Draft Transportation Environmental Impact Report

Including Appendices A and B

Google Caribbean Campus

Planning Project #2107-8042

SCH# 2007052121

November 2019

Sunnyvale

GOOGLE CARIBBEAN CAMPUS PROJECT

Draft

Transportation Environmental Impact Report

PROJECT NUMBER: 2107-8042

STATE CLEARINGHOUSE NO. 2007052121

City of Sunnyvale

Community Development Department

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1.0 INTRODUCTION

The City of Sunnyvale (City) is a lead agency under the California Environmental Quality Act (CEQA) and is responsible for preparing this Environmental Impact Report (EIR) for the proposed Google Caribbean Campus (GCC) (State Clearinghouse No. 2001052121) ("project", "proposed project"). The public agency with the principal responsibility for carrying out or approving a project is the "lead agency." This document is entitled a Transportation EIR (TEIR) because it focuses on impacts related to transportation. Through the Initial Study process using the CEQA Initial Study Checklist, impacts to all other environmental resource areas were found to be less than significant. Accordingly, this TEIR has been prepared in conformance with CEQA (California Public Resources Code ["PRC"] §21000 et seq.), the CEQA Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq. ("CEQA Guidelines")), and the rules, regulations, and procedures for the implementation of CEQA.

CEQA requires all public agencies to consider the environmental consequences of projects for which they have discretionary authority. For the purposes of CEQA, the term project refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines §15378[a]).

CEQA requires the lead agency to prepare an EIR if there is substantial evidence, in light of the whole record, that a project may have a significant effect on the environment that cannot be mitigated to a less than significant level. A significant effect is defined in CEQA as a substantial, or potentially substantial, and adverse physical change in the environment. Pursuant to these guidelines, the City has determined that the Project is a project under CEQA and has the potential to result in significant environmental effects that cannot be mitigated to a less than significant level.

1.1 EIR SCOPE

USE OF PRIOR EIRS

Three prior EIRs analyzed and mitigated potentially significant effects related to the proposed project, and accordingly inform the analysis presented in this TEIR: (1) the 2016 Land Use and Transportation Element ("LUTE") of the Sunnyvale General Plan ("LUTE EIR") (State Clearinghouse No. 2012032003); (2) the 2013 Valley Water (VW)[1] East and West Channels Flood Protection Project EIR ("VW EIR")[2] (State Clearinghouse No. 2013012041); and (3) the 2016 Mathilda Avenue Improvements at SR 237 and US 101 Project ("Caltrans EIR") (State Clearinghouse No. 2015082030).

The LUTE EIR is a program EIR that considers the environmental effects of the City's planned land uses, development density, transportation, and projected buildout by 2035. The LUTE EIR analyzed permitted

[1] The official name of the agency is the Santa Clara Valley Water District (SCVWD); however, the new moniker is Valley Water (VW) and will be used as a shorter reference.
[2] At the time the East and West Channels Flood Protection Project EIR was certified, the agency was using its previous name, Santa Clara Valley Water District.

uses, development density, and projected transportation impacts at the project site. The VW EIR is a project EIR that analyzes a series of flood protection and water quality improvements, including for the West Channel that bisects the project site. The Caltrans EIR is also a project EIR that analyzes the reconfiguration of the State Route 237 and US 101 interchanges with Mathilda Avenue, including: modification to on and off ramps; removal, addition, and signalization of intersections; and provision of new left turn lanes. Its analysis accordingly covers certain potentially significant transportation impacts the proposed project may produce related to the Mathilda Avenue interchanges with State Route 237 and Highway 101.

STREAMLINED ENVIRONMENTAL REVIEW UNDER CEQA

This TEIR relies on the three previously certified EIRs identified above to streamline the project's environmental review in accordance with CEQA Guidelines Section 15183, which applies to program EIRs, and Section 15162, which applies to project EIRs. Under CEQA Guidelines Section 15183, "CEQA mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies." (PRC, § 21083.3; CEQA Guidelines § 15183(a).) This TEIR therefore relies on CEQA Guidelines Section 15183 and the LUTE EIR to streamline the project's environmental review to focus on the project's potentially significant impacts that have not already been addressed as a significant effect in the LUTE EIR, or cannot be substantially mitigated by the imposition of uniformly applied City development policies or standards, including the City's Standard Development Requirements ("SDRs") and policies included in the City Policy Manual ("Council Policies").[3]

Under CEQA Guidelines Section 15162, when a project EIR has been certified, "no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record," that substantial changes occur or are proposed that will require major revisions of the EIR due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects, or that new information now exists indicating that the proposed project will have more significant effects than originally shown in the prior EIR. (CEQA Guidelines § 15162, complete summary below.)

The CEQA Guidelines provide that where multiple methods exist to streamline environmental review based on prior EIRs, lead agencies have discretion to select which methods to apply to a project's environmental review. (CEQA Guidelines, § 15152(h)). Consistent with this approach, this TEIR relies on CEQA Guidelines Sections 15183 and 15162 to streamline the project's environmental review by identifying, analyzing, and mitigating, as appropriate, potentially significant project impacts that have not already been analyzed and subject to mitigation measures in prior EIRs, and that cannot be mitigated through application of existing City policies, plans, SDRs, and/or Council Policies.

[3] Sunnyvale City Council Policy Manual: https://sunnyvale.ca.gov/government/codes/manual.htm

TEIR AND INITIAL STUDY CHECKLIST APPROACH

As detailed in Chapter 4.0 and the attached Initial Study Checklist, the principal Initial Study Checklist used to determine the scope of this TEIR evaluates the CEQA Guidelines Appendix G resource categories to determine whether potentially significant effects from the project have already been analyzed and mitigated in the LUTE EIR or can be mitigated through application of existing City polices, plans, SDRs, and/or Council Policies. Where appropriate for certain proposed improvements to the West Channel and for transportation analyses concerning the State Route 237 and Highway 101 interchanges with Mathilda Avenue, this document also uses an Initial Study Checklist to determine if potentially significant project effects have already been studied and mitigated in the VW or Caltrans project EIRs.

The attached Initial Study Checklist indicates that the project may have potentially significant impacts that cannot be mitigated to a less than significant level in the CEQA Appendix G category for Transportation. This TEIR accordingly analyzes these potentially significant impacts and prescribes feasible mitigation measures, where appropriate. The Initial Study Checklist included in this document establishes that the project will either have no impact on the remaining Appendix G resource categories, or that a project impact was previously analyzed and mitigated in one of the three prior EIRs, or can be mitigated through application of existing City polices, plans, SDRs, and/or Council Policies.

LUTE EIR AND SECTION 15183 AS APPLIED TO THE PROJECT

The Sunnyvale City Council adopted the updated LUTE of the General Plan in April 2017. The LUTE establishes how streets and buildings in the City of Sunnyvale will be laid out and how various land uses, developments, and transportation facilities will function together over an approximate 20-year time frame (referred to as Horizon 2035).

The LUTE EIR was a program EIR that considered the environmental effects from the 2035 buildout scenario. Consistent with PRC Section 21083.3(b) and CEQA Guidelines Sections 15168 and 15183 the LUTE EIR can be used as the CEQA document for subsequent projects (public and private) consistent with the LUTE. Subsequent development projects, such as the proposed project, are evaluated to determine whether their entitlements/actions fall within the scope of the LUTE and the impacts were addressed in the certified LUTE EIR and the proposed project incorporates all applicable performance standards and mitigation measures identified therein. If there are specific significant effects which are peculiar to a project or its site and that cannot be addressed by uniformly applied development policies or standards, such as the City's SDRs and/or Council Policies, additional environmental review through the subsequent review provisions of CEQA for changes to previously-reviewed and approved projects may be warranted.

If an impact is not peculiar to the parcel or to the proposed project, has been addressed as a significant effect in the LUTE EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, including the City's SDRs and/or Council Policies, then an additional EIR need not be prepared for the project solely on the basis of that impact.

THE PROJECT IS CONSISTENT WITH THE LUTE AND ELIGIBLE FOR SECTION 15183

The LUTE provides that the project site's land uses are governed by the Moffett Park Specific Plan ("MPSP"), which zones the project site as Moffett Park Transit Oriented Development (MP-TOD) and Moffett Park-General Industrial (MP-I). The MP-TOD permits office, corporate headquarters, research, and limited manufacturing; as well as ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-TOD permits a Floor Area Ratio ("FAR") of 0.5, which may be increased to 0.7 by using the City's Development Reserve and/or the Transfer of Development Rights ("TDR") Program prescribed in the MPSP. (See Chapter 3.0 for complete details on the City's FAR requirements.)

The MP-I is intended primarily for office, warehouse, and general industrial development. Ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses are allowed. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-I FAR is 0.35 but can be increased to maximum of 0.5 through the City's Development Reserve and TDR program.

Here, the project's proposed uses and development density would be consistent with the LUTE's development density established in the MPSP and General Plan, making the proposed project eligible to use the LUTE EIR for Section 15183 streamlining. (CEQA Guidelines § 15183(d), (i)(2).) The proposed project would entail the demolition of 13 existing structures and hardscape and redevelopment of the project site with two five-story structures totaling approximately 1,041,890 sf. The two buildings would share a proposed four-story parking garage, surface parking lots, and other project amenities including landscaped courtyards, walkways, and alternative transportation elements. The proposed project would consist of 271,040 sf of office space, 346,395 sf for amenities/meeting rooms, food service, and fitness; 389,397 sf for cores, circulation, and bathrooms, and 35,059 sf of other (walls), and would include a total of 2,092 parking spaces. The proposed project would rely on the MPSP Development Reserve and will comply with the City's Green Building requirements to achieve a total FAR of 0.66, consistent with the MP-TOD and MP-I sub-districts.

SECTION 15183

Consistent with the process described, the City has evaluated the proposed project application to determine if additional environmental review would be required. The attached CEQA Guidelines Section 15183 Initial Study Checklist has been prepared to determine whether the environmental impacts of the proposed project meet any of the following four conditions:

1. Are peculiar to the project or the parcel on which the project would be located;
2. Were not analyzed as significant effects in the LUTE EIR;
3. Are potentially significant off-site impacts and cumulative impacts which were not discussed in the LUTE EIR; or

4. Are previously identified significant effects which, as a result of substantial new information which was not known at the time the LUTE EIR was certified, determined to have a more severe adverse impact than discussed in the LUTE EIR.

Section 15183 further provides:

If an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact.

(e) This section shall limit the analysis of only those significant environmental effects for which:

(1) Each public agency with authority to mitigate any of the significant effects on the environment identified in the EIR on the planning or zoning action undertakes or requires others to undertake mitigation measures specified in the EIR which the lead agency found to be feasible, and

(2) The lead agency makes a finding at a public hearing as to whether the feasible mitigation measures will be undertaken.

(f) An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the city or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. The finding shall be based on substantial evidence which need not include an EIR. Such development policies or standards need not apply throughout the entire city or county, but can apply only within the zoning district in which the project is located, or within the area subject to the community plan on which the lead agency is relying. Moreover, such policies or standards need not be part of the general plan or any community plan, but can be found within another pertinent planning document such as a zoning ordinance. Where a city or county, in previously adopting uniformly applied development policies or standards for imposition on future projects, failed to make a finding as to whether such policies or standards would substantially mitigate the effects of future projects, the decision-making body of the city or county, prior to approving such a future project pursuant to this section, may hold a public hearing for the purpose of considering whether, as applied to the project, such standards or policies would substantially mitigate the effects of the project. Such a public hearing need only be held if the city or county decides to apply the standards or policies as permitted in this section.

(g) Examples of uniformly applied development policies or standards include, but are not limited to:

(1) Parking ordinances.

(2) Public access requirements.

(3) Grading ordinances.

(4) Hillside development ordinances.

(5) Flood plain ordinances.

(6) Habitat protection or conservation ordinances.

(7) View protection ordinances.

(8) Requirements for reducing greenhouse gas emissions, as set forth in adopted land use plans, policies, or regulations.

(h) An environmental effect shall not be considered peculiar to the project or parcel solely because no uniformly applied development policy or standard is applicable to it. (CEQA Guidelines §15183.)

VW AND CALTRANS EIRS AND SECTION 15162 AS APPLIED TO THE PROJECT

The CEQA Guidelines Section 15162 state that when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Therefore, the proposed project relies on the analyses in the certified VW and Caltrans project EIRs, as detailed further in the Chapter 4.0 and the attached Initial Study Checklist.

SUMMARY OF FINDINGS

Based on CEQA Guidelines Sections 15183 and 15162, the City prepared an Initial Study Checklist that determined that preparation of an EIR was needed to analyze and mitigate, as appropriate, certain potentially significant effects in the proposed project. The Initial Study Checklist concluded that the EIR should focus on Transportation and Traffic impacts. The issues of aesthetics, agricultural/forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use, mineral resources, population and housing, public services, recreation, noise, tribal cultural resources, wildfire, and utilities were analyzed in the Initial Study Checklist and determined to not require further analysis in an EIR pursuant to CEQA Guidelines Sections 15183 and 15162, and as detailed in the Initial Study Checklist.

As stated above, the analysis in the Initial Study Checklist determined that only the Transportation resource category requires additional analysis in the EIR. All other impacts from the proposed project would be less than significant, not peculiar to the parcel or to the project, analyzed and mitigated as a significant effect in one of the aforementioned prior certified EIRs, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, including City SDRs and/or Council Policies.

1.2 EIR PROCESS

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, the City of Sunnyvale prepared a Notice of Preparation (NOP) for this TEIR. A NOP for the proposed project was prepared and issued on May 1, 2019 and the 30-day comment period extended until May 31, 2019. The NOP was circulated to local, State, and federal agencies and other interested parties, consistent with the requirements of CEQA. The City of Sunnyvale also held a public scoping meeting on May 22, 2019, to discuss the project and solicit public input as to the scope and contents of this TEIR.

The NOP indicated the following environmental topic on the listing of resources in Appendix G of the CEQA Guidelines will be addressed in the TEIR:

- Transportation and Traffic

The NOP also discussed the other environmental topic areas contained in Appendix G. The NOP discussed existing environmental conditions in and around the project site and noted the developed nature of the Moffett Park area, and the proposed project's consistency with the approved General Plan Land Use and Transportation Element. In addition, the NOP discussed project consistency with the approved Moffett Park Specific Plan (MPSP), and anticipated the overall effects of the proposed project with the implementation of mitigation to the following environmental factors would be Less Than Significant, or Less Than Significant with Mitigation from the previously certified LUTE, Caltrans and VW EIRs or uniformly applied city polices and plans adopted to avoid or minimize project impacts:

- Aesthetics
- Hazards and Hazardous Materials

- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geologic and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Utilities and Service Systems

The following environmental factors were anticipated to not be impacted by the proposed project:

- Agriculture and Forestry
- Population and Housing
- Wildfire
- Mineral Resources
- Recreation

Other EIR Sections: The TEIR will include other sections required by CEQA including sections on: Project Alternatives, Cumulative Traffic Impacts (within the traffic section), Significant Unavoidable Impacts, Significant Irreversible Environmental Changes, TEIR Preparers, TEIR References, and TEIR Technical Appendices.

1.3 SCOPING RESULTS

COMMENTS ON THE NOP

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

Regional Agencies

California Department of Transportation (Caltrans) District 4

Bay Area Air Quality Management District (BAAQMD)

California Office of Planning and Research

Cities

City of Santa Clara

Special Interest Groups and Individuals

Public Safety Officers Association

Public Scoping Meeting and Comments

As discussed above, in addition solicitation of comments through publication of the NOP, the City advertised and held a Public Scoping Meeting on May 22, 2019. None of the attendees provided comments on the proposed project.

1.4 REPORT ORGANIZATION

The Draft TEIR is organized into eight sections:

- Chapter 1.0, Introduction, provides an introduction and overview describing the intended use of the TEIR and the review and certification process. It also provides summaries of the sections included in the TEIR, and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

- Chapter 2.0, Executive Summary, summarizes the elements of the proposed project and the environmental impacts that would result from implementation of the proposed project, describes mitigation measures, and indicates the level of significance of impacts after mitigation, and acknowledges alternatives that would reduce or avoid significant impacts.

- Chapter 3.0, Project Description, provides a detailed description of the proposed project, including the project's location, background information, major objectives, and technical characteristics.

- Chapter 4.0, Environmental Analysis (Impacts and Mitigation Measures), contains a detailed environmental analysis related to Transportation impacts. The analysis of impacts to transportation consists of the existing conditions, proposed project impacts, recommended mitigation measures, and unavoidable adverse impacts (if applicable). The analysis of transportation resources in Section 4.0 is organized as follows:

    - "Environmental Setting" describes the physical conditions that exist at this time and that may influence or affect the issue under investigation.
    - "Regulatory Setting" described the Federal, State, and Local agencies and policy and regulatory documents that are applicable to the proposed project.
    - "Standards of Significance" provides the thresholds that are the basis of conclusions of significance, for which the primary source for the criteria is Appendix G of the State CEQA Guidelines (California Code of Regulations [CCR], §15000 through §15387).
    - "Project Impacts and Mitigation" describes potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented.

      A designation of "no impact" is given when no adverse changes in the environment are anticipated.

      A "less than significant impact" would cause no substantial adverse change in the environment.

      A "less than significant impact with mitigation incorporated" avoids substantial adverse impacts on the environment with mitigation.

      A "significant and unavoidable impact" would cause a substantial adverse effect on the environment, and feasible mitigation measures are not available to reduce the impact to a less than significant impact.

    - "Mitigation Measures" are those specific measures that may be required of the proposed Project to avoid a significant adverse impact; minimize a significant adverse impact; rectify

a significant adverse impact by restoration; reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or compensate for the impact by replacing or providing substitute resources or environment.

- "Level of Significance After Mitigation" discusses whether the proposed project and the project's contribution to cumulative impacts can be reduced to levels that are considered less than significant.
- "Cumulative Impacts" describes potential environmental changes to the existing physical conditions that may occur with the proposed project, together with all other reasonably foreseeable, planned, and approved future projects.
- "Conclusion" provides a summary of the anticipated project impacts and mitigation including significance conclusion.

- Chapter 5.0, Growth-Inducing Impacts, discusses significant environmental changes that would result from the proposed action, should it be implemented, and discusses growth-inducing impacts of the proposed project.
- Chapter 6.0, Alternatives to the proposed project, describes a reasonable range of alternatives to the proposed project or to the location of the project that could feasibly attain the basic project objectives, and provides and a determination of the environmentally superior alternative.
- Chapter 7.0, Other CEQA Considerations, lists mitigation measures proposed to minimize the significant impacts of the proposed project.
- Chapter 8.0, Agency Contacts and Preparers lists persons from the Lead Agency and preparers of the TEIR.

This TEIR uses a variety of terms to describe the level of significance of adverse impacts. These terms are defined as follows:

- **Less Than Significant.** An impact that is adverse but that does not exceed the defined thresholds of significance. Less than significant impacts do not require mitigation.
- **Significant.** An impact that exceeds the defined thresholds of significance and would or could cause a substantial adverse change in the environment. Mitigation measures are recommended to eliminate the impact or reduce it to a less than significant level.
- **Significant and Unavoidable.** An impact that exceeds the defined thresholds of significance and cannot be eliminated or reduced to a less than significant level through the implementation of mitigation measures.

1.5 INCORPORATION BY REFERENCE

As permitted in Section 15150 of the State CEQA Guidelines, an EIR may reference all or portions of another document that is a matter of public record or is generally available to the public. Information from the documents that have been incorporated by reference has been briefly summarized in the appropriate sections of this TEIR, along with a description of how the public may obtain and review these documents. These documents include:

- City of Sunnyvale General Plan; (available online at: https://sunnyvale.ca.gov/government/codes/plan.htm)

  The City of Sunnyvale General Plan is an appropriate document to incorporate by reference because the General Plan is the governing land use policy document within the City of Sunnyvale that provides guidance on the implementation of General Plan goals through polices. The General Plan contains the Land Use and Transportation Element of which influences that traffic analysis for the proposed project.

- Moffett Park Specific Plan; (available online at: https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?blobid=22831)

  The Moffett Park Specific Plan is an appropriate document to incorporate by reference because it provides specific land use policy for the Moffett Park Specific Plan area, including the governing zoning for property within the Plan Area. The project site is within the Moffett Park Specific Plan and is subject to the development performance standards (e.g., zoning type, Floor Area Ratio, and green building requirements).

- City of Sunnyvale Land Use and Transportation Element Draft Environmental Impact Report (SCH No. 2012032003) available at City of Sunnyvale Planning and Building Department.

  The Land Use and Transportation Element Final EIR is an appropriate document to incorporate by reference because it evaluates the City of Sunnyvale's most recent update to the Land Use and Transportation Element (2016). The Land Use and Transportation Element included the land uses and building densities described in the Moffett Park Specific Plan. This TEIR tiers off of the analysis in the LUTE Final EIR.

- Valley Water East and West Channels Flood Protection Project Final Environmental Impact Report (SCH No. 2013012041) available: https://www.valleywater.org/sites/default/files/_SunnyvaleDEIR_Combined_Oct2013%20%286%29/_SunnyvaleDEIR_Combined_Oct2013%20%286%29.pdf)

  The Valley Water East and West Channels Flood Protection Project Final EIR is an appropriate document to incorporate by reference because it evaluates improvements to the Sunnyvale West Channel. The Sunnyvale West Channel bisects the project site, and the proposed project

would implement some of the flood protection and restoration measures discussed in the EIR. This TEIR tiers off of the analysis in the VW East and West Channels Flood Protection Project Final EIR.

- Mathilda Avenue Improvements at SR 237 and US 101 Project ("CalTrans EIR") (State Clearinghouse No. 2015082030), available: https://www.vta.org/sites/default/files/documents/finalEIR.pdf.

  The Caltrans EIR is an appropriate document to incorporate because its analysis covers certain potentially significant transportation impacts the proposed project may produce related to the Mathilda Avenue interchanges with State Route 237 and Highway 101.

The documents that are incorporated by reference are available for review during counter hours from 8:00 a.m. to 5:00 p.m., Monday through Friday, at the City of Sunnyvale Community Development Department at 456 West Olive Avenue, Sunnyvale CA 94086.

2.0 EXECUTIVE SUMMARY

2.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the guidelines, this chapter includes (1) a summary description of the Google Caribbean Campus ("proposed project" or "project"), (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1), (3) identification of the alternatives evaluated and of the environmentally superior alternative, (4) a discussion of the areas of controversy associated with the project, and (5) issues to be resolved.

This document is entitled a Transportation EIR (TEIR) because it focuses on impacts related to transportation. Through the Initial Study process using the CEQA Initial Study Checklist, impacts to all other environmental resource areas were found to be less than significant. Accordingly, this TEIR has been prepared in conformance with CEQA (California Public Resources Code ["PRC"] §21000 et seq.), the CEQA Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq. ("CEQA Guidelines")), and the rules, regulations, and procedures for the implementation of CEQA.

As discussed in Chapter 1.0, Introduction, three prior EIRs analyzed and mitigated potentially significant effects related to the proposed project, and accordingly inform the analysis presented in this TEIR: (1) the 2016 Land Use and Transportation Element ("LUTE") of the Sunnyvale General Plan ("LUTE EIR") (State Clearinghouse No. 2012032003); (2) the 2013 Valley Water (VW)[1] East and West Channels Flood Protection Project EIR ("VW EIR")[2] (State Clearinghouse No. 2013012041); and (3) the 2016 Mathilda Avenue Improvements at SR 237 and US 101 Project ("Caltrans EIR") (State Clearinghouse No. 2015082030).

The LUTE EIR is a program EIR that considers the environmental effects of the City's planned land uses, development density, transportation, and projected buildout by 2035. The LUTE EIR analyzed permitted uses, development density, and projected transportation impacts at the project site. The VW EIR is a project EIR that analyzes a series of flood protection and water quality improvements, including for the West Channel that bisects the project site. The Caltrans EIR is also a project EIR that analyzes the reconfiguration of the State Route 237 and US 101 interchanges with Mathilda Avenue, including: modification to on and off ramps; removal, addition, and signalization of intersections; and provision of new left turn lanes. Its analysis accordingly covers certain potentially significant transportation impacts

[1] The official name of the agency is the Santa Clara Valley Water District (SCVWD); however, the new moniker is Valley Water (VW) and will be used as a shorter reference.
[2] At the time the East and West Channels Flood Protection Project EIR was certified, the agency was using its previous name, Santa Clara Valley Water District.

the proposed project may produce related to the Mathilda Avenue interchanges with State Route 237 and Highway 101.

2.2 PROJECT LOCATION

The proposed project is located within the Moffett Park Specific Plan (MPSP) area in the City of Sunnyvale (City). Regionally, the proposed project is in Santa Clara County in the Silicon Valley and in the northwestern area of the City. The Silicon Valley is generally defined as that portion of the Santa Clara Valley that is known for being a technology center. In addition to technology-based companies, Santa Clara County and the Silicon Valley has a diverse urban and natural landscape unique to the southern region of the San Francisco Bay area. The proposed project is located on the southern edge of the San Francisco Bay but is part of a nearly continuous urban landscape extending to the east, south, and west with the neighboring cities including Mountain View, Los Altos, Cupertino, Palo Alto, , San Jose, and Santa Clara. The Silicon Valley is highly urbanized, with concentrations of high-technology centers, old and new residential areas, transportation infrastructure, and downtown settings. On the boundaries of these urbanized and high density uses there are large natural areas including the San Francisco Bay to the north, Santa Cruz Mountains to the southwest, and the Diablo Mountain Range to the east. These natural features generally define the borders of the Silicon Valley.

2.3 PROJECT DESCRIPTION

The proposed project would result in the demolition of the existing 13 structures and hardscape and redevelopment of the project site with two modern five-story mid-rise structures totaling approximately 1,041,890 sf and housing a total of approximately 4,500 employees. The new buildings have been designed to be consistent with existing as well as future redevelopment efforts in the MPSP. The two proposed structures would be five stories each, and the buildings would share use of the proposed four-story parking garage, surface parking lots totaling 2,092 spaces. Other project amenities including landscaped courtyards, walkways, and alternative transportation elements. The proposed buildings would include office space, amenities/meeting rooms, food service, fitness areas, restrooms and other areas needed for structural circulation and accessibility for employees. The building uses are consistent with other projects in the area and project features are designed to integrate to the existing landscape and surrounding developments, as well as conform with the redevelopment guidelines of the MPSP.

The project site would be re-addressed, and the buildings would be known as 100 West Caribbean Drive and 200 West Caribbean Drive. The westerly structure would be addressed 200 West Caribbean Drive and occupy the portion of the project site west of the West Channel, and the easterly structure would be addressed 100 West Caribbean Drive and occupy the portion of the site east of the West Channel. As mentioned above, the proposed project also includes numerous other amenities and elements that would support operations including shipping and receiving, maintenance areas, health and safety, storage areas, vehicles and machinery needed to support operations. that are discussed in additional detail in *Chapter 3.0, Project Description*.

Design Concept

The proposed project has been designed to blend into the existing environment, create greater visual variety, a sense of place, and be unobtrusive to visual interest while establishing its own individual character within the MPSP. The project proposes to use differentiated roof lines that would provide diverse but compatible textures, colors, and materials that would break up the visual building massing that is generally associated with the facades of a five-story building and parking structure. Project design also incorporates sustainability elements that would reduce the overall project footprint. For example, the project's office buildings are designed with unique stepped and sloped green roof lines that would provide a walkable landscaped environment for use by campus personnel.

Transportation and Circulation

The proposed project does not include the construction of any new roadways but does include an internal circulation plan, access improvements, and installation of a new signalized intersection at the 200 West Caribbean Driveway that would also serve crossings for pedestrians and cyclists and connect to existing and proposed local and regional trails. The project would include an internal network of access roads and driveways needed for vehicle and shuttle bus turnarounds, drop-off pick-up areas, access to the parking structure and surface parking, product delivery and shipping, and access for waste hauling. The project includes two permanent bridge crossings over the Sunnyvale West Channel including one located at the north end (the Pedestrian Bridge) and one at the south end (the Caspian Bridge) that will provide internal connection within the project area. The north channel crossing provides a connection between the 100 and 200 West Caribbean buildings. The south channel crossing provides a pathway connection between the open space area in the southern portion of the site with connectivity to a proposed shuttle stop located off of Bordeaux Drive in the southwest corner of the site. The Caspian Bridge will be constructed of cast-in-place concrete. It will be open to the public for pedestrian and bicycle use, and will accommodate emergency vehicle access.

It should be noted that a third, temporary construction channel crossing is proposed adjacent to the south side of the existing Caribbean Drive channel crossing. This temporary channel crossing would be removed once construction is completed. Additional details regarding vehicle circulation, accessibility and roadway configuration for the proposed project are discussed in *Chapter 3.0, Project Description*.

Valley Water's West Channel

The VW's West Channel bisects the project site from north to south. As part of the project, flood protection along the approximate 1,300 feet of the West Channel would be improved. The improvements to the West Channel would be similar to those identified within the certified VW EIR but have been modified slightly from the approved design to accommodate the proposed project and enhance flood control, aesthetics, and habitat functionality. Improvements would require approximately 7,843 cubic yards of cut and 69,857 cubic yards of fill. The channel would be reestablished to include two westward meanders of approximately 24 feet and 49 feet and to replicate a natural streambed flow. The

reestablished channel would be designed to match the existing low-flow channel and ultimately this would provide enhanced ecological function and deliver enhanced flood protection.

The original Valley Water project proposed to use vertical floodwalls along the channel for freeboard standards and to meet the FEMA 100-year storm event flood protections. The proposed redesign of the levees would provide the same level of flood (100-year protection with 2 feet of sea level rise and an additional 4+ feet of freeboard). The proposed project would maintain sections of floodwalls at the upstream extent of the project reach to conform to Valley Water's floodwall design elevations and would maintain the bridge and culvert modifications. The box culvert also would be extended with new headwall/floodwall to accommodate a sidewalk along West Caribbean Drive (as required by the City of Sunnyvale) and meet the grade and elevation to the new earthen levee top. The proposed project would; however, modify the originally proposed use of vertical floodwalls along the length of the channel and instead, would widen the existing bank to bank width of the channel to between 52 to 65 feet and the total width of the channel from 127 to 187 feet. The top levee would be raised to an elevation of 18 feet.

The levees would be laid back and contour graded with meanders to facilitate native vegetation growth and to create a functional habitat for plants and wildlife. Improvements would allow for the average channel velocities to be reduced from 0.92 to 0.78 foot per second. The disturbed areas would be revegetated and a habitat mitigation/restoration plan for the enhancement of wetland and riparian habitat would be implemented.

The proposed improvements would require some additional grading to accommodate the low-flow storm drainage channel and associated flood plains, and for construction of two new pedestrian bridge crossings (one bridge crossing would accommodate emergency vehicles). VW maintenance vehicles would still be authorized to use the proposed pathways on the levee tops. In addition, an existing 54-inch stormwater pipe that runs along the West Channel will be relocated approximately 110 feet to the west of its current location.

To accommodate the improvements, the proposed project would require temporary diversion of flows within the project reach of the West Channel. The channel would be dewatered using an AquaDam system and an earthen coffer dam spanning the full width of the channel. High-density polyethylene (HDPE) piping would be used to convey the water around the construction reach and a riprap or equivalent energy flow dissipater device would be installed at the system discharge point. This design is intended to prevent erosion, sedimentation and siltation from occurring. If groundwater seepage occurs within the dewatered reach, pumps would be used to discharge the seepage flows to intakes HDPE trunk line. In accordance with standard best management practices, water quality monitoring and testing with contingency plans for parameter exceedances or system upsets two days prior to and one day installation and removal of the dewatering system, respectively.

Construction of the proposed West Channel improvements would primarily occur over the course of two construction seasons (April 15-October 31) in 2021 and 2022. Dewatering is anticipated to occur from April 15-October 31 during this time. The proposed design requires final approval by Valley Water and

would provide at a minimum, an equivalent level of flood protection through the project reach and will not compromise flood protection at this location or any other reach of Valley Water's overall project.

In sum, these modifications to the original design are intended to enhance the creek corridor and improve habitat value while providing flood protection and enhancing campus aesthetics, recreational opportunities and environmental resources for wildlife. Overall, the channel has been designed to integrate into the existing regional flood control and drainage plan and would be adaptable to future climate conditions.

2.4 AREAS OF CONTROVERSY

Pursuant to CEQA Guidelines Section 15123(b)(2), this EIR acknowledges the areas of controversy and issues to be resolved that are known to the City of Sunnyvale and/or were raised during the EIR scoping process. These issues were identified during the NOP review period. Five comment letters were received from agencies, organizations, and individuals in response to the NOP comment period (May 1, 2019 through May 31, 2019). These comments on the NOP are included in Appendix A.

The following list, categorized by issue, summarizes the concerns brought forth in the comment letters:

Issue Area:	Concerns Related To:
Traffic **(EIR Chapter 4.1)**	• Include Transportation Demand Management (TDM) Program • Reduce parking significantly for consistency with MTRC's RTP/SCS goals • Incorporate measures listed in letter to promote smart mobility and reduce regional VMT • Provide connections to existing bike lanes and multi-use trails (Sunnyvale Bay Trail Class 1 Bike Path) • Consider fair share contributions to (2) Express Lane projects on SR237 and US 101 • Municipal and CMP intersections with 10 or more project trips per approach lane should be analyzed • Analyze adequacy of Google's proposed parking plan-
Air Quality **(Initial Study Checklist Section 4.3)**	• EIR should evaluate AQ and GHG. • Air District urges City to evaluate AQ and GHG as key environmental issue in EIR. • Transportation impacts associated with demo of 1362 Borregas Ave building should be included in Project description, project location, AQ and GHG analysis. • Estimate and evaluate the potential health risk to existing and future sensitive populations within the Project area from toxic air contaminants (TAC) and fine particulate matter (PMz.s) as a result of the project's construction and operation. • Executive Order (EO) S-13-08 directs state agencies planning construction projects in areas vulnerable to sea level rise to begin planning for potential impacts by considering a range of sea level rise scenarios for years 2050 and 2100.
Public Services **(initial Study Checklist Section 4.19)**	• Emergency response during peak traffic hours should be analyzed • EIR should measure the combination of additional traffic trips generated by this project over current conditions and those trip's impacts on response times • Analyze impacts to response times and workloads due to high-rise buildings. • Avoid piecemeal approach to development and incorporate plans for residential and further commercial development into analysis/ cumulative impacts of development

2.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2 (b) of the CEQA Guidelines requires an EIR to "describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described."

The specific mitigation measures summarized in Table ES-1 would reduce the level of project-specific significant impacts to less than significant. Similarly, many impacts are identified that would be less than significant without the need for additional mitigation measures. Significant and unavoidable impacts were identified in the analysis.

SIGNIFICANT PROJECT-LEVEL EFFECTS

Transportation

Significant traffic impacts associated with the proposed project would be significant and unavoidable for impacts associated with a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive.

There is no feasible mitigation to reduce this impact to less than significant. To reduce impacts, restriping of the westbound approach to a two left-turn lane and one shared-left through-right lane would be needed to improve cumulative operations to an acceptable LOS for PM peak hour conditions. This improvement; however, is not considered feasible as it would require signal timing changes that would disrupt the current signal coordination of the Mathilda Avenue-Sunnyvale Saratoga Road corridor and create new and additional significant traffic impacts along the corridor. There is no other feasible mitigation that is available to reduce this impact because this project is located in a developed urban area and there is limited right-of-way available to add capacity to the intersection. Per Chapter 3.50 of the Sunnyvale Municipal Code, the proposed project would be required to pay the City's Transportation Impact Fee (TIF). The purpose of the TIF is to help provide adequate transportation-related improvements to serve cumulative development within the city. However, with payment of the fee, the impact at the intersection would remain. Therefore, this impact would be significant and unavoidable.

2.6 ALTERNATIVES TO THE PROJECT

Chapter 6 of this TEIR evaluates alternatives to the proposed project in accordance with the CEQA Guidelines Section 15126.6. The analysis of project alternatives takes into consideration the base assumption that all applicable mitigation measures associated with the project would be implemented with the appropriate alternatives. However, applicable mitigation measures may be scaled to reduce or avoid the potential impacts of the alternatives under consideration and may not precisely match those identified for the project. If a specific impact is not raised within the discussion of an alternative, it is because the effect is expected to be the same as that associated with the implementation of the proposed

project. Detailed descriptions and analyses of the project alternatives can be found in Chapter 6 (Alternatives). The following is a summary of the alternatives evaluated in this TEIR.

