486 square feet of native and non-native landscaping.

The proposed project would demolish the existing buildings onsite and construct 18 new buildings, that would have 242 residential units and 20,000 square feet of retail space, as well as below and at-grade parking, and associated landscape and hardscape areas. The proposed residential component would consist of three rowhouse buildings, 13 townhouse buildings (attached homes), and two mixed-use (residential and retail) buildings, including market-rate units and senior housing. The proposed retail component would be located on the ground level of the two mixed-use residential buildings. Residential-Retail Building 1 would have 17,600 square feet of retail space located at the corner of Stevens Creek Boulevard and Mary Avenue. Residential-Retail Building 2 would have 2,400 square feet of retail space on the ground level fronting Stevens Creek Boulevard. The proposed project would include one access point off Stevens Creek Boulevard and three additional access points off Mary Avenue. The below-grade parking would be located under Retail-Residential Building 1 and accessed from the central access point on Mary Avenue. Off-site improvements include the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. The proposed project is described in more detail in Chapter 3, Project Description, of this Draft EIR.

2.3 ALTERNATIVES TO THE PROPOSED PROJECT

This Draft EIR analyzes alternatives to the proposed project that would reduce or substantially lessen any of the significant environmental effects of the proposed project while feasibly attaining most of the basic objectives of the proposed project. CEQA Guidelines section 15126.6(d) requires the alternatives analysis to include sufficient information about each alternative to allow a comparison with the proposed project. While there is no set methodology for comparing the alternatives, this can be accomplished by using a matrix. CEQA Guidelines section 15126.6(2)(2) requires the EIR to identify the environmentally superior alternative. Identification of the environmentally superior alternative involves comparing the environmental effects of the alternatives with the environmental effects of the proposed project.

The following alternatives to the proposed project are analyzed in this EIR:

- No Project Alternative
- No Retail Development Alternative
- Reduced Retail Development Alternative

Chapter 5, Alternatives to the Proposed Project, of this Draft EIR, includes a complete discussion of these alternatives and of alternatives that were considered but rejected for further analysis. As discussed in Chapter 5, the No Retail Development Alternative would be the environmentally superior alternative.

2.4 AREAS OF CONCERN

The City of Cupertino issued a Notice of Preparation for the EIR on Thursday, July 11, 2019 and held a public scoping meeting on Thursday, July 18, 2019 to receive scoping comments. During the 30-day scoping period for this EIR, which concluded on Monday, August 12, 2019, public agencies and members of the public were invited to submit comments as to the scope and content of the EIR. While every environmental concern applicable to the CEQA process is addressed in this Draft EIR, the comments received focused primarily on the following environmental issues:

- Vehicular traffic congestion; specifically, on Highway 85 and Stevens Creek Boulevard
- Pedestrian and bicycle safety
- Noise impacts from construction and operation
- Air quality
- Building height
- Demands on public schools
- Loss of mature trees
- Bird safety
- Protection of night sky
- Too many housing units

Comments received during the public scoping period, including oral comments received at the Thursday, July 18, 2019 scoping meeting, are included in Appendix B, Notice of Preparation and Scoping Comments, of this Draft EIR. To the extent that these comments address environmental issues, they are addressed in Chapters 4.1 through 4.9 of this Draft EIR. Where comments received during the scoping period include topics that are outside of the purview of the analysis required under CEQA, these comments will be addressed by City staff during the approval process for the proposed project and, therefore, are not addressed further in this Draft EIR.

2.5 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant effect (impact) on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. An Initial Study was prepared for the proposed project (see Appendix A, Initial Study, of this Draft EIR). Based on the analysis in the Initial Study and General Plan EIR,[3] it was determined that development of the proposed project would not result in significant environmental impacts for the following topic areas; therefore, impacts related to these topics are not analyzed further in this Draft EIR:

- Aesthetics
- Agricultural and Forestry Resources
- Energy
- Hydrology and Water Quality
- Mineral Resources
- Population and Housing
- Public Services
- Recreation

[3] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

- Land Use and Planning
- Wildfire

In addition, based on the analysis in the Initial Study it was determined that construction and operation of the proposed project would not result in significant environmental impacts for some of the environmental checklist questions. Table 2-1 includes the checklist questions, organized by environmental topic area, for which there would be no impact or impacts would be less-than-significant without mitigation and these questions are, therefore, not analyzed further in this Draft EIR.

TABLE 2-1 ENVIRONMENTAL CHECKLIST QUESTIONS NOT EVALUATED FURTHER IN THE EIR

Environmental Topic	Checklist Question	Significance Without Mitigation
Air Quality	Would the proposed project create an objectionable odors affecting a substantial number of people?	No Impact
Biological Resources	Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community type?	No Impact
	Would the proposed project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	LTS
	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species, their wildlife corridors, or nursery sites?	LTS
	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact
Cultural Resources	Would the proposed project cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?	LTS
Geology and Soils	Would the proposed project directly or indirectly cause potential substantial adverse effects including the risk of loss, injury or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides, mudslides or other similar hazards?	No Impact
	Would the proposed project result in substantial soil erosion or the loss of topsoil?	LTS
	Would the proposed project 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?	LTS
	Would the proposed project be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	LTS
	Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact
Hazards and Hazardous Materials	Would the proposed project create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	LTS
	Would the proposed project be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	No Impact

TABLE 2-1 ENVIRONMENTAL CHECKLIST QUESTIONS NOT EVALUATED FURTHER IN THE EIR

Environmental Topic	Checklist Question	Significance Without Mitigation
	For a project 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 proposed project result in a safety hazard for people living or working in the project area?	No Impact
	Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	LTS
	Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	No Impact
Noise	For a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or pubic use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact
Transportation	Would the proposed project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	LTS
	Would the proposed project result in inadequate emergency access?	LTS
Utilities and Service Systems	Would the proposed project require or result in the construction of new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	LTS
	Would the proposed project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	LTS
	Would the proposed project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	LTS
	Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste?	LTS

Notes: LTS = less than significant
For a full analysis of these issues, see the Initial Study in Appendix A of this Draft EIR.
Sources: City of Cupertino and PlaceWorks, July 2019.

Table 2-2 summarizes the conclusions of the environmental analysis contained in this Draft EIR and presents a summary of impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Chapter 4.1 through 4.9. The table is arranged in four columns: 1) impact statement; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapters 4.1 through 4.9. As shown in Table 2-2, some significant impacts would be reduced to a less-than-significant level if the mitigation measures recommended in this Draft EIR are implemented.

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Air Quality			
AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	N/A	N/A
AQ-2: Uncontrolled fugitive dust (PM_{10} and $PM_{2.5}$) could expose the areas that are downwind of construction sites to air pollution from construction activities without the implementation of BAAQMD's best management practices.	S	**Mitigation Measure AQ-2: BAAQMD Basic Construction Measures.** Prior to any grading activities, the applicant shall prepare a Construction Management Plan to be reviewed and approved by the Director of Public Works/City Engineer. The Construction Management Plan shall include the Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures listed below to minimize construction-related emissions. The project applicant shall require the construction contractor to implement the approved Construction Management Plan. The BAAQMD Basic Construction Mitigation Measures are: ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ▪ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ▪ All vehicle speeds on unpaved roads shall be limited to 15 mph. ▪ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of 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	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		be checked by a certified mechanic and determined to be running in proper condition prior to operation. ▪ Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.	
AQ-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations.	LTS	N/A	N/A
AQ-4: Implementation of the project would cumulatively contribute to air quality impacts in the San Francisco Bay Area Air Basin.	S	Implement Mitigation Measure AQ-2.	LTS
Biological Resources			
BIO-1: Tree removal and demolition activities during site clearance could destroy active nests, and/or otherwise interfere with nesting of birds protected under federal and State law.	S	**Mitigation Measure BIO-1:** Nests of raptors and other birds shall be protected when in active use, as required by the federal Migratory Bird Treaty Act and the California Fish and Game Code. The construction contractor shall indicate the following on all construction plans, if construction activities and any required tree removal occur during the breeding season (February 1 and August 31). Preconstruction surveys shall: ▪ Be conducted by a qualified biologist prior to tree removal or grading, demolition, or construction activities. Note that preconstruction surveys are not required for tree removal or construction, grading, or demolition activities outside the nesting period. ▪ Be conducted no more than 14 days prior to the start of tree removal or construction. ▪ Be repeated at 14-day intervals until construction has been initiated in the area after which surveys can be stopped. ▪ Document locations of active nests containing viable eggs or young birds. Protective measures for active nests containing viable eggs or young birds shall be implemented under the direction of the qualified biologist	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		until the nests no longer contain eggs or young birds. Protective measures shall include: ▪ Establishment of clearly delineated exclusion zones (i.e., demarcated by identifiable fencing, such as orange construction fencing or equivalent) around each nest location as determined by the qualified biologist, taking into account the species of birds nesting, their tolerance for disturbance and proximity to existing development. In general, exclusion zones shall be a minimum of 300 feet for raptors and 75 feet for passerines and other birds. ▪ Monitoring active nests within an exclusion zone on a weekly basis throughout the nesting season to identify signs of disturbance and confirm nesting status. ▪ An increase in the radius of an exclusion zone by the qualified biologist if project activities are determined to be adversely affecting the nesting birds. Exclusion zones may be reduced by the qualified biologist only in consultation with California Department of Fish and Wildlife. ▪ The protection measures shall remain in effect until the young have left the nest and are foraging independently or the nest is no longer active.	
BIO-2: Proposed development would result in removal of trees protected under City ordinance.	S	**Mitigation Measure BIO-2:** The proposed project shall comply with the City of Cupertino's Protected Trees Ordinance (Cupertino Municipal Code Section 14.18). A tree removal permit shall be obtained for the removal of any "protected tree," and replacement plantings shall be provided as approved by the City. If permitted, an appropriate in-lieu tree replacement fee may be paid to the City of Cupertino's Tree Fund as compensation for "protected trees" removed by the proposed project, where sufficient land area is not available on-site for adequate replacement and when approved by the City. In addition, a Tree Protection and Replacement Program (Program) shall be developed by a Certified Arborist prior to project approval and implemented during project construction to provide for adequate protection and replacement of "protected trees," as defined by the	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		City's Municipal Code. The Program shall include the following provisions: ▪ Adequate measures shall be defined to protect all trees to be preserved. These measures should include the establishment of a tree protection zone (TPZ) around each tree to be preserved, in which no disturbance is permitted. For design purposes, the TPZ shall be located at the dripline of the tree or 10 feet, whichever is greater. If necessary, the TPZ for construction-tolerant species (i.e., coast live oaks) may be reduced to 7 feet. ▪ Temporary construction fencing shall be installed at the perimeter of TPZs prior to demolition, grubbing, or grading. Fences shall be 6-foot chain link or equivalent, as approved by the City of Cupertino. Fences shall remain until all construction is completed. Fences shall not be relocated or removed without permission from the consulting arborist. ▪ No grading, excavation, or storage of materials shall be permitted within TPZs. Construction trailers, traffic, and storage areas shall remain outside fenced areas at all times. No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within he TPZ. ▪ Underground services including utilities, sub-drains, water or sewer shall be routed around the TPZ. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury. Irrigation systems must be designed so that no trenching will occur within the TPZ. ▪ Construction activities associated with structures and underground features to be removed within the TPZ shall use the smallest equipment and operate from outside the TPZ. The consulting arborist shall be on-site during all operations within the TPZ to monitor demolition activity. ▪ All grading, improvement plans, and construction plans shall clearly indicate trees proposed to be removed, altered, or otherwise affected by development construction. The tree information on	

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		grading and development plans should indicate the number, size, species, assigned tree number, and location of the dripline of all trees that are to be retained/preserved. All plans shall also include tree preservation guidelines prepared by the consulting arborist. ▪ The demolition contractor shall meet with the consulting arborist before beginning work to discuss work procedures and tree protection. Prior to beginning work, the contractor(s) working in the vicinity of trees to be preserved shall be required to meet with the consulting arborist at the site to review all work procedures, access routes, storage areas, and tree protection measures. ▪ All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved. Any grading, construction, demolition or other work that is expected to encounter tree roots shall be monitored by the consulting arborist. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied. ▪ Any plan changes affecting trees shall be reviewed by the consulting arborist with regard to tree impacts. These include, but are not limited to, site improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans, and demolition plans. ▪ Trees to be preserved may require pruning to provide construction clearance. All pruning shall be completed by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the 2002 Best Management Practices for Pruning published by the International Society of Arboriculture, and adhere to the most recent editions of the American National Standard for Tree Care Operations (Section Z133.1) and Pruning (Section A300). ▪ Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the consulting arborist. ▪ Any demolition or excavation, such as grading, pad preparation, excavation, and trenching, within the dripline or other work that is expected to encounter tree roots should be approved and monitored	

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		by the consulting arborist. Any root pruning required for construction purposes shall receive prior approval of, and by supervised by, the consulting arborist. Roots shall be cut by manually digging a trench and cutting exposed roots with a sharp saw. ▪ Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Tree stumps shall be ground 12 inches below ground surface. ▪ All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Game Code Sections 3503 through 3513 to not disturb nesting birds. To the extent feasible, tree pruning, and removal shall be scheduled outside of the breeding season. Breeding bird surveys shall be conducted prior to tree work. Qualified biologists shall be involved in establishing work buffers for active nests. (see Mitigation Measure BIO-1) ▪ The vertical and horizontal locations of all the trees identified for preservation shall be established and plotted on all plans. These plans shall be forwards to the consulting arborist for review and comment. ▪ Foundations, footings, and pavements on expansive soils near trees shall be designed to withstand differential displacement to protect the soil surrounding the tree roots. ▪ Any liming within 50 feet of any tree shall be prohibited, as lime is toxic to tree roots. Any herbicides placed under paving materials shall be safe for use under trees and labeled for that use. ▪ Brush from pruning and trees removal operations shall be chipped and spread beneath the trees within the TPZ. Mulch shall be between 2 inches and 4 inches in depth and kept at a minimum of 3 feet from the base of the trees. ▪ All recommendations for tree preservation made by the applicant's consulting arborist shall be followed.	
BIO-3: The proposed project in combination with past, present, and reasonably foreseeable projects, would not	S	Implement Mitigation Measures BIO-1 and BIO-2.	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
result in significant cumulative impacts with respect to biological resources.			
Cultural and Tribal Cultural Resources			

CULT-1: Construction of the proposed project would have the potential to cause a significant impact to an unknown archaeological resource pursuant to CEQA Guidelines Section 15064.5.	S	**Mitigation Measure CULT-1:** If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing (including grading, demolition and/or construction) activities:
		▪ All work within 50 feet of the resources shall be halted, the City shall be notified, and a qualified archaeologist shall be consulted. The contractor shall cooperate in the recovery of the materials. Work may proceed on other parts of the project site while mitigation for tribal cultural resources, historical resources or unique archaeological resources is being carried out.
		▪ The qualified archaeologist shall prepare a report for the evaluation of the resource to the California Register of Historical Places and the City Building Department. The report shall also include appropriate recommendations regarding the significance of the find and appropriate mitigations as follows:
		  ▪ If the resource is a non-tribal resource, the archaeologist shall assess the significance of the find according to CEQA Guidelines Section 15064.5.
		  ▪ If the resource is a tribal resource – whether historic or prehistoric – the consulting archaeologist shall consult with the appropriate tribe(s) to evaluate the significance of the resource and to recommend appropriate and feasible avoidance, testing, preservation or mitigation measures, in light of factors such as the significance of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be implemented.
		▪ All significant non-tribal cultural materials recovered shall be, as necessary, and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards.
			LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
CULT-2: The proposed project would not cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance to a California Native American tribe.	LTS	N/A	N/A
CULT-3: Construction of the proposed project would have the potential to cause a significant impact to an unknown tribal cultural resource as defined in Public Resources Code 21074.	S	**Mitigation Measure CULT-3:** Implement Mitigation Measure CULT-1.	LTS
CULT-4: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in cumulative impacts with respect to cultural resources.	S	Implement Mitigation Measure CULT-1	LTS
Geology and Soils			
GEO-1: Construction of the proposed project would have the potential to directly or indirectly affect an unknown unique paleontological resource.	S	**Mitigation Measure GEO-1:** The construction contractor shall incorporate the following in all grading, demolition, and construction plans: ▪ In the event that fossils or fossil-bearing deposits are discovered during grading, demolition, or building, excavations within 50 feet of the find shall be temporarily halted or diverted.	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		▪ The contractor shall notify the City of Cupertino Building Department and a City-approved qualified paleontologist to examine the discovery. ▪ The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5. ▪ The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. ▪ If the project applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the proposed project based on the qualities that make the resource important. The excavation plan shall be submitted to the City for review and approval prior to implementation.	
GEO-2: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology and soils.	S	Implement Mitigation Measure GEO-1.	LTS
Greenhouse Gas Emissions			
GHG-1: The proposed project would not directly or indirectly generate GHG emissions that may have a significant impact on the environment.	LTS	N/A	N/A
GHG-2: The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	LTS	N/A	N/A
GHG-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to GHG emissions.	LTS	N/A	N/A

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Hazards and Hazardous Materials			
HAZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials during construction.	LTS		N/A
HAZ-2: The proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	LTS	N/A	N/A
HAZ-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to hazards and hazardous materials.	LTS	N/A	N/A
Noise			
NOISE-1: The proposed project could generate a substantial temporary increase in ambient noise levels in the vicinity of the proposed project during the construction phase that could exceed the standards established in the local noise ordinance.	LTS	**Mitigation Measure NOISE-1:** Prior to Grading Permit issuance or the start of demolition activities, the project applicant shall demonstrate, to the satisfaction of the City of Cupertino Public Works Director and/or Community Development Director, that the proposed project complies with the following: ▪ Pursuant to Cupertino Municipal Code (CMC) Section 10.48.053 the construction activities shall be limited to daytime hours as defined in CMC Section 10.48.010 (i.e., daytime hours are from 7:00 a.m. to 8:00 p.m. on weekdays). ▪ At least 90 days prior to the start of construction activities, all offsite businesses and residents within 300 feet of the project site shall be notified of the planned construction activities. The notification shall include a brief description of the proposed project, the activities that would occur, the hours when construction would occur, and the construction period's overall duration. The notification should include the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. ▪ At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the	N/A

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		public, which includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City. ▪ During the entire active construction period, equipment and trucks used for project construction will utilize the best available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible. ▪ During the entire active construction period, stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible. ▪ Haul routes shall be selected to avoid the greatest amount of sensitive use areas. ▪ Signs will be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment will be turned off if not in use for more than 5 minutes. ▪ During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells will be for safety warning purposes only. The construction manager will use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.	
NOISE-2: The proposed project would not generate excessive groundborne noise levels.	LTS	N/A	N/A
NOISE-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to noise.	S	Implement Mitigation Measure NOISE-1.	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
Transportation and Circulation			
TRANS-1: The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	LTS	N/A	N/A
TRANS-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	LTS	N/A	N/A
TRANS-3: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable impacts.	LTS	N/A	N/A
Utilities and Service Systems			
UTIL-1: Implementation of the proposed project may result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	S	**Mitigation Measure UTIL-1:** No building permits shall be issued by the City for the proposed Westport Mixed-Use Project that would result in exceeding the permitted peak wet weather flow capacity of 13.8 mgd through the Santa Clara sanitary sewer system. The project applicant shall demonstrate, to the satisfaction of the City of Cupertino and Cupertino Sanitary District (CSD), that the proposed project would not exceed the peak wet weather flow capacity of the Santa Clara sanitary sewer system by implementing one or more of the following methods: 1) Reduce inflow and infiltration in the CSD system to reduce peak wet weather flows; or 2) Increase on-site water reuse, such as increased grey water use, or reduce water consumption of the fixtures used within the proposed project, or other methods that are measurable and reduce sewer generation rates to acceptable levels, to the satisfaction of the CSD. The proposed project's estimated wastewater generation shall be calculated using the generation rates used by the *San Jose-Santa Clara Water Pollution Control Plant Specific Use Code & Sewer Coefficient* table in the May 2007, *City of Santa Clara Sanitary Sewer Capacity*	LTS

TABLE 2-2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact Statement	Significance Without Mitigation	Mitigation Measures	Significance With Mitigation
		Assessment,[4] and *California Green Building Standards*, unless alternative (i.e., lower) generation rates achieved by the proposed project are substantiated by the project applicant based on evidence to the satisfaction of the CSD. If the prior agreement between CSD and the City of Santa Clara that currently limits the permitted peak wet weather flow capacity of 13.8 mgd through the Santa Clara sanitary sewer system were to be updated to increase the permitted peak wet weather flow sufficiently to accommodate, this would also change the impacts of the project to less than significant. If this were to occur prior to the City's approval of building permits, then Mitigation Measure UTIL-1 would no longer be required to be implemented.	
UTIL-2: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to wastewater treatment.	S	Implement Mitigation Measure UTIL-1	LTS

[4] Mark Thomas and Associates, July 19, 2018, Email communication with Cupertino Public Works.

3. Project Description

3.1 INTRODUCTION

The project applicant, KT Urban, is proposing the Westport Mixed-Use Project, herein referred to as "proposed project." The proposed project would involve the demolition of existing buildings and construction and operation of 242 residential units comprised of 19 rowhouse units, 69 townhouse units, 115 multi-family units, and 39 senior residential units, as well as 20,000 square feet of retail space. The proposed project would also include above- and below-grade parking, as well as associated internal roadways, sidewalks, and landscaping, and off-site improvements for a Class IV bikeway and a bus stop.

This chapter provides a detailed description of the proposed project, including the location, setting, and characteristics of the project site, as well as the proposed project objectives, the principal project features, project phasing, approximate construction schedule, and required permits and approvals. Additional descriptions of the environmental setting as they relate to each of the environmental issues analyzed in Chapter 4, Environmental Assessment, of this Draft EIR, are included in the environmental setting discussions contained within Chapters 4.1 through 4.9.

3.2 OVERVIEW AND SETTING

3.2.1 BACKGROUND

The 8.1-acre project site is identified as a Priority Housing Element Site A3 in the City of Cupertino General Plan (Community Vision 2015-2040) to accommodate the Regional Housing Needs Allocation (RHNA) for the 2014 to 2022 planning period and meet Cupertino's fair-share housing obligation of 1,064 units.[1] The City certified the Environmental Impact Report (EIR) for the General Plan Amendment, Housing Element Update, and associated Rezoning Project,[2] which included an evaluation of the project site as "Housing Element Site 18 (The Oaks Shopping Center)" with a new mixed-use development including residential uses that could have up to 235 net residential units. The EIR evaluated a maximum height of 75 feet with a retail component and a permitted residential density of up to 35 dwelling units per acre and a Zoning designation change to Planned Development with General Commercial, Residential (P(CG, Res)), to allow for future mixed-use development including residential uses.

[1] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 4, Housing Element, Table HE-5: Summary of Priority Housing Element Sites to Meet the RHNA - Scenario A, page HE-18.

[2] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

3.2.2 REGIONAL LOCATION

Figure 3-1 shows the relationship of the project site to Cupertino and the greater San Francisco Bay area. The project site is located in the central portion of Cupertino, which is in Santa Clara County. Cupertino is approximately 46 miles southeast of San Francisco and is one of the cities that make up the area commonly known as Silicon Valley. Cupertino is located north of the City of Saratoga, east of unincorporated Santa Clara County, south of the City of Sunnyvale, and west of the City of San José. Cupertino also shares a boundary with the City of Los Altos to the north.

Regional access to the project site is provided by Interstate 280 (I-280), State Route 85 (SR-85), Stevens Creek Boulevard, Santa Clara Valley Transportation Authority (VTA) bus service, and by Caltrain via the Sunnyvale, Lawrence, and Santa Clara Caltrain Stations. Caltrain is operated by the Peninsula Corridor Joint Powers Board.

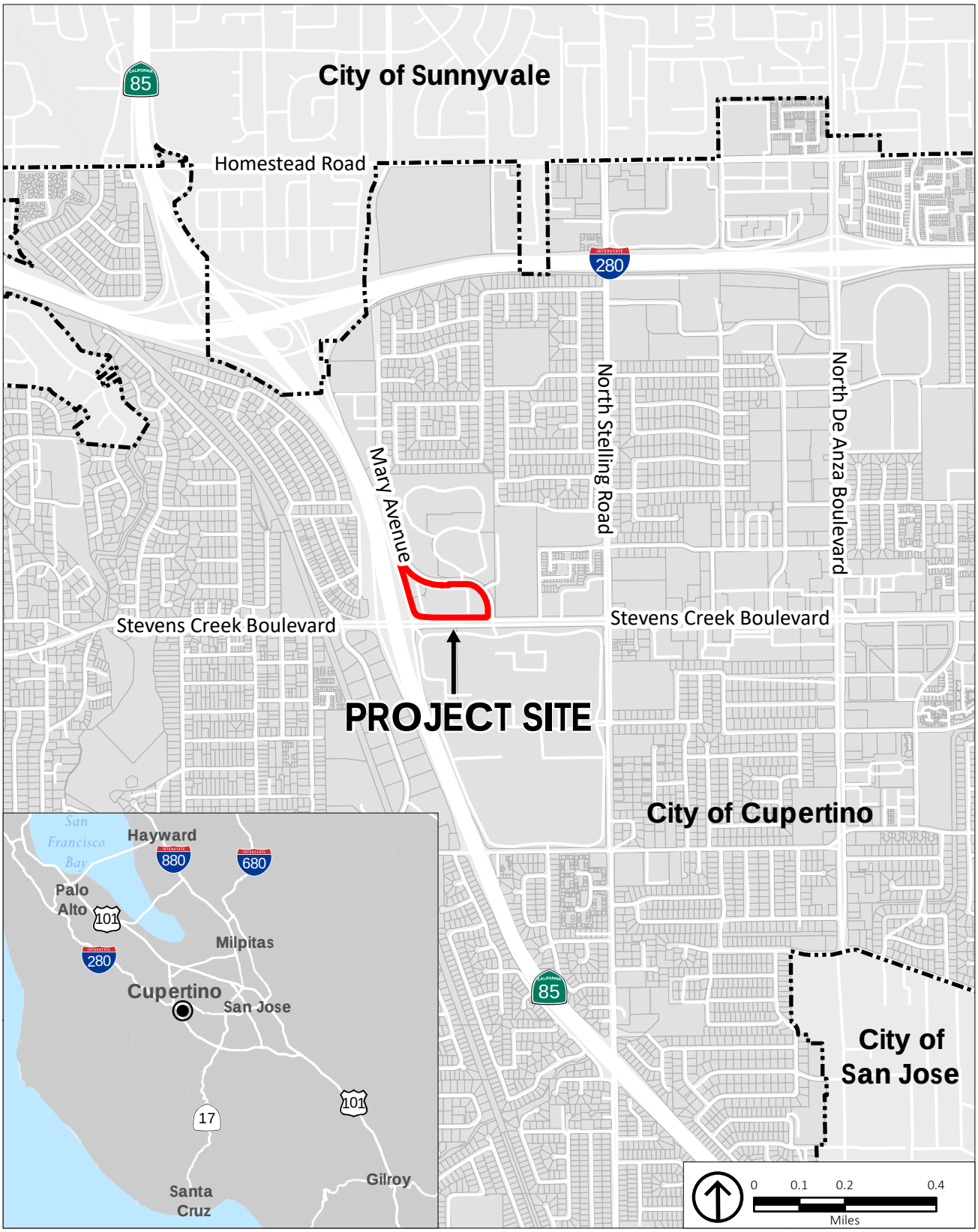
3.2.3 LOCAL SETTING

The 8.1-acre project site is the existing Oaks Shopping Center on Stevens Creek Boulevard. The project site includes several street addresses on Stevens Creek Boulevard; therefore, the most centrally located 21267 Stevens Creek Boulevard address is used to identify the site.[3] As shown in Figure 3-2, the project site is bounded by Mary Avenue to the north and east, Stevens Creek Boulevard to the south, and a SR-85 on-ramp to the west off Stevens Creek Boulevard. The project site is surrounded by the Glenbrook Apartments to the north, the Cupertino Senior Center and Cupertino Memorial Park to the east, De Anza College to the south, and residential and industrial land uses to the west beyond SR-85. The project site is directly accessible from Stevens Creek Boulevard and Mary Avenue.

The closest VTA bus stop (Line 81) is located at the Mary Avenue/Stevens Creek Boulevard intersection, approximately 200 feet east of the site, and bus stops are located at De Anza College, approximately 1,900 feet to the east at the Stevens Creek Boulevard/South Stelling Road intersection. The nearest Caltrain station to the project site is the Sunnyvale station, which is located approximately 4 miles to north.

The nearest public airports are San José International Airport, approximately 7 miles to the northeast, and Palo Alto Airport, approximately 9.5 miles to the northwest. The nearest heliports are McCandless Towers Heliport, approximately 5.5 miles to the northeast, and County Medical Center Heliport, approximately 6 miles to the east. The nearest private airport is Moffett Federal Airfield, approximately 6 miles to the north.[4]

[3] The site's addresses are 21255, 21265, 21267, 21269 and 21271 Stevens Creek Boulevard.
[4] Moffett Federal Airport is a joint civil-military airport.



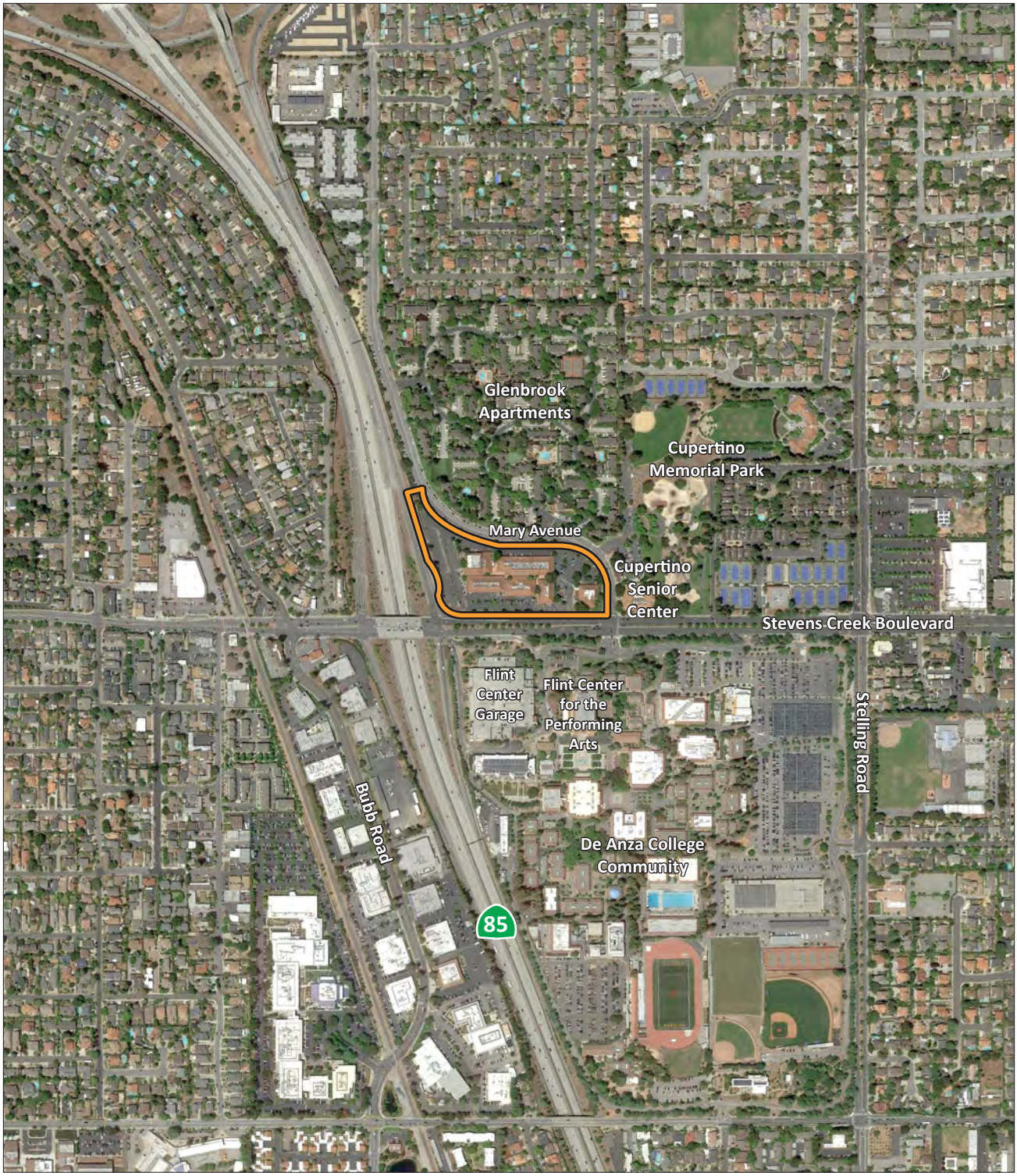
Source: ESRI, 2017; PlaceWorks, 2019.

Project Site

Cupertino City Limit

Figure 3-1

Regional and Vicinity Map



Source: Google Earth Professional, 2018; PlaceWorks, 2019.

0 900
Scale (Feet)

Project Site

Figure 3-2
Aerial View of Project Site

3.2.4 EXISTING SITE CONDITIONS

3.2.4.1 SITE CHARACTER

The project site is currently developed with a one-story shopping center, consisting of five occupied buildings with retail stores and restaurants, which was built between 1973 and 1976. The existing shopping center is approximately 71,250 square feet and is about 85 percent occupied (or 60,560 square feet). The project site also has 201,831 square feet of paved area, which includes associated parking, sidewalks, patios, and driveways, and 45,486 square feet of native and non-native landscaping. See Figure 3-3. Due to the age of the buildings, the buildings have the potential to be considered historic buildings; however, they are not currently listed on the National Register of Historic Places or the list of California Historical resources.[5]

3.2.4.2 VEGETATION AND LANDCOVER

Using data from the Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG)[6] habitat mapping program, the site is classified as an "urban area". The urban area classification areas tend to have low to poor wildlife habitat value due to replacement of natural communities, fragmentation of remaining open space areas and parks, and intensive human disturbance. The project site does not contain and is not adjacent to habitat for special-status plant or animal species.[7] According to the California Natural Diversity Database, the nearest special-status animals (White-tailed kite and Yuma myotis) are located approximately 0.5 miles to the southwest.

The California Department of Forestry and Fire Protection (CAL FIRE) has designated the project site as a Local Responsibility Area (LRA) and a non-very high fire hazard severity zone (NVHFHSZ). The project site is not near lands designated as a State Responsibility Area (SRA) by CAL FIRE. The nearest SRA is approximately 2 miles to the west of the project site.[8] The proposed project is not located within the wildland-urban interface, which is an area of transition between wildland (unoccupied land) and land with human development (occupied land).[9]

[5] California Office of Historic Preservation, 2019, California Historical Resources, accessed June 11, 2019 at http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=43.

[6] The CALVEG system was initiated in January 1978 by the Region 5 Ecology Group of the US Forest Service to classify California's existing vegetation communities for use in statewide resource planning. CALVEG maps use a hierarchical classification on the following categories: forest; woodland; chaparral; shrubs; and herbaceous.

[7] Special-status species are plants and animals that are legally protected under the Endangered Species Act/California Endangered Species Act (ESA/CESA) or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat.

[8] CAL FIRE, 2008, Cupertino, Very High Fire Hazard Severity Zones in LRA. http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/santa_clara/Cupertino.pdf.

[9] CAL FIRE, 2018, Wildland-Urban Interface Fire Threat, accessed June 11, 2019 at http://www.arcgis.com/home/item.html?id=d45bf08448354073a26675776f2d09cb.

Source: Google Earth Professional, 2018; PlaceWorks, 2019.

0 400
Scale (Feet)

Project Site

Figure 3-3
Existing Conditions

The project site is generally flat with elevations ranging from approximately 290 feet above sea level on the northeast portion of the site to approximately 300 feet above sea level on the northwest portion of the site. Site topography generally slopes downward to the east or southeast towards the intersection of Stevens Creek Boulevard and Mary Avenue. Groundwater likely flows to the east, generally following surface topography. The surficial geology is described as young, unconsolidated Quaternary Valley Floor Alluvium. [10]

The existing impervious surface totals 307,444 square feet. Stormwater from the site would drain to a network of City-maintained storm drains that collect runoff from city streets and carries it to the creeks that run through Cupertino to San Francisco Bay.

3.2.5 LAND USE AND ZONING

The project site is assigned Assessor's Parcel Numbers (APNs) 326-27-042 and 326-27-043. The General Plan describes the vision and standards for future development on the site in the defined special planning area, gateway, Housing Element, and land use designation. In addition, the General Plan identifies the site as being within a regional priority development area or "PDA." A description of the applicable General Plan policies and permitted development is provided below.

3.2.5.1 GENERAL PLAN

Special Planning Area

The project site is within the Heart of the City Special Area, which is a key mixed-use, commercial corridor in Cupertino. The Heart of the City Special Area covers development within this Special Area is guided by the *Heart of the City Specific Plan*. The *Heart of the City Specific Plan* is split into five subareas, including the Oaks Gateway within the West Stevens Creek Boulevard subarea along Stevens Creek Boulevard between SR-85 and Stelling Road, which encompasses the project site. The primary use for the West Stevens Creek Boulevard subarea is quasi-public/public facilities, with supporting uses including mixed commercial/residential. Development in the Heart of the City Special Area is envisioned to create a greater sense of place, more community identity, and a positive and memorable experience for residents, workers, and visitors of Cupertino.[11]

Designated Gateway

The project site is in the Oaks Gateway. Gateways represent key entry points to the city. As shown on the Heart of the City Special Area Diagram[12] and the Community Form Diagram in the General Plan,[13] the

[10] City of Cupertino General Plan EIR, Chapter 4.5 Geology, Soils, Seismicity, Figure 4.5-1 Geologic Map, Cupertino, California.

[11] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 2, Planning Areas, page PA-5.

[12] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 2, Planning Area, Heart of the City Special Area Diagram, page PA-7.

[13] City of Cupertino General Plan (Community Vision 2015-2040), Chapter3, Land Use and Community Design, Figure LU-2, Community Form Diagram, page LU-16 and LU-17.

Oaks Gateway is a neighborhood center. A neighborhood center is an area intended to provide shopping and gathering spaces for local residents. Mixed-use development is allowed in the Oaks Gateway if it promotes revitalization of retail uses, creation of new gathering spaces, and parcel assembly. General Plan Policy LU-14.5 (Oaks Gateway Node) states that the Oaks Gateway is a retail and shopping node and that new residential, if allowed, should be designed on the "mixed-use village" concept.[14] The mixed-use urban village concept includes providing parcel assembly, complete site redevelopment, mixed-use village layout with streets, alley, sidewalks, and open spaces, mix of retail uses, public open spaces, and high-quality, pedestrian-oriented design.[15]

Priority Housing Element Site

The project site is Priority Housing Element Site A3 (The Oaks Shopping Center). As described in the General Plan, many of the City's Housing Element sites, including the project site, are located in major corridors to reduce traffic and environmental impacts and preserve neighborhoods.[16] The maximum building height for the project site is 45 feet, and the maximum density is 30 dwelling units per acre (du/ac).[17] Housing Element Strategy HE-2.3.7 (Density Bonus Ordinance) states that for projects that are consistent with the Density Bonus Ordinance (CMC Chapter 19.56), density bonuses, and incentives and concession that result in identifiable cost reductions needed to make the housing affordable, would apply.[18]

Land Use Designation

The General Plan land use designation for the project site is Commercial/Residential. This land use designation allows primarily commercial uses and secondarily residential uses or a compatible combination of the two. Commercial use means retail sales, businesses, limited professional offices, and service establishments with direct contact with customers. This applies to commercial activities ranging from neighborhood convenience stores to regionally oriented specialty stores. Retail stores that would be a nuisance for adjoining neighborhoods or harmful to the community identity would be regulated by the commercial zoning ordinance and use permit procedure. Smaller commercial parcels in existing residential areas may be needed to provide local neighborhood serving retail; otherwise, they may be redeveloped at residential densities compatible with the surroundings.

[14] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-44.

[15] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-18.

[16] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-18.

[17] *Heart of the City Specific Plan* (2014) page 15 (height), and City of Cupertino General Plan (Community Vision 2015-2040), Chapter 4, Housing Element, Table HE-5: Summary of Priority Housing Element Sites to Meet the RHNA - Scenario A, page HE-17 (density).

[18] City of Cupertino Municipal Code, Title 19, Zoning, Chapter 19.56 Density Bonus, Sections 19.56.030, Density Bonus, and 19.56.040, Incentives or Concessions, Waivers and Reduction of Parking Standards.

Priority Development Area/Transit Priority Area

Plan Bay Area 2040 is the Bay Area's current Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS) that was adopted jointly by the Association of Bay Area Government's (ABAG) and Metropolitan Transportation Commission (MTC) on July 26, 2017. As part of the implementing framework for *Plan Bay Area*, local governments, including Cupertino, have identified Priority Development Areas (PDAs) to focus growth.[19] PDAs are transit-oriented, infill development opportunity areas within existing communities. In addition to PDAs, *Plan Bay Area* identifies Transit Priority Areas (TPAs), which are areas within one-half mile of a major transit stop (that have 15 minute or less service level frequency) that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

An overarching goal of the regional *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, vehicle miles traveled (also referred to as "VMT"), and associated greenhouse gas (GHG) emissions reductions.

The project site is located in a Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[20]

3.2.5.2 ZONING ORDINANCE

Zoning District

The project site is zoned Planned Development with General Commercial and Residential (P(CG,RES)) on the City's Zoning Map. Pursuant to Cupertino Municipal Code (CMC) Section 19.80.030(B), all planned development districts are identified on the zoning map with the letter coding "P" followed by a reference to the general type of use allowed in the particular planning development zoning district. [21] The general types of uses allowed on the project site are General Commercial and Residential.

As described in CMC Section 19.80.010, the planned development zoning district is intended to provide a means of guiding land development or redevelopment of the city that is uniquely suited for planned coordination of land uses.[22] Development in "P" zoning district provides for a greater flexibility of land use

[19] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-7.

[20] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

[21] Cupertino Municipal Code, Title 19, Zoning, Chapter 19.80, Planned Development, Section 19.80.030, Establishment of Districts-Permitted and Conditional Uses.

[22] Cupertino Municipal Code, Title 19, Zoning, Chapter 19.80, Planned Development, Section 19.80.010, Purpose.

intensity and design because of accessibility, ownership patterns, topographical considerations, and community design objectives. This zoning district is intended to accomplish the following:

- Encourage variety in the development pattern of the community.
- Promote a more desirable living environment.
- Encourage creative approaches in land development.
- Provide a means of reducing the amount of improvements required in development through better design and land planning.
- Conserve natural features.
- Facilitate a more aesthetic and efficient use of open spaces.
- Encourage the creation of public or private common open space.

Pursuant to CMC Chapter 19.60,[23] the General Commercial (CG) zoning district is intended to regulate retail, office, and service establishments offering goods and services to the general public to assure maximum compatibility with surrounding residential areas, as well as minimize adverse traffic impacts resulting from commercial development.

Density Bonus

Title 19, Zoning, Chapter 19.56 Density Bonus, is intended to comply with the State Density Bonus Law, Government Code Section 65915,[24] which provides that a local agency shall adopt an ordinance specifying how the agency will comply with that section. CMC Section 19.56.020 states that housing developments resulting in a net increase of at least five units (excluding density bonus units) are eligible for a density bonus when the applicant proposes at least one of the listed requirements and the requirements of CMC Section 19.56.020(C), if applicable. One of the criteria for eligibility for a density bonus is construction of senior housing (CMC Section 19.56.020(A)(1)(d)). CMC Section 19.56.020(C) is related to sites with existing rental housing and would not apply to the proposed project; therefore, CMC Section 19.56.030(B) applies. Section 19.56.030(B) states that senior housing developments are entitled to a maximum density bonus of 20 percent provided the development consists of at least 35 units, conforms to Civil Code Section 51.3,[25] and the units are reserved for qualifying residents whether or not the housing includes affordable units. Section 19.56.040, Incentives or Concessions, Waivers and Reduction of Parking Standards, states that changes to development standards or zoning code requirements may be allowed under certain conditions.[26] The granting of a density bonus, incentive or concession, in and of itself, shall not require a general plan amendment, zone change, or other discretionary approval and shall be reviewed concurrently with the review of the housing development.

[23] Cupertino Municipal Code, Title 19, Zoning, Chapter 19.60, General Commercial (CG) Zones, Section 19.60.010, Purpose.

[24] Government Code, Title 7, Planning and Land Use, Division 1, Planning and Zoning Sections, Chapter 4.3, Density Bonuses and Other Incentives Section 65915.

[25] Civil Code, Division 1, Persons, Part 2, Personal Rights, Section 51.3.