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

The No Project Alternative assumes the proposed project would not be implemented and land uses and other improvements would not be constructed. The existing project site would remain unaltered and in its current condition. All infrastructure improvements including water, wastewater, drainage, and roadway improvements identified in the proposed project would not be constructed. Because the project site would remain unchanged, few or no environmental impacts would occur. This alternative serves as the baseline against which the effects of the proposed project and other project alternatives are evaluated. Under this alternative none of the proposed improvements would occur. The project would remain undeveloped.

- None of the impacts associated with the project would occur.
- Baseline growth (without project) would still occur.
- No improvement to the West Channel and environmental enhancements of biological resources or functionality would occur.
- Increases in vehicular traffic would not occur.
- Continuing redevelopment efforts under the MSPS would not occur.

ALTERNATIVE 2: SINGLE BUILDING ALTERNATIVE

The Single Building Alternative is proposed as an alternative that would reduce the amount of traffic generated from the project. This alternative proposes one single office building or approximately half of the traffic generating development compared to the proposed project. Similar to the proposed project, all of the existing buildings onsite would be demolished. Under this alternative, the building located at 200 West Caribbean would not be constructed, nor would the proposed parking garage. This portion of the property would be developed for surface parking with up to 1,000 parking spaces to support the proposed building at 100 West Caribbean. As with the proposed project, this building would be approximately 536,750 square feet with a maximum building height of 120.5 feet. The building would support approximately 2,200 employees. Under this alternative the two proposed bridges over the Sunnyvale West Channel would not be constructed. Pedestrian access from the parking lots would be from existing sidewalks along Caribbean Avenue. The remaining development at the 100 West Caribbean site would be the same of the proposed project. The temporary construction office and construction parking would be located on the 200 West Caribbean site and a temporary construction office and construction parking located offsite would not be required or constructed.

The environmentally superior alternative to the proposed project is the one that would result in the fewest or least significant environmental impacts. Based on the evaluation undertaken, Alternative 2: Single Building Alternative is the environmentally superior alternative.

2.7 TRUSTEE AND RESPONSIBLE AGENCIES

For the purpose of CEQA, the term *trustee agency* means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the state of California. Specifically, the following trustee agencies may have an interest in the proposed project and its implementation:

- California Department of Fish and Wildlife
- Regional Water Quality Control Board
- California Department of Transportation

In CEQA, the term *responsible agency* includes all public agencies other than the lead agency that may have discretionary actions associated with the implementation of the proposed project or an aspect of subsequent implementation of the proposed project. Since potential future implementation decisions may occur years from now, they cannot be known with certainty. However, the following agencies may have some role in implementing the proposed project and have been identified as potential responsible agencies:

- Valley Water
- Bay Area Air Quality Management District
- California Department of Fish and Wildlife
- Regional Water Quality Control Board
- United States Army Corps of Engineers
- Federal Aviation Administration
- Occupational Safety and Health Administration
- United States Fish and Wildlife Service
- California Department of Transportation
- San Francisco Bay Conservation and Development Commission

2.8 ENVIRONMENTAL IMPACT SUMMARY

Table ES-1, *Project Impacts and Proposed Mitigation Measures*, has been organized to correspond with the environmental issues discussed in Chapter 4 of this TEIR. The summary table is arranged in four columns:

- Environmental impacts (“Impact”).
- Level of significance without mitigation (“Significance Before Mitigation”).
- Mitigation measures (“Mitigation Measure”).

- The level of significance after implementation of mitigation measures ("Significance After Mitigation").

If an impact is determined to be significant or potentially significant, mitigation measures are identified, where appropriate and feasible. More than one mitigation measure may be required to reduce the impact to a less-than-significant level. This TEIR assumes that all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, City General Plan policies, laws, and requirements or recommendations of the City planning staff or City Council.

Applicable plans, policies, and regulations are identified and described in the Regulatory Setting of each issue area and within the relevant impact analysis. A description of the organization of the environmental analysis, as well as key foundational assumptions regarding the approach to the analysis, is provided in *Chapter 1.0, Introduction*.

Table ES-1: Project Impacts and Proposed Mitigation Measures

Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Chapter 4.1 – TRANSPORTATION			
Impact TRANS-1: Would the proposed project result in impacts on intersection operating conditions (including unsignalized intersections)?	Less Than Significant	**No mitigation measures are required.**	Less than Significant
Impact TRANS-2: Would the proposed project result in impacts on freeway segment operations?	Less Than Significant.	**No mitigation measures are required.**	Less Than Significant.
Impact TRANS-3: Would the proposed project result in impacts on freeway ramp operations?	Less Than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact
Impact TRANS-4 – Would the proposed project result in impacts on Project Access Driveways, Throat Lengths, and Sight Distance?	Less Than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact
Impact TRANS-5: Would the proposed project result impacts on transit facilities?	Less than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact
Impact TRANS-6: Would the proposed project result impacts on bicycle facilities?	Less than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact
Impact TRANS-7: Would the proposed project result impacts on pedestrian facilities?	Less Than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact

Table ES-1: Project Impacts and Proposed Mitigation Measures

Impact	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact TRANS-8: Would the proposed project result impacts on emergency services and access?	Less Than Significant Impact	**No mitigation measures are required.**	Less Than Significant Impact
Cumulative Impacts	Potentially Significant Impact	**No feasible mitigation measures have been identified.**	Significant and Unavoidable

3.0 PROJECT DESCRIPTION

The purpose of this section is to describe the proposed Google Caribbean Campus project ("project, "proposed project") in a useful and comprehensible manner to the public, agencies, and decision makers. For the purposes of the California Environmental Quality Act (CEQA), a complete project description must contain the following information: a) the precise location and boundaries of the project area, shown on a detailed map, preferably topographic, along with a regional map of the project's location; b) a statement of the objectives sought by the project, which should include the underlying purpose of the project and may discuss the project benefits; c) a general description of the project's technical, economic, and environmental characteristics; and d) a statement briefly describing the intended uses of the EIR by the lead or other agencies for decision making, permits or other approvals (State CEQA Guidelines §15124). An adequate project description need not be exhaustive but should supply the information necessary for the evaluation and review of the project's effects on the environment.

This Transportation Environmental Impact Report (TEIR) has been prepared to identify and evaluate potential environmental impacts associated with the proposed project. The information provided in this TEIR section meets the requirements of the State CEQA Guidelines Section 15124 and provides a level of detail adequate for public and agency review and consideration of the proposed project and the potential environmental impacts associated with implementation of the proposed project.

3.1 PROJECT LOCATION AND SETTINGS

Regional Setting

Regionally, the proposed project is in Santa Clara County in the Silicon Valley and in the northwestern area of the City of Sunnyvale (City). Santa Clara County is bounded by Alameda County to the north, San Mateo and Santa Cruz Counties to the west, San Benito County to the south, and Merced and Stanislaus Counties to the east. The Silicon Valley is generally defined as that portion of the Santa Clara Valley that largely serves as the technology center of the world. Santa Clara County and the Silicon Valley has a diverse urban and natural landscape unique to the southern region of the San Francisco Bay area.

The proposed project is located on the southern edge of the San Francisco Bay and is part of a nearly continuous urban landscape with the neighboring cities including Mountain View, Los Altos, Cupertino, and Santa Clara. Areas such as the proposed project site within the Silicon Valley tend to be highly urbanized, with concentrations of high-technology centers, old and new residential areas, transportation infrastructure, and downtown settings. On the boundaries of these urbanized and high density uses there are large natural areas including the San Francisco Bay to the north, Santa Cruz Mountains to the southwest, and the Diablo Mountain Range to the east. These natural features general define the borders of the Silicon Valley in which there are numerous other municipalities including Palo Alto to the west, and San Jose to the east. These areas are typified by development patterns that consisting of suburban, urban, and very high-density land uses.

Regional access to Sunnyvale is provided by US Highway 101 (US HWY 101) and State Route (SR) 237. Both are located approximately one mile to the south of the proposed project. US HWY 101 is an eight-lane freeway with a high occupancy vehicle (HOV) lane in each direction and SR 237 is a six-lane freeway with a high occupancy toll (HOT) lane in each direction. From this location, SR 237 trends northeasterly and southwesterly connecting to Interstate 880 (I-880) approximately seven miles to the east and to Interstate 680 (I-680) approximately eight miles to the east. I-880 generally trends north and south and provides access to points north including San Leandro and Oakland, and points south including San Jose before joining US HWY 101. From this point US HWY 101 continues south through Santa Clara County to as far south as Los Angeles County. Closer to the project area, US HWY 101 generally trends to north and south on the west side of the San Francisco Bay and provides access to Sonoma County, Marin County, San Francisco County, and San Mateo County. *Figure 3-1: Regional Location Map,* shows the project site in relation to surrounding counties as well as major transportation corridors.

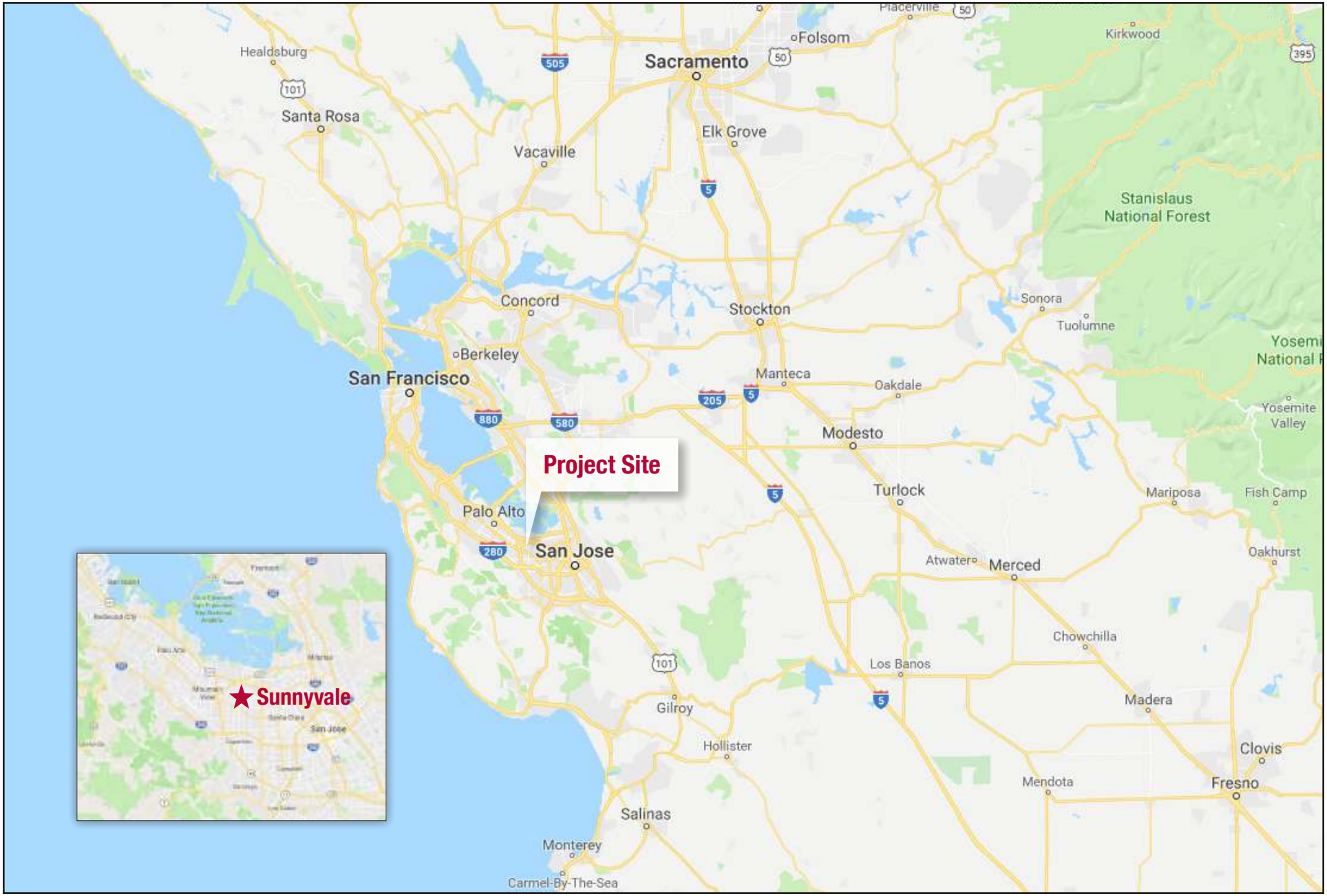
Local Setting

City of Sunnyvale

The City is located immediately south of the San Francisco Bay and occupies approximately 22 square miles. The City contains a mix of land uses from residential, commercial, industrial, recreational, open space, and is accessed via major transportation corridors, arterial roadways, and local roads. The majority of the commercial and industrial uses occupy the northerly portion of the City that is located north of the Central Expressway and Caltrain line. These corridors are located approximately 2.5 miles south of the project site. The Caltrain line divides the City roughly in half from west to east and provides service to San Francisco to the northwest and southerly to the city of Gilroy. South of this dividing line the City is characterized by predominantly residential development of an urban scale.

The MPSP is located in the northernmost area of the City and is bounded by the southern San Francisco Bay (Bay). The proposed project area occupies the northernmost area of the MPSP plan area and is approximately 0.25 miles from the Bay. The project site is on flat ground and is surrounded by other industrial and commercial uses largely related the technology industry.

The recent expansion and redevelopment within the MPSP was in response to the rapid growth in the technology sector and corresponding expansion within the Silicon Valley. This has resulted in both the City and Santa Clara County having to respond to substantial amounts of commercial and industrial growth over the last two decades. According to the California Department of Finance (CDOF), the City population was approximately 155,567 on January 1, 2019 (CDOF, 2019). In 2000 the population was approximately 132,198, and 140,081 in 2010. This represents a near 20-year increase of approximately 17% (CDOF, 2019b). In large part, population growth in the City has been tied to the relatively recent focus on the technology sector and notably within previously developed areas of the MPSP. This is evidenced by the other Google complexes, and other technology companies including Amazon, Yahoo, Juniper Networks, etc. *Figure 3-2: Local Vicinity Map* shows the project site in relation to its position within the City and major transportation routes.

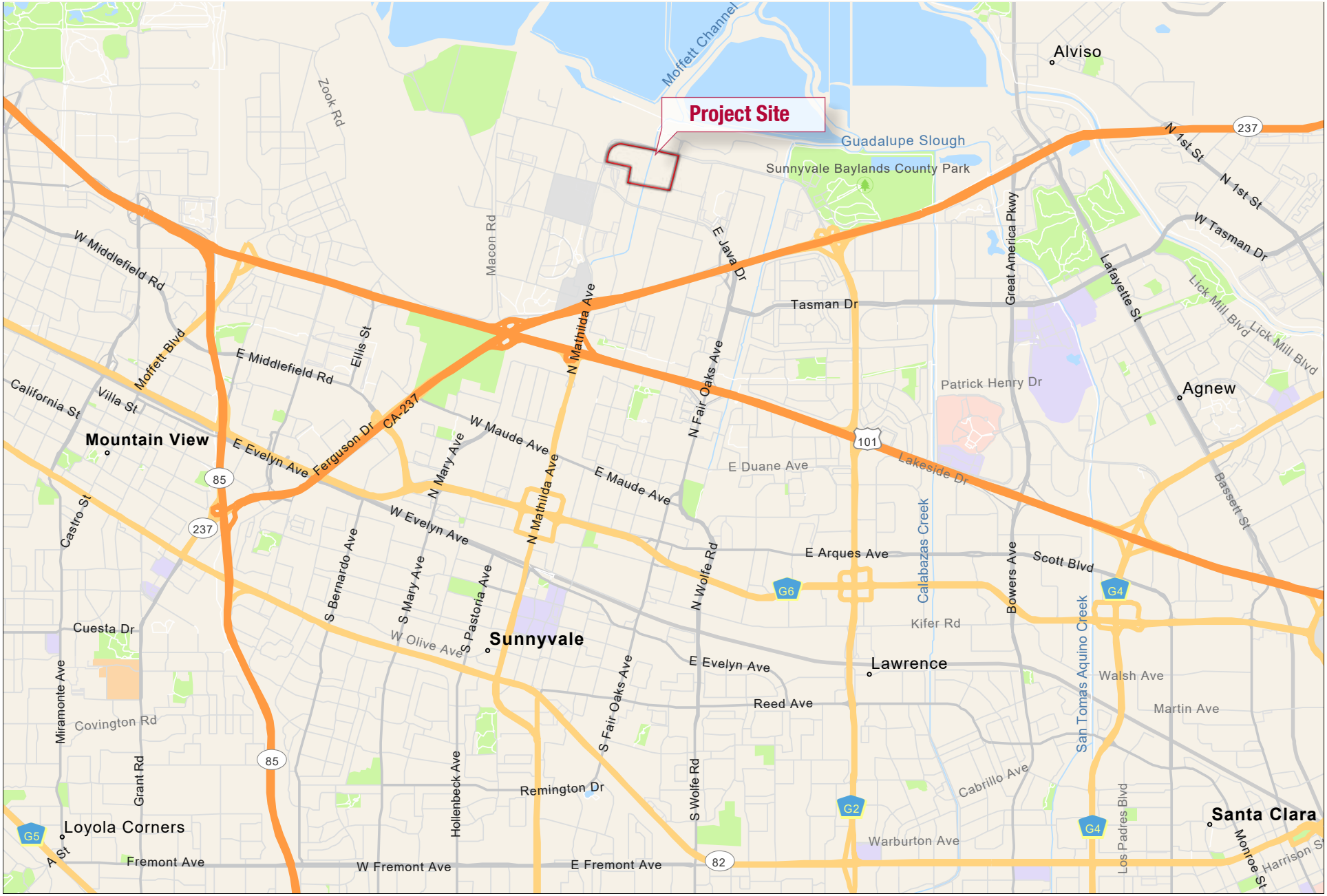


Source: Google Maps, 2019

FIGURE 3-1: Regional Location Map
Google Caribbean Campus

Not to scale

Kimley»Horn



Source: ESRI, 2019

FIGURE 3-2: Local Vicinity Map
Google Caribbean Campus

Not to scale

Kimley»Horn

Project Site

The proposed project is located in the City of Sunnyvale within the northern portion of the highly developed MPSP area. The character of the site is typical of other areas in MPSP that are currently developed with the original single story commercial and industrial uses. The existing uses have been in place since the 1960s. At that time, the MPSP area was predominately used by the armed forces and defense industry including the Air Force, the Navy, Lockheed Martin Corporation, and the National Aeronautics and Space Administration (NASA). Beginning in the late 1990s, several high-tech businesses began redevelopment in the MPSP area with construction of midrise structures and corporate campuses. Since that time, other campuses and companies such as Rambus, Java, and Google, have redeveloped areas in the MPSP and the location has become a technology hub in the Silicon Valley.

The existing structures are blocky in design and are largely rectangular or square in shape with flat oblique sides. The buildings are generally surrounded by paved ground consisting of level parking lots and interspersed with non-native landscaped areas. The vast majority of the properties are covered in hardscape. The site is generally vegetated with non-native ornamental landscaping, vegetated areas along streetscapes, and vegetated islands with trees and shrubs in the parking lots. *Figure 3-3: Aerial Photograph of the Proposed Project Site*, provides a colorized view of the overall characteristics of the project site.

The project is 40.44 acres, generally flat, and is bounded by West Caribbean Way on the north, Mathilda Avenue on the west, Borregas Avenue on the east, and Caspian Court and Bordeaux Avenue on the south. The built environment on the site consists of 13 existing single-story buildings used for industrial, office, and research and development, totaling approximately 710,381 square feet. The existing buildings occur on a total of 10 private parcels at 13 difference addresses as shown in *Table 3-1: Project Parcel and Property Information*.

Table 3-1: Project Parcel and Property Information

Address	Parcel Number	Acres	Existing Building sf
Properties West the West Channel (200 West Caribbean Drive)			
1330-1338 Bordeaux Drive, 1340-1346 Bordeaux Drive,1350 Bordeaux Drive, 1360-1368 Bordeaux Drive	110-26-025	9.26	25,200sf, 50,400 sf, 34,500 sf, 25,200sf
390-394 West Caribbean Drive	110-26-020	4.58	86,000
380-384 West Caribbean Drive	110-26-021	2.95	54,000
370-376 West Caribbean Drive	110-26-022	2.91	54,000
360-364 West Caribbean Drive	110-26-023	3.49	72,000
Sub-Total	--	**23.19**	**401,300**
Properties East of the West Channel (100 West Caribbean Drive)			
140-146 West Caribbean Drive	110-26-027	4.50	90,000
1393-1395 Borregas Avenue	110-26-028	2.88	50,880
1383 Borregas Avenue	110-26-029	2.63	50,880
141 Caspian Court	110-26-031	3.63	57,344
1325 Borregas Avenue	110-26-030	3.61	50,000
Sub-Total	--	**17.25**	**299,104**
TOTAL:	--	**40.44**	**700,404**
West Channel Parcel--	110-26-049	4.915	**--**
Note: The Valley Water parcel is included. Although Valley Water would maintain control over the parcel, some improvements in this area would occur.			

Source: Google Maps, 2019

FIGURE 3-3: Aerial Photograph
Google Caribbean Campus

Not to scale

Kimley»Horn

The table shows the existing addressed, parcel numbers, acres of each parcel, and square feet (sf) of the structures in each area. The table is delineated into properties that occur on the west versus east side of the West Channel. It should be noted that the existing addressed would be consolidated and project site would be identified by only two addresses, 200 West Caribbean Drive and 100 West Caribbean Drive. This fact is noted in the table for consistency with other portions of the project description this TEIR that describe and evaluate the proposed project by these terms.

The project site is bisected from north to south by approximately 1,000 feet of the Valley Water's West Channel, which occupies approximately 4.9 acres of the project site. The West Channel is an open topped man-made flood control channel. It is culverted under West Java Drive south of the project site and culverted under West Caribbean Drive at the northerly site boundary. Within the project site the West Chanel has steep vegetated banks and has a heavily disturbed dirt access road on the on the top of the levees. From the top of the levee, the channel slopes downward approximately 40 feet to the adjacent project parcels. This area is characterized by upland vegetation and trees near along the property lines. The total width of the West Channel is approximately 140 feet.

3.2 SURROUNDING LAND USES

The areas surrounding the project site are typical of the larger MPSP area with some portions having been redeveloped with modern mid-rise buildings associated with the technical industry. Areas that have not been redeveloped are similar to the project site and contain single and two-story structures in a design typical of a business park used for commercial and industrial purposed. The areas are characterized by square and rectangular buildings and expansive parking and hardscape to facilitate parking for employees and visitors. The areas are well landscaped with a variety of ornamental trees and shrubs adjacent to roadways, within roadway medians, along the sidewalks, and in planting islands in the surface parking lots.

Immediately adjacent to the project site, the areas to the south, east, and west, do contain a mix of land uses that remain as originally constructed as well as sites that have been redeveloped with modern mid-rise structures associated with technology uses typical of the Silicon Valley. The area north and northeast of the project site is designated for use as public facilities and is occupied by the Sunnyvale Landfill (closed since 1993) and a Donald M. Somers Wastewater Treatment Plant. The San Francisco Bay Trail and detention ponds used by the wastewater treatment plant are located between these areas and the South San Francisco Bay which lays further north. After existing the project site, the West Channel continues flowing north before entering the Guadalupe Slough within Moffett Channel before its outfall to the south San Francisco Bay. To the south and east across Borregas Avenue and Caspian Court, respectively, uses consist of the original single-story office, research and development and industrial buildings as well as the new six-story Java Metro Center on the northwest corner of Borregas Avenue and E. Java Drive. This structure is bounded by East Java Drive and the Santa Clara Valley Transportation Authority (VTA) Borregas Light Rail Station. The light rail station is approximately 800 feet south of the project site.

To the southwest of the project site across Bordeaux Drive are two previously developed sites on which the buildings have been removed. These sites are now heavily disturbed and occupied by grass, shrubs,

trees, old parking lot and storage containers. West of the vacant parcels is a large parking lot used by workers and visitors for the two, four-story Yahoo buildings that are bounded by Mathilda Avenue to the west, Bordeaux Drive to the north, and West Java Drive to the south. To the southwest of the intersection of North Mathilda Avenue and Bordeaux Drive is five story building with an approximate four-acre surface parking lot shaded by solar panels canopies. Lastly, to the west, across Mathilda Drive are two separate structures, one is a five story-building and the other is a three-story parking structure.

3.3 LAND USE DESIGNATIONS AND ZONING

The proposed project is located in the City of Sunnyvale with the northern portion of the MPSP area. Land use and planning policy documents that guide the development and redevelopment include the MPSP as well as City of Sunnyvale Municipal Code (Municipal Code) and City of Sunnyvale General Plan (SGP), each of which are discussed in more detail below.

City of Sunnyvale Municipal Code

Zoning within the Municipal Code is referred to as the Uniform Planning and Zoning Code (UPZC) of the City. As defined in Title 19.02.030 the three main purposes of this section are:

(a) To protect and promote the public health, safety, peace, comfort and general welfare;

(b) To establish the procedure for adoption of the general plan for the physical development of the city of Sunnyvale and land outside its corporate limits which may be included within the city of Sunnyvale at a future time, and adoption of specific plans, precise plans, including precise zoning plans, and amendments thereof; and

(c) To create zoning districts and regulations applicable thereto;

Under the last point (c), the UPZC lists eleven related regulations including: classifications of building types, densities, heights, and allowable locations; protection of City character and the provision of orderly development, access, and proper transportation; creation of districts to best carry out the purpose of the UPZC; prevention of unlawful development; provision for safe development and avoid hazards; prevention of incompatible and nonconforming uses; and defining the powers of the city in relation to fulfilling the purposes of the UPZC.

The UPZC establishes specific zoning districts for uses including residential, commercial, public facilities, industrial, open space, etc. The UPZC also establishes larger Specific Plan Districts, which are further refined in a Specific Plan document. Chapter 19.29 relates to the MPSP and the findings and purpose of this section are as follows:

(a) The MPSP district is established to implement the MPSP, which is incorporated herein by reference. The MPSP is a comprehensive, long term planning document for the MPSP area, and includes architectural and design guidelines, site development standards, public facility improvement plans, and an environmental mitigation monitoring program to be implemented

through zoning and subdivision regulations, development standards, and public and private improvements.

(b) The city council makes the following findings:

(1) Implementation of the MPSP will diversify and strengthen the economic opportunities and fiscal health of the city.

(2) Implementation of the MPSP will contribute positively to the city's regional prominence and community character.

(3) Implementation of the MPSP is in accordance with the city's goal to promote smart growth and sustainable development.

(c) It is the purpose of the provisions of this chapter to:

(1) Protect and promote the public health, safety, peace, comfort and general welfare;

(2) Define development procedures and administrative requirements to obtain the objectives of the MPSP. (Ord. 2750-04 § 6)

Within the UPZC there are specific regulations pertaining to permitted and conditionally permitted uses, development intensity, the design review and permitting process, green building requirements, site development standards, and application of mitigation measures. Similar to the General Plan, the UPZC also relies on the MPSP for development noting that the owner or occupant of land or buildings used for any purpose in the MPSP district shall provide the facilities as required by and which conform with the regulations set forth in the MPSP. *Figure 3-4: Moffett Park Specific Plan Land Use Map,* shows the City Zoning Map and Land Use Zones, which carry the same designation.

City of Sunnyvale General Plan

The SGP is the City's long-term blueprint for the community and provides the vision for future growth. The SGP includes goals, policies and programs that convey long-term planning for the Sunnyvale community, guides local decision-making, and is the basis for determining acceptable land uses. The SGP consists of a Community Vision and five supporting chapters addressing the physical development of the City. These chapters group related topics together such as Community Character, Safety and Noise, and Environmental Management.

Typically, a general plan designates areas within a city or county to be used for certain uses such as residential (single family, multi-family, etc.), commercial (community commercial, highway commercial, etc.), or industrial (heavy, medium, light, etc.). General plans also may designate areas as special districts or adopt or recognize that development will proceed according to a Specific Plan. Specific Plan areas can range in size from relatively small to thousands of acres. Specific Plans typically provide a more finely defined development scheme, and planning tends to be more precise in terms of the locations and specificity of certain land uses. Specific plans may designate the precise location of roadways and include a narrower range of allowable land uses than under a general plan. *Table 3-2: Project Site Parcels, Land Use Designations, and Acres*, shows the planning characteristics of the existing parcels, and *Figure 3-5: General Plan,* shows the City General Plan Map and associated land use designations.

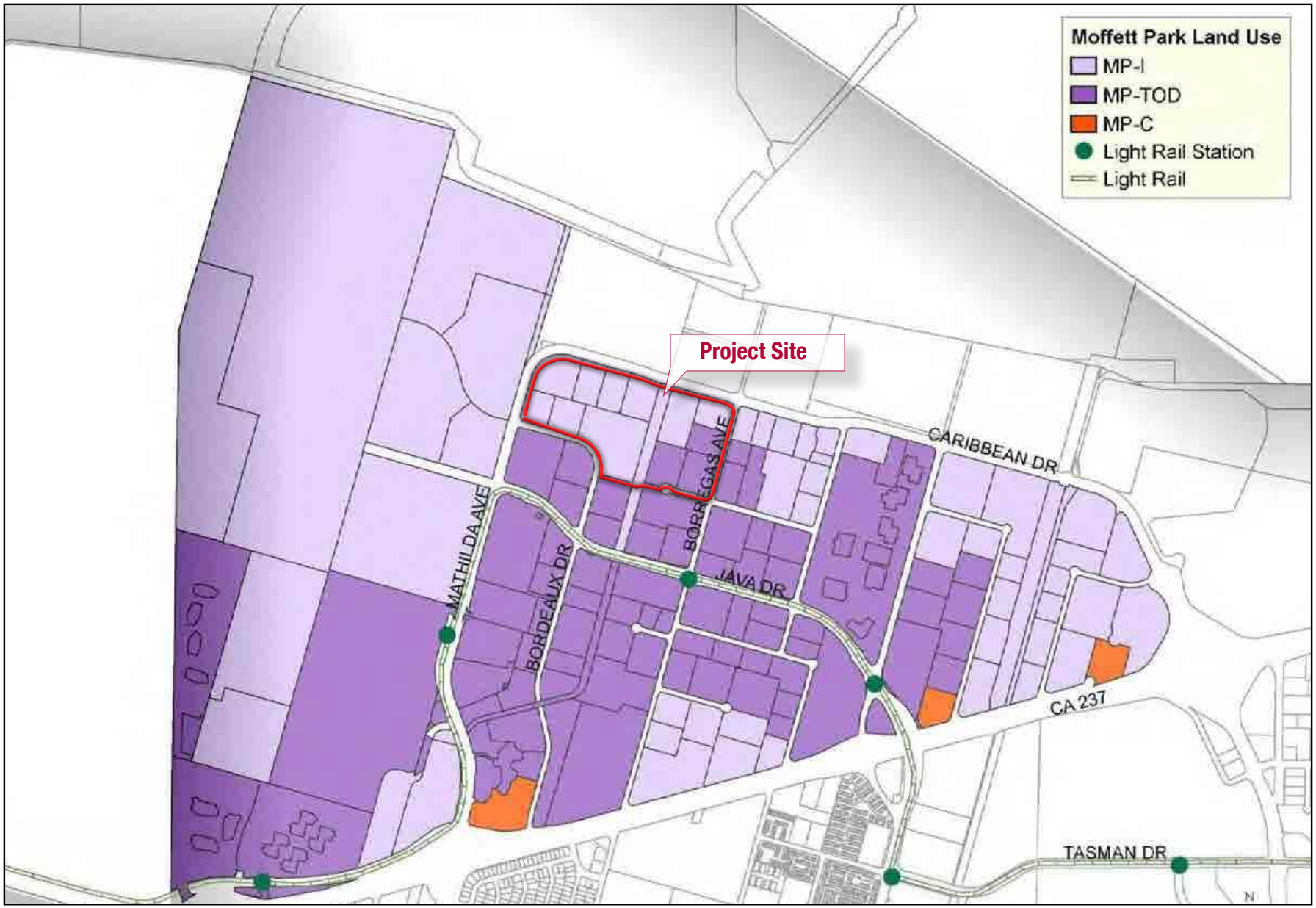


FIGURE 3-4: Moffett Park Specific Plan Land Use Map

Google Caribbean Campus

Not to scale

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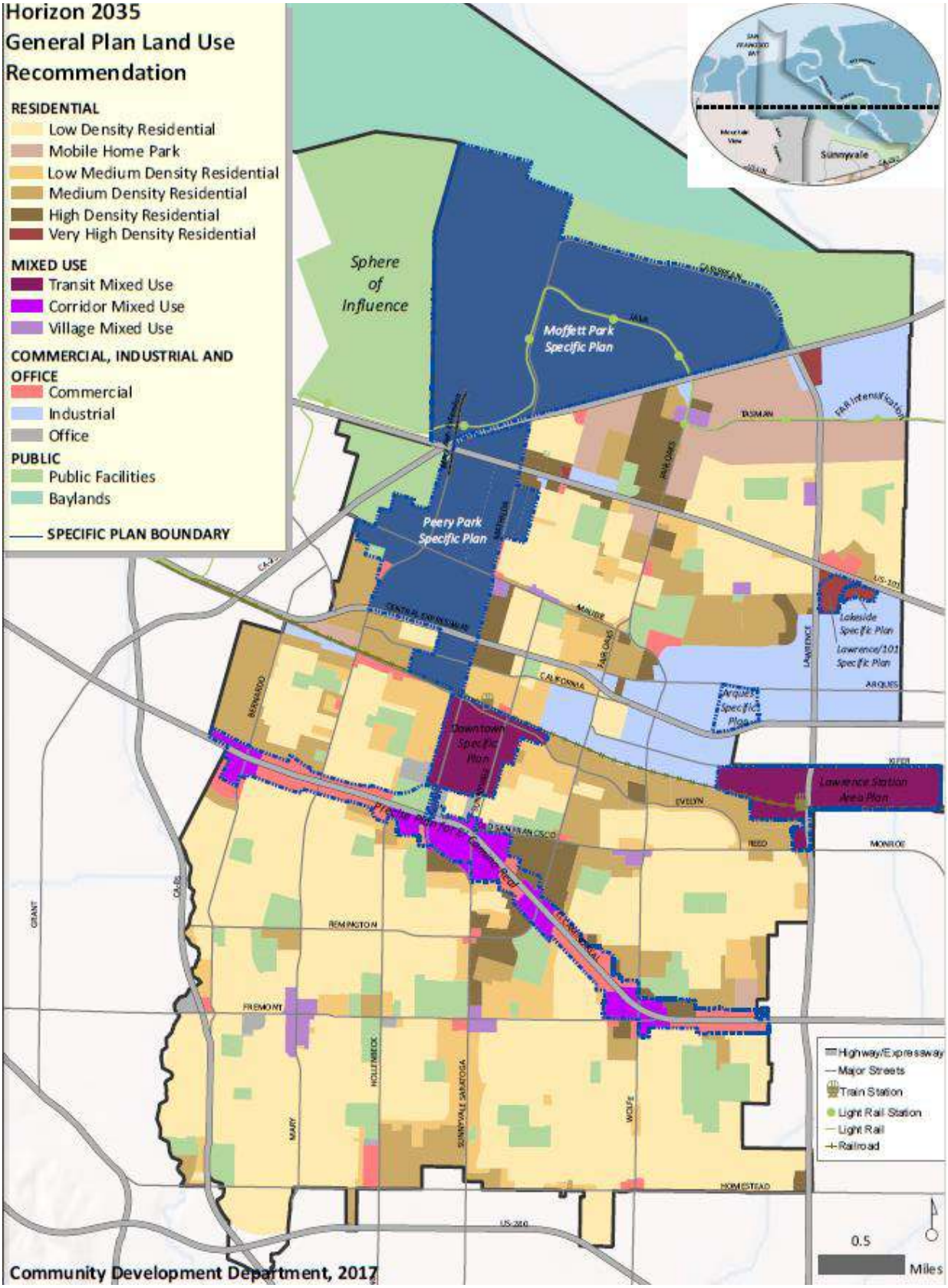

FIGURE 3-5: General Plan
Google Caribbean Campus

Not to scale

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Table 3-2: Project Site Parcels, Land Use Designations, and Acres

Address	Parcel Number	Zoning and Moffett Park Specific Plan	General Plan Designation
200 West Caribbean Drive – (Properties West the West Channel)			
1330-1338 Bordeaux Drive, 1340-1346 Bordeaux Drive, 1350 Bordeaux Drive, 1360-1368 Bordeaux Drive	110-26-025	MP-I	MP
390-394 West Caribbean Drive	110-26-020	MP-I	MP
380-384 West Caribbean Drive	110-26-021	MP-I	MP
370-376 West Caribbean Drive	110-26-022	MP-I	MP
360-364 West Caribbean Drive	110-26-023	MP-I	MP
100 West Caribbean Drive (Properties East of the West Channel)			
140-146 West Caribbean Drive	110-26-027	MP-I	MP
1393-1395 Borregas Avenue	110-26-028	MP-I	MP
1383 Borregas Avenue	110-26-029	MP-TOD	MP
141 Caspian Court	110-26-031	MP-TOD	MP
1325 Borregas Avenue	110-26-030	MP-TOD	MP
West Channel--			
--	110-26-049 (West Channel Parcel)	MP-I	MP – VW
Note: The Valley Water parcel is included. Although Valley Water would maintain control over the parcel, some improvements in this area would occur.			