[26] City of Cupertino Municipal Code, Title 19, Zoning, Chapter 19.56 Density Bonus, Sections 19.56.030, Density Bonus, and 19.56.040, Incentives or Concessions, Waives and Reduction of Parking Standards.

3.2.5.3 OTHER REQUIREMENTS

The CMC includes various directives to minimize adverse impacts from development in Cupertino. Such directives are related to setbacks for adequate light, air, and clear lines of sight at intersections, water quality, the protection of designated trees, energy conservation, the provisions of adequate infrastructure, as well as the reduction of solid waste. Descriptions of these directives are included in the environmental setting discussions and impact discussions contained within Chapters 4.1 through 4.9.

3.3 PROJECT OBJECTIVES

The objectives of the proposed project are as follows:

- Redevelop an existing retail center on Mary Avenue and Stevens Creek Boulevard with desirable amenities and housing.
- Meet the City's Regional Housing Needs Allocation (RHNA) for 2014-2022.
- Enhance the vibrancy of Cupertino's Heart of the City as a key mixed-use, commercial corridor by providing a pedestrian-friendly community that includes housing, open space and greenery, and neighborhood retail.
- Provide senior housing in close proximity to the Cupertino Senior Citizen Center.
- Create a prominent gateway development that incorporates quality architectural design and materials, open space, and artwork to announce entry into Cupertino's Heart of the City.
- Create a mixed-use development that places residential and commercial uses in close proximity to each other, and close to transit options.
- Help the City to achieve its affordable housing goals through the inclusion of senior housing units within a residential and mixed-use development project.

3.4 PROPOSED PROJECT

Implementation of the proposed project would result in the construction and operation of a residential mixed-use development on a site that is currently developed. The proposed development and construction phasing, population and employment projections, and the required permits and approvals are described in detail below. A complete set of conceptual site plans is provided at https://www.cupertino.org/westport.

3.4.1 PROPOSED DEVELOPMENT

The proposed development is summarized in Table 3-1 and described below. See Figures 3-4 through 3-9.

TABLE 3-1 PROPOSED DEVELOPMENT BY LAND USE

			Square Footage			
Building Type	Buildings	Units	Residential	Garage	Retail	Common Open Space
Rowhouses	3	19	34,245	10,840		155 square feet per unit
Townhomes	13	69	139,850	39,450		
Residential-Retail Building 1	1	115	193,500	97,750	17,600	
Residential-Retail Building 2	1	39	38,800	n/a	2,400	
Total	**18**	**242**	**406,395**	**148,040**	**20,000**	**37,601**

Note: Square footages are rounded up and include residential and parking.
Source: C2K Architecture Inc. (project applicant), November 2018.

3.4.1.1 RESIDENTIAL

The proposed residential component consists of three rowhouse buildings (attached homes) located on the western edge of the project site, 13 townhouse buildings (attached homes) located at the center of the project site, and two mixed-use residential, including senior housing, located on the eastern portion of the project site. See Figure 3-4. The rowhouse buildings would be three stories tall (30 feet at the roofline) and have a total of 19 three-story units. See Figure 3-5. The townhouse buildings would also be three stories tall (30 feet at the roofline) and have a total of 69 three-story units. See Figure 3-6.

The two Residential-Retail Buildings (Building 1 and 2) would be located on the eastern edge of the project site. Residential-Retail Building 1 would be six stories tall (70 feet at the roofline). See Figures 3-7 and 3-8. Building 1 would have 115 market-rate units on floors two through six consisting of one-, two-, and three-bedroom units. Building 1 would also include a fitness center, lounge, and outdoor terrace on the second story for resident use only.

Residential-Retail Building 2 would be five stories tall (55 feet at the roofline). See Figure 3-9. Building 2 would have 39 senior housing units located on floors two through five, which would consist of studio and one-bedroom units. Building 2 would also include a common room on the ground level for use by residents only.

3.4.1.2 RETAIL

The proposed retail component would consist of a total of 20,000 square feet and would be located on the ground level of the Residential-Retail Buildings 1 and 2. Residential-Retail Building 1 would have 17,600 square feet of retail space located at the corner of Stevens Creek Boulevard and Mary Avenue. Residential-Retail Building 2 would have 2,400 square feet of retail space on the ground level fronting Stevens Creek Boulevard. At-grade parking for these retail uses would be provided along Mary Avenue for Building 1 and along the internal street along Building 2. A one-level subterranean parking garage would be provided below Building 1. See Figure 3-4.

Source: C2K Architecture Inc., November 2018.

0 200
Scale (Feet)

Figure 3-4
Conceptual Site Plan

Source: C2K Architecture Inc., November 2018.

Figure 3-5
Site Sections: Rowhouses

Source: C2K Architecture Inc., November 2018.

Figure 3-6
Site Section: Townhomes

Source: C2K Architecture Inc., November 2018.

Figure 3-7
Elevations: Residential-Retail Building 1 (North, East)

Source: C2K Architecture Inc., November 2018.

Figure 3-8
Elevations: Residential-Retail Building 1 (South, West)

Source: C2K Architecture Inc., November 2018.

Figure 3-9
Elevations: Residential-Retail Building 2 (North, East, South, West)

3.4.1.3 OPEN SPACE

Private open space areas would be provided for each residential unit either as a balcony or patio. The rowhouses would include private patios that range in size from 295 to 375 square feet per unit. The townhomes would include private patios that range in size from 104 to 125 square feet per unit. Building 1 would include private balconies that range in size from 60 to 132 square feet per unit. Building 2 would include private balconies that are 60 square feet per unit.

Common open space areas would be provided throughout the project site including a central green space. The project site would include 37,601 square feet of common open space. Common retail outdoor space totaling 2,400 square feet would be provided at Residential-Retail Building 1 and 2.

3.4.1.4 LANDSCAPING

The proposed project would include landscaping throughout the interior and the perimeter of the project site. See Figure 3-10. The proposed project would retain some existing trees and would plant approximately 400 additional trees. The proposed project would result in 45,486 square feet of replaced pervious surfaces and 42,360 square feet of new pervious surfaces for a total of 87,846 square feet of pervious landscaped surfaces and 6,852 square feet of pervious paving pursuant to the City's Landscape Ordinance (CMC Chapter 14.15). The proposed landscaping would be consistent with the surrounding Northern California landscape and would include native and/or adaptive, drought resistant plant materials grouped by hydrozones (i.e., areas similar water use). The majority of plantings would be drought tolerant grasses, shrubs, and trees that, once established, would be adapted to a dry summer and intermittent rain in the winter season. Landscaping would be specifically designed around the rowhouses, townhomes, and mixed-use units to provide privacy between adjacent land uses.

3.4.1.5 LIGHTING AND GLARE

The source, intensity, and type of exterior lighting for the project site would generally be provided for the purpose of orienting site users and for safety needs. All on-site lighting would be low-level illumination and shielded to reduce light spill or glare. There would be no up-lighting or spotlights on the project site and non-emergency lighting would be turned off at night. In landscaped and paved areas, light sources would be concealed and not visible from a public viewpoint, and landscaping would not funnel open space toward the building façade. All exterior surface and above-ground mounted fixtures would be complementary to the architectural theme. The proposed project would limit large areas of transparent or reflective glass by including solid wall buildings with recessed windows, mullions or muntins[27] to divide overall window size, non-reflective glass railings, fritted glass and opaque panels, arcades, and overhanging roofs that shield the windows. The proposed project would avoid transparent glass skyways, walkways, and entryways, as well as free-standing glass walls and transparent building corners. The proposed landscaping would also reduce reflections and view of foliage through glass.

[27] A *mullion* is a vertical element that forms a division between units of a window or screen or is used decoratively. When dividing adjacent window units is its primary purpose, it is a rigid support to the glazing of the window. *Muntins* on the other hand divide, reinforce and join glass within a single window or sash frame. These are the small vertical and horizontal bars that change large pieces of glass into small "divided lites."

PLANTING PALETTE

KEY	COMMON NAME	BOTANICAL NAME	LOCATION / NOTES
TREES			
1	CRAPE MYRTLE	LAGERSTROEMIA X FAURIEI	RESIDENTIAL CORRIDORS
2	DEODAR CEDAR	CEDRUS DEODARA	NORTH, SOUTHWEST PARKS, WEST BOUNDARY
3	GINGKO 'PRINCETON SENTRY'	GINGKO BILOBA 'P.S.'	NORTHWEST, SOUTHWEST PARKS, SOUTHEAST RETAIL
4	CALIFORNIA LIVE OAK	QUERCUS AGRIFOLIA	FRONTAGE ALONG STEVENS BLVD.
5	'BOSQUE' CHINESE ELM	ULMUS PARVIFOLIA 'BOSQUE'	STREET TREES ALONG MARY AVE.
6	CHINESE PISTACHE	PISTACIA CHINENSIS	INTERIOR PARKING CORRIDOR ZONES
7	DATE PALM	PHOENIX CANARIENSIS	ENTRY & TERMINUS MARKERS, CENTRAL GREEN
8	MEXICAN FAN PALM	WASHINGTONIA ROBUSTA	PASEO AT CENTRAL RESIDENTIAL UNITS
9	ITALIAN CYPRESS	CUPRESSUS SEMPERVIRENS	RESIDENTIAL ALLEYWAYS
10	CALIFORNIA LILAC	CEANOTHUS RAY HARTMAN	FRONTAGE ALONG STEVENS CREEK
	EXISTING TREES TO REMAIN	VARIOUS (SEE L.300)	PERIMETER TREES
	RELOCATED TREE	QUERCUS AGRIFOLIA	RELOCATED TO VARIOUS LOCATIONS AT WEST SIDE
SHRUBS AND GROUNDCOVERS			
A	LAWN	BOUTELOUA SPP.	CENTRAL PASEO, CENTRAL GREEN, CORNER PARKS
B	STORM WATER PLANTINGS	VARIOUS SEDGES, GRASSES, NATIVE PERENNIALS & SHRUBS	THROUGHOUT, SEE CIVIL PLANS
C	NATIVE / ORNAMENTAL GRASSES	NATIVE AND LOW WATER USE	RESIDENTIAL FRONTS, PERIMETER, THROUGHOUT
D	NATIVE GROUNDCOVER MIXES	NATIVE GROUNDCOVERS & WILDFLOWERS	WEST BOUNDARY, STEVENS CREEK FRONTAGE
E	ACCENT PLANTINGS (NATIVE MIXES)	NATIVE AND LOW WATER USE	PLANTERS THROUGHOUT, CENTRAL GREEN

Source: C2K Architecture Inc., November 2018.

0 200
Scale (Feet)

Figure 3-10
Landscape Plan

3.4.1.6 BIRD SAFE DESIGN FEATURES

The proposed project includes bird safe design features to minimize the risk of collisions by nearby or migrating bird species. These design features include reducing large areas of transparent or reflective glass through constructing the building with solid walls with punched and recessed windows, the use of mullions and/or muttons to divide the window size, installation of balcony railings without reflective glass, using fritting or appliques on the retail storefront windows, setting back windows from the façade, and incorporating overhanging roofs and projected balconies that shield the windows from overhead flying birds. The proposed project would also avoid transparent glass skyways, walkways and entryways, free-standing transparent glass walls, and transparent building corners. Landscaping features that would increase bird safety would be the avoidance of funneling open space toward a building façade and adding landscaping that would reduce reflections and views of foliage through glass. Lighting features such as reduced or eliminated up-lighting and spotlights on buildings and turning off non-emergency lighting at night would be incorporated to increase bird safety on and in the vicinity of the project site.

3.4.1.7 ACCESS AND CIRCULATION

The proposed project would have one access point from Stevens Creek Boulevard and three access points from Mary Avenue. See Figure 3-4. The below-grade parking at Residential-Retail Building 1 would be accessed from the central access point on Mary Avenue. A series of internal roadways, sidewalks, and bike lanes would provide access to the proposed buildings. In addition to the on-site internal sidewalks, the proposed project would also include off-site sidewalk modifications along Stevens Creek Boulevard and Mary Avenue.

The proposed project would include the following on- and off-site improvements that are consistent with the recommendations in the 2016 *Bicycle Transportation Plan* (2016 Bike Plan):[28]

- Class I Bike Path. The proposed project would install an on-site Class I bike path on the western portion of the project site that would connect to Stevens Creek Boulevard to the south and Mary Avenue to the north.
- Class IV Separated Bikeway. The proposed project would upgrade the bike lane on Stevens Creek Boulevard between Mary Avenue and the northbound SR-85 on-ramp from an Enhanced bike lane to a Class IV separated bikeway. The proposed project would reconfigure the existing westbound right turn movement from Stevens Creek Boulevard onto the northbound SR-85 on ramp to accommodate the proposed Class IV separated bikeway. The proposed project would include a signal control for the westbound right turn movement, the cars would have a continuous green right-turn arrow until a cyclist or pedestrian arrives and activates the proposed pedestrian or bike crossing signal, at which time a red right-turn arrow would stop the cars. This pedestrian/bicycle signal call could only occur on the east-west signal phasing plan of the intersection when there are no other conflicting movements with the pedestrian and/or bicycle phase. This reconfiguration would convert the existing westbound "free" right turn lane to a signal controlled right turn movement to allow for an exclusive, protected phase for pedestrians and cyclists to cross the on-ramp leg.

[28] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-7, Bikeway Projects, page 3-8.

- **Bridge.** The proposed project would include public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue.

The proposed project would include a total of 117 bicycle parking spaces,[29] consisting of five Class 1 facilities for retail uses, 18 Class 2 facilities for retail uses, 78 Class 1 facilities for residential uses, and 16 Class 2 facilities for residential uses. Bike facilities would be located adjacent to Buildings 1 and 2, in addition to within the proposed buildings.

The proposed project would also install a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. The precise design-level details would need to be coordinated with VTA and City of Cupertino Public Works Department. For this EIR, it is assumed the bus stop would include a concrete bus pad and bus shelter.

3.4.1.8 UTILITIES AND SERVICE CONNECTIONS

Wastewater

The Cupertino Sanitary District (CSD) maintains approximately 194.5 miles of sewer mains including the infrastructure in the vicinity of the project site.[30] The collected wastewater from the CSD service area is conveyed to the San José/Santa Clara Water Pollution Control Plant (SJ/SCWPCP) through mains and interceptor lines shared with both the cities of San José and Santa Clara. The proposed project would connect to existing sanitary sewer lines in Stevens Creek Boulevard and Mary Avenue.

The CSD is one of five tributary agencies that have a contractual treatment allocation agreement with the SJ/SCWPCP. The CSD has a contractual treatment allocation with the SJ/SCWPCP of 7.85 million gallon per day (mgd), on average. CSD wastewater flow to the SJ/SCWPCP was 5.3 mgd at the time of the General Plan EIR.[31] The CSD wastewater system also flows through a portion of the City of Santa Clara's sewer system. The contractual agreement between CSD and the City of Santa Clara is 13.8 mgd during peak wet weather flows. The existing CSD peak wet weather flow into the Santa Clara system is modeled at 13.29 mgd.[32] Based on the May 2007 *City of Santa Clara Sewer Capacity Assessment*, the estimated wastewater generation rate for residential uses is 133 gallons per day (gpd) per unit, and 0.3 gpd per square foot of retail space. Applying this generation rate, the proposed 242 residential units and 20,000 square feet of retail space would generate up to 38,186 gpd or approximately 0.0382 mgpd of wastewater. The approximately 71,250 square-foot shopping center currently generates about 21,376 gpd or 0.0213 mgd. Therefore, the net increase for the proposed project is 16,810 gpd or 0.0168 mgd.[33]

[29] Class 1 bicycle parking spaces include bicycle lockers or secure rooms and Class 2 bicycle parking spaces are publicly accessible bicycle racks.

[30] Cupertino Sanitary District, 2016, Sewer Management Plan, page 23.

[31] City of Cupertino General Plan (Community Vision 2015–2040, Appendix B: Housing Element Technical Report, 4.3 Environmental, Infrastructure & Public Service Constraints, page B-93.

[32] Mark Thomas, Cupertino Sanitary District Flow Modeling Analysis Homestead Flume Outfall to City of Santa Clara, February 20, 2019.

[33] 38,186 gpd proposed generation – 21,376 gpd existing generation = 16,810 gpd (or 0.0168 mgd) net increase.

Water Supply

The San José Water Company (SJWC) provides groundwater, imported treated water, and local surface water for an area of approximately 139 square miles including the project site. The proposed project would connect to existing water lines in Stevens Creek Boulevard and Mary Avenue and would not encroach on undisturbed areas. The 2015 *Urban Water Management Plan* for the Santa Clara Valley Water District (SCVWD), which includes the area for the project site, states that there is sufficient water for SCVWD customers for normal, single-dry, and multiple-dry years until 2025. The SCVWD identifies actions within the water shortage contingency plan that would ensure water demand is met through 2040.[34] The proposed project would use approximately 37 acre-feet per year at buildout and is accounted for in the SJWC's anticipated future customer demands.[35]

Stormwater Management

The City of Cupertino Department of Public Works is responsible for the design, construction, and maintenance of City-owned facilities including public streets, sidewalks, curb, gutter, and storm drains. The capacity of the storm drain facilities within the City of Cupertino was evaluated and documented in the 2018 *Storm Drain Master Plan*, which identifies the areas within the system that do not have the capacity to handle runoff during the 10-year storm event, which is the City's design standard. As described in the 2018 *Storm Drain Master Plan*, the project site is located in an area where the storm drains do not have sufficient capacity to convey water from a 10-year storm. The lines along Steven Creek Boulevard, to the south, and Mary Avenue, to the northeast, are currently under capacity and designated as low priority for replacement.[36]

The proposed project is required to comply with the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) C.3 requirements, which include the minimization of impervious surfaces, measures to detain or infiltrate runoff from peak flows to match pre-development conditions, and agreements to ensure that the stormwater treatment and flow control facilities are maintained in perpetuity. The proposed project also would comply with CMC Chapter 9.18, Stormwater Pollution Prevention and Watershed Protection, which regulates and implements certain requirements of the National Pollutant Discharge Elimination System permit issued to the City of Cupertino.

The proposed project would reduce the total amount of impervious surface from 307,444 square feet to 247,222 square feet which would reduce the peak flows into the storm drain system. Because the proposed project would include a total of 247,222 square feet of impervious surfaces, the proposed project would be required to include 10,268 square feet of bioretention areas (i.e., stormwater treatment

[34] Santa Clara Valley Water District, 2015, *2015 Urban Water Management Plan,* http://www.valleywater.org/uploadedFiles/Services/CleanReliableWater/WaterSupplyPlanning/Urban_Water_Managment_Plan/SCVWD%202015%20UWMP-Report%20Only.pdf, accessed on June 11, 2019.

[35] Tully & Young Comprehensive Water Planning, May 2018, Water Supply Evaluation for The Oaks Development in Cupertino.

[36] Schaaf & Wheeler Consulting Civil Engineers, 2018, Cupertino Storm Drain Master Plan.

areas).[37] The proposed project includes 10,320 square feet of bioretention areas, which is 52 square feet more than the required amount. See Figure 3-11. The bioretention areas would be incorporated into the landscaped areas throughout the project site. The proposed bioretention areas would provide treatment of site runoff and would further reduce peak flows prior to discharge to the City's storm drain system which would alleviate the existing storm drain capacity deficiency.

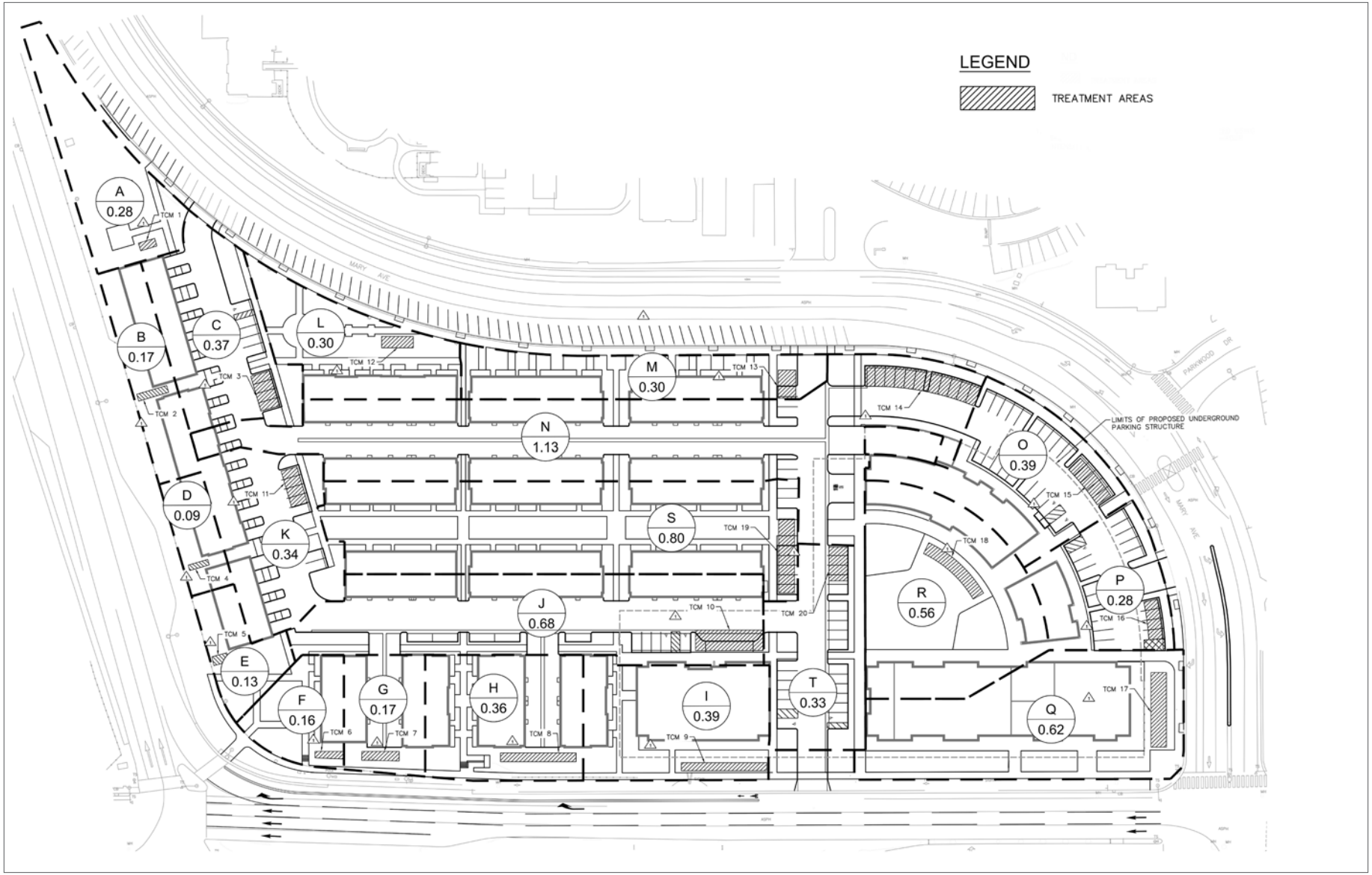
Solid Waste

The proposed project would be served by the solid waste collection service provider and landfill that the City maintains contracts with. Currently the City contracts with Recology to provide solid waste collection services to residents and businesses in the city and Newby Island Sanitary Landfill until 2023. The Newby Island Sanitary Landfill has a permitted daily disposal capacity of 4,000 tons per day. In addition to the Newby Island Landfill, solid waste generated in Cupertino can be disposed of at the Altamont Landfill and Resource Recovery facility, the Corinda Los Trancos Landfill, Forward Landfill Inc., Guadalupe Sanitary Landfill, Kirby Canyon Recycling and Disposal Facility, the Monterey Peninsula Landfill, Recology Hay Road, the Vasco Road Sanitary Landfill, the Zanker Material Processing Facility, and the Zanker Road Class III Landfill.

The proposed project would include the management of waste, recycling, and composting from the residential and retail land uses. Solid waste generated by construction of the proposed project would largely consist of demolition waste from the existing buildings as well as construction debris. The proposed project would comply with CMC Chapter 16.72, Recycling and Diversion of Construction and Demolition Waste, and the City's Zero Waste Policy, which requires the recycling or diversion at least 65 percent of all generated construction and demolition (C&D) waste by salvage or by transfer to an approved facility. Prior to permit issuance, the applicant would submit a properly completed Waste Management Plan, which includes the estimated maximum amount of C&D waste that can feasibly be diverted, which facility would handle the waste, and the total amount of C&D waste that would be landfilled. Based on the population and employment generation discussed below in Section 3.4.3, the 695 new residents and the 70 new employees (which is 65 fewer than the number of employees currently on site) would generate approximately a net increase of 2,255 pounds per day (PPD) or 1.12 tons per day (TPD).[38]

[37] Santa Clara Valley Water District Municipal Regional Stormwater NPDES Permit C.3 requires 4 percent of the proposed impervious surface to be treated to control the flow of stormwater and stormwater pollutants from new development, http://www.scvurppp-w2k.com/pdfs/1516/c3_handbook_2016/SCVURPPP_C.3_Technical_Guidance_Handbook_2016_Chapters.pdf.

[38] (Proposed Project (4.1 PPD x 70 employees = 287 PPD) + (3.6 PPD x 695 residents = 2,502 PPD) = 2,789 PPD) minus (Existing Conditions (4.1 PPD x 135 employees = 533.5 PPD) = 2,255 PPD.



Source: C2K Architecture Inc., November 2018.

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Scale (Feet)

Figure 3-11
Stormwater Treatment Plan

Other Utility Facilities

Other utility facilities that serve the project site are electric power, natural gas, and telecommunications facilities. Pacific Gas & Electric (PG&E) would supply natural gas service and infrastructure and electricity infrastructure to the project site. Silicon Valley Clean Energy would provide electricity to the project site. AT&T and other providers would provide telephone service. Cable television service would be available from a number of providers, including Comcast. The project site is located in a portion of the city that has access to existing infrastructure and services. The proposed project would include appropriate on-site infrastructure to connect to the existing PG&E and telecommunication systems and would not require new off-site facilities and distribution infrastructure or capacity enhancing alterations to any existing facilities.

Energy

The current project site is served by both electricity and natural gas connections. Electricity is supplied to the project site via infrastructure maintained by Pacific Gas & Electric (PG&E). Silicon Valley Clean Energy (SVCE), a locally controlled public agency that has a partnership with PG&E, supplies the electricity to the project site. Natural gas and associated infrastructure are provided and maintained by PG&E. The nearest PG&E substation to the project site is the Stelling Substation on North Stelling Road approximately 1 mile northeast of the project site. The nearest electricity transmission lines to the project site are located south of the project site along Stevens Creek Boulevard.[39] The proposed project would require the construction or installation of new infrastructure and capacity enhancing alterations to existing on-site facilities to connect the new buildings to water, stormwater, sanitary sewer, electricity, and natural gas lines. Construction activities use energy from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. The operation of the proposed mixed-use and residential buildings would use energy for cooling, heating, lighting, and landscape equipment, and for vehicle trips to and from the commercial building.

The proposed mixed-use and residential buildings would be required to meet the 2019 Building and Energy Efficiency Standards of the California Public Resources Code, Title 24, Part 6, which takes effect on January 1, 2020, and applies to any project that is proposed to begin construction on or after August 2020. The 2019 Building Energy Efficiency Standards improve upon the 2016 Standards and require 53 percent or more and 30 percent or more energy efficiency for residential and non-residential buildings, respectively.[40] As described above in Section 3.1.4.2, Zoning, the City enforces the CalGreen Building Standards, which establish planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), in CMC Chapter 16.58, Green Building Standards Code Adopted. CMC Chapter 16.58, Section 16.58.220, Table 101.10 requires that non-residential new construction under 25,000 square feet shall achieve a minimum green building requirement of CALGreen Building Code pursuant to Chapter 5 of the California Green Building Standards

[39] California Energy Commission (CEC), 2012, October 25, Local Reliability Maps for 2013: Enlargement Maps, http://www.energy.ca.gov/maps/infrastructure/3part_enlargements.html, accessed on June 11, 2019.

[40] California Energy Commission, March 2018, 2019 Building Energy Efficiency Standards, https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed on June 11, 2019.

Code. CMC Chapter 16.58, Section 16.58.220, Table 101.10 also requires that residential new construction exceeding nine homes shall achieve a minimum green building requirement of GPR certified at minimum 50 points, Leadership in Energy and Environmental Design (LEED) Silver, or an alternate green building standard that is as stringent as LEED or other cited standards and is subject to third party verification.

Energy conserving features of the proposed project would include new landscaping that is native and/or adaptive, and drought resistant to conserve water and subsequently energy. Where glass features are considered, the proposed project would use non-reflective or "fritted glass" and opaque spandrel panels, in addition to incorporating overhanging roofs, projecting balconies, and set back facades that would reduce direct sunlight and reduce cooling costs.

3.4.2 CONSTRUCTION, DEMOLITION, AND SITE PREPARATION

Construction of the proposed project would occur in two phases over a 16-month period and is anticipated to be completed by the year 2023. See Figure 3-12. The proposed project would involve demolition of existing structures and parking stalls, and the removal of the existing landscaping on site, with the exception of four oak trees which will be relocated on the project site as shown in Figure 3-10. Site preparation would include export of 69,000 cubic yards of soil. No soil import would occur. Demolition debris, including soil from excavation, would be off hauled for disposal at the Zanker Materials Recovery and Landfill in San José, which is approximately 15 miles from the project site. Phase 1 would include the construction of Residential-Retail Buildings 1 and 2, as well as the underground parking garage on the eastern portion of the site. Phase 2 would include the construction of the rowhouses and townhouses on the western portion of the project site.

3.4.3 POPULATION AND EMPLOYMENT PROJECTIONS

As previously described, the Westport project site is identified as a Priority Housing Element Site in the City of Cupertino General Plan (Community Vision 2015-2040) to accommodate the Regional Housing Needs Allocation (RHNA) for the 2014 to 2022 planning period and meet its fair-share housing obligation of 1,064 units.[41] There are no existing residential units on site. Therefore, based on an average household size of 2.87 persons,[42] the proposed project would generate 695 new residents.[43] The project site has 71,250 square feet of existing retail uses that are currently 85 percent occupied. Using the generation rates applied in the General Plan EIR, the existing uses generate 135 employees.[44] The proposed project would generate 45 employees for the proposed retail uses[45] and a full service staff of 25 employees including leasing agents, security staff, and maintenance personnel, would be present on site to manage the property for a total of 70 employees. Accordingly, the proposed project would have a net decrease of

[41] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 4, Housing Element, Table HE-5: Summary of Priority Housing Element Sites to Meet the RHNA - Scenario A, page HE-18.

[42] This analysis is based on the Association of Bay Area Governments (ABAG) 2019 projections of the average household size of 2.87 persons for Cupertino in 2025. This is the standard approach for population and housing analysis in Cupertino.

[43] 242 new units multiplied by 2.87 persons per unit equals 695 new residents.

[44] 85 percent of 71,250 square feet (about 60,560 square feet) of retail divided by 450 square feet per employee equals 135 employees

[45] 20,000 square feet of retail divided by 450 square feet per employee equals 45 employees.

65 employees. It is anticipated that future residents and employees would be drawn largely from Cupertino and other communities in the San Francisco Bay Area.

3.4.4 REQUIRED PERMITS AND APPROVALS

Following certification of the Final EIR and the approval of the proposed project by the Planning Commission, the following discretionary permits and approvals from the City would be required for the proposed project:

- Development Permit
- Architectural and Site Approval Permit
- Use Permit
- Subdivision Map Permit
- Heart of the City Exception
- Tree Removal Permit

Encroachment permits from the City and Caltrans would also be required as well as design review and approval for the proposed bus stop by the VTA.

As part of the Development Permit, the proposed project is requesting a Density Bonus of 5 units pursuant to State Law as incorporated into the City's Housing Element[46] and CMC.[47] Pursuant to Density Bonus law, the applicant is also requesting waivers of development standards for height, slope setbacks, and the location of senior housing that the developer states would have the effect of physically precluding the development of the proposed project at the density proposed. In addition, permits for demolition, grading and building, and the certificate of occupancy would be required from the City.

[46] City of Cupertino Housing Element Strategy HE-2.3.7 (Density Bonus Ordinance), page H-29.

[47] City of Cupertino Municipal Code, Title 19, Zoning, Chapter 19.56 Density Bonus, Sections 19.56.030, Density Bonus, and 19.56.040, Incentives or Concessions, Waivers and Reduction of Parking Standards.

Source: C2K Architecture Inc., November 2018.

0 200
Scale (Feet)

Figure 3-12
Construction Phasing Plan

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4. Environmental Evaluation

4.1 CHAPTER ORGANIZATION

This chapter of the Draft EIR is made up of nine sub-chapters, which evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. The following sections describe the format of the environmental analysis, the thresholds of significance, and the methodology of the cumulative impact analysis.

4.2 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each sub-chapter is organized into the following sections:

- Environmental Setting provides a description of the existing environmental conditions, providing a baseline against which the impacts of the proposed project can be compared, and an overview of federal, State, regional, and local laws and regulations relevant to each environmental issue.
- Thresholds of Significance refer to the quantitative or qualitative standards, performance levels, or criteria used to compare the existing setting with and without the proposed project to determine whether the impact is significant. These thresholds are based primarily on the CEQA Guidelines Appendix G, Environmental Checklist, and also may reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.
- Impact Discussion gives an overview of the potential impacts of the proposed project and explains why impacts were found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts of the proposed project. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronymic or abbreviated reference to the impact section. The environmental effects of the proposed project are analyzed for potential significant impacts in the following environmental issue areas, which are organized with the listed abbreviations:
  - Air Quality (AQ)
  - Biological Resources (BIO)
  - Cultural and Tribal Cultural Resources (CULT)
  - Geology and Soils (GEO)
  - Greenhouse Gas Emissions (GHG)
  - Hazards and Hazardous Materials (HAZ)
  - Noise (NOISE)
  - Transportation (TRANS)
  - Utilities and Service Systems (UTIL)

4.3 INCORPORATION BY REFERENCE

All documents cited or referenced are incorporated into the Draft EIR in accordance with CEQA Guidelines Sections 15148 and 15150, including but not limited to the City of Cupertino General Plan (Community Vision 2015-2040).[1] In each instance where a document is incorporated by reference for purposes of this report, the Draft EIR will briefly summarize the incorporated document or briefly summarize the incorporated data if the document cannot be summarized. In addition, the Draft EIR will explain the relationship between the incorporated part of the referenced document and the Draft EIR.

This Draft EIR also relies on previously adopted regional and statewide plans and programs, agency standards, and background studies in its analyses, such as the Bay Area Air Quality Management District's (BAAQMD) air quality management plan. Subchapters 4.1 to 4.9 of Chapter 4 of this Draft EIR include references to all documents utilized in preparing this Draft EIR. All of the documents that are not published that are incorporated by reference are available for review at the City of Cupertino Community Development Department at 10300 Torre Avenue, Cupertino, California 95014.

4.4 THRESHOLDS OF SIGNIFICANCE

As stated above, the significance criteria are identified before the impact discussion subsection, under the subsection, "Thresholds of Significance." For each impact identified, a level of significance is determined using the following classifications:

- *Significant (S)* impacts include a description of the circumstances in which an established or defined threshold would be exceeded.
- *Less-than-significant (LTS)* impacts include effects that are noticeable, but do not exceed established or defined thresholds, or are mitigated below such thresholds.
- *No impact* describes the reasons that the project would have no adverse effect on the environment.

For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse effect. If the mitigation measures would reduce the impact to a less-than-significant level successfully, this is stated in the EIR. However, significant and unavoidable (SU) impacts are described where mitigation measures would not diminish these effects to less-than-significant levels.

[1] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

4.5 CUMULATIVE IMPACT ANALYSIS

A cumulative impact consists of an impact created as a result of the combination of the proposed project evaluated in the EIR, together with other reasonably foreseeable projects causing related impacts. Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

When the combined cumulative impact caused by the project's incremental effect and the effects of other projects is not significant (i.e., not cumulatively considerable), the EIR must briefly indicate why the cumulative impact is not significant.

The cumulative impacts discussions in sub-chapters 4.1 through 4.9 explain the geographic scope of the area affected by each cumulative effect (e.g., immediate project vicinity, city, county, watershed, or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing noise-related impacts, the pertinent geographic study area is the vicinity of the area of proposed new development within which the new development can be heard and may contribute to a significant cumulative noise impact. In assessing macro-scale air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect.

The CEQA Guidelines Section 15130 provides for two approaches to analyzing cumulative impacts. The first is the "list of projects" approach, which is based on a list of past, present and probable future projects producing related or cumulative impacts. The second is the "summary of projections" approach, which is based on a summary of projections contained in an adopted local, regional or statewide plan or related planning document that describes or evaluates conditions contributing to the cumulative effect. A reasonable combination of the two approaches may also be used.

The cumulative impact analysis in this Draft EIR relies on a projections approach supplemented by the list of projects approach that, when considered with the effects of the proposed project, may result in cumulative effects.

Table 4-1 shows the other reasonably foreseeable projects in Cupertino and how they relate to the maximum buildout potential evaluated in the General Plan EIR.

TABLE 4-1 REASONABLY FORESEEABLE DEVELOPMENT PROJECTS IN CUPERTINO

	Hotel	Residential	Commercial	Office
General Plan EIR: Maximum Development Potential	1,339	4,421	1,343,679	4,040,231
Reasonably Foreseeable Projects				
Foothill Apartments[a]		*15*		
Marina Plaza[a]	*122*	*188*	*23,000*	
The Hamptons Redevelopment[a]		*600*		
The Forum[a]		*23*		
De Anza Hotel[b]	*156*			
The Village Hotel[b]	*185*			
Public Storage[a, d]			*209,485*	
Loc-N-Stor[b,d]			*96,432*	
Canyon Crossings[b]		*18*	*4,536*	
Vallco[a,c]		*2,402*	*400,000*	*1,810,000*
Total Foreseeable Development	*463*	*3,219*	*748,917*	*1,810,000*
General Plan EIR: Remaining Development Potential	876	1,202	594,762	2,230,231

Notes:
a. The project has been approved.
b. The project is under review.
c. The buildout numbers are for the Vallco SB 35 Application (0 hotel rooms, 2,402 units, 1,810,000 square feet commercial, and 400,000 square feet commercial).
d. The storage facility sites currently have existing storage facilities and the square footage shown in this table is the net new.
Source: City of Cupertino, 2019.

The General Plan EIR evaluated the cumulative effects of the General Plan Amendments, Housing Element Update, and Associated Rezoning using the summary of projections approach provided for in CEQA Guidelines Section 15130(b)(1)(B). The General Plan EIR took into account growth from the General Plan within the Cupertino city boundary and Sphere of Influence (SOI), in combination with projected growth in the rest of Santa Clara County and the surrounding region, as forecast by ABAG. As shown in Table 4-1, the proposed project when combined with the other reasonably foreseeable projects in Cupertino, would not exceed the maximum buildout potential evaluated in the General Plan EIR.

With respect to projections, this EIR relies on the estimated growth in the San José/Santa Clara Water Pollution Control Plant (SJ/SCWPCP) service area for the analysis of cumulative impacts to water supply and wastewater generation and treatment capacity.

4.1 AIR QUALITY

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to odors or other emissions. Therefore, this chapter includes an evaluation of the potential environmental consequences associated with the potential obstruction of an air quality plan, cumulatively considerable net increases in criteria pollutants, and the exposure of sensitive receptors to substantial pollution concentrations. This chapter also describes the environmental setting, including the air pollutants of concern, regulatory framework and the existing air quality setting, which is the San Francisco Bay Area Air Basin, and baseline conditions, and identifies mitigation measures that would avoid or reduce significant impacts.

The analysis in this chapter is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for project-level review. The analysis focuses on air pollution from regional emissions and localized pollutant concentrations from buildout of the proposed project. In this chapter, "emissions" refers to the actual quantity of pollutant material measured in pounds per day or tons per year, and "concentrations" refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu g/m^3$).

The analysis in this chapter is based in part on the *Air Quality Assessment for the proposed Westport Project, in the City of Cupertino, California*, dated July 2019, prepared by Kimley-Horn and Associates. A complete copy of this report is located in Appendix C, Air Quality Assessment, of this Draft EIR. A third-party peer review of this report was completed by PlaceWorks.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants.

Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NOx in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 4.1-1.

TABLE 4.1-1 AIR CONTAMINANTS AND ASSOCIATED PUBLIC HEALTH CONCERNS

Pollutant	Major Man-made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[a] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Notes:
a. VOCs or ROG are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).
Source: California Air Pollution Control Officers Association, *Health Effects*, http://www.capcoa.org/health-effects/, Accessed April 10, 2018.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting

operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel Particulate Matter

The California Air Resources Board (CARB) has identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy- or light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their small size, these particles can be inhaled and trapped in the bronchial and alveolar regions of the lung.

4.1.1.2 REGULATORY FRAMEWORK

Land use in the city is subject to the rules and regulations to protect air quality imposed by the United States Environmental Protection Agency (USEPA), CARB, the California Environmental Protection Agency (CalEPA) and BAAQMD. The regulatory framework applicable to the proposed project is summarized below.

Federal

Ambient Air Quality Standards

Air quality is federally protected by the Clean Air Act and its amendments. Under this Act, the USEPA developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for criteria air pollutants including ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead (Pb). The health-based ambient air quality standards established by the State and the federal government are shown in Table 4.1-2.

The Clean Air Act also requires each state to prepare a State Implementation Plan to demonstrate how it will attain the NAAQS within the federally imposed deadlines. The USEPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the Clean Air Act. If a state fails to correct these planning deficiencies within two years of federal notification, the USEPA is required to develop a federal implementation plan for the identified nonattainment area or areas. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements.

TABLE 4.1-2 AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS

		State Standards [a]		Federal Standards [b]	
Pollutant	Averaging Time	Concentration	Attainment Status	Primary [c]	Attainment Status
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m³)	N[i]	N/A	N/A[e]
	8 hour	0.070 ppm (137 µg/m³)	N	0.070 ppm	N[d]
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 µg/m³)	A	9 ppm (10 µg/m³)	A
	1 hour	20 ppm (23 µg/m³)	A	35 ppm (40 µg/m³)	A[f]
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm (339 µg/m3)	A	0.10 ppm[k]	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	-	0.053 ppm (100 µg/m³)	A
Sulfur Dioxide (SO_2)[l]	24 hour	0.04 ppm (105 µg/m³)	A	0.14 ppm (365 µg/m³)	A
	1 hour	0.25 ppm (655 µg/m³)	A	0.075 ppm (196 µg/m³)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m³)	A
Particulate Matter (PM_{10})	24 hour	50 µg/m³	N	150 µg/m³	-
	Annual Arithmetic Mean	20 µg/m³	N[g]	NA	U
Fine Particulate Matter ($PM_{2.5}$) [j, o]	24 hour	NA	-	35 µg/m³	U/A
	Annual Arithmetic Mean	12 µg/m³	N[g]	12 µg/m³	N
Sulfates ($SO_{4\ 2}$)	24 hour	25 µg/m³	A	NA	-
Lead (Pb)[m, n]	30-Day Average	1.5 µg/m³	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m³	A
	Rolling 3-Month Average	NA	-	0.15 µg/m³	-
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (0.15 µg/m³)	U	N/A	-
Vinyl Chloride (C_2H_3Cl)	24 hour	0.01 ppm (26 µg/m³)	-	N/A	-
Visibility Reducing Particles[h]	8 hour (10:00 am to 6:00 pm PST)	-	U	-	-

Notes: A = attainment; N = nonattainment; U = unclassified; ppm = parts per million; µg/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; – = not applicable, not indicated, or no information available.

a. California standards for O_3, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe CO, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

b. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.

c. National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

d. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. The USEPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

TABLE 4.1-2 AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS

		State Standards [a]		Federal Standards [b]	
Pollutant	Averaging Time	Concentration	Attainment Status	Primary [c]	Attainment Status

e. The national 1-hour ozone standard was revoked by EPA on June 15, 2005.
f. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
g. In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.
h. Statewide Visibility Reducing Particles Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
I. The 8-hour State ozone standard was approved by CARB on April 28, 2005 and became effective on May 17, 2006.
j. On January 9, 2013, the USEPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This USEPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this USEPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to USEPA, and USEPA approves the proposed redesignation.
k. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The USEPA expects to make a designation for the Bay Area by the end of 2017.
L. On June 2, 2010, the USEPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following USEPA initial designations of the new 1-hour SO_2 NAAQS.
m. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
n. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
o. In December 2012, USEPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 ($\mu g/m^3$). In December 2014, USEPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, http://www.baaqmd.gov/research-anddata/air-quality-standards-and-attainment-status, accessed April 20, 2018.