Moffett Park Specific Plan

The proposed project is located within the MPSP area as identified in the SGP. While the SGP provides some guidance for the overall development patters within Moffett Park, it defers specific development guidance to the MPSP. The MPSP was originally adopted by the City in July of 2004 and has been revised four times – [November 2006 (Resolution No. 244-06), March 2009 (Resolution No. 369-09), September 2011 (Resolution No. 498-11, and most recently updated in December 2013 (Resolution No. 622-13)]. The MPSP area is located in the northwestern portion of the City of Sunnyvale and generally occupies approximately 1,156 acres of which 1,068 acres are developable. The MPSP is generally bounded by Caribbean Drive, Carl Road, and the Bay Trail on the north; SR-237 on the south; Caribbean Drive on the east; and Enterprise Way on the west. The MPSP defines land uses, development opportunities, goals and objectives, etc., for the specific plan area.

The purpose of the MPSP is to provide a framework to facilitate and encourage comprehensive development within a long-term plan that supports the development of a mix of land uses including those uses that are supportive of the targeted principal Class A office and R&D uses. *Figure 3-4* shows the MPSP area and associated land use designations. Properties surrounding the project site consist of MP-I and MP-TOD to the south, west, and east. To the north the area is designated for Public Facilities and is occupied by Sunnyvale Landfill and undeveloped Baylands.

As discussed above, the overall goal of the MPSP is to provide a comprehensive, long-term plan that supports the development of a mix of land uses and addresses the potential impacts of future

development within the MPSP area. The MPSP encourages development types such as corporate headquarters, office uses, and research/development facilities with high technology companies. The MPSP designates three specific land uses to meet the purpose of the MPSP, two of which are applicable to the proposed project. These designations in include Moffett Park Transit Oriented Development (MP-TOD), Moffett Park – General Industrial (MP-I).

MP-TOD: This subdistrict includes parcels within 0.25 mile of an existing light rail station. It permits the highest intensity of development (such as Class A office, R&D and corporate headquarters). It is assumed that proximity to light rail will encourage a larger proportion of workers to commute by transit rather than by automobile. The purpose of the MP-TOD subdistrict is to encourage higher intensity uses in close proximity to the Tasman Light Rail Corridor. The MP-TOD subdistrict is intended for the construction, use, and occupancy of buildings for office, corporate headquarters, research, and limited manufacturing; as well as ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed and encouraged. MP-TOD encourages mixed use approach to future development to provide needed support services in the transit core.

The MP-TOD subdistrict provides approximately 539 gross acres primarily for office, commercial, and industrial development at a standard intensity of 0.5 FAR. In addition, the allowable floor area ratio may be increased to 0.7 FAR by utilizing the Development Reserve as outlined in the Specific Plan.

MP-I: The MP-I subdistrict is intended for general industrial development at moderate FAR levels due to its proximity to regional transportation facilities and transit services. The Standard FAR for this zone is 35% but it can be increased to maximum of 50%. The MP-I subdistrict provides is intended for the construction, use, and occupancy of buildings for primarily office, warehouse, and general industrial development. Ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed and encouraged.

3.4 PROPOSED PROJECT

Project Overview

The Google Caribbean Campus project (project, proposed project) is located in within the Moffett Park Specific Plan (MPSP) area in the City of Sunnyvale (City). The project site is located on approximately 40.44 acres comprised of 10 existing assessor parcels. The project site is currently developed with 13 existing single-story structures (four of which occur on a single parcel) and are used for commercial business, research and development, and industrial. Other uses include parking lots access roads, sidewalks, and landscaped areas. The proposed project consists of redevelopment of the site with the new buildings. The redevelopment of the project site would include demolition of the existing structures, removal of

materials, excavation and grading, and final construction of the project. Site demolition would begin after all city approvals, permits, land use entitlements, and environmental clearances are obtained.

The proposed project would be developed with two new buildings, parking structures, surface parking, interior access roads, extensive landscaping, and pedestrian and bicycle paths. The project site would be readdressed to 100 and 200 West Caribbean Drive. The 200 Caribbean Drive site would be the westernmost property and 100 Caribbean Drive would be the easternmost property. The two buildings would be five-story totaling 1,041,890 square feet with 2,092 parking spaces, as well as multimodal transportation access for busses, shuttles, connection to the VTA Light Rail, with a focus on pedestrian and bicycle circulation. The specific nature of the project site and detailed project description is provided in the subsequent pages.

Project Description

The proposed project would result in the demolition of the existing structures and hardscape and redevelopment of the project site with two modern five-story mid-rise structures totaling approximately 1,041,890 sf. The new buildings would be designed to be consistent with other existing as well as future redevelopment efforts in the MPSP. The two proposed structures would be five stories each, and the buildings would share use of the proposed four-story parking garage, surface parking lots, and other project amenities including landscaped courtyards, walkways, and alternative transportation elements. The proposed site plan is shown in *Figure 3-6: Proposed Site Plan.* More specifically, the project would consist of 271,040 sf of office space, 346,395 sf for amenities/meeting rooms, food service, and fitness; 389,397 sf for cores, circulation, and bathrooms, and 35,059 sf of other (walls). The project also would provide a total of 2,092 parking spaces. The buildings are designed for a single tenant, would be designed to be consistent with other projects in the area, includes design features to integrate to the existing landscape and surrounding developments, as well as future redevelopment that would occur within the MPSP.

The project site would be re-addressed, and the two five-story buildings would be known as 100 West Caribbean Drive and 200 West Caribbean Drive. The westerly structure would be addressed 200 West Caribbean Drive and occupy the portion of the project site west of the West Channel, and the easterly structure would be addressed 100 West Caribbean Drive and occupy the portion of the site east of the West Channel. The structure at 100 West Caribbean Drive would consist of 536,750 sf, and the structure at 200 West Caribbean Drive would consists of 505,140 sf. Both proposed buildings both would have an overall height of 120 feet, 5 inches as measured from the finished floor to the top of the screening facades for the air handling unit (AHU). The proposed project also includes a parking garage, surface parking lots, and other project components that are discussed in additional detail below. Business serving uses would include office, office supports, rooms for events and tech talk, building support, core/MEP, and flexible use spaces. The proposed project also would provide a range of services to employees that would include amenities such as, food service, recreation, fitness, leisure areas, food service, fitness and massage, wellness, and landscaped and decoratively paved pedestrian pathways. The completed project would require a total of approximately 4,500 employees.

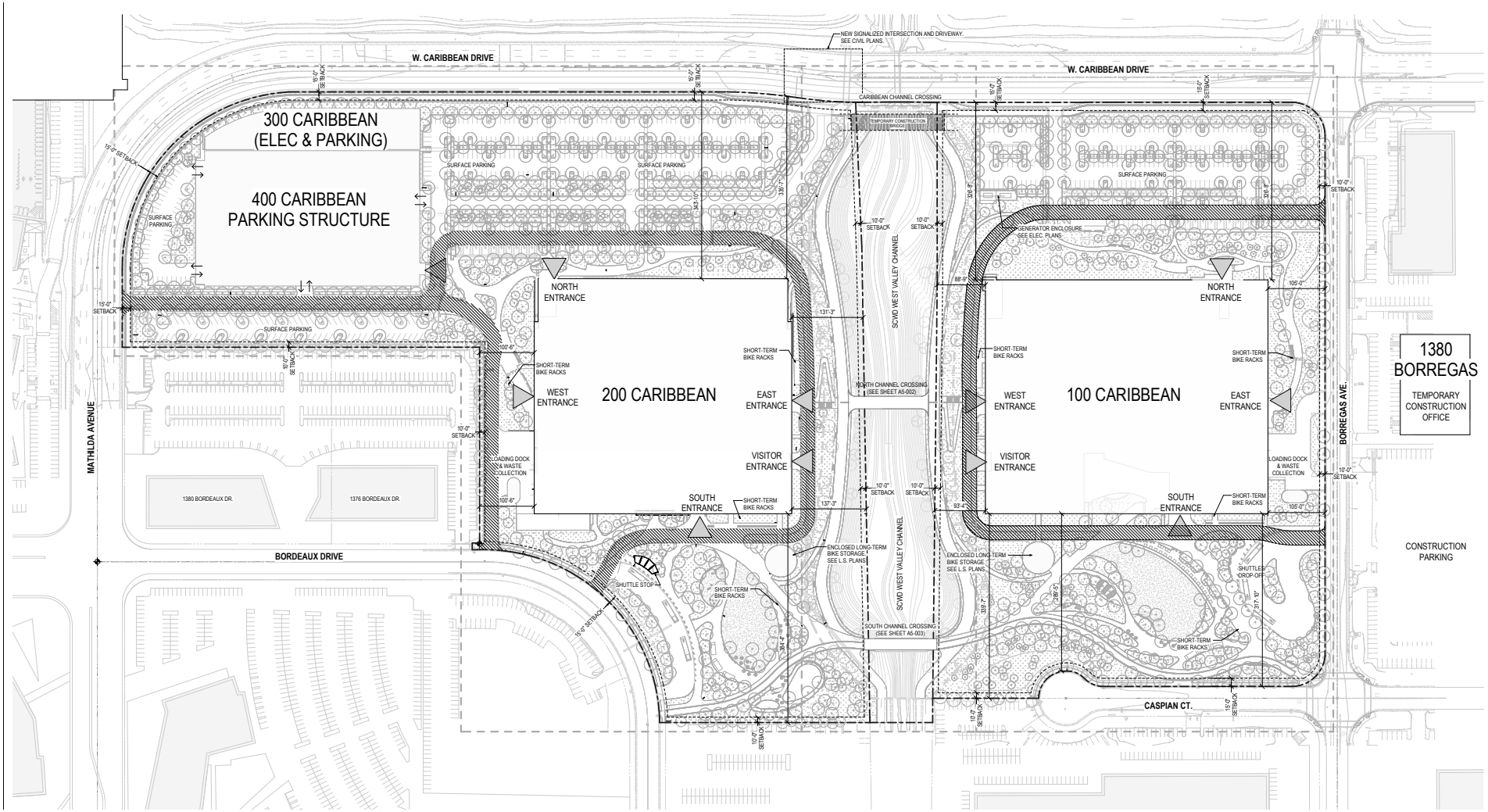

FIGURE 3-6: Proposed Site Plan

Google Caribbean Campus

Not to scale

Kimley»Horn

Lastly, the proposed project includes uses that would support operations and includes shipping and receiving, maintenance areas, health and safety, storage areas, vehicles to support operations, landscaped areas. The specific overall square footage proposed for these uses are shown in *Table 3-3: Project Uses and Area*. Specific details of the project components are discussed in additional detail further below.

Table 3-3: Project Uses and Area

Use	Area (square feet)	Percent of Area (sf)
Office Space	271,040 sf	26.01%
Amenities/Meeting Rooms/Food/Fitness	346,394 sf	33.25%
Cores/Circulation/Bathrooms	389,397 sf	37.37%
Other (walls)	35,059 sf	3.36%
Total:	**1,041,890**	**100.00%**

Design Concept

The project's office buildings are designed with unique stepped and sloped green roof lines. The proposed design concepts are shown in *Figure 3-7: Landscape Site Plan, Figure 3-8: Project Rendering*, and *Figure 3-9: Proposed Design Concepts*. This plan for the roof would provide a walkable landscaped environment for use by campus personnel. The walkable paths would be Americans with Disabilities Act (ADA) compliant and crisscross the roof and provide access from the ground floor to the fourth floor. The paths would end at a small courtyard with seating and landscaping on the fourth-floor roof and the green roof would terminate where it joins the fifth-floor roof line. The green roofs would incorporate a decorative attractive plant pallet including shrubs and trees.

The project proposes to use differentiated roof lines that would provide diverse but compatible textures, colors, and materials that would break up the visual building massing that is generally associated with the facades of a five-story building and parking structure. The proposed project has been designed to create greater visual variety, a sense of place, and unobtrusive visual interest while establishing its own individual character within the MPSP. Portions of the building facades, in addition to the windows, would have open but fixed metal mesh diamond shaped shading devices designed to provide visual variety, prevent bird strikes, and reduce energy transferred from and into the structures. The buildings are positioned to provide functional open spaces, plazas, courtyards and tree and vegetation lined walkways. Views of the structure from the north would be softened as compared to traditional oblique buildings, as the proposed project would integrate the stepped design.

These design elements are intended to create a commercial/industrial project with diverse architectural forms that would balance with the existing environment. The parking structure is designed as an open, naturally ventilated structure which carries minimum open facade requirements. The parking structure would include a public art themed facade to break up the massing. Vegetation and berms including trees are proposed around the outside of the project site and the parking structure may contain creeping vines to break up the visual bulk of the structure.

FIGURE 3-7: Landscape Site Plan
Google Caribbean Campus

Not to scale

Kimley»Horn

FIGURE 3-8: Project Rendering
Google Caribbean Campus

Kimley»Horn

5 AERIAL VIEW OF BUILDINGS 100 & 200

4 NORTH FACADE - BUILDING 100

3 GREEN ROOF - BUILDING 200

2 PORCH VIEW OF BUILDING 200

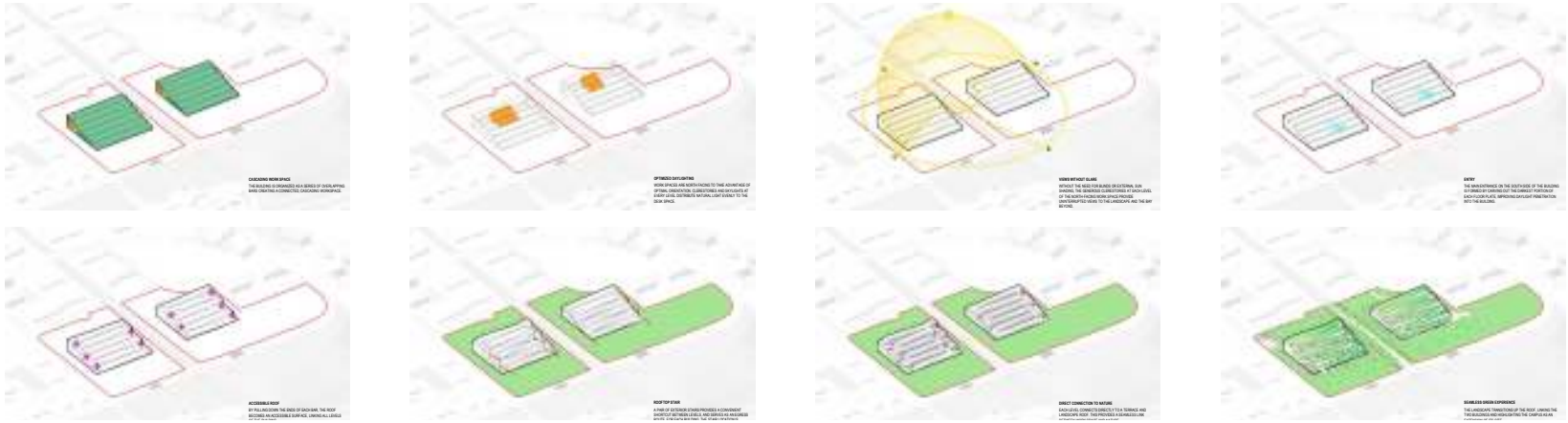

FIGURE 3-9: Proposed Design Concepts

Google Caribbean Campus

Kimley»Horn

In addition to the green landscaping, the proposed project would use numerous Leadership in Environmental Design (LEED) measures to increase the sustainability of the project. LEED features include but are not limited to reduced parking footprints, use of open space, rainwater management, heat island reduction, light pollution reduction, numerous water efficiency measures, numerous energy conservation such as metering, using performance standards, and carbon offsets.

Project Density

The MPSP has two different types of density or FAR allowances available for qualifying projects. These allowances include a Development Reserve and Transfer of Development Rights (TDR). No TDR is proposed as part of the project. The proposed building at 100 West Caribbean Drive would be approximately 536,750 sf and 200 West Caribbean Drive would be approximately 505,140 sf. The total area of the new buildings would be approximately 1,041,890.

As discussed, based on the existing zoning designations, proposed sf, and total allowable FAR the proposed project would require a FAR allowance from the MPSP Development Reserve. The proposed project would exceed the standard FAR by a total of approximately 360,851 sf. The proposed project would rely on the MPSP Development Reserve and will comply with the City's Green Building requirements to achieve a total FAR of 0.66, consistent with the MP-TOD and MP-I sub-districts. The 100 West Caribbean Drive site would require a FAR allowance of 209,315 sf, and 200 West Caribbean Drive would require an allowance of 151,536 sf. *Table 3-4: Proposed Building Square Feet and Floor Area Ratio* shows this information.

Table 3-4: Proposed Building Square Feet and Floor Area Ratio (FAR)

Building Address	Proposed SF	Standard FAR sf	Required sf Allowance	Proposed FAR
100 Caribbean	536,750	327,435	209,315	0.50
200 Caribbean	505,140	353,604	151,536	0.71
Total	**1,041,890**	**681,039**	**360,851**	**0.66**
Abbreviations: FAR = Floor Area Ratio, sf – square feet.				

Vehicle Circulation

The proposed project does not include the construction of any new roadways but does include an internal circulation plan and roadways that would have stop sign controlled intersections. Regionally, the MPSP is accessed from SR 237 and US HWY 101 and site access to the project would be provided by the existing network of roads within the MPSP. Within the MPSP, direct access to the site would be provided by the local roadways consisting of West Caribbean Drive, North Mathilda Avenue, Borregas Drive, and Bordeaux Drive. The project would include an internal network of access roads and driveways needed for vehicle and shuttle bus turnarounds, drop-off pick-up areas, access to the parking structure surface parking, product delivery and shipping, and access for waste hauling.

The project's 200 West Caribbean driveway is located approximately 947 feet from the curve on West Caribbean Drive. Anticipated driveway throat lengths are as follows: Mathilda Avenue: 304 feet; 200 West Caribbean: 350 feet; 100 West Caribbean: 110 feet; and Borregas Avenue: 128 feet. In terms of eastbound driveway deceleration lanes (also referred to as queueing lanes), 200 West Caribbean will have a deceleration lane measuring approximately 150 feet; 100 West Caribbean's deceleration lane will be approximately 130 feet.

The project proposes new signalization at the intersection of West Caribbean Drive and the 200 West Caribbean driveway. The proposed signalized intersection allows for full vehicular movement and a pedestrian crosswalk at the intersection's eastern side, permitting a connection to the Bay Trail located to the north of the project site. The signalization includes installation of a westbound left turn from West Caribbean Drive onto 200 West Caribbean, an eastbound deceleration right turn lane from West Caribbean Drive onto 200 West Caribbean, and two egress lanes from 200 West Caribbean: one left turn lane for westbound access to West Caribbean Drive and one right turn lane for eastbound access to West Caribbean Drive.

The project also includes a multi-use trail, which is a paved, two-way trail for pedestrians and bicyclists with an approximate 10-foot width, 2-foot wide shoulders on either side, and a total width of approximately 14 feet.

Access to 100 West Caribbean

Personal vehicle access to 100 West Caribbean would be provided by one driveway on Borregas Avenue, and one driveway on West Caribbean Drive. Both driveways would access the parking on the northerly portion of the site. The West Caribbean Drive lot would provide for only a right-in/right-out configuration, and the Borregas Avenue access would allow for both left and right turns.

Shuttle Bus access would be provided by a right in/right out driveway that would access a small interior loop for bus movement near the southerly portion of the site. The Shuttle Bus pick-up and drop off would provide immediate access to the bicycle and pedestrian pathways.

Service vehicles also would access the 100 West Caribbean site via Borregas Avenue via two driveways. The driveways would access the six proposed loading docks, waste enclosure and compactor on the easterly side of the proposed structure. The northerly driveway would be used for ingress and the southerly for egress.

Access to 200 West Caribbean

Access to 200 West Caribbean would be provided by two driveways used to enter surface parking and the parking structure. The parking structure is proposed to be located on the northwest corner of the lot. Two surface parking lots also would be provided. The smaller of the lots would be adjacent to the southerly and westerly side of the parking structure and the larger surface lot would be adjacent to the easterly side of the parking structure and the northerly side of the proposed new building. The parking lots would be joined by an interior lane and they would be accessed via two drive-ways. The primary access driveway for the northerly lot would be fully signalized and located on Caribbean Drive near the

West Channel. The driveway that would provide primary access to the smaller lot is proposed to be located on North Mathilda Avenue with a right-in/right-out configuration. Vehicle access to the parking structure would be provided by either of the driveways.

Shuttle bus access to the 200 West Caribbean site would be provided by a looped driveway with right in/right out access along Bordeaux Drive. The Shuttle Bus pick-up and drop off would provide immediate access to the bicycle and pedestrian pathways.

Service vehicle and truck access would be provided by a different driveway on Bordeaux Drive adjacent to the western property line. The driveway would provide access to six loading docks and waste enclosure and compactor. Access from adjacent roadways would be provided by ten driveways within the proposed project, as shown in *Figure 3-10: Driveway Locations*.

Emergency Vehicle Access

The proposed project has been designed to provide adequate emergency vehicle access to all areas of the campus via interior hardscaped easements. The proposed project includes an integrated emergency vehicle access plan for both 100 and 200 West Caribbean Drive. Emergency Access to the 100 West Caribbean Drive site would be from three separate locations including two via Borregas Avenue, and one via West Caribbean Drive through the parking lot. Emergency access to the 200 West Caribbean Drive site would be from four separate locations including North Mathilda Avenue, two accesses via Bordeaux Avenue, and access via West Caribbean Drive through the parking lot. Within the interior of the site, the emergency access easement will be asphalt, concrete or other material that is all weather and could accommodate a 90,000-pound fire vehicle. The easement would encircle each proposed structure providing 360-degree access and would connect to the surrounding major roadways. This pedestrian overcrossing would be engineered to support emergency vehicle access.

Transportation Demand Management

The proposed project includes a Transportation Demand Management (TDM) Plan. The TDM Plan incorporates a variety of incentives, services, and actions to reduce single-occupant vehicle trips and relieve vehicle congestion and reduce parking and air quality impacts. The proposed TDM was prepared in accordance with the City and the MPSP Trip Reduction guidelines. The proposed project would be a part of the Moffett Park Business Group Transportation Management Association (MPBGTMA) that works to support and encourage TDM by providing commuter resources, carpools/vanpools, bicycle facilities, transit advocacy, and marketing programs.

Transit and Alternative Transportation

The proposed project would tie into and complement the existing transit and alternative transportation network within the MPSP. The MPSP envisioned a circulation plan including roadways, public transit, pedestrian, and a bicycle system to serve the area. Transit within the MPSP area is provided by both public services and private employee shuttles, local busses, express busses, and light rail service from the VTA. The VTA Borregas Light Rail Station is located immediately west of the intersection of Borregas Avenue and East Java Drive approximately 800 feet south of the project site. The VTA Light rail has

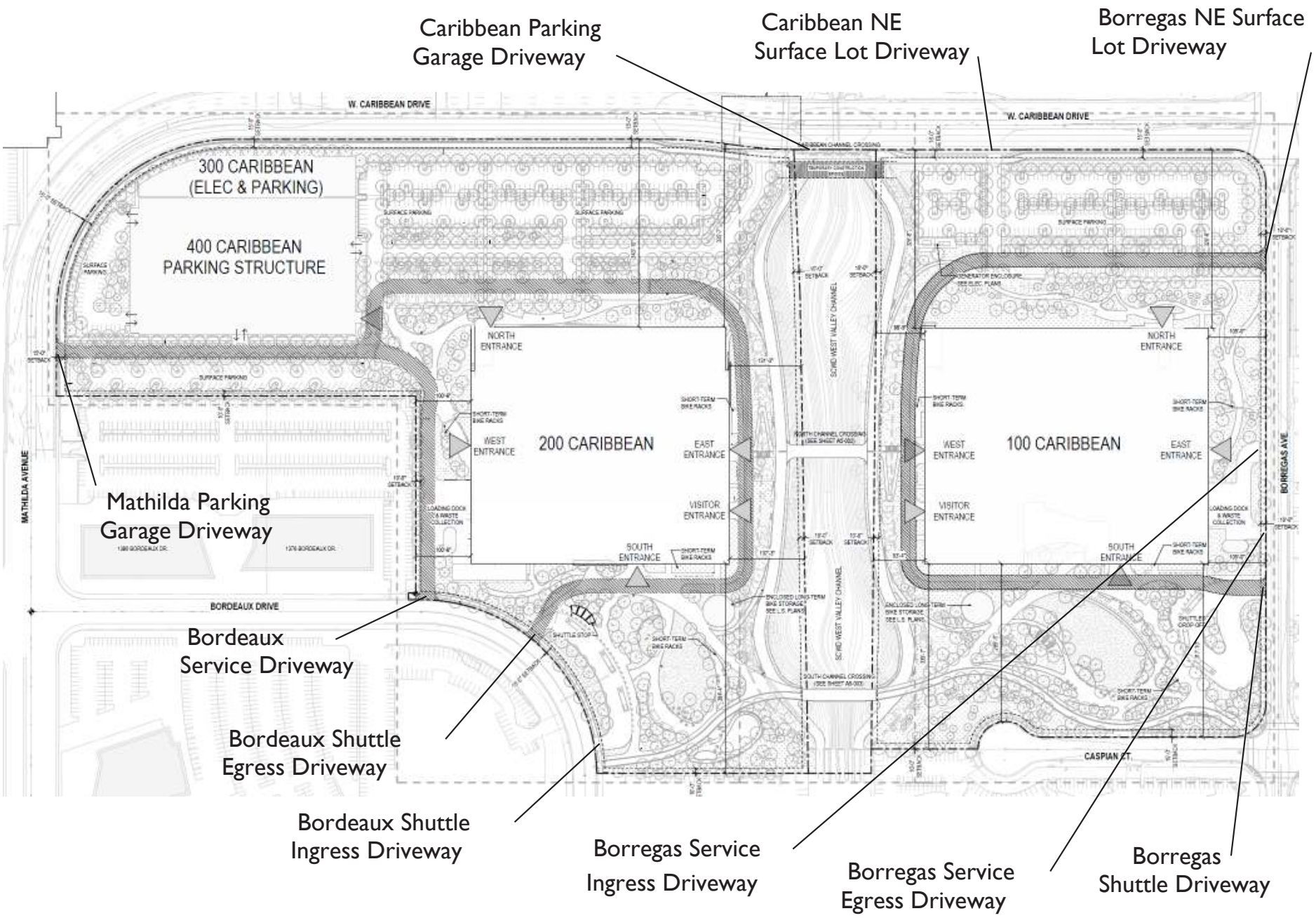

FIGURE 3-10: Driveway Locations
Google Caribbean Campus

Not to scale

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platforms on either side of the intersection (Western side for Westbound service, Eastern side for Eastbound service).

Shuttle service is provided to the off-site Caltrain and Altamont Express stops at Great America approximately 2.5 mile to the southeast near the intersection of Great America Parkway and Tasman Drive. The MPSP also provides some bicycle lanes, most notably an existing bicycle lane along 11th Avenue that connects to the northerly segment of Innovation Avenue.

Parking

The proposed project would have two surface parking lots and a four-story parking garage. Total parking is for 2,092 spaces. Reserved parking would be conveniently located for all carpoolers, vanpoolers, and clean-fuel vehicles. Parking for personal electric vehicles (EV), carpools and expectant mothers would be provided close to main building entrances. All parking areas would be screened from public roadways by landscaping or berms.

The parking structure is designed as an open, naturally ventilated structure and carries minimum open facade requirements. The parking structure would be located on the corner of Mathilda Avenue and West Caribbean Drive. The structure would be approximately 399,657 sf and would have approximately 1,417 spaces including 1,286 standard spaces, 108 electric vehicle spaces, and 23 van and accessible parking spaces.

Surface parking would be within two separate lots adjacent to West Caribbean. The surface lot at 100 West Caribbean Drive would consist of approximately 247 total parking spaces including 116 standard spaces, 62 carpool stalls, 48 EV stalls, 12 expectant mother stalls, and 9 ADA compliant van/vehicle stalls. The surface lot at 200 West Caribbean Drive would consist of approximately 428 parking spaces including 217 standard spaces, 88 carpool stalls, 66 electric vehicle stalls, 46 expectant mother stalls, and 11 ADA compliant van/vehicle stalls. Available parking is summarized in *Table 3-5: Parking Facilities.*

Table 3-5: Parking Facilities

	Surface Parking (100 and 200 West Caribbean)	Stalls
	Regular Stalls	333
	Carpool Parking Stalls	150
	Electric Vehicle Stalls	114
	Expectant Mother Stalls	58
	ADA-Car	14
	ADA-Van	6
	Garage Parking	
	Regular Stalls	1,286
	Electric Vehicle Stalls	108
	ADA-Car	18
	ADA-Van	5
	TOTAL	**2,092**

Pedestrian and Bicycle Facility

The proposed project would incorporate extensive sidewalks and paths throughout the project area as well as bicycle and pedestrian routes with features such as sitting areas and bicycle storage to encourage and increase the frequency of use of non-motorized transportation. The project's proposed pedestrian and bicycle networks, including bicycle lockers, would be extensive and serve areas within and surrounding the project area. The interior pathways would connect to the stepped design of the buildings that would be landscaped with private walking paths for Google employees to the top of the fourth-floor roof. In addition, the exterior sidewalks are included as part of the proposed project. The proposed project would complete the sidewalks on the boundaries of the site along all project street fronts. This includes a sidewalk on the northerly side of Caspian Court, the westerly side of Borregas Avenue, and easterly side of North Mathilda Avenue. In addition, the project frontage along Bordeaux Avenue would be constructed with a sidewalk.

The linkages between use areas and the bicycle and pedestrian pathways is well defined. The pathways would link from the parking lots and parking structure to the main two buildings. For example, the pathways would connect both cyclists and pedestrians to the private shuttle rider route hub off Bordeaux Avenue on the south and the other with access at Borregas Avenue on the east. The project includes two bridges over the Sunnyvale West Channel which bisects the site. The two bridges consist of a north and south channel crossing that provide internal connection within the project area. The north channel crossing provides a connection between the 100 and 200 West Caribbean buildings. The south channel crossing provides a pathway connection between the open space area in the southern portion of the site with connectivity to a proposed shuttle stop located off of Bordeaux Drive in the southwest corner of the site. The proposed pedestrian bridges would be single-span, approximately 125 feet in length and 30 feet in width. The bridges would be installed during the first year of channel reconstruction from April 15 – October 15.

The proposed project would further support the use of bicycles by providing 241 Class 1 and 100 Class 2 bicycle parking spaces at 100 West Caribbean Drive and 241 Class 1 and 96 Class 2 bicycle parking spaces at 200 West Caribbean Drive. The proposed project incorporates Google's bike sharing program which provides G-Bikes and V-bikes for employees for both on campus and off-campus commutes. These multimodal transportation designs would provide connectivity to other areas of the corporate campus as well as off-site areas within the MPSP and points more distant served by the VTA light rail stations and other available mass transit. *Figure 3-11: Pedestrian Circulation Plan*, and *Figure 3-12: Bicycle Circulation Plan* shows these improvements graphically.

Valley Water's West Channel

Valley Water's West Channel bisects the project site from north to south. The project applicant is working closely with Valley Water to ensure improvements are consistent with Valley District design requirements and to improve the functionality and overall usability of the area and of the channel for multiple uses.

The VW's West Channel bisects the project site from north to south. As part of the project, flood protection along the approximate 1,000 feet of the West Channel would be improved in manner generally

consistent with the Sunnyvale East and West Channels Flood Protection Project. The proposed design requires final approval by Valley Water and would provide at a minimum, an equivalent level of flood protection through the project reach and will not compromise flood protection at this location or any other reach of Valley Water's overall project. The improvements to the West Channel would be similar to those identified within the certified VW Flood Protection Project Final EIR (Valley Water EIR, 2013) but have been modified slightly from the approved design to accommodate the proposed project and enhance flood control, aesthetics, and habitat functionality. Mitigation measures from the Valley Water EIR have been incorporated into the project design and will be included in the project conditions of approval.

Flood Control

The Valley Water project proposed to use vertical floodwalls along the channel for freeboard standards and to meet FEMA 100-year storm event flood protections. The proposed project would modify the originally proposed use of vertical floodwalls along the length of the channel and instead, proposes to widen the existing bank to bank width of the channel to between 52 to 65 feet and the total width of the channel from 127 to 187 feet, and raise the levee to an elevation of 18 feet. The improvements would still meet FEMA 100-year storm event flood protections. Slopes also would be contour graded and levees would be laid back to accommodate meanders and facilitate vegetation growth to create a functional habitat for plants and wildlife. The proposed project would maintain sections of floodwalls at the upstream extent of the project reach to conform to Valley Water's floodwall design elevations and would maintain the bridge and culvert modifications. The box culvert also would be extended with new headwall/floodwall to accommodate a sidewalk along West Caribbean Drive (as required by the City of Sunnyvale) and meet the grade and elevation to the new earthen levee top.

These improvements would require some additional grading to accommodate the low-flow storm drainage channel and associated flood plains, and for construction of two new pedestrian bridge crossings (one bridge crossing would accommodate emergency vehicles). VW maintenance vehicles would still be authorized to use the proposed pathways on the levee tops. In addition, the existing 54-inch storm drain pipe would be relocated within the existing right-of-way. Improvements also would require a temporary bridge needed to enable channel improvements for approximately two-years. Lastly, the disturbed areas would be revegetated and a habitat mitigation/restoration plan for the enhancement of wetland and riparian habitat would be implemented.

The improvements at the upper and lower ends of the channel would match the design elevations for flood protection project as well as allow for sediment removal to retain flood flows. In sum, these modifications to the original design are intended to enhance the creek corridor and improve habitat value while providing flood protection and enhancing campus aesthetics, recreational opportunities and environmental resources for wildlife. Overall, the channel has been designed to integrate into the existing regional flood control and drainage planning and be adaptable to future climate conditions.

Construction and installation of the proposed improvements would require temporary water impoundments and upstream diversion of water via a 28-inch diameter fused high-density polyethylene (HDPE) pipe. The pipe would be down the middle of the storm drain channel to allow for excavation.

FIGURE 3-11: Pedestrian Circulation Plan

Google Caribbean Campus

Not to scale

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FIGURE 3-12: Bicycle Circulation Plan

Google Caribbean Campus

Not to scale

Kimley»Horn

Rip-rap would be installed at the outlet to dissipate water flow and reduce erosion, sedimentation, and siltation. Dewatering is anticipated to occur from April 15 – October 15 during the two years needed for construction.

The improvements at the upper and lower ends of the channel would match the design elevations for flood protection project as well as allow for sediment removal to retain flood flows. Overall this aspect of the project is designed to enhance the creek corridor and improve habitat value while providing flood protection and enhancing campus aesthetics, recreational opportunities and environmental resources for wildlife. The channel has been designed to integrate into the existing regional flood control and drainage planning and be adaptable to future climate conditions.