State

California Air Resources Board

CARB administers the California Clean Air Act and California Ambient Air Quality Standards (CAAQS) throughout the State. The CAAQS were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4.1-2, are generally more stringent and apply to more pollutants than the NAAQS. The CAAQS also have additional standards for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for meeting federal clean air standards for California.

Regional

Bay Area Air Quality Management District

The BAAQMD is a regional agency with jurisdiction over the nine-county region located in the San Francisco Bay Area Air Basin (SFBAAB). BAAQMD is responsible for assuring that the National and California AAQS are attained and maintained in the SFBAAB. BAAQMD also prepares air quality management plans (AQMP) to attain ambient air quality standards in the SFBAAB. The Association of Bay Area Governments (ABAG) Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations contribute to the efforts to

improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

Under CEQA, the BAAQMD is a commenting responsible agency on air quality within its jurisdiction or impacting its jurisdiction. The BAAQMD reviews projects to ensure that they would: (1) support the primary goals of the latest air quality plan; (2) include applicable control measures from the air quality plan; and (3) not disrupt or hinder implementation of any AQMP control measures.

2017 Clean Air Plan

The 2017 *Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) was adopted on April 19, 2019, by the BAAQMD. The 2017 Clean Air Plan provides a regional strategy to protect public health and the climate. The 2017 Clean Air Plan describes how the BAAQMD will continue progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. The 2017 Clean Air Plan also defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease the emission of air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040), includes policies that are relevant to air quality and applicable to the proposed project. The policies are primarily identified in General Plan Chapter 6, Environmental Resources and Sustainability, and are listed in Table 4.1-3.

TABLE 4.1-3 GENERAL PLAN POLICIES RELEVANT TO AIR QUALITY

Policy Number	Policy
Chapter 6, Environmental Resources and Sustainability (ES)	
Policy ES-3.1	**Green Building Design.** Set standards for the design and construction of energy and resource conserving/efficient building.
Policy ES-4.1	**New Development.** Minimize the air quality impacts of new development projects and air quality impacts that affect new development.
Policy ES-4.3	**Use of Open Fires and Fireplaces.** Discourage high pollution fireplace use.

Source: Cupertino General Plan (Community Vision 2015-2040).

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize adverse impacts to air quality. The provisions related to potential impacts from the proposed project are included in Title 19, Zoning, as follows:

- Chapter 19.80, Planned Development Zones. This chapter provides regulations for guiding land development or redeveloping in the city, that is uniquely suited for planning coordination of land uses and flexibility of land use intensity and design. The planned development zoning district designates Priority Housing Development Sites as permitted uses, or conditional uses if they exceed the number of units designated for the specific Priority Development Site.

4.1.1.3 EXISTING CONDITIONS

Climate and Meteorology

CARB divides the State into 15 air basins that share similar meteorological and topographical features. The proposed project is located within the San Francisco Bay Area Air Basin also known as the SFBAAB. The SFBAAB comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. The city of Cupertino is located in the Santa Clara Valley climatological subregion of the SFBAAB, which is bounded by the San Francisco Bay to the north and by mountains to the east, south, and west. Air quality in this area is determined by natural factors, which are discussed below.

Wind Patterns

Winds in the Santa Clara Valley are influenced by the terrain, resulting in a prevailing flow that roughly parallels the Santa Clara Valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer the southern end of the valley sometimes becomes a "convergence zone," when air flowing from the Monterey Bay gets channeled northward into the southern end of the Santa Clara Valley and meets with the prevailing north-northwesterly winds. Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm.

Temperature

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

Precipitation

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys. During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

Wind Circulation and Inversions

The air pollution potential of the Santa Clara Valley is high. High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, ozone precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds to the Santa Clara Valley. Pollution sources are plentiful and complex in this subregion. The Santa Clara Valley has a high concentration of industry at the northern end, in the Silicon Valley. Some of these industries are sources of air toxics as well as criteria air pollutants. In addition, Santa Clara Valley's large population and many work-site destinations generate the highest mobile source emissions of any subregion in the SFBAAB. On summer days with low level inversions, ozone can be recirculated by southerly drainage flows in the late evening and early morning, and by the prevailing northwesterlies in the afternoon. A similar recirculation pattern occurs in the winter, affecting levels of carbon monoxide and particulate matter. The Santa Clara Valley tends to channel pollutants to the southeast. This movement of the air up and down the valley increases the impact of the pollutants significantly.

Attainment Status of the Air Basin

USEPA and CARB designate areas within the State as either attainment or nonattainment for each criteria pollutant, based on whether the AAQS have been achieved. Exceedances affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a standard, and are not used as a basis for designating areas as nonattainment. The SFBAAB attainment status with respect to State standards was summarized previously in Table 4.1-2. The SFBAAB is currently designated a nonattainment area for California and federal O_3, California and federal $PM_{2.5}$, and California PM_{10} AAQS.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The closest air monitoring station to the project site is the Los Gatos Monitoring Station (located approximately 7.5 miles to the south). Local air quality data from 2014 to 2016 are provided in Table 4.1-4. As the Los Gatos Monitoring Station only collects data for O_3, Table 4.1-4 also includes data from the San Jose-Jackson Street Monitoring station, which is the next closest to the site (located approximately 8.5 miles to the

east). Table 4.1-4 lists the monitored maximum concentrations and number of exceedances of federal/State air quality standards for each year.

TABLE 4.1-4 AMBIENT AIR QUALITY MONITORED IN THE PROJECT VICINITY

Pollutant	Los Gatos[a]			San Jose-Jackson Street[b]		
	2015	2016	2017	2015	2016	2017
Ozone (O_3)						
1-hour Maximum Concentration (ppm)	0.100	0.091	0.093	0.094	0.087	0.121
8-hour Maximum Concentration (ppm)	0.084	0.065	0.075	0.081	0.066	0.098
Number of Days Standard Exceeded						
CAAQS 1-hour (>0.09 ppm)	1	0	0	0	0	3
NAAQS 8-hour (>0.070 ppm)	4	0	3	2	0	4
Carbon Monoxide (CO)						
1-hour Maximum Concentration (ppm)	--	--	--	2.43	1.95	1.87
Number of Days Standard Exceeded						
NAAQS 1-hour (>35 ppm)	--	--	--	0	0	0
CAAQS 1-hour (>20 ppm)	--	--	--	0	0	0
Nitrogen Dioxide (NO_2)						
1-hour Maximum Concentration (ppm)	--	--	--	49.3	51.1	67.5
Number of Days Standard Exceeded						
NAAQS 1-hour (>100 ppm)	--	--	--	0	0	0
CAAQS 1-hour (>0.18 ppm)	--	--	--	0	0	0
Particulate Matter Less Than 10 Microns (PM_{10})						
National 24-hour Maximum Concentration	--	--	--	58.8	40.0	69.4
State 24-hour Maximum Concentration	--	--	--	58.0	41.0	69.8
State Annual Average Concentration (CAAQS=20 µg/m^3)	--	--	--	21.9	18.3	21.3
Number of Days Standard Exceeded						
NAAQS 24-hour (>150 µg/m^3)	--	--	--	0	0	0
CAAQS 24-hour (>50 µg/m^3)	--	--	--	1	0	6
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)						
National 24-hour Maximum Concentration	--	--	--	49.4	22.6	49.7
State 24-hour Maximum Concentration	--	--	--	49.4	22.7	49.7
Number of Days Standard Exceeded						
NAAQS 24-hour (>35 µg/m3)	--	--	--	2	0	6

Notes:

a. Measurements taken at the Los Gatos Monitoring Station located at 306 University Avenue, Los Gatos, California 95030 (CARB# 43380).

b. Measurements taken at the San Jose-Jackson Street Monitoring Station located at 158 East Jackson Street, San Jose, California 95112 (CARB #43383). NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter; NM = not measured

Source: All pollutant measurements are from the California Air Resources Board Aerometric Data Analysis and Management system (iADAM) database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the California Air Resources Board Air Quality and Meteorological Information System (AQMIS) (https://www.arb.ca.gov/aqmis2/aqdselect.php).

Existing Emissions

The project site is developed with an approximately 71,250 square-foot shopping center with retail stores, offices, and restaurants that is currently about 85 occupied (or 60,563 square feet). The site currently generates criteria air pollutant emissions from natural gas use for heating and cooking, vehicle trips associated with the land uses, as well as area sources such as landscaping equipment and consumer cleaning products.

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Table 4.1-5 lists the distances and locations of sensitive receptors within the project vicinity based on the distance from the project site to the receptors.

TABLE 4.1-5 AIR QUALITY SENSITIVE RECEPTORS

Receptor Type/Description	Distance and Direction from the Project Site [a]
Residential (Glenbrook Apartments) on Mary Avenue	90 feet north
Single-family residential neighborhood on Anton Way	630 feet northeast
Cupertino Senior Center on Mary Avenue	80 feet east
Cupertino Teen Center and Sports Center on Stevens Creek Boulevard	612 feet east
De Anza College on Stevens Creek Boulevard	140 feet south

Notes:
a Distance calculated from property line of proposed project site and property line of the sensitive receptors
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

4.1.2 THRESHOLDS OF SIGNIFICANCE

4.1.2.1 CEQA GUIDELINES APPENDIX G

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standard and therefore, is not discussed in this chapter.

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

Based on the Initial Study and comments received during the scoping process it was determined that the proposed project could result in a potentially significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.

4.1.2.2 BAAQMD THRESHOLDS

Regional Significance Thresholds

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. In May 2017 the BAAQMD's Board of Directors adopted the CEQA Air Quality Guidelines, including revisions made to the thresholds of significance adopted in 2010. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA.[1]

Criteria Air Pollutant Emissions and Precursors

Regional Significance Criteria

The BAAQMD's criteria for regional significance for projects that exceed the screening thresholds are shown in Table 4.1-6. Criteria for both the construction and operational phases of the proposed project are shown.

TABLE 4.1-6 BAAQMD REGIONAL (MASS EMISSIONS) CRITERIA AIR POLLUTANT SIGNIFICANCE THRESHOLDS

	Construction-Related	Operational-Related	
Criteria Air Pollutants and Precursors (Regional)	Average Daily Emissions (pounds/day)	Average Daily Emission (pounds/day)	Average Daily Emission (pounds/day)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average 20.0 ppm (1-hour average)	

Source: Bay Area Air Quality Management District. 2017. CEQA Guidelines May 2017.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (Sierra Club v. County of Fresno [Friant Ranch, L.P.] [2018] Cal.5th, Case No. S219783). The BAAQMD CEQA significance thresholds in Table 4.1-6 are based on the trigger

[1] Bay Area Air Quality Management District (BAAQMD), 2017, May, CEQA Air Quality Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

levels for the federal New Source Review (NSR) Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health of sensitive populations such as asthmatics, children, and the elderly. Therefore, projects that do not exceed the BAAQMD regional significance thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

CO Hotspots

A quantitative CO impact analysis is required by BAAQMD (comparing project emissions to the CAAQS), if none of the following are met:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Community Risk and Hazards

The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the nearby residential sensitive receptors. The thresholds for construction-related local community risk and hazard impacts are the same as for project operations. The BAAQMD has adopted screening tables for air toxics evaluation during construction.[2] Construction-related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable.[3] The proposed project involves redevelopment of the project site with a residential mixed-use project and would not be a source of operational TACs and $PM_{2.5}$.

[2] Bay Area Air Quality Management District (BAAQMD), 2010, Screening Tables for Air Toxics Evaluations during Construction.

[3] Bay Area Air Quality Management District (BAAQMD), 2017, Revised, California Environmental Quality Act Air Quality Guidelines.

Since neither the City of Cupertino nor County of Santa Clara currently have qualified risk reduction plans, a site-specific analysis of TACs and $PM_{2.5}$ impacts on sensitive receptors was conducted. The thresholds identified below are applied to the proposed project's construction and operational phases.

Community Risk and Hazards: Project

Project-level emissions of TACs or $PM_{2.5}$ from individual sources that exceed any of the thresholds listed below are considered a potentially significant community health risk:

- An excess cancer risk level of more than 10 in one million, or a noncancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant project contribution.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ from a single source would be a significant project contribution. [4]

Community Risk and Hazards: Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the proposed project, exceeds any of the following:

- An excess cancer risk level of more than 100 in one million or a chronic noncancer hazard index (from all local sources) greater than 10.0.
- 0.8 µg/m3 annual average $PM_{2.5}$.[5]

In February 2015, the Office of Environmental Health Hazard Assessment adopted new health risk assessment guidance that includes several efforts to be more protective of children's health. These updated procedures include the use of age sensitivity factors to account for the higher sensitivity of infants and young children to cancer causing chemicals, and age-specific breathing rate.[6]

Air Quality Management Plan Consistency

The BAAQMD's 2017 Clean Air Plan was prepared to accommodate growth, meet State and federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the BAAQMD CEQA Air Quality Guidelines, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary. If a project exceeds these emission thresholds, the BAAQMD CEQA Air Quality Guidelines states that the significance of a project's contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

[4] Bay Area Air Quality Management District (BAAQMD), 2017, Revised, California Environmental Quality Act Air Quality Guidelines.

[5] Bay Area Air Quality Management District (BAAQMD), 2017, Revised, California Environmental Quality Act Air Quality Guidelines.

[6] Office of Environmental Health Hazard Assessment (OEHHA), 2015, February, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.

4.1.3 IMPACT DISCUSSION

4.1.3.1 METHODOLOGY

This air quality impact analysis considers construction and operational impacts associated with the proposed project. Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with proposed project construction would generate emissions of criteria air pollutants and precursors and toxic air contaminants. Construction-related and operational emissions are evaluated consistent with methodologies outlined in the BAAQMD CEQA Air Quality Guidelines for assessing and mitigating air quality impacts. Emissions associated with the proposed project are estimated using the California Emissions Estimator Model (CalEEMod). The proposed traffic conditions as a result of the proposed project assume full occupancy of the project site based on the transportation analysis prepared by Kimley-Horn and Associates (see Chapter 4.8, Transportation, and Appendix H, Transportation Assessment, of this Draft EIR). The construction health risk assessment was performed using the USEPA AERSCREEN dispersion model.

4.1.3.2 IMPACT ANALYSIS

AQ-1 The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

The primary method of determining consistency with the 2017 Clean Air Plan growth assumptions is consistency with the General Plan land use designations and zoning ordinance designations for the site. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the 2017 Clean Air Plan. Because the General Plan was adopted prior to the adoption of the 2017 Clean Air Plan, it can be assumed that the 2017 Clean Air Plan incorporates the growth forecast in the General Plan.

As described in Chapter 3, Project Description, of this Draft EIR, the General Plan describes the vision and standards for future development on the site in the defined Heart of the City Special Area, *Heart of the City Specific Plan*, Oaks Gateway, Priority Housing Element Site A3 (The Oaks Shopping Center), and Commercial/Residential land use designation. In addition, the General Plan identifies the site as being within the regional *Plan Bay Area* Santa Clara Valley Transportation Authority City Cores, Corridors, & Station Areas priority development area (PDA). Furthermore, the site qualifies as a Transit Priority Area (TPA) because it is within one-half mile of a "major transit stop" as defined by CEQA Guidelines Section 15191[7] and the Santa Clara Valley Transportation Authority (VTA).[8]

[7] "CEQA Guidelines defines a major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[8] The Santa Clara Valley Transportation Authority (VTA) defines a "major bus stop" as a stop where six or more buses per hour stop during the peak period and is also referred to as a "high-quality transit" area.

The West Stevens Creek Boulevard subarea of the *Heart of the City Specific Plan* identifies the primary use for this area to be quasi-public/public facilities, with supporting uses including mixed commercial/residential. The Oaks Gateway is an identified neighborhood center which allows mixed-use development. General Plan Policy LU-14.5 (Oaks Gateway Node) states that the Oaks Gateway is a retail and shopping node and that new residential uses, if allowed, should be designed on the "mixed-use village" concept.[9] The mixed-use urban village concept includes providing parcel assembly, complete site redevelopment, mixed-use village layout with streets, alley, sidewalks, and open spaces, mix of retail uses, public open spaces, and high-quality, pedestrian-oriented design.[10] The proposed project is a residential mixed-use development with internal multi-modal streets, sidewalks, and open spaces that would accommodate approximately 20,000 square feet of neighborhood serving retail.

The General Plan's Priority Housing Element sites, including the proposed project site, are located on major corridors to reduce traffic, environmental impacts, and preserve neighborhoods. The Priority Housing Element sites in the adopted Housing Element are intended to accommodate the Regional Housing Needs Allocation for the 2014-2022 planning period and meet the City's fair-share housing obligation of 1,064 units. According to the Housing Element, the site has a maximum density of 30 dwelling units per acre. While the General Plan's Housing Element assigned a realistic capacity estimate of 200 units to the project site, because the site is approximately 8.1 acres, up to 243 units could be built on the site. The proposed project includes 242 units which is just below the maximum potential based on the density designated for the site.

The Commercial/Residential land use designation allows primarily commercial uses and secondarily residential uses or a compatible combination of the two. An overarching goal of the regional *Plan Bay Area* is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, vehicle miles traveled (also referred to as "VMT"), and associated greenhouse gas (GHG) emissions reductions, thus minimizing air quality impacts.

The project site is zoned Planned Development with General Commercial and Residential (P(CG,RES)) on the City's Zoning Map. Per CMC Section 19.80.030(B), all planned development districts are identified on the zoning map with the letter coding "P" followed by a specific reference to the general type of use allowed in the particular planning development zoning district.[11] The general types of uses allowed on the project site are General Commercial and Residential. Accordingly, the proposed project is a permitted use on the site.

As described above and identified in the Initial Study (see Appendix A of this the Draft EIR), the proposed project would not have the potential to substantially affect housing, employment, or population

[9] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-44.

[10] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-18.

[11] CMC, Title 19, Zoning, Chapter 19.80, Planned Development, Section 19.80.030, Establishment of Districts-Permitted and Conditional Uses.

projections within the region, which are the basis of the 2017 Clean Air Plan projections. Therefore, under CEQA Guidelines Section 15206, the proposed project is not considered a regionally significant project that would affect regional vehicle miles traveled (VMT) and warrant intergovernmental review by ABAG[12] and MTC.[13] Additionally, as described below in impact discussion AQ-2, construction and operational air quality emissions generated by the proposed project would not exceed the BAAQMD's emissions thresholds. These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the proposed project would not exceed these thresholds, the proposed project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants and would not contribute to any non-attainment areas in the SFBAAB. For these reasons described above, the proposed project would not conflict with or obstruct implementation of the 2017 Clean Air Plan, and impacts would be considered *less than significant*.

Significance Without Mitigation: Less than significant.

AQ-2 The proposed project would not 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.

BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including reactive organic gases (ROG), oxides of nitrogen (NO_x), coarse inhalable particulate matter (PM_{10}), and fine inhalable particulate matter ($PM_{2.5}$). Development projects below these significant thresholds (shown above in Table 4.1-6) are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction Emissions

Construction-generated emissions are relatively short term and of temporary duration, lasting only as long as construction activities occur, but are considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction.
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.
- ROG emissions from asphalt off-gassing and architectural coatings.

The duration of construction activities for the proposed project is estimated to be approximately 16 months. The proposed project would demolish the existing shopping center and surface parking. In

[12] Association of Bay Area Governments (ABAG), Regional Clearinghouse http://abag.ca.gov/planning/clearinghouse.html, accessed July 30, 2019.

[13] Metropolitan Transportation Commission (MTC), Air Quality Conformity, http://www.mtc.ca.gov/planning/air_quality/, accessed July 30, 2019.

addition, the proposed project would require 69,000 cubic yards of soil to be exported from the site during the grading and site preparation phases to accommodate a subterranean parking garage. Predicted average daily construction-generated emissions for the proposed project are identified in Table 4.1-7.

Fugitive Dust

Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill operations, demolition, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. As shown in Table 4.1-7, the BAAQMD does not have numerical threshold for construction fugitive dust, but instead recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds (see Mitigation Measure AQ-2).

TABLE 4.1-7 AVERAGE DAILY PROJECT CONSTRUCTION EMISSIONS

	Pollutant (average pounds per day)[a, b]					
			Exhaust		Fugitive Dust	
Emissions Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NOX)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2019						
Unmitigated Emissions	4	50	2	2	6	2
2020						
Unmitigated Emissions	32	28	1	1	3	1
Maximum Unmitigated	32	50	2	2	6	2
BAAQMD Significance Threshold	54	54	82	54	N/A	N/A
Exceed BAAQMD Threshold after Mitigation?	No	No	No	No	N/A	N/A

Notes:
a. Emissions were calculated using CalEEMod. Average daily emissions were calculated by dividing the annual emissions by the number of working days of construction for the year (project construction is two full years and would have approximately 250 days per year).
b. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. As shown in Table 4.1-7, average daily project construction emissions would not exceed BAAQMD thresholds. Implementation of Mitigation Measure AQ-2 would further minimize emissions due to the idling restrictions and maintenance requirements placed on construction equipment.

Reactive Organic Gases Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. The highest concentration of ROG emissions would be generated during the application of architectural coatings beginning in 2020. As required by law, all architectural coatings for the proposed project structures would comply with BAAQMD Regulation 8, Rule 3: Architectural Coating. Regulation 8, Rule 3 provides specifications for painting practices and regulates the ROG content of paint. As shown in Table 4.1-7, average daily project construction ROG emissions would not exceed BAAQMD thresholds.

Summary

As shown in Table 4.1-7 and described above, project construction would not exceed the BAAQMD average daily thresholds of significance. Although the BAAQMD does not have numerical thresholds for fugitive PM_{10} and $PM_{2.5}$ emissions, the proposed project would be required to comply with the BAAQMD Basic Construction Measures (see Mitigation Measure AQ-2). Furthermore, the proposed project would be subject to applicable BAAQMD Regulations, such as Regulation 8, Rule 3: Architectural Coatings and Rule 15: Emulsified and Liquid Asphalts, and Regulation 9, Rule 8: Organic Compounds to further reduce specific construction-related emissions. Table 4.1-7 identifies project emissions with the implementation of the applicable reduction measures required by BAAQMD Rules. With the implementation of Mitigation Measure AQ-2, construction impacts would be less than significant.

Impact AQ-2: Uncontrolled fugitive dust (PM_{10} and $PM_{2.5}$) could expose the areas that are downwind of construction sites to air pollution from construction activities without the implementation of BAAQMD's best management practices.

Mitigation Measure AQ-2: BAAQMD Basic Construction Measures. Prior to any grading activities, the applicant shall prepare a Construction Management Plan to be reviewed and approved by the Director of Public Works/City Engineer. The Construction Management Plan shall include the Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures listed below to minimize construction-related emissions. The project applicant shall require the construction contractor to implement the approved Construction Management Plan. The BAAQMD Basic Construction Mitigation Measures are:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure

Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.

Significance With Mitigation: Less than significant.

Operational Emissions

Operational emissions for residential developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling, heating, and cooking); and area sources (landscape equipment and household products). According to Table 4.1-8 shows ROG emission thresholds exceeded for area source emissions.

TABLE 4.1-8 AVERAGE DAILY PROJECT OPERATIONAL EMISSIONS UNMITIGATED

	Pollutant (average pounds per day)[a, b]					
			Exhaust		Fugitive Dust	
Emissions Source	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_X)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Annual Emissions (maximum tons per year)						
Area Source Emissions	2	<1	<1	<1	--	--
Energy Emissions	<1	<1	<1	<1	--	--
Mobile Emissions[1]	1	2	<1	<1	2	<1
Total Project Unmitigated Emissions	3	2	<1	<1	2	<1
BAAQMD Threshold[1]	10	10	15	10	N/A	N/A
Is Threshold Exceeded?	No	No	No	No	N/A	N/A
Average Daily Emissions (pounds)						
Area Source Emissions	13	<1	<1	<1	--	--
Energy Emissions	<1	1	<1	<1	--	--
Mobile Emissions[1]	3	12	<1	<1	9	2
Total Project Unmitigated Emissions	16	13	<1	<1	9	2
BAAQMD Threshold[2]	54	54	82	54	N/A	N/A
Is Threshold Exceeded?	No	No	No	No	N/A	N/A

Notes:
a. Mobile emissions conservatively represent emissions associated with the full project (i.e., 2,174 daily vehicle trips), and do not take credit/trip reductions for the existing uses.
b. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, 2017.
Source: Kimley-Horn and Associates, PlaceWorks. 2019.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport PM_{10} and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions were estimated using CalEEMod. Trip generation rates associated with the proposed project were based on the transportation analysis prepared by Kimley-Horn and Associates dated November 2018 (see Chapter 4.8, Transportation, and Appendix H, Transportation Assessment, of this Draft EIR). Based on the transportation analysis, the proposed project would result in an average of approximately 2,174 total daily vehicle trips (it should be noted that the air quality analysis conservatively does not take credit for existing vehicle trips generated on the project site or internal trip capture). Table 4.1-8 shows that the project emissions generated by vehicle traffic associated with the proposed project would not exceed established BAAQMD regional thresholds.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage associated with the proposed project. The primary use of electricity and natural gas by the proposed project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As shown in Table 4.1-8, unmitigated energy source emissions from the proposed project would not exceed BAAQMD thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$. As indicated in Table 4.1-8, operational emissions from the proposed project would not exceed BAAQMD thresholds. Therefore, the proposed project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. As a result, impacts associated with operational air quality would be *less than significant*.

Area Source Emissions

Area source emissions would be generated due to an increased demand for consumer products, architectural coating, hearths, and landscaping. As shown in Table 4.1-8, unmitigated area source emissions from the proposed project would not exceed BAAQMD thresholds. Therefore, impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

AQ-3 The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

The proposed project could expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Toxic Air Contaminants

Construction

Construction-related activities would result in emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., demolition, clearing, grading); paving; application of architectural coatings; on-road truck travel; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptors to the project site are listed in Table 4.1-5 previously shown. These include the residences to the north on Mary Avenue, the senior center to the east on Mary Avenue, and De Anza College south of Stevens Creek Boulevard.

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur throughout the site. Construction activities would be subject to and would comply with State regulations limiting idling to no more than 5 minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense year of construction, emissions of diesel PM would be generated from different locations on the project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

Maximum (worst case) $PM_{2.5}$ exhaust construction emissions over the entire construction period were used in AERSCREEN to approximate construction DPM emissions. Risk levels were calculated according to the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document.

The results of this assessment indicate that the maximum concentration of $PM_{2.5}$ during construction would be 0.011 $\mu g/m^3$, which is below the BAAQMD significance threshold of 0.3 $\mu g/m^3$. The highest calculated carcinogenic risk from project construction is 2.23 per million based on an annual PM_{10} concentration of 0.012 $\mu g/m^3$. Non-cancer hazards for DPM would be below the BAAQMD threshold of 1.0, with a chronic hazard index computed at 0.001 and an acute hazard index of 0.01. As described above, worst-case construction risk levels based on screening-level modeling (AERSCREEN) and conservative assumptions would be below the BAAQMD's thresholds. Therefore, construction risk levels would be less than significant.

Operation

The proposed project would not be considered a source of TACs that would pose a possible risk to off-site uses. The proposed project involves the future development of mixed-use project that would include commercial and residential uses. The proposed project would not include stationary sources that emit TACs and would not generate a significant amount of heavy-duty truck trips (a source of DPM). Therefore, no impacts to surrounding receptors associated with TACs would occur.

Significance Without Mitigation: Less than significant.

Carbon Monoxide Hotspots

Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours.

The SFBAAB is designated as attainment for CO. Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project is consistent with the applicable congestion management plan (CMP) and would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. According to the transportation analysis prepared for the proposed project, the entire project would generate 108 total morning (AM) peak hour trips and 186 total evening (PM) peak hour trips. The project study intersection with the highest traffic volumes (Stevens Creek Boulevard/ Mary Avenue) would have 3,055 vehicles during the morning peak hour and 3,752 vehicles during the evening peak hour. Therefore, the proposed project would not involve intersections with more than 24,000 or 44,000 vehicles per hour. As a result, the proposed project would not generate a significant number of vehicle trips and impacts associated with CO concentrations would be less than significant.

Significance Without Mitigation: Less than significant.

4.1.4 CUMULATIVE IMPACTS

AQ-4 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not cumulatively contribute to air quality impacts in the San Francisco Bay Area Air Basin.

The impact discussion above is based on the cumulative setting because all development within the SFBAAB contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative effect. As discussed above, Mitigation Measure AQ-2 is required to reduce the proposed project's contribution to regional air quality impacts. Therefore, the cumulative impact would be less than significant with implementation of Mitigation Measure AQ-2, and, no further discussion of cumulative impacts is necessary.

Significance With Mitigation: Less than significant.

4.2 BIOLOGICAL RESOURCES

This chapter includes an evaluation of the potential environmental consequences on biological resources from construction and operation of the proposed project. This chapter also describes the environmental setting, including regulatory framework and existing biological resources in the vicinity of the proposed project, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

Biological resources associated with the proposed project were identified through a review of available information concerning biological resources in the central Santa Clara County area, presence of sensitive natural communities, and the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the project vicinity, including a record search conducted by the California Natural Diversity Data Base (CNDDB) of the California Department of Fish and Wildlife (CDFW) and mapping of habitat types prepared as part of the Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG)[1] habitat mapping program by the United States Department of Agriculture Forest Service (USDA).

In addition, this chapter includes information from the *Preliminary Arborist Report* (Arborist Report) that was prepared for the project applicant by HortScience, Inc. dated July 2018, which includes a tree assessment completed in May 2018. This Arborist Report was reviewed and approved by Michael Bench, Consulting Arborist for the City of Cupertino, and is included in Appendix D, Arborist Report and Tree Removal Plan, of this Draft EIR.

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 REGULATORY FRAMEWORK

This section summarizes existing federal, State, regional, and local policies and regulations that apply to biological resources.

State and Federal

State and federal agencies have a lead role in the protection of biological resources under their permit authority set forth in statues and regulations. The United States Fish and Wildlife Service (USFWS) is responsible for administering the Migratory Bird Treaty Act (MBTA) and the federal Endangered Species Act (ESA).

At the State level, the California Department of Fish and Wildlife (CDFW) is responsible for administration of the California Endangered Species Act (CESA). Sections 3500-3516, 4700, 5050, and 5515 of the California Fish and Game Code address Fully Protected species.

[1] The CALVEG system was initiated in January 1978 by the Region 5 Ecology Group of the US Forest Service to classify California's existing vegetation communities for use in statewide resource planning. CALVEG maps use a hierarchical classification on the following categories: forest; woodland; chaparral; shrubs; and herbaceous.

Special-status species are plants and animals that are legally protected under the ESA/CESA or other laws and regulations, and also include other species considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species with legal protection under the ESA/CESA may present major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species. “Take” is a term used in the ESA to include, "harass, harm, pursue, hunt, shoot, wound, kill trap, capture, or collect, or to attempt to engage in any such conduct."[2]

The primary information source on the distribution of special-status species in California is the CNDDB inventory, which is maintained by the Natural Heritage Division of the CDFW. Occurrence data is obtained from a variety of scientific, academic, and professional organizations, private consulting firms, and knowledgeable individuals, and is entered into the inventory as expeditiously as possible. The presence of a population of species of concern in a particular region is an indication that an additional population may occur at another location within the region, if habitat conditions are suitable. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from the area in question, only that no data has been entered into the CNDDB inventory. Detailed field surveys are generally required to provide a conclusive determination of the presence or absence of sensitive resources from a particular location, unless suitable habitat is determined to be absent.

In addition to species-oriented management, protecting habitat on an ecosystem-level is increasingly recognized as vital to the protection of natural diversity in the State. The CNDDB also monitors the locations of natural communities that are considered rare or threatened, known as sensitive natural communities. The CNDDB has compiled a list of sensitive natural communities that are given a high inventory priority for mapping and protection. Although these natural communities have no legal protected status under the ESA/CESA, they are provided some level of protection under the CEQA Guidelines. A project would normally be considered to have a significant effect on the environment if it would substantially affect a sensitive natural community, such as a riparian woodland, native grassland, or coastal salt marsh. Further loss of a sensitive natural community could also be interpreted as substantially diminishing habitat, depending on the relative abundance, quality and degree of past disturbance, and the anticipated impacts.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040) includes policies that are relevant to the protection of biological resources and applicable to the proposed project. The policies are identified in Chapter 6, Environmental Resources and Sustainability, of the General Plan and listed below in Table 4.2-1.

[2] United Stated Fish & Wildlife Services Endangered Species Act 40 Years of Conserving Endangered Species, https://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf.

TABLE 4.2-1 GENERAL PLAN POLICIES RELEVANT TO BIOLOGICAL RESOURCES

Policy Number	Policy
Chapter 6, Environmental Resources and Sustainability (ES)	
Policy ES-5.1	**Urban Ecosystem.** Manage the public and private development to ensure the protection and enhancement of its urban ecosystem.
Policy ES-5.2	**Development near Sensitive Areas.** Encourage the clustering of new development away from sensitive areas such as riparian corridors, wildlife habitat and corridors, public open space preserves and ridgelines. New developments in these areas must have a harmonious landscaping plan approved prior to development.
Policy ES-5.3	**Landscaping in and near Natural Vegetation.** Preserve and enhance existing natural vegetation, landscape features and open space when new development is proposed within existing natural areas. When development is proposed near natural vegetation, encourage the landscaping to be consistent with the palate of vegetation found in the natural vegetation.
Policy ES-5.6	**Recreation and Wildlife.** Provide open space linkages within and between properties for both recreational and wildlife activities, most specifically for the benefit of wildlife that is threatened, endangered or designated as species of special concern.

Source: Cupertino General Plan (Community Vision 2015-2040).

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize adverse impacts to biological resources. The provisions related to potential impacts from the proposed project are included in Title 14, Streets, Sidewalks, and Landscaping, as follows:

- **Chapter 14.12, Trees.** This chapter provides regulations for the planting, care, and maintenance of public trees. "Public trees" are park trees and street trees collectively. For continued funding for maintenance of public trees, this chapter establishes requirement for the payment of reimbursement costs to the City to plant street trees as a condition of building permit issuance.
- **Chapter 14.15, Landscape Ordinance.** This chapter implements the California Water Conservation in Landscaping Act of 2006 by establishing new water-efficient landscaping and irrigation requirements. In general, any building or landscape projects that involve more than 2,500 square feet of landscape area are required to submit a Landscape Project Submittal to the Director of Community Development for approval. Existing and established landscapes over 1 acre, including cemeteries, are required to submit water budget calculations and audits of established landscapes.
- **Chapter 14.18, Protected Trees.** This chapter contains regulations for the protection, preservation, and maintenance of trees of certain species and sizes. Removal of a protected tree requires a permit from the City. "Protected" trees include trees of a certain species and size in all zoning districts; heritage trees in all zoning districts; any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and approved privacy protection planting in R-1 zoning districts. Protected trees include trees of the following species that have a minimum single trunk diameter of 10 inches (31-inch circumference) or a minimum multi-trunk diameter of 20 inches (63-inch circumference) measured as 4.5 feet from the natural grade: native oak tree species (*Quercus spp.*), including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), and interior live oak (*Quercus wislizeni*); California buckeye (*Aesculus californica*); big leaf maple (*Acer macrophyllum*); deodar cedar (*Cedrus deodara*); blue atlas cedar (*Cedrus*

atlantica 'Glauca'); bay laurel or California bay (*Umbellularia californica*); and western sycamore (*Platanus racemosa*).

4.2.1.2 EXISTING CONDITIONS

This section describes the existing conditions of the plant and wildlife resources in Cupertino and the project area. The following descriptions are based on available background data and review of aerial photographs of the project site and surrounding vicinity, as well as site visits by arborists from HortScience on May 9, 2018 (see Appendix D of this Draft EIR).

Biological Communities

The project site and surrounding area has been urbanized and now supports roadways, structures, other impervious surfaces, areas of turf, and ornamental landscaping. Remnant native trees are scattered throughout the urbanized area, together with non-native trees, shrubs, and groundcovers. The site includes a one-story shopping center that is currently operating. The project site is bound by roadways on all sides and property, and land beyond the roadways is developed with residential, senior services, and educational land uses. As previously described, the CALVEG habitat mapping program classifies the site as an "urban area" that tends to have low to poor wildlife habitat value due to replacement of natural communities, fragmentation of remaining open space areas and parks, and intensive human disturbance.

The diversity of urban wildlife depends on the extent and type of landscaping and remaining open space, as well as the proximity to natural habitat. Trees and shrubs used for landscaping provide nest sites and cover for wildlife adapted to developed areas. Typical native bird species include the mourning dove, scrub jay, northern mockingbird, American robin, brown towhee, American crow, and Anna's hummingbird, among others. Introduced species include the rock dove, European starling, house finch, and house sparrow. Urban areas can also provide habitat for several species of native mammals such as the California ground squirrel and striped skunk, as well as the introduced eastern fox squirrel and eastern red fox. Introduced pest species such as the Norway rat, house mouse, and opossum are also abundant in developed areas. Numerous bat species are also known to be in the Cupertino area, most of which are relatively common and are not considered special-status species.

Special-Status Plant and Wildlife Species

Given the urbanized and built-out nature of the site and the surrounding area, a search of CNDDB records was conducted within a 1-mile radius surrounding the project site on September 18, 2019. The results of this search show no record of special-status plant or animal species on the project site. However, there are two occurrences of special-status animal species within the 1-mile buffer of the project site, to the west of the project site across SR-85. A White-tailed kite occurrence was reported approximately 0.45 miles to the southwest of the project site, and a Yuma myotis occurrence was reported approximately 0.6 miles to the west of the project site. However, no essential habitat for these special-status species is present on the site, due to its developed and urbanized nature.

Protected Nesting Birds

There is a possibility that birds could nest in trees and other landscaping on the project site. The nests of most bird species are protected under the MBTA when in active use, and there is a remote possibility that one or more raptor species protected under the MBTA and CFG Code could nest on the project site. These include both the Cooper's hawk (*Accipiter cooperi*) and white-tailed kite (*Elanus leuocurus*), which have reported CNDDB occurrences within the city boundary, together with more common raptors such as red-tailed hawk, great horned owl, and American kestrel, all of which are protected by the MBTA and CFG Code when their nests are in active use. However, no essential habitat for these or other special-status species is present on the site due to its developed condition.

Protected Bats

Numerous bat species are known to be in the Cupertino area, most of which are relatively common and are not considered special-status species. As previously stated, the CNDDB does not show any occurrences of special-status bats within the site vicinity. However, there has been one Yuma myotis bat species occurrence recorded approximately 0.65 miles west of the project site. The CNDDB also shows records within several miles of Cupertino. The records include occurrences of Townsend's big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), and Yuma myotis (*Myotis yumanensis*). These three species have no legal protected status under the ESA or CESA, but the Townsend's big-eared bat is considered a Species of Special Concern by the CDFW. These species have priority rankings assigned by the Western Bat Working Group (WBWG), which range from "High" for Townsend's big-eared bat, "Medium" for hoary bat, to "Low-Medium" for Yuma myotis. Bat species found in the Cupertino vicinity may forage and occasionally roost in the site vicinity, but because the Oaks Shopping Center is occupied, no suitable habitat for maternity roosts are on the site.

Protected Trees

According to the Vegetation Map shown in the Environmental Resources and Sustainability Element of the General Plan, most of the City, including the project site, is within the urban forest.[3] The City recognizes that every tree on both public and private property is an important part of Cupertino's urban forest and contributes significant economic, environmental and aesthetic benefits of the community.[4]

The Arborist Report was prepared for the proposed project to assess the health and structural conditions of the trees on the project site, identify all "protected trees" as defined by CMC Chapter 14.18 (Protected Tree Ordinance) described in the regulatory setting above, assess the impacts of constructing the proposed project on the trees, and present guidelines for tree preservation.[5] The Arborist Report evaluated the 83 trees on the site. These trees represent the following species: Japanese maple (*Acer*

[3] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 6, Environmental Resources and Sustainability Element, Figure ES-1.

[4] City of Cupertino, Tree Protection and Tree Removal link on the City's website. https://www.cupertino.org/our-city/departments/community-development/planning/residential-development/tree-protection-tree-removal, accessed on May 6, 2019.

[5] HortScience, Inc., July 2018, Preliminary Arborist Report: The Oaks Shopping Center, Cupertino, CA.

palmatum), Deodar cedar (*Cedrus deodara*), Nichol's gum (*Eucalyptus nicholii*), Evergreen ash (Fraxinus uhdei), Crape myrtle (*Lagerstroemia indica*), Canary Island pine (Pinus canariensis), Monterey pine (Pinus radiata), Chinese pistache (*Pistacia chinensis*), Victorian box (*Pittosporum undulatum*), Callery pear (*Pyrus calleryana*), Evergreen pear (*Pyrus kawakamii*), Coast live oak (*Quercus agrifolia*), and Holly oak (*Quercus ilex*).

The project site includes a mix of young trees planted throughout the parking lots, semi-mature trees along the perimeter, and four veteran oak trees likely preserved during the last site development. Veteran oaks may be indigenous to the site, but the remaining trees are planted exotics.

The professional arborist evaluated the health and structural condition of the 83 trees on the project site, applying a scale of 1 to 5, with 1 being the poorest condition and 5 being a good condition. These are defined as follows:

- Good Condition:
  - 5: A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
  - 4*:* Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
- Fair Condition:
  - 3*:* Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
- Poor Condition:
  - 2: Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
  - 1: Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.

A majority of the trees were in fair (approximately 40 percent) and poor (approximately 39 percent) condition, with 18 trees (approximately 21 percent) in good condition. Tree sizes range from 2 to 51 inches in diameter.

Out of the 83 trees surveyed, the Arborist Report identified 74 trees, including 14 protected trees, that would be directly impacted by development and would require removal. The professional arborist assigned a preservation suitability rating for each of the 83 trees of either "high", "moderate", or "low." Suitability for preservation considers the health, age, and structural condition of the tree, and its potential to remain an asset to the site for years to come. Preservation suitability ratings are defined as follows:

- High: Trees with good health and structural stability that have the potential for longevity at the site. The following seven trees were determined to be highly suitable for preservation: three crape myrtles, two Nichol's gum, one deodar cedar, and one coast live oak.

- Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intensive management and monitoring and may have shorter life span than those in "high" category. Thirty-four (34) trees were determined to be of moderate suitability for preservation: 14 evergreen ash, 13 coast live oaks, 2 evergreen pears, 2 Chinese pistache, one Victorian box, one Japanese maple, and one Canary Island pine.
- Low: Trees in poor health or with significant structural defects that cannot be mitigated, and which are expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes and generally are unsuited for use areas. Forty-two (42) trees were determined to have low suitability for preservation: 22 Chinese pistache, 10 evergreen ash, four coast live oaks, two callery pears, one Monterey pine, one holly oak, one Victorian box, and one Nichol's gum.

Of the 74 trees in the proposed development areas subject to removal, 14 of the trees qualify as protected trees. Nine trees have been preliminarily identified for preservation, including one protected tree. Impacts to protected trees are discussed in Section 4.2.3, Impact Discussion, below.

4.2.2 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standards and, therefore, are not discussed in this chapter.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community type.
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, their wildlife corridors, or nursery sites.
- Conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan.

Based on the Initial Study and comments received during the scoping process it was determined that the proposed project could result in a potentially significant impact to biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive or special-status species.
2. Conflict with any local ordinances or policies protecting biological resources.

4.2.3 IMPACT DISCUSSION

BIO-1	**The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive, or special-status species.**

Nesting Birds

As stated above in the existing conditions discussion, there are no known occurrences of special-status plant or animal species and no suitable habitat for such species on the project site, but there is a possibility that birds that are protected by the MBTA and CFG Code could nest in trees and other landscaping on the project site. However, no essential habitat for these or other special-status species is present on the site due to its developed condition. Mitigation Measure BIO-1 would be required for the proposed project to reduce impacts to a *less-than-significant* level.

Impact BIO-1: Tree removal and demolition activities during site clearance could destroy active nests, and/or otherwise interfere with nesting of birds protected under federal and State law.

Mitigation Measure BIO-1: Nests of raptors and other birds shall be protected when in active use, as required by the federal Migratory Bird Treaty Act and the California Fish and Game Code. The construction contractor shall indicate the following on all construction plans, if construction activities and any required tree removal occur during the breeding season (February 1 and August 31). Preconstruction surveys shall:

- Be conducted by a qualified biologist prior to tree removal or grading, demolition, or construction activities. Note that preconstruction surveys are not required for tree removal or construction, grading, or demolition activities outside the nesting period.
- Be conducted no more than 14 days prior to the start of tree removal or construction.
- Be repeated at 14-day intervals until construction has been initiated in the area after which surveys can be stopped.
- Document locations of active nests containing viable eggs or young birds.

Protective measures for active nests containing viable eggs or young birds shall be implemented under the direction of the qualified biologist until the nests no longer contain eggs or young birds. Protective measures shall include:

- Establishment of clearly delineated exclusion zones (i.e., demarcated by identifiable fencing, such as orange construction fencing or equivalent) around each nest location as determined by the qualified biologist, taking into account the species of birds nesting, their tolerance for disturbance and proximity to existing development. In general, exclusion zones shall be a minimum of 300 feet for raptors and 75 feet for passerines and other birds.

- Monitoring active nests within an exclusion zone on a weekly basis throughout the nesting season to identify signs of disturbance and confirm nesting status.
- An increase in the radius of an exclusion zone by the qualified biologist if project activities are determined to be adversely affecting the nesting birds. Exclusion zones may be reduced by the qualified biologist only in consultation with California Department of Fish and Wildlife.
- The protection measures shall remain in effect until the young have left the nest and are foraging independently or the nest is no longer active.

Significance With Mitigation: Less than significant.

Bird Collision

Avian injury and mortality resulting from collisions with buildings, towers and other man-made structures is a common occurrence in city and suburban settings. Some birds are unable to detect and avoid glass and have difficulty distinguishing between actual objects and their reflected images, particularly when the glass is transparent and views through the structure are possible. Night-time lighting can interfere with movement patterns of some night-migrating birds, causing disorientation or attracting them to the light source. The frequency of bird collisions in a particular area is dependent on numerous factors, including: characteristics of building height, fenestration (the arrangement of windows and doors on the sides of a building), and exterior treatments of windows and their relationship to other buildings and vegetation in the area; local and migratory avian populations, their movement patterns, and proximity of water, food and other attractants, time of year; prevailing winds; weather conditions; and other variables.

The proposed mixed-use development would alter the physical characteristics of the site; however, this change is not expected to contribute to a substantial increase in the risk of local and migratory bird collisions. This is due to several reasons, including the fact that the surrounding area is already developed with urban structures of similar bulk and surface treatment. As discussed below, the proposed building materials would be non-reflective; and the proposed lighting would be low-level illumination with no up-lighting. In addition, the site is occupied by five existing structures, and, as under the existing conditions, most birds would likely acclimate to the presence of the new buildings once completed. Therefore, the potential risk of bird collision with the new buildings would be a less-than-significant impact.

There are design options to minimize the risk of bird collisions through the use of bird-safe design for window treatments, rooftop equipment, and night-time lighting. While any bird collisions that do occur should not have a substantial adverse effect on special-status bird species or more common bird species that may be flying through the vicinity, the applicant has committed to implementing bird-safe design measures in the new buildings, which would further address the low risk of collision. These design measures include the following:[6]

- Reduce large areas of transparent or reflective glass:

[6] Bird safe design element examples were provided in a letter from Steven Ohlhaber at C2K Architecture to the Gian Martire at the City of Cupertino dated July 5, 2019.

- The proposed project would be primarily solid wall buildings with punched and recessed windows to help reduce the overall visibility of windows.
- Residential windows areas would use mullions and/or muttons to divide overall window size.
- Balcony railings would be picket style with no reflective glass railings on the proposed project.
- The largest areas of glass are at the retail storefront level, where fritting or appliques and louvers and opaque spandrel panels at the tops of the retail storefront windows would be used to deter birds.
- Some of the primary retail storefront would be set back from the façade or in an arcade, reducing the view angle and visibility of these retail storefront windows to birds.
- The buildings would incorporate overhanging roofs and projecting balconies that shield windows from overhead flying birds.

- Avoid transparent glass skyways, walkways and entryways, as well as free-standing glass walls and transparent building corners.
  - There would be no glass skyways, walkways or large commercial glass style entryways, freestanding glass walls or transparent building corners in the design.
  - The largest areas of glass would be at the retail storefront level, where fritting or appliques may be used to deter birds and louvers or opaque spandrel panels at the tops of the storefront windows.
- Avoid the funneling of open space toward a building façade.
  - The project site plan would be open with no narrow, dead-end alley ways.
- Landscaping to reduce reflections and views of foliage through glass.
  - The townhome/ rowhome design of the proposed project would use primarily opaque walls, which would reduce the amount of any vegetation reflection.
  - The lowest windows of the townhome / rowhomes would be fitted with fritting, exterior shutters or translucent film as these are primarily garage windows. This would reduce ground level vegetation reflections in these windows without diminishing the living spaces.
  - Low reflectivity glass would be implemented on the store fronts to reduce vegetation reflectivity.
- Reduced or eliminated up-lighting and spotlights on buildings.
  - No up-lighting and/or spot lighting would be planned for the buildings or landscape.
  - The proposed project would use shielded, dark sky compliant fixtures for exterior lighting.
- Turning off-non-emergency lighting at night, especially during migration.
  - At the retail areas, reduced lighting at non-operating hours would be required for the commercial uses.

The location of the project site, the building design features, and selected materials were determined to adequately address the remote potential for special-status bird species dispersing through the site vicinity to collide with the new structure and be injured or killed. These measures would serve to minimize the potential for bird strikes through the use of bird-friendly design guidelines in the treatment of windows and other aspects of the proposed mixed-use building and would ensure any potential impact would be less than significant for special-status birds and more common bird species.

Significance Without Mitigation: Less than significant.

Roosting Bats

As described in the existing conditions, the recent CNDDB records search included occurrences of Townsend's big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), and Yuma myotis (*Myotis yumanensis*). These three species have no legal protected status under the federal or State Endangered Species Acts, but Townsend's big-eared bat is considered a Species of Special Concern by the CDFW. Bat species found in the Cupertino vicinity may forage and occasionally roost in the site vicinity, but suitable habitat conditions for maternity roots is absent from the site. The potential for any special-status bat species to be present on the site is considered highly remote, given the urbanization of the site vicinity and intensity of human activity, which typically discourages possible occupation by special-status bats. Accordingly, the construction and operation of the proposed project would not result in the inadvertent loss of any bats and impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

BIO-2 The proposed project would not conflict with a local ordinances or policies protecting biological resources.

As described below, the proposed project would not conflict with any relevant goals and policies in the General Plan related to protection of biological resources:

- Policy ES-5.1 encourages the management of public and private development, specifically landscaping and the built environment, to ensure the protection and enhancement of its urban ecosystem. The proposed project would include planting approximately 400 trees on-site, 87,846 square feet of landscaping, and 10,320 square feet of bioretention areas, which would enhance urban ecosystem while also providing stormwater treatment that is beneficial to the environment.
- Policy ES-5.2 encourages the clustering of new development away from sensitive areas such as riparian corridors, wildlife habitat and corridors, public open space preserves and ridgelines. The proposed project would be located in an infill, urban area, which does not contain any sensitive habitat of special concern.
- Policy ES-5.3 calls for the preservation and enhancement of existing natural vegetation, landscape features, and open space when new development is preserved in existing natural areas. As described above, the project site currently contains open space and vegetated areas, but these areas are currently landscaped and are not in their natural state. The project site is previously disturbed, is developed for private use, and is located within an urban area; therefore, it does not serve as a natural open space area. The project site would provide landscaping throughout the project site's interior and the surrounding perimeter and would comply with City's Landscape Ordinance (CMC Chapter 14.15). Proposed landscaping would be consistent with the Northern California landscape and would include native and/or adaptive, and drought resistant plant materials. The majority of plantings would be drought tolerant groundcovers and shrubs, once established, would be adapted to a dry summer and intermittent rain in the winter season.
- Policy ES-5.6 calls for open space linkages within and between properties, most specifically to benefit threatened or endangered wildlife and species of concern. As described under impact discussion BIO-

1, the project site is not recorded as containing any special-status wildlife species. In addition, the project site is currently developed and located in an urban area. The proposed project would also include approximately 400 new trees that would support the ongoing movement of migratory birds as under current conditions. Therefore, redevelopment of the project site is would not disrupt any important wildlife linkages.

CMC Chapter 14.18, Protected Trees Ordinance, provides regulations for the protection, preservation, and maintenance of trees of certain species and sizes. As previously described under the existing conditions section, the Arborist Report prepared for the proposed project identified 14 trees that are proposed for removal that qualify as *Specimen* trees pursuant to the Protected Trees Ordinance. Specimen trees that would be removed as part of the proposed project including their species, size, condition and preservation suitability rating are listed in Table 4.2-2.

TABLE 4.2-2 PROTECTED TREES TO BE REMOVED BY THE PROPOSED PROJECT

Arborist Report Tree No.	Species	Trunk Diameter (inches)	Condition Poor/Fair/Good[a]	Suitability for Preservation (Low/Moderate/High)[b]
1	Coast live oak	39	4	Moderate
2	Coast live oak	16	4	Moderate
3	Coast live oak	21	3	Moderate
4	Coast live oak	51	4	Moderate
5	Coast live oak	11	4	Moderate
6	Coast live oak	34	4	Moderate
7	Coast live oak	15	3	Moderate
8	Coast live oak	22	2	Moderate
16	Coast live oak	23	4	Moderate
17	Coast live oak	13	3	Low
18	Coast live oak	49	4	Low
19	Coast live oak	29	4	Low
22	Coast live oak	11, 10, 10	4	Moderate
30	Coast live oak	28, 21	4	Moderate

Notes:
a. Tree Condition Ratings:
Good Condition:
5: A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species;
4*:* Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
Fair Condition:
3: Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
Poor Condition:
2: Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated;
1: Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
b. Tree Preservation Rating:
High Suitability: Trees with good health and structural stability that have the potential for longevity at the site;

TABLE 4.2-2 PROTECTED TREES TO BE REMOVED BY THE PROPOSED PROJECT

Arborist Report Tree No.	Species	Trunk Diameter (inches)	Condition Poor/Fair/Good[a]	Suitability for Preservation (Low/Moderate/High)[b]

Moderate Suitability: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category;
Low Suitability: Tree in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.
Source: HortScience, 2018, *Preliminary Arborist Report*, *The Oaks Shopping Center Cupertino,* CA, Tree Assessment table.

Removal of a protected tree is permitted by the City, with approval of a tree removal permit. In some circumstances, the City requires tree management plans and tree replacement. The removal of trees protected under the City's Protected Trees Ordinance is considered a *significant* impact.

Impact BIO-2: Proposed development would result in removal of trees protected under City ordinance.

Mitigation Measure BIO-2: The proposed project shall comply with the City of Cupertino's Protected Trees Ordinance (Cupertino Municipal Code Section 14.18). A tree removal permit shall be obtained for the removal of any "protected tree," and replacement plantings shall be provided as approved by the City. If permitted, an appropriate in-lieu tree replacement fee may be paid to the City of Cupertino's Tree Fund as compensation for "protected trees" removed by the proposed project, where sufficient land area is not available on-site for adequate replacement and when approved by the City.

In addition, a Tree Protection and Replacement Program (Program) shall be developed by a Certified Arborist prior to project approval and implemented during project construction to provide for adequate protection and replacement of "protected trees," as defined by the City's Municipal Code. The Program shall include the following provisions:

- Adequate measures shall be defined to protect all trees to be preserved. These measures should include the establishment of a tree protection zone (TPZ) around each tree to be preserved, in which no disturbance is permitted. For design purposes, the TPZ shall be located at the dripline of the tree or 10 feet, whichever is greater. If necessary, the TPZ for construction-tolerant species (i.e., coast live oaks) may be reduced to 7 feet.
- Temporary construction fencing shall be installed at the perimeter of TPZs prior to demolition, grubbing, or grading. Fences shall be 6-foot chain link or equivalent, as approved by the City of Cupertino. Fences shall remain until all construction is completed. Fences shall not be relocated or removed without permission from the consulting arborist.
- No grading, excavation, or storage of materials shall be permitted within TPZs. Construction trailers, traffic, and storage areas shall remain outside fenced areas at all times. No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within he TPZ.
- Underground services including utilities, sub-drains, water or sewer shall be routed around the TPZ. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury. Irrigation systems must be designed so that no trenching will occur within the TPZ.

- Construction activities associated with structures and underground features to be removed within the TPZ shall use the smallest equipment and operate from outside the TPZ. The consulting arborist shall be on-site during all operations within the TPZ to monitor demolition activity.
- All grading, improvement plans, and construction plans shall clearly indicate trees proposed to be removed, altered, or otherwise affected by development construction. The tree information on grading and development plans should indicate the number, size, species, assigned tree number, and location of the dripline of all trees that are to be retained/preserved. All plans shall also include tree preservation guidelines prepared by the consulting arborist.
- The demolition contractor shall meet with the consulting arborist before beginning work to discuss work procedures and tree protection. Prior to beginning work, the contractor(s) working in the vicinity of trees to be preserved shall be required to meet with the consulting arborist at the site to review all work procedures, access routes, storage areas, and tree protection measures.
- All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved. Any grading, construction, demolition or other work that is expected to encounter tree roots shall be monitored by the consulting arborist. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied.
- Any plan changes affecting trees shall be reviewed by the consulting arborist with regard to tree impacts. These include, but are not limited to, site improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans, and demolition plans.
- Trees to be preserved may require pruning to provide construction clearance. All pruning shall be completed by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the 2002 Best Management Practices for Pruning published by the International Society of Arboriculture, and adhere to the most recent editions of the American National Standard for Tree Care Operations (Section Z133.1) and Pruning (Section A300).
- Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the consulting arborist.
- Any demolition or excavation, such as grading, pad preparation, excavation, and trenching, within the dripline or other work that is expected to encounter tree roots should be approved and monitored by the consulting arborist. Any root pruning required for construction purposes shall receive prior approval of, and by supervised by, the consulting arborist. Roots shall be cut by manually digging a trench and cutting exposed roots with a sharp saw.
- Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Tree stumps shall be ground 12 inches below ground surface.
- All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Game Code Sections 3503 through 3513 to not disturb nesting birds. To the extent feasible, tree

pruning, and removal shall be scheduled outside of the breeding season. Breeding bird surveys shall be conducted prior to tree work. Qualified biologists shall be involved in establishing work buffers for active nests. (see Mitigation Measure BIO-1)

- The vertical and horizontal locations of all the trees identified for preservation shall be established and plotted on all plans. These plans shall be forwards to the consulting arborist for review and comment.
- Foundations, footings, and pavements on expansive soils near trees shall be designed to withstand differential displacement to protect the soil surrounding the tree roots.
- Any liming within 50 feet of any tree shall be prohibited, as lime is toxic to tree roots. Any herbicides placed under paving materials shall be safe for use under trees and labeled for that use.
- Brush from pruning and trees removal operations shall be chipped and spread beneath the trees within the TPZ. Mulch shall be between 2 inches and 4 inches in depth and kept at a minimum of 3 feet from the base of the trees.
- All recommendations for tree preservation made by the applicant's consulting arborist shall be followed.

Significance With Mitigation: Less than significant.

4.2.4 CUMULATIVE IMPACTS

BIO-3	**The proposed project in combination with past, present, and reasonably foreseeable projects, would/would not result in significant cumulative impacts with respect to biological resources.**

The geographic scope of the cumulative analysis for biological resources considers the surrounding incorporated and unincorporated lands, and the region. The potential impacts of proposed development on biological resources tend to be site-specific, and the overall cumulative effect would be dependent on the degree to which significant vegetation and wildlife resources are protected on a particular site. At the same time, cumulative development can contribute incrementally to regionwide impacts, such as reductions in the amount of existing wildlife habitat, particularly for birds and larger mammals. As discussed in Chapter 4, Environmental Evaluation, the cumulative development projects within the city are located in urbanized areas of the city and contain limited biological resource value. Redevelopment and infill projects, including those in built-out urban areas, would remove vegetation that could be used for nesting by birds protected under various laws and would remove buildings and trees that could be used for roosting by sensitive bat species. However, these development projects would be required to comply with the federal Migratory Bird Treaty Act and the CFG Code, which require pre-construction surveys and protective measures for active nests. Furthermore, cumulative projects would be required to obtain a tree removal permit and adhere to the tree removal requirements for protected trees under CMC Chapter 14.18, Protected Trees.

As described above, the CNDDB has no record of special-status plant or animal species on the project site or urbanized areas surrounding the project site. The project site is previously disturbed, is developed for private use, and is located within an urban area; therefore, it does not serve as a wildlife corridor. Potential impacts to nesting birds and the removal of protected trees would be mitigated to less-than-significant levels through the implementation of Mitigation Measure BIO-1 and BIO-2, respectively. Given the relatively low natural resource quality of the project site and the project's mitigation of on-site impacts to less-than-significant levels, the proposed project would result in a *less-than-significant* cumulative impact on biological resources.

Significance With Mitigation: Less than significant.

4.3 CULTURAL AND TRIBAL CULTURAL RESOURCES

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to historical resources defined in CEQA Guidelines Section 15064.5 with respect to historic buildings. Therefore, this chapter includes an evaluation of the potential environmental consequences to archeological resources defined in CEQA Guidelines Section 15064.5 and Tribal Cultural Resources (TCR) as defined under Assembly Bill 52 (AB 52). This chapter also describes the environmental setting, including regulatory framework and existing cultural resources on the project site, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

This section summarizes the existing State regulations that apply to cultural resources. There are no federal, regional, or local policies or regulations regarding this subject.

California Environmental Quality Act

Public Resources Code Section 21083.2 provides for protection of unique archaeological resources. Preservation of unique archaeological sites is the preferred treatment (21083.2[b]); however, if sites are not be preserved in place, mitigation measures shall be required as provided in 21083.2(c).

Public Resources Code Section 21084.1 addresses the issue of historical resources, which includes prehistoric Native American resources, historical-era archaeological deposits, buildings, structures, objects, and districts. Historical resources are defined as resources that are listed in or determined to be eligible for listing in the California Register of Historical Resources. It also includes resources included in a local register of historical resources or otherwise determined to be historically significant under Public Resources Code Section 5024.1.

CEQA Guidelines Section 15064.5 states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines define four ways that a property can qualify as a historical resource for purposes of CEQA compliance:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.
- The resource is included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- The lead agency determines the resource to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record.
- The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines Section 15064.5) which means, in part, that it may be eligible for the California Register.

Public Resources Code Section 21083.2 and CEQA Guidelines Sections 15064.5(c), 15064(f), and 15126.4(b) specify lead agency responsibilities to determine whether a project may have a significant effect on unique archaeological resources. If it can be demonstrated that a project will damage a unique archaeological resource, the lead agency may require reasonable efforts for the resources to be preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also details required mitigation if unique archaeological resources are not preserved in place.

CEQA Guidelines Section 15064.5(d) and (e) specify procedures to be used in the event of a discovery of Native American human remains on non-federal land. Section 15064.5(d) addresses procedures when an initial study identifies the existence or probable likelihood of Native American human remains within a project area. Section 15064.5(e) provides guidance for accidental discovery of any human remains after a project is already under way. These provisions protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to identify the Most Likely Descendant (MLD) and mediate any disputes regarding disposition of such remains.

Health and Safety Code Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disinterment of remains known to be human, without authority of law, is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Assembly Bill 52

Assembly Bill 52 (AB 52), which took effect on July 1, 2015, amends CEQA and adds standards of significance that relate to Native American consultation and the protection of TCR under CEQA.

Projects subject to AB 52 are those that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration on or after July 1, 2015. As of July 1, 2016, the Governor's Office of Planning and Research (OPR) developed guidelines and the Native American Heritage Commission (NAHC) informed tribes which agencies are in their traditional area. In response to these guidelines, a discussion of impacts to TCRs has been added to Section 4.3.2, Thresholds of Significance, further in this chapter. A TCR is defined under AB 52 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register

of Historic Resources or included a local register of historical resources, or if the City, acting as the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.

AB 52 requires the CEQA lead agency to begin consultation with a California Native American Tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the Tribe requests in writing to be informed by the lead agency through formal notification of the proposed projects in the area. The consultation is required before the determination of whether a negative declaration, mitigated negative declaration, or EIR is required. In addition, AB 52 includes time limits for certain responses regarding consultation. CEQA Section 21084.3 has been added, which states that "public agencies shall, when feasible, avoid damaging effects to any tribal cultural resources." Information shared by tribes as a result of AB 52 consultation shall be documented in a confidential file, as necessary, and made part of a lead agencies administrative record.[1]

Public Resources Code Section 5097

Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on non-federal public lands. The disposition of Native American burials falls within the jurisdiction of the NAHC, which prohibits willfully damaging any historical or archaeological site or feature on public lands.

4.3.1.2 EXISTING CONDITIONS

This section provides an overview of the history of Cupertino and archeological and historically significant resources that may be affected by the proposed project.

Methods

The cultural resources analysis conducted by Tom Origer & Associates on July 24, 2013 for the General Plan Update EIR consists of archival research at the Northwest Information Center at Sonoma State University, examination of the library and files, field inspection, and contact with the Native American community.[2]

Records searches were conducted to identify cultural resources within the city. Records searches were conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, Rohnert Park; and the California NAHC, Sacramento. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resources records and reports for Santa Clara County. The NAHC maintains the Sacred Lands File, which includes the locations of sites with cultural significance to Native American groups.

[1] California Public Resources Code, Section 21074.

[2] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015). See Chapter 4.4, Cultural Resources.

As part of the records search, the following State and local inventories were reviewed for cultural resources:

- California Inventory of Historic Resources;
- California Historical Landmarks;
- California Points of Historical Interest;
- Directory of Properties in the Historic Property Data File. The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest; and
- Cupertino General Plan.

Publications, maps, historical aerial photographs, including an examination of the library and project files at Tom Origer & Associates, and internet sites were reviewed for archaeological, ethnographic, and historical information about the proposed project site and its vicinity. The purpose of this review was to identify known cultural resources within the city and its surroundings.

Historical Overview

This section describes the prehistory, ethnography, and history of Cupertino as determined by the records searches and literature described above.

Prehistory and Ethnography

Archaeological evidence indicates that human occupation of California began at least 12,000 years ago. Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on extended family units. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears coeval with the development of sedentism,[3] population growth, and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

At the time of European settlement, the Cupertino area was situated within the area controlled by the Tamyen linguistic group of the Ohlone/Costanoan, near the linguistic boundary with the Ramaytush group. The Ohlone/Costanoan hunter-gatherers lived in rich environments that allowed for dense populations with complex social structures.[4] They settled in large, permanent villages about which were distributed seasonal camps and task-specific sites. Primary village sites were occupied throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites often were situated near fresh water sources and in ecotones where plant life and animal life were diverse and abundant.

[3] Sedentism means the transition from a nomadic lifestyle to a society which remains in one place.

[4] Barrett, S, 1908, The Ethno-Geography of the Pomo and Neighboring Indians. University of California Publications in American Archaeology and Ethnology Vol. 6, No. 1. University of California Press, Berkeley.

Kroeber, A, 1925, Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C.

General History

Colonel Juan Bautista de Anza's party passed through the arroyo of San Joseph de Cupertino during exploration in March of 1776. One year later, the first Christian baptisms began in the Santa Clara Valley. Despite rampant disease and humiliation, recruitment escalated at the missions of the San Francisco Bay area. By the end of 1795, all of the Tamyen/Tamien villages had been abandoned and their former inhabitants baptized.

During the 19th century, the area was planted with vineyards and orchards by early European settlers and flourished well enough to draw more settlers to the area. Due to French and European vineyards failing in the late 1870s by *phylloxera*, California vineyards and wines did well, leading small communities to have wide-scale development and expansion. By the 1890s, *phylloxera* had spread from Europe, and the community shifted toward more fruit production.

Before the community at the crossroads of Stevens Creek Road and Saratoga-Sunnyvale Road (De Anza Boulevard) changed their name to Cupertino in 1904, it was known simply as West Side. 'Cupertino' was taken from John T. Doyle's naming his winery Cupertino after the name given to the nearby creek by Petrus Font during De Anza's 1776 expedition.

By the 1920s, Cupertino had a population of about 500, and development of the area centered around the agricultural economy, with a focus on wineries, canneries, and fruit drying and packing facilities. The Permanente Corporation was formed in 1939 to provide cement for the construction of Shasta Dam, with a huge plant and quarry just west of Cupertino. During the war, the plant also made record shipments of cement to the Pacific theatres. As the gateway to the Pacific theatre, the San Francisco Bay area experienced a post-war population boom, which in turn created a need for urban planning. In 1955, Cupertino was incorporated as Santa Clara County's 13th city in part to combat the annexation encroachment by the surrounding cities of Santa Clara, San José, Sunnyvale, and Los Altos.

In the 1960s, Cupertino transitioned from farming to industry and commercial expansion. This transition was done in anticipation, rather than as a reaction. One early successful example of this is the coalition of families that created Vallco park, which currently includes the Vallco Fashion Park.

Today, Cupertino is part of Silicon Valley, a world-renowned high-technology center and is home to many companies at the forefront of innovation.

Project Site Conditions

As stated above, no known cultural resources (i.e., archeological or historical architectural resources) are located on the site. However, development at the project site was completed between 1973 and 1976,[5] which is within the 45-year age limit established by the State Office of Historic Preservation (OHP) for buildings that may be of historical value.[6] The existing buildings are not associated with significant cultural

[5] EBI Consulting, March 4, 2007, Phase I Environmental Site Characterization, The Oaks Shopping Center.
[6] Public Resources Code Section 5024.1

events or persons in California's past, and do not have any distinctive historical characteristics, and therefore do not have any qualifying historical value.

Known cultural resources within 1 mile of the project site are the Le Petit Trianon at 21250 Stevens Creek Boulevard, the Gazebo Trim at Memorial Park, Memorial Park, Community Center, Sports Complex, and Engles Grocery "Paul and Eddie's" at 21619 Stevens Creek Boulevard.

Tribal Cultural Resources

The City of Cupertino has not received a request from any Tribes in the geographic area with which it is traditionally and culturally affiliated to be notified about projects in the city nor has the City received any requests for consultation pursuant to CEQA Section 21080.3.1.

4.3.2 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standard and, therefore, is not discussed in this chapter.

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Based on the Initial Study and comments received during the scoping process it was determined that the proposed project could result in a potentially significant cultural and tribal cultural resource impact if it would:

1. Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5.
2. Disturb any human remains, including those interred outside of formal cemeteries.
3. Cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance to a California Native American tribe.

4.3.3 IMPACT DISCUSSION

CULT-1 The proposed project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5.

Historical and pre-contact archaeological deposits that meet the definition of historical resource under CEQA section 21084.1 or CEQA Guidelines section 15064.5 could be present at the project site and could be damaged or destroyed by ground-disturbing construction activities (e.g., site preparation, grading, excavation, and trenching for utilities) associated with development allowed under the proposed project. Should this occur, the ability of the deposits to convey their significance, either as containing information about prehistory or history, or as possessing traditional or cultural significance to Native American or other descendant communities, would be materially impaired.

A cultural resources study was prepared for the General Plan EIR.[7] The cultural resources study did not identify any known archeological deposits on the project site. The environmental setting of the project location and the surrounding area have not changed since the preparation of the General Plan EIR. Nonetheless, as discussed in the General Plan EIR, while the site is already a developed site, it could still contain subsurface archeological deposits, including unrecorded Native American prehistoric archeological materials. Therefore, any project-related ground-disturbing activities have the potential to affect subsurface prehistoric archaeological resources that may be present, and impacts could be *potentially significant*.

Impact CULT-1: Construction of the proposed project would have the potential to cause a significant impact to an unknown archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Mitigation Measure CULT-1: If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing (including grading, demolition and/or construction) activities:

- All work within 50 feet of the resources shall be halted, the City shall be notified, and a qualified archaeologist shall be consulted. The contractor shall cooperate in the recovery of the materials. Work may proceed on other parts of the project site while mitigation for tribal cultural resources, historical resources or unique archaeological resources is being carried out.
- The qualified archaeologist shall prepare a report for the evaluation of the resource to the California Register of Historical Places and the City Building Department. The report shall also include appropriate recommendations regarding the significance of the find and appropriate mitigations as follows:
  - If the resource is a non-tribal resource, the archaeologist shall assess the significance of the find according to CEQA Guidelines Section 15064.5.

[7] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

- If the resource is a tribal resource – whether historic or prehistoric – the consulting archaeologist shall consult with the appropriate tribe(s) to evaluate the significance of the resource and to recommend appropriate and feasible avoidance, testing, preservation or mitigation measures, in light of factors such as the significance of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be implemented.

- All significant non-tribal cultural materials recovered shall be, as necessary, and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards.

Significance With Mitigation: Less than significant.

CULT-2 The proposed project would not disturb any human remains, including those interred outside of formal cemeteries.

There are no known human remains on the project site; however, the potential to unearth unknown remains during ground disturbing activities associated with the construction of the proposed project could occur. Descendant communities may ascribe religious or cultural significance to such remains and may view their disturbance as an unmitigable impact. Any human remains encountered during ground-disturbing activities associated with the proposed project would be subject to federal, State, and local regulations to ensure no adverse impacts to human remains would occur in the unlikely event human remains are found.

Health and Safety Code Section 7050.5 and the CEQA Guidelines Section 15064.5(e) contain the mandated procedures of conduct following the discovery of human remains. According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Santa Clara County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours, who would, in turn, notify the person the Native American Heritage Commission identifies as the Most Likely Descendant of any human remains. Further actions shall be determined, in part, by the desires of the Most Likely Descendant. The Most Likely Descendant has 48 hours to make recommendations or preferences regarding the disposition of the remains following allowed access to the project site. If the Most Likely Descendant does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the Most Likely Descendant's recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission.

Therefore, with the mandatory regulatory procedures described above, potential impacts related to the potential discovery or disturbance of any human remains accidently unearthed during construction activities associated with the proposed project would be *less than significant*.

Significance Without Mitigation: Less than significant.

CULT-3	**The proposed project would not cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance to a California Native American tribe.**

As discussed under Impacts CULT-1 and CULT-2, no known archeological resources, ethnographic sites, or Native American remains are located on the project site or the location of the off-site construction employee parking and equipment staging area. However, as discussed under Impact CULT-1, the project site could contain undiscovered subsurface archaeological deposits, including unrecorded Native American prehistoric archaeological materials. In addition, as discussed under impact discussion CULT-2, ground-disturbing activities associated with the proposed project have the potential to unearth unknown human remains. Therefore, although no known tribal cultural resources have been identified on the project site, the proposed project has the potential to disturb subsurface deposits possessing traditional or cultural significance to Native American or other descendant communities. This is considered a *potentially significant* impact.

Impact CULT-3: Construction of the proposed project would have the potential to cause a significant impact to an unknown tribal cultural resource as defined in Public Resources Code 21074.

Mitigation Measure CULT-3: Implement Mitigation Measure CULT-1.

Significance With Mitigation: Less than significant.

4.3.4 CUMULATIVE IMPACTS

CULT-4	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in cumulative impacts with respect to cultural resources.**

Development of the proposed project, in conjunction with buildout of the city and the region, has the potential to adversely affect archeological resources, human remains, and tribal cultural resources through their destruction or disturbance during ground-disturbing activities. Impacts to cultural resources tend to be site specific and are assessed on a site-by-site basis. The significance of the impacts would depend largely on what, if any, cultural resources occur on or near the sites of related projects that are developed in the cumulative setting. Similar to the proposed project, such determinations would be made on a case-by-case basis and, if necessary, the applicants of the related projects would be required to comply with applicable federal, State, and local regulations and implement appropriate mitigation measures. Development of the proposed project would comply with federal and State laws protecting cultural resources. Implementation of Mitigation Measures CULT-1 and CULT-3 identified above would ensure that archaeological resources, if discovered on the project site, are protected and that discovered human remains, and tribal cultural resources are handled appropriately. Thus, given that the proposed project's cultural resources impacts are less-than-significant with mitigation, the proposed project's impacts to cultural resources would not be cumulatively considerable. Therefore, cumulative impacts to cultural resources would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.4 GEOLOGY AND SOILS

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to fault ruptures, liquefaction, lateral spreading, soil erosion, soil expansion, or soil instability. Therefore, this chapter includes an evaluation of the potential environmental consequences associated with paleontological resources. This chapter also describes the environmental setting, including regulatory framework and existing paleontological resources on the project site, and identifies mitigation measures that would avoid or reduce significant impacts.

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

This section summarizes the existing State regulations that apply to paleontological resources. There are no federal, regional, or local policies or regulations regarding this subject.

California Environmental Quality Act

Paleontological resources are afforded protection under CEQA. The Society of Vertebrate Paleontology has set significance criteria for paleontological resources.[1] Most practicing professional vertebrate paleontologists adhere closely to the Society of Vertebrate Paleontology's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most State regulatory agencies with paleontological laws, ordinances, regulations, and standards accept and use the professional standards set forth by the Society of Vertebrate Paleontology.

Public Resources Code Section 5097

Public Resources Code (PRC) Section 5097.5 prohibits the removal of any paleontological site or feature from public lands without the permission of the jurisdictional agency.

Penal Code Section 622.5

The California Penal Code Section 622.5 establishes the penalties for damage or removal of paleontological resources.

[1] Society of Vertebrate Paleontology, 2010, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology. Impact Mitigation Guidelines Revision Committee.

4.4.1.2 ENVIRONMENTAL SETTING

Geological Setting

As described in the Initial Study prepared for the proposed project and included in Appendix A of this Draft EIR, a Preliminary Geotechnical Investigation dated January 1, 2014 was prepared for the proposed project by Langan Treadwell Rollo.[2] The following describes the existing conditions on the project site with respect to geology and soil.

- Geology. The City of Cupertino lies in the west-central part of the Santa Clara Valley, a broad, mostly flat alluvial plain that extends southward from San Francisco Bay. These alluvial fan deposits are typically coarse grained with large amounts of gravel deposits. The surficial geology is described as young, unconsolidated Quaternary alluvium. The site is generally flat with elevation ranging from 290 to 300 feet above mean sea level.
- Soils. This analysis uses web-accessible soil mapping data compiled by the United States Department of Agriculture's Soil Conservation Survey and the California Soil Resource Laboratory hosted by University of California at Davis to identify the major soil types on the project site. The predominant soil types for the project site are soils of the Urban Land-Flaskan and Urban Land-Botella complexes generally formed on slopes of 0 to 2 percent. In almost all instances, these soils are reportedly deep and well drained, and are typified by low runoff. Additionally, surface material encountered in the borings conducted as part of the Preliminary Geotechnical Investigation consists of 3.5 to 6 inches of asphalt concrete (AC) and aggregate base (AB). Beneath the pavement section, the upper 2.5 to 6.5 feet consists of very dense sand with clay and gravel and hard sandy clay with varying amounts of gravel. Below these depths are medium dense to very dense sand and gravel layers with varying amounts of silt and clay interbedded with 3.5 to 7 feet thick layers of very stiff to hard sandy clay, sandy clay with gravel, and clay with gravel to the maximum explored depth of 46.5 feet.

Unique geologic features are those that are unique to the field of geology. Each rock unit tells a story of the natural processes operating at the time it was formed. The rocks and geologic formations exposed at the earth's surface or revealed by drilling and excavation are our only record of that geologic history. What makes a geologic unit or feature unique can vary considerably. For example, a geologic feature may be considered unique if it is the best example of its kind and has distinctive characteristics of a geologic principle that is exclusive locally or regionally, is a key piece of geologic information important to geologic history, contains a mineral that is not known to occur elsewhere in the County, or is used as a teaching tool.

Unique geological features are not common in Cupertino. The geologic processes are generally the same as those in other parts of the state, country, and even the world. The geology and soils on the project site are common throughout the city and region and are not considered to be unique.

[2] Langan Treadwell Rollo, 2014, Preliminary Geotechnical Investigation, The Oaks 21255 Stevens Creek Boulevard Cupertino, California, January 1, 2014.

Paleontological Setting

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), microscopic plants and animals (microfossils), and trace fossils (footprints, burrows, etc.). Fossils are preserved in sedimentary rocks, which are the most abundant rock type exposed at the surface of the earth. Despite the abundance of these rocks, and the vast numbers of organisms that have lived through time, preservation of plant or animal remains as fossils is a rare occurrence. In many cases, fossils of animals and plants occur only in limited areas and in small numbers relative to the distribution of the living organisms they represent. The Society of Vertebrate Paleontology defines a significant fossil resource as, "identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)."[3]

A review of the University of California's Museum of Paleontology's fossil locality database was conducted for the City of Cupertino during the General Plan update process for the current Community Vision 2015-2040.[4] No paleontological resources have been identified on the project site; however, the presence of Pleistocene deposits that are known to contain fossils indicates that overall the city could contain paleontological resources.

4.4.2 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received, it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standards and therefore, are not discussed in this chapter.

- Directly or indirectly cause potential substantial adverse effects including the risk of loss, injury or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides, mudslides or other similar hazards.
- Result in substantial soil erosion or the loss of topsoil.

[3] Society of Vertebrate Paleontology, 2010*, Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources,* page 11. Society of Vertebrate Paleontology. Impact Mitigation Guidelines Revision Committee.

[4] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

- 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 by Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Based on the Initial Study it was determined that the proposed project could result in a potentially significant impact related to geology and soils if it would:

1. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.4.3 IMPACT DISCUSSION

GEO-1 The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As discussed above in existing conditions, the geology and soils on the project site are common throughout the city and region and are not considered to be unique. While no paleontological resources have been identified within the project location, because the proposed project requires substantial excavation that could reach significant depths below the ground surface where no such excavation has previously occurred, there could be fossils of potential scientific significance that have not been recorded. Such ground-disturbing construction associated with development of the proposed project, specifically the excavation of the subterranean parking facilities, could cause damage to, or destruction of, unique paleontological resources. This is considered a *potentially significant* impact.

Impact GEO-1: Construction of the proposed project would have the potential to directly or indirectly affect an unknown unique paleontological resource.

Mitigation Measure GEO-1: The construction contractor shall incorporate the following in all grading, demolition, and construction plans:

- In the event that fossils or fossil-bearing deposits are discovered during grading, demolition, or building, excavations within 50 feet of the find shall be temporarily halted or diverted.
- The contractor shall notify the City of Cupertino Building Department and a City-approved qualified paleontologist to examine the discovery.
- The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5.
- The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find.

- If the project applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the proposed project based on the qualities that make the resource important. The excavation plan shall be submitted to the City for review and approval prior to implementation.

Significance With Mitigation: Less than significant.

4.4.4 CUMULATIVE IMPACTS

GEO-2	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to geology and soils.**

Development under the proposed project, in conjunction with buildout of the city and the region, has the potential to adversely affect unique paleontological resources through their destruction or disturbance during ground-disturbing activities. Impacts to paleontological resources tend to be site specific and are assessed on a site-by-site basis. The significance of the impacts would depend largely on what, if any, paleontological resources occur on or near the sites of the related projects that are developed in the cumulative setting. Similar to the proposed project, such determinations would be made on a case-by-case basis and, if necessary, the applicants of the related projects would be required to comply with applicable federal, State, and local regulations and implement appropriate mitigation measures. Development of the proposed project would comply with federal and State laws protecting paleontological resources. Implementation of Mitigation Measures GEO-1 identified above would ensure that paleontological resources, if discovered on the project site, are protected. Thus, given that the proposed project's paleontological resources impacts are less than significant with mitigation, the proposed project's impacts to geology and soils would not be cumulatively considerable. Therefore, cumulative impacts to geology and soils would be *less than significant*.

Significance With Mitigation: Less than significant.

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4.5 GREENHOUSE GAS EMISSIONS

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that construction and operation of the proposed project could potentially generate greenhouse gas (GHG) emissions that may have a significant effect on the environment and conflict with an applicable GHG plan. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, would not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, the GHG chapter measures the proposed project's contribution to this cumulative impact.

The analysis in this chapter is based in part on the *Greenhouse Gas Emissions Assessment for the proposed Westport Project, in the City of Cupertino, California*, prepared by Kimley-Horn and Associates, and peer reviewed by PlaceWorks, in July 2019. A complete copy of this GHG study is included in Appendix E, Greenhouse Gas Emissions Assessment, of this Draft EIR. A third-party peer review of this report was completed by PlaceWorks.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 GREENHOUSE GASES AND CLIMATE CHANGE

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming.

Table 4.5-1 describes the primary GHGs attributed to global climate change, including their physical properties.

TABLE 4.5-1 DESCRIPTION OF GREENHOUSE GASES

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is

TABLE 4.5-1 DESCRIPTION OF GREENHOUSE GASES

Greenhouse Gas	Description
	approximately 120 years. The Global Warming Potential of N_2O is 298.
Methane (CH_4)	Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of Chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF_6 is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.

Source: Compiled from Unites States Environmental Protection Agency (USEPA), *Overview of Greenhouse Gases*, April 11, 2018. (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; IPCC *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

4.5.1.2 REGULATORY FRAMEWORK

This section summarizes key federal, State and local regulations and programs related to GHG emissions resulting from the proposed project.

Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions

reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007, among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

United States Environmental Protection Agency Endangerment Finding

The United States Environmental Protection Agency (USEPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The U.S. Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the U.S. Supreme Court's ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence, the USEPA found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the U.S. Supreme Court's interpretation of the Clean Air Act and the USEPA's assessment of the scientific evidence that form the basis for the USEPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the USEPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008.

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010 the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 to 2016. In 2010, an Executive Memorandum directed the Department of Transportation, Department of Energy, USEPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 to 2025 light-duty vehicles. The proposed standards projected to achieve

163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

The final rule was adopted in 2012 for model years 2017 to 2021, and NHTSA intends to set standards for model years 2022 to 2025 in a future rulemaking. On January 12, 2017, the USEPA finalized its decision to maintain the current GHG emissions standards for model years 2022 to 2025 cars and light trucks. It should be noted that the USEPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 miles per gallon), canceling any future strengthening (currently 54.5 miles per gallon by 2026). In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 to 2018.

The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

State

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of carbon dioxide equivalents (CO_2e) in the world and produced 459 million gross metric tons of CO_2e in 2013. The transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The Legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the U.S. Some legislation, such as the landmark Assembly Bill 32 (AB 32) California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. The following describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 directed CARB to set a GHG emissions limit based on 1990 levels, to be

achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").[1] The Scoping Plan evaluates opportunities for sector-specific reductions; integrates early actions by CARB and the State Climate Action Team and additional GHG reduction measures by both entities; identifies additional measures to be pursued as regulations; and outlines the adopted role of a cap-and-trade program.[2] Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions limit)

Signed into law in September 2016, Senate Bill 32 (SB 32) codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). This bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030 and adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

2017 Scoping Plan Update

On December 14, 2017 CARB adopted a second update to the Scoping Plan. The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and, support the Clean Power Plan and other federal actions.

[1] CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

2 The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

Senate Bill 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

Assembly Bill 1493 (Pavley Regulations and Fuel Efficiency Standards)

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the USEPA's denial of an implementation waiver. The USEPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009 to 2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

Senate Bill 1078, SB 107, and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008 Executive Order S-14-08 was signed, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2, adopted on March 29, 2011, codifies the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07

Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

Executive Order S-14-08

Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent of energy to derive from renewable sources by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09

Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California Renewable Portfolio Standard program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMCO_2e$. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The

executive order also requires the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations

The appliance efficiency regulations (California Code of Regulations Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6), was first adopted in June 1977 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2016 Building Energy Efficiency Standards approved on January 19, 2016 went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and take effect on January 1, 2020. Under the 2019 standards, single family homes would be about 53 percent more energy efficient and nonresidential buildings would be about 30 percent more energy efficient than buildings under the 2016 standards.

Title 24 California Green Building Standards Code.

The California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics.

Regional

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

2017 Clean Air Plan

The 2017 *Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) provides a regional strategy to protect public health and reduce GHG emissions in the Bay Area. The 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that would put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040), includes policies that are relevant to the reduction of GHG emissions and applicable to the proposed project. The policies are identified in Chapter 5, Mobility; Chapter 6, Environmental Resources Sustainability; and Chapter 8, Infrastructure, of the General Plan and listed in Table 4.5-2.