Drainage Management Areas (DMA) and Low Impact Development (LID)

The proposed project would include a total of 29 drainage management areas (DMAs). The DMAs delineate specific locations within the project site that would have stormwater facilities to capture and treat stormwater runoff before being discharged downstream. The DMA's are sized and designed to accommodate the runoff from the areas and are in place to control runoff and reduce sediment and pollutant loads to downstream waters. The treated run-off from the DMA's would drain to an existing central line in West Caribbean Drive and eventual outfall to the south San Francisco Bay. The drainage concept would facilitate capture of runoff and maximize infiltration, facilitate treatment and decrease pollutant loads, and result in a decrease in associated onsite and offsite erosion potential, siltation, and flooding. Overall the improvements would reduce the total volume of stormwater runoff that is currently generated from the project site.

The DMA's would include the treatment control measures (TCM) as part of the BMPs contributing to the Low Impact Development (LID) concept. LID typically refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater to protect water quality and associated aquatic habitats. LID is an approach to land development (or re-development) that works with natural processes to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product (EPA, 2019).

The stormwater drainage BMPs and LID design features are sized to accommodate the drainage needs of each DMA. More specifically, the LID treatment measures would include but not be limited to the use of plant materials used for bio filtration, biotreatment ponds, float resistant composted mulch; bio treatment soil(s), Class II permeable rock base; preservation of native soils as practicable; overflow areas; and accessible clean outs to enable removal and disposal of captured debris. 100 West Caribbean Drive would replace approximately 42% of the existing impervious area with pervious surfaces, and 200 West Caribbean Drive would replace approximately 55.5% of the existing impervious area with pervious surfaces. The overall reduction of impervious surfaces would be approximately 52% project wide.

Wastewater

The project proposes to tie into two separate sewer mains. The proposed building at 100 West Caribbean would tie into an existing 24" vitrified clay pipe (VCP) in Borregas Avenue and the building at 200 West Caribbean would tie into an existing 36" VCP in West Caribbean Drive. Wastewater would be conducted to the Donald M. Somers wastewater treatment plant (WPCP), which occupies 16.6 acres at 1444 Borregas Avenue approximately 0.5 miles northeast of the project site. The WPCP maintains 440 acres of treatment and oxidation ponds. The current capacity of the WPCP is 29.5 million gallons per day (City of Sunnyvale, 2019). The project does not propose any off-site improvements other than minor work needed to tie into the existing wastewater system in the existing roadways.

Demolition and Construction

The proposed project would require the demolition of the existing 13 buildings and removal of the existing vegetation and hardscape after issuance of a demolition permit by the City. Demolition is planned to take approximately 30 months. The existing buildings are single story, consist of a total of approximately 710,381 square feet used for industrial, office, research and development, with some being vacant. The project also includes the demolition of a single story industrial/R&D building and 1362 Borregas Avenue, totaling 39,642 square feet which will be demolished to accommodate temporary construction parking for 745 cars in lieu of onsite construction parking.

It should be noted that a third, temporary construction channel crossing is proposed adjacent to the south side of the existing Caribbean Drive channel crossing. This temporary channel crossing would be removed once construction is completed. The proposed project would develop and implement a construction and demolition waste management plan (WMP) in an effort to achieve a Leadership in Energy & Environmental Design (LEED) Gold rating. When feasible, demolished materials would be recycled or reused. It is anticipated that much of the existing building materials would require disposal; however, masonry and existing hardscapes could be crushed and used as aggregate or recycled into new hardscape materials. The WMP would include a target of a minimum of 75% construction waste diversion.

Table 3-6: Demolition and Excavation Waste Volume, shows the estimated tons of material and cubic yards of exported and imported soil that would be needed.

The proposed project would conform to all relevant City guidelines and requirements related to noise generation, construction hours, and implement a noise reduction plan (NRP). All building plans would comply with the 2016 (or code versions in effect at the time of building permit submittal) California Building Code, Electrical Code, Plumbing Code, Mechanical Code, Green Building Code, and Energy Code. Construction equipment would include bulldozers, scrapers, blades, excavators, soil compactors, air compressors, generators (one 600 kW and one 1,000 kW diesel engines), loaders, backhoes, dump trucks, concrete trucks, cranes, lifts, and other common construction equipment. In regard to the generators, they would be operated for testing and maintenance purposes, with a maximum of 50 hours each per year of non-emergency operation under normal conditions allowed by BAAQMD. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low sulfur diesel fuel.

Table 3-6: Demolition and Excavation Volumes

100 West Caribbean Avenue					
Existing Buildings (sf)	Estimated Hauling Tons	Pavement Hauling Tons	Soil Export (cu)	Soil Import (cu)	Area of Disturbance
309,440	18,000	7,000	0	101,000	Appx. 18.2 acres
200 West Caribbean Avenue					
Existing Buildings (sf)	Estimated Hauling Tons	Pavement Hauling Tons	Soil Export (cu)	Soil Import (cu)	Area of Disturbance
399,900	24,000	8,000	15,500	156,000	Appx. 26.7 acres
Construction Parking Area					
Existing Buildings (sf)	Estimated Hauling Tons	Pavement Hauling Tons	Soil Export (cu)	Soil Import (cu)	Area of Disturbance
39,642	18,000	--	--	--	8.7 acres

Source: Illingworth & Rodkin, Inc. 2018, Rev. 2019
Abbreviations: sf=square feet,

Construction Phasing

Construction at the 200 West Caribbean Drive site is planned to start approximately three months prior to construction at 100 West Caribbean Drive. Construction of all improvements would occur in a single phase with a total duration of approximately 30 months. It is anticipated that both buildings would be occupied at roughly the same time. Construction of the West Channel improvements would begin with the landside elements, including installation of the temporary bridge. The West Channel improvements would be completed over 24 months.

The proposed project would include a temporary construction office in an existing vacant building at 1362 Borregas Avenue instead of temporary construction trailers. Demolition of an existing 39,642 sf structure at this site would be needed to provide temporary construction parking for 745 vehicles.

Tree Removal and Replacement

The project site currently contains a total of 445 trees. Existing species of trees on the project site include 36 different species of trees. Depending on the trunk diameter and specific species the trees may or may not be considered protected trees. Of the trees, 399 trees would be removed and 46 trees including 44 protected trees would be preserved. 254 of the trees to be removed are considered protected trees. Protected trees are defined by the City of Sunnyvale Municipal Code Chapter 19.94 as trees of significant size or 38 inches in circumference at 4.5 feet above ground level (agl). *Figure 3-13: Tree Disposition Plan*, shows the location of the trees to be removed and those that would be preserved.

The proposed project includes a landscaping plan to replace the protected trees with a total of 255 trees. The planting pallet includes a variety of species of trees including native species. This include 93 trees in 24" box replacements, 89 trees in 36" box replacements, and 73 trees in 48" box replacements. In addition, 1,110 other trees would be planted within the proposed project site.

Waste Management

The proposed project would generate waste that would be collected by Specialty Waste Services. The waste produced by the proposed project would primarily consist of office waste such as paper, bulk packaging, pallets, and containers; food waste from food services including used food and beverage containers and waste food items; and other miscellaneous operational waste such as old fixtures, fittings, and furniture. The proposed project would include bins for the collection and storage of recyclable materials to help ensure that all waste materials are properly sorted prior to be disposed of in a landfill or recycles. Waste materials would be collected from the buildings and taken to the loading areas and compacted. Waste would be transported to the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®) where it would be sorted and unrecyclable materials would be transported to the Kirby Landfill operated by Waste Management.

3.5 PROJECT OBJECTIVES

Section 15124(b) of the State CEQA Guidelines requires that an EIR include "[a] statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the proposed project."

- Develop a project that is consistent with the existing Moffett Park Specific Plan.
- Develop a project that is consistent and compatible with the existing land uses in the surrounding area.
- Develop an office campus of sufficient size to accommodate Google's space needs.
- Develop an office campus of sufficient density to take advantage of the site's proximity to existing transit facilities.
- Construct office buildings that accommodate proposed project amenities and efficient/effective employee collaboration space.
- Provide adequate parking spaces to accommodate the parking needs of Google employees and visitors;
- Implement transportation demand management programs (TDM) to minimize vehicle trips and encourage pedestrian and bicycle use.
- Develop an environmentally sensitive office campus with LEED Gold certification as required by the City's green building requirements.
- Construct office buildings that reduced impervious surfaces and maximize on-site open space.
- Construct improvements to the portion of the Valley Water's West Channel to facilitate greater connectivity and public access.
- Be responsive to Valley District designs for the West Channel to comply with applicable flood protection requirements and improve flood protection.

FIGURE 3-13: Tree Disposition Plan

Google Caribbean Campus

Not to scale

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- Realign the Valley District West Channel to enhance its natural habitat value.
- Develop a project that would create construction jobs and employment opportunities in the City of Sunnyvale.
- Develop a project of sufficient density to support the proposed project amenities and to be financially feasible.

3.6 DISCRETIONARY ACTIONS AND APPROVALS

Required Permits and Approvals

In conformance with Sections 15050 and 15367 of the CEQA Guidelines, the City of Sunnyvale has been designated as the "lead agency" for the proposed Project, defined as the "public agency, which has the principal responsibility for carrying out or approving a project."

Responsible agencies are those agencies that have discretionary approval over one or more actions involved with the development of the proposed project site. Trustee agencies are state agencies having discretionary approval or jurisdiction by law over natural resources affected by the project. *Table 3-7: Matrix of Project Approvals and Permits*, lists the agencies from which approvals and permits are required to implement the Project. This TEIR would be relied on by the City and other responsible agencies when determining whether to issue discretionary approvals to implement the proposed project.

Table 3-7: Matrix of Project Approvals and Permits

Permit Required	Approving Agency	Lead/Trustee/Responsible Agency Designation
Moffett Park Major Design Review	City of Sunnyvale	Lead Agency
Tree Removal Permit	City of Sunnyvale	Lead Agency
Demolition Permit	City of Sunnyvale	Lead Agency
Grading Permit	City of Sunnyvale	Lead Agency
Building Permits	City of Sunnyvale	Lead Agency
Certificates of Occupancy	City of Sunnyvale	Lead Agency
Building Plan Review and Approval	City of Sunnyvale	Lead Agency
Soil Remediation and Management Plan	City of Sunnyvale	Lead Agency
Stormwater Pollution Prevention Plan	City of Sunnyvale	Lead Agency
Demolition Permit	City of Sunnyvale	Lead Agency
Site Clean-Up/Imported Soil	County of Santa Clara Department of Environmental Health	Responsible Agency
Encroachment Permit	Santa Clara Valley Water District	Responsible Agency
Lake and Streambed Alteration Agreement	California Department of Fish and Wildlife	Responsible Agency
Clean Water Act Section 401 Water Quality Certification	Regional Water Quality Control Board	Responsible Agency
Clean Water Act Section 404 Permit	U.S. Army Corps of Engineers	Responsible Agency

4.0 ENVIRONMENTAL ANALYSIS

As mentioned in Chapter 3.0, Project Description, of this TEIR, the development of the proposed 21.3-acre commercial development and the 23.8-acre residential development comprise the "proposed project" analyzed in this TEIR. The environmental analysis of the project in this TEIR is made up of 16 subchapters. This chapter describes the environmental topics discussed in the TEIR and the assumptions and methodology of the cumulative impact analysis. The remaining one sub-chapters evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. The potential environmental effects of the proposed project are analyzed for the following issue areas:

- Transportation and Traffic

The issues of aesthetics, agricultural/forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use, mineral resources, population and housing, public services, recreation, noise, transportation, and utilities were analyzed in the Initial Study Checklist included in Appendix B. The project's impacts in these study areas were determined to be less than significant, or it was determined that the project would not result in any new or more significant impacts in these resource areas than those addressed in the LUTE EIR and Valley Water EIR.

CHAPTER ORGANIZATION

This chapter consists of one sub-chapters that evaluate the transportation and traffic impacts of the proposed project. Each issue area uses generally the same organization and consists of the following subsections:

- The Environmental Setting section provides a Regulatory Framework section that describes which local, State, and/or federal regulations are applicable to the proposed project, as well as an Existing Conditions section that describes current conditions with regard to the environmental issue area reviewed.
- The Thresholds of Significance section describes how an impact is judged to be significant in this TEIR. These standards are derived from CEQA Appendix G Guidelines unless stated otherwise.
- The Impact Discussion assesses potential impacts (direct and indirect) and explains why impacts were found to be significant or less than significant.
- The Cumulative Impact Discussion section analyzes impacts that the proposed project may have when considered in addition to other past, present, and reasonably foreseeable projects. (This analysis is included within Chapter 4.1 and within the discussions in the Initial Study Checklist included in Appendix B).

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4.1 TRANSPORTATION AND TRAFFIC

This section of the EIR summarizes applicable technical transportation-related components of the Google Caribbean Campus project (project or proposed project) to be located at the proposed future addresses of 100 and 200 West Caribbean Drive within the Moffett Park Specific Plan (MPSP). This section is based on the Final Transportation Impact Analysis Study (TIA) completed by Wood Rodgers in August 2019 and included as Appendix C of this EIR. The TIA refers to a project study area to capture roadways, intersections, and infrastructure potentially affected by the proposed project and covers a much larger area than the proposed project site. The TIA did not include intersections that were previously analyzed in the 2016 Mathilda Avenue Improvements at State Route (SR) 237 and US Highway 101 (US HWY 101) Project ("Caltrans EIR"). The Caltrans EIR is also a project EIR that analyzes the reconfiguration of the State Route 237 and US HWY 101 interchanges with Mathilda Avenue, including: modification to on and off ramps; removal, addition, and signalization of intersections; and provision of new left turn lanes. The analysis covers certain potentially significant transportation impacts the proposed project may produce related to the Mathilda Avenue interchanges with State Route 237 and Highway 101. Additionally, the TIA did not include intersections that were included in the LUTE EIR. The LUTE EIR potential traffic impacts based on the City's planned land uses, development density, transportation, and projected buildout by 2035. The LUTE EIR analyzed permitted uses, development density, and projected transportation impacts at the project site and evaluated potential traffic impacts on the surrounding roadway network. Therefore, as discussed in Section 1.2 above, the analysis in this section of the Initial Study Checklist tiers off of the Caltrans EIR (State Clearinghouse No. 2015082030) and the LUTE EIR" (State Clearinghouse No. 2012032003).

In some instances, the discussion of resources within the project study area are summarized (e.g. bicycle facilities) due to some of the sites being substantially distanced, but the complete accounting of the resources are available in Appendix C. The project study area in terms of the TIA is shown on *Figure 4.1-1: Project Location and Study Facilities*. The TIA is a stand-alone, separate document, which presents additional technical information on transportation impacts associated with implementation of the proposed project. The TIA was prepared following the guidelines of the City of Sunnyvale (City) and Santa Clara Valley Transportation Authority (VTA), the congestion management agency for Santa Clara County.

The TIA evaluated a total of 27 intersections. The 27 intersections were selected for analysis using VTA TIA Guidelines (adopted October 2014) criteria thresholds, engineering judgement, and coordination with City staff. All intersections that were projected to experience 10 or more Project peak hour vehicle trips per lane for any movement, based on Project trip generation and distribution, were included in this TIA, except those intersections that were analyzed in the City of Sunnyvale LUTE EIR, or the Traffic Operations Analysis Report: Mathilda Avenue Improvements between SR 237 and US HWY 101 Project .

The "project" analyzed in this EIR and the "Project Alternative" discussed in the TIA both refer to the same proposed project for 100 and 200 Caribbean. This difference in terminology is attributable to the different statutes governing preparation of an EIR (CEQA, Public Resources Code § 21000 et seq.) and preparation of a TIA (The Congestion Management Act, Gov. Code §§ 65088-65089.10). Therefore, even though Table

1 of the TIA refers to the installation of a traffic signal at the intersection of W. Caribbean Drive and the entrance to 200 Caribbean as a "Project Alternative," the traffic signal installation was included in the proposed project analyzed in this EIR.

Lastly, the TIA evaluated traffic conditions at a total of 27 intersections for what was then the ,"proposed project (right-in-right out only)". This was done prior to the City's decision to include the full-access option at the Caribbean Parking Garage Driveway/Caribbean Drive intersection to the proposed project. Upon evaluation of the "Project Alternative (full access)," it was determined that traffic conditions would differ at a total of 15 intersections (intersections 1-15). The TIA included tables for all 27 intersections under the former "proposed project," and included only the 15 intersections that would experience different conditions under the "project alternative." Therefore, to simplify the analysis in this TEIR, the 15 intersections from the original "proposed project" were replaced by the 15 intersections from the "project alternative" and is the basis for the analysis.

This section also utilizes information from the City of Sunnyvale Land Use and Transportation Element (LUTE) EIR published in August 2016 as appropriate. The LUTE is part of the City of Sunnyvale General Plan (SGP), which establishes the fundamental framework as to how the City streets and buildings would be laid out, and how various land uses, developments, and transportation facilities would function together. Elements of these documents are discussed throughout this chapter of the EIR as applicable to the environmental review process.

4.1.1 ENVIRONMENTAL SETTING

Regionally, the proposed project is in Santa Clara County in the Silicon Valley and in the northwestern area of the City. Santa Clara County is bounded by Alameda County to the north, San Mateo and Santa Cruz Counties to the west, San Benito County to the south, and Merced and Stanislaus Counties to the east. The proposed project is located on the southern edge of the San Francisco Bay and is part of a nearly continuous urban landscape with the neighboring cities including Mountain View, Los Altos, Cupertino, and Santa Clara. Overall the area is highly urbanized, with concentrations of high-technology centers, old and new residential areas, transportation infrastructure, and downtown settings.

This section describes the existing conditions of the roadway facilities, pedestrian and bicycle facilities, and transit service. It also presents existing traffic conditions, and operations for the study intersections and freeway segments with the results of level of service (LOS) calculations. LOS is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment, representing progressively worsening traffic operations. Level of Service "A" represents free-flow conditions with little to no delays, while LOS "F" represents jammed or grid-lock conditions.

Recent changes to the California Environmental Quality Act (CEQA) will require use of vehicle miles traveled (VMT) instead of LOS beginning July 1, 2020. Until that time, or until lead agencies develop new thresholds that account for impacts related to VMT, the agencies may continue to evaluate projects using the LOS thresholds. Accordingly, due to the timing of the adoption of the revised CEQA guidelines and

the preparation of this traffic study for the project, LOS standards were used. Additional information is provided below in pertinent sections of this chapter.

Regional Circulation

Regional access to Sunnyvale is provided by US HWY 101 and SR 237. Both are located approximately one mile to the south of the proposed project. SR 237 trends northeasterly and southwesterly connecting to Interstate 880 (I-880) approximately seven miles to the east and to Interstate 680 (I-680) approximately eight miles to the east. I-880 generally trends north and south and provides access to points north including Oakland approximately 35 miles north, and San Jose, approximately five miles south before joining US HWY 101, which provides access to southerly portions of the state to as far south as Los Angeles County. In proximity to the project site, US HWY 101 generally trends in a northwesterly direction on the westerly side of the San Francisco Bay. US HWY 101 provides access to Sonoma County, Marin County, San Francisco County, and San Mateo County. *Figure 3-1: Regional Location Map*, shows the proposed project site in relation to surrounding counties as well as major transportation corridors.

Local Circulation

Locally, the City is immediately south of the San Francisco Bay and occupies approximately 22-square miles. Land uses are served by the City circulation system that consists of, the listed freeways, local and regional roadways, bicycle and pedestrian facilities, a public transit system, and railroad and light rail facilities. The major public transportation line is the Caltrain line that splits the City roughly in half from west to east and provides service to north to San Francisco and south to Gilroy. The proposed project site and majority of the commercial and industrial uses occupy the portion of the City north of the Central Expressway and Caltrain line and residential uses are predominantly to the south. Within the MPSP area, roadways provide access to the various industrial and commercial uses as well as the VTA light rail line on East Java Drive, approximately 800 feet south of the proposed project site and provides access through the proposed project site and ends of the line in Mountain View and Campbell.

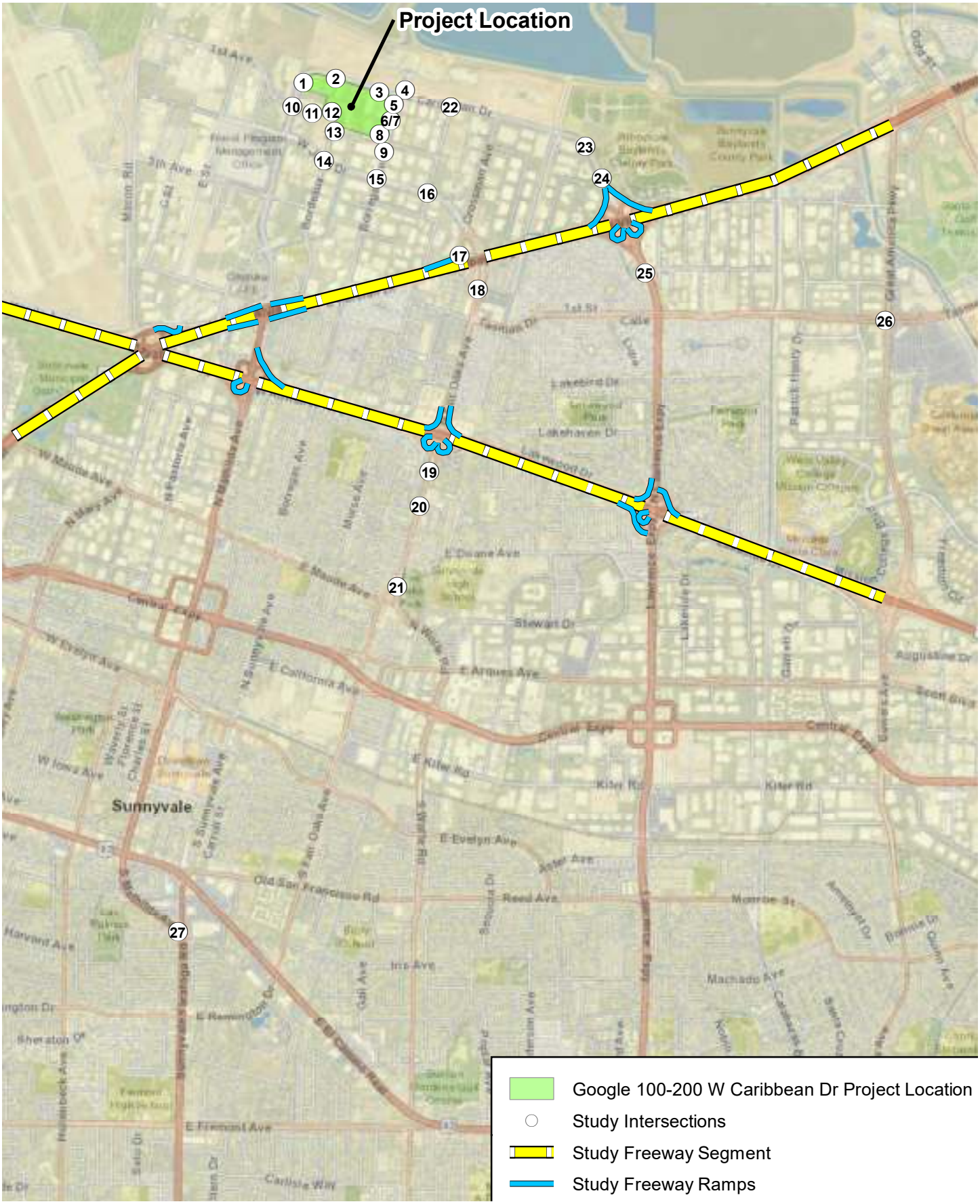

FIGURE 4.1-1: Project Location and Study Facilities
Google Caribbean Campus

Not to scale

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Roadways immediately adjacent to the proposed project site include West Caribbean Drive on the north, North Mathilda Avenue to the west, Bordeaux Drive and Caspian Drive to south, and Borregas Avenue to the east. *Table 4.1-1: City of Sunnyvale Roadway Classifications* provides a description of the various classes of roadways within the City.

Table 4.1-1: City of Sunnyvale Roadway Classifications

State Freeway	Provides mostly uninterrupted travel by car, bus, or trucks, and designed for high speeds over long distances. Fully controlled access through on- and off-ramps, with some sort of separation between opposing traffic flow. Driveways and alternative modes of transportations such as walking, or bicycling are forbidden, and intersections may only occur as freeway interchanges.
County Expressway	Provides partially controlled access on high-speed roads with a limited number of driveways and intersections. Expressways also allow bicycles; pedestrians are permitted in limited locations. Speed is typically between 45 and 70 miles per hour, dependent upon location. Expressways are generally designed for longer trips at the county or regional level.
Class I Arterial	Provides regional access to all transit modes, with a focus on regional transit and auto traffic. Includes pedestrian connections linking land uses to transit. Class I arterials may or may not have street parking or bike lanes. Six-lane arterials may provide up to 130 feet of right-of-way (ROW) with a median, while four-lane arterials may provide for up to 115 feet of ROW.
Class II Arterial	Provides access to all transportation modes with a focus on local access. Pedestrian connections link land uses to transit. Four-lane arterials may provide for up to 100 feet of ROW with a median. Two-lane arterials may provide for up to 90 feet of ROW with a median and may feature parking lanes and bike lanes
Commercial/Industrial Corridor	Serves local cross-town traffic and may also serve regional traffic. Industrial and commercial corridors connect local roads and streets to arterial roads. Provides access to local transit, and includes pedestrian connections designed to encourage multi-purpose trips. Four-lane corridors provide for up to 90 feet of ROW with street parking or bike lanes. Two-lane corridors may provide for up to 90 feet of ROW with street parking and may have bike lanes.
Residential Corridor	Serves local cross-town and residential traffic and may serve some regional traffic. Residential corridors are collector streets that connect cars, bicycles, and pedestrians to arterial roads and land uses. Residential corridors may have on-street parking and/or bike lanes, and a median may be present if there is no bike lane. The ROW includes sidewalks and traffic buffers, such as trees, on both sides.
Source: Sunnyvale 2015	

Existing Roadway Network

The existing roadways and freeways within the study area provide regional and local access, as well as direct routes to the proposed project site. The following descriptions of characteristics of freeways and major roadways, as well as some local roadways include those that would most likely be used to access the proposed project site.

US HIGHWAY (US)-101 is an eight-lane freeway (three mixed-flow lanes and one HOV lane in each direction) that primarily runs north-south but runs east-west to the south of the proposed project site. US HWY 101 connects multiple Bay Area cities, from San Francisco in the north to Gilroy in the south. US HWY 101 has interchanges with Mathilda Avenue, Fair Oaks Avenue, and Lawrence Expressway near the proposed project site.

STATE ROUTE (SR) 237 is a four to six-lane freeway that extends between SR- 82 in Mountain View and Interstate 880 in Milpitas. SR 237 has two mixed-flow lanes and one HOV lane in each direction east of Mathilda Avenue, and has just two mixed-flow lanes in each direction west of Mathilda Avenue. SR 237 has interchanges with Mathilda Avenue, Java Drive- Fair Oaks Avenue, and Caribbean Drive-Lawrence Expressway in the vicinity of the proposed project site.

CENTRAL EXPRESSWAY is a four to six-lane county expressway that runs east-west between San Antonio Road in Mountain View and Trimble Road/De La Cruz Boulevard in Santa Clara. Central expressway is approximately 2.25 miles south of the proposed project site and has a four-lane cross-section. It has been designated as a regionally significant roadway/expressway by the City.

LAWRENCE EXPRESSWAY (COUNTY ROUTE G2) is a six to eight-lane north-south county expressway that runs from Saratoga Avenue (where it becomes Quito Road) to SR 237 (where it becomes Caribbean Drive approximately 1.25 miles east of the proposed project site). It has six-lanes between Saratoga Avenue and Stevens Creek Boulevard, while it has eight total lanes (three mixed-flow lanes and one HOV lane in both the northbound and southbound directions) between Stevens Creek Boulevard and SR 237. Lawrence Expressway has been designated as a regionally significant roadway/expressway by the City.

CARIBBEAN DRIVE is a six-lane class I arterial in the Moffett Park Specific Plan area of Sunnyvale that generally runs east-west between Mathilda Avenue (western limit) and SR 237 (eastern limit) where it becomes Lawrence Expressway. Caribbean Drive has a posted speed limit of 45 mph. Caribbean Drive has been designated as a regionally significant roadway by the City of Sunnyvale.

EL CAMINO REAL (STATE ROUTE 82) is a six-lane class I arterial that runs northwest-southeast between A Street in Daly City (where it becomes Mission Street) and The Alameda in Santa Clara. El Camino Real is approximately 3.5 miles south of the proposed project site and runs through San Mateo, Palo Alto, Mountain View, and Sunnyvale along the way. El Camino Real has been designated as a regionally significant roadway by the City.

FAIR OAKS AVENUE is a four to six-lane north-south class I arterial between Wolfe Road and Fair Oaks Way where it becomes Java Drive. Fair Oaks Avenue has five lanes (two lanes northbound and three lanes southbound) between Wolfe Road and the US HWY 101 southbound ramps, four lanes over US HWY 101, six lanes between US HWY 101 northbound ramps and Tasman Drive, and five lanes between Tasman Drive and Fair Oaks Way (two lanes northbound and three lanes southbound). South of Wolfe Road, Fair Oaks Avenue becomes a four-lane class II arterial which runs generally north-south until El Camino Real.

MATHILDA AVENUE is a six to eight-lane class I arterial that runs north-south through Sunnyvale between Sunnyvale Saratoga Road, approximately 3.5 miles south, and West Caribbean Drive on the north adjacent to the proposed project site. Near the proposed project site, Mathilda Avenue has four lanes northbound and three lanes southbound between Ahwanee Avenue and the Moffett Park Drive, and three lanes northbound and three lanes southbound between Moffett Park Drive and Caribbean Drive. Mathilda Avenue has been designated as a regionally significant roadway by the City.

JAVA DRIVE is a four-lane class I arterial in the Moffett Park Specific Plan area of Sunnyvale that generally runs east-west between Mathilda Avenue and Fair Oaks Way where it becomes Fair Oaks Avenue.

SUNNYVALE SARATOGA ROAD is a four to six-lane class I arterial that runs north-south through southern Sunnyvale between Homestead Road and El Camino Real where it becomes Sunnyvale Avenue approximately 3.75 miles south of the proposed project site. Sunnyvale Saratoga Road has six lanes between Homestead Road and Mathilda Avenue and four lanes between Mathilda Avenue and El Camino Real. Sunnyvale Saratoga Road has been designated as a regionally significant roadway by the City.

WOLFE ROAD is a six-lane class I north-south arterial in Sunnyvale between Old San Francisco Road Reed Avenue and Fair Oaks Avenue. South of Old San Francisco Road-Reed Avenue, Wolfe Road becomes a four-lane class II arterial which runs north-south until Stevens Creek Boulevard in Cupertino where it becomes Miller Avenue.

GREAT AMERICA PARKWAY is a six to eight-lane arterial in the City of Santa Clara about 2.75 miles to the east. This road that runs north-south between SR 237 and US HWY 101 where it becomes Bowers Avenue. Great America Parkway has six lanes between SR 237 and Tasman Drive, seven lanes (four lanes northbound and three lanes southbound) between Tasman Drive and Mission College Boulevard, and eight lanes between Mission College Boulevard and US HWY 101.

ARQUES AVENUE is a four-lane east-west class II arterial in Sunnyvale between Fair Oaks Avenue and Oakmead Parkway where it becomes Scott Boulevard. West of Fair Oaks Avenue, Arques Avenue becomes a two-lane local roadway which runs east-west until reaching a dead-end just east of San Bernardino Way.

AHWANEE AVENUE is a two-lane collector that generally runs east-west in Sunnyvale, along the south side of US HWY 101, between Mathilda Avenue (western limit) and San Tomas Street (eastern limit).

Transit

Existing transit to the proposed project site is provided by Caltrain and VTA bus routes and VTA light rail. Each are discussed in more detail below.

BUS ROUTES

VTA operates bus service within the vicinity of the proposed project site. Within one-mile of the proposed project site there are eight local bus routes. Routes 26, 54, 55, 120, 121, 122, 321, and 328. Six of the bus lines run along West Java Drive and have stops within 0.25 miles of the proposed project site. These lines include Route 26, Route 328, Route 321, Route 120, Route 121, and Route 122. Two bus routes (Routes

22 and 32) provide service to neighboring cities and run mainly east-west through Sunnyvale near the downtown area on El Camino Real and on Evelyn Avenue. The other bus routes generally run in a north-south direction and connect the neighborhoods south of El Camino Real with the northerly employment areas, such as those in the MPSP.

Route 26 - Route 26 is a local service that runs between the Lockheed Martin Transit Center in Sunnyvale and the Eastridge Transit Center in San Jose. Within the project study area, Route 26 primarily runs along Java Drive and Fair Oaks Avenue, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site), as well as the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site), as well as the Fair Oaks Avenue intersections with Fair Oaks Way (0.9 miles from the proposed project site) and Tasman Drive (1.0 miles from the proposed project site). On weekdays, eastbound and westbound Route 26 operate between approximately 5:14 AM and 11:50 PM on 30-minute headways, except for the last two busses of the day, which operate on approximately 60-minute headways. On weekends, eastbound and westbound Route 26 operate between approximately 6:16 AM and 10:54 PM on 30-minute headways, except for the last three busses of the day, which operate on approximately 60-minute headways.

Route 54 - Route 54 is a local service that runs between De Anza College in Cupertino and the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 54 primarily runs along Mathilda Avenue, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site) and the Mathilda Avenue / Moffett Park Drive intersection (0.8 miles from the proposed project site). On weekdays, northbound and southbound Route 54 operate between approximately 6:03 AM and 9:29 PM on 30-minute headways, except for the last two busses of the day, which operate on approximately 40- and 60-minute headways, respectively. On Saturday, northbound and southbound Route 54 operate between 7:54 AM and 7:50 PM on 45 to 60-minute headways. On Sunday, northbound and southbound Route 54 operate between 8:55 AM and 7:15 PM on 45 to 60-minute headways. Note that under the VTA Fiscal Year 2018-2019 Transit Service Plan, Route 54 will be discontinued with the introduction of the Rapid 523 line along Mathilda Avenue, Sunnyvale Avenue, and Sunnyvale-Saratoga Road.

Route 55 is a local service that runs between De Anza College in Cupertino and Great America in Santa Clara. Near the project study area, Route 55 primarily runs along Lawrence Expressway and Fair Oaks Avenue, with stops at the Lawrence Expressway intersections with Tasman Drive (2.4 miles from the proposed project site) and Lakehaven Drive (2.5 miles from the proposed project site). On weekdays, northbound and southbound Route 55 operate between approximately 5:38 AM and 10:54 PM on approximately 15 to 30-minute headways, except for the last two busses of the day, which operate on approximately 60-minute headways. The 15-minute headways generally occur within the Project vicinity from approximately 7:30 AM to 9:30 AM and 2:30 PM to 6:00 PM. On Saturday, northbound and southbound Route 55 operate between approximately 7:43 AM and 9:09 PM on approximately 30-minute headways except for the first and last few busses of the day which operate on 60-minute headways. On Sunday, northbound and southbound Route 55 operate between approximately 7:52 AM and 8:34 PM on 45 to 60-minute headways.

Route 120 is an express bus route that runs from the Fremont BART station to the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 120 primarily runs along SR 237, Mathilda Avenue, Java Drive, Crossman Avenue, and Caribbean Drive, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site); the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site); the Crossman Avenue intersections with Java Drive (0.7 miles from the proposed project site) and Baltic Way (0.7 miles from the proposed project site); and the Caribbean Drive / Moffett Park Drive intersection (1.0 mile from the proposed project site). On weekdays, northbound Route 120 operates from approximately 4:04 PM to 7:12 PM on approximately 30-minute headways. On weekdays, southbound Route 120 operates from approximately 6:16 AM to 9:30 AM on approximately 15 to 60-minute headways. Route 120 does not operate on Saturday or Sunday.

Route 121 is an express bus route that runs from the Gilroy Transit Center to the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 121 primarily runs along Mathilda Avenue, Java Drive, Crossman Avenue, Caribbean Drive, Lawrence Expressway, and Tasman Drive with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site); the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site); the Crossman Avenue intersections with Java Drive (0.7 miles from the proposed project site) and Baltic Way (0.7 miles from the proposed project site); and the Caribbean Drive/Moffett Park Drive intersection (1.0 mile from the proposed project site). On weekdays, northbound Route 121 operates from approximately 4:30 AM to 9:20 AM on approximately 15 to 45-minute headways. On weekdays, southbound Route 121 operates from approximately 2:51 PM to 7:36 PM on approximately 15 to 45-minute headways. Route 121 does not operate on Saturday or Sunday.