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
Chapter 5, Mobility Element (M)	
Policy M-8.1	**Greenhouse Gas Emissions.** Promote transportation policies that help to reduce greenhouse gas emissions.
Policy M-8.2	**Land Use.** Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network and maintaining the desired levels of service for all modes of transportation.
Policy M-8.5	**Design of new developments.** Encourage new commercial developments to provide shared office facilities, cafeterias, daycare facilities, lunchrooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling or walking as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.
Policy M-8.6	**Alternative Fuel Charging Stations.** Develop a city-wide strategy to encourage the construction of a network of public and private alternative fuel vehicle charging/ fueling stations

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
Chapter 6, Environmental Resources and Sustainability (ES)	
Policy ES-1.1	**Principles of Sustainability.** Incorporate the principles of sustainability into Cupertino's planning, infrastructure and development process in order to improve the environment, reduce greenhouse gas emissions and meet the needs of the community without compromising the needs of future generations. ▪ **Strategy ES-1.1.1:** Climate Action Plan (CAP). Adopt, implement and maintain a Climate Action Plan to attain greenhouse gas emission targets consistent with state law and regional requirements. This qualified greenhouse gas emissions reduction plan, by BAAQMD's definition, will allow for future project CEQA streamlining and will identify measures to: • Reduce energy use through conservation and efficiency • Reduce fossil fuel use through multi-modal and alternative transportation • Maximize use of and, where feasible, install renewable energy resources • Increase citywide water conservation and recycled water use • Accelerate Resource Recovery through expanded recycling, composting, extended producer responsibility and procurement practices • Promote and incentivize each of those efforts to maximize community participation and impacts • Integrate multiple benefits of green infrastructure with climate resiliency and adaptation. ▪ **Strategy ES-1.1.2: CAP and Sustainability Strategies Implementation.** Periodically review and report on the effectiveness of the measures outlined in the CAP and the strategies in this Element. Institutionalize sustainability by developing a methodology to ensure all environmental, social and lifecycle costs are considered in project, program, policy and budget decisions. ▪ **Strategy ES-1.1.3: Climate Adaptation and Resiliency.** Conduct a climate vulnerability assessment and set preparedness goals and strategies to safeguard human health and community assets susceptible to the impacts of a changing climate (e.g., increased drought, wildfires, flooding). Incorporate these into all relevant plans, including the Emergency Preparedness Plan, Local Hazard Mitigation Plan, Dam Failure Plan, Climate Action Plan, Watershed Protection Plan, and Energy Assuredness Plan.
Policy ES-1.2	**Regional Growth and Transportation Coordination.** Coordinate with local and regional agencies to prepare updates to regional growth plans and strategies, including the Regional Housing Allocation Needs Allocation (RHNA), One Bay Area Plan, Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS). ▪ **Strategy ES-1.2.1 Local Plan Consistency with Regional Plans.** Update and maintain local plans and strategies so they are consistent with One Bay Area Plan to qualify for State transportation and project CEQA streamlining.
Policy ES-2.1	**Conservation and Efficient Use of Energy Resources.** Encourage the maximum feasible conservation and efficient use of electrical power and natural gas resources for new and existing residences, businesses, industrial and public uses.
Policy ES-3.1	**Green Building Design.** Set standards for the design and construction of energy and resource conserving/efficient building.
Chapter 8, Infrastructure (INF)	
Policy INF-4.13	**Energy and Water Conservation**. Encourage energy and water conservation in all existing and new residential development. ▪ Strategy 1. Enforcement of Title 24. The City will continue to enforce Title 24 requirements for energy conservation and will evaluate utilizing some of the other suggestions as identified in the Environmental Resources/ Sustainability element. ▪ Strategy 2. Sustainable Practices. The City will continue to implement the Landscape Ordinance for water conservation and the Green Building Ordinance that applies primarily to new residential and nonresidential development, additions, renovations, and tenant improvements of ten or more units. To further the objectives of the Green Building Ordinance, the City will evaluate the potential to provide incentives, such as waiving or reducing fees, for energy conservation improvements at affordable housing projects (existing or new) with fewer than ten units to exceed the minimum requirements of the

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
	California Green Building Code. This City will also implement the policies in its climate action plan to achieve residential-focused GHG emission reductions and further these community energy and water conservation goals.
Policy INF-5.44	**Reducing Waste.** Meet or exceed federal, State and regional requirements for solid waste diversion through implementation of programs. ▪ **Strategy 6. Construction Waste.** Encourage recycling and reuse of building materials during demolition and construction of City, agency and private projects.

Source: Cupertino General Plan (Community Vision 2015-2040).

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize GHG emissions. The provisions related to potential impacts from the proposed project are included in Title 6, Franchises and Title 16, Buildings and Construction, as follows:

- **Chapter 6.24, Garbage, Non-Organic Recycling and Organic Waste Recycling Collection and Disposal.** Section 6.24.037, Mandatory Organic Recycling for Business Structures, includes standards for businesses and multi-family residents to subscribe to and maintain organic material (including food waste) recycling services for each business or individual household in the multi-family dwelling.
- **Chapter 16.58, Green Building Ordinance.** This chapter includes the CALGreen requirements with local amendments for projects in the city. As part of the City's Green Building Ordinance (Section 15.58.220), the City requires new construction over certain sizes (greater than 9 residential units or 25,000 square feet of non-residential development and greater) to build to Leadership in Energy and Environmental Design (LEED) or alternative reference standards. The LEED construction and/or other types of equivalent green building verification systems typically require enhanced building energy efficiency, which reduces heating and cooling requirements of a building and therefore also reduces GHG emissions. Section 15.58.400 requires the installation of Electric Vehicle Supply Equipment for the charging of electric vehicles.
- **Chapter 16.72, Recycling and Diversion of Construction and Demolition Waste.** This chapter establishes regulations to comply with the California Waste Management Act of 1989. The City of Cupertino has adopted construction and demolition debris diversion requirements that are consistent with the new requirements under CALGreen for mandatory construction recycling. Construction and demolition debris recycling requirements vary by project type. Pursuant to the Chapter 16.72, projects that involve the construction, demolition, or renovation of 3,000 square feet or more are required to adhere to the City's construction and demolition diversion requirements. Applicants for any covered project are required to recycle or divert (recycle or salvage) at least 60 percent of all generated construction and demolition debris tonnage. Applicants are required to prepare and submit a Waste Management Plan to the Public Works Department that outlines:
  - The estimated volume or weight of project construction and demolition debris, by material type, to be generated.

- The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling.
- The vendor that the applicant proposes to use to haul the materials (consistent with the provisions of CMC Chapter 6.24).
- The facility to which the materials will be hauled (approved by the City).
- The estimated volume or weight of construction and demolition debris that will be land-filled.

Cupertino Climate Action Plan

The Cupertino Climate Action Plan (CAP) is a strategic planning document that identifies sources of GHG emissions within the City's boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions from the energy, transportation and land use, water, solid waste, and green infrastructure sectors. The emissions reduction strategies, developed by the City, follow the BAAQMD's CEQA Guidelines[3] and the corresponding criteria for a "qualified GHG Emissions reduction program" as defined by BAAQMD, which in turn were developed to comply with the requirements of AB 32 and achieve the goals of the CARB Scoping Plan. A qualified GHG emissions reduction program adopted by a local jurisdiction should include the elements below, as described in CEQA Guidelines Section 15183.5. The following BAAQMD's CEQA Guidelines[4] provide the methodology to determine whether a GHG reduction program meets these requirements:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards, which substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.
- Be adopted in a public process following environmental review.

The City's CAP meets BAAQMD guidelines for a qualified GHG emissions reduction program as follows:

- The CAP quantifies citywide GHG emissions, both existing and projected over the specified time period, resulting from activities within the city as defined by the Cupertino General Plan (Community Vision 2015-2040).

[3] Bay Area Air Quality Management, May 9, 2017, Updated CEQA Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[4] Bay Area Air Quality Management, May 9, 2017, Updated CEQA Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

- The CAP establishes a level, based on substantial evidence, below which the contribution of emissions from activities covered by the plan would not be cumulatively considerable.
- CAP policy provisions reduce emissions to 15 percent below 2005 levels by 2020.
- CAP policy provisions reduce emissions to 35 percent below 2005 levels by 2030.
- CAP policy provisions provide a foundation for the City to reach the goal of reducing emissions to 80 percent below 1990 levels by 2050.
- The CAP identifies and analyzes the emissions resulting from specific actions or categories of actions anticipated within the city.
- The CAP specifies measures or a group of measures, including performance standards.
- The CAP establishes a mechanism to monitor its progress toward achieving the level and to require amendment if the plan is not achieving specific levels.

The City of Cupertino's CAP was first published in January 2015. The City has since released a 2015 CAP Progress Report, 2015 GHG Inventory Update, 2016 CAP Progress Report, and 2017 CAP Progress Report. The CAP is a strategy to achieve 15 percent reduction in carbon emissions by the year 2020, 49 percent reduction by 2035, and 83 percent by 2050.

The CAP consists of measures that identify the steps the City will take to support reductions in GHG emissions. The GHG reduction measures proposed in the CAP build on the GHG inventory results and key opportunities prioritized by City staff, members from the community, and elected officials. The CAP consists of goals, measures, and actions that identify steps the City will take to support reducing GHG emissions. The City of Cupertino will achieve GHG emission reductions through a mix of voluntary programs and new strategic measures. The standards presented in the CAP respond to the needs of development, avoid unnecessary regulation, streamline new development, and achieve more efficient use of resources. Community-wide goals and measures from the CAP that are applicable to the proposed project are shown in Table 4.5-3 below.

TABLE 4.5-3 CLIMATE ACTION PLAN GOALS AND MEASURES

Number	Goal/Measure
Goal 1	**Reduce Energy Use.** Increase energy efficiency in existing homes and buildings and increase use of renewable energy community-wide.
Measure C-E-5	**Community-wide Solar Photovoltaic Development.** Encourage voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns.
Goal 2	**Encourage Alternative Transportation.** Support transit, carpooling, walking, and bicycling as viable transportation modes to decrease the number of single occupancy vehicle trips within the community.
Measure C-T-1	**Bicycle & Pedestrian Environment Enhancements**. Continue to encourage multi-modal transportation, including walking and biking, through safety and comfort enhancements in the bicycle and pedestrian environment.
Measure C-T-6	**Transit-Oriented Development.** Continue to encourage development that takes advantage of its location near local transit options (e.g., major bus stops) through higher densities and intensities to increase ridership potential.
Measure C-T-7	**Community-Wide Alternative Fuel Vehicles.** Encourage community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure.
Goal 3	**Conserve Water.** Promote the efficient use and conservation of water in buildings and landscapes.

TABLE 4.5-3 CLIMATE ACTION PLAN GOALS AND MEASURES

Number	Goal/Measure
Measure C-W-1	SB-X7-7. Implement water conservation policies contained within Cupertino's Urban Water Management Plan to achieve 20 percent per capita water reductions by 2020.
Goal 4	Reduce Solid Waste. Strengthen waste reduction efforts through recycling and organics collection and reduced consumption of materials that otherwise end up in landfills.
Measure C-SW-3	Construction and Demolition Waste Diversion Program. Continue to enforce diversion requirements in City's Construction & Demolition Debris Diversion and Green Building Ordinances.

Source: City of Cupertino, 2015, Climate Action Plan.

4.5.1.3 EXISTING CONDITIONS

Priority Development Area/Transit Priority Area

Plan Bay Area 2040 is the current update of the Bay Area's Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS), which was adopted jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) on July 26, 2017. As part of the implementing framework for *Plan Bay Area*, local governments, including Cupertino, have identified Priority Development Areas (PDAs) to focus growth.[5] PDAs are transit-oriented, infill development opportunity areas within existing communities. In addition to PDAs, *Plan Bay Area* identifies Transit Priority Areas (TPAs), which are areas within one-half mile of a major transit stop (15 minute or less service level frequency) that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

An overarching goal of *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve reductions of per capita passenger vehicle trips, vehicle miles traveled (VMT), and associated GHG emissions.

The project site is located in a Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[6]

Renewable Energy

The current project site is served by both electricity and natural gas connections. Electricity is supplied to the project site via infrastructure maintained by Pacific Gas & Electric (PG&E). Silicon Valley Clean Energy (SVCE), a locally controlled public agency that has a partnership with PG&E, supplies the electricity to the project site. SVCE provides a standard 50 percent renewable energy portfolio, in addition to a 100 percent

[5] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-7.

[6] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

renewable option that electricity customers can opt into. Natural gas and associated infrastructure are provided and maintained by PG&E.

Existing Emissions

The project site is developed with an approximately 71,250 square-foot shopping center with retail stores, offices, and restaurants that is currently about 85 occupied (or 60,563 square feet) that generate GHG emissions from natural gas use for energy, heating and cooking, vehicle trips associated with the land uses, as well as area sources such as landscaping equipment and consumer cleaning products. The site also generates indirect GHG emissions associated with electricity use, water use and wastewater generation and solid waste disposal. Existing GHG emissions are shown in Table 4.5-4.

TABLE 4.5-4 EXISTING GREENHOUSE GAS EMISSIONS

Category	Existing (MTCO2e)[a]	Percent Total[b]
Area	<1	<1%
Energy	232	16%
On-Road Mobile Sources[c]	1,214	82%
Waste[d]	19	1%
Water/Wastewater	19	1%
Total	1,484	100%

Notes:
a. Emissions were calculated using CalEEMod.
b. Emissions may not total 100 percent due to rounding.
c. The mobile emissions modeled CalEEMod emissions are based on the project total daily trip generation of 2,174 vehicles. Credit for internal trip capture and proximity to transit was applied in the CalEEMod mitigation module (i.e., land use and site enhancement, increase density, and increase diversity). These measures were applied in accordance with the criteria within the California Air Pollution Control Officers Association (CAPCOA), *Quantifying Greenhouse Gas Mitigation Measures* (2010) guidance, and the CalEEMod User's Guide.
d. The waste source emissions include compliance with AB 939 requiring 50 percent diversion of the solid waste stream.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

4.5.2 THRESHOLDS OF SIGNIFICANCE

4.5.2.1 CEQA GUIDELINES APPENDIX G

The proposed project would result in a significant impact related to GHG emissions if it would:

1. Generate GHG emissions, either directly or indirectly, that may a significant effect on the environment.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

4.5.2.2 BAAQMD SIGNIFICANCE CRITERIA

BAAQMD has a tiered approach for assessing GHG emissions impacts of a project. If a project is within the jurisdiction of an agency that has a "qualified" GHG reduction strategy, the project can assess consistency of its GHG emissions impacts with the reduction strategy. BAAQMD has adopted screening criteria and

significance criteria for development projects that would be applicable for the proposed project. If a project exceeds the BAAQMD Guidelines' GHG screening-level sizes, the proposed project would be required to conduct a GHG emissions analysis using the BAAQMD significance criteria of 1,100 million metric tons of carbon dioxide equivalent per year per year ($MTCO_2e$ per year).

4.5.3 IMPACT DISCUSSION

4.5.3.1 IMPACT ANALYSIS

GHG-1 The proposed project would not directly or indirectly generate GHG emissions that may have a significant impact on the environment.

The proposed project would include direct and indirect GHG emissions. Direct operational-related GHG emissions for the proposed project would include emissions from area and mobile sources, while indirect emissions are from energy consumption, water demand, and solid waste.

Construction Emissions

Construction of the proposed project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site. Construction GHG emissions are typically summed and amortized over the lifetime of the proposed project (industry standards assume 30 years), then added to the operational emissions.[7] BAAQMD does not have a threshold for construction GHG emissions. Total GHG emissions generated during all phases of construction were combined and are presented in Table 4.5-5. As shown in Table 4.5-5, the proposed project construction when amortized over 30 years would not exceed BAAQMD's threshold of 1,100 $MTCO_2e$ per year. Construction emissions would be *less than significant*.

TABLE 4.5-5 PROPOSED PROJECT CONSTRUCTION PHASE GREENHOUSE GAS EMISSIONS

Category	Construction GHGs ($MTCO_2e$)[a]
Total Mitigated Construction Emissions (2019-2020)	1,730
30-Year Amortized Construction	58
BAAQMD Bright-Line Threshold	1,100 $MTCO_2e$/year
Exceeds BAAQMD Thresholds?	No

Source: Kimley-Horn and Associates, PlaceWorks, 2019.

Operational Emissions

Operational or long-term emissions occur over the life of the proposed project. GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment. Operational GHG emissions would also result from indirect

[7] The proposed project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13, August 26, 2009).

sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators. Table 4.5-6 summarizes the total GHG emissions associated with proposed project. As shown, the proposed project would generate 1,843 $MTCO_2e$ per year. However, because, the project site is currently developed with approximately 71,250 square-feet of shopping center, which generates 1,484 $MTCO_2e$ per year, the proposed project's emissions would represent a net increase in GHG emissions of 359 $MTCO_2e$ per year. The proposed project would not result in an increase in GHG emissions that exceed the BAAQMD's bright-line screening threshold of 1,100 $MTCO_2e$ per year. Therefore, project related GHG emissions would be *less than significant*.

TABLE 4.5-6 PROPOSED PROJECT GREENHOUSE GAS EMISSIONS

Category	$MTCO_2e$ [a]		
	Existing	Project	Net Change
Area[b]	<1	8	8
Energy	232	648	416
On-Road Mobile Sources[c]	1,214	1,102	-112
Waste[d]	19	33	14
Water/Wastewater	19	51	32
Total[e]	1,484	1,843	359
BAAQMD Bright-Line Threshold	NA	NA	1,100 $MTCO_2e$/year
Exceeds BAAQMD Thresholds?	NA	NA	No

Notes: NA: not applicable
a. Emissions were calculated using CalEEMod.Notes: Emissions may not total to 100 percent due to rounding.
b. The area source emissions include compliance with BAAQMD Regulation 6, Rule 3 (Wood Burning Devices) and were applied in the mitigation tab of CalEEMod.
c. The mobile emissions modeled CalEEMod emissions are based on the project total daily trip generation of 2,174 vehicles. Credit for internal trip capture and proximity to transit was applied in the CalEEMod mitigation module (i.e., land use and site enhancement, increase density, and increase diversity). These measures were applied in accordance with the criteria within the California Air Pollution Control Officers Association (CAPCOA), *Quantifying Greenhouse Gas Mitigation Measures* (2010) guidance, and the CalEEMod User's Guide.
d. The waste source emissions include compliance with AB 939 requiring 50 percent diversion of the solid waste stream.
e. Emissions may not total to 100 percent due to rounding.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

Significance Without Mitigation: Less than significant

GHG-2 The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

The following discusses the proposed project consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include CARB's 2017 Scoping Plan, MTC/ABAG's *Plan Bay Area* 2040, and Cupertino's CAP.

2017 Scoping Plan

The 2017 Scoping Plan contains the State's strategy for reducing the State's GHG emissions to 40 percent below 1990 levels by 2030 pursuant to SB 32. The CARB Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The proposed project's GHG emissions shown in Table 4.5-6 above include reductions associated with statewide strategies such as the Pavley I motor vehicle emission standards, the Low Carbon Fuel Standard, and the 2016 Energy Efficiency Standards. However, the modeling does not incorporate reductions from the Pavley II (LEV III) Advanced Clean Cars Program (extends to model year 2025), the Renewable Portfolio Standards, CALGreen Standards for indoor water use, or the California Model Water Efficient Landscape Ordinance (outdoor water), or the latest 2019 Energy Efficiency Standards (effective January 1, 2020). Therefore, actual emissions would be lower than those shown in Table 4.5-6 with the implementation of the mandatory statewide reduction strategies. Furthermore, the proposed project would develop new buildings that would replace older buildings and would be required achieve the latest Building Energy Efficiency Standards, comply with CMC Chapter 16.58 (Green Building Ordinance), and would be required to build to LEED or an alternative reference standard. Accordingly, the proposed project would not conflict with any statewide strategies to reduce GHG emissions. Therefore, impacts would be *less than significant* in this regard.

Plan Bay Area

As discussed in Section 4.5.1.3, Existing Conditions, the project site is located in the Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[8] Because the proposed project is an infill residential mixed-use development it would be consistent with the overall goals of *Plan Bay Area* 2040*.* As previously described an overarching goal of *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure, instead of locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. Accordingly, the proposed project would not conflict with the land use concept plan in *Plan Bay Area* 2040 and impacts would be *less than significant*.

Cupertino Climate Action Plan

As discussed in Section 4.5.1.2, Regulatory Framework, the Cupertino CAP identifies sources of GHG emissions within the city's boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions. Furthermore, as described in Section 4.5.1.2, the Cupertino CAP is a qualified GHG reduction program.

[8] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

The proposed project would be consistent with the overall goals of the Cupertino CAP, which is the City's strategic planning document to reduce GHG emissions. As an infill project on a currently developed site within a designated PDA and TPA (CAP Measure C-T-6, Transit-Oriented Development), the proposed project would support efforts to reduce GHG emissions from VMT (CAP Goal 1, Reduce Energy Use). Consistent with CAP Measure C-T-1, Bicycle & Pedestrian Environment Enhancements, the proposed project would implement the City's 2016 *Bicycle Transportation Plan* and install a Class IV separated bikeway on Stevens Creek Boulevard between Mary Avenue and the northbound SR-85 on-ramp, and a signal control for the westbound right turn movement to improve bike and pedestrian safety, thus, promoting these alternative modes of transportation. The proposed new buildings would achieve the current Building Energy Efficiency Standards and would be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems that would improve energy efficiency. The proposed buildings would comply with Title 24 solar requirements and would meet solar ready standards. While the requirements under Title 24 do not require installation of solar-energy systems, buildings are required to be built to accept the installation of such a system. CAP Measures C-E-5, Community-wide Solar Photovoltaic Development, also encourages voluntary community-wide solar photovoltaic development. Additionally, pursuant to CMC Chapter 16.58 (Green Building Ordinance), the proposed project would be required to build to LEED or an alternative reference standard (CAP Goal 1, Reduce Energy Use) and install Electric Vehicle Supply Equipment for the charging of electric vehicles (CAP Measure C-T-7, Community-Wide Alternative Fuel Vehicles). Consistent with CAP Measure C-W-1, SB-X7-7, the proposed project would comply with SB X7-7, which requires California to achieve a 20 percent reduction in urban per capita water use by 2020. The proposed project would implement best management practices for water conservation to achieve the City's water conservation goals. Water conservation would indirectly contribute to reducing GHG emissions. If less water is used, fewer resources (namely energy) will be used to source, distribute, and treat the water. Since energy consumption leads to the generation of GHG emissions, using fewer resources would help to reduce GHG emissions overall. Furthermore, consistent with CAP Measure C-SW-3, Construction and Demolition Waste Diversion Program, the proposed project would comply with the City's Construction and Demolition Debris Diversion Ordinance, which requires applicable construction projects to divert 60 percent of construction waste. Prior to receiving a final building inspection, a construction recycling report would be submitted to show the tons recycled and disposed by material type. As an infill redevelopment priority housing development on a designated PDA and TPA the proposed project would be consistent with the overall intent of the CAP to support reductions in GHG emissions and the proposed project would not conflict any goals or measures to reduce GHG emissions in the CAP and impacts would be *less than significant*.

Summary

In summary, the proposed project, an infill and mixed-use project within a currently developed area would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.

Significance Without Mitigation: Less than significant.

4.5.4 CUMULATIVE IMPACTS

GHG-3 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to GHG emissions.

As described above, GHG emissions related to the proposed project are not confined to a particular air basin but are dispersed worldwide. Therefore, the analysis under impact discussion GHG-1 and GHG-2 above, also addresses cumulative impacts.

Significance Without Mitigation: Less than significant.

4.6 HAZARDS & HAZARDOUS MATERIALS

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that operation of the proposed project would not result in significant environmental impacts related to release and transport of hazardous materials, be located on a hazardous materials site,[1] cause an airport-related hazard, obstruct an emergency plan, or expose people to wildland fires. Therefore, this chapter only includes an evaluation of potential consequences associated with construction of the proposed project that are related to the transport and disposal of hazardous materials, and hazardous materials in proximity to schools. This chapter also describes the environmental setting, including regulatory framework and existing conditions, and identifies mitigation measures, if required, that would avoid or reduce significant impacts.

Some of the information in this chapter was derived from a *Limited*[2] *Environmental Site Characterization (ESC)* dated January 28, 2016, prepared by Langan Treadwell Rollo. A copy of this report is included in Appendix F, Limited Environmental Site Characterization, of this Draft EIR. A third-party peer review of this report was completed by PlaceWorks.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 REGULATORY FRAMEWORK

Hazardous materials refer generally to hazardous substances, hazardous waste, and other materials that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

The term "hazardous materials," as used in this chapter, includes all materials defined in the California Health and Safety Code:

> "A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released

[1] California Department of Toxic Substances Control EnviroStor Database, https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=21267+Stevens+Creek+Boulevard, accessed July 2019; PIERS Environmental Services, 2015. Phase 1 Environmental Site Assessment, 21255-21275 Stevens Creek Boulevard, Cupertino, CA, dated September 18, 2015; EBI Consulting, 2007, Phase 1 Environmental Site Assessment, The Oaks Shopping Center, Cupertino, California, dated March 14, 2007.

[2] The term "limited" is not defined by the American Society for Testing and Materials. The term in this context indicates that site investigation is not under the oversight of a regulatory agency and was implemented primarily for due diligence purposes based on site history and future land use plans.

> into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment."[3]

The term includes chemicals regulated by the United States Department of Transportation (USDOT), the United States Environmental Protection Agency (USEPA), the California Department of Toxic Substances Control (DTSC), the California Governor's Office of Emergency Services (CalOES), and other agencies as hazardous materials, hazardous wastes, or hazardous substances. "Hazardous waste" is any hazardous material that has been discarded, except those materials specifically excluded by regulation. Hazardous materials that have been intentionally disposed of or inadvertently released fall within the definition of "discarded" materials and can result in the creation of hazardous waste. Hazardous wastes are broadly characterized by their ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity. Federal and State hazardous waste definitions are similar but contain enough distinctions that separate classifications are in place for federal Resource Conservation and Recovery Act (RCRA) hazardous wastes and State non-RCRA hazardous wastes. Hazardous wastes require special handling and disposal because of their potential to impact public health and the environment. Some materials are designated "acutely" or "extremely" hazardous under relevant statutes and regulations.

Hazardous materials and wastes can pose a significant actual or potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent these unwanted consequences. These regulatory programs are designed to reduce the danger that hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Federal

The following federal agencies oversee hazards and hazardous materials concerns.

United States Environmental Protection Agency

The USEPA laws and regulations ensure the safe production, handling, disposal, and transportation of hazardous materials. Laws and regulations established by the USEPA are enforced in Santa Clara County by the California Environmental Protection Agency (CalEPA).

United States Department of Transportation

The USDOT has the regulatory responsibility for the safe transportation of hazardous materials between states and to foreign countries. The USDOT regulations govern all means of transportation, except for those packages shipped by mail, which are covered by United States Postal Service regulations. The federal Resource Conservation and Recovery Act of 1976 imposes additional standards for the transport of hazardous wastes.

[3] California Health and Safety Code Section 25501(n)(1).

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) oversees the administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from materials manufacturers. The material safety data sheets describe the risks, as well as proper handling and procedures, related to particular hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

State

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and California Code of Regulations, Title 19, Section 2729 set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on-site. A business which uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Environmental Protection Agency

One of the primary agencies that regulates hazardous materials is the CalEPA. The State, through CalEPA, is authorized by the USEPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the CalEPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code.[4] The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans. The DTSC programs include dealing with aftermath clean-ups of improper hazardous waste management, evaluation of samples taken from sites, enforcement of regulations regarding use, storage, and disposal of hazardous materials, and encouragement of pollution prevention.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (CalOSHA) is the responsible State-level agency for ensuring workplace safety. The CalOSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

[4]Hazardous Substance Account, Chapter 6.5 (Section 25100 et seq.) and the Hazardous Waste Control Law, Chapter 6.8 (Section 25300 et seq.) of the Health and Safety Code.

California Department of Transportation and California Highway Patrol

Two State agencies have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies: the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides intercity rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highway and freeway lanes and intercity rail services.

The CHP enforces hazardous materials and hazardous waste labeling and packing regulations designed to prevent leakage and spills of materials in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP, which conducts regular inspections of licensed transporters to assure regulatory compliance. In addition, the State of California regulates the transportation of hazardous waste originating or passing through the State.

Common carriers are licensed by the CHP, pursuant to the California Vehicle Code, Section 32000. This section requires licensing every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

Regional

San Francisco Bay Regional Water Quality Control Board

The Porter-Cologne Water Quality Act[5] established the State Water Resources Control Board (SWRCB) and divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB). The Regional Water Quality Control Board for the San Francisco Bay Region (Region 2) is the Regional Water Quality Control Board (San Francisco Bay RWQCB) that regulates water quality in Cupertino. The San Francisco Bay RWQCB has the authority to require groundwater investigations when the quality of groundwater or surface waters of the state is threatened, and to require remedial actions, if necessary.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040), includes a policy that is relevant to the safe handling of hazardous materials and applicable to the proposed project. The policy is identified in Chapter 7, Health and Safety, of the General Plan and listed in Table 4.6-1.

[5] California Water Code Sections 13000 *et seq*.

TABLE 4.6-1 GENERAL PLAN POLICY RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Policy Number	Policy
Chapter 7, Health and Safety (HS)	
Policy HS-6.1	**Hazardous Materials Storage and Disposal.** Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.

Source: Cupertino General Plan (Community Vision 2015-2040).

4.6.1.2 EXISTING CONDITIONS

The 8.1-acre project site is currently developed with a one-story shopping center (The Oaks Shopping Center) consisting of five occupied buildings with retail stores and restaurants, which was built between 1973 and 1976. The closest school, De Anza College, a community college, is located approximately 140 feet to the south, directly across from the project site. The nearest daycares are Cupertino Child Care located 0.30 miles to the northeast; Village Little Preschool Center located 0.35 miles to the east; and Buzy Tots Childcare and Preschool located approximately 0.25 miles to the southeast. There are no other existing or proposed schools or daycares within 0.25 miles of the project site.

As previously stated, a Limited ESC was prepared for the project site (see Appendix F of this Draft EIR). The purposed of the ESC was to conduct soil sampling and analysis to assess the potential for soil contamination resulting from past and/or present site activities and nearby off-site operations. Because the proposed project will require the export of 69,000 cubic yards of cut to accommodate the one-level subterranean parking garage below Residential-Retail Building 1, the objective of the ESC was to preliminarily characterize the soil to assist in the off haul of excavated material from the site. A total of twelve soil samples were submitted to a state-certified laboratory. The testing was performed to satisfy soil profiling scenarios generally accepted by landfills. The soil samples were analyzed for some or all of the following: total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs), California assessment metals (CAM) 17 metals, and leaking underground fuel tank (LUFT) 5 metals. The ESC did not find any elevated concentrations of hazardous waste exceeding federal or State levels, and no contaminated or hazardous materials were encountered.

4.6.2 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standards and, therefore, are not discussed in this chapter.

- 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.

- Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- For a project 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, result in a safety hazard for people living or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Based on the Initial Study and comments received during the scoping process it was determined that the proposed project could result in a potentially significant impact related to hazards and hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
2. Emit hazardous emissions or handle hazardous materials, substances or waste within 0.25 miles of an existing or proposed school.

4.6.3 IMPACT DISCUSSION

HAZ-1	**The proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials during construction.**

Project Construction

Construction activities would include the use of materials such as fuels, lubricants, and greases in construction equipment and coatings used in construction. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short-term or one time in nature and would cease upon completion of the proposed project's construction phase. The use, storage, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner to minimize the potential for safety impacts.

As described in Section 4.6.1.2, Existing Conditions, because the proposed project will require the export of 69,000 cubic yards of soil to accommodate the one-level subterranean parking garage below Residential-Retail Building 1, the objective of the soil testing conducted on the project site was to preliminarily characterize the soil to assist in the off haul and disposal of excavated material from the site. Based on the analytical results from the ESC, none of the soils at the project site that are proposed to be

excavated for off-site disposal contain elevated concentrations exceeding federal or State hazardous waste levels. Therefore, soils removed from the site during excavation activities would be disposed of at a landfill as unrestricted waste and impacts would be less than significant.

Significance Without Mitigation: Less than significant.

HAZ-2	The proposed project would not emit hazardous emissions or handle hazardous materials, substances or waste within 0.25 miles of an existing or proposed school.

De Anza College is located directly south of Stevens Creek Boulevard, within 140 feet of the project site. In addition, one pre-school is located within 0.25-miles of the project site. As described under impact discussion HAZ-1, impacts related to potentially contaminated soils would be less than significant. Also see Chapter 4.1, Air Quality, impact discussion AQ-3, which concludes that the potential for impacts to sensitive receptors due the release of hazardous materials during construction would be less than significant. Therefore, the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school, and impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.6.4 CUMULATIVE IMPACTS

HAZ-3	The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to hazards and hazardous materials.

As described under impact discussion HAZ-1, activities associated with grading, excavation, and the hauling and disposal of soils during the construction phase of the proposed project would not create a significant hazard to the public or the environment through the transport or disposal of hazardous materials. Because impacts associated with the transport of hazardous materials during construction, are, by their nature, focused on specific sites or areas, the significant-but-mitigable impact on the project site associated with the excavation, hauling, and disposal of potentially contaminated soils would not contribute to a cumulative increase in hazards in the city. Therefore, the potential for cumulative impacts associated with safety and hazards during construction or handling of hazardous materials in close proximity to schools would be *less than significant*.

Significance With Mitigation: Less than significant.

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4.7 NOISE

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) and comments received in the scoping process, it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to airport noise. Therefore, this chapter includes an evaluation of the potential environmental consequences from potential increases in ambient noise levels and groundborne noise levels. This chapter also describes the environmental setting, including regulatory framework and existing noise conditions in the project area, and identifies mitigation measures that would avoid or reduce significant impacts.

The analysis in this chapter is based in part on the *Acoustical Assessment for the proposed Westport Project, in the City of Cupertino, California*, dated July 2019, prepared by Kimley-Horn and Associates. A complete copy of this report is located in Appendix G, Acoustical Assessment, of this Draft EIR. A third-party peer review of this report was completed by PlaceWorks.

4.7.1 ENVIRONMENTAL SETTING

4.7.1.1 OVERVIEW OF NOISE FUNDAMENTALS

Noise Descriptors

The following are brief definitions of terminology used in this section:

- **Sound.** A disturbance created by a vibrating object, which when transmitted by pressure waves through a medium such as air, is capable of being detected by the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unit-less measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level, energy averaged over the measurement period.
- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period), which is half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

- Community Noise Equivalent Level (CNEL). The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 a.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. Note: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent/interchangeable and are treated therefore in this assessment.
- Peak Particle Velocity (PPV). The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.

Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), pitch (frequency), and duration. The standard unit of measurement of the loudness of sound is the decibel (dB).

Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dB are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment whereas a 10 dB change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies and, therefore, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) approximates the sensitivity of the human ear by weighting certain frequencies greater than others.

Unlike linear units, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. This logarithmic scale is used to better account for the large variations in pressure amplitude. In practical application, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system provides a usable scale to characterize the physical degree of magnitude of sound pressure levels and their perceived loudness to the human ear.

To help relate noise level values to common experience, Table 4.7-1 shows typical noise levels from noise sources. Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. For a single point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by onsite operations from stationary equipment or activity at a project construction site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dB for each doubling of distance.

TABLE 4.7-1 TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans), 2013, *Technical Noise Supplement*.

Vibration Fundamentals

Vibration is an oscillating motion in earth. Like noise, vibration is transmitted in waves, but in this case through earth or solid objects. Unlike noise, vibration is typically characterized by lower frequencies that are felt rather than heard. Vibration can be either natural (as in the form of earthquakes, volcanic eruptions, or landslides) or man-made (as from explosions, heavy machinery, or trains). Both natural and man-made vibration may be continuous, such as from operating machinery, or impulsive, as from an explosion or impact pile driver. Typically, particle velocity (measured in inches or millimeters per second) is used to describe vibration and its potential effect on structures. Table 4.7-2 presents the expected human reaction and potential effect on buildings from various levels of peak particle velocity (PPV).

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition, as well as the frequency of the wave.

TABLE 4.7-2 HUMAN REACTION TO TYPICAL VIBRATION LEVELS

Vibration Level Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006 to 0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Amplitude at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Note: in/sec = inches per second
Source: California Department of Transportation (Caltrans), 2013, *Transportation and Construction Vibration Guidance Manual*.

4.7.1.2 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging, as well as intrusive noise levels, the federal government, State, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Those that apply to the proposed project are described below.

Federal

The City does not set quantitative vibration level standards. However, the Federal Transit Administration (FTA) provides criteria for acceptable levels of ground-borne vibration for various types of buildings that are sensitive to vibration, and these guidelines are often used to evaluate vibration impacts during construction. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. However, structures amplify groundborne vibration, and wood-frame buildings such as typical residential structures are more affected by ground vibration than heavier buildings. The most conservative estimates are reflected in the FTA standards, shown in Table 4.7-3.

TABLE 4.7-3 GROUNDBORNE VIBRATION CRITERIA: ARCHITECTURAL DAMAGE

	Building Category	PPV (in/sec)
I.	Reinforced concrete, steel, or timber (no plaster)	0.50
II.	Engineered concrete and masonry (no plaster)	0.30
III.	Non-engineered timber and masonry buildings	0.20
IV.	Buildings extremely susceptible to vibration damage	0.12

Note: PPV = peak particle velocity.
Source: Federal Transit Administration (FTA), 2018, *Transit Noise and Vibration Impact Assessment*.

Because Cupertino does not have an adopted standard, the threshold of 0.20 inches per second (in/sec) peak particle velocity (PPV) is the standard applied to typical residential structures surrounding the project site in the impact discussion in Section 4.7.3 below. According to California Department of Transportation (Caltrans), this measurement is also the level at which vibrations may begin to annoy people inside buildings.[1]

State

California Building Code, Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior environmental noise sources in multi-family residential units be limited to 45 dBA Ldn/CNEL in any habitable room. The California Green Building Standards Code (CALGreen) has requirements for insulation that affect exterior-interior noise transmission for non-residential structures.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040), includes policies that are relevant to noise and applicable to the proposed project. The policies are identified in Chapter 3, Land Use and Community Character Element, and Chapter 7, Health and Safety Element, of the General Plan and listed below in Table 4.7-4

TABLE 4.7-4 GENERAL PLAN POLICIES RELEVANT TO NOISE

Policy Number	Policy
Chapter 3, Land Use and Community Character (LU) Element	
Policy LU-13.7	**Streetscape and Connectivity.** Create a walkable and bikeable boulevard with active uses and a distinct image for each subarea. ▪ **Strategy LU-13.7.5: Neighborhood Buffers**. Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single family residential areas from visual and noise impacts.

[1] California Department of Transportation, September 2013, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*.

TABLE 4.7-4 GENERAL PLAN POLICIES RELEVANT TO NOISE

Policy Number	Policy
Policy LU-27.8	**Protection.** Protect residential neighborhoods from noise, traffic, light, glare, odors and visually intrusive effects from more intense development with landscape buffers, site and building design, setbacks and other appropriate measures.
Chapter 7, Health and Safety (HS) Element	
Policy HS-8.1	**Land Use Decision Evaluation.** Use the Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map (see Figure D-2 in Appendix D) and the City Municipal Code to evaluate land use decisions.
Policy HS-8.2	**Building and Site Design.** Minimize noise impacts through appropriate building and site design. ▪ **Strategy HS-8.2.1**: **Commercial Delivery Areas.** Locate delivery areas for new commercial and industrial developments away from existing or planned homes. ▪ **Strategy HS-8.2.2: Noise Control Techniques.** Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low- intensity residential uses. ▪ **Strategy HS-8.2.3: Sound Wall Requirements.** Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.
Policy HS-8.3	**Construction and Maintenance Activities.** Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.
Policy HS-8.4	**Freeway Design and Neighborhood Noise.** Ensure that roads and development along Highway 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise.
Policy HS-8.5	**Neighborhoods.** Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.
Policy HS-8.6	**Traffic Calming Solutions to Street Noise.** Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design. ▪ **Strategy HS-8.6.1: Local Improvement.** Modify street design to minimize noise impact to neighbors.
Policy HS-8.7	**Reduction of Noise from Trucking Operations.** Work to carry out noise mitigation measures to diminish noise along Foothill and Stevens Creek Boulevards from the quarry and cement plant trucking operations. These measures include regulation of truck speed, the volume of truck activity, and trucking activity hours to avoid late evening and early morning. Alternatives to truck transport, specifically rail, are strongly encouraged when feasible. ▪ **Strategy HS-8.7.1: Restrictions in the County's Use Permit.** Coordinate with the County to restrict the number of trucks, their speed and noise levels along Foothill and Stevens Creek Boulevards, to the extent allowed in the Use Permit. Ensure that restrictions are monitored and enforced by the County. ▪ **Strategy HS-8.7.2: Road Improvements to Reduce Truck Impacts.** Consider road improvements such as medians, landscaping, noise attenuating asphalt, and other methods to reduce quarry truck impacts.

Source: Cupertino General Plan (Community Vision 2015-2040).

Most cities and counties in California have adopted noise and land use compatibility criteria based on the general assumption that lower noise levels should be achieved in residential areas, with higher noise levels acceptable in business districts, and industrial areas considered appropriate for noise levels up to or exceeding 70 dBA CNEL. Chapter 7, Health and Safety (HS) Element, of the General Plan presents a Land Use Noise Compatibility Matrix in Figure HS-8, Land Use Compatibility for Community Noise Environments, that identifies clearly acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. Appendix D, Community Noise Fundamentals, of

the General Plan, includes Figure D-2, Future Noise Contours, that illustrates the acceptable noise levels for the buildout of the General Plan.

With the Supreme Court decision regarding the assessment of the environment's impacts on proposed projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. As a result, while the noise from existing sources is taken into account as part of the baseline, the direct effects of exterior noise from nearby noise sources as they pertain to land use compatibility of the proposed project is no longer a required topic for impact evaluation under CEQA. Nonetheless, for the complete understanding of the public, this noise analysis will discuss noise compatibility as it applies to the development of the proposed project. No determination of significance is required.

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize adverse impacts to noise. The provisions related to potential impacts from the proposed project are included in Title 10, Public Peace, Safety, and Morals, as follows:

- Chapter 10.48, Community Noise Control. The City's noise regulations are implemented and enforced through this chapter, which establishes citywide standards to regulate noise.
  - Exterior Noise Limits. CMC Section 10.48.040 states that no person shall create noise located on a property that causes the noise level at a nearby property to exceed the applicable limits set forth in Table 4.7-5. The CMC defines "daytime" as the period from 7:00 a.m. to 8:00 p.m. on weekdays, and 9:00 a.m. to 6:00 p.m. on weekends. "Nighttime" is defined as the period from 8:00 p.m. to 7:00 am on weekdays, and 6:00 p.m. to 9:00 a.m. on weekends.

TABLE 4.7-5 Municipal Code Exterior Noise Limits (dBA)

Land Use Type	Daytime	Nighttime
Residential	60	50
Non-Residential	65	55

Source: City of Cupertino Municipal Code, Section 10.48.040

Additionally, Section 10.48.050 includes a correction for allowable daytime incidents, provided that the sum of the limit and the duration of the exceedance does not exceed 20 dBA (e.g., 5 dB above the limit is allowed for 15 minutes; 5+15=20), as shown in Table 4.7-6.

TABLE 4.7-6 Brief Daytime Incident Corrections

Increment Above Normal Standard	Duration in 2-Hour Period
5 dBA	15 minutes
10 dBA	10 minutes
15 dBA	5 minutes
19 dBA	1 minute

Source: City of Cupertino Municipal Code, Section 10.48.050

- Interior Noise Limits. CMC Section 10.48.054 states that noise produced in any multiple-family dwelling unit shall not produce a noise level that, when measured at five feet from any wall in any

adjoining unit, exceeds 45 dBA from 7:00 a.m. to 10:00 p.m., or 40 dBA from 10:00 p.m. to 7:00 a.m.

- Landscape Maintenance Activities Noise. CMC Section 10.48.051 limits the hours of landscape maintenance activities from 8:00 a.m. to 8:00 p.m. on weekdays, and 9:00 a.m. to 6:00 p.m. on weekends and holidays, excluding public facilities which are allowed to begin at 7:00 a.m. During these hours, noise from the use of motorized equipment for landscape maintenance activities is allowed to exceed the maximum permissible noise limits of CMC Section 10.48.040, provided that the equipment is outfitted with appropriate mufflers and is operated over the minimal period necessary.
- Construction Noise. The City provides an exemption for this type of noise. According to CMC Section 10.48.053, grading, construction and demolition activities shall be allowed to exceed the noise limits of CMC Section 10.48.040 during daytime hours (i.e., weekdays from 7:00 a.m. to 8:00 p.m.; weekends from 9:00 a.m. to 6:00 p.m.); provided, that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria:

  1. No individual device produces a noise level more than 87 dBA at a distance of 25 feet; or
  2. The noise level on any nearby property does not exceed 80 dBA.

  Except for emergency work, construction activities including grading, street construction, demolition, or underground utility work are not permitted within 750 feet of a residential area on Saturdays, Sundays, and holidays, and during the nighttime period. Construction activities, other than street construction, are prohibited on holidays. In addition, construction activities, other than street construction, are prohibited during nighttime periods unless they meet the City's nighttime maximum permissible noise level standards.