Route 122 is an express bus route that runs from South San Jose to the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 122 primarily runs along Mathilda Avenue, Java Drive, Crossman Avenue, Caribbean Drive, Lawrence Expressway, and US HWY 101, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site); the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site); the Crossman Avenue intersections with Java Drive (0.7 miles from the proposed project site) and Baltic Way (0.7 miles from the proposed project site); and the Caribbean Drive / Moffett Park Drive intersection (1.0 mile from the proposed project site). On weekdays, northbound Route 122 operates from approximately 5:52 AM to 6:45 AM, with only one arrival per stop. On weekdays, southbound Route 122 operates from approximately 4:48 PM to 6:02 PM, with only one arrival per stop. Route 122 does not operate on Saturday or Sunday.

Route 321 is a limited-stop bus route that runs from the Great Mall/Main Transit Center in Milpitas to the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 55 primarily runs along

Mathilda Avenue, Java Drive, Crossman Avenue, Caribbean Drive, Lawrence Expressway, and Tasman Drive, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site); the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site); the Crossman Avenue intersections with Java Drive (0.7 miles from the proposed project site) and Baltic Way (0.7 miles from the proposed project site); and the Caribbean Drive / Moffett Park Drive intersection (1.0 mile from the proposed project site). On weekdays, northbound Route 321 operates from approximately 5:52 PM to 6:38 PM, with only one arrival per stop. On weekdays, southbound Route 321 operates from approximately 8:11 AM to 8:50 AM, with only one arrival per stop. Route 321 does not operate on Saturday or Sunday.

Route 328 is a limited-stop bus route that runs from Almaden Expressway and Camden Avenue in San Jose to the Lockheed Martin Transit Center in Sunnyvale. Near the project study area, Route 55 primarily runs along Java Drive, Crossman Avenue, Caribbean Drive, and Lawrence Expressway, with stops at the Lockheed Martin Transit Center (0.6 miles from the proposed project site); the Java Drive intersections with Mathilda Avenue (0.3 miles from the proposed project site), Bordeaux Drive (0.2 miles from the proposed project site), Borregas Avenue (0.2 miles from the proposed project site), Geneva Drive (0.4 miles from the proposed project site), and Crossman Avenue (0.6 miles from the proposed project site); the Crossman Avenue intersections with Java Drive (0.7 miles from the proposed project site) and Baltic Way (0.7 miles from the proposed project site); and the Caribbean Drive / Moffett Park Drive intersection (1.0 mile from the proposed project site). On weekdays, northbound Route 328 operates from approximately 5:57 AM to 8:43 AM on approximately 80-minute headways, for a total of two arrivals per stop per day. On weekdays, southbound Route 328 operates from approximately 4:53 PM to 7:14 PM on approximately 60-minute headways, for a total of two arrivals per stop per day. Route 328 does not operate on Saturday or Sunday.

LIGHT RAIL

Light rail service is provided by VTA, which operates Line 902. Line 902 has a stop at the Lockheed Martin Transit Centers approximately 0.6 miles southwest of the proposed project site and the Borregas Station approximately 0.25 miles south of the proposed project site along West Java Drive. The Lockheed Martin Light Rail Station also provides connections to two local bus routes, three express routes, and two limited-stop routes. Other areas of Moffett Park served by the light rails includes a station north of US HWY 101 along Tasman Drive, Fair Oaks Avenue, and North Mathilda Avenue. Route 902 runs between Downtown Mountain View and Winchester Avenue in Campbell with 15-minute headways during peak commute hours. *Figure 4.1-2: Local Transit,* shows the connectivity of the light rail and areas it links to in the vicinity of the project.

CALTRAIN SERVICE

Caltrain is a commuter rail line that runs between San Francisco and Santa Clara County in Gilroy. There are two Caltrain stations in Sunnyvale: the Lawrence Caltrain Station and the Sunnyvale Caltrain Station. The nearest Caltrain station to the proposed project site is Sunnyvale Caltrain Station located east of the

intersection of West Evelyn Avenue and South Mathilda at South Francis Street approximately 3.0 miles to the south. VTA Bus line 54 provides service from this stop to the proposed project site. Service at the Sunnyvale Caltrain Station, located near the intersection of Frances Street and Evelyn Avenue, has approximately 20- to 30-minute headways during the weekday AM and PM commute hours and 60-minute headways midday, at night, and on weekends. The Sunnyvale Caltrain Station is served by all local, limited-stop, and baby bullet trains. Bus routes 32 and 54 stop at the Sunnyvale Transit Station.

The Mary/Moffett Caltrain Shuttle is a free public shuttle program funded by Google with financial support from the Bay Area Air Quality Management District (BAAQMD) and the Peninsula Corridor Joint Powers Board (PCJPB). This shuttle provides service between the Mountain View Caltrain Station and the Mary/Moffett area office buildings during commute hours. Shuttles depart from the Caltrain Station in the morning and travel northbound to the Mary/Moffett business area between 7 AM and 10 AM. During the afternoon commute period, the shuttles provide southbound service to take passengers to the Caltrain Station between 2:50 PM and 6:00 PM (City of Sunnyvale, 2016).

ALTAMONT COMMUTER EXPRESS SERVICE

The Altamont Commuter Express (ACE) Gray Shuttle (Route 822) serves Sunnyvale. ACE offers commuter rail service between Stockton, Tracy, Pleasanton, and San Jose during commute hours. This free shuttle, funded by the Bay Area Air Quality Management District, transports Sunnyvale passengers to and from the ACE Great America Station in Santa Clara. The Gray Shuttle runs on Arques Avenue, Wolfe Road, and Kifer Road, with four eastbound trips in the morning and four westbound trips in the afternoon/evening with headways averaging 60 minutes (City of Sunnyvale, 2016).

AVIATION

Moffett Federal Airfield is located within the City of Sunnyvale Sphere of Influence. Aviation uses of the airfield are limited to federal and federally hosted operations, including Google's initiative to pay for landing rights as a hosted operation. San Jose International Airport is located approximately 6 miles east of Sunnyvale, with commercial air carrier and air cargo services, as well as general aviation (City of Sunnyvale, 2016).

Pedestrian Facilities

Pedestrian sidewalks are provided in some locations adjacent to roadways near the proposed project site, but the existing sidewalk network is not complete and linked. For example, the sidewalk frontage on West Caribbean Drive fronting the proposed project site has detached pedestrian paths.

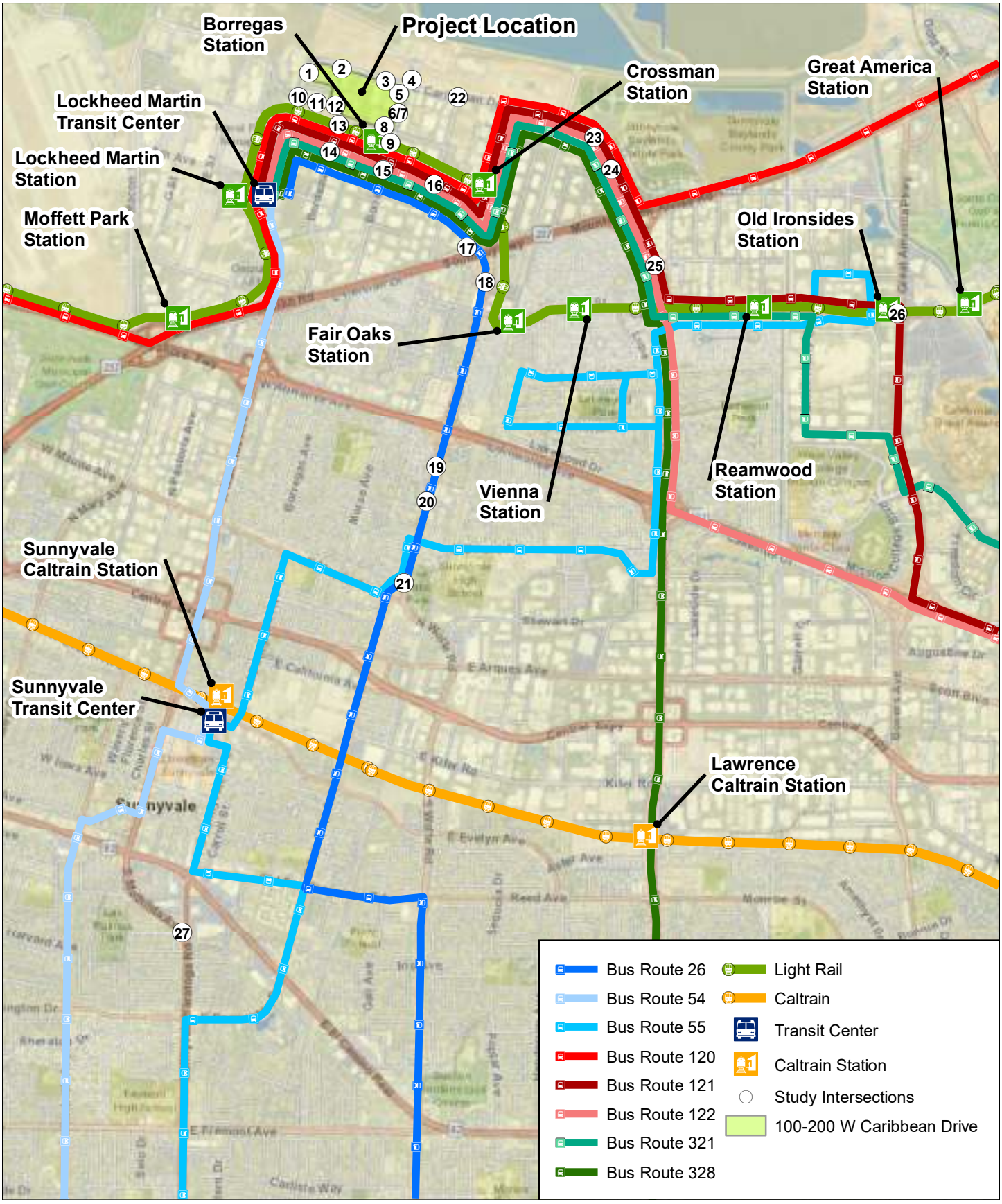

FIGURE 4.1-2: Local Transit
Google Caribbean Campus

Not to scale

Kimley»Horn

Borregas Avenue has a sidewalk on the easterly side of the street, but on the project side there is no sidewalk. Lastly, Caspian Court which would provide access to the southerly side of the 100 West Caribbean building does not have sidewalks on either side of the street.

Within the existing proposed project site there are short concrete pathways on the margins of the parking lots that providing access to the existing building entrances. The different buildings on the various parcels; however, are not well linked by any distinct pathways other than pavement marking indicating a pedestrian crossing. Access from building to building is generally provided through parking lots. There is no east and west access across the West Channel except along the streets at West Caribbean Drive on the north and West Java Drive on the south. This distance is approximately 1,900 feet. Pedestrian and bicycle access along the levee tops to enable north-south travel is available through spaces around the vehicle access gates.

Bicycle Facilities

Within the existing interior of the proposed project site there are no existing bicycle facilities but there is a Class II Bikeway along the southern and northern right-of-way of West Caribbean Drive. This Bikeway begins east of the intersection with Borregas Avenue and continued along all project frontage through the curve to North Mathilda Avenue and south beyond 5th Street. Along Borregas Avenue Class II Bikeways are located on both sides of the street, but vehicle parking is only allowed on the west site (northbound direction). There are no bike lanes on either side of Caspian Court or the project frontage with Bordeaux Drive.

The VTA Bicycle technical Guidelines defers to the Caltrans Highway Design Manual 6th Edition for bicycle facilities classifications that include definitions of Class I Bikeway (Bike Path), a Class II Bikeway (Bike Lane), and a Class III Bikeway (Bike Route). These terms and associated bikeways within and near the proposed project site are shown below:

CLASS I BIKEWAY (BIKE PATH) – Provides a complete separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.

The nearest Class I Bikeway is the Bay Trail that is approximately 0.25 miles to the north. From the proposed project site, the Bay Trail would be accessed north of West Caribbean Drive along the West Channel. A total of four Class I bikeways are in proximity to the proposed project site. These are described below.

- The Bay Trail is a paved path which runs east-west to the north of the proposed project site, parallel to Caribbean Drive and along the southern boundary of the San Francisco Bay. The Bay Trail begins at the Adobe Creek Loop Trail in Palo Alto, CA (western limit) and runs east until ending at Lafayette Street in Santa Clara (eastern limit). There are existing Bay Trail access points at the Yahoo parking on the western side of Mathilda Avenue and via Carl Road.
- The Baylands Park Trail is a paved path which runs east-west along the north side of SR 237 between the Caribbean Drive / Moffett Park Drive-Baylands Park intersection and Lafayette Street

in Santa Clara. There is a Baylands Park Trail access point at the Caribbean Drive / Moffett Park Drive-Baylands Park intersection.

- The Calabazas Creek Trail is a mostly paved path which runs north-south along the east side of Calabazas Creek and intersects the Bay Trail approximately two miles east of the proposed project site.

CLASS II BIKEWAY (BIKE LANE) – Provides a striped lane for one-way bicycle travel on a street or highway. These lanes are generally adjacent to the outside vehicular travel lane and are marked by special lane markings and signs.

The City has designated a large number of Class II bikeways. Those within the MPSP exist in the following locations:

- Caribbean Avenue between Mathilda Avenue and Moffett Park Drive
- Eastbound 1st Avenue between E Street and Mathilda Avenue
- Enterprise Way between Manila Drive / West Moffett Park Drive and 5th Avenue
- 11th Avenue between Enterprise Way and Innovation Way
- D Street between 11th Avenue and 5th Avenue
- Northbound Mathilda Avenue between 1st Avenue and Caribbean Drive.
- Bordeaux Drive between Moffett Park Drive and Java Drive
- Borregas Avenue between Moffett Park Drive and Caribbean Drive.
- Crossman Avenue between Moffett Park Drive and Caribbean Drive
- Moffett Park Drive between Enterprise Way and Innovation Way and between Bordeaux Drive and Caribbean Drive

CLASS III BIKEWAY (BIKE ROUTE) – Provides for shared use with bicycle travel or motor vehicle traffic, typically on lower volume roadways. Class II bikeways are typically designated by signs and are used to provide continuity to other bicycle facilities.

The City also has designated many Class III bikeways. This within the MPSP exist in the following locations:

- Mathilda Avenue between Moffett Park Drive and 1st Avenue
- Moffett Park Drive between Innovation Way and Borregas Avenue

Existing Intersection Levels of Service

Existing intersection operations were quantified under Existing traffic volumes and Existing intersection lane geometrics and control. The intersection operations analysis of all signalized intersections in the City of Sunnyvale's jurisdiction was calibrated against collected queues and delays.

LOS assignments were given to each signalized intersection based on the description and average control delay. *Table 4.1-2: Signalized Intersection LOS Thresholds*, *Table 4.1-3: Unsignalized Intersection LOS Thresholds,* and *Table 4.1-4: Freeway Segment LOS Thresholds,* show this information below.

Table 4.1-2: Signalized Intersection LOS Thresholds

Level of Service	Description	Average Control Delay (seconds/vehicle)
A	Free-flow conditions with negligible to minimal delays. Excellent progression with most vehicles arriving during the green phase and not having to stop at all. Nearly all drivers find freedom of operation.	Delay ≤ 10.0
B+	Good progression with slight delays. Short cycle-lengths typical. Relatively more vehicles stop than under LOS "A". Vehicle platoons are formed. Drivers begin to feel somewhat restricted within groups of vehicles.	10.0 < delay ≤ 12.0
B		12.0 < delay ≤ 18.0
B-		18.0 < delay ≤ 20.0
C+	Relatively higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, although many still pass through without stopping. Most drivers feel somewhat restricted.	20.0 < delay ≤ 23.0
C		23.0 < delay ≤ 32.0
C-		32.0 < delay ≤ 35.0
D+	Somewhat congested conditions. Longer but tolerable delays may result from unfavorable progression, long cycle lengths, and/or high volume-to-capacity ratios. Many vehicles are stopped. Individual cycle failures may be noticeable. Drivers feel restricted during short periods due to temporary back-ups.	35.0 < delay ≤ 39.0
D		39.0 < delay ≤ 51.0
D-		51.0 < delay ≤ 55.0
E+	Congested conditions. Significant delays result from poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently. There are typically long queues of vehicles waiting upstream of the intersection. Driver maneuverability is very restricted.	55.0 < delay ≤ 60.0
E		60.0 < delay ≤ 75.0
E-		75.0 < delay ≤ 80.0
F	Jammed or grid-lock type operating conditions. Generally considered to be unacceptable for most drivers. Zero or very poor progression, with oversaturation or high volume-to-capacity ratios. Several individual cycle failures occur. Queue spillovers from other locations restrict or prevent movement.	delay > 80.0
Source: Traffic Level of Service Analysis Guidelines, June 2003; HCM-2000 Exhibit 16-2.		

Table 4.1-3: Unsignalized Intersection LOS Thresholds

Level of Service	Description	Average Control Delay (seconds/vehicle)
A	Free-flow conditions with negligible to minimal delays.	delay ≤ 10.0
B	Good progression with slight delays.	10.0 < delay ≤ 15.0
C	Relatively higher delays.	15.0 < delay ≤ 25.0
D	Somewhat congested conditions with longer but tolerable delays.	25.0 < delay ≤ 35.0
E	Congested conditions with significant delays.	35.0 < delay ≤ 50.0
F	Jammed or grid-lock type operating conditions.	delay > 50.0
Source: Traffic Level of Service Analysis Guidelines, June 2003; HCM-2000 Exhibit 17-2 and 17-22.		

Table 4.1-4: Freeway Segment LOS Thresholds

Level of Service	Average Control Delay (seconds/vehicle)
A	density ≤ 11.0
B	11.0 < density ≤ 18.0
C	18.0 < density ≤ 26.0
D	26.0 < density ≤ 46.0
E	46.0 < density ≤ 58.0
F	density > 58.0
Source: HCM-2000 Exhibit 17-2 and 17-22.	

Existing Traffic Volumes

Project study intersection traffic operations were evaluated for the AM and PM peak hours under existing conditions. To assess the existing traffic volumes, counts of vehicles, pedestrians, and bicycles were taken at select traffic study intersections, including intersections 4, 9, 10, and 14-26. Data from these intersections was collected in May of 2018 and information for the remaining intersections (1 through 3, 5 through 8, and 11 through 13) were obtained from the City. *Table 4.1-5: Existing Conditions Intersection Traffic Operations*, shows these values in tabular format. The traffic operations of the study area intersections were evaluated for the AM and PM peak hours and it was determined peak hours were 7:00 AM and 10:00 AM and between 4:00 PM and 7:00 PM. The AM and PM peak hours at County-controlled intersections (i.e., the study intersections along Lawrence Expressway); however, had the highest one hour of traffic flow counted between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM, respectively, on a typical weekday. The intersection operations analysis of all signalized intersections in the City of Sunnyvale's jurisdiction was calibrated against collected queues and delays.

The queues and delays were analyzed to determine if improvements were justified and to determine if a new signal was warranted. Traffic signals may be warranted when traffic operations fall below acceptable LOS standards and when one or more signal warrants are satisfied. Factors that can be used to justify the need for a new signal include but is not limited to, traffic volumes during peak hours and evaluation of directions of travel, pedestrian activity, speed limits, physical layout, and intersection crash history.

In addition to use of the traffic counts, field observations of the study intersections were noted and during the following evaluations of the existing traffic conditions were noted:

BORREGAS AVENUE / CARIBBEAN DRIVE (#4): During the AM peak hour the westbound left turn experiences queuing of approximately 500 feet (or 20 vehicles). The southbound approach experiences single digit queues, mostly large trucks.

JAVA DRIVE-FAIR OAKS AVENUE / FAIR OAKS WAY-KENSINGTON PLACE (#18): During the AM peak hour the northbound approach was backed up to Tasman Drive and the eastbound approach had a queue length of approximately eight (8) vehicles. During the PM peak hour, the southbound approach was backed up beyond Crossman Drive while the northbound approach had a queue length of approximately eight (8) vehicles.

FAIR OAKS AVENUE / AHWANEE AVENUE (#19): During the AM peak hour the northbound and southbound approaches had queue lengths of approximately five (5) vehicles. During the PM peak hour, the southbound approach was backed up to the US HWY 101 northbound ramps and the northbound approach had queue lengths of approximately five (5) vehicles.

FAIR OAKS AVENUE / CALIENTE DRIVE (#20): During the AM peak hour the northbound approach was backed up to Duane Avenue and the southbound approach had queue lengths of approximately five (5) vehicles. During the PM peak hour, the northbound approach was backed up to the southern edge of the Chavez Supermarket driveway and the southbound approach was backed up to Ahwanee Avenue.

FAIR OAKS AVENUE / WOLFE ROAD (#21): During the AM peak hour the northbound approach had queue lengths of approximately 20 vehicles and the eastbound approach had queue lengths of approximately 8 vehicles. During the PM peak hour the southbound approach was backed up approximately halfway to Duane Avenue (approximately 400 feet) and the northbound approach had queue lengths of approximately 10 vehicles.

CARIBBEAN DRIVE / TWIN CREEKS (#23): During the AM peak hour the northbound approach had queue lengths of approximately 20 vehicles and the southbound approach had queue lengths of approximately 4 vehicles. During the PM peak hour the south approach had queue lengths of approximately 15 vehicles and the northbound approach had minor queuing of only 1-2 vehicles.

CARIBBEAN DRIVE / MOFFETT PARK DRIVE-BAYLANDS PARK (#24): During the AM peak hour the northbound approach had queue lengths of approximately 25 vehicles and the southbound, eastbound, and westbound approaches had minor queuing of less than 5 vehicles each. During the PM peak hour the eastbound approach had queue lengths of approximately 15 vehicles in the right turn lane and the southbound approach had queue lengths of approximately 12 vehicles.

LAWRENCE EXPRESSWAY / PERSIAN DRIVE-ELKO DRIVE (#25): During the AM peak hour the northbound approach was backed up to Tasman Drive and the westbound approach was backed up to Lawrence Station Road. During the PM peak hour the southbound approach was backed up to the SR 237 overcrossing and the northbound approach had queue lengths of approximately 12 vehicles.

Existing Freeway Segment Operations

Ten freeway segments near the project study area were selected for analysis and are shown in *Table 4.1-6: Existing Conditions Freeway Segment LOS*, and were selected based on segment density, for both mixed flow and HOV lanes. Information to derive the existing freeway segment worst-case peak hour speeds, flows, and densities were obtained from the 2017 CMP Monitoring and Conformance Report (Santa Clara Valley Transportation Authority, April 23, 2017), the most recently available VTA CMP monitoring report as of September 2018. As defined in the VTA Traffic Level of Service Analysis Guidelines, the minimum acceptable LOS threshold for CMP freeway segments is LOS E. As shown, at least one segment northbound (NB) or southbound (SB) of the ten segments operates as LOS F.

Table 4.1-5: Existing Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions		
					Delay (S/V)[1]	LOS	Warrant Met?[2]
1	Mathilda Avenue / Mathilda Parking Garage Driveway[4]	OWSC	E	AM	-	-	-
				PM	-	-	-
2	Caribbean Parking Garage Driveway (right-in right-out) / Caribbean Drive[4]	OWSC	E	AM	-	-	-
				PM	-	-	-
3	Caribbean NE Surface Lot Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-
				PM	-	-	-
4	Borregas Avenue / Caribbean Drive[4]	Signal	E	AM	33.0	C-	-
				PM	23.6	C	-
5	Borregas Avenue / Borregas NE Surface Lot Driveway	OWSC	D	AM	-	-	-
				PM	-	-	-
6	Borregas Avenue / Borregas Service Ingress Driveway	None	D	AM	-	-	-
				PM	-	-	-
7	Borregas Avenue / Borregas Service Egress Driveway	OWSC	D	AM	-	-	-
				PM	-	-	-
8	Borregas Avenue / Borregas Shuttle Driveway	OWSC	D	AM	-	-	-
				PM	-	-	-
9	Borregas Avenue / Caspian Court-Caspian Drive	TWSC	D	AM	13.2	B	No
				PM	11.3	B	No
10	Mathilda Avenue / 1st Avenue-Bordeaux Drive[4]	Signal	E	AM	34.5	C-	-
				PM	39.2	D	-
11	Bordeaux Service Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-
				PM	-	-	-
12	Bordeaux Shuttle Egress Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-
				PM	-	-	-
13	Bordeaux Shuttle Ingress Driveway / Bordeaux Drive	None	D	AM	-	-	-
				PM	-	-	-
14	Bordeaux Drive / Java Drive	Signal	D	AM	30.0	C	-
				PM	31.3	C	-
15	Borregas Avenue / Java Drive	Signal	D	AM	35.2	D+	-
				PM	30.0	C	-

Table 4.1-5: Existing Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions		
					Delay (S/V)[1]	LOS	Warrant Met?[2]
16	Geneva Drive / Java Drive	Signal	D	AM	30.2	C	-
				PM	26.2	C	-
17	Crossman Avenue-SR 237 WB On-Ramp / Moffett Park Drive	Signal	D	AM	17.9	B	-
				PM	14.5	B	-
18	Java Drive-Fair Oaks Avenue / Fair Oaks Way- Kensington Place	Signal	D	AM	36.3	D+	-
				PM	28.7	C	-
19	Fair Oaks Avenue / Ahwanee Avenue	Signal	D	AM	22.5	C+	-
				PM	24.5	C	-
20	Fair Oaks Avenue / Caliente Drive	Signal	D	AM	16.0	B	-
				PM	17.5	B	-
21	Fair Oaks Avenue / Wolfe Road	Signal	D	AM	24.8	C	-
				PM	18.2	B-	-
22	Geneva Drive/Caribbean Drive	OWSC	E	AM	8.6	A	No
				PM	11.7	B	No
23	Caribbean Drive / Twin Creeks	Signal	E	AM	19.4	B-	-
				PM	16.1	B	-
24	Caribbean Drive / Moffett Park Drive – Baylands Drive	Signal	E	AM	26.3	C	-
				PM	30.3	C	-
25	Lawrence Expressway/Persian Drive-Elko Drive	Signal	E	AM	26.2	C	-
				PM	40.9	D	-
26	Great America Parkway/Tasman Drive	Signal	E	AM	41.5	D	-
				PM	44.8	D	-
27	Mathilda Avenue/Sunnyvale Saratoga Road – Talisman Drive	Signal	E	AM	34.3	C-	-
				PM	41.4	D	-

Notes:
1. For OWSC (one-way-stop-control) and TWSC(two-way stop control) intersections, "worst-case" movement delay is indicated. "Average" control delays (in seconds/vehicle) are indicated for signal control intersections.
2. Warrant Met? = California Manual on Uniform Traffic Control Devices (CA MUTCD) based Peak-hour- Volume warrant#3
3. CMP Intersection(s).
4. Regionally significant intersection(s).

Existing Freeway Ramp Operations

Twenty (20) freeway ramps near the proposed project site were selected for analysis and are shown in *Table 4.1-7: Existing Conditions Freeway Ramp Traffic Operations*. Data was obtained from intersection counts performed for this TIA, the Caltrans Performance Measurement System (PeMS) online database, and the 2016 Caltrans Traffic Census Program volumes available on the Caltrans website. In some instances, growth rates were applied to the count based on observed trends at nearby facilities. Ramp capacities were obtained from HCM 2000 Exhibit 25-3 and current ramp metering rates provided by Caltrans District 4, where applicable.

Background Conditions

Study area intersection traffic operations for background conditions are those conditions that would occur without the proposed project generated trips but with traffic generated by "approved but not yet constructed" developments within the study area. Background conditions are a near-term future condition that could reasonably represent traffic conditions in the study area conditions when the proposed project is completed.

As part of the background conditions two roadway improvement projects were assumed to be completed in the near-term future within the project study area. These improvements include:

- Sunnyvale-Saratoga Road Traffic Signal, Bicycle and Pedestrian Safety Project proposes the installation of new traffic signal equipment and bicycle/pedestrian equipment and bicycle/pedestrian enhancements at the Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive intersection. The intersection lane geometrics would remain the same.
- Caribbean Drive Parking and Trail Access Enhancements proposes to enhance parking and access to the Bay Trail on Caribbean Drive and is projected to be completed by 2022. This project consists of a road diet/rechannelization on westbound Caribbean Drive, addition of buffered parking spaces, bio retention planters with native species (to clean and treat stormwater), and a one-way multi-use path on the north side of Caribbean Drive. In addition, the following intersection will be reconfigured as listed below:
    - Borregas Avenue / Caribbean Drive: The existing outside westbound through-right lane will be converted to a right-turn-only lane.

As shown in *Table 4.1-8: Background Conditions Intersection Traffic Operations*, one signalized intersection, #26 - Great America Parkway / Tasman Drive, is projected to operate at an unacceptable average intersection LOS F under Background AM and PM peak hour conditions. All of the remaining study intersections are projected to operate at acceptable Background LOS conditions (LOS D or better for City of Sunnyvale intersections and LOS E or better for Santa Clara County, regionally significant, and CMP intersections) during the AM and PM peak hours. California Manual on Uniform Traffic Control Devices (CA MUTCD) based peak hour signal warrant 3 is not projected to be met at any study unsignalized intersections under Background AM and PM peak hour conditions.

Table 4.1-6: Existing Conditions Freeway Segment LOS

Segment Number	Freeway	Segment	Direction	Peak Hour	Capacity (vphpl)[1]		Lanes		Existing Peak Density (pc/mi/ln)[2]		Existing Peak LOS	
					Mixed	HOV	Mixed	HOV	Mixed	HOV	Mixed	HOV
1	SR 237	Between Maude Avenue and US HWY 101	EB	AM	4,400	-	2	-	33.6	-	D	-
				PM	4,400	-	2	-	**94.7**	-	**F**	-
			WB	AM	4,400	-	2	-	39.8	-	D	-
				PM	4,400	-	2	-	**75.0**	-	**F**	-
2	SR 237	Between US HWY 101 and Mathilda Avenue	EB	AM	4,400	-	2	-	51.2	-	E	-
				PM	4,400	-	2	-	**83.2**	-	**F**	-
			WB	AM	4,400	-	2	-	**61.2**	-	**F**	-
				PM	4,400	-	2	-	**69.7**	-	**F**	-
3	SR 237	Between Mathilda Avenue and Fair Oaks Avenue	EB	AM	4,400	1,650	2	1	32.4	26.0	D	C
				PM	4,400	1,650	2	1	**84.3**	**64.7**	**F**	**F**
			WB	AM	6,900	-	3	-	**76.4**	-	**F**	-
				PM	6,900	-	3	-	**79.6**	-	**F**	-
4	SR 237	Between Fair Oaks Avenue and Lawrence Expressway	EB	AM	4,400	1,650	2	1	27.9	16.2	D	B
				PM	4,400	1,650	2	1	**82.0**	**84.4**	**F**	**F**
			WB	AM	4,400	1,650	2	1	**79.0**	**83.3**	**F**	**F**
				PM	4,400	1,650	2	1	**78.4**	**65.7**	**F**	**F**
5	SR 237	Between Lawrence Expressway and Great America Parkway	EB	AM	4,400	1,650	2	1	32.0	15.3	D	B
				PM	4,400	1,650	2	1	**77.4**	**74.0**	**F**	**F**
			WB	AM	4,400	1,650	2	1	**66.2**	**58.3**	**F**	**F**
				PM	4,400	1,650	2	1	32.0	8.9	D	A
6	US HWY 101	Between Great America Parkway	SB	AM	6,900	1,650	3	1	**72.4**	**79.3**	**F**	**F**
				PM	6,900	1,650	3	1	25.8	9.0	C	A
			NB	AM	6,900	1,650	3	1	32.1	16.3	D	B

Table 4.1-6: Existing Conditions Freeway Segment LOS

Segment Number	Freeway	Segment	Direction	Peak Hour	Capacity (vphpl)[1]		Lanes		Existing Peak Density (pc/mi/ln)[2]		Existing Peak LOS	
					Mixed	HOV	Mixed	HOV	Mixed	HOV	Mixed	HOV
		and Lawrence Expressway		PM	6,900	1,650	3	1	**87.9**	**83.0**	**F**	**F**
7	US HWY 101	Between Lawrence Expressway and Fair Oaks Avenue	SB	AM	6,900	1,650	3	1	**72.5**	**67.7**	**F**	**F**
				PM	6,900	1,650	3	1	25.1	8.9	C	A
			NB	AM	6,900	1,650	3	1	25.1	9.0	C	A
				PM	6,900	1,650	3	1	**75.0**	**87.4**	**F**	**F**
8	US HWY 101	Between Fair Oaks Avenue and Mathilda Avenue	SB	AM	6,900	1,650	3	1	**60.4**	**70.1**	**F**	**F**
				PM	6,900	1,650	3	1	27.6	9.2	D	A
			NB	AM	6,900	1,650	3	1	26.3	8.9	D	A
				PM	6,900	1,650	3	1	**62.3**	55.4	**F**	E
9	US HWY 101	Between Mathilda Avenue and SR 237	SB	AM	6,900	1,650	3	1	**58.4**	**58.7**	**F**	F
				PM	6,900	1,650	3	1	32.3	23.7	D	C
			NB	AM	6,900	1,650	3	1	32.2	13.4	D	B
				PM	6,900	1,650	3	1	**63.7**	**58.4**	**F**	F
10	US-101	Between SR 237 and Moffett Boulevard	SB	AM	6,900	1,650	3	1	**58.9**	**62.5**	**F**	F
				PM	6,900	1,650	3	1	43.8	9.8	**D**	A
			NB	AM	6,900	1,650	3	1	54.1	24.5	**E**	C
				PM	6,900	1,650	3	1	**67.1**	53.7	**F**	E

Table 4.1-7: Existing Conditions Freeway Ramp Traffic Operations

Ramp Number	Ramp	Type	Peak Hour	Lanes				Existing Peak	
				Mixed	HOV	Meter	Capacity[1]	Volume[2]	V/C[3]
1	SR 237 Westbound On-Ramp from Mathilda Avenue	Diamond	AM	1	-	-	2,000	326	0.16
			PM	1	-	-	2,000	760	0.38
2	SR 237 Westbound Off-Ramp to Mathilda Avenue	Diamond	AM	1	-	-	2,000	866	0.43
			PM	1	-	-	2,000	680	0.34
3	SR 237 Eastbound Off-Ramp to Mathilda Avenue	Diamond	AM	2	-	-	4,100	824	0.20
			PM	2	-	-	4,100	361	0.09
4	SR 237 Eastbound On-Ramp from Mathilda Avenue	Diamond	AM	1	-	-	2,000	636	0.32
			PM	1	-	-	2,000	875	0.44
5	SR 237 Westbound On-Ramp from Crossman Avenue/Moffett Park Drive	Diagonal	AM	1	-	-	2,000	122	0.06
			PM	1	-	-	2,000	180	0.09
6	SR 237 Westbound On-Ramp from Southbound Caribbean Drive	Diagonal	AM	1	-	ON	720	396	0.55
			PM	1	-	ON	720	216	0.30
7	SR 237 Westbound Off-Ramp to Northbound Caribbean Drive	Diagonal	AM	1	-	-	2,000	103	0.05
			PM	1	-	-	2,000	650	0.33
8	SR 237 Eastbound On-Ramp from Southbound Lawrence Expressway	Loop	AM	1	-	-	1,800	306	0.17
			PM	1	-	ON	550	420	0.76
9	SR 237 Eastbound Off-Ramp to Northbound Lawrence Expressway	Loop	AM	1	-	-	1,800	102	0.06
			PM	1	-	-	1,800	45	0.02
10	US HWY 101 Northbound On-Ramp from Southbound Lawrence Expressway	Diagonal	AM	1	1	ON	1,140	505	0.44
			PM	1	1	-	2,900	349	0.12
11	US HWY 101 Northbound Off-Ramp to Lawrence Expressway	Diagonal	AM	2	-	-	3,500	1136	0.32
			PM	2	-	-	3,500	1309	0.37
12	US HWY 101 Southbound Off-Ramp to Lawrence Expressway	Diagonal	AM	2	-	-	3,500	811	0.23
			PM	2	-	-	3,500	1754	0.50
13	US HWY 101 Southbound On-Ramp from Southbound Lawrence Expressway	Loop	AM	1	1	-	2,700	346	0.13
			PM	1	1	ON	1,180	206	0.17
14		Diagonal	AM	1	1	-	2,900	1041	0.36

Table 4.1-7: Existing Conditions Freeway Ramp Traffic Operations

Ramp Number	Ramp	Type	Peak Hour	Lanes				Existing Peak	
				Mixed	HOV	Meter	Capacity[1]	Volume[2]	V/C[3]
	US HWY 101 Northbound On-Ramp from Fair Oaks Avenue		PM	1	1	-	2,900	435	0.15
15	US HWY 101 Northbound Off-Ramp to Fair Oaks Avenue	Diagonal	AM	1	-	-	2,000	448	0.22
			PM	1	-	-	2,000	1063	0.53
16	US HWY 101 Southbound On-Ramp from Southbound Fair Oaks Avenue	Loop	AM	1	1	-	2,700	340	0.13
			PM	1	1	ON	1,240	198	0.16
17	US HWY 101 Southbound off-ramp to northbound Fair oaks Avenue	Loop	AM	1	-	-	1,900	213	0.11
			PM	1	-	-	1,900	94	0.05
18	US HWY 101 Northbound Off-Ramp to Northbound Mathilda Avenue	Diagonal	AM	1	-	-	2,000	334	0.17
			PM	1	-	-	2,000	262	0.13
19	US HWY 101 Southbound On-Ramp from Southbound Mathilda Avenue	Loop	AM	1	1		2,700	178	0.49
			PM	1	1	ON	1,480	720	0.49
20	US HWY 101 Northbound On-Ramp from Moffett Park Drive	Diagonal	AM	1	-	-	2,000	374	0.19
			PM	1	-	-	2,000	228	0.11

Notes:
1. Ramp Capacities were obtained from HCM 2000 Exhibit 25-3 and current ramp metering rates provided by Caltrans District 4, where applicable. Capacities represent the combined capacity of mixed-flow and HOV lanes where both exist.
2. Ramp Volumes were obtained from intersection counts performed for this TIA, the Caltrans Performance Measurement System (PeMS) online database, and the 2016 Caltrans Traffic Census Program volumes available on the Caltrans website. If the latest available counts for a ramp facility were several years old, growth rates were applied to the count based on observed trends at nearby facilities. Volumes represent the combined volumes of mixed-flow and HOV lanes where both exist.
3. V/C = Volume-to-capacity ratio.

BOLD indicates unacceptable level of service.

Table 4.1–8: Background Conditions Intersection Traffic Operations

Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions		
				Delay (S/V)[1]	LOS	Warrant Met?
1. Mathilda Avenue/Mathilda Parking Garage	OWSC	E	AM	-	-	-
			PM	-	-	-
2. Caribbean Parking Garage Driveway (right-in right-out)/Caribbean Drive[4] right-out) / Caribbean Drive[4]	OWSC	E	AM	-	-	-
			PM	-	-	-
3. Caribbean NE Surface Lot Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-
			PM	-	-	-
4. Borregas Avenue / Caribbean Drive[4]	Signal	E	AM	46.1	D	-
			PM	25.1	C	-
5. Borregas Avenue / Borregas NE Surface Lot Driveway	OWSC	D	AM	-	-	-
			PM	-	-	-
6. Borregas Avenue / Borregas Service Ingress Driveway	None	D	AM	-	-	-
			PM	-	-	-
7. Borregas Avenue / Borregas Service Egress Driveway	OWSC	D	AM	-	-	-
			PM	-	-	-
8. Borregas Avenue / Borregas Shuttle Driveway	OWSC	D	AM	-	-	-
			PM	-	-	-
9. Borregas Avenue / Caspian Court-Caspian Drive	TWSC	D	AM	14.3	B	No
			PM	11.9	B	No
10. Mathilda Avenue / 1st Avenue-Bordeaux Drive	Signal	E	AM	35.5	D+	-
			PM	40.7	D	-
11. Bordeaux Service Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-
			PM	-	-	-
12. Bordeaux Shuttle Egress Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-
			PM	-	-	-
13. Bordeaux Shuttle Ingress Driveway / Bordeaux Drive	None	D	AM	-	-	-
			PM	-	-	-

Table 4.1–8: Background Conditions Intersection Traffic Operations

Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions		
				Delay (S/V)[1]	LOS	Warrant Met?
14. Bordeaux Drive / Java Drive	Signal	D	AM	33.6	C-	-
			PM	39.0	D	-
15. Borregas Avenue / Java Drive	Signal	D	AM	37.8	D+	-
			PM	30.5	C	-
16. Geneva Drive / Java Drive	Signal	D	AM	27.8	C	-
			PM	36.3	D+	-
17. Crossman Avenue-SR 237 WB On-Ramp /Moffett Park Drive Moffett Park Drive	Signal	D	AM	21.1	C+	-
			PM	17.6	B	-
18. Java Drive-Fair Oaks Avenue / Fair Oaks Way-Kensington Place Kensington Place	Signal	D	AM	40.1	D	-
			PM	34.0	C-	-
19. Fair Oaks Avenue / Ahwanee Avenue	Signal	D	AM	23.7	C	-
			PM	28.8	C	-
20. Fair Oaks Avenue / Caliente Drive	Signal	D	AM	16.7	B	-
			PM	19.3	B-	-
21. Fair Oaks Avenue/Wolfe Road	Signal	D	AM	26.3	C	-
			PM	18.9	B-	-
22. Geneva Drive / Caribbean Drive[4]	OWSC	E	AM	8.7	A	No
			PM	13.5	B	No
23. Caribbean Drive / Twin Creeks[4]	Signal	E	AM	22.5	C+	-
			PM	17.2	B	-
24. Caribbean Drive / Moffett Park Drive Baylands Park[4]	Signal	E	AM	29.5	C	-
			PM	31.4	C	-
25. Lawrence Expressway / Persian Drive-Elko Drive[4]	Signal	E	AM	25.8	C	-
			PM	42.4	D	-
26. Great America Parkway/Tasman Drive	Signal	E	AM	**106.5**	**F**	-
			PM	**168.8**	**F**	-

Table 4.1–8: Background Conditions Intersection Traffic Operations

Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions		
				Delay (S/V)[1]	LOS	Warrant Met?
27. Mathilda Avenue/Sunnyvale Saratoga Road – Talisman Drive	Signal	E	AM	38.3	D+	-
			PM	55.0	E+	-

Notes:
1. For OWSC (One-Way-Stop-Control) and TWSC (Two-Way-Stop-Control) intersections, "worst-case" movement delay is indicated. “Average” control delays (in seconds/vehicle) are indicated for signal-Control intersections.
2. Wrnt Met? = CA MUTCD based Peak-hour-Volume Warrant #3.
3. CMP Intersection(s).
4. Regionally significant intersection(s).

BOLD indicates unacceptable level of service.

Analysis Scenarios

Twenty-seven intersections were evaluated under both AM and PM peak hour conditions. Based on increased traffic that the proposed project would result in, a determination of impacts and needed improvements was made. The following definitions were used for the analysis and are provided below for reference:

Existing plus Project Conditions:	Existing traffic volumes plus traffic projected to be generated by the proposed project assuming a full-access Caribbean Parking Garage Driveway on West Caribbean Drive.
Background Conditions:	Existing volumes plus traffic from "approved but not yet constructed or occupied" developments within an approximately one-mile radius of the proposed project study intersections. Trips generated by the proposed project are not included.
Background plus Proposed Project Conditions:	Background traffic volumes plus traffic projected to be generated by the proposed project assuming a full-access Caribbean Parking Garage Driveway on West Caribbean Drive.
Cumulative Conditions:	Existing volumes plus traffic from "approved but not yet constructed or occupied" and "pending" developments within an approximately one-mile radius of the project study intersections plus an assumed yearly 1.5% growth rate to increase overall base Existing traffic volumes to cumulative conditions of year 2030.
Cumulative plus Proposed Project Conditions:	Cumulative traffic volumes plus traffic projected to be generated by the proposed project assuming a full-access Caribbean Parking Garage Driveway on West Caribbean Drive.

4.1.2 REGULATORY SETTING

The City has jurisdiction over all City streets and City-operated traffic signals. Caltrans has jurisdiction over state facilities, including US HWY 101, I-280, SR 82 (El Camino Real), SR 85, and SR 237. Caltrans also has jurisdiction over on- and off-ramp intersections with local streets. Transit agencies operating within the City limits include VTA and Caltrain. Within the MPSP area; however, only VTA manages facilities. Several regional, state, and federal agencies have jurisdiction over transportation planning and implementation of circulation improvements in Sunnyvale and these agencies and applicable planning and policy documents are listed below.

Federal

AMERICANS WITH DISABILITIES ACT OF 1990

Titles I, II, III, and V of the Americans with Disabilities Act (AD) have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in places of public accommodation (businesses and nonprofit agencies that serve the public) and commercial facilities (other businesses). The regulation includes Appendix A to Part 36 (Standards for Accessible Design) establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Examples of key guidelines include detectable warnings for

pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

Federal Highway Administration

The Federal Highway Administration (FHWA) is a major agency of the US Department of Transportation (USDOT). In partnership with state and local agencies, the FHWA carries out federal highway programs to meet the nation's transportation needs. The FHWA administers and oversees federal highway programs to ensure that federal funds are used efficiently.

State

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Caltrans has authority over the state highway system, including freeways, interchanges, and arterial state routes. Caltrans approves the planning, design, and construction of improvements for all state-controlled facilities, including SR 82, SR 85, US HWY 101, SR 237, and I-280, and the associated interchanges for these facilities. Caltrans requirements are described in its Guide for the Preparation of Traffic Impact Studies (2001), which covers the information needed for Caltrans to review the impacts on state highway facilities, including freeway segments.

COMPLETE STREETS (ASSEMBLY BILL 1358)

Assembly Bill (AB) 1358, also known as the California Complete Streets Act (CCSA) of 2008, requires cities and counties to include complete streets policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles and riders, children, the elderly, and the disabled. These policies can apply to new streets as well as to the redesign of corridors such as El Camino Real in areas of planned change such as downtown Sunnyvale or the Lawrence Station.

CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

The CPUC has jurisdiction over the safety of highway-rail crossings in California. The California Public Utilities Code requires CPUC approval for the construction or alteration of these crossings and grants the CPUC exclusive power on the design, alteration, and closure of such crossings in California.

SENATE BILL 743

Senate Bill (SB) 743 was signed into law on September 27, 2013 adding Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code, which created a process to change the way transportation impacts are analyzed under CEQA. The changes shifted agency focus away from using auto delay, level of service, and other similar measures and implemented a focus on vehicle miles traveled (VMT). In addition, SB 743 required the state Office of Planning and Research (OPR) to update the CEQA Guidelines and establish "criteria for determining the significance of transportation impacts of projects within transit priority areas." As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

In January of 2016, OPR released for public review the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA. After review and public comment over the next couple years, the revised State CEQA Guidelines using VMT as a metric for evaluating traffic impacts were adopted in 2018. As of the adoption, cities have two years to implement the new guidelines and must be used after July 1, 2020.

Regional

METROPOLITAN TRANSPORTATION COMMISSION

The Metropolitan Transportation Commission (MTC) is the Bay Area's regional transportation planning agency and federally designated metropolitan planning organization (MPO). MTC is responsible for preparing the Regional Transportation Plan (RTP), a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The RTP is a 20-year plan that is updated every three years to reflect new planning priorities and changing projections of future growth and travel demand. The long-range plan must be based on a realistic forecast of future revenues, and the transportation projects taken as a whole must help improve regional air quality.

PLAN BAY AREA

Consistent with Senate Bill (SB) 375, the Bay Area must develop a Sustainable Communities Strategy that strives to reach the greenhouse gas (GHG) reduction target established by the California Air Resources Board (CARB). SB 375 also requires the region to plan for housing 100 percent of its projected population at all income levels. Plan Bay Area is the region's first regional transportation plan subject to SB 375. The MTC and the ABAG jointly prepared Plan Bay Area (PBA) in response to this requirement; the PBA serves as the long-term Regional Transportation Plan (RTP) for the San Francisco Bay Area as well as the region's Sustainable Communities Strategy (SCS). The PBA was written, in part, to respond to the region's projected population, which is expected to grow to more than 9 million people by 2040. It focuses on accommodating projected growth while fostering an innovative, prosperous and competitive economy; preserving a healthy and safe environment; and allowing all Bay Area residents to share the benefits of vibrant, sustainable communities connected by an efficient and well-maintained transportation network.

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

VTA serves two roles in Santa Clara County: as the primary transit operator and as the Congestion Management Agency. In its role as transit operator, VTA is responsible for the development, operation, and maintenance of the bus and light rail system in the county. VTA operates over 70 bus lines and three light rail lines, in addition to shuttle and paratransit service. VTA also provides transit service to major regional destinations and transfer centers in adjoining counties.

During the Valley Transportation Plan 2035 update, VTA published the Community Design & Transportation (CDT) Program, which provides design guidelines, planning tools, and policy guidance for coordinating transportation and land use in projects across the county. This report identifies future growth areas including Sunnyvale, the El Camino corridor, and the station areas adjacent to the light rail and Caltrain stations.

Santa Clara County Congestion Management Program

The Santa Clara County Congestion Management Program (CMP) was prepared in accordance with California Statute, Government Code 65088. The intent of the legislation is for local jurisdictions to develop comprehensive transportation improvement program to improve the multimodal transportation system performance and land use decision making as it pertains to air quality. The Santa Clara County CMP designates the roadway system for use in annual monitoring of level of service standards, identifies regionally significant roadways and intersections to be evaluated in land use impacts analyses, and identifies the potential candidates for inclusion in the Regional Transportation Plan capital improvement program.

The designated CMP Roadway Network includes state highways, county expressways and principal arterials. The adopted definition for principal arterials is: roadways that connect with the freeway and/or county expressway system and meet one of the following criteria: (1) state highway; (2) six-lane facility; or (3) non-residential arterial with average daily traffic of 30,000 vehicles per day. In the City Sunnyvale, the CMP roadway system includes US Highway 101, SR 85, SR 237, Central Expressway, Lawrence Expressway, El Camino Real, Mathilda Avenue, Caribbean Drive and Sunnyvale-Saratoga Road (VTA, 2017).

TRANSIT

VTA's Short Range Transit Plan is a federally mandated planning document that describes the plans, programs, and goals of VTA's transit service. The plan has a 10-year planning horizon and is updated annually. It focuses on the characteristics and capital needs of the existing system and on committed (funded) expansion plans. The current plan proposes to keep bus and light rail service at existing levels, expand community bus services (neighborhood-based circulator and feeder routes that travel within a limited area), continue to contribute monetarily to Caltrain service, and replace and expand the bus vehicle fleet.

COUNTY OF SANTA CLARA

The Santa Clara County Trails Master Plan (SCTMP)was approved by the Santa Clara County Board of Supervisors in 1995. The goal of the SCTMP is to direct the County's trail implementation efforts well into the twenty-first century with a balanced regard for the public good and individual desires for privacy. The SCTMP implements the vision to provide a continuous trail network that connects cities to one another, connects cities to the county's regional open space resources, connects county parks to other county parks, and connects the northern and southern urbanized regions of the county. The plan identifies regional trail routes, subregional trail routes, connector trail routes, and historic trails. The SCTMP also synthesizes other local and county plans into a comprehensive 20-year cross-county bicycle corridor network and expenditure plan.

Local

CITY OF SUNNYVALE GENERAL PLAN

The current General Plan Land Use and Transportation Element includes policies and implementing measures that address the following areas:

- Roadway, pedestrian, and bicycle facilities linkage with neighborhood and services.
- Pedestrian-friendly spaces in new development.
- Level of service E or better for citywide roadways and intersections and required roadway improvements for development projects to address level of service issues.
- Minimization of the total vehicle miles traveled.
- Support for all forms of transportation (pedestrian, bicycle, transit, and vehicle) and safety.

In addition, the General Plan Housing Element, last adopted in 2014, contains the following policy:

Policy F.3: Continue a high quality of maintenance for public streets, rights-of-way, and recreational areas, and provide safe and accessible pedestrian, bike, and transit linkages (accessibility) between jobs, residences, transportation hubs, and goods and services.

CITY OF SUNNYVALE LAND USE AND TRANSPORTATION ELEMENT

The LUTE of the City of Sunnyvale General Plan includes goals, policies, and strategic actions that are relevant to transportation and circulation in the city of Sunnyvale. The following policies of the City of Sunnyvale's General Plan would be applicable to the project:

***Policy LT-3.5*:** Follow California Environmental Quality Act requirements, Congestion Management Program requirements, and additional City requirements when analyzing the transportation impacts of proposed projects and assessing the need for offsetting transportation system improvements or limiting transportation demand.

Policy LT-3.8: Prioritize safe accommodation for all transportation users over non-transport uses. As City streets are public spaces dedicated to the movement of vehicles, bicycles, and pedestrians, facilities that meet minimum appropriate safety standards for transport uses shall be considered before non-transport uses are considered.

***Policy LT-3.11*:** As they become available, use multimodal measures of effectiveness to assess the transportation system in order to minimize the adverse effect of congestion. Continue to use LOS to describe congestion levels. Use VMT analysis to describe potential environmental effects and impacts to the regional transportation system.

***Policy LT-3.14*:** Require roadway and signal improvements for development projects to improve multimodal transportation system efficiency.

Policy LT-3.27: Require appropriate roadway design practice for private development consistent with City standards and the intended use of the roadway.

CITY OF SUNNYVALE MUNICIPAL CODE

Municipal Code Chapter 10.60 Code sets forth the City's Transportation Demand Management program. Section 19.46.100 includes minimum and maximum requirements for off-street parking spaces. Section 19.46.150 establishes minimum requirements for bicycle parking (number and type of spaces).

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is typically set as a condition of approval on some development projects in Sunnyvale. TDM is a requirement for all businesses located in the Moffett Park Specific Plan area as well as for all developments requesting floor area ratios that exceed 35 percent, regardless of location. TDM may also be used to achieve certain voluntary incentives under the City's Green Building program at this location. The City focuses the objectives and monitoring of TDM programs on the reduction of peak-hour trips. This is to minimize congestion during the peak commute periods and to allow more flexibility in the types of TDM techniques that can be employed. For private developments, project sponsors can play an effective role in supporting the City's initiatives through the deployment of TDM programs.

TRANSPORTATION IMPACT FEES

Transportation impact fees are charged to new development to fund major transportation projects, including bicycle and pedestrian improvements necessary to support land use plans. The City's TIF program varies by area of the city (north of SR 237 and south of SR 237). The fees are charged to net new development (i.e., new residential units and increased commercial square footage). The existing development that remains would not be required to pay transportation impact fees.

Sunnyvale Bicycle Master Plan (SBMP)

Two of the purposes of the SBMP is to encourage the use of bicycles for transportation and recreation are to minimize air pollution and reduce energy consumption and traffic. Objectives of the plan include enhancing Sunnyvale's livability by supporting bicycling, ensure safe travel, and supporting cycling as a travel mode on an equal basis with motorized options. Within the MPSP, the SBMP notes a related action of establishing the West Channel as a pathway and connection to the Bay Trail. Other intents are to enable the overall usability and connectivity of bike paths within the MPSP and connections to off-site areas that make the use of bicycles more feasible for commuter needs.

4.1.3 STANDARDS OF SIGNIFICANCE

Significance Criteria and Thresholds

As part of AB 743, State CEQA Guidelines were recently updated and part of the update was a revision to the impact methodology for Transportation and Traffic. The update changed the analysis methodology from Level of Service (LOS) to Vehicle Miles Travelled (VMT). As of the adoption of the new guidelines, cities have two years to implement the new guidelines (July 1, 2020). The City has not yet adopted new threshold to address the revised guidelines. Pursuant to State CEQA Guideline 15064 Determining the Significance of the Environmental Effects Caused by a Project (b)(2) states, "Thresholds of significance, as

defined in Section 15064.7(a), may assist lead agencies in determining whether a project may cause a significant impact. When using a threshold, the lead agency should briefly explain how compliance with the threshold means that the project's impacts are less than significant. Compliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the project's environmental effects may still be significant." As in the case of the proposed project, and because formal thresholds related to the revised guidelines have not been adopted, the City has determined that the use of thresholds listed below is sufficient to fully disclose impacts associated with transportation and traffic. Accordingly, State CEQA Guidelines 15064.7 Thresholds of Significance subsection (b) states in part… "Lead agencies may also use thresholds on a case-by-case basis as provided in Section 15064(b)(2)."

SIGNAL WARRANTS

In order to determine whether traffic signals should be installed at currently unsignalized intersections, and to determine unsignalized intersections significance criteria, a CA MUTCD based traffic signal warrant analysis was completed. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an unsignalized intersection location. The CA MUTCD signal warrant criteria are based upon several factors including volume of vehicular and pedestrian traffic, location of school areas, frequency and type of collisions, etc. This TIA evaluated CA MUTCD based Peak-Hour-Volume-based Warrant 3 as a representative type of warrant analysis. Per CA MUTCD and City of Sunnyvale standards, right-turn volumes were excluded from signal warrant analysis. However, the CA MUTCD indicates that "the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." Therefore, even at locations that do meet one or more the CA MUTCD signal warrants, engineering studies and judgement should be considered/applied when determining whether or not a signal should be installed.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. New trips generated by the proposed project were estimated using rates from the Institute of Transportation Engineers Trip Generation Manual, 10th Edition. A six percent proximity to light rail stop reduction, a 5 percent financial incentives TDM program reduction, and a 1.5 percent project-funded dedicated shuttle TDM program reduction (for a total 12.5 percent reduction) were applied to the trip generation estimates, consistent with the VTA Trip Reduction Statement and the VTA Standard Trip Reduction Method. Trips from existing occupied buildings on the proposed project site were subtracted from the proposed project's trip generation. The proposed project is anticipated to generate a total of 8,319 daily trips, 775 AM peak hour trips (671 inbound, 104 outbound), and 828 PM peak hour trips (119 inbound, 709 outbound) under typical traffic demand conditions. *Table 4.1-9: Project Trip Generation Volumes* presents this information below.

It should be noted that the proposed project does not include the proposed utility plant as reflected in the table. The utility plant had been included and the original traffic study for the project as originally proposed. Since then; however, the utility plant was removed from the project plans, and as described in

the project description, power would be supplied by the new generation facility adjacent to the project along Borregas Avenue. Trip generation without the CUP would be reduced compared to the current project as proposed. Therefore, the trip generation considering use and operation of the CUP was used in order to present a conservative approach to the traffic analysis.

Table 4.1-9: Project Trip Generation Volumes

Land Use Category	ITE Code	Units	Quantity	Daily Trips	Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
					Total	In	Out	Total	In	Out
Proposed Office Buildings	710[1]	KSF[3]	1,041.890	10,305	1,006	865	141	1,056	169	887
12.5% Standard Trip Reduction4				*-1,288*	*-126*	*-108*	*-18*	*-132*	*-21*	*-111*
Net Total Proposed Office Buildings Trips				9,017	880	757	123	924	148	776
Proposed Utility Plant	170[2]	KSF	52.796	700	122	98	24	120	24	96
12.5% Standard Trip Reduction4				*-88*	*-15*	*-12*	*-3*	*-15*	*-3*	*-12*
Net Total Proposed Utility Plant Trips				612	107	86	21	105	21	84
Existing Office Building (1330-1338 Bordeaux Drive)	710[1]	KSF	-25.200	-279	-50	-43	-7	-31	-5	-26
6% Standard Trip Reduction[5]				*17*	*3*	*3*	*0*	*2*	*0*	*2*
Existing Light Industrial (1393-1395 Borregas Avenue)	110[1]	KSF	-50.880	-251	-27	-24	-3	-23	-3	-20
6% Standard Trip Reduction5				*15*	*2*	*1*	*1*	*1*	*0*	*1*
Existing Warehousing (1383 Borregas Avenue)	150[1]	KSF	-54.501	-132	-32	-26	-6	-34	-7	-27
6% Standard Trip Reduction5				*8*	*2*	*2*	*0*	*2*	*0*	*2*
Existing Manufacturing (360-364 & 370-376 Caribbean Drive)	140[2]	KSF	-125.643	-557	-78	-60	-18	-84	-26	-58
Existing Warehousing (380-382 Caribbean Drive)	150[1]	KSF	-54.000	-131	-32	-25	-7	-34	-9	-25
Net Total Existing Buildings Trips				-1,310	-212	-172	-40	-201	-50	-151
Net New Project Trip Generation				**8,319**	**775**	**671**	**104**	**828**	**119**	**709**

Notes:

1 The trip rates used for this ITE Code were based on ITE Trip Generation (10th Edition) fitted curve equations.

2 The trip rates used for this ITE Code were based on ITE Trip Generation (10th Edition) average rates.

3 KSF = 1,000 Sq. feet gross floor area

4 Standard Trip Reduction based on VTA TIA Guidelines. Strategies assumed: TDM Financial Incentives, TDM Shuttle Program, Employment within a 2,000-foot walk of a Light Rail Station.

5 Standard Trip Reduction based on VTA TIA Guidelines. Strategies assumed: Employment within a 2,000-foot walk of a Light Rail Station.

Lead Agency Thresholds

The City of Sunnyvale currently utilizes LOS D as the minimum acceptable LOS threshold for signalized intersections within the City during the AM and PM peak periods, except for intersections that have been designated as regionally significant, that have been designated as part of the Congestion Management Plan (CMP), or which are controlled by Santa Clara County. Caltrans controlled intersections within the City of Sunnyvale follow the City's LOS thresholds. Proposed project impacts at City (not regionally significant) signalized intersections would be considered significant if one of the following criteria is met:

IMPACTS ON INTERSECTION OPERATING CONDITIONS

For the purposes of this analysis, an impact on a City of Sunnyvale (not regionally significant) intersection is considered significant if implementation of the project would result in any of the following conditions:

- If the addition of project generated traffic to an intersection causes the AM or PM peak hour LOS of the intersection to degrade from an acceptable LOS D or better to an unacceptable LOS E or worse;
- If an intersection operates at an unacceptable AM or PM peak hour LOS E or worse without the addition of project generated traffic, and the addition of project generated traffic increases the average control delay for critical movements by four (4) or more seconds and increases the critical volume-to-capacity (V/C) ratio by 0.01 or more;
- If an intersection operates at an unacceptable AM or PM peak hour LOS E or worse without the addition of project generated traffic, and the addition of project generated traffic reduces the amount of average control delay for critical movements (i.e. a negative change in delay) and the project increases the critical V/C ratio by 0.01 or more.

The City of Sunnyvale currently utilizes LOS E as the minimum acceptable LOS threshold for signalized intersections in Sunnyvale that have been designated as regionally significant by the City, that have been designated as part of the CMP, or which are controlled by Santa Clara County. The City of Santa Clara currently utilizes LOS E as the minimum acceptable LOS threshold for signalized intersections in Santa Clara that have been designated as part of the CMP. Proposed project impacts at regionally significant City of Sunnyvale intersections, City of Sunnyvale and City of Santa Clara CMP intersections, and Santa Clara County operated intersections would be considered significant if one of the following criteria is met:

- If the addition of project generated traffic to an intersection causes the AM or PM peak hour LOS of the intersection to degrade from an acceptable LOS E or better to an unacceptable LOS F;
- If an intersection operates at an unacceptable AM or PM peak hour LOS F without the addition of project generated traffic, and the addition of project generated traffic increases the average control delay for critical movements by four (4) or more seconds and increases the critical volume-to-capacity (V/C) ratio by 0.01 or more;
- If an intersection operates at an unacceptable AM or PM peak hour LOS F without the addition of project generated traffic, and the addition of project generated traffic reduces the amount of

average control delay for critical movements (i.e. a negative change in delay) and the project increases the critical V/C ratio by 0.01 or more.

Regionally Significant Unsignalized City of Sunnyvale Intersections

The City of Sunnyvale currently utilizes LOS E as the minimum acceptable LOS threshold for unsignalized intersections in Sunnyvale that have been designated as regionally significant by the City. Impacts at regionally significant unsignalized City of Sunnyvale intersections would be considered significant if one of the following criteria is met:

- If an unsignalized intersection operates at an acceptable LOS (i.e. E or better) without the Project and degrades to an unacceptable LOS (i.e. LOS F) with the addition of Project traffic;
- If an unsignalized intersection operates at an unacceptable LOS (i.e. LOS F) without the Project, and the addition of Project traffic increases:
    - the average intersection delay by four (4) seconds or more, and the volume-to capacity (v/c) value by 0.01 or more for all-way stop-controlled intersections; or
    - the worst movement delay by four (4) seconds or more, and the critical volume-to capacity (v/c) value by 0.01 or more for side-street stop-controlled intersections.
- Intersection meets the warrant(s) for installation of a traffic signal as per the latest edition of California Manual on Uniform Traffic Control Devices (CA MUTCD), last updated April 2017.

IMPACTS TO FREEWAY RAMPS

A freeway ramp analysis was performed as part of this TIA in order to verify that the freeway ramps would have sufficient capacity to serve the Existing and Existing plus Project traffic volumes. Project impacts at freeway ramps would be considered significant if one of the following criteria is met:

- If the addition of project generated traffic to a freeway ramp causes the V/C ratio of the freeway ramp to exceed 1.0.
- If freeway ramp already has a V/C ratio of greater than 1.0 without the addition of project generated traffic, and the addition of project generated traffic increases the traffic volume on this ramp by more than one (1) percent of the capacity of the ramp.

IMPACTS TO FREEWAY SEGMENTS

According to the VTA Traffic Level of Service Analysis Guidelines, the VTA currently utilizes LOS E as the minimum acceptable LOS threshold for CMP freeway segments. Project impacts at CMP freeway segments would be considered significant if one of the following criteria is met:

- If the addition of project generated traffic to a CMP freeway segment causes the density-based LOS to degrade from an acceptable LOS E or better to an unacceptable LOS F;

- If CMP freeway segment operates at an unacceptable density-based LOS F without the addition of project generated traffic, and the addition of project generated traffic increases the traffic volume on this segment by more than one (1) percent of the capacity of the segment.

IMPACTS ON BICYCLE FACILITIES

Impacts on bicycle facilities are considered significant if implementation of the project would:

- Adversely affect existing or planned bicycle facilities,
- Result in unsafe conditions for bicyclists, or
- Fail to adequately provide for access by bicycles.

IMPACTS ON TRANSIT FACILITIES

Impacts on the transit system are considered significant if implementation of the project would:

- Adversely affect public transit operations, or
- Fail to adequately provide access to transit;
- Impacts on Emergency Services and Access

IMPACTS ON EMERGENCY SERVICES AND ACCESS ARE CONSIDERED SIGNIFICANT IF IMPLEMENTATION OF THE PROJECT WOULD:

- Substantially increase emergency response times, or
- Result in inadequate emergency access.

4.1.4 PROJECT IMPACTS AND MITIGATION

The LOS was evaluated for signalized, unsignalized, and freeway segments and ramps that could be affected by implementation of the proposed project. LOS thresholds were used to define the existing conditions of the intersections as well as to evaluate the effects the proposed project would have, if any, on those intersections. Vehicle trips that would be generated by the proposed project were calculated based on the trips generated by the existing uses subtracted from the proposed uses. Trips generation rates were used for the following land uses, General Office Building, Utility, General Light Industrial, Manufacturing, and Warehousing. *Table 4.1-9: Project Trip Generation Volumes*, above shows these calculations and the anticipated resultant AM and PM peak hour trips.

The proposed project is anticipated to generate a total of 8,319 daily trips, 775 AM peak hour trips (671 inbound, 104 outbound), and 828 PM peak hour trips (119 inbound, 709 outbound) under typical traffic demand conditions. These trips would be considered new (or incremental) trips on the City's immediate local circulation system. The generated trips were distributed to area roadways based on existing conditions traffic volumes and patterns, engineering judgment, distributions from recently approved

traffic studies for similar proposed developments in the MPSP area, and the proposed configuration and transportation elements of the proposed project.

IMPACT TRANS-1	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON INTERSECTION OPERATING CONDITIONS (INCLUDING UNSIGNALIZED INTERSECTIONS)? (LESS THAN SIGNIFICANT IMPACT)***

Existing Plus Project Intersection Operations

Existing Plus Project intersection operations are shown in *Table 4.1-10: Existing Plus Project Conditions Intersection Traffic Operations*. This analysis accounts for intersections and lane geometrics and controls and the driveway configurations that would be implemented as part of the proposed project compared to the current traffic conditions. Table 4.1-10 only provides a comparison to the existing traffic volumes and conditions.

Under the Existing Plus Project PM peak hour conditions, the Caribbean Parking Garage Driveway/Caribbean Drive intersection is projected to operate at an unacceptable LOS F when unsignalized. The Caribbean Parking Garage Driveway/Caribbean Drive intersection is a new intersection that would be constructed as part of the proposed project. As shown on the project site plan, the proposed project has been designed to include a new traffic signal at this new driveway location. Construction of the traffic signal at the Caribbean Parking Garage Driveway/Caribbean Drive intersection would result in the intersection meeting safety standards and result in traffic operations at an acceptable LOS B or better conditions. Additionally, this intersections would meet sight distance requirements to enhance safety. With the implementation of this design feature, potential Impacts are considered less than significant and no mitigation is required.

All other project study intersections (i.e. intersections 1 and intersections 3-27) are projected to operate at acceptable Existing Plus Project LOS D or better for City of Sunnyvale intersections and LOS E or better for Santa Clara County regionally significant, and CMP intersections during the AM and PM peak hours. The peak hour signal warrant under CA MUTCD 3 also is not projected to be met at any unsignalized intersections under Existing Plus Project AM and PM peak hour conditions. Therefore, impacts in this regard are less than significant and mitigation under these conditions for these intersections is not required.

Thus, with compliance with generally uniformly applied development policies, the project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Level of Significance After Mitigation:

With the incorporation of design features shown on the project site plan, the Caribbean Parking Garage Driveway/Caribbean Drive intersection is projected to operate at acceptable LOS B or better conditions. Therefore, impacts at this intersection are considered less than significant and no mitigation is required.