4.7.1.3 EXISTING CONDITIONS

Noise Measurements

To determine ambient noise levels in the project area, four 10-minute noise measurements were taken using a 3M SoundPro DL-1 Type I integrating sound level meter between 10:53 a.m. and 11:55 a.m. on May 1, 2018. The Appendix A of the acoustical assessment prepared for the proposed project, provided in Appendix G of this Draft EIR, includes the existing noise measurement data and the location of the noise measurements, shown on Exhibit 5. The four locations were selected for the following reasons:

- Noise Measurement #1 was taken to represent the ambient noise level north of the project site near the existing apartment complex;
- Noise Measurement #2 was taken to represent the ambient noise level east of the project site near the Senior Center;
- Noise Measurement #3 was taken to represent the ambient noise level south of the site along Stevens Creek Boulevard; and

- Noise Measurement #4 represents the existing ambient noise from the State Route 85 or SR-85 west of the project site.

The ambient noise levels measured at these four locations is shown in Table 4.7-7. The primary noise sources during all four measurements was from the traffic on Stevens Creek Boulevard, SR-85, and parking lot noises.

TABLE 4.7-7 NOISE MEASUREMENTS

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	Glenbrook Apartment Homes entrance on Mary Avenue	66.9	47.3	88.5	10:53 a.m.
2	Along Mary Avenue next to Senior Center	75.2	48.0	94.4	11:08 a.m.
3	Along Stevens Creek Boulevard, south of project site	77.9	53.7	90.2	11:26 a.m.
4	Parking lot adjacent to SR-85	75.4	60.0	81.2	11:41 a.m.

Source: Noise measurements taken by Kimley-Horn and Associates on May 1, 2018.

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Sensitive receptors near the project site include the following, which are measured from the project site to the property line of the sensitive receptor location:

- Residences approximately 90 feet north of the site and 630 feet east of the site,
- Cupertino Senior Center approximately 80 feet east of the site, and
- De Anza College approximately 140 feet south of the site, across Stevens Creek Boulevard.

With respect to vibration, the nearest sensitive receptor is the building located 82 feet to the north measured from the estimated location of the construction equipment to the buildings.

Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes from the transportation analysis prepared by Kimley-Horn and Associates (see Chapter 4.8, Transportation, and Appendix H, Transportation Assessment, of this Draft EIR). The noise prediction model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (also referred to as energy rates) used in the FHWA model have been

modified to reflect average vehicle noise rates identified for California by the Caltrans. The average daily noise levels along roadway segments in proximity to the project site are included in Table 4.7-8.

TABLE 4.7-8 EXISTING TRAFFIC NOISE LEVELS

Roadway Segment	ADT	dBA CNEL at 100 feet from Centerline of Roadway
Stevens Creek Boulevard from SR-85 to Stelling Road	32,220	72.3
Mary Avenue from Parkwood Drive to Stevens Creek Boulevard	7,010	65.3

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.
Data source: Based on traffic data within the Transportation Analysis Memorandum, prepared by Kimley-Horn and Associates, 2019. Refer to Appendix B for traffic noise modeling assumptions and results.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

As shown in Table 4.7-8, the existing traffic-generated noise level on project-vicinity roadways is currently 72.3 dBA CNEL 100 feet from the centerline of Stevens Creek Boulevard and 65.3 dBA CNEL 100 feet from the centerline of Mary Avenue.

Noise Compatibility

Chapter 7, Health and Safety (HS) Element, of the General Plan presents a Land Use Noise Compatibility Matrix in Figure HS-8, Land Use Compatibility for Community Noise Environments, that identifies clearly acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. For the purpose of the proposed multi-family uses, the highest conditionally acceptable exterior noise level is 70 dBA CNEL. The highest normally acceptable exterior noise level is 65 dBA CNEL. Appendix D, Community Noise Fundamentals, of the General Plan, includes Figure D-2, Future Noise Contours, that illustrates the acceptable noise levels for the buildout of the General Plan. As shown on Figure D-2, the western portion of the project site located within the 70 dBA CNEL contour while the eastern portion is in the 65 dBA CNEL contour.

4.7.2 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts pursuant to the following thresholds of significance and, therefore, are not discussed in this chapter.

- For a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or pubic use airport, would the project expose people residing or working in the project area to excessive noise levels.

Based on the Initial Study and comments received during the scoping process, it was determined that the proposed project could result in a potentially significant noise impact if it would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards.
2. Generation of excessive groundborne noise levels.

4.7.3 IMPACT DISCUSSION

NOISE-1	**The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards.**

Construction

Construction noise estimates are based upon noise levels from the FHWA Roadway Construction Noise Model as well as the distance to nearby sensitive receptors.[2] Reference noise levels from the FHWA are used to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Construction noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual temporary construction noise.

There are two types of short-term noise impacts associated with construction, noise generated from equipment and increase in traffic flow on local streets. Construction for the proposed project is expected to last approximately 16 months.

Construction Equipment Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery.

Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, and scrapers. Operating cycles for these types of construction

[2] Federal Highway Administration (FHWA), 2006, *Roadway Construction Noise Model (RCNM) User's Guide*, FHWA-HEP-05-054.

equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute. According to the applicant, no pile-driving will be used during construction for the proposed project.

Pursuant to CMC Section 10.48.053, the City allows heavy construction activities that exceed the noise standards to occur during daytime hours, provided that the equipment has high- quality noise muffler and abatement devices installed and is in good condition. The activity must not produce a noise level more than 87 dBA at a distance of 25 feet or exceed 80 dBA for nearby properties. Only one of these two criteria must be met. Construction within 750 feet of a residential area is not allowed over the weekends, holidays, and during the nighttime.

Sensitive receptors near the project site include residences approximately 90 feet north of the site, the Cupertino Senior Center approximately 80 feet east of the site, and the De Anza College approximately 140 feet south of the site, across Stevens Creek Boulevard. These distances are from the proposed project site to the sensitive receptor property line. These sensitive uses may be exposed to elevated noise levels during project construction.

Table 4.7-9 summarizes the estimated exterior construction noise level for sensitive receptors. Note that the distances in Table 4.7-9 are from the property line of the nearest receptor to the main construction zone of the proposed project.

TABLE 4.7-9 PROJECT CONSTRUCTION AVERAGE NOISE LEVELS

Construction Phase/Activity	Receptor Location			Estimated Exterior Construction Noise Level	
	Land Use	Direction	Distance[a]	(dBA L_{eq})[b]	dBA L_{max}
Demolition	Residential	North	175	73.9	78.7
	Institutional	East	160	74.6	79.5
		South	280	69.8	74.6
Site Preparation	Residential	North	175	74.2	74.1
	Institutional	East	160	75.0	74.9
		South	280	70.1	70.0
Grading	Residential	North	175	75.2	74.1
	Institutional	East	160	75.9	74.9
		South	280	73.0	74.4
Paving	Residential	North	175	74.2	74.1
	Institutional	East	160	74.2	74.1
		South	280	70.6	70.0
Building	Residential	North	175	74.9	74.1
	Institutional	East	160	75.7	74.9
		South	280	71.0	70.0

Notes:
a. Distance is from the property line of the nearest receptor to the main construction zone of the proposed project.
b. Derived from the FHWA *Roadway Construction Noise Model (FHWA-HEP-05-054),* Jan 2006. Refer to Appendix G for noise modeling assumptions and results.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

As shown in Table 4.7-9, the highest exterior noise levels at the nearest off-site receptor (Cupertino Senior Center) would be 75.9 dBA L_{eq} during the grading phase and 79.5 dBA L_{max} during the demolition phase.

Although construction activities are not projected to exceed the City's standard of 80 dBA at the nearest receptor, because the predicted noise level of 79.5 dBA during demolition are within 0.5 dBA of the threshold implementation of Mitigation Measure NOISE-1 is required. Implementation of Mitigation Measures NOISE-1 is required to ensure that construction noise levels do not exceed the City's standards and that construction activities adhere to the City's time-of-day restrictions. With implementation of Mitigation Measure NOISE-1, impacts from construction equipment would be less than significant.

Impact NOISE-1: The proposed project could generate a substantial temporary increase in ambient noise levels in the vicinity of the proposed project during the construction phase that could exceed the standards established in the local noise ordinance.

Mitigation Measure NOISE-1: Prior to Grading Permit issuance or the start of demolition activities, the project applicant shall demonstrate, to the satisfaction of the City of Cupertino Public Works Director and/or Community Development Director, that the proposed project complies with the following:

- Pursuant to Cupertino Municipal Code (CMC) Section 10.48.053 the construction activities shall be limited to daytime hours as defined in CMC Section 10.48.010 (i.e., daytime hours are from 7:00 a.m. to 8:00 p.m. on weekdays).
- At least 90 days prior to the start of construction activities, all offsite businesses and residents within 300 feet of the project site shall be notified of the planned construction activities. The notification shall include a brief description of the proposed project, the activities that would occur, the hours when construction would occur, and the construction period's overall duration. The notification should include the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint.
- At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, which includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.
- During the entire active construction period, equipment and trucks used for project construction will utilize the best available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.
- During the entire active construction period, stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible.
- Haul routes shall be selected to avoid the greatest amount of sensitive use areas.
- Signs will be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment will be turned off if not in use for more than 5 minutes.

- During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells will be for safety warning purposes only. The construction manager will use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

Construction Traffic Noise

Construction noise may be generated by large trucks moving materials to and from the project site. Large trucks would be necessary to deliver building materials as well as remove dump materials and cut soil. Excavation and cut and fill would be required, resulting in grading of approximately 69,000 net cubic yards to be exported from the site. The proposed project would generate the highest number of daily trips during the building construction phase.[3] It is estimated that the proposed project would generate up to 239 worker trips and 52 vendor trips per day. Because of the logarithmic nature of noise levels, a doubling of the traffic volume would result in a noise level increase of 3 dBA. As shown above in Table 4.7-8 (Section 4.7.1.3, Existing Conditions), the section of Stevens Creek Boulevard between SR-85 and Stelling Road has an average daily trip volume of 32,220 vehicles. Therefore, 291 project construction trips (239 worker trips plus 52 vendor trips) would not double the existing traffic volume of 32,220 vehicles per day. Accordingly, the construction related traffic noise would be *less than significant*.

Operation

Operational noise issues evaluated in this section include vehicle traffic noise as well as stationary source noise (e.g., mechanical equipment, on-site trucks/loading docks, etc.). Traffic noise modeling was completed using the FHWA RD-77-108 model. Traffic noise level significance is determined by comparing the increase in noise levels (traffic contribution only) to increments recognized by Caltrans as representing a perceptible increase in noise levels (i.e., 3 dBA). Operational stationary noise is evaluated based on the standards within the CMC Chapter 10.48, Community Noise Control.

Roadway Traffic Noise

Operation of the proposed project would contribute to traffic volumes along study roadway segments, shown in Table 4.7-10. According to the transportation analysis prepared by Kimley-Horn and Associates (see Chapter 4.8, Transportation, and Appendix H, Transportation Assessment, of this Draft EIR), the proposed project would generate2,174 average daily weekday trips before trip reductions are applied, 1,934 average daily weekday trips after trip reductions are applied, and 275 fewer (or negative 275) average daily weekday trips once credit is taken for the trips currently generated from the existing Oaks Shopping Center that has an existing occupancy rate of 85 percent. Therefore, the noise from traffic from the proposed project would be less than noise from traffic from existing conditions. However, to present a conservative analysis, this evaluation is based on the trips generated from the proposed project after trip reductions but does not account for trip credits from the existing shopping center. . Traffic noise levels for roadways primarily affected by the proposed project were calculated using the FHWA's Highway Noise

[3] Kimley-Horn and Associates, Inc., 2019, *Air Quality Assessment for proposed Westport Project in the City of Cupertino, California*. PlaceWorks.

Prediction Model (FHWA-RD-77-108). Traffic noise modeling was conducted for conditions with and without the proposed project.[4]

TABLE 4.7-10 EXISTING AND FUTURE WITH PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	Existing Noise Level[a] (dBA CNEL)	Future With Project Noise Level[a] (dBA CNEL)	Change (dBA CNEL)	Significant Impacts?
Stevens Creek Boulevard from SR-85 to Stelling Road	72.3	73.0	0.7	No
Mary Avenue from Parkwood Drive to Stevens Creek Boulevard	65.3	66.4	1.1	No

Notes: dBA = A-weighted decibels; CNEL = community noise equivalent level.
a. Noise levels are calculated 100 feet from centerline of the roadway.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

In general, a traffic noise increase of less than 3 dBA is barely perceptible to people, while a 5-dBA increase is readily noticeable.[5] Therefore, permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant. As a general rule, for a traffic noise level to increase by 3 dBA the traffic volumes on project area roadways would essentially need to double.

As shown in Table 4.7-10, if the trips generated from the proposed project were new trips, they would not have a significant impact on traffic noise levels. The addition of trips to the existing noise levels on Stevens Creek Boulevard near the project site would have a less than 1 dBA increase. The addition of trips to the existing noise levels on Mary Avenue near the project site would have a slightly greater than 1 dBA increase; however, the increase on either roadway would be less than 3 dBA and, therefore, not perceptible. Therefore, permanent noise increases due to proposed project-related traffic would be *less than significant*.

Stationary Noise

Implementation of the proposed project would create different sources of noise in the project vicinity. The noise sources associated with the proposed project that would potentially impact off-site receptors include the following:

- **Residential Areas.** In general, residential land uses are not considered major sources of noise. Noise that is typical of high-density residential land uses includes group conversations, pet noise, vehicle noise (see discussion below), and general maintenance activities. Noise from residential stationary sources would primarily occur during the "daytime" activity hours of 7:00 a.m. to 10:00 p.m. Furthermore, the residences would be required to comply with the noise standards set forth in the Cupertino General Plan and CMC. Noise impacts would be *less than significant* in this regard.

[4] Kimley-Horn and Associates, 2018, *Westport Cupertino – Transportation Analysis.* PlaceWorks.
[5] California Department of Transportation (Caltrans), 2013, *Technical Noise Supplement*.

- Mechanical Equipment. The proposed project would generate stationary-source noise associated with heating, ventilation, and air conditioning (HVAC) units. Such HVAC units typically generate noise levels of approximately 55 dBA at a reference distance of 100 feet from the operating units during maximum heating or air conditioning operations. As stated above, the nearest off-site sensitive receptor property lines are located more than 80 feet from the existing commercial and mixed-use areas on the project site. The HVAC equipment associated with the proposed project would be similar to the existing commercial and retail uses. The proposed HVAC equipment would be buffered by a proposed on-site internal road (see Figure 3-4 in Chapter 3, Project Description, of this Draft EIR) and would be approximately 100 feet away from the nearest off-site residences. Given that off-site sensitive receptors would be located beyond 100 feet from on-site HVAC units, noise impacts generated by new HVAC units would be *less than significant*.
- Loading Area Noise. The proposed project would require on-site truck delivery operations for neighborhood-serving goods and services, trash/recycling pickup, as well as residential moving services that could generate noise from maneuvering and idling trucks and loading/unloading items. The majority of vehicles would consist of vendor deliveries in small cargo vans and small trucks. It is anticipated some residents would occasionally require larger moving trucks. The noise associated with occasional large truck delivery as well as smaller cargo vans would not result in a significant number of truck trips to significantly increase noise within the project area. Given the site is currently occupied with a 71,254 square-foot shopping center that generates noise from varying sizes of vans and trucks for deliveries/pickups, the proposed 20,000 square feet of retail is anticipated to create significantly less noise from such retail/commercial loading activities. Furthermore, loading area activities are anticipated to occur during daytime hours when there is the expectation for such noises in urban areas. Therefore, loading area noise associated with the proposed project site would not be an intrusive or significant noise source compared to existing conditions and associated impacts would be *less than significant*.
- Parking Areas. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. Also, noise would primarily remain on the project site and would be intermittent (during peak-events). Parking lot noise can also be considered a "stationary" noise source. Noise levels from parking lot activities typically range from approximately 60 to 63 dBA at a distance of 50 feet. While the instantaneous maximum sound levels generated by a car door closing, engine starting up, and vehicle movements on-site may be periodically audible to adjacent noise-sensitive receptors, parking area noises are typical noise sources in urban areas.

  The proposed project includes a one-story subterranean parking structure located in the eastern portion of the site. Parking noise at this location is anticipated to be lower than existing conditions, because the majority of parking would occur in a structure that would be predominantly enclosed. Surface parking would be distributed throughout the project site. Noise associated with the surface parking areas would be consistent with the existing parking lot noise that currently occurs on the site. In addition, surface parking lot noise would be partially masked by background noise from traffic along SR-85 and Stevens Creek Boulevard. Therefore, parking lot noise would not result in substantially greater noise levels than currently exist in the vicinity. Noise impacts would be *less than significant*.

- Landscape Maintenance Activities. Development and operation of the proposed project would include landscaping activities (e.g., lawnmowers, leaf blowers, weed eaters) requiring periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of 5 feet. However, maintenance activities would operate during daytime hours for brief periods of time, as allowed by the CMC, and would not permanently increase ambient noise levels in the project vicinity. Furthermore, landscaping activities currently occur on the project site and this would not change. Therefore, with adherence to the CMC, impacts associated with landscape maintenance would be *less than significant*.

Significance With Mitigation: Less than significant.

Noise Compatibility

Chapter 7, Health and Safety (HS) Element, of the General Plan presents a Land Use Noise Compatibility Matrix in Figure HS-8, Land Use Compatibility for Community Noise Environments, that identifies normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses. In no case would it be desirable for any land use to exceed the highest conditionally acceptable noise level shown in Figure HS-8. Thus, for the purpose of the proposed multi-family uses, the highest conditionally acceptable exterior noise level is 70 dBA CNEL. The highest normally acceptable exterior noise level is 65 dBA CNEL. As discussed above, due to the Supreme Court decision regarding the assessment of the environment's impacts on proposed projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. As a result, while the noise from existing sources is taken into account as part of the baseline, the direct effects of exterior noise from nearby noise sources as they pertain to land use compatibility of the proposed project is no longer a required topic for impact evaluation under CEQA. Nonetheless, for the complete understanding of the public, this noise analysis discusses noise compatibility as it applies to the development of the proposed project. However, no determination of significance is required.

According to the existing noise environment described in Section 4.7.1.3, Existing Conditions, the project site under existing conditions experiences noise levels up to 72.3 dBA CNEL from existing traffic on the section of Stevens Creek Boulevard between SR-85 and Stelling Road. Therefore, the ambient noise level around the project site exceeds the normally acceptable terms of 65 dBA CNEL and conditionally acceptable terms for multi-family use of 70 dBA CNEL. Therefore, the future residents of the proposed on-site multi-family residential units could be exposed to elevated noise levels from traffic noise along SR-85 and Stevens Creek Boulevard. Furthermore, the interior standard pursuant to the California Building Code is 45 dBA CNEL. As described in the General Plan, new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise reduction features included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice.[6] A detailed acoustical study demonstrating that all

[6] Cupertino General Plan, Chapter 7, Health and Safety, Figure HS-8, Land Use Compatibility for Community Noise Environments, Conditionally Acceptable, page HS-23.

residential units would meet the City and State standards would be required prior to the issuance of a building permit. Specifically, the detailed acoustical study would need to demonstrate that all residential units would meet the City's 65 dBA exterior noise standard for all patios, balconies, and common outdoor living areas through any necessary noise reduction features (barriers, berms, enclosures, etc.). Further, all residential units would be required to be designed to ensure that interior noise levels in habitable rooms from exterior sources (including vehicles on adjacent roadways) shall not exceed 45 dBA, in compliance with Title 24 of the California Code of Regulations.

As previously stated in Section 4.7.1.2, Regulatory Framework, this scenario is framed as an impact of the existing environment on the project and is therefore not in the purview of this environmental analysis. Therefore, no impact conclusion is required in this EIR.[7]

NOISE-2 The proposed project would not generate excessive groundborne noise levels.

Construction Vibration

Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with construction-related activities. Construction on the project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures. Groundborne vibrations from construction may also cause human annoyance when the vibration rises significantly above the threshold of human perception for extended periods of time.

As described in Section 4.7.1.2, Regulatory Setting, the FTA has published standard vibration velocities for construction equipment operations (see Table 4.7-3). These measurements are also the level at which vibrations may begin to annoy people inside buildings.[8] As shown in Table 4.7-3, depending on the building category (i.e., reinforced concrete, steel, masonry, etc.) the potential construction vibration damage can vary. For example, in a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 in/sec PPV is considered safe and would not result in any construction vibration damage. The FTA architectural damage criterion for continuous vibrations for non-engineered timber and masonry buildings is 0.20 in/sec PPV.

[7] *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015.

[8] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as bulldozers and trucks. Pile drivers are not included in the mix of construction equipment required to construct the proposed project.

This evaluation uses the FTA recommended standard of 0.20 in/sec PPV with respect to the prevention of structural damage for normal buildings[9]and human annoyance.[10] Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet.

Table 4.7-10 identifies vibration levels for typical construction equipment at a distance of 25 feet and 82 feet, which is the estimated distance from construction equipment to the closest building. As shown in Table 4.7-11, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction would range from 0.003 to 0.210 inches/second PPV at 25 feet from the source of activity. No buildings are located within 25 feet of the project site.

TABLE 4.7-11 TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment	Approximate PPV at 25 feet (inches per second)	Approximate PPV at 82 feet (inches per second)
Large Bulldozer	0.089	0.015
Caisson Drilling	0.089	0.015
Loaded Trucks	0.076	0.013
Rock Breaker	0.059	0.010
Jackhammer	0.035	0.006
Vibratory Roller	0.210	0.035
Small Bulldozer	0.003	0.001

Note: PPV, peak particle velocity
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

The nearest off-site sensitive receptors would be the building located 82 feet to the north. Based on typical vibration levels, ground vibration generated by heavy-duty equipment could reach levels of 0.035 in/sec PPV at 82 feet. The use of construction equipment would not result in a groundborne vibration velocity level above the established threshold of 0.20 inch/second PPV. Furthermore, it is important to note that construction activities would occur throughout the project site and would not be concentrated at a single point near this off-site structure. As a result, impacts associated with excessive groundborne vibration during construction would be *less than significant*.

[9] Federal Transit Administration (FTA), 2018, *Transit Noise and Vibration Impact Assessment*.
[10] California Department of Transportation, 2013, *Technical Noise Supplement.*

Operational Vibration

Operation of the proposed project would not generate substantial levels of vibration because there are no notable sources of vibrational energy associated with the proposed project, such as heavy industrial machinery, railroad or subway operations. Thus, operation of the proposed project would result in *less-than-significant* groundborne vibration impacts.

Significance Without Mitigation: Less than significant.

4.7.4 CUMULATIVE IMPACTS

NOISE-3	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to noise.**

A significant cumulative noise impact may occur if the proposed project's contribution to the cumulative ambient noise environment is significant (3 dBA or higher). As described in Chapter 4, Environmental Evaluation, of this Draft EIR, the nearest cumulative project is the Loc-N-Stor project located at 10655 Mary Avenue about 0.5 miles to the north. This project is currently under preliminary review and no construction timeline has been established. The proposed project's construction activities were estimated to be below the City's standard of 80 dBA, but implementation of Mitigation Measure NOISE-1 is required to ensure the construction noise levels would not exceed 80 dBA for the surrounding off-site sensitive receptors. Furthermore, these periodic, temporary, noise impacts would cease upon completion of construction activities. If the Loc-N-Stor project were to be constructed at a similar time as the proposed project, it would be considered too far away to cause a cumulative construction noise impact. Based on the fact that noise dissipates as it travels away from its source, noise impacts from on-site activities and other stationary sources (e.g., mechanical equipment, parking areas) would be limited to the project site and vicinity. Thus, cumulative operational noise impacts from related projects, in conjunction with project-specific noise impacts, would not be cumulatively significant. As described in impact discussion NOISE-1 and NOISE-2, construction and operation of the proposed project would not result in any significant noise impacts. Therefore, the project's incremental effect to the future cumulative noise environment is not cumulatively considerable.

Significance With Mitigation: Less than significant.

4.8 TRANSPORTATION

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) and comments received in the scoping process, it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to increased hazards create by design features or inadequate emergency access. Therefore, this chapter includes an evaluation of the potential consequences related to obstruction of a transportation plan or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b). This chapter also describes the environmental setting, including regulatory framework and existing mobility conditions in the project area.

The analysis in this chapter is based in part on the *Westport Cupertino – Transportation Analysis*, dated November 27, 2018, and the *Westport Cupertino – Stevens Creek Boulevard & SR 85 On Ramp Signalization Analysis,* dated September 18, 2019, prepared by Kimley-Horn and Associates. Complete copies of these reports are provided in Appendix H, Transportation Assessment, of this Draft EIR. A third-party peer review of these reports was completed by Hexagon Transportation Consultants. City staff also reviewed these reports.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

This section describes federal, State, regional, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process for transportation.

State Regulations

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32).

SB 743 started a process that could fundamentally change transportation impact analyses as part of CEQA compliance. These changes will include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining the significant impacts of land use projects under CEQA. As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses." The Office of Planning and Research (OPR) developed alternative metrics and thresholds based on VMT. Amendments to the CEQA Guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by level of service (commonly referred to a LOS) or of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment. There is an opt-in period until July 1, 2020, for agencies to adopt new VMT-based criteria. In the interim, automobile delay is still considered a significant

impact, and the City of Cupertino will continue to use the established level-of-service criteria (e.g., LOS A through LOS F), as described below, as well as VMT.

Regional Regulations

Santa Clara County Congestion Management Plan

The Santa Clara Valley Transportation Authority (VTA) establishes transportation plans that are incorporated into the larger Regional Transportation Plan (RTP). In Santa Clara County, the VTA is also the Congestion Management Agency (CMA) tasked with preparing a comprehensive transportation improvement program among local jurisdictions (i.e., the CMP) that describes the strategies to reduce traffic congestion and improve land use decision-making. VTA's latest CMP is the 2017 *Congestion Management Program*.[1] The CMP contains level-of-service standards for highways and arterials. The minimum level-of-service standard for Santa Clara County is LOS E, except for grandfathered facilities that had already reached LOS F. Because the level-of-service standards for Santa Clara County were established in October of 1991, any intersection operating at LOS F prior to the established 1991 level-of-service standards is not held to the minimum standard of LOS E.[2] Member Agencies, which are the cities and County of Santa Clara, must ensure that CMP roadways operate at or better than the minimum level-of-service standard or they face losing gas tax subventions. The VTA monitors the performance of the CMP facilities at a minimum of every two years. If the minimum level-of-service standards are not met, Member Agencies must develop multimodal improvement plans to address the congestion.[3]

The VTA presents transportation impact analysis (TIA) guidelines, most recently adopted in October 2014, for assessing the transportation and circulation impacts of development projects and identifying whether improvements are needed to adjacent roadways, bike facilities, sidewalks, and transit services affected by the proposed project. The TIA guidelines have been adopted by local agencies within Santa Clara County, and are applied to analyze the regional transportation system. Per the TIA guidelines, a TIA must be completed for CMP purposes for projects that meet or exceed the trip threshold of generating 100 or more net new weekday peak hour morning or AM (7:00 to 10:00 a.m.) and peak hour evening or PM (4:00 to 7:00 p.m.) commute times or weekend peak hour trips, including both inbound and outbound trips.

Plan Bay Area

Plan Bay Area 2040 is the Bay Area's current Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS) that was adopted jointly by the Association of Bay Area Government's (ABAG) and Metropolitan Transportation Commission (MTC) on July 26, 2017. As part of the implementing framework for *Plan Bay Area*, local governments, including Cupertino, have identified Priority Development Areas (PDAs) to focus growth.[4] PDAs are transit-oriented, infill development opportunity areas within existing

[1] Note that the 2018 CMP report is the latest version, but it is dated May 24, 2018. Thus, the 2017 CMP report was the latest version available when the study was prepared.

[2] Santa Clara County VTA, 2017, Congestion Management Plan, page 21.

[3] Santa Clara County VTA, 2017, Congestion Management Plan, page 25.

[4] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-7.

communities. In addition to PDAs, *Plan Bay Area* identifies Transit Priority Areas (TPAs), which are areas within one-half mile of a major transit stop (15 minute or less service level frequency) that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations. An overarching goal of the regional *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. The project site is located in a Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[5] A TPA is defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

Local Regulations

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040) includes policies that are relevant to transportation, which are applicable to the proposed project. The policies are identified in Chapter 5, Mobility, of the General Plan and listed in Table 4.8-1.

TABLE 4.8-1 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy
Chapter 5, Mobility Element (M)	
Policy M-1.2	**Transportation Impact Analysis.** Participate in the development of new multi-modal analysis methods and impact thresholds as required by Senate Bill 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at a.m. and p.m. peak traffic hours: ▪ Major intersections: LOS D ▪ Stevens Creek Boulevard and De Anza Boulevard: LOS E+ ▪ Stevens Creek Boulevard and Stelling Road: LOS E+ ▪ De Anza Boulevard and Bollinger Road: LOS E+
Policy M-2.3	**Connectivity.** Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.
Policy M-2.4	**Community Impacts.** Reduce traffic impacts and support alternative modes of transportation rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or over-whelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.
Policy M-2.5	**Public Accessibility.** Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.

[5] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

TABLE 4.8-1 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy
Policy M-3.2	**Development.** Require new development and redevelopment to increase connectivity through direct and safe pedestrian connections to public amenities, neighborhoods, shopping and employment destinations throughout the city.
Policy M-3.6	**Safe Spaces for Pedestrians.** Require parking lots to include clearly defined paths for pedestrians to provide a safe path to building entrances.
Policy M-3.8	**Bicycle Parking.** Require new development and redevelopment to provide public and private bicycle parking.
Policy M-7.1	**Multi-Modal Transportation Impact Analysis.** Follow guidelines set by VTA related to transportation impact analyses, while conforming to State goals for multi-modal performance targets.
Policy M-9.2	**Reduced Travel Demand.** Promote effective TDM programs for existing and new development.

Source: Cupertino General Plan (Community Vision 2015-2040).

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize adverse impacts to the transportation network. The provisions related to potential impacts from the proposed project are included in Title 11, Vehicles and Traffic, and Title 14, Streets, Sidewalks, and Landscaping, as follows:

- **Title 11, Vehicles and Traffic.** This title establishes regulations with respect to parking, bicycles, pedestrians, and circulation. Additionally, Title 11 establishes regulations governing roadway design features, such as speed bumps.
- **Chapter 14.02, Transportation Impact Fee Program.** This chapter assumes that new development will create additional demand on the City's existing transportation infrastructure, and requires all new development within the city to pay a Transportation Impact Fee, as a mitigation measure, to use as a funding sources for costs of the transportation improvements required to serve new development.

Cupertino Bicycle Transportation Plan

In 2016, the City of Cupertino adopted its *Bicycle Transportation Master Plan* (Bike Plan), which is a citywide plan to encourage bicycling as a safe, practical and healthy alternative to the use of the family car. The Bike Plan illustrates Cupertino's current bicycle network, identifies gaps in the network, and proposes improvement projects to address the identified gaps.[6] The 2016 Bike Plan includes standards for engineering, encouragement, education, and enforcement intended to improve the bicycle infrastructure in the city to enable people to bike to work and school, to utilize a bicycle to run errands, and to enjoy the health and environmental benefits that bicycling provides cyclists of every age.

Cupertino Pedestrian Transportation Plan

The *2018 Cupertino Pedestrian Transportation Plan* (Pedestrian Plan) contains goals, policies, and specific recommendations to increase the walkability of Cupertino, including the Pedestrian Guidelines. The Pedestrian Plan is a companion document to the Bike Plan. It includes specific recommendations to

[6] City of Cupertino, 2016 Bicycle Transportation Plan, Figure 3-7: Bikeway projects.

improve pedestrian conditions, which fall into four main categories: infrastructure and operations, evaluation and planning, education and enforcement, and project implementation.[7]

4.8.2 METHODOLOGY

This section presents the methods used to determine the impacts of the proposed project on the existing transportation network. This section describes the analysis methodologies, the applicable level of service standards, and VMT methodology.

The VTA TIA guidelines, dated October 2014, and the City of Cupertino guidelines and criteria were utilized in this analysis to determine project requirements and potential impacts. See Section 4.8-5, Thresholds of Significance, for details on the significance criteria. As discussed in more detail below in Section 4.8-5, Impact Discussion, under TRANS-1, the proposed project would generate approximately 47 net AM and negative 22 net PM peak hour trips and does not meet or exceed the VTA's threshold to prepare a TIA (see Table 4.8-5 below). Therefore, as stated at the beginning of this chapter, the two transportation memos were prepared by Kimley-Horn and Associates and reviewed by Hexagon Transportation Consultants and City staff, are the basis for this chapter. The two memos are provided in Appendix H of this Draft EIR.

4.8.2.1 STUDY INTERSECTIONS

Intersection #1: Stevens Creek Boulevard/Mary Avenue

The Stevens Creek Boulevard/Mary Avenue intersection #1 is a signalized intersection under the jurisdiction of the City of Cupertino. No improvements are proposed for this intersection. The trip generation, distribution, and assignment for the proposed project, and the level-of-service analysis for this intersection are discussed below in Section 4.8.5. Impact Discussion.

Existing peak hour traffic volumes at this study intersection were collected on Wednesday April 25, 2018.

Intersection #2: Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal

The Stevens Creek Boulevard and State Route 85 (SR-85) North Bound Ramp Terminal intersection #2 is a partially signalized intersection under the jurisdiction of the City of Cupertino and Caltrans. This intersection is being evaluated in this EIR because the proposed project would include the installation of a Class IV separated bikeway on the portion of Stevens Creek Boulevard between Mary Avenue and the northbound SR-85 on-ramp. Pursuant to the conceptual Class IV separate bikeway design in the City's 2016 Bike Plan, the proposed project would reconfigure the existing westbound right-turn movement from Stevens Creek Boulevard onto the northbound SR-85 on ramp by installing a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement to accommodate the

[7] City of Cupertino, 2018 Pedestrian Transportation Plan, Table 5: Summary of Recommendations for Pedestrian-related Policies, Programs, and Practices.

proposed Class IV bikeway. The level-of-service and queuing analysis for this intersection are discussed below in Section 4.8.5, Impact Discussion.

Existing peak volumes at this study intersection were collected on May 22 and 23, 2019.

4.8.2.2 STUDY SCENARIOS

The following scenarios were analyzed for the two study intersections in the AM and PM peak hours:

- Existing without Project
- Existing plus Project
- Cumulative without Project
- Cumulative plus Project

The following scenarios were analyzed for the intersection #2 (Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal) in the AM and PM peak hours:

- Existing plus Project and Signalized Conditions for the Westbound Right-turn Movement
- Cumulative plus Project and Signalized Conditions for the Westbound Right-turn Movement

4.8.2.3 LEVEL OF SERVICE

Traffic conditions at the two study intersections were evaluated using level of service. The level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. Intersection delay and level-of-service calculations were performed using Highway Capacity Manual (HCM) 2000 methodology in Synchro Version 9, which is consistent with TRAFFIX software. Synchro was used instead of TRAFFIX because it provides improved signal timing evaluation at the study intersection of Mary Avenue and Stevens Creek Boulevard. The correlation between average control delay and level of service at signalized intersections is shown in Table 4.8-2 below.

The level-of-service standards for each study intersection are as follows:

- Stevens Creek Boulevard/Mary Avenue (#1). The City of Cupertino level of service standard for signalized intersections is LOS D. Because the Stevens Creek Boulevard/Mary Avenue intersection is signalized, the level-of-service standard is LOS D or better.
- Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal (#2). The VTA CMP states a LOS E, except for facilities grandfathered in at LOS F, is acceptable for both the AM and PM peak hour at a study intersection. Because the Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal (#2) intersection is not identified as an intersection operating at LOS F, a minimum of the level-of-service standard of LOS E is acceptable for the study intersection, which is consistent with Caltrans' standards.

TABLE 4.8-2 SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS BASED ON CONTROL DELAY

Level of Service	Description	Average Control Delay (seconds per vehicle)
A	Signal progression is extremely favorable. Most Vehicles are 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
B+	Operations characterized by good progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Higher delays may result from fair 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 23.0
C		23.1 to 32.0
C-		32.1 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 ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently.	55.1 to 60.0
E		60.1 to 75.0
E-		75.1 to 80.0
F	This level of delay is considered unacceptable to 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 contribution causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000) page 10 to 16. Santa Clara Valley Transportation Authority Traffic Level of Service Analysis Guidelines (June 2003), Table 2.

4.8.2.4 QUEUING

An intersection operations analysis was provided to identify potential impacts with respect to vehicular queuing at the Stevens Creek Boulevard/SR-85 North Bound Ramp Terminal intersection #2. The queuing analysis was prepared to determine the extent of vehicle queuing that would occur along westbound Stevens Creek Boulevard as a result of the project's proposed signal control for the westbound right-turn movement at the Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal intersection #2 and to ensure that the intersection would accommodate the anticipated queue lengths so cars would not "spill" to the through lanes. If there is insufficient storage length, queues of vehicles may extend out of the lane making the intersection less efficient as the queue would block through vehicles from proceeding through the intersection.

Detailed intersection queuing calculations are provided in the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR. The 95th percentile queue lengths for intersection #2 were compared for the Existing plus Project conditions and Cumulative plus Project conditions. The 95th percentile queue length value indicates that a queue of this length or less would occur on 95 percent of the signal cycles that include a pedestrian or bicycle call.

A Simtraffic microsimulation model was prepared for the analysis. The model included the two adjacent intersections, 1) Stevens Creek Boulevard/Mary Avenue intersection #1 to the east and 2) Stevens Creek Boulevard/SR-85 southbound ramp terminal intersection to the west, which is not a study intersection.

These two intersections were included in the model in order to have accurate arrival patterns for the analysis of Stevens Creek Boulevard and SR-85 Northbound Ramp Terminal intersection #2, particularly the westbound right-turn movement.

SimTraffic software cannot accurately simulate this signal timing plan because of the random nature of pedestrian and bicycle arrivals/crossings. Thus, an equivalent simulation was developed that is more conservative and assumes a pedestrian or bicycle call with every green east-west phase. In addition, a pedestrian crossing time was used in the simulation, which is higher compared to a bicycle crossing time.

Queues would be generated by the vehicles stopping and waiting for a pedestrian or bicycle to cross when the right-turn arrow is red. Queue results of five SimTraffic simulations and HCM 2000 level-of-service results for the westbound right-turn lane were conducted for this analysis.

4.8.2.5 VEHICLE MILES TRAVELED

VMT is a useful metric in understanding the overall effects of a project on the transportation system. VMT is the sum of all the vehicle trips generated by a project multiplied by the lengths of their trips to and from the site on an average weekday. A vehicle driven 1 mile is 1 VMT. Therefore, a project with a higher VMT would have a greater environmental effect than a project with a low VMT.

The trip lengths vary by the land use type and the trip purpose. For example, a trip from a residence to a job may be longer than the trip from a residence to a neighborhood school. The VMT values stated below represent the full length of a given trip, and are not truncated at city, county, or region boundaries.

Many factors affect travel behavior and trip lengths such as density of land use, diversity of land uses, design of the transportation network, distance to high-quality transit, and demographics. Low-density development separated from other land uses and located in areas with poor access to transit generates more automobile travel and higher VMT compared to development located in urban areas with more access to transit.

Vehicle miles traveled (VMT) were calculated using California Emissions Estimator Model (CalEEMod).

4.8.2.6 TRIP REDUCTIONS AND CREDITS

The following describes the trip reductions and credits that apply to the proposed residential mixed-use project. The total trip reductions are shown below in Table 4.8-5 under impact discussion TRANS-1.

Internal Trip Capture Reductions

Internal trip capture is the portion of trips generated by a mixed-use development that both begin and end within the development. The importance of internal trip capture is that those trips satisfy a portion of the total development's trip generation and they do so without using the external road system. Internal trip capture was calculated using the *National Cooperative Highway Research Program Report 684*, dated 2011. This methodology estimates the number of trips that have both the origin and destination within the proposed development. These internal trips were then subtracted from the total gross trips. After

applying internal capture to the proposed project, reductions of 9 percent daily trips, 2 percent AM (3 percent in / 1 percent out), and 15 percent PM (13 percent in/ 17 percent out) were applied to gross trips.

Transit Priority Area Reductions

The proposed project would place housing on a site that is within 0.50 miles of a "major transit stop" as defined by CEQA Guidelines Section 15191[8] and the VTA.[9] The De Anza Transit Center located approximately 500 feet (0.10 miles) from the southeast corner of the project site and approximately 1,700 feet (0.31 miles) from the northwest corner of the project site, with six regular bus lines (23, 25, 53, 54, 55, and 81) and one rapid bus line (323), qualifies as a major transit stop. Route 23 and 25 have 10-minute frequency of service intervals at peak and mid-day times on weekdays (see Table 4.8-4 below).[10] According to VTA TIA Guidelines, a 2 percent trip reduction can be used for housing within 2,000 feet (0.38 miles) of a major bus stop.

Pass-by Trips Reductions

A pass-by trip is a trip that already exists on the transportation network that stops by the project site on the way to its original destination. For example, a driver that was going somewhere else decides to stop at the site on their way to their original destination. Because another use generated that trip and the project site did not directly generate the trip, pass-by trips are removed from the gross trip generation. A pass-by trip reduction of 26 trips for the proposed retail component of the proposed project was applied only to the PM peak hour based on average rates from Appendix E of the *Institute of Transportation Engineers (ITE) Trip Generation Handbook*, 3rd Edition.

Existing Oaks Shopping Center Credit

Because the proposed project is the redevelopment of a site that is currently operating, the trips that are currently being generated would be replaced with the new trips of the proposed project. The Oaks Shopping Center was 85 percent occupied over the last 2 years, and therefore 85 percent (2,287 trips) of the total existing 2,690 trips generated under the full buildout capacity (100 percent occupancy) of the shopping center[11] are credited to the proposed redevelopment project. It should be noted that if 100 percent occupancy was assumed for the existing shopping center, the trips credited would have been even higher. An 85 percent occupancy assumption is considered a conservative estimate since ITE is based on gross lease area, which typically includes unoccupied units between 5 percent and 15 percent.

[8] "CEQA Guidelines defines a major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[9] The Santa Clara Valley Transportation Authority (VTA) defines a "major bus stop" as a stop where six or more buses per hour stop during the peak period and is also referred to as a "high-quality transit" area.

[10] Santa Clara Valley Transportation Authority, Bus Schedules for Bus 23, 25, 53, 54, 55, 81, and 323. http://www.vta.org/routes/, accessed June 11, 2019. Also see Table 1 in *Westport Cupertino – Transportation Analysis*, dated November 27, 2019, in Appendix H of this Draft EIR.

[11] Existing trips were calculated using the *ITE Trip Generation Manual*, 10th Edition.

Additionally, the existing shopping center currently experiences pass-by trips in the PM peak hour. Accordingly, 34 percent (78 trips) reduction of the total 230 PM peak hour trips is applied.

4.8.3 EXISTING CONDITIONS

This section describes the existing transportation facilities in the project area, including the roadway network, bicycle and pedestrian facilities, public transit network, and current intersection and roadway segment operations. This section presents the existing conditions in the project area as they relate to the selected study intersections identified above.

4.8.3.1 EXISTING ROADWAYS

The project site is served by SR-85, an east-west freeway that extends from US 101 in south San José to US 101 in Mountain View. Within the city of Cupertino, SR-85 is generally a north-south oriented eight-lane freeway with six mixed-flow lanes and two carpool lanes, which are also known as high-occupancy vehicle (HOV) lanes. These lanes restrict use to vehicles with two or more persons, motorcycles, or special vehicles during the morning and evening peak commute hours (5:00 to 9:00 a.m. and 3:00 to 7:00 p.m.). Auxiliary lanes, which run from an entrance ramp to the next exit ramp, are only provided along SR-85 from Interstate 280 (I-280) to Stevens Creek Boulevard. Access to and from the city of Cupertino is provided via interchanges at I-280, Stevens Creek Boulevard, and South De Anza Boulevard. The key roadway segments within the project area are described below.

- Stevens Creek Boulevard is a six-lane divided roadway classified in the Cupertino General Plan Mobility Element as an "arterial" that begins at in the hills of Santa Clara County to the west and ends at Bascom Avenue in the east, where it continues as San Carlos Street. Stevens Creek Boulevard is mostly commercial and residential, and provides access to SR-85, I-280, and I-880. Stevens Creek Boulevard can be used to access locations west and east of Cupertino, such as rural Santa Clara County, San José, and Santa Clara. Access to the existing shopping center is available from Stevens Creek Boulevard.
- Mary Avenue is a two-lane undivided roadway classified in the Cupertino General Plan Mobility Element as a "neighborhood connector" roadway. It begins at Meteor Drive to the north and ends at Stevens Creek Boulevard to the south. Access to the existing shopping center is available from Mary Avenue via two driveways on the northern side of the project site.
- SR-85 Northbound On-Ramp is a two-lane on-ramp and leads to a roadway classified in the Cupertino General Plan Mobility Element as a "Freeway and Expressway" roadway. It begins at Stevens Creek Boulevard to the south and becomes an auxiliary lane to the north, where is ends at I-280. This roadway segment provides access to locations in northern Cupertino and beyond. There is no access to the project site from this location.

4.8.3.2 EXISTING WITHOUT PROJECT CONDITIONS

The existing conditions without the proposed project for intersections, pedestrian and bicycle facilities, as well as transit services are discussed below.

Existing without Project Intersection Operations

The results of the level of service and delay analysis for "Existing without Project" conditions are presented in Table 4.8-3. The results of the intersection level-of-service analysis show that both study intersections currently operate at LOS C during both the AM and PM peak hours of traffic, which is an acceptable level of service.

TABLE 4.8-3 EXISTING WITHOUT PROJECT INTERSECTION LEVEL OF SERVICE

ID #	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Delay	LOS
1	Stevens Creek Boulevard/Mary Avenue	Cupertino	D	AM	31.5	C
				PM	34.9	C
2	Stevens Creek Boulevard/SR-85 NB Ramp Terminal	Caltrans	E	AM	30.0	C
				PM	24.7	C

Notes: NB = northbound.
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 3 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 1 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

Existing without Project Queuing

As previously stated, a queuing analysis was prepared to identify potential impacts with respect to vehicular queuing at the Stevens Creek Boulevard/SR-85 North Bound Ramp Terminal intersection #2. Currently, the westbound right turn has no signal and is referred to as being "free." In other words, the driver does not have to stop and is free to make the right turn heading northbound on SR-85. Under existing conditions, the north leg of this intersection has a two-stage crosswalk that allows a pedestrian or cyclist to cross the "free" westbound right-turn lane when there is a gap in traffic or traffic stops for them and wait on the small refuge median (island) provided. Only then can they cross the on-ramp lanes using the pedestrian signal-controlled crosswalk.

The 95th percentile queue for the westbound right turn is zero in Existing without Project conditions because the movement is a "free" right turn, and cars can perform the movement without stopping. Because vehicles currently yield to pedestrians using the two-stage crosswalk at the northbound on-ramp and the low bicycle and pedestrian volumes do not generate queues when vehicles yield to them as they cross the westbound right-turn movement.

Existing without Project Pedestrian, Bicycle, and Transit Facilities

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals. Pedestrian connectivity immediately surrounding the project site is provided by a mostly complete network of sidewalks and crosswalks. Continuous sidewalks exist along both Mary Avenue and Stevens Creek Boulevard. The Stevens Creek Boulevard/Mary Avenue intersection #1 provides marked crossings for pedestrians and bikes on the intersection's north, east, and south legs. Additionally, a marked crosswalk with a flashing beacon on Mary Avenue provides access to the project site from the Cupertino Memorial Park and

Cupertino Senior Center. As previously stated, the Stevens Creek Boulevard/SR-85 North Bound Ramp Terminal intersection #2 has a two-stage crosswalk that allows a pedestrian to cross the "free" westbound right-turn lane when there is a gap in traffic or traffic stops for them and wait on the small refuge median (island) provided. Only then can they cross the on-ramp lanes using the pedestrian signal-controlled crosswalk. This two-stage crosswalk is also used by bicyclists in the same manner.

Bicycle Facilities

The 2016 Bike Plan includes recommendations for new improvements in the project vicinity. These improvements include a Class IV separated bikeway along Stevens Creek Boulevard, connecting the project site to the area west of SR-85; a Class I bike path on the west side of the project site connecting to Stevens Creek Boulevard to the south and Mary Avenue to the north, and a bike bridge over SR-85 connecting Mary Avenue to Alhambra Avenue.[12] The sections of the Class IV separated bikeway and Class I bike path would also serve as part of the greater Cupertino Loop Trail.[13] The proposed project, like all future developers, is required to contribute to implementing the recommended pedestrian and bike improvements in the project area. Bicycle facilities are categorized into the following types of bikeways:

- Class I Bike Path: A completely separated right-of-way for the exclusive use of bicycles and pedestrians, with crossflow minimized. Near the project site, Class I bike paths are provided on the Mary Avenue Bridge from Mary Avenue to Homestead Road.
- Class II Bike Lane: A striped bike lane for one-way bike travel on a street or highway that is designed for the exclusive use of cyclists with certain exceptions. For instance, right-turning vehicles must merge into the lane before turning. Class II bike lanes within the project area are on Mary Avenue and Stevens Creek Boulevard.
- Class III Bike Route: A route where cyclists share the road with motor vehicles. These can be streets with low traffic volumes that are well-suited for bicycling or arterials where it is infeasible to widen the roadway to provide a bike lane due to right-of-way or topographical constraints. Class III bikeways may also be defined by a wide curb lane and/or use of a shared use arrow stencil marking on the pavement, known as a "sharrow." No Class III bike routes are currently located in the project area.
- Class IV Separated Bikeway: A bikeway that is on-street and separated from vehicles traffic by a physical protection, includes a curb, on-street parking, flexible bollards, or concrete planters. No Class IV separated bikeways are currently located in the project area.

Public Transportation *Facilities*

Public transit service in Cupertino is provided by VTA-operated bus service and Caltrain-operated commuter heavy rail service.

[12] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-7, Bikeway Projects, page 3-8.
[13] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-8, Cupertino Loop Trail, page 3-9.

Bus Service

Nearby transit services are shown in Table 4.8-4 as well as the destinations, distance to the project site, hours/days of operation, and service frequencies for transit services within walking distance. As previously described, the project site is within one-half mile of a "major transit stop" as defined by CEQA Guidelines Section 15191[14] and the VTA.[15]

TABLE 4.8-4 EXISTING TRANSIT SERVICE

Routes	From	To	Distance to Nearest Stop	Weekdays	
				Operating Hours[a]	Peak Headway[b]
VTA Local Bus Routes[c]					
23	De Anza College	Alum Rock Transit Center	0.25 miles	5:30 am to 1:00 am	10 minutes
25	De Anza College	Alum Rock Transit Center	0.4 miles	5:00 am to 11:30 pm	10 minutes
53	De Anza College	Sunnyvale Transit Center	0.4 miles	6:50 am to 7:10 pm	60 minutes
54	De Anza College	Lockheed Martin Transit Center	0.4 miles	6:00 am to 9:30 pm	30 minutes
55	De Anza College	Great America Parkway	0.4 miles	5:30 am to 11:00 pm	30 minutes
81	Moffett Field / Ames Center	San José State University	0.25 miles	6:00 am to 9:00 pm	30 minutes
Limited Bus Stop Routes					
323	Downtown San José	De Anza College	0.4 miles	7:00 am to 10:30 am	20 minutes

Notes: AM = morning commuter period; PM = evening commute period; VTA = Santa Clara Valley Transportation Authority
a. Operating hours consider earliest and latest stop at each bus lines closest stop to the project site.
b. Headways are defined as the time interval between two transit vehicles traveling in the same direction over the same route.
c. According to VTA, the Stevens Creek Boulevard will be served by Rapid Bus Line 523 by the end of 2019.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018. (see Table 1 of the *Westport Cupertino – Transportation Analysis*, provided in Appendix H of this Draft EIR.

Commuter Rail Service

Caltrain is a commuter heavy rail service that runs from downtown San Francisco (4th and King Streets) to downtown San Jose (Diridon Station), with a limited number of commute period trains running farther south to Gilroy. During commute periods, Caltrain offers express service ("Baby Bullet") between downtown San Jose and San Francisco. Currently, Baby Bullet service is provided both in the northbound and southbound directions during the morning and evening commute periods at the Mountain View Caltrain station. Baby Bullet trains serve the Sunnyvale Caltrain station in the northbound direction during the morning peak and in the southbound direction during the evening peak. The nearest Caltrain station to the project site is the Sunnyvale station, which is located approximately 4 miles to north of the project

[14] "CEQA Guidelines defines a major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[15] The Santa Clara Valley Transportation Authority (VTA) defines a "major bus stop" as a stop where six or more buses per hour stop during the peak period and is also referred to as a "high-quality transit" area.

site. During the weekdays, service in the northbound direction begins at 4:40 a.m. and ends at 10:40 p.m. In the southbound direction, service at this station begins at 6:14 a.m. and ends at 1:20 a.m. During the weekends, northbound service begins at 7:10 a.m. and ends at 10:40 p.m. Southbound service begins at 9:40 a.m. and ends at 1:26 a.m. For passengers arriving by bicycle, there are 18 bike racks and 24 bicycle lockers. Vehicle parking at this location includes 122 parking spaces.

4.8.3.3 EXISTING TRIP GENERATION AND VEHICLE MILES TRAVELED

The existing shopping center generated trips are based on an 85 percent occupancy rate, which was the rate of occupancy during 2017 and 2018. (see Table 4.8-5 below). The existing shopping center has an approximate annual VMT of 2,782,747 miles.

4.8.4 THRESHOLDS OF SIGNIFICANCE

4.8.4.1 CEQA GUIDELINES APPENDIX G

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts pursuant to the following significance standards and, therefore, are not discussed in this chapter.

- 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.

Based on the Initial Study and comments received during the scoping process, it was determined that the proposed project could result in a potentially significant transportation impact if it would:

1. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

4.8.4.2 CUPERTINO INTERSECTION IMPACT CRITERIA

A project would create a significant adverse impact on traffic conditions at a signalized intersection in the city of Cupertino if for either AM or PM peak hour:

1. The level of service at the intersection under background conditions drops below its level of service standard when project traffic is added, or

2. The level of service at the intersection operates below its level-of-service standard under background conditions, and the addition of project traffic causes both the critical-movement delay at the intersection to increase by four or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (0.01) or more. An exception to this applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical

movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 1 percent (0.01) or more.

4.8.5 IMPACT DISCUSSION

TRANS-1 The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Trip Distribution and Assignments

The proposed project would have one access point from Stevens Creek Boulevard and three access points from Mary Avenue (see Figure 3-4 in Chapter 3, Project Description, of this Draft EIR.) The below-grade parking at Residential-Retail Building 1 would be accessed from the central access point on Mary Avenue.

Residential Trip Distribution

Residential project trips are not anticipated to use the central access points on Mary Avenue because they are for access to the retail uses. Trips were distributed throughout the roadway network with approximately 8 percent (AM and PM peak) of trips to/from the north on Mary Avenue and approximately 68 percent (AM and PM peak) of trips to/from the west on Stevens Creek Boulevard and approximately 24 percent (AM and PM peak) of trips to/from the east on Stevens Creek Boulevard. Figures 3 and 4 in the 2018 *Westport Cupertino – Transportation Analysis* and Figure 9 in 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR show the distribution for residential trips and the proposed project trip assignment for AM and PM peak hour periods, respectively.

Retail Trip Distribution

Retail project trips are not anticipated to use the most northern access points on Mary Avenue because they are primarily for access to the residential units. Trips were distributed throughout the roadway network with approximately 35 percent (AM and PM peak) of trips to/from the north on Mary Avenue, approximately 30 percent (AM and PM peak) of trips to/from the west on Stevens Creek Boulevard, and approximately 30 percent (AM and PM peak) of trips to/from the east on Stevens Creek Boulevard. Approximately 5 percent (AM and PM peak) of the trips are anticipated to use Parkwood Drive (just north of the site). No trips were distributed at the driveway entrance to the Cupertino Senior Center and Cupertino Memorial Park because retail visitors are expected to walk to the stores using the crosswalk with a flashing beacon on Mary Avenue. The trips distributed along Mary Avenue are expected to already be on the roadway and are not new trips for the proposed project, because the existing site is currently used for retail purposes. Figures 5 and 6 in the 2018 *Westport Cupertino – Transportation Analysis* and Figure 8 in the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR show the distribution for retail trips and the proposed project trip assignment for AM and PM peak hour periods, respectively.

Trip Generation

The proposed project trip estimates before and after taking the trip reductions and credits described above in Section 4.8.2.5, Trip Reductions and Credits, are shown in Table 4.8-5. As shown the proposed project would generate 3 fewer (or negative 3) inbound trips and 50 new outbound trips during the AM peak hour, and 4 new inbound and 26 fewer (or negative 26) outbound trips during the PM peak hour.

TABLE 4.8-5 PROJECT TRIP GENERATION ESTIMATES

	Daily	AM Peak Hour			PM Peak Hour		
Land Use	Trips	In	Out	Total	In	Out	Total
Proposed Uses[a]							
Townhomes and Rowhouses (88 units)	646	9	31	40	31	18	49
Residential-Retail Building 1 (115 units)	626	11	30	41	31	20	51
Residential-Retail Building 2 (Senior Housing) (39 units)	146	3	5	8	6	4	10
Residential-Retail Buildings (Retail) 20,000 square feet)	756	12	7	19	36	40	76
Total Project Trips Before Trip Reductions	***2,174***	***35***	***73***	***108***	***104***	***82***	***186***
Trip Reductions							
Internal Capture[b]	-186	-1	-1	-2	-14	-14	-28
Transit Priority Area (VTA Major Bus Stop)[c]	-28	-1	-1	-2	-1	-1	-2
Pass-By Trips for Proposed on-site Retail[d]	-26	0	0	0	-12	-14	-26
Total Project Trips After Trip Reductions	***1,934***	***33***	***71***	***104***	***77***	***53***	***130***
Existing Conditions Credits							
Oaks Shopping Center[e]	2,209	36	21	57	73	79	152
Net Project Trips	**-275**	**-3**	**50**	**47**	**4**	**-26**	**-22**

Notes:
a. Trip generation based on daily trip generation rates in the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition, which applies Code 220 for low-rise dwelling units; Code 221 for mid-rise dwelling units; Code 252 for senior units; and, Code 820 for retail.
b. Internal trip capture is the portion of trips generated by a mixed-use development that both begin and end within the development.
c. The Santa Clara Valley Transportation Authority permits a 2 percent credit for being located near a major transit facility.
d. A pass-by trip is a trip that already exists on the network. Pass-by trip rates are based on the ITE Trip Generation Appendix E 3rd Generation. Pass-by credits apply to the proposed project and to existing conditions.
e. The existing trips credited are a total of 85 percent (2,287 trips) of the maximum trips (2,690 trips) if the shopping center were fully occupied minus 34 percent (78 trips) of the total 230 PM peak hour trips that make up the by-pass credits which apply to the existing shopping center.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, November 2018. (see Table 2 of the *Westport Cupertino – Transportation Analysis* in Appendix H of this Draft EIR).

Level of Service

Existing plus Project Conditions

Under Existing plus Project conditions, the intersection levels of service were calculated for the Stevens Creek Boulevard/Mary Avenue intersection #1 using existing lane geometry and traffic control because no improvements are proposed at this intersection. The intersection levels of service at the Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal intersection #2 were calculated assuming the project's proposed signalized westbound right-turn configuration described above in Section 4.8.2.1, Study Intersections. Both intersections were evaluated with existing peak hour traffic volumes plus the traffic volumes added by the proposed project to evaluate the operating conditions of the intersections and identify potential impacts to the roadway system.

The results of the intersection level-of-service calculations for Existing plus Project conditions are presented in Table 4.8-6.[16] As shown both intersections would operate under acceptable level-of-service standards, LOS C. Therefore, the proposed project's impact at both intersections is considered *less than significant*.

TABLE 4.8-6 EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE RESULTS

					Existing without Project		Existing plus Project	
ID	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Delay	LOS	Delay	LOS
1	Stevens Creek Boulevard/ Mary Avenue	Cupertino	D	AM	31.5	C	32.6	C
				PM	34.9	C	34.8	C
2	Stevens Creek Boulevard/ SR-85 NB Ramp Terminal	Caltrans	E	AM	30.0	C	34.3	C
				PM	24.7	C	23.0	C

Notes: NB = northbound
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 4 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 5 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

Cumulative without Project Conditions

Traffic operations were evaluated for 2040 Cumulative without Project conditions under the assumption that the Cumulative without Project conditions intersection geometry of the Stevens Creek Boulevard/Mary Avenue intersection #1 and Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal intersection #2 would be the same as that under the Existing without Project conditions. The results of the intersection level-of-service calculations for Cumulative without Project conditions are presented in Table 4.8-7.

[16] This is for informational purposes only since the proposed project is not anticipated to be fully operational until 2023.

TABLE 4.8-7 CUMULATIVE WITHOUT PROJECT INTERSECTION LEVEL OF SERVICE RESULTS

ID	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Existing without Project		Cumulative without Project	
					Delay	LOS	Delay	LOS
1	Stevens Creek Boulevard/ Mary Avenue	Cupertino	D	AM	31.5	C	47.7	D
				PM	34.9	C	46.3	D
2	Stevens Creek Boulevard/ NB SR 85 On/Off Ramps	Caltrans	E	AM	30.0	C	46.1	D
				PM	24.7	C	20.3	C

Notes: NB = northbound
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 5 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 5 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

As shown both intersections would operate under acceptable level-of-service standards, LOS D (intersection #1) and LOS D during AM peak hour and LOS C for PM peak hour (intersection #2). It should be noted that for intersection #2, the PM peak hour reported delay improved with Cumulative without Project conditions because the trips were predominately added to noncritical movements, which had a lower movement delay than the average intersection delay, and thereby decreases the overall average delay. Therefore, the proposed project's impact at both intersections would be *less than significant*.

Cumulative plus Project Conditions

For the Stevens Creek Boulevard/Mary Avenue intersection #1 and Stevens Creek Boulevard/SR-85 Northbound Ramp Terminal intersection #2, it is assumed that the Cumulative plus Project conditions intersection geometry would be the same as Existing plus Project conditions.

The results of the intersection level-of-service calculations for Cumulative conditions are presented in Table 4.8-8. As shown both intersections would operate under acceptable level-of-service standards, LOS D (intersection #1) and LOS C (intersection #2). Therefore, the proposed project's impact at both intersections would be *less than significant*.

TABLE 4.8-8 CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE RESULTS

ID	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Cumulative without Project		Cumulative plus Project	
					Delay	LOS	Delay	LOS
1	Stevens Creek Boulevard/ Mary Avenue	Cupertino	D	AM	47.7	D	49.1	D
				PM	46.3	D	46.3	D
2	Stevens Creek Boulevard / NB SR 85 On/Off Ramps	Caltrans	E	AM	46.1	D	47.6	D
				PM	20.3	C	24.7	C

Notes: NB = northbound
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 6 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 5 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

Queuing

Existing plus Project and Signalized Conditions for the Westbound Right-turn Movement Conditions

For this scenario it was projected that the proposed project would increase bicycle and pedestrian volumes by 20 percent at the crosswalk. This is based on the assumption that the improved facility and the added residential units from the proposed project would generate more pedestrian and bicycle demand.

With the addition of the proposed signal control for the westbound right-turn movement, the cars would have a continuous green right-turn arrow until a cyclist or pedestrian arrives and activates the pedestrian or bike crossing signal, at which time a red right-turn arrow would stop the cars. Right turns on red would not be allowed for the westbound right-turn movement to prevent cars from yielding (instead of stopping) to pedestrians.

This pedestrian/bicycle signal call could only occur on the east-west signal phasing plan of the intersection when there are no other conflicting movements with the pedestrian and/or bicycle phase. Queues would only form in the westbound right-turn pocket when the right-turn arrow is red. Furthermore, to provide a conservative (i.e., worst case) evaluation, only a pedestrian signal was analyzed because a pedestrian crossing time is longer than a bicycle crossing time. A shorter bicycle crossing time would produce shorter vehicle queues in the westbound right-turn lane than would occur with a longer pedestrian crossing time.

Queues would be generated by the vehicles stopping and waiting for a pedestrian or bicycle to cross when they have triggered the light and the right-turn arrow is red. Queue results after the five SimTraffic mircosimulations and HCM 2000 level-of-service results for the westbound right-turn lane are shown in Table 4.8-9.[17] As shown previously in Table 4.8-6, the overall level-of-service for the entire intersection would remain at an acceptable LOS C and as shown in Table 4.8-9no operational issues would result from the estimated queue lengths in the AM and PM peak hour conditions at the Stevens Creek Boulevard and SR-85 Northbound Ramp Terminal intersection #2. A graphic representation of the queue lengths is show on Figure 13 in 2019 *Westport Cupertino – SR 85 Interchange Analysis,* provided in Appendix H of this Draft EIR. These increases would be minimal and would not be substantial enough to cause operational issues along Stevens Creek Boulevard. Therefore, the proposed project's impacts in Existing plus Project and Signalized Conditions for the Westbound Right-turn Movement conditions would be *less than significant.*

[17] The Simtraffic microsimulation model included two adjacent intersections (Stevens Creek Boulevard/Mary Avenue intersection #1 to the east and Stevens Creek Boulevard/SR-85 southbound ramp terminal intersection to the west in order to have accurate arrival patterns for the analysis of the Stevens Creek Boulevard and SR-85 Northbound Ramp Terminal Intersection #2, particularly the westbound right-turn movement. No analysis results were reported for these adjacent intersections, since the operations at these locations will remain unaffected with the proposed reconfiguration.

TABLE 4.8-9 EXISTING PLUS PROJECT SIGNALIZED CONDITIONS FOR THE WESTBOUND RIGHT-TURN MOVEMENT INTERSECTION LEVEL OF SERVICE AND QUEUEING RESULTS

					Existing plus Project		
ID	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Delay	LOS[c]	Queue[d]
2	Stevens Creek Boulevard / SR-85 NB Ramp Terminal	Caltrans	E	AM	7.6	A	220 feet (9 cars)
				PM	8.0	A	243 feet (10 cars)

Notes: NB = northbound
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
c. Represents the level of service with the controlled light at the right-turn lane only.
d. Vehicle queues are the 95th percentile. The 95th percentile queue length value indicates that a queue of this length or less would occur on 95 percent of the signal cycles that include a pedestrian or bicycle call.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 4 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 2 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

Cumulative plus Project and Signalized Conditions for the Westbound Right-turn Movement Conditions

Like the Existing plus Project and Signalized Conditions for the Westbound Right-turn Movement conditions discussed above, this scenario also assumes the project's proposed signal phasing conditions would be the same and that bicycle and pedestrian volumes would increase by 20 percent at the crosswalk with the proposed project.

Queue results after the five SimTraffic microsimulations and HCM 2000 level-of-service results for the westbound right-turn lane are shown in Table 4.8-10. As shown previously in Table 4.8-7, the overall level-of-service for the entire intersection would remain at an acceptable LOS D in the AM peak hour and LOS C in the PM peak hour. As shown in Table 4.8-10, no operational issues would result from the estimated queue lengths in the AM and PM peak hour conditions. A graphic representation of the queue lengths is shown on Figure 18 in 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR. These increases would be minimal and would not be substantial enough to cause operational issues along Stevens Creek Boulevard. Therefore, the proposed project's impacts in Cumulative plus Project and Signalized Conditions for the Westbound Right-turn Movement conditions would be *less than significant.*

TABLE 4.8-10 CUMULATIVE PLUS PROJECT SIGNALIZED CONDITIONS FOR THE WESTBOUND RIGHT-TURN MOVEMENT INTERSECTION LEVEL OF SERVICE AND QUEUEING RESULTS

					Existing plus Project			Cumulative plus Project		
ID	Intersection	Jurisdiction	LOS Threshold[a]	Peak Hour[b]	Delay	LOS[c]	Queue[d]	Delay	LOS[c]	Queue[d]
2	Stevens Creek Boulevard / SR-85 NB Ramp Terminal	Caltrans	E	AM	7.6	A	220 feet (9 cars)	8.2	A	246 feet (10 cars)
				PM	8.0	A	243 feet (10 cars)	11.1	B	284 feet (12 cars)

Notes: NB = northbound
a. LOS Threshold is the lowest acceptable LOS (the threshold between acceptable and unacceptable level of service).
b. AM = morning peak hour, PM = evening peak hour.
c. Represents the level of service with the controlled light at the right-turn lane only.
d. Vehicle queues are the 95th percentile. The 95th percentile queue length value indicates that a queue of this length or less would occur on 95 percent of the signal cycles that include a pedestrian or bicycle call.
Source: Kimley-Horn and Associates, Hexagon Transportation Consultants, 2018, 2019. (see Table 6 of the 2018 *Westport Cupertino – Transportation Analysis and* Table 4 of the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR).

Construction Traffic

Demolition and on-site construction as well as off-site improvements would take place in two phases over a 16-month period and is anticipated to be completed by the year 2023, subject to regulatory approval. During this period, the proposed project would generate changes to the existing transportation conditions by adding construction-related trips to the network and modifying the network to install off-site infrastructure improvements that implement the 2016 Bike Plan. New traffic would be generated by construction employees and construction activities, including haul trucks. Construction traffic is temporary and would generate fewer trips than the proposed projected trips during project operation. During the construction phase of the proposed bikeway, a portion of the lane on Steven's Creek Boulevard may be closed. However, like construction traffic, this would a temporary and short-term phase. As discussed above, the proposed project would not result in a significant impact at any study intersection.

Significance Without Mitigation: Less than significant.

Pedestrian Facilities

The proposed project is expected to increase the number of pedestrians using the existing sidewalks and crosswalks in the area by 20 percent. The proposed project includes an internal sidewalk and bicycle network, in addition to sidewalk modifications along Stevens Creek Boulevard and Mary Avenue. The sidewalk modifications would include detaching the sidewalk along Stevens Creek Boulevard and required modifications along Mary Avenue to facilitate on and offsite improvements.

The project site would continue to be accessible to pedestrians from Mary Avenue and Stevens Creek Boulevard, and on-site network would provide pedestrian and bicycle circulation within the project site. The overall network of sidewalks and crosswalks in the study area has adequate connectivity and provides pedestrians with safe routes to transit services and other points of interest in the vicinity of the project site. The proposed project would not eliminate or impede any existing pedestrian facilities, nor would it conflict with any of the goals and policies in the City's Pedestrian Plan.

Bicycle Facilities

There are existing bicycle facilities in the immediate vicinity of the project site. As described in the existing conditions section above, the 2016 Bike Plan includes recommendations for a new Class IV separated bikeway along Stevens Creek Boulevard, a new Class I bike path on the west side of the project site, and a bike bridge over SR-85 connecting Mary Avenue to Alhambra Avenue.[18]

As stated previously in this chapter, the proposed project would install a Class IV separated bikeway on the portion of Stevens Creek Boulevard between Mary Avenue and the northbound SR-85 on-ramp and the associated signal and reconfigured intersection features. This reconfiguration would convert the existing westbound "free" right-turn lane to a signal-controlled right-turn movement to allow for an exclusive,

[18] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-7, Bikeway Projects, page 3-8.

protected phase for pedestrians and cyclists to cross the on-ramp leg. The purpose of this reconfiguration is to increase pedestrian and bicycle safety when crossing the on-ramp leg. Figure 2 in the 2019 *Westport Cupertino – SR 85 Interchange Analysis* provided in Appendix H of this Draft EIR shows the proposed improvement. This would allow a pedestrian or cyclist to then cross the on-ramp in one phase (i.e., the current two-stage crossing procedure would be eliminated). For the purposes of this analysis the total crosswalk length was determined to be 85 feet, which requires approximately 25 seconds (at a walking speed of 3.5 feet per second) for the pedestrian clearance interval. Right turn on red would not be allowed for the westbound right-turn movement to prevent cars from yielding (instead of stopping) to pedestrians.

The proposed project would also install the Class I bike path on the western portion of the project site to connect Stevens Creek Boulevard to Mary Avenue and would include public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue. The proposed project would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. These sections of the Class IV separated bikeway and Class I bike path would also serve as part of the greater Cupertino Loop Trail.[19] The bridge would also be part of the greater Bike Boulevard in the city. [20] The vehicular access to the proposed project site would remain similar to the existing conditions and would not eliminate or impede the existing bicycle facilities.

The proposed project would include a total of 117 bicycle parking spaces, consisting of five Class 1 facilities for retail uses, 18 Class 2 facilities for retail uses, 78 Class 1 facilities for residential uses, and 16 Class 2 facilities for residential uses.[21] Bike facilities would be located adjacent to Buildings 1 and 2, in addition to within the proposed buildings. Therefore, the proposed project would not obstruct or hinder the implementation of the City's 2016 Bike Plan and would support the use of bicycling by providing adequate bike facilities for guests and employees.

Transit

The project site is served by existing VTA bus routes. The closest bus stops are located within 0.25 miles of the project site, providing access to local bus routes 23 and 81. Five additional bus routes are located approximately 0.4 miles from the project site, providing access to local buses 25, 53, 54, and 55, in addition to rapid transit route 323. The VTA has not established policies or significance criteria related to transit vehicle delay. The new transit trips generated by the proposed project are not expected to create a significant demand in excess of the capacity of the transit service that is currently provided.

The proposed project would also install a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 Northbound Ramp. The precise design-level details will need to be

[19] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-8, Cupertino Loop Trail, page 3-9.

[20] City of Cupertino 2016 Bicycle Transportation Plan, Figure 3-10, Bike Boulevard projects, page 3-11.

[21] Class 1 bicycle parking spaces include bicycle lockers or secure rooms and Class 2 bicycle parking spaces are publicly accessible bicycle racks.

coordinated with VTA and City of Cupertino. For this EIR, it is assumed the bus stop would include a concrete bus pad and bus shelter.

In summary, the proposed project would not exceed the City's level-of-service standards for vehicular transportation, and there would be adequate availability of alternative modes of travel including pedestrian, bicycle, and transit in the project area. The proposed project would not displace, modify, or interfere with any transit stop, sidewalk, or bicycle lanes. In addition, the proposed project would not generate a demand for transit that would exceed the capacity of the system. Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Accordingly, impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

TRANS-2 The proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

CEQA Guidelines Section 15064.3 was added to the updated CEQA Guidelines on December 28, 2018. Section 15064.3 describes specific considerations for evaluating a project's transportation impacts. As stated in Section 15064.3(a), vehicle-miles traveled or VMT is the most appropriate measure of transportation impacts, and pursuant to Section 15064.3(b)(1) land use projects should be analyzed based on VMT.

The proposed project is a residential mixed-use development on an infill site recognized as a PDA and a TPA by the regional *Plan Bay Area* 2040 prepared by ABAG and MTC. An overarching goal of the regional *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. In addition, the project site was evaluated in the General Plan EIR[22] as a High Priority Housing Element site by the City of Cupertino.

As discussed in the General Plan EIR, the VMT per capita is projected to increase from 10.5 to 10.9 under General Plan buildout conditions. The proposed project would construct a 242 residential units, and 20,000 square feet of retail space, which is consistent with the land use evaluated in the General Plan EIR, and therefore, would not directly result in any additional new population growth or employment growth beyond what was analyzed in the General Plan EIR. Accordingly, implementation of the proposed project would be consistent with and would have no effect on the VMT estimates presented in the General Plan EIR.

Project-specific VMT was determined using CalEEMod and was calculated for Existing and Existing plus Project conditions. As previously stated, the existing commercial space (71,250 square feet), with an 85 percent occupancy rate produces an approximate annual VMT of 2,782,747 miles, or a daily VMT of 7,624

[22] City of Cupertino General Plan (Community Vision 2015–2040, Appendix B: Housing Element Technical Report, 4.3 Environmental, Infrastructure & Public Service Constraints, page B-93.

miles. The proposed project would produce an approximate annual VMT of 2,662,683 miles, or a daily VMT of 7,295 miles. This would be a reduction of approximately 120,064 miles annually, or 329 miles daily.

The proposed project would be consistent with the analysis conducted in the General Plan EIR, and implementation of the proposed project would reduce VMT from the proposed project at the project site. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) and impacts would be *less than significant*.

Significance Without Mitigation: Less than significant.

4.8.6 CUMULATIVE IMPACTS

TRANS-3	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in additional cumulatively considerable impacts.**

The analysis of the proposed project, above, addresses cumulative impacts to the transportation network in the city and its surroundings; accordingly, cumulative impacts would be the same as those discussed above and no additional analysis is warranted.

Significance Without Mitigation: Less than significant.

4.9 UTILITIES & SERVICE SYSTEMS

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) and comments received during the scoping process, it was determined that construction and operation of the proposed project would not result in significant environmental impacts related to the following significance standards and, therefore, are not discussed in this chapter.

- Require or result in the construction of new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local statutes and regulations related to solid waste.

Therefore, this chapter includes an evaluation of the potential environmental consequences associated with wastewater treatment capacity. This chapter also describes the environmental setting, regulatory framework, existing setting, and identifies mitigation measures that would avoid or reduce significant impacts.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

This section describes federal, State, and local regulations that apply to wastewater utilities, specifically the capacity of wastewater treatment systems.

Federal

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the

NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage (i.e., wastewater) treatment plant.

State

On May 2, 2006 the State Water Resource Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to the nine Regional Water Quality Control Boards (RWQCB) to enforce these requirements within their regions. The San Francisco Bay RWQCB (Region 2) issues and enforces NPDES permits in Cupertino. NPDES permits allow the RWQCB to regulate where and how the waste is disposed, including the discharge volume and effluent limits of the waste, and the monitoring and reporting responsibilities of the discharger. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Local

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to help ensure wastewater treatment capacity and sewer infrastructure is adequate to serve the residents and employees of Cupertino. The provisions related to potential impacts from the proposed project are included in Title 15, Water and Sewage; and Title 16, Buildings and Construction, as follows:

- Chapter 16.58, Green Building Standards Code Adopted. This chapter describes the California Green Building Standards adopted by the City, and any local amendments made with indications of additions or amendments to the State Standards. The Green Building Ordinance for the City of Cupertino provides minimum Green Building Requirements for new construction, and renovation and additions.
- Chapter 15.20, Sewage Disposal Systems. This chapter establishes standards for the approval, installation, and operation of individual onsite sewage disposal systems consistent with the California Regional Water Quality Board standards. The chapter sets regulations for connecting to public sanitary sewer system, including required permits, soil test requirements, and procedures for plan approval by the Health Officer.

Cupertino Sanitary District Operations Code

The Cupertino Sanitary District (CSD) provides sanitary sewer service to Cupertino, portions of Saratoga, Sunnyvale, Los Altos, and surrounding unincorporated Santa Clara County communities. Chapter IV of Cupertino Sanitary CSD's Operations Code requires all new buildings within the CSD to be connected to

the CSD sewer system and all land development projects to include provisions for future buildings to connect to the CSD's sewer system. Article 3 of Chapter VI of the CSD's Operations Code requires a Wastewater Discharge Permit before connecting to or discharging into a CSD's sewer. The Wastewater Discharge Permit would be attached to a specific duration, which cannot exceed 5 years.

Cupertino Sanitary District Sewer System Management Plan

The SSMP was prepared in compliance with SWRCB Order 2006-0003: Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (GWDR), as revised by Order No. WQ 2008-0002.EXEC on February 20, 2008. The GWDR prohibits sanitary sewer overflows, requires reporting of sanitary sewer overflows using the statewide electronic reporting system, and requires the preparation of an SSMP.

The SSMP is also required by the San Francisco Bay RWQCB. Requirements are outlined in the *Sewer System Management Plan Development Guide* dated July 2005, developed by the RWQCB in cooperation with the Bay Area Clean Water Agencies.

The CSD is one of a number of stakeholder agencies within a local watershed area of Santa Clara County; each is accountable by permit to the SWRCB under the Clean Water Act. These stakeholders include:

- San José/Santa Clara Regional Wastewater Facility, Department of Environmental Services
- Santa Clara Valley Water District
- Cities of Cupertino, Saratoga, Sunnyvale, Santa Clara, Los Altos and San José
- Santa Clara County Roads and Airports and Public Works Departments

Other stakeholders include the Santa Clara County Environmental Services Department, California Department of Fish and Wildlife, and several privately organized environmental groups.

4.9.2 EXISTING CONDITIONS

4.9.2.1 CUPERTINO SANITARY DISTRICT

The CSD provides sanitary sewer services for the project site. Wastewater would be treated at the San José/Santa Clara Water Pollution Control Plant (SJ/SCWPCP).

The CSD maintains approximately 194.5 miles of sewer mains including the infrastructure in the vicinity of the project site.[1] The collected wastewater from the CSD service area is conveyed to the SJ/SCWPCP through mains and interceptor lines shared with both the cities of San José and Santa Clara. The CSD is one of five tributary agencies that have a contractual treatment allocation agreement with the SJ/SCWPCP. The CSD has a contractual treatment allocation with the SJ/SCWPCP of 7.85 million gallons

[1] Cupertino Sanitary District, 2016, Sewer Management Plan, page 23.

per day (mgd), on average. In 2014, at the time of the General Plan EIR,[2] CSD wastewater flow to the SJ/SCWPCP was 5.3 mgd.[3]

The CSD wastewater system also flows through a portion of the City of Santa Clara's sewer system. The contractual agreement between CSD and the City of Santa Clara is 13.8 mgd during peak wet weather flows. The existing CSD peak wet weather flow into the Santa Clara system is modeled at 13.29 mgd.[4]

4.9.2.2 EXISTING ON-SITE USES

The project site is currently occupied by an approximately 71,250 square-foot shopping center that is currently in operation. Based on the May 2007 *City of Santa Clara Sewer Capacity Assessment* and the estimated wastewater generation rate 0.3 gpd per square foot of retail space, the existing uses generate approximately 21,376 gallons per day (gpd) or 0.0213 million gallons per day (mgd).[5]

4.9.3 THRESHOLDS OF SIGNIFICANCE

An Initial Study was prepared for the proposed project (see Appendix A of this Draft EIR). Based on the analysis contained in the Initial Study and comments received during the scoping process, it was determined that development of the proposed project would not result in significant environmental impacts related to the following significance standards and, therefore, are not discussed in this chapter.

- Require or result in the construction of new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local statutes and regulations related to solid waste.

Based on the Initial Study and comments received during the scoping process it was determined that the proposed project could result in a potentially significant wastewater related impact if it would:

1. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

[2] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

[3] City of Cupertino, General Plan (Community Vision 2015–2040), Appendix B, Housing Element Technical Report, 4.3 Environmental, Infrastructure & Public Service Constraints, page B-93.

[4] Mark Thomas, February 20, 2019, Cupertino Sanitary District Flow Modeling Analysis Homestead Flume Outfall to City of Santa Clara.

[5] 71,250 sf retail x 0.3 gpd per square foot = 21,376 gpd or 0.0213 mgd.

4.9.4 IMPACT DISCUSSION

UTIL-1 The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Based on the May 2007 *City of Santa Clara Sewer Capacity Assessment*, the estimated wastewater generation rate for residential uses is 133 gallons per day (gpd) per unit, and 0.3 gpd per square foot of retail space. Applying these generation rates, the proposed 242 residential units and the 20,000 square feet of retail space would generate approximately 38,186 gpd or 0.0382 mgd of wastewater.[6] As described in Section 4.9.2.2, Existing On-Site Uses, the operational shopping center currently generates about 21,376 gpd or 0.0213 mgd. Therefore, the net increase for the proposed project is 16,810 gpd or 0.0168 mgd.[7]

The SJ/SCWPCP currently has a total capacity of 450 mgd. Combined, the proposed project's net increase of wastewater generation of 0.0168 mgd and the current wastewater generated system-wide of 105 mgd, the proposed project would not exceed the SJ/SCWPCP's current total capacity of 450 mgd.

The CSD has a contractual treatment allocation of 7.85 mgd Average Daily Dry Flow with the SJ/SCWPCP. At the time of the General Plan EIR, the wastewater generation of 5.3 mgd was estimated by the CSD.[8] The existing wastewater flow of 5.3 mgd plus the proposed project wastewater flow of 0.0168 mgd would not exceed the City's contractual allocation limit of 7.85 mgd. The proposed project is also within the amount of development (4,421 residential units and 1,343,679 commercial square feet) evaluated in the General Plan EIR;[9] therefore, no impact would result.

The CSD wastewater system flows through a portion of the City of Santa Clara's sewer system. The contractual agreement between CSD and the City of Santa Clara allows 13.8 mgd during peak wet weather flows for this portion of the Santa Clara sewer system. The existing CSD peak wet weather flow into the Santa Clara system is 13.29 mgd.[10] However, the estimated wastewater generation from the proposed project and from other potential projects, as established by the General Plan and other approved projects, is approximately 14.25 mgd, which is the total capacity needed to serve the General Plan buildout.[11]

[6] (242 units x 133 gpd = 32,186 gpd) + (20,000 sf retail x 0.3 gpd per square foot = 6,000 gpd) = 38,186 gpd

[7] 38,186 gpd proposed generation – 21,376 gpd existing generation = 16,810 gpd (or 0.0168 mgd) net increase.

[8] City of Cupertino, General Plan (Community Vision 2015–2040), Appendix B: Housing Element Technical Report, 4.3 Environmental, Infrastructure & Public Service Constraints, page B-93.

[9] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

[10] Mark Thomas, August 29, 2019, Cupertino Sanitary District Flow Modeling Analysis Homestead Flume Outfall to City of Santa Clara.

[11] Mark Thomas, August 29, 2019, Cupertino Sanitary District Flow Modeling Analysis Homestead Flume Outfall to City of Santa Clara. Sewage coefficients use to calculate the sewer generation rates for the various uses in the project and the General Plan buildout were taken from the San Jose - Santa Clara Water Pollution Control Plant Specific Use Code & Sewer Coefficient

Therefore, the proposed project, and other approved and potential projects as established by the General Plan 2040 buildout, will require a reduction in sewer generation from the CSD system prior to flowing into the City of Santa Clara system, or additional capacity rights will need to be acquired from the City of Santa Clara.

CSD performed smoke testing[12] on a portion of the sewer system in 2018. The results of the smoke testing showed that certain portions of their system are being impacted by inflow from illegal connections to the system. These illegal connections include area drains, catch basins, and roof rainwater leaders from both public and private facilities within the cities of Cupertino and Saratoga jurisdictions. These illegal connections collect storm water and direct the flow to the sewer system. Calculating the flows from these illegal connections, using the Manning's flow equation[13] and the size of the areas that flow to these connections, there is an addition of approximately 0.4 mgd to the sanitary sewer peak wet weather flow. Disconnecting these illegal connections and redirecting these storm water flows to the public storm drain system would result in a reduction of the sewer peak wet weather from 14.25 mgd to 13.85 mgd. Further investigation of the CSD system is anticipated and disconnection of additional illicit connects is expected, which would provide further potential reduction to the peak wet weather flow.

However, until such corrections to the system can occur, the operation of the proposed project would exceed the 13.8 mgd contractual limit through the City of Santa Clara sewer system resulting in a potentially significant impact.

Impact UTIL-1: Implementation of the proposed project may result in a determination by the wastewater treatment provider, which serves or may serve the proposed project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Mitigation Measure UTIL-1: No building permits shall be issued by the City for the proposed Westport Mixed-Use Project that would result in exceeding the permitted peak wet weather flow capacity of 13.8 mgd through the Santa Clara sanitary sewer system. The project applicant shall demonstrate, to the satisfaction of the City of Cupertino and Cupertino Sanitary District (CSD), that the proposed project would not exceed the peak wet weather flow capacity of the Santa Clara sanitary sewer system by implementing one or more of the following methods:

1) Reduce inflow and infiltration in the CSD system to reduce peak wet weather flows; or

2) Increase on-site water reuse, such as increased grey water use, or reduce water consumption of the fixtures used within the proposed project, or other methods that are measurable and reduce sewer generation rates to acceptable levels, to the satisfaction of the CSD.

table and from the City of Santa Clara Sanitary Sewer Capacity Assessment, May 2007, as well as CSD estimated flow rates based on measured water usages.

[12] Many municipalities implement smoke testing programs to assess the condition of sanitary sewer system. Smoke testing is the process of injecting artificially produced smoke into a blocked off pipeline segment to see where the smoke emerges. If the line has defects, the smoke will find the break and try to escape through the break. Smoke testing is one of the best cost-effective ways to locate defects in the main sewer line and service laterals that connects to a site.

[13] The Mannings equation is an empirical equation that applies to uniform flow in open channels and is a function of the channel velocity, flow area and channel slope.

The proposed project's estimated wastewater generation shall be calculated using the generation rates used by the *San Jose-Santa Clara Water Pollution Control Plant Specific Use Code & Sewer Coefficient* table in the May 2007, *City of Santa Clara Sanitary Sewer Capacity Assessment*,[14] and *California Green Building Standards*, unless alternative (i.e., lower) generation rates achieved by the proposed project are substantiated by the project applicant based on evidence to the satisfaction of the CSD.

If the prior agreement between CSD and the City of Santa Clara that currently limits the permitted peak wet weather flow capacity of 13.8 mgd through the Santa Clara sanitary sewer system were to be updated to increase the permitted peak wet weather flow sufficiently to accommodate the proposed project's flows, this would also change the impacts of the project to less than significant. If this were to occur prior to the City's approval of building permits, then Mitigation Measure UTIL-1 would no longer be required to be implemented.