Table 4.1-10: Existing Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions			Existing plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
1	Mathilda Avenue / Mathilda Parking Garage Driveway[4]	OWSC	E	AM	-	-	-	9.7	A	No	0.018	0.1
				PM	-	-	-	10.9	B	No	0.139	0.8
2	Caribbean Parking Garage Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-	19.7	C	No	0.224	1.8
				PM	-	-	-	**70.5**	**F**	No	**1.122**	**23.7**
3	Caribbean NE Surface Lot Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-	8.8	A	No	0.009	0.0
				PM	-	-	-	11.8	B	No	0.096	0.4
4	Borregas Avenue / Caribbean Drive[4]	Signal	E	AM	33.0	C-	-	41.9	D	-	0.050	28.4
				PM	23.6	C	-	24.7	C	-	0.096	0.7
5	Borregas Avenue / Borregas NE Surface Lot Driveway	OWSC	D	AM	-	-	-	11.5	B	No	0.028	0.7
				PM	-	-	-	10.9	B	No	0.080	2.1
6	Borregas Avenue / Borregas Service Ingress Driveway	None	D	AM	-	-	-	8.2	A	No	0.004	0.1
				PM	-	-	-	7.7	A	No	0.002	0.0
7	Borregas Avenue / Borregas Service Egress Driveway	OWSC	D	AM	-	-	-	11.4	B	No	0.005	0.1
				PM	-	-	-	10.4	B	No	0.009	0.2
8	Borregas Avenue / Borregas Shuttle Driveway	OWSC	D	AM	-	-	-	10.9	B	No	0.010	0.1
				PM	-	-	-	9.7	A	No	0.008	0.1
9	Borregas Avenue / Caspian Court-Caspian Drive	TWSC	D	AM	13.2	B	No	13.9	B	No	0.006	-0.1
				PM	11.3	B	No	13.2	B	No	0.025	-0.5
10	Mathilda Avenue / 1st Avenue-Bordeaux Drive[4]	Signal	E	AM	34.5	C-	-	33.5	C-	-	0.017	0.2
				PM	39.2	D	-	39.6	D	-	0.081	1.1
11	Bordeaux Service Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	9.0	A	No	0.005	0.5
				PM	-	-	-	8.9	A	No	0.008	0.6
12	Bordeaux Shuttle Egress Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	8.8	A	No	0.006	0.3
				PM	-	-	-	8.7	A	No	0.006	0.3
13	Bordeaux Shuttle Ingress Driveway / Bordeaux Drive	None	D	AM	-	-	-	0.0	A	No	0.000	0.0
				PM	-	-	-	0.0	A	No	0.000	0.0
14	Bordeaux Drive / Java Drive	Signal	D	AM	30.0	C	-	30.1	C	-	0.003	0.0
				PM	31.3	C	-	31.2	C	-	0.003	0.1

Table 4.1-10: Existing Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions			Existing plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
15	Borregas Avenue / Java Drive	Signal	D	AM	35.2	D+	-	36.6	D+	-	0.013	-0.3
				PM	30.0	C	-	31.7	C	-	0.030	2.2
16	Geneva Drive / Java Drive	Signal	D	AM	30.2	C	-	26.1	C	-	0.155	-13.6
				PM	26.2	C	-	27.0	C	-	0.019	1.0
17	Crossman Avenue-SR 237 WB On-Ramp / Moffett Park Drive	Signal	D	AM	17.9	B	-	18.0	B	-	0.002	0.1
				PM	14.5	B	-	15.1	B	-	0.012	0.8
18	Java Drive-Fair Oaks Avenue / Fair Oaks Way-Kensington Place	Signal	D	AM	36.3	D+	-	36.7	D+	-	0.027	0.6
				PM	28.7	C	-	29.0	C	-	0.019	0.3
19	Fair Oaks Avenue / Ahwanee Avenue	Signal	D	AM	22.5	C+	-	22.8	C+	-	0.010	0.4
				PM	24.5	C	-	25.0	C	-	0.008	0.7
20	Fair Oaks Avenue / Caliente Drive	Signal	D	AM	16.0	B	-	16.1	B	-	0.009	0.2
				PM	17.5	B	-	17.7	B	-	0.008	0.4
21	Fair Oaks Avenue / Wolfe Road	Signal	D	AM	24.8	C	-	25.0	C	-	0.004	0.1
				PM	18.2	B-	-	18.3	B-	-	0.002	0.0
22	Geneva Drive / Caribbean Drive[4]	OWSC	E	AM	8.6	A	No	8.7	A	No	0.001	0.0
				PM	11.7	B	No	13.1	B	No	0.021	-0.1
23	Caribbean Drive / Twin Creeks[4]	Signal	E	AM	19.4	B-	-	21.5	C+	-	0.054	2.5
				PM	16.1	B	-	17.1	B	-	0.067	1.3
24	Caribbean Drive / Moffett Park Drive- Baylands Park[4]	Signal	E	AM	26.3	C	-	28.2	C	-	0.123	-6.4
				PM	30.3	C	-	31.5	C	-	0.063	1.6
25	Lawrence Expressway / Persian Drive- Elko Drive[4]	Signal	E	AM	26.2	C	-	26.1	C	-	0.022	-0.2
				PM	40.9	D	-	41.0	D	-	0.004	0.0
26	Great America Parkway / Tasman Drive[3] [4]	Signal	E	AM	41.5	D	-	41.9	D	-	0.008	0.8
				PM	44.8	D	-	44.9	D	-	0.004	0.1
27	Mathilda Avenue / Sunnyvale Saratoga Road - Talisman Drive[4]	Signal	E	AM	34.3	C-	-	34.6	C-	-	0.011	0.3
				PM	41.4	D	-	41.7	D	-	0.012	0.5

Table 4.1-10: Existing Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions			Existing plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay

Notes:
1. For OWSC (One-Way-Stop-Control) and TWSC (Two-Way-Stop-Control) intersections, "worst-case" movement delay is indicated. “Average” control delays (in seconds/vehicle) are indicated for signal-Control intersections.
2. Wrnt Met? = CA MUTCD based Peak-hour-Volume Warrant #3;
3. CMP Intersection(s);
4. Regionally significant intersection(s).

BOLD Indicates unacceptable level of Service
SHADED indicates a significant impact

Background Plus Project Intersection Operations

The Background Plus Project intersection operations were quantified using the projected traffic volumes, intersection lane geometrics and controls, and proposed driveways that would be constructed as part of the proposed project. In addition, likely conditions that would occur with traffic generated by approved but not yet constructed developments within the study area are included to this analysis. Background conditions are a near-term future condition that could reasonably represent traffic conditions in the study area when the proposed project is completed. *Table 4.1-11: Background Plus Project Conditions Intersection Traffic Operations*, illustrates the resulting Background Plus Project intersection LOS operations. Table 4.1-11 shows the projected background traffic conditions without project generated trips and associated intersection delays and LOS for comparison purposes. The table also shows the projected change in delay of critical movements and critical V/C ratio as a result of trips that would be generated by the proposed project combined with the anticipated background traffic.

As shown in Table 4.1-11, Intersection #26 - Great America Parkway/Tasman Drive is a signalized intersection and is projected to operate at unacceptable average intersection LOS F under the Background Plus Project AM and PM peak hour conditions. The Great America Parkway/Tasman Drive intersection is projected to operate at unacceptable Background Plus Project AM and PM peak hour LOS F conditions. However; the addition of project generated trips is not projected to increase the average delay of critical movements by four (4) or more seconds and increase the critical V/C ratio by 0.01 or more. Therefore, based on City of Santa Clara and VTA intersection traffic impact criteria, impacts at the Great America Parkway/Tasman Drive intersection is considered less than significant.

In addition, the Caribbean Parking Garage Driveway/Caribbean Drive would operate at unacceptable worse-case movement LOS F under Background Plus Project during the PM peak hour conditions. However, as discussed above, the proposed project has been designed to include a new traffic signal at this new driveway location. Construction of the traffic signal at the Caribbean Parking Garage Driveway/Caribbean Drive intersection would result in the intersection meeting safety standards and result in traffic operations at an acceptable LOS B or better conditions.

All of the remaining study intersections (intersections 1 and 3-25, and 27) are projected to operate at acceptable Background Plus Project LOS D or better for City of Sunnyvale intersections and LOS E or better for Santa Clara County, regionally significant, and CMP intersections during the AM and PM peak hour. CA MUTCD based peak hour signal warrant 3 is not projected to be met at any of the remaining study unsignalized intersections under Background Plus Project AM and PM peak hour conditions.

Thus, with compliance with generally uniformly applied development policies, the project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Level of Significance After Mitigation:

With the incorporation of traffic signal design features shown on the project site plan, the Caribbean Parking Garage Driveway/Caribbean Drive intersection is projected to operate at acceptable LOS B or better conditions. Therefore, impacts at this intersection are considered less than significant and no mitigation is required.

Table 4.1-11: Background Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions			Background Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
1	Mathilda Avenue / Mathilda Parking Garage Driveway[4]	OWSC	E	AM	-	-	-	9.9	A	No	0.019	0.1
				PM	-	-	-	11.5	B	No	0.151	0.7
2	Caribbean Parking Garage Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-	22.3	C	No	0.259	1.8
				PM	-	-	-	**133.1**	**F**	Yes	1.463	40.0
3	Caribbean NE Surface Lot Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-	8.8	A	No	0.010	0.0
				PM	-	-	-	12.4	B	No	0.103	0.4
4	Borregas Avenue / Caribbean Drive[4]	Signal	E	AM	46.1	D	-	67.8	E	-	0.050	34.7
				PM	25.1	C	-	26.8	C	-	0.096	1.4
5	Borregas Avenue / Borregas NE Surface Lot Driveway	OWSC	D	AM	-	-	-	12.0	B	No	0.029	0.7
				PM	-	-	-	11.2	B	No	0.083	2.0
6	Borregas Avenue / Borregas Service Ingress Driveway	None	D	AM	-	-	-	8.4	A	No	0.005	0.1
				PM	-	-	-	7.8	A	No	0.002	0.0
7	Borregas Avenue / Borregas Service Egress Driveway	OWSC	D	AM	-	-	-	11.9	B	No	0.005	0.1
				PM	-	-	-	10.6	B	No	0.009	0.2
8	Borregas Avenue / Borregas Shuttle Driveway	OWSC	D	AM	-	-	-	11.3	B	No	0.010	0.1
				PM	-	-	-	9.8	A	No	0.008	0.1
9	Borregas Avenue / Caspian Court- Caspian Drive	TWSC	D	AM	14.3	B	No	15.2	C	No	0.008	-0.1
				PM	11.9	B	No	13.9	B	No	0.028	-0.4
10	Mathilda Avenue / 1st Avenue-Bordeaux Drive[4]	Signal	E	AM	35.5	D+	-	34.9	C-	-	0.009	-0.2
				PM	40.7	D	-	40.8	D	-	0.081	1.2
11	Bordeaux Service Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	9.0	A	No	0.005	0.5
				PM	-	-	-	8.9	A	No	0.008	0.5
12	Bordeaux Shuttle Egress Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	8.8	A	No	0.006	0.2
				PM	-	-	-	8.7	A	No	0.006	0.2
13	Bordeaux Shuttle Ingress Driveway / Bordeaux Drive	None	D	AM	-	-	-	0.0	A	No	0.000	0.0
				PM	-	-	-	0.0	A	No	0.000	0.0

Table 4.1-11: Background Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions			Background Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
14	Bordeaux Drive / Java Drive	Signal	D	AM	33.6	C-	-	33.6	C-	-	0.003	-0.1
				PM	39.0	D	-	38.9	D+	-	0.003	0.3
15	Borregas Avenue / Java Drive	Signal	D	AM	37.8	D+	-	39.9	D	-	0.014	-0.1
				PM	30.5	C	-	32.3	C-	-	0.029	2.8
16	Geneva Drive / Java Drive	Signal	D	AM	27.8	C	-	28.2	C	-	0.029	0.7
				PM	36.3	D+	-	36.9	D+	-	0.019	0.7
17	Crossman Avenue-SR 237 WB On-Ramp / Moffett Park Drive	Signal	D	AM	21.1	C+	-	21.1	C+	-	0.001	0.0
				PM	17.6	B	-	18.0	B-	-	0.012	0.4
18	Java Drive-Fair Oaks Avenue / Fair Oaks Way-Kensington Place	Signal	D	AM	40.1	D	-	41.1	D	-	0.027	1.3
				PM	34.0	C-	-	35.0	D+	-	0.019	1.4
19	Fair Oaks Avenue / Ahwanee Avenue	Signal	D	AM	23.7	C	-	24.1	C	-	0.010	0.6
				PM	28.8	C	-	29.9	C	-	0.008	1.7
20	Fair Oaks Avenue / Caliente Drive	Signal	D	AM	16.7	B	-	16.8	B	-	0.010	0.4
				PM	19.3	B-	-	19.7	B-	-	0.008	0.6
21	Fair Oaks Avenue / Wolfe Road	Signal	D	AM	26.3	C	-	26.6	C	-	0.005	0.0
				PM	18.9	B-	-	19.0	B-	-	0.003	0.0
22	Geneva Drive / Caribbean Drive[4]	OWSC	E	AM	8.7	A	No	8.8	A	No	0.002	0.0
				PM	13.5	B	No	15.8	C	No	0.047	0.0
23	Caribbean Drive / Twin Creeks[4]	Signal	E	AM	22.5	C+	-	28.3	C	-	0.054	6.7
				PM	17.2	B	-	18.7	B-	-	0.067	1.9
24	Caribbean Drive / Moffett Park Drive-Baylands Park[4]	Signal	E	AM	29.5	C	-	35.7	D+	-	0.049	8.3
				PM	31.4	C	-	33.6	C-	-	0.063	2.8
25	Lawrence Expressway / Persian Drive-Elko Drive[4]	Signal	E	AM	25.8	C	-	25.2	C	-	0.022	-0.1
				PM	42.4	D	-	42.7	D	-	0.003	0.2
26	Great America Parkway / Tasman Drive[3,4]	Signal	E	AM	**106.5**	**F**	-	**107.6**	**F**	-	0.000	0.1
				PM	**168.8**	**F**	-	**169.5**	**F**	-	0.005	1.7

Table 4.1-11: Background Plus Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Background Conditions			Background Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
27	Mathilda Avenue / Sunnyvale Saratoga Road - Talisman Drive[4]	Signal	E	AM	38.3	D+	-	39.0	D	-	0.010	0.9
				PM	55.0	E+	-	58.0	E+	-	0.012	4.1

Notes:
1. For OWSC (One-Way-Stop-Control) and TWSC (Two-Way-Stop-Control) intersections, "worst-case" movement delay is indicated. “Average” control delays (in seconds/vehicle) are indicated for signal-Control intersections.
2. Wrnt Met? = CA MUTCD based Peak-hour-Volume Warrant #3;
3. CMP Intersection(s);
4. Regionally significant intersection(s);

BOLD indicates unacceptable level of service;
SHADED indicates a significant impact.

IMPACT TRANS-2	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON FREEWAY SEGMENT OPERATIONS?*** ***(LESS THAN SIGNIFICANT IMPACT)***

This analysis evaluated 10 study freeway segments under AM and PM peak hour conditions. The freeway segment volumes were developed by estimating how many peak hour trips the proposed project would add to each freeway segment. The project trip generation values and trip distribution percentages were used and added to the existing freeway segment counts to determine the potential impacts to the respective freeway segments. Project generated traffic was assigned to HOV lanes using HOV percentages calculated for each segment from existing freeway counts. *Table 4.1-12: With Proposed Project Freeway Segment Traffic Operations*, presents the projected study freeway segment densities, number of project generated trips added to each segment, and LOS that would occur under the proposed project.

As shown in Table 4.1-12, the following freeway segments are already operating at unacceptable levels and are projected to operate at unacceptable density-based LOS F under the proposed project for either AM or PM peak hour conditions, or both:

- Eastbound SR 237 between Maude Avenue and US HWY 101 during the PM peak hour.
- Westbound SR 237 between Maude Avenue and US HWY 101 during the PM peak hour.
- Eastbound SR 237 between US HWY 101 and Mathilda Avenue during the PM peak hour.
- Westbound SR 237 between US HWY 101 and Mathilda Avenue during the AM and PM peak hours.
- Eastbound SR 237 between Mathilda Avenue and Fair Oaks Avenue during the PM peak hour.
- Westbound SR 237 between Mathilda Avenue and Fair Oaks Avenue during the AM and PM peak hours.
- Eastbound SR 237 between Fair Oaks Avenue and Lawrence Expressway during the PM peak hour.
- Westbound SR 237 between Fair Oaks Avenue and Lawrence Expressway during the AM and PM peak hours.
- Eastbound SR 237 between Lawrence Expressway and Great America Parkway during the PM peak hour.
- Westbound SR 237 between Lawrence Expressway and Great America Parkway during the AM peak hour.
- Southbound US HWY 101 between Great America Parkway and Lawrence Expressway during the AM peak hour.
- Northbound US HWY 101 between Great America Parkway and Lawrence Expressway during the PM peak hour.

- Southbound US HWY 101 between Lawrence Expressway and Fair Oaks Avenue during the AM peak hour.
- Northbound US HWY 101 between Lawrence Expressway and Fair Oaks Avenue during the PM peak hour.
- Southbound US HWY 101 between Fair Oaks Avenue and Mathilda Avenue during the AM peak hour.
- Northbound US HWY 101 between Fair Oaks Avenue and Mathilda Avenue during the PM peak hour (mixed-flow lanes only).
- Southbound US HWY 101 between Mathilda Avenue and SR 237 during the AM peak hour.
- Northbound US HWY 101 between Mathilda Avenue and SR 237 during the PM peak hour.
- Southbound US HWY 101 between SR 237 and Moffett Boulevard during the AM peak hour.
- Northbound US HWY 101 between SR 237 and Moffett Boulevard during the PM peak hour (mixed-flow lanes only).

In addition, the following previously listed freeway segments, under the addition of project generated trips, are projected to increase the traffic volume by more than one (1) percent of the capacity of the segment:

- Westbound SR 237 between Maude Avenue and US HWY 101 during the PM peak hour;
- Westbound SR 237 between US HWY 101 and Mathilda Avenue during the PM peak hour;
- Eastbound SR 237 between Lawrence Expressway and Great America Parkway during the PM peak hour;
- Westbound SR 237 between Lawrence Expressway and Great America Parkway during the AM peak hour;
- Southbound US HWY 101 between Great America Parkway and Lawrence Expressway during the AM peak hour;
- Northbound US HWY 101 between Great America Parkway and Lawrence Expressway during the PM peak hour.

Impact 3.4.7 of the LUTE Draft EIR analyzes the impacts of implementing the LUTE to contribute to significant traffic operational impacts to intersections and freeway segments under year 2035 conditions as compared to existing conditions. The analysis concluded that the LUTE would result in substantial contributions to a number of intersections and freeway segments within the City and the region resulting in unacceptable levels of service (LOS). These operational impacts would also significantly impact transit travel times (Impact 3.4.2). The Draft EIR identifies a number of mitigation measures to reduce these impacts; however, because implementation of some of these mitigation measures is uncertain or infeasible some impacts would remain significant and unavoidable (mitigation measures MM 3.4.7a and MM 3.4.7b were determined to be feasible). The analysis also identifies LUTE policies (e.g., Policy LT-3.5,

LT-3.6, LT-3.7, LT- 3.13, and LT-11.4) that constitute elements of a Transportation Demand Management (TDM) program, which is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle trips to help relieve traffic congestion. Implementation of a TDM program helps proposed developments to meet City requirements for reducing vehicle trips by 20 to 35 percent, depending on the proposed land use and its location. The LUTE EIR concluded that Impact 3.4.2 and 3.4.7 were significant and unavoidable for project and cumulative conditions.

The Municipal Code Chapters 10.60 and 19.45 set forth the City's TDM program. Section 19.45.030(b)(2) requires a TDM for development seeking bonus FAR through the Green Building Program that reduces trips to no more than the trips produced by development at the generally permitted FAR in the applicable zoning district. Section 19.46.100 includes minimum and maximum requirements for off-street parking spaces. Section 19.46.150 establishes minimum requirements for bicycle parking (number and type of spaces). The project would implement a TDM program. The project's preliminary TDM program would result in reducing project vehicle trips to the number trips that would be generated by an office/R&D development at the project site at an intensity of 0.66 FAR, which is an intensity permitted by the existing zoning.

The project would have a transportation impact on freeway segments based on VTA freeway segment traffic impact criteria. The applicant shall pay fee's to fund select improvements listed in the VTA's Valley Transportation Plan (VTP) 2040. The funds shall be a fair share contribution to pay toward the cost of the identified express lane program along US HWY 101. However, application of generally applicable development policies would reduce this impact to less than significant, and therefore the impact is not peculiar. With compliance with uniformly applied development policies, the project would not have no (1) impacts not analyzed in the LUTE EIR, (2) new or more significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (3) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. As such, none of the conditions identified in Section 15162 of the State CEQA Guidelines that would result in a new significant impact have been identified. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Level of Significance After Mitigation: Significant and Unavoidable.

Although the applicant would make a fair share contribution, capacity improvements on freeways are outside of the City of Sunnyvale's jurisdiction. Therefore, the freeway impacts would be significant and unavoidable.

Table 4.1-12: With Proposed Project Freeway Segment Traffic Operations

#	Fwy	Segment	Dir	Pk Hr	Capacity (vphpl)[1]		Lanes		Existing Peak Density (pc/mi/ln)[4]		Existing Peak LOS		Trips Added from Project		Existing Plus Project Density (pc/mi/ln)		Existing Plus Project LOS		% of Capacity[5]	
					MF[2]	HOV[3]	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV
1	SR 237	Between Maude Avenue and US HWY 101	EB	AM	4,400	-	2	-	33.6	-	D	-	103	0	34.5	-	D	-	2.3%	-
				PM	4,400	-	2	-	**94.7**	-	**F**	-	19	0	**96.1**	-	**F**	-	0.4%	-
			WB	AM	4,400	-	2	-	39.8	-	D	-	17	0	40.0	-	D	-	0.4%	-
				PM	4,400	-	2	-	**75.0**	-	**F**	-	108	0	**78.4**	-	**F**	-	2.5%	-
2	SR 237	Between US HWY 101 and Mathilda Avenue	EB	AM	4,400	-	2	-	51.2	-	E	-	205	0	54.0	-	E	-	4.7%	-
				PM	4,400	-	2	-	**83.2**	-	**F**	-	38	0	**85.3**	-	**F**	-	0.9%	-
			WB	AM	4,400	-	2	-	**61.2**	-	**F**	-	19	0	**61.6**	-	**F**	-	0.4%	-
				PM	4,400	-	2	-	**69.7**	-	**F**	-	128	0	**73.3**	-	**F**	-	2.9%	-
3	SR 237	Between Mathilda Avenue and Fair Oaks Avenue	EB	AM	4,400	1,650	2	1	32.4	26.0	D	C	0	0	32.4	26.0	D	C	0.0%	0.0%
				PM	4,400	1,650	2	1	**84.3**	**64.7**	**F**	**F**	0	0	**84.3**	**64.7**	**F**	**F**	0.0%	0.0%
			WB	AM	6,900	-	3	-	**76.4**	-	**F**	-	4	0	**76.5**	-	**F**	-	0.1%	-
				PM	6,900	-	3	-	**79.6**	-	**F**	-	20	0	**80.1**	-	**F**	-	0.3%	-
4	SR 237	Between Fair Oaks Avenue and Lawrence Expressway	EB	AM	4,400	1,650	2	1	27.9	16.2	D	B	0	0	27.9	16.2	D	B	0.0%	0.0%
				PM	4,400	1,650	2	1	**82.0**	**84.4**	**F**	**F**	0	0	**82.0**	**84.4**	**F**	**F**	0.0%	0.0%
			WB	AM	4,400	1,650	2	1	**79.0**	**83.3**	**F**	**F**	1	1	**79.0**	**83.4**	**F**	**F**	0.0%	0.1%
				PM	4,400	1,650	2	1	**78.4**	**65.7**	**F**	**F**	1	0	**78.4**	**65.7**	**F**	**F**	0.0%	0.0%
5	SR 237	Between Lawrence Expressway and Great America Parkway	EB	AM	4,400	1,650	2	1	32.0	15.3	D	B	13	4	32.1	15.4	D	B	0.3%	0.2%
				PM	4,400	1,650	2	1	**77.4**	**74.0**	**F**	**F**	70	38	**80.1**	**76.5**	**F**	**F**	1.6%	2.3%
			WB	AM	4,400	1,650	2	1	**66.2**	**58.3**	**F**	**F**	66	37	**67.7**	**59.6**	**F**	**F**	1.5%	2.2%
				PM	4,400	1,650	2	1	32.0	8.9	D	A	16	3	32.2	9.0	D	A	0.4%	0.2%

Table 4.1-12: With Proposed Project Freeway Segment Traffic Operations

#	Fwy	Segment	Dir	Pk Hr	Capacity (vphpl)[1]		Lanes		Existing Peak Density (pc/mi/ln)[4]		Existing Peak LOS		Trips Added from Project		Existing Plus Project Density (pc/mi/ln)		Existing Plus Project LOS		% of Capacity[5]	
					MF[2]	HOV[3]	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV
6	US HWY 101	Between Great America Parkway and Lawrence Expressway	SB	AM	6,900	1,650	3	1	**72.4**	**79.3**	F	F	79	24	**74.1**	**81.2**	**F**	**F**	1.1%	1.5%
				PM	6,900	1,650	3	1	25.8	9.0	C	A	17	2	25.9	9.0	C	A	0.2%	0.1%
			NB	AM	6,900	1,650	3	1	32.1	16.3	D	B	14	3	32.1	16.3	D	B	0.2%	0.2%
				PM	6,900	1,650	3	1	**87.9**	**83.0**	**F**	**F**	79	29	**91.6**	**86.6**	**F**	**F**	1.1%	1.8%
7	US HWY 101	Between Lawrence Expressway and Fair Oaks Avenue	SB	AM	6,900	1,650	3	1	**72.5**	**67.7**	**F**	**F**	31	11	**73.1**	**68.2**	**F**	**F**	0.4%	0.7%
				PM	6,900	1,650	3	1	25.1	8.9	A	A	7	1	25.1	8.9	C	A	0.1%	0.1%
			NB	AM	6,900	1,650	3	1	25.1	9.0	A	A	4	1	25.1	9.0	C	A	0.1%	0.1%
				PM	6,900	1,650	3	1	**75.0**	**87.4**	**F**	**F**	11	3	**75.3**	**87.8**	**F**	**F**	0.2%	0.2%
8	US HWY 101	Between Fair Oaks Avenue and Mathilda Avenue	SB	AM	6,900	1,650	3	1	**60.4**	**70.1**	**F**	**F**	12	3	**60.5**	**70.2**	**F**	**F**	0.2%	0.2%
				PM	6,900	1,650	3	1	27.6	9.2	D	A	2	0	27.7	9.2	D	A	0.0%	0.0%
			NB	AM	6,900	1,650	3	1	26.3	8.9	D	A	0	0	26.3	8.9	D	A	0.0%	0.0%
				PM	6,900	1,650	3	1	**62.3**	**55.4**	**F**	**E**	0	0	**62.3**	55.4	**F**	E	0.0%	0.0%
9	US HWY 101	Between Mathilda Avenue and SR 237	SB	AM	6,900	1,650	3	1	**58.4**	**58.7**	**F**	**F**	0	0	**58.4**	**58.7**	**F**	F	0.0%	0.0%
				PM	6,900	1,650	3	1	32.3	23.7	D	C	0	0	32.3	23.7	D	C	0.0%	0.0%
			NB	AM	6,900	1,650	3	1	32.3	13.4	D	B	0	0	32.2	13.4	D	B	0.0%	0.0%
				PM	6,900	1,650	3	1	**63.7**	**58.4**	**F**	**F**	0	0	**63.7**	**58.4**	**F**	**F**	0.0%	0.0%
10	US HWY 101	Between SR 237 and Moffett Boulevard	SB	AM	6,900	1,650	3	1	**58.9**	**62.5**	**F**	**F**	13	4	**59.1**	**62.6**	**F**	**F**	0.2%	0.2%
				PM	6,900	1,650	3	1	43.8	9.8	D	A	97	11	44.6	10.0	D	A	1.4%	0.7%
			NB	AM	6,900	1,650	3	1	54.1	24.5	E	C	80	23	54.9	24.8	E	C	1.2%	1.4%
				PM	6,900	1,650	3	1	**67.1**	53.7	**F**	E	13	6	**67.3**	53.8	**F**	E	0.2%	0.4%

Table 4.1-12: With Proposed Project Freeway Segment Traffic Operations

#	Fwy	Segment	Dir	Pk Hr	Capacity (vphpl)[1]		Lanes		Existing Peak Density (pc/mi/ln)[4]		Existing Peak LOS		Trips Added from Project		Existing Plus Project Density (pc/mi/ln)		Existing Plus Project LOS		% of Capacity[5]	
					MF[2]	HOV[3]	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV	MF	HOV

Notes: Freeway volumes were obtained from the 2017 CMP Monitoring and Conformance Report (Santa Clara Valley Transportation Authority, April 23, 2017)
1. Freeway segment capacities were based on VTA TIA Guidelines. Units are vehicles per hour per lane.
2. MF = Mixed Flow
3. HOV = High Occupancy Vehicle
4. Density = Peak Hour Segment Volume / (Peak Hour Speed * Number of Lanes). Units are passenger cars per mile per lane.

BOLD indicates unacceptable level of service

SHADED indicates a significant impact.

IMPACT TRANS-3	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON FREEWAY RAMP OPERATIONS?*** ***(LESS THAN SIGNIFICANT IMPACT)***

A total of 20 study freeway ramps were analyzed for the proposed project for both AM and PM peak hour conditions to determine potential impacts at these locations. Potential impacts to freeway ramp volumes were developed by estimating how many peak hour trips the proposed project would add to each freeway ramp. This was done using the trip generation values and trip distribution percentages prescribed to the proposed project. These trips were then added to the existing freeway ramp counts to determine the total volume.

As shown in *Table 4.1-13, With Proposed Project Freeway Ramp Traffic Operations*, all study freeway ramps are projected to operate at acceptable V/C ratios of less than 1.0 under the proposed project AM and PM peak hour conditions. All project study freeway ramps are projected to operate at acceptable V/C ratio standards under Existing Traffic Conditions and Existing Plus Project AM and PM peak hour conditions. Therefore, the proposed project is not anticipated to have any significant impacts on project study freeway ramps under the proposed project.

Table 14.1-13: With Proposed Project Freeway Ramp Traffic Operations

Ramp		Type	Peak Hour	Lanes				Existing Peak		Trips Added by Project	Existing Plus Project Peak		% of Capacity[4]
				Mixed	HOV	Meter	Capacity[1]	Volume[2]	V/C[3]	Volume	Volume	V/C	
1	SR 237 Westbound On- Ramp from Mathilda Avenue	Diamond	AM	1	-	-	2,000	326	0.16	17	343	0.17	0.9%
			PM	1	-	-	2,000	760	0.38	110	870	0.44	5.5%
2	SR 237 Westbound Off- Ramp to Mathilda Avenue	Diamond	AM	1	-	-	2,000	866	0.43	2	868	0.43	0.1%
			PM	1	-	-	2,000	680	0.34	1	681	0.34	0.1%
3	SR 237 Eastbound Off- Ramp to Mathilda Avenue	Diamond	AM	2	-	-	4,100	824	0.20	205	1029	0.25	5.0%
			PM	2	-	-	4,100	361	0.09	38	399	0.10	0.9%
4	SR 237 Eastbound On- Ramp from Mathilda Avenue	Diamond	AM	1	-	-	2,000	636	0.32	0	636	0.32	0.0%
			PM	1	-	-	2,000	875	0.44	0	875	0.44	0.0%
5	SR 237 Westbound On- Ramp from Crossman Avenue/ Moffett Park	Diagonal	AM	1	-	-	2,000	122	0.06	2	124	0.06	0.1%
			PM	1	-	-	2,000	180	0.09	19	199	0.10	1.0%
6	SR 237 Westbound On- Ramp from Southbound Caribbean Drive	Diagonal	AM	1	-	ON	720	396	0.55	0	396	0.55	0.0%
			PM	1	-	ON	720	216	0.30	0	216	0.30	0.0%
7	SR 237 Westbound Off- Ramp to Northbound Caribbean Drive	Diagonal	AM	1	-	-	2,000	103	0.05	101	204	0.10	5.1%
			PM	1	-	-	2,000	650	0.33	18	668	0.33	0.9%
8	SR 237 Eastbound On- Ramp from Southbound Lawrence Expressway	Loop	AM	1	-	-	1,800	306	0.17	17	323	0.18	0.9%
			PM	1	-	ON	550	420	0.76	108	528	0.96	19.6%
9	SR 237 Eastbound Off- Ramp to Northbound Lawrence Expressway	Loop	AM	1	-	-	1,800	102	0.06	0	102	0.06	0.0%
			PM	1	-	-	1,800	45	0.02	0	45	0.02	0.0%
10	US HWY 101 Northbound On- Ramp from Southbound Lawrence Expressway	Diagonal	AM	1	1	ON	1,140	505	0.44	0	505	0.44	0.0%
			PM	1	1	-	2,900	349	0.12	0	349	0.12	0.0%

Table 14.1-13: With Proposed Project Freeway Ramp Traffic Operations

Ramp		Type	Peak Hour	Lanes				Existing Peak		Trips Added by Project	Existing Plus Project Peak		% of Capacity[4]
				Mixed	HOV	Meter	Capacity[1]	Volume[2]	V/C[3]	Volume	Volume	V/C	
11	US HWY 101 Northbound Off-Ramp to Lawrence Expressway	Diagonal	AM	2	-	-	3,500	1136	0.32	61	1197	0.34	1.7%
			PM	2	-	-	3,500	1309	0.37	11	1320	0.38	0.3%
12	US HWY 101 Southbound off-ramp to Lawrence Expressway	Diagonal	AM	2	-	-	3,500	811	0.23	0	811	0.23	0.0%
			PM	2	-	-	3,500	1754	0.50	1	1755	0.50	0.0%
13	US HWY 101 Southbound on Ramp from Southbound Expressway	Loop	AM	1	1	-	2,700	346	0.13	12	358	0.13	0.4%
			PM	1	1	ON	1,180	206	0.17	96	302	0.26	8.1%
14	US HWY 101 Northbound On-Ramp from Fair Oaks Avenue	Diagonal	AM	1	1	-	2,900	1041	0.36	0	1041	0.36	0.0%
			PM	1	1	-	2,900	435	0.15	0	435	0.15	0.0%
15	US HWY 101 Northbound Off-Ramp to Fair Oaks Avenue	Diagonal	AM	1	-	-	2,900	448	0.22	26	474	0.24	1.3%
			PM	1	-	-	2,900	1063	0.53	6	1069	0.53	0.3%
16	US HWY 101 Southbound On-Ramp from Southbound Fair Oaks Avenue	Loop	AM	1	1	-	2,700	340	0.13	5	345	0.13	0.2%
			PM	1	1	ON	1,240	198	0.16	14	212	0.17	1.1%
17	US HWY 101 Southbound Off-Ramp to Northbound Fair Oaks Avenue	Loop	AM	1	-	-	1,900	213	0.11	0	213	0.11	0.0%
			PM	1	-	-	1,900	94	0.05	0	94	0.05	0.0%
18	US HWY 101 Northbound Off-ramp to Northbound Mathilda	Diagonal	AM	1	-	-	2,000	334	0.17	15	349	0.17	0.8%
			PM	1	-	-	2,000	262	0.13	2	246	0.13	0.1%
19	US HWY 101 Southbound on-ramp from Southbound Mathilda Avenue	Loop	AM	1	1	-	2,700	178	0.07	0	178	0.07	0.0%
			PM	1	1	ON	1,480	720	0.49	0	720	0.49	0.0%
20	US HWY 101 Northbound On-Ramp from Moffett Park Drive	Diagonal	AM	1	-	-	2,000	374	0.19	14	388	0.19	0.7%
			PM	1	-	-	2,000	218	0.11	88	306	0.15	4.4%

IMPACT TRANS-4	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON PROJECT ACCESS DRIVEWAYS, THROAT LENGTHS, AND SIGHT DISTANCE?*** ***(LESS THAN SIGNIFICANT IMPACT)***

The following discussion regarding operational design features included as part of the proposed project, is provided for informational purposes.

Driveway throat length is defined as the distance from the outer edge of the travel way of the intersecting roadway to the first point along the driveway at which there are conflicting vehicular traffic movements. Three primary factors should be considered that are important to the internal design of the project include[1]:

- Sufficient length for ingress vehicles to react to conflicts (ingress stopping sight distance),
- Sufficient length to avoid spillback onto public roads (ingress queuing), and
- Sufficient length to avoid spillback into the internal circulation (egress queuing).

To reduce potential conflicts and provide for adequate traffic storage and stacking at the proposed project's ingress and egress points, the project includes the following design features:

- The project site plans show minimum throat length to provide for deceleration and turn pockets at the following driveways: #1 Mathilda Parking Garage Driveway (310 feet), #2 Caribbean Parking Garage Driveway (475 feet), #3 Caribbean Northeast Surface Lot Driveway (110 feet), and #5 Borregas Northeast Surface Lot Driveway (115 feet).
- The project site plans show turn pockets at the following locations and of the listed lengths:
  - Caribbean Parking Garage Driveway/Caribbean Drive:
  - Eastbound right-turn storage pocket – 150 feet in length;
  - Westbound left-turn storage pocket – 225 feet in length,
  - Caribbean Northeast Surface Lot Driveway – 175 feet in length,
  - The Caribbean Parking Garage Driveway shall be placed at least 960 feet east of the end of the Mathilda Avenue /Caribbean Drive curve.
- The project restricts on-street parking within the intersection sight distance of all project driveways, and parking is restricted along project frontage on Bordeaux Drive.

With the incorporation of the project design features listed above, no project operational conflicts or new impacts have been identified and no mitigation is required.

[1] Per the National Highway Cooperative Highway Resarch Program (NCHRP) Report 659 section on "Minimum Length of Driveway Throat"

IMPACT TRANS-5	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON TRANSIT FACILITIES?*** ***(LESS THAN SIGNIFICANT IMPACT)***

Transit vehicle delay was considered for transit routes that operate within the study area. Transit vehicles for the transit routes in the study area are expected to use the shared right-of-way with other motorists. Since the proposed project is anticipated to increase the vehicle delay at study intersections, transit vehicle delay could increase. It should be noted that there are no impact thresholds for transit delay and therefore the transit delay is provided for informational purposes only.