Significance With Mitigation: Less than significant. Implementation of Mitigation Measure UTIL-1 would guarantee that no development on the project site could occur that would exceed the 13.8 mgd peak wet weather flow contractual limit through the City of Santa Clara and CSD by ensuring that no building permit would be issued for any structures or units that result in the contractual limit being exceeded until: (1) additional capacity is available through the City of Santa Clara's sewer system; (2) improvements are made to the CSD sewer system that reduce the peak wet weather flows that enter the City of Santa Clara system; (3) improvements are made on the project site that ensure the contractual limit is not exceed; or (4) the completion of any combination of these approaches that adequately addresses potential capacity issues.

UTIL-2	**The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to wastewater treatment.**

The impact discussion above is based on a cumulative setting because it considers the impacts of the proposed project in conjunction with the citywide wastewater generation and demand. All development within Cupertino is bound to the same treatment allocation contractual limits and contributes to demand on the SJ/SCWPCP wastewater treatment capacity. As discussed above, Mitigation Measure UTIL-1 is required to reduce the proposed project's contribution to the City of Santa Clara's sewer system. Therefore, no further discussion on cumulative impacts is necessary.

Significance With Mitigation: Less than significant.

[14] Mark Thomas and Associates, July 19, 2018, Email communication with Cupertino Public Works.

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5. Alternatives to the Proposed Project

The CEQA Guidelines set forth the range of alternatives to be analyzed in an EIR. Section 15126.6(a) of the CEQA Guidelines states that:

> *An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, 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, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*

The following discussion is intended to inform the public and decision makers of a reasonable range of feasible alternatives to the proposed project that would avoid or substantially lessen any significant effect of the proposed project. This chapter describes the purpose of the alternatives discussion; provides a summary of the reasonable range of alternatives, including a summary of potentially significant impacts and the relationship of each alternative to the project objectives; and identifies the environmentally superior alternative.

5.1 PURPOSE

The alternatives evaluated in this Draft EIR were developed consistent with Section 15126.6(b) of the CEQA Guidelines, which states that:

> *Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*

5.2 POTENTIALLY SIGNIFICANT IMPACTS

All of the potential environmental impacts associated with development of the proposed project were found to be either less than significant without mitigation or less than significant with mitigation. No significant and unavoidable impacts would occur as a result of construction and operation of the proposed project. A list of the potentially significant impacts is provided in Table 2-2 in Chapter 2, Executive Summary, of this Draft EIR. The choice of alternatives to the proposed project is focused on

alternatives that would further reduce or avoid the impacts found to be potentially significant, but less than significant with mitigation measures, as listed in Table 2-1.

The significant-but-mitigable impacts of the proposed project are the following:

- Air Quality. Construction impacts from emissions of fine particulate matter (PM_{10} and $PM_{2.5}$) and toxic air contaminants (TAC) from construction equipment.
- Biological Resources. Construction impacts to nesting birds and compliance with the City's tree preservation regulations.
- Cultural and Tribal Cultural Resources. Construction impacts to unknown subsurface archeological and tribal cultural resources.
- Geology and Soils. Construction impacts to unknown unique paleontological resources.
- Noise. Generation of a substantial temporary increase in ambient noise levels in the vicinity of the proposed project during construction.
- Utilities and Service Systems. Determination by the wastewater treatments provider that it does not have adequate capacity to serve the project's and cumulative projects projected demand.

5.3 PROJECT OBJECTIVES

As stated above, the range of alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the proposed project. The project objectives are as follows:

- Redevelop an existing retail center on Mary Avenue and Stevens Creek Boulevard with desirable amenities and housing.
- Meet the City's Regional Housing Needs Allocation (RHNA) for 2014-2022.
- Enhance the vibrancy of Cupertino's Heart of the City as a key mixed-use, commercial corridor by providing a pedestrian-friendly community that includes housing, open space and greenery, and neighborhood retail.
- Provide senior housing in close proximity to the Cupertino Senior Citizen Center.
- Create a prominent gateway development that incorporates quality architectural design and materials, open space, and artwork to announce entry into Cupertino's Heart of the City.
- Create a mixed-use development that places residential and commercial uses in close proximity to each other, and close to transit options.
- Help the City to achieve its affordable housing goals through the inclusion of senior housing units within a residential and mixed-use development project.

5.4 SELECTION OF A REASONABLE RANGE OF ALTERNATIVES

Section 15126.6(c) of the State CEQA Guidelines states:

> *The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the*

alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

5.4.1 ALTERNATIVES CONSIDERED AND REJECTED AS INFEASIBLE

As described above, Section 15126.6(c) of the State CEQA Guidelines requires EIRs to identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency's determination. Section 15126.6(c) provides that among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts. The following is a discussion of alternatives that were considered and rejected, along with the reasons they were not included in the analysis.

5.4.1.1 ALTERNATIVE LOCATION

Development of the proposed project at an alternative location in the city was considered and rejected because it would not accomplish most of the basic objectives of the proposed project, would be infeasible, and would not substantially lessen or avoid any significant environmental impact. Because the proposed project is identified as a Priority Housing Element Site in the General Plan, locating the proposed residential mixed-use development on a different site would be inconsistent with the General Plan policies to accommodate the Regional Housing Needs Allocation (RHNA) for the 2014 to 2022 planning period.[1] The General Plan EIR considered 20 different housing element sites and prioritized five of those to be implemented as part of the Housing Element for the 2014 to 2022 planning period.[2] As described in Chapter 3, Project Description, of this Draft EIR, the proposed project would provide 242 residential units, including 39 senior residential units, within close proximity to Cupertino Senior Center and Cupertino Memorial Park, on a Priority Development Site and a Transit Priority Site. The proposed project would also include 20,000 square feet of ground floor neighborhood-serving retail, which is compatible with the surrounding land uses and required by the General Plan Commercial/Residential land use designation. Furthermore, unlike an alternate location, the proposed project is consistent with the General Plan land use designation and zoning for the project site. The project applicant does not currently own or control other potential sites for the proposed project in Cupertino, which could accommodate the proposed project or meet the objectives of the proposed mixed-use development. Nor can the proposed project applicant reasonably acquire or otherwise have access to such alternate sites (refer to Section 15126.6(f) of the CEQA Guidelines). In addition, an alternative site could cause greater operation- and construction-

[1] California Government Code Section 15126.6(f)(2).

[2] City of Cupertino, certified General Plan Amendment, Housing Element Update, and Associated Rezoning EIR, (December 2014) and approved General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Final Addendum, State Clearinghouse Number 2014032007 (October 2015).

related impacts. Therefore, no feasible alternative locations were evaluated for the proposed project and no further discussion is warranted.

5.4.1.2 REDUCED RESIDENTIAL DENSITY ALTERNATIVE

A reduced residential density alternative was considered and rejected because it would not be feasible under current State law because it is not required to avoid a significant environmental impact. As shown in Chapters 4.1 through 4.9, all impacts as a result of construction and operation of the proposed project would be less than significant, less than significant with mitigation, or no impact would occur. Pursuant to Government Code 65589.5(j), requiring a reduction in housing density as a condition of approval is only allowed if the proposed project has a specific adverse effect on health and safety that can only be mitigated except by lowering density. Accordingly, this alternative is infeasible, and no further discussion of this alternative is warranted.

5.4.1.3 INCREASED RESIDENTIAL DENSITY ALTERNATIVE

An increased residential density alternative was considered and rejected because it would not be feasible inasmuch as it would exceed the maximum density designated in the General Plan for the project site, which is 30 dwelling units per acre for Priority Housing Element Site A3 (The Oaks Shopping Center). This alternative would also have the potential to create greater construction and operational impacts than the proposed project. For example, a larger development could require taller buildings and a longer construction period, which could result in greater air quality, greenhouse gas emission, noise, and transportation impacts than the proposed project. Therefore, this alternative is infeasible and would not avoid significant environmental impacts, and no further discussion of this alternative is warranted.

5.4.2 ALTERNATIVES ANALYSIS

In addition to the No Project Alternative, this EIR discusses two project alternatives and compares them to the proposed project, as discussed below. As previously stated, the alternatives were selected because of their potential to reduce the significant-but-mitigable impacts of the proposed project. The three alternatives are:

- No Project Alternative
- No Retail Development Alternative
- Reduced Retail Development Alternative

The first alternative is the CEQA-required “No Project” Alternative, and assumes that no changes to the existing shopping center would occur. The No Retail Development Alternative would construct only the residential components of the proposed project at the same density as the proposed project, but would not include the retail in Residential Retail Buildings 1 and 2. The Reduced Retail Development Alternative would construct the same residential elements as the proposed project, but would reduce the retail in Residential Retail Building 1 from 17,600 square feet to 7,600 square feet, which would reduce the overall retail on the project site by 50 percent.

5.4.3 ASSUMPTIONS AND METHODOLOGY

The alternatives analysis compares the impacts of the alternatives to the proposed project. The No Project Alternative assumes no change in the existing site and no new development. The overall extent of the development on the project site for the other two alternatives is similar to the proposed project, but with less retail square footage. As described in Chapters 4.1, Air Quality, Chapter 4.2, Biological Resources, Chapter 4.3, Cultural and Tribal Cultural Resources, Chapter 4.4, Geology and Soils, and Chapter 4.7, Noise, mitigation measures would be required to reduce construction related impacts Chapter 4.9, Utilities and Service Systems, requires mitigation for operational impacts associated with wastewater generation and the capacity of the sanitary sewer system. This alternatives analysis assumes that all applicable regulations and all mitigation measures identified in this EIR for the proposed project would be implemented for the No Retail Development Alternative and the Reduced Retail Development Alternative.

The following analysis compares the potentially significant environmental impacts of the three alternatives with the project-related impacts for each of the environmental topics analyzed in detail in Chapters 4.1 through 4.9 of this Draft EIR. The impacts of each alternative are classified as greater, reduced, or similar to the level of impacts associated with the proposed project. Table 5-1 summarizes the impacts of each of the alternatives compared to the proposed project.

TABLE 5-1 COMPARISON OF IMPACTS FROM PROJECT ALTERNATIVES AND THE PROPOSED PROJECT

Topic	Proposed Project	No Project Alternative	No Retail Development Alternative	Reduced Retail Development Alternative
Air Quality	LTS/M	>	>	=
Biological Resources	LTS/M	<	=	=
Cultural and Tribal Cultural Resources	LTS/M	<	<	<
Geology and Soils	LTS/M	<	<	<
Greenhouse Gas Emissions	LTS	>	>	=
Hazards and Hazardous Materials	LTS	<	=	=
Noise	LTS/M	>	>	=
Transportation	LTS	>	>	=
Utilities and Service Systems	LTS/M	<	<	<

Notes:

LTS	Less Than Significant	<	Reduced impact in comparison to the proposed project
LTS/M	Less Than Significant with Mitigation	=	Similar impacts in comparison to the proposed project
		>	Greater impact in comparison to the proposed project

5.5 NO PROJECT ALTERNATIVE

5.5.1 DESCRIPTION

Pursuant to CEQA Guidelines Section 15126.6(e)(1), the No Project Alternative is required as part of the "reasonable range of alternatives" to allow decision makers to compare the impacts of approving the proposed project with the impacts of taking no action or not approving the proposed project. Under this alternative, the proposed project would not be constructed, and the project site would remain in its current condition. The existing development is a 71,254 square foot shopping center (The Oaks Shopping Center), which has 53,701 square feet of retail and 17,503 square feet of office space, and does not include housing. The existing site also has 201,831 square feet of paved area, which includes associated parking, sidewalks, patios, and driveways, in addition to 45,486 square feet of native and non-native landscaping, including mature trees. The site is accessible from Stevens Creek Boulevard and Mary Avenue. The No Project Alternative would not include the addition of a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, or off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp.

As discussed in Chapter 4.8, Transportation, of this Draft EIR, the existing uses on the project site generate more daily trips than the proposed project both without trip credits (2,287 existing daily trips compared to 2,174 proposed daily trips) and with trip credits (2,209 existing daily trips compared to negative or 275 fewer proposed daily trips), as well as and more VMT (existing annual VMT of 2,782,747 compared to proposed annual VMT 2,662,683).

5.5.2 IMPACT DISCUSSION

The potential environmental impacts associated with the No Project Alternative when compared to the proposed project are described below.

5.5.2.1 AIR QUALITY

The temporary construction-related air quality impacts of the proposed project are fully mitigable with implementation of Mitigation Measure AQ-2 and operational impacts are less than significant. Project-generated fugitive dust and other pollutant emissions associated with construction activities at the site would not occur under the No Project Alternative; thereby eliminating the proposed projects significant-but-mitigatable construction related air quality impacts. Like the proposed project, the No Project Alternative would not conflict or obstruct the implementation of the Bay Area Quality Management District's (BAAQMD) 2017 Clean Air Plan and would not expose sensitive receptors to substantial toxic air contaminants or CO hotspots associated with construction or operation; thus, impacts would be similar under both the proposed project and the No Project Alternative.

Under the No Project Alternative, pollutant emissions associated with vehicle trips would continue to occur. The proposed project would generate fewer daily trips before trip credits are applied (2,287 existing daily trips compared to 2,174 proposed daily trips) and with trip credits (2,209 existing daily trips compared to-275 proposed daily trips). Furthermore, the proposed residential mixed-use project would result in fewer vehicle miles traveled (VMT) (existing annual VMT of 2,782,747 compared to proposed annual VMT 2,662,683). Accordingly, air quality impacts from vehicles would be less under the proposed project. Because vehicles are considered a major source of air pollutants, the proposed project would have fewer impacts than those under existing conditions. Therefore, overall air quality impacts of the No Project Alternative would be ***greater*** compared to the proposed project.

5.5.2.2 BIOLOGICAL RESOURCES

The biological resources impacts of the proposed project are fully mitigable with implementation of Mitigation Measure BIO-1 and BIO-2. Under the No Project Alternative, the potential to modify habitat for any special-status species identified, such as nesting birds, would not occur. No trees would be removed under the No Project Alternative; thus, no potential for conflicts with the City's Tree Preservation regulations would occur. This would eliminate the proposed project's significant-but-mitigable adverse effects on nesting bird species protected under the Migratory Bird Treaty Act and California Fish and Game Code, as well as conflicts with local policies or ordinances protecting trees. Therefore, impacts to biological resources from the No Project Alternative would be ***reduced*** compared to the proposed project because no development on the project site would occur.

5.5.2.3 CULTURAL AND TRIBAL CULTURAL RESOURCES

The cultural and tribal cultural resources impacts under the proposed project are fully mitigable with implementation of Mitigation Measure CULT-1. There are no known archeological resources within the project site; therefore, impacts to known archeological resources would be the same under both the No Project Alternative and the proposed project. However, no ground-disturbing activities would occur under the No Project Alternative; therefore, this alternative would not have the potential to damage or destroy unknown archaeological (tribal or non-tribal) human remains, and tribal cultural resources. Accordingly, the potential impacts of the No Project Alternative would result in ***reduced*** impacts compared to the proposed project.

5.5.2.4 GEOLOGY AND SOILS

The impacts related to unknown unique paleontological resources of the proposed project are fully mitigable with implementation of Mitigation Measure GEO-1. There are no known paleontological resources on the project site and the geology and soils on the project site are common throughout the city and region and are not considered to be unique. Under the No Project Alternative, no new development would occur on the site, which reduces the potential for direct or indirect affects to an unknown paleontological resources or site, or unique geologic feature. However, no ground-disturbing activities would occur under the No Project Alternative; therefore, this alternative would not have the potential to damage or destroy unknown unique paleontological resources. Therefore, the impacts of the No Project Alternative related to geology and soils would be ***reduced*** compared to the proposed project.

5.5.2.5 GREENHOUSE GAS EMISSIONS

The impacts related to greenhouse gas (GHG) emissions of the proposed project are less than significant and no mitigation measures are required. Under the No Project Alternative, the existing buildings would not be demolished, and new structures would not be constructed; thus, eliminating the temporary GHG emissions from construction. No improvements required under updated building regulations described in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR, which would result in cleaner and reduced emissions, would be made to the existing buildings. Furthermore, as described in the air quality discussion above, because the proposed project would result in fewer daily vehicular trips and VMT than those under existing conditions. Therefore, the GHG related impacts of the No Project Alternative would be *greater* compared to the proposed project.

5.5.2.6 HAZARDS AND HAZARDOUS MATERIALS

The impacts related to hazards and hazardous materials from construction and operation of the proposed project are less than significant without mitigation. Like the proposed project, the No Project Alternative would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, and would not emit hazardous emissions or use hazardous materials within 0.25 miles from a school. However, unlike the proposed project, the No Project Alternative would not have the potential to disturb asbestos containing materials, or lead based paints; therefore, impacts of the No Project Alternative related to hazards and hazardous materials would be *reduced* compared to the proposed project.

5.5.2.7 NOISE

The operational impacts related to noise from the proposed project are less than significant and the construction impacts fully mitigable with implementation of Mitigation Measure NOISE-1. Under the No Project Alternative, no short-term noise from construction would occur; however, like the existing conditions, noise from project operation would continue under both scenarios. This alternative would generate more vehicle trips than the proposed project. Because transportation related trips are a major contributor to noise, noise impacts of the No Project alternative would be *greater* compared to the proposed project.

5.5.2.8 TRANSPORTATION

The transportation impacts of the proposed project are less than significant, and no mitigation measures are required. The proposed project would generate fewer daily trips before trip credits are applied (2,287 existing daily trips compared to 2,174 proposed daily trips) and with trip credits (2,209 existing daily trips compared to negative or 275 fewer proposed daily trips). Therefore, the proposed residential mixed-use project would result in fewer vehicle miles traveled (VMT) (existing annual VMT of 2,782,747 compared to proposed annual VMT 2,662,683) than the No Project Alternative. Additionally, the No Project Alternative would not include the addition of a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, or off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp pursuant to the 2016 *Bicycle Transportation Plan*, as well

as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. Accordingly, transportation impacts of the No Project Alternative would be *greater* compared to the proposed project.

5.5.2.9 UTILITIES AND SERVICE SYSTEMS

The utilities and service systems impacts of the proposed project are fully mitigable with implementation of Mitigation Measure UTIL-1. Based on the capacity of the sanitary sewer system, any new development may result in a determination by the wastewater treatment provider, that it does not have capacity to serve the project's projected demand in addition to the provider's existing commitment. Under the No Project Alternative, the site would continue to operate as is and no new construction would occur; therefore, there would not be an increase in wastewater generation on the project site (21,376 gallons per day (gpd) for the existing uses) compared to a net increase of 16,810 gpd (for the proposed project). Accordingly, overall impacts to utilities and service systems with regard to the capacity of the wastewater treatment system for the No Project Alternative would be *reduced* compared to the proposed project.

5.5.3 ABILITY OF THE NO PROJECT ALTERNATIVE TO ACCOMPLISH THE PROJECT OBJECTIVES

Under the No Project Alternative, the proposed project would not be constructed and therefore, this alternative would not accomplish any of the project objectives.

5.6 NO RETAIL DEVELOPMENT ALTERNATIVE

5.6.1 DESCRIPTION

Under the No Retail Development Alternative, the 20,000 square feet of neighborhood-serving retail in Residential-Retail Building 1 and Residential-Retail Building 2 would not be developed. The project site would be developed with the 242 residential units, consisting of three rowhouse buildings (19 units), 13 townhouse buildings (69 units), Residential Building 1 (115 units), Residential Building 2 (39 senior housing units). The building footprint of this alternative would be the same as the proposed project. The subterranean parking level would not be constructed. Rather, parking would be located on the ground floor because there would be no retail component in Residential Building 1. Residential Building 1 would still include a fitness center, lounge, and outdoor terrace for resident use only, and Residential Building 2 would also still include a common room for use by residents only. The No Retail Alternative would include the same private open space areas but increase the common open space area to 61,601 square feet, as there would not be common retail outdoor space. The No Retail Development Alternative would include a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, and off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp consistent with the 2016 *Bicycle Transportation Plan*, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp.

While no quantitative trip generation was prepared for this alternative analysis, it is assumed that trip generation would be greater under this alternative because no neighborhood serving retail would be provided at the site and additional trips would be generated for this purpose.

5.6.2 IMPACT DISCUSSION

The potential environmental impacts associated with the No Retail Development Alternative are described below and are compared to the proposed project.

5.6.2.1 AIR QUALITY

The temporary construction-related air quality impacts of the proposed project are fully mitigable with implementation of Mitigation Measure AQ-2 and operational impacts are less than significant. Project-generated fugitive dust and other pollutant emissions associated with construction activities at the site would be slightly less under the No Retail Development Alternative due to no retail development in Residential Buildings 1 and 2 and no subterranean parking, creating a slightly reduced significant-but-mitigable construction related air quality impacts. Like the proposed project, the No Retail Development Alternative would not conflict or obstruct the implementation of the BAAQMD's 2017 *Clean Air Plan* and would not expose sensitive receptors to substantial toxic air contaminants or CO hotspots associated with construction or operation; thus, impacts would be similar under the proposed project and the No Retail Development Alternative. Under the No Retail Development, pollutant emissions associated with vehicle trips would increase due to the absence of neighborhood-serving retail uses on-site and within walking distance of the residential units. Therefore, impacts would increase under the No Retail Development Alternative as a result of added vehicle trips. Like the No Project Alternative, because automobile use is a major source of air pollution, the overall air quality impacts of the No Retail Development Alternative would be ***greater*** compared to the proposed project.

5.6.2.2 BIOLOGICAL RESOURCES

The biological resources impacts of the proposed project are fully mitigable with implementation of Mitigation Measures BIO-1 and BIO-2. The No Retail Development Alternative would result in similar development on the project site as the proposed project; therefore, the relationship to natural resources on the project site as described in Chapter 4.2, Biological Resources, of this Draft EIR would be similar under both this alternative and the proposed project.

As described in Chapter 4.3, an Arborist Report was prepared for the proposed project and is included in Appendix D, Arborist Report & Tree Removal Plan, of this Draft EIR. Of the 83 trees surveyed, the Arborist Report identified 74 trees, including 14 protected trees, that would be directly impacted by development and would require removal. Under this alternative, the number of trees protected by the City's Tree Protection Ordinance that would be impacted would be the same as the number of trees affected by the proposed project.

The mitigation measures listed above, as well as compliance with the City's existing ordinances including City's Tree Preservation Ordinance, would apply under this alternative. Therefore, the potential impacts to nesting birds and potential habitat for special-status birds that may be present on-site during construction related activities and removal of trees protected of the City's Tree Preservation Ordinance would be

similar. Impacts to biological resources from the No Retail Development Alternative would be essentially *similar* compared to the proposed project.

5.6.2.3 CULTURAL AND TRIBAL CULTURAL RESOURCES

The cultural and tribal cultural resources impacts of the proposed project are fully mitigable with implementation of Mitigation Measure CULT-1. Development under the No Retail Development Alternative would have the same building envelope as the proposed project, but would not have retail components as part of Residential Buildings 1 and 2, and no excavation would be required for the subterranean parking level. The same mitigation measures that apply to the proposed project would apply to this alternative, as would State regulations to protect buried human remains and cultural and tribal cultural. However, the lack of deep excavation for this alternative would reduce the likelihood of unearthing unknown unique archeological resources. Accordingly, the potential impacts of the No Retail Development Alternative would result in *reduced* compared to the proposed project.

5.6.2.4 GEOLOGY AND SOILS

The impacts related to unknown unique paleontological resources of the proposed project are fully mitigable with implementation of Mitigation Measure GEO-1. There are no known paleontological resources on the project site and the geology and soils on the project site are common throughout the city and region, and are not considered to be unique. Under the No Retail Development Alternative, buildings would be constructed within the same development footprint as the proposed project, but the lack of excavation would reduce the likelihood of unearthing an unknown unique paleontological resource. Therefore, the impacts of the No Retail Alternative related to geology and soils would have *reduced* impacts compared to the proposed project.

5.6.2.5 GREENHOUSE GAS EMISSIONS

The impacts related to GHG emissions of the proposed project are less than significant and no mitigation measures are required. Under the No Retail Development Alternative, the existing buildings would be demolished, but the new structures would be smaller. However, future and surrounding residents would not have access to neighborhood-serving commercial uses on-site; therefore, this alternative would increase daily trips and VMT, consequently increasing impacts to GHG emissions compared to the proposed project. Accordingly, the GHG related impacts of the No Retail Development Alternative would result be *greater* compared to the proposed project.

5.6.2.6 HAZARDS AND HAZARDOUS MATERIALS

The impacts related to hazards and hazardous materials from construction and operation of the proposed project are less than significant without mitigation. Like the proposed project, the No Retail Development Alternative would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, and would not emit hazardous emissions or use hazardous materials within one-quarter mile from a school. Development under both scenarios would be required to comply with State, federal, and local laws regulating the transport, use, and disposal of hazardous materials. Therefore, impacts of the No Retail Alternative related to hazards and hazardous materials would be *similar* to the proposed project.

5.6.2.7 NOISE

The operational impacts related to noise from the proposed project are less than significant and the construction impacts fully mitigable with implementation of Mitigation Measure NOISE-1. Under the No Retail Development Alternative, the short-term increase in ambient noise levels from construction would be less than that of the proposed project due to reduced development and a shorter construction period. This alternative would not have a subterranean parking garage. As discussed in Chapter 4.7, Noise, parking lot noise would be reduced compared to the noise from surface parking when parking is located in a subterranean parking structure. Regardless, because no noise from retail parking would occur, parking noise from retail users would be less when compared to the proposed project. However, even with less parking lot noise, this alternative would still generate more vehicle trips than the proposed project since future residents and surrounding residents would not have access to neighborhood-serving retail within walking distance. Because transportation related trips are a major contributor to noise, noise impacts of the No Retail Alternative would be ***greater*** compared to the proposed project.

5.6.2.8 TRANSPORTATION

The transportation impacts of the proposed project are less than significant, and no mitigation measures are required. Similar to the proposed project, the No Retail Development Alternative would not conflict with the Cupertino General Plan or Santa Clara Valley Transportation Authority. However, under the No Retail Development Alternative, daily vehicle trips and vehicle miles traveled may increase due to the absence of a neighborhood serving retail use on the project site. Similar to the proposed project, the No Retail Development Alternative would install a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, and off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp consistent with the 2016 *Bicycle Transportation Plan*, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. Accordingly, transportation impacts of the No Retail Development Alternative would be ***greater*** compared to the proposed project.

5.6.2.9 UTILITIES AND SERVICE SYSTEMS

The utilities and service systems impacts of the proposed project are fully mitigable with implementation of Mitigation Measure UTIL-1. Based on the capacity of the sanitary sewer system, any new development may result in a determination by the wastewater treatment provider, that it does not have capacity to serve the project's projected demand in addition to the provider's existing commitment. Under the No Retail Development Alternative, utility demand from new development on the project site would be similar to the proposed project, albeit slightly reduced because of the absence of retail space; therefore, overall impacts to utilities and service systems with regard to the capacity of the wastewater treatment system for the No Retail Development Alternative would be slightly ***reduced*** compared to the proposed project.

5.6.3 ABILITY OF THE NO RETAIL DEVELOPMENT ALTERNATIVE TO ACCOMPLISH THE PROJECT OBJECTIVES

Development proposed under the No Retail Development Alternative would meet most of the project objectives, including redeveloping an existing site with housing, helping the City to meet RHNA allocations for 2014-2022, providing senior housing in close proximity to the Cupertino Senior Center, creating a prominent gateway development at the entry to Cupertino's Heart of the City, and helping the City to achieve its affordable housing goals through the inclusion of senior housing units. However, the No Retail Development Alternative would not meet the project objectives associated with a mixed-use development. This alternative would not redevelop the project site with desirable amenities in proximity to housing, enhance the vibrancy of Cupertino's Heart of the City as a key mixed-use corridor by providing a pedestrian-friendly community that includes neighborhood retail, create a mixed-use development that places residential and commercial uses in close proximity to each other and transit options, or place affordable senior housing in a mixed-use development project. This alternative only meets three of the seven project objectives.

5.7 REDUCED RETAIL DEVELOPMENT ALTERNATIVE

5.7.1 DESCRIPTION

Under the Reduced Retail Development Alternative, the retail component would be reduced by 50 percent, or to 10,000 square feet. Residential-Retail Building 1 would have 7,600 square feet of retail space and Residential-Retail Building 2 would have 2,400 square feet of retail space, similar to the proposed project. The project site would be developed with the 242 residential units, consisting of three rowhouse buildings (19 units), 13 townhouse buildings (69 units), Residential-Retail Building 1 (115 units), Residential-Retail Building 2 (39 senior housing units). The development footprint would be the same as the proposed project, but with a 10,000 square foot reduction in retail space in Residential-Retail Building 1 and slightly smaller building size. Residential Building 1 would still include a fitness center, lounge, and outdoor terrace for resident use only, and Residential Building 2 would also still include a common room for use by residents only. No subterranean parking would be constructed, because the reduced parking needs could be accommodated on the first floor. The Reduced Retail Alternative would include the same private and common open space areas and landscaping. The Reduced Retail Development Alternative would include a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, and off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp consistent with the 2016 *Bicycle Transportation Plan*, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp.

While no quantitative trip generation was prepared for this alternative analysis, it is assumed that trip generation would be similar to the proposed project because some neighborhood serving retail would be provided at the site.

5.7.2 IMPACT DISCUSSION

The potential environmental impacts associated with the Reduced Retail Development Alternative are described below and are compared to the proposed project.

5.7.2.1 AIR QUALITY

The temporary construction-related air quality impacts of the proposed project are fully mitigable with implementation of Mitigation Measure AQ-2 and operational impacts are less than significant. Project-generated fugitive dust and other pollutant emissions associated with construction activities at the site would be slightly less under the Reduced Retail Development Alternative due to the 50 percent reduction in retail development in Residential Buildings 1 and 2 and no subterranean parking, creating a slightly reduced significant-but-mitigable construction related air quality impacts. Like the proposed project, the Reduced Retail Development Alternative would not conflict or obstruct the implementation of the BAAQMD's 2017 *Clean Air Plan* and would not expose sensitive receptors to substantial toxic air contaminants or CO hotspots associated with construction or operation; thus, impacts would be similar under both the proposed project and the Reduced Retail Development Alternative. Under the Reduced Retail Development Alternative, pollutant emissions associated with vehicle trips would be only slightly greater, due to the 50 percent reduced neighborhood-serving retail uses on-site and within walking distance of the residential units. Therefore, impacts would be ***similar*** under the Reduced Retail Development Alternative when compared to the proposed project.

5.7.2.2 BIOLOGICAL RESOURCES

The biological resources impacts of the proposed project are fully mitigable with implementation of Mitigation Measures BIO-1 and BIO-2. The Reduced Retail Development Alternative would result in similar development on the project site as the proposed project; therefore, and the relationship to natural resources on the project site as described in Chapter 4.2, Biological Resources, or this Draft EIR would be similar under both this alternative and the proposed project.

As described in Chapter 4.3, an Arborist Report was prepared for the proposed project and is included in Appendix D, Arborist Report & Tree Removal Plan, of this Draft EIR. Of the 83 trees surveyed, the Arborist Report identified 74 trees, including 14 protected trees, that would be directly impacted by development and would require removal. Under this alternative, the number of trees protected by the City's Tree Protection Ordinance that would be impacted would be the same as the number of trees affected by the proposed project.

The mitigation measures listed above, as well as compliance with the City's existing ordinances, including City's Tree Preservation Ordinance, would apply under this alternative. Therefore, the potential impacts to nesting birds and potential habitat for special-status birds that may be present on-site during construction related activities and removal of trees protected of the City's Tree Preservation Ordinance would be similar. Impacts to biological resources from the Reduced Retail Development Alternative would essentially be the ***same as*** the proposed project.

5.7.2.3 CULTURAL AND TRIBAL CULTURAL RESOURCES

The cultural resource impacts of the proposed project are fully mitigable with the implementation of Mitigation Measure CULT-1. Development under the Reduced Retail Development Alternative would have the same building envelope as the proposed project, but would have 50 percent less retail square footage as part of Residential Buildings 1 and 2, and no excavation would be required for the subterranean parking level. The same mitigation measures apply to the proposed project would apply to this alternative, as would State regulations to protect buried human remains and cultural and tribal cultural. However, the lack of deep excavation for this alternative would reduce the likelihood of unearthing unknown unique archeological resources. Accordingly, the potential impacts of the Reduced Retail Development Alternative would result in *reduced* impacts compared to the proposed project.

5.7.2.4 GEOLOGY AND SOILS

The impacts related to unknown unique paleontological resources of the proposed project are fully mitigable with implementation of Mitigation Measure GEO-1. There are no known unique paleontological resources on the project site and the geology and soils on the project site are common throughout the city and region and are not considered to be unique. Under the Reduced Retail Development Alternative, buildings would be constructed within the same development footprint as the proposed project, but the lack of excavation would reduce the likelihood of unearthing an unknown paleontological resource. Therefore, the impacts of the Reduced Retail Alternative related to geology and soils would have *reduced* impacts compared to the proposed project.

5.7.2.5 GREENHOUSE GAS EMISSIONS

The impacts related to GHG emissions of the proposed project are less than significant and no mitigation measures are required. Under the Reduced Retail Development Alternative, the existing buildings would be demolished, but the new structures would be smaller. The 50 percent reduction in neighborhood-serving commercial uses on-site would slightly increase trips, but the resulting daily vehicle trips and VMT would be comparable to the proposed project, and therefore would result in a slight increase of GHG emissions compared to the proposed project. However, because the project would still offer mixed-use features, it is assumed the GHG related impacts of the Reduced Retail Development Alternative would be *similar* compared to the proposed project.

5.7.2.6 HAZARDS AND HAZARDOUS MATERIALS

The impacts related to hazards and hazardous materials from construction and operation of the proposed project are less than significant without mitigation. Like the proposed project, the Reduced Retail Development Alternative would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, and would not emit hazardous emissions or use hazardous materials within 0.25 miles of a school. Development under both scenarios would be required to comply with federal, State, and local laws regulating the transport, use, and disposal of hazardous materials. Therefore, impacts of the Reduced Retail Development Alternative related to hazards and hazardous materials would be *similar to the* proposed project.

5.7.2.7 NOISE

The operational impacts related to noise from the proposed project are less than significant and the construction impacts are fully mitigable with implementation of Mitigation Measure NOISE-1. Under the Reduced Retail Development Alternative, the short-term increase in ambient noise levels from construction would be less than that of the proposed project due to reduced development and a shorter construction period. This alternative would not have a subterranean parking garage. As discussed in Chapter 4.7, Noise, parking lot noise would be reduced compared to the noise from surface parking when parking is located in a subterranean parking structure. Because this alternative still has some retail, some noise from retail parking would occur; however, parking noise from fewer retail users would be less when compared to the proposed project. Under this alternative, future residents and surrounding residents would still be in walking distance of neighborhood-serving retail and vehicular trips would be similar to the proposed project. Therefore, noise impacts of the Reduced Retail Alternative would be *similar* compared to the proposed project.

5.7.2.8 TRANSPORTATION

The transportation impacts of the proposed project are less than significant, and no mitigation measures are required. Similar to the proposed project, the Reduced Retail Development Alternative would not conflict with the Cupertino General Plan or Santa Clara Valley Transportation Authority. However, under the Reduced Retail Development Alternative, daily vehicle trips and vehicle miles traveled may increase due to the 50 percent reduction in the neighborhood-serving retail use on the project site. Because the site would still support mixed-use development, it is assumed that daily vehicle trips would be similar to the proposed project. Additionally, the Reduced Retail Development Alternative would install a Class I Bike Path on the project site, public access easements on the northwest and southwest corners of the project site to accommodate the bridge over SR-85 connecting Mary Avenue to Alhambra Avenue, and off-site improvements including the installation of a Class IV separated bikeway and a signal control to be activated by bicyclists and pedestrians for the westbound right-turn movement northbound SR-85 on ramp consistent with the 2016 *Bicycle Transportation Plan*, as well as a bus stop on the section of Stevens Creek Boulevard west of Mary Avenue and east of the SR-85 northbound ramp. Accordingly, transportation impacts of the Reduced Retail Development Alternative would be *similar* compared to the proposed project.

5.7.2.9 UTILITIES AND SERVICE SYSTEMS

The utilities and service systems impacts of the proposed project are fully mitigable with implementation of Mitigation Measure UTIL-1. Based on the capacity of the sanitary sewer system, any new development may result in a determination by the wastewater treatment provider, that it does not have capacity to serve the project's projected demand in addition to the provider's existing commitment. Under the Reduced Retail Development Alternative, utility demand from new development on the project site would be similar to the proposed project, albeit slightly reduced because of the 50 percent reduction of retail space; therefore, overall impacts to utilities and service systems with regard to the capacity of the wastewater treatment system for the Reduced Retail Development Alternative would be slightly *reduced* compared to the proposed project.

5.7.3 ABILITY OF THE REDUCED RETAIL DEVELOPMENT ALTERNATIVE TO ACCOMPLISH THE PROJECT OBJECTIVES

Although development proposed under the Reduced Retail Development Alternative would result in slightly less development than that of the proposed project (50 percent reduction in retail space), the site would be redeveloped similar to the proposed project. Similar to the proposed project, this alternative would: redevelop an existing retail and office complex with desirable amenities and housing; help the City meet the RHNA allocation for 2014-2022; enhance the vibrancy of Cupertino's Heart of the City as a key mixed-use corridor by providing a pedestrian-friendly community that includes housing, open space and greenery, and neighborhood retail; provide senior housing in close proximity to the Cupertino Senior Citizen Center; create a prominent gateway development that incorporates quality architectural design and materials, open space, and artwork to announce entry into Cupertino's Heart of the City; create a mixed-use development that places residential and commercial uses in close proximity to each other, and close to transit options; and help the City to achieve its affordable housing goals through the inclusion of senior housing units within a residential and mixed-use development project. The Reduced Retail Development Alternative would meet all of the proposed project objectives; however, it would not provide as many community desirable amenities on the project site as the proposed project.

5.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the proposed project and the alternatives, Section 15126.6 of the State CEQA Guidelines requires that an "environmentally superior" alternative, other than the no project alternative, to be identified. The environmentally superior alternative is the alternative that would result in the least environmental impacts.

As shown in Table 5-1, the Reduced Retail Development Alternative would not result in any impacts than are greater than the proposed project, and would reduce impacts related to cultural resources, geology and soils, and utilities and services systems compared to the proposed project. Impacts related to air quality, biological resources, GHG emissions, hazards and hazardous materials, noise, and transportation would be similar to the proposed project. Therefore, the Reduced Retail Development Alternative would be the environmentally superior alternative.

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6. CEQA-Required Assessment Conclusions

This chapter provides an overview of the impacts of the proposed project based on the analyses presented in Chapters 4.0 through 5.0 of this Draft EIR. The topics covered in this chapter include impacts found not to be significant, growth-inducing impacts, and significant irreversible changes to the environment. A more detailed analysis of the effects that the proposed project would have on the environment, and proposed mitigation measures to minimize significant impacts, are provided in Chapters 4.1 through 4.9.

6.1 IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128 allows environmental issues for which there is no likelihood of a significant impact to be briefly discussed and not analyzed further in the EIR. An Initial Study was prepared for the proposed project (see Appendix A, Initial Study, of this Draft EIR). Based on the analysis contained in the Initial Study and based on comments received, as well as the existing conditions on the project site and surrounding area it was determined that development of the proposed project would not result in significant environmental impacts for the following environmental issues:

- Aesthetics
- Agricultural and Forestry Resources
- Energy
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Wildfire

In addition, based on the analysis contained in the Initial Study it was determined that development of the proposed project would not result in significant environmental impacts for some of the significance criteria in the following topic areas and therefore, impacts related to these criteria are not analyzed further in this Draft EIR. The specific criteria are listed in Table 2-1 in Chapter 2, Executive Summary, of this Draft EIR.

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Noise
- Transportation
- Utilities and Service Systems

6.2 GROWTH INDUCEMENT

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth inducing factors might include the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. This section evaluates the proposed project's potential to induce growth. Not all aspects of growth inducement are negative; rather, negative impacts associated with growth inducement occur only where the growth associated with the proposed project would cause adverse environmental impacts.

Growth-inducing impacts can be either direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts, consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

As described in Chapter 3, Project Description, of this Draft EIR, the proposed project would result in 242 new housing units, including 39 new senior housing units, and 20,000 square feet of retail space. Implementation of the proposed project would directly induce growth by providing new residential and non-residential growth development, as described in the Project Description. The proposed project would accommodate up to 695 new residents, to the city of Cupertino, and approximately 70 new employees, which is 65 fewer employees than currently work on the project site.

The proposed project can be considered growth inducing because it generates new growth in the Oaks Shopping Center site. Development on this site would consist of infill, mixed-use redevelopment on an underutilized site that currently contains a one-story shopping center and surface parking. The infrastructure needed to serve the proposed project is largely in place, and new growth would be required to comply with the City's General Plan, zoning regulations, and standards for public services and utilities. Indirect or secondary effects associated with this growth would not represent a new significant environmental impact which has not already been addressed in the individual resource chapters of this Draft EIR.

Growth under the proposed project would have beneficial effects as well. The proposed project would provide additional housing for people working in Cupertino and other surrounding communities, and would also provide additional local employment and shopping opportunities for existing and future residents, thereby reducing Cupertino's contribution to regional commute traffic. State law requires the City to promote the production of housing to meet its fair share of the regional housing needs allocation made by the Association of Bay Area Governments, and the proposed project would assist the City in satisfying these requirements. Although development from the proposed project would involve construction activities that could generate some temporary employment opportunities, it is unlikely that construction workers would relocate to Cupertino to work on construction of the proposed project.

The proposed project allows for additional growth that encourages sustainable patterns of urban land uses. This growth would be consistent with the General Plan.

6.3 SIGNIFICANT AND IRREVERSIBLE CHANGES

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed Project would commit nonrenewable resources to uses that future generation would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed below.

6.3.1 LAND USE CHANGES THAT COMMIT FUTURE GENERATIONS

As described in Chapter 3, Project Description, of this Draft EIR, the proposed project will maintain the land use pattern of the General Plan and zoning maps. The proposed project consists of demolishing the existing retail/office buildings and constructing 18 new buildings for residential and retail uses. Redevelopment of the Oaks Shopping Center would intensify the use of the site. Specifically, the Oaks Shopping Center site would be converted from an approximately 71,250-square-foot commercial building into two mixed-use, multi-family residential buildings, including senior housing and with ground floor neighborhood-serving retail, three rowhouse buildings, and 13 townhouse buildings.

Once development of the proposed project occurs, it would not be feasible to return the developed land to its existing (pre-project) condition. However, because the project site is already developed with urban uses, redevelopment under the proposed project would not represent a substantial change in land use.

6.3.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Potential environmental accidents of concern are those that would have adverse effects on the environment or public health due to the nature or quantity of material released during an accident and the receptors exposed to that release. Demolition and construction activities associated with development of the proposed project would involve some risk of environmental accidents; however, these activities would be monitored by local, State, and federal agencies, and would follow professional industry standards for safety and construction. The land uses proposed by the proposed project would not include any uses or activities that are likely to contribute to or be the cause of a significant environmental accident. As a result, the proposed project would not pose a substantial risk due to environmental accidents.

6.3.3 LARGE COMMITMENT OF NON-RENEWABLE RESOURCES

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. Redevelopment of the proposed project site would require water, electric, and gas service, as well as additional resources for construction. Construction and ongoing maintenance of the proposed project would irreversibly commit some materials and nonrenewable energy resources. Materials and resources used would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, sand, gravel, asphalt, and steel. These materials and energy resources would be used for infrastructure development, transportation of people and goods, and utilities to operate the project. During the operational phase of the proposed project (post-

construction), energy sources including oil and gasoline would be used for lighting, heating, and cooling of residences and retail space, as well as transportation of people to and from the project site.

The proposed project would be required to comply with and implement several measures that would offset or reduce the need for nonrenewable resources. For example, the proposed project is required to comply with all applicable building and design requirements, including Title 24 relating to energy conservation. With compliance with Part 11 of Title 24, also known as CALGreen, the State's Green Building Standards Code, the proposed project is required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. The proposed project would also implement environmentally sustainable standards for demolition, construction, and operation. Further, the City does not contain any agricultural land or a mining reserve; therefore, there would be no impact with regards to those resources (see Section 6.1, Impacts Found Not to be Significant, above).

Although the construction and operation of the proposed redevelopment project would involve the use of nonrenewable resources, through the inclusion of energy-conserving project features and compliance with applicable standards and regulations, the proposed project would not represent a large commitment of nonrenewable resources.

7. Organizations and Persons Consulted

This Draft EIR was prepared by the following consultants and individuals:

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