Buses operating on study roadway facilities could experience increased delay due to the addition of project related trips to study intersections. The seven (7) bus routes that would serve the proposed project and travel through multiple proposed project study area intersections include Routes 26, 55, 120, 121, 122, 321, and 328.

These seven (7) bus routes run through study area intersections on Java Drive, Crossman Avenue, Caribbean Drive, Lawrence Expressway, Tasman Drive, and Fair Oaks Avenue. The AM and PM peak hour delay experienced by each bus route within the project study area was determined by summing the average peak hour delays for each study intersection movement that a bus would use along its route upon implementation of the proposed project. The proposed project would result in a maximum increase in transit vehicle delay that is projected to be 5.9 seconds (Route 121 under PM peak hour conditions), and a maximum increase in transit vehicle delay for Route 121 under AM peak hour conditions is projected to be 38.1 seconds.

Overall, increases in transit delay would be negligible, and in some cases due to the changes in the circulation system, transit times would be reduced. These impacts are considered less than significant, and no mitigation is required.

IMPACT TRANS-6	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON BICYCLE FACILITIES?*** ***(LESS THAN SIGNIFICANT IMPACT)***

The City's proposed Caribbean Drive Parking and Trail Access Enhancements project would install a one-way multi-use path and new access point to the Bay Trail along the north side of Caribbean Drive. The proposed project would make numerous bicycle path improvements including a multi-use path along the western and northern side of the project site fronting Mathilda Avenue and Caribbean Drive which would have accessed to the proposed Caribbean Parking Garage Driveway (where a signal is recommended), and two-way bicycle use east of the proposed Caribbean Parking Garage Driveway, which would increase safety. Proposed internal bicycle paths would increase the on-site areas that could be used by bicycle travel. This would provide project employees and the public with multiple routes through the site to access the buildings, parking lots, and surrounding local roadways. In addition, both Class I and Class II

bicycle parking for employees would be provided. Bicyclists would be able to use existing or planned Class I/II bicycle facilities or multi-use paths on Mathilda Avenue, Borregas Avenue, Caribbean Drive, and Crossman Avenue to travel between the proposed project and the Lockheed Martin Transit Center, Lockheed Martin Station, and nearby bus stops.

Lastly, the proposed project would improve connectivity between and through the project site to the Bay Trail via the proposed multi-use paths along Caribbean Drive, the pedestrian crosswalks at the Borregas Avenue / Caribbean Avenue intersection and which would be installed at the recommended signalized Caribbean Parking Garage Driveway / Caribbean Drive intersection, and the new access point to the Bay Trail on the north side of Caribbean Drive proposed as part of the City's Caribbean Drive Parking and Trail Access Enhancements project. Therefore, the proposed project would be considered a benefit to bicycle access and no impacts would occur.

IMPACT TRANS-7	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON PEDESTRIAN FACILITIES?*** ***(LESS THAN SIGNIFICANT IMPACT)***

The proposed project would result in improvements to the available pedestrian facilities on the project site. The proposed project includes substantial improvements throughout the project site that would not only enhance on site pedestrian resources but increase connectivity within the MPSP and surrounding areas. Among the proposed improvement is a proposed northerly crossing of West Caribbean Drive at the Caribbean Parking Garage Driveway/Caribbean Drive intersection near the VW's West Channel. The mid-block crossing would be joined with a signalized intersection and provide cyclists and pedestrians with direct connectivity between the project site, the local roadway system south of Caribbean Drive, the existing trail along the West Channel, and the Bay Trail located north of Caribbean Drive. Overall, the proposed project would result in beneficial impacts related to pedestrian facilities.

Level of Significant After Mitigation: Less than significant.

IMPACT TRANS-8	***WOULD THE PROPOSED PROJECT RESULT IN IMPACTS ON EMERGENCY SERVICES AND ACCESS?*** ***(LESS THAN SIGNIFICANT IMPACT)***

The project site is located in the MPSP which is an existing urban area and is close to emergency services. The project site design includes numerous access points that would provide adequate emergency vehicle ingress and egress to and from the project site. Interior pathways have been designed to accommodate oversized and heavy emergency vehicles. Additionally, the proposed project has been be designed to City of Sunnyvale standards to accommodate turning requirements for fire trucks. Project intersections would operate at an acceptable LOS within the project site in case of an evacuation event and would not conflict with the City of Sunnyvale policies and standards. Lastly, one of the interior bridge crossing over the West

Channel would be constructed to accommodate emergency vehicles and improve emergency access between the 100 Caribbean and 200 Caribbean addresses. This impact would be less than significant.

4.1.5 CUMULATIVE IMPACTS

Cumulative conditions traffic volumes were developed by adding trips generated by nearby approved but not constructed and pending developments to growth rated existing conditions traffic volumes. Approved and pending projects were obtained from City of Sunnyvale and City of Santa Clara. As per City of Sunnyvale policy, projects that were designated as approved or pending on the list of approved and pending projects, that consisted of land uses larger than 20 residential units or 10,000 square-feet of office/commercial space, and which were located within or nearby the project study area were selected to be a part of cumulative conditions volumes.

Net new trips from approved developments within the project vicinity were obtained from Background conditions. Net new trips from the pending developments within the vicinity of the proposed project study area were either obtained from approved traffic studies or environmental documents for the development (when available) or estimated using typical ITE Trip Generation Manual 10th Edition rates and City of Sunnyvale and VTA trip reduction guidelines/ targets. Trips were then assigned to the study area network using existing traffic volume patterns and available planning documents. Cumulative traffic volumes were obtained by applying a 1.5% per year growth rate to Existing traffic volumes and adding the assigned pending development trips and approved development trips.

CUMULATIVE PLUS PROJECT INTERSECTION OPERATIONS

Intersection Operations

Cumulative impacts from the proposed project on intersection operations were quantified using the Cumulative Plus Project traffic volumes, the background intersection lane geometrics and controls, and the proposed project driveway configurations. *Table 4.1-14: Cumulative Plus Project Conditions Intersection Traffic Operations* shows the cumulative intersection LOS operations, the intersection delays, and LOS for comparison purposes The table also provides the projected change in delay of critical movements and critical V/C ratio caused by the addition of project generated trips. The projected change in delay of critical movements and critical V/C ratio were reported for use in identifying significant impacts.

As shown, Intersection #2 Caribbean Parking Garage Driveway/Caribbean Drive unsignalized intersection is projected to operate at unacceptable worst-case movement LOS F under the cumulative plus proposed project PM peak hour conditions. In addition, the CA MUTCD based peak hour signal warrant 3 is projected to be met and would require mitigation to reduce impacts.

Under this scenario, three (3) other signalized intersections are projected to operate at unacceptable average intersection LOS E or F under cumulative project conditions for AM and/or PM peak hour conditions. These intersections include the following:

#19 - Fair Oaks Avenue / Ahwanee Avenue – The Fair Oaks Avenue / Ahwanee Avenue intersection is projected to operate at unacceptable PM peak hour LOS E under cumulative conditions. However; the addition of project generated trips is not projected to increase the average delay of critical movements by four (4) or more seconds and increase the critical V/C ratio by 0.01 or more. Therefore, based on City of Sunnyvale intersection traffic impact criteria, the cumulative project impact at the Fair Oaks Avenue/Ahwanee Avenue intersection would be less than significant.

#26 - Great America Parkway / Tasman Drive – The Great America Parkway / Tasman Drive intersection is projected to operate at unacceptable AM and PM peak hour LOS F cumulative conditions. However; the addition of project generated trips is not projected to increase the average delay of critical movements by four (4) or more seconds and increase the critical V/C ratio by 0.01 or more. Therefore, based on City of Santa Clara and VTA intersection traffic impact criteria, the proposed project impact at the Great America Parkway / Tasman Drive intersection would be less than significant.

#27 - Mathilda Avenue / Sunnyvale Saratoga Road-Talisman Drive – The Mathilda Avenue / Sunnyvale Saratoga Road - Talisman Drive intersection is projected to operate at unacceptable PM peak hour LOS F cumulative conditions. The addition of project generated trips is projected to increase the average delay of critical movements by four (4) or more seconds and increase the critical V/C ratio by 0.01 or more. Therefore, based on City of Sunnyvale intersection traffic impact criteria, the impacts of the proposed project at the Mathilda Avenue/Sunnyvale Saratoga Road - Talisman Drive intersection is projected to be significant in this regard.

There is no feasible mitigation to reduce this impact to less than significant. To reduce impacts, restriping of the westbound approach to a two left-turn lane and one shared-left through-right lane would be needed to improve cumulative operations to an acceptable LOS for PM peak hour conditions. This improvement; however, is not considered feasible as it would require signal timing changes that would disrupt the current signal coordination of the Mathilda Avenue-Sunnyvale Saratoga Road corridor and create new and additional significant traffic impacts along the corridor. There is no other feasible mitigation that is available to reduce this impact because this project is located in a developed urban area and there is limited right-of-way available to add capacity to the intersection. Per Chapter 3.50 of the Sunnyvale Municipal Code, the proposed project would be required to pay the City's Transportation Impact Fee (TIF). The purpose of the TIF is to help provide adequate transportation-related improvements to serve cumulative development within the city. However, with payment of the fee, the impact at the intersection would remain. Therefore, this impact would be significant and unavoidable.

All of the remaining study intersections (i.e. intersections 1, 3-18, 20-25) are projected to operate at acceptable LOS under cumulative project conditions. LOS conditions would be LOS D or better for City of Sunnyvale intersections and LOS E or better for Santa Clara County, regionally significant, and CMP intersections) during the AM and PM peak hour. CA MUTCD based peak hour signal warrant 3 is not projected to be met at any of the remaining study unsignalized intersections under Cumulative Plus Project AM and PM peak hour conditions.

Freeway Segments and Ramps

Cumulative impacts to freeway ramps and segments would be the same as discussed in Impact Trans-2, above. Contribution of the proposed project in this regard would be not change impacts to the cumulative conditions. Impacts would remain significant and unavoidable. The same mitigation is proposed but the mitigation would not reduce impacts to less than significant. There is no additional feasible mitigation to further reduce the cumulative effects.

Cumulative impacts to freeway ramps would be the same as discussed in Impact Trans-3, above. A total of 20 freeway ramps were analyzed for the proposed project for both AM and PM peak hour conditions to determine potential impacts at these locations. As shown in Table 4.1-13, all study freeway ramps are projected to operate at acceptable V/C ratios of less than 1.0 under the proposed project AM and PM peak hour conditions. Contribution by the proposed project in this regard would not change impacts to the cumulative conditions. Therefore, the proposed project is not anticipated to make a substantial cumulative contribution to project study freeway ramp operations.

Table 4.1-14: Cumulative Plus Proposed Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Conditions			Cumulative Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
1.	Mathilda Avenue / Mathilda Parking Garage Driveway[4]	OWSC	E	AM	-	-	-	9.9	A	No	0.019	0.1
				PM	-	-	-	12.1	B	No	0.162	0.7
2.	Caribbean Parking Garage Driveway (right-in right-out) / Caribbean Drive[4]	OWSC	E	AM	-	-	-	25.7	D	No	0.302	1.7
				PM	-	-	-	**212.5**	**F**	Yes	1.861	58.3
3.	Caribbean NE Surface Lot Driveway / Caribbean Drive[4]	OWSC	E	AM	-	-	-	8.9	A	No	0.010	0.0
				PM	-	-	-	13.1	B	No	0.112	0.4
4.	Borregas Avenue / Caribbean Drive[4]	Signal	E	AM	44.7	D	-	68.8	E	-	0.049	23.8
				PM	26.0	C	-	28.4	C	-	0.096	2.3
5.	Borregas Avenue / Borregas NE Surface Lot Driveway	OWSC	D	AM	-	-	-	12.9	B	No	0.031	0.6
				PM	-	-	-	11.7	B	No	0.085	1.9
6.	Borregas Avenue / Borregas Service Ingress Driveway	None	D	AM	-	-	-	8.6	A	No	0.005	0.1
				PM	-	-	-	7.9	A	No	0.002	0.0
7.	Borregas Avenue / Borregas Service Egress Driveway	OWSC	D	AM	-	-	-	12.7	B	No	0.006	0.1
				PM	-	-	-	11.0	B	No	0.010	0.2
8.	Borregas Avenue / Borregas Shuttle Driveway	OWSC	D	AM	-	-	-	12.0	B	No	0.012	0.1
				PM	-	-	-	10.0	A	No	0.008	0.1
9.	Borregas Avenue / Caspian Court-Caspian Drive	TWSC	D	AM	16.3	C	No	17.3	C	No	0.010	-0.1
				PM	12.9	B	No	15.4	C	No	0.036	-0.3
10.	Mathilda Avenue / 1st Avenue-Bordeaux Drive[4]	Signal	E	AM	41.8	D	-	40.8	D	-	0.009	-0.3
				PM	41.2	D	-	41.7	D	-	0.081	1.2
11.	Bordeaux Service Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	9.1	A	No	0.005	0.4
				PM	-	-	-	9.0	A	No	0.008	0.4
12.	Bordeaux Shuttle Egress Driveway / Bordeaux Drive	OWSC	D	AM	-	-	-	8.9	A	No	0.006	0.2
				PM	-	-	-	8.7	A	No	0.006	0.2
13.	Bordeaux Shuttle Ingress Driveway / Bordeaux Drive	None	D	AM	-	-	-	0.0	A	No	0.000	0.0
				PM	-	-	-	0.0	A	No	0.000	0.0

Table 4.1-14: Cumulative Plus Proposed Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Conditions			Cumulative Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LO S	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
14.	Bordeaux Drive / Java Drive	Signal	D	AM	38.4	D+	-	38.1	D+	-	0.004	-0.2
				PM	44.7	D	-	44.5	D	-	0.003	0.5
15.	Borregas Avenue / Java Drive	Signal	D	AM	40.7	D		38.5	D+	-	-0.025	1.5
				PM	31.9	C		33.1	C-	-	0.034	2.3
16.	Geneva Drive/Java Drive	Signal	D	AM	29.7	C		30.3	C	-	0.029	0.9
				PM	37.3	D+		38.1	D+	-	0.019	1.0
17.	Crossman Avenue-SR-237 WB On-ramp / Moffett Park Drive	Signal	D	AM	21.3	C+		21.4	C+	-	0.000	0.0
				PM	17.9	B		18.4	B-	-	0.012	0.5
18.	Java Drive-Fair Oaks Avenue / Fair Oaks Way – Kensington Place	Signal	D	AM	43.9	D		46.1	D	-	0.026	2.9
				PM	44.2	D		47.7	D	-	0.019	4.7
19.	Fair Oaks Avenue / Ahwanee Avenue	Signal	D	AM	29.5	C		29.4	C	-	0.014	0.8
				PM	**65.1**	**E**		**68.4**	**E**	-	0.008	4.6
20.	Fair Oaks Avenue / Caliente Drive	Signal	D	AM	20.0	C+		20.6	C+	-	0.010	0.9
				PM	33.5	C-		35.5	D+	-	0.008	3.0
21.	Fair Oaks Avenue / Wolfe Road	Signal	D	AM	28.0	C		28.4	C	-	0.001	0.4
				PM	21.8	C+		21.9	C+	-	0.003	0.1
22.	Geneva Drive / Caribbean Drive[4]	OWSC	E	AM	8.8	A	No	8.9	A	No	0.001	0.0
				PM	15.2	C	No	18.2	C	No	0.057	0.1
23.	Caribbean Drive / Twin Creeks[4]	Signal	E	AM	36.7	D+		62.1	E	-	0.054	29.1
				PM	18.6	B-		20.9	C+	-	0.067	2.9
24.	Caribbean Drive / Moffett Park Drive – Baylands Park[4]	Signal	E	AM	45.8	D		68.4	E	-	0.050	30.3
				PM	44.0	D		55.5	E+	-	0.063	14.1
25.	Lawrence Expressway / Persian Drive – Elko Drive [4]	Signal	E	AM	31.6	C		31.8	C	-	0.022	0.4
				PM	46.1	D		46.6	D	-	0.004	0.2
26.	Great America Parkway / Tasman Drive [3 4]	Signal	E	AM	**122.0**	**F**		**124.0**	**F**	-	0.001	0.1
				PM	**155.3**	**F**		**156.2**	**F**	-	0.005	1.9

Table 4.1-14: Cumulative Plus Proposed Project Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Cumulative Conditions			Cumulative Plus Project Conditions				
					Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	D in Critical V/C	D in Critical Delay
27.	Mathilda Avenue / Sunnyvale Saratoga Road – Talisman Drive [4]	Signal	E	AM	56.3	E+		59.5	E+	-	0.010	3.9
				PM	**90.4**	**F**		**95.4**	**F**	-	0.012	6.8

Transit Delays

Under the proposed project cumulative conditions, the maximum increase in transit vehicle delay is projected to be 74.5 seconds (Route 121 under AM peak hour conditions). It should be noted that some changes in transit delay were calculated to be reduced from current conditions. In other words, some transit times would be inadvertently benefited by the proposed project. This is due to how the analysis software calculates delay and should be interpreted as showing that the proposed project trips would not increase transit delay.

Level of Significance After Mitigation: Less than significant.

4.1.6 CONCLUSION

The proposed project would result in increased vehicle trips from implementation of the proposed project that would utilize existing area roadways to travel to and from the project site. Some of the area roadways, intersections, and freeway segments, and on-ramps are operating at unacceptable or reduced LOS. The addition of project related vehicles would worsen some of these conditions and exacerbate intersections, roadways, and segments that are already operating at unacceptable levels. The proposed project includes roadway and signalization improvements as well as mitigation to reduce these impacts. The proposed project also includes a robust multi-modal transportation network with new shuttles, new bicycle and pedestrian pathways, and links to existing mass transit including light rail and local bus routes. These project elements and design features would reduce some of the demand on area roadways and freeways. Nonetheless, the proposed project would result in significant and unavoidable impacts to six freeway segments under the Proposed Project + Background scenario that were previously analyzed and addressed under the LUTE EIR, and cumulative project impacts at the Mathilda Avenue/Sunnyvale Saratoga Road - Talisman Drive intersection.

References:

Valley Transportation Authority, 2017. 2017 Congestion Management Program Document. Available: http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf Accessed: July 19, 2019.

Wood Rodgers, 2019. Final Transportation Impact Analysis 100-200 West Caribbean Drive.

5.0 GROWTH INDUCING IMPACTS

5.1 GROWTH INDUCING IMPACTS

For the purposes of this project, a growth-inducing impact is considered significant if the project would:

> Cumulatively exceed official regional or local population projections;
>
> Directly induce substantial growth or concentration of population. The determination of significance shall consider the following factors: the degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds planned levels in local land use plans; or
>
> Indirectly induce substantial growth or concentration of population (i.e., introduction of an unplanned infrastructure project or expansion of a critical public facility (road or sewer line) necessitated by new development, either of which could result in the potential for new development not accounted for in local general plans).

The proposed project would implement redevelopment within a 40.4-acre area of a larger strategic plan for growth within the Moffett Park area. The Moffett Park Specific Plan (MPSP) sets the framework for the growth and redevelopment in the areas and is consistent with the City of Sunnyvale General Plan (SGP). The SGP is the guiding development document for the City as a whole while the MPSP is specific to Moffett Park and the proposed project area. The proposed project is consistent with both the vision and development guidance provided by the SGP and MPSP. While both documents anticipated and plan for growth and development within the MPSP and city overall, the growth-inducing effects of the proposed project were not speficially analyzed in the EIRs for those plans; however, the more recent City of Sunnyvale Land Use and Transportation Element Environmental Impact Report (LUTE EIR) published in 2016 evaluated the overall anticipated growth within the City including the anticipated build-out of the Moffett Park area consistent with the MPSP. This included the accounting of Moffett Park accommodating up to 7.6 million square feet of net new nonresidential development (total buildout of 24.33 million square feet). The LUTE EIR concluded that use of the area for new Class A office development consisting of corporate headquarters, office, and research/development facilities for high technology companies they growth would be consistent with the approved MPSP and it is the primary location for the next wave of economic growth in Silicon Valley.

The proposed project would occur within a site with existing structures and hardscape within the MPSP. The site is surrounded by existing infrastructure and existing development. Development of the project would not require upgrades to the existing sanitary sewer or off-site storm drain lines that directly serve the project site. As part of the proposed project; however, the on-site storm water drainage system would be upgraded to include 29 drainage management areas (DMAs) with a low impact development (LID) system with landscaped areas and other biofiltration media to control and treat stormwater. In addition,

the project does not include expansion of the existing infrastructure that would facilitate growth in the project area or other areas of the City.

Development of the project site would place two new five-story commercial buildings and a new parking structure in an area characterized by the commercial and industrial uses. The area was predominantly used by the companies associated with aerospace, military, and the aeronautical industry, but over the last decade has been transitioning and being repurposed for use by the technology industry common to the Silicon Valley. The proposed project would be compatible with the neighboring land uses and would not pressure adjacent properties to redevelop with new, different, or unplanned land uses.

Development of the proposed project would result in a net increase in jobs Citywide. The jobs/housing balance for the City and Santa Clara County was discussed in the LUTE EIR. The LUTE utilized jobs to number of employed residents because some households have no workers while others have multiple workers. This is a more relevant measure of the ratio than the number of jobs measures against the number of homes. Based on this measure, Association of Bay Area Governments (ABAG) estimated indicated that in 2010 jobs-to employed residents was approximately 1.0, which was similar to the County wide ratio of 1:1. Over the next three decades, ABAG projections indicated the ratio in Sunnyvale may increase to 1:1. Therefore, considering the relatively small increase in jobs the proposed project would generate compared to the existing number of jobs in the County as of May 2019 is 1,159,200 [California Employment Development Department (EDD), 2019] and City employment generated by City business was 100,242 (City of Sunnyvale,2018). Therefore, the increase in jobs from the project would have a negligible effect on the overall jobs/housing imbalance within the City. Additionally, the growth is planned for and the project would have a less than significant growth inducing impacts.

5.2 REMOVAL OF A BARRIER TO GROWTH

Several types of projects can induce population growth by removing obstacles that prevent growth. An example of this type of project would be the expansion of a wastewater treatment plant, which would accommodate additional sewer connections within the service area, and therefore would allow future construction and growth. The proposed project would not result in or require the construction or expansion of such public facilities. In addition, the proposed project is an infill project in a developed, urban area, which, if implemented, would not remove any other obstacles that could encourage growth in an adjacent, undeveloped area.

5.3 ECONOMIC GROWTH

The proposed project would require demolition and construction and would require a maximum anticipated number of employees at a single time of up to 20 workers. Employees would commute to the site on a daily basis. In comparison to the City and County overall, the anticipated workforce represents a minimal increase in employment during the construction period. Construction workers are expected to travel to the project site from various locations throughout the Santa Clara valley, and the number of workers expected to relocate to the surrounding area is anticipated to be insignificant due to cost of living, cost of relocation, and the relative short-term period of employment. Because construction would be

temporary, occurring over a relatively short period, it is not likely that it would require substantial numbers of people to relocate to the County or foster local economic growth. Therefore, the proposed project would not create a temporary or substantial increase in the demand for construction worker housing

Development of the proposed project would have fiscal impacts on the City similar to other technology redevelopment projects occurring in the region. The proposed project would generate revenue in the form of property taxes and fees, which would be available to the County to fund public services. Additionally, revenue for capital improvements would also be generated by the proposed project directly through various forms of development fees, including but not limited to fire, facilities, traffic, schools, and parks.

The fiscal impact of the proposed project is anticipated to be a net benefit for the City as it would have a generally positive impact on the County General Fund over the life of the project. At the estimated buildout date, the proposed project is anticipated through the payment of fees, taxes, and other payment for other needed services, to generate a net surplus in revenue to the City. Nonetheless, while the increased revenue and moderate demand for new services would foster some economic growth, it is not anticipated to be at a level that would encourage or facilitate economic effects that could result in other activities (such as installation of infrastructure improvements) that could significantly affect the environment.

5.4 ESTABLISHMENT OF A PRECEDENT SETTING ACTION

The current SGP land use designation for the are in which the project is located is the MPSP. The MPSP designates the project site as MP-I (Industrial) and MP-TOD (Transit Oriented Development). The proposed project would not require a Zone Amendment to or Specific Plan Amendment to be consistent with any of the planning layers or zones. The proposed project, however, is requesting to utilize approximately 141,191 sf from the MPSP development reserve. This type of requests is not uncommon and, as discussed on Section 3.0, Project Description and 4.11 Land Use and Planning, in the IS "The Development Reserve was established to encourage redevelopment of lower intensity uses to the targeted primary uses of the MPSP." The development reserve was originally allocated for a total of 5.4 million square feet of which was allocated to the development reserve of which approximately 105,766 square feet remains at the time pf preparation of this document. The use of the Development Reserve will require submission of Major Moffett Park Special Permit application or a Major Moffett Park Design Review Permit, which would ensure sound project design and staff review of the project verifying it meets all development standards. Therefore, although the proposed project would require this consideration, the request is consistent with the intent of the MPSP and does not set any precedent.

5.5 ENCROACHMENT ON OPEN SPACE

The proposed project is located in the MPSP area which is characterized by commercial and industrial development. The proposed project includes demolition and reuse of a site that is completely developed with 13 existing structures, parking lots, landscaping, and approximately 1,000 feet of the Valley Water's

West Channel. The proposed project would result in the removal of the existing impervious surfaces and replacement with two five story buildings, parking garage, and surface parking lot. The proposed project also includes improvements to the West Channel. The proposed project would decrease the existing impervious surface by approximately 45% and install landscaping water with recycled water, and 29 drainage management areas (DMAs) with low impact development (LID) biofiltration areas. The West Channel would be improved by establishment of additional wetland areas, revegetation with native vegetation, and laying back of the drainage slopes to enable establishment of the vegetation and use by wildlife.

The nearest open space to the proposed project is the southern boundary of the San Francisco Bay approximately 0.25 miles to the north. The proposed project does not include any components that would encroach into this area. Therefore, the proposed project would not result in any impacts to any open space area.

5.6 CONCLUSION

The proposed project would indirectly induce population and housing growth in the region as a result of economic development. The anticipated increase in population; however, would not be considered substantial because it would be within the range of employment and population growth projected for the City of Sunnyvale and the County of Santa Clara. In addition, the population growth generated by the proposed project would not remove obstacles to growth, tax existing public facilities and services, or encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The moderate growth that may be induced by the implementation of the proposed project, either directly or indirectly, is anticipated to be only a portion of the buildout of the projects currently under consideration or review for the surrounding area, including the buildout of the MPSP area and, would be consistent with adopted growth projections for the region.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

6.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that "an Environmental Impact Report (EIR) shall describe a range of reasonable alternatives to the project, or to the location of the project. The alternatives should feasibly attain most of the basic objectives of the project, avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives" (State CEQA Guidelines §15126.6). The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]). The EIR is not required to consider every conceivable alternative to a project but is guided by a rule of reason. An EIR is not required to consider alternatives which are infeasible. Section 15126.6[d]) states that the EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. Key provisions of the State CEQA Guidelines on alternatives (§15126.6(a) through (f)) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- "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" (§15126.6(b)).
- "The specific alternative of 'no project' shall also be evaluated along with its impact" (§15126.6(e)). "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (§15126.6(e)(2)).
- "The range of alternatives required in an EIR is governed by a 'rule of reason' that require the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (§15126.6(f)).
- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can

reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)" (§15126.6(f)(1)).

- For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (§15126.6(f)(2)(A)).
- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (§15126.6(f)(3*)).*

The lead agency is responsible for selecting this range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. This Chapter describes four Alternatives to the proposed project. These alternatives include the No Project Alternative and the Single Building Alternative. The two alternatives are discussed in more detail below.

Alternatives were developed based on the following: information provided by the project applicant, and the City; input received from comments on the NOP; and feedback received from members of the community. At first a larger group of alternatives was developed and after an initial review, the alternative was either retained for further analysis or discarded. Among the factors that may be taken into account when addressing the feasibility of alternatives, as described in Section 15126.6(f)(1) of the CEQA Guidelines, are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the project proponent could reasonably acquire, control, or otherwise have access to an alternative site. An EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote or speculative, and that would not achieve the basic project objectives. The alternatives that were selected for additional consideration were chosen in accordance with the above listed CEQA Guidelines, represent a reasonable range of alternatives, are feasible, and will encourage discussion in a manner to foster meaningful public participation and informed decision making.

PROJECT OBJECTIVES

As discussed above, one of the evaluation criteria for the alternative discussion is the ability of a specific alternative to attain most of the basic project objectives. The basic project objectives as listed in Chapter 3.0, Project Description are as follows:

- Develop a project that is consistent with the existing Moffett Park Specific Plan (MPSP).
- Develop a project that is consistent and compatible with the existing land uses in the surrounding area.
- Develop an office campus of sufficient size to accommodate Google's space needs.
- Develop an office campus of sufficient density to take advantage of the site's proximity to existing transit facilities.
- Construct office buildings that accommodate proposed project amenities and efficient/effective employee collaboration space.

- Provide adequate parking spaces to accommodate the parking needs of Google employees and visitors;
- Implement transportation demand management programs (TDM) to minimize vehicle trips and encourage pedestrian and bicycle use.
- Develop an environmentally sensitive office campus with LEED Gold certification as required by the City's green building requirements.
- Construct office buildings that reduce impervious surfaces and maximize on-site open space.
- Construct improvements to the portion of the Valley Water's (VW) West Channel to facilitate greater connectivity and public access.
- Be responsive to VW designs for the West Channel to comply with applicable flood protection requirements and improve flood protection.
- Realign the VW's West Channel to enhance its natural habitat value.
- Develop a project that would create construction jobs and employment opportunities in the City of Sunnyvale.
- Develop a project of sufficient density to support the proposed project amenities and to be financially feasible.

Per §15126.6 (b) of the State CEQA Guidelines, the discussion of alternatives shall focus on alternatives to a project, or its location that are capable of avoiding or substantially lessening significant impacts of a project, even if the alternatives would impede to some degree the attainment of the project objectives or would be more costly. This alternatives analysis; therefore, focuses on project alternatives that could avoid or substantially lessen environmental impacts of the proposed project related to the environmental categories listed in Appendix G of the State CEQA Guidelines.

This project alternatives discussion consists of two project alternatives:

- Alternative 1: No Project Alternative. As previously stated, the No Project Alternative is a required alternative that evaluates what potential impacts would or would not occur if the proposed project does not proceed and no action is taken with regard to the proposed development.
- Alternative 2: Single-Building Alternative. Alternative 2 was developed to focus on reducing traffic impacts on the surrounding roadway network and reducing those traffic volumes on intersections that were identified as significant and unavoidable.

6.2 ALTERNATIVES CONSIDERED BUT REJECTED

The analysis of alternatives to the proposed project must also address "whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location" (CEQA Guidelines, § 15126.6(f)(2)(A). Only those locations that would avoid or substantially lessen any of the significant effects of the project need be considered. If no feasible alternative locations

exist, the agency must disclose the reasons for this conclusion (Section 15126.6(f)(2)(B). In this case, while it is feasible that an alternative site could be selected for the project, an alternative site would entail either the same or new significant environmental effects as the proposed project site. For example, development of the project on any suitable alternative site in or around the City may not avoid or substantially lessen the project's air quality or GHG impacts because emission related impacts would occur no matter where the development is located. Additionally, these impacts could be worse if the alternative site is located further away from a major transportation corridor, existing transit stations, or in areas with existing unacceptable traffic levels. Moreover, an alternative site that is adjacent to undeveloped lands would likely result in greater impacts on aesthetics and utilities than the proposed project site, which is surrounded by existing commercial and industrial development.

Furthermore, viable alternative locations for the project are limited to those that would feasibly attain most of the project objectives. The Moffett Park Specific Plan was adopted to specifically accommodate this type of development within the City of Sunnyvale to take advantage of redevelopment opportunities and existing transportation infrastructure. Other appropriately located and sufficient sized lots in the Moffett Park Specific Plan that would satisfy the project objectives would have the same of similar impacts as the proposed project. The proposed project would offer an office campus development in proximity to major transportation corridors as well as existing VTA transit stations. Other properties within the City of an adequate size, are not in suitable locations (specifically adjacent to US Highway 101, SR 237, and VTA transit lines), and would not be feasible to acquire within a reasonable time frame. Key objectives of the project include implementing the Moffett Park Specific Plan, develop a project consistent and compatible with the existing land uses in the surrounding area, and develop a project of sufficient density to take advantage of the site's proximity to existing transit facilities. For these reasons, an alternative location was rejected from further analysis.

In developing the proposed project and alternatives, consideration was given to the intensity of development that could meet project objectives and reduce significant impacts. Significant impacts as a result from new traffic generated by the proposed project would result from the intensity of the development proposed.

6.3 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

Consistent with State CEQA Guidelines §15126.6, the No Project Alternative assumes that the existing land uses and condition of the project site at the time the NOP was published (May 2019) would continue to exist without changes. The setting of the project site at the time the NOP was published is described as part of the existing conditions in Chapter 4 of this TEIR with respect to individual environmental issues and forms the baseline of the impact assessment of the proposed project.

The No Project Alternative assumes the proposed project would not be implemented and land uses and other improvements would not be constructed. The existing project site would remain unaltered and in its current condition. All infrastructure improvements including water, wastewater, drainage, and roadway improvements identified in the proposed project would not be constructed. Because the project site would remain unchanged, few or no environmental impacts would occur. This alternative serves as

the baseline against which the effects of the proposed project and other project alternatives are evaluated. Under this alternative none of the proposed improvements would occur. The project would remain undeveloped.

- None of the impacts associated with the project would occur.
- No economic growth as per the Moffett Park Specific Plan would occur.
- No improvement to the West Channel and environmental enhancements of biological resources or functionality would occur.
- Increases in vehicular traffic would not occur.

NO PROJECT ALTERNATIVE COMPARED TO PROJECT IMPACTS

Transportation and Traffic

The No Project Alternative would have no impact on traffic operations, transit, or pedestrian facilities as no new transportation demand would occur. The proposed project would result in a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive and significant and unavoidable Existing Plus Project impacts along six project study area freeway segments by project-generated traffic. Relative to the project, impacts would be of lesser magnitude under the No Project Alternative because it would not generate any new transportation demands.

Other Project Impacts

The No Project Alternative would also have reduced impacts on the following issue areas discussed in the Initial Study Checklist.

Air Quality

Under this alternative, short-term construction and long-term operational air emissions would not occur as no construction would take place, no project operations would be established, and no project-related traffic or stationary source emissions would be generated by the new structures. Although the proposed project as mitigated would not result in significant emissions of air quality pollutants, the air quality impacts associated with the No Project Alternative would be less than the proposed project.

Biological Resources

Under the No Project Alternative, the site would not be developed with an office campus and avoid potential impacts to biological resources, including trees and the Sunnyvale West Channel. Direct impacts to biological resources that would result from the proposed project would not occur under the No Project Alternative; therefore, impacts on biological resources would be less than the proposed project.

Cultural Resources and Tribal Cultural Resources

Under the No Project Alternative, no impacts would occur with respect to existing and/or undiscovered cultural resources because ground disturbance from the construction of the proposed project and

supporting infrastructure would not occur. However, even in the undisturbed state, if unknown cultural resource sites exist, they will remain vulnerable to human disturbance or destruction. In addition, it is possible that cultural resources sites may also be altered over time due to weather conditions. If these sites are not fully documented, information from these sites could be lost. Nonetheless, the potential for direct impacts to cultural resources associated with the No Project alternative are less than the proposed project.

Geology/Soils

Because no development would occur under this alternative, soil disturbance associated with grading and building activities would not occur. No new buildings, landscaping, utilities, or other infrastructure would be constructed on the project site, thus, there would be no impacts associated with landslides, soil stability, or slopes as would occur under the proposed project. Therefore, compared to the proposed project, geology and soil impacts would be eliminated under this alternative.

Greenhouse Gas Emissions

Under the No Project Alternative, greenhouse gas generation would remain the same as it's current condition with the existing office buildings. The No Project Alternative would not change any of the existing uses or the emissions of greenhouse gases. As a result, no new greenhouse gas generation would occur compared to the proposed project.

Hazards and Hazardous Materials

Under the No Project Alternative, the existing environmental conditions, including those that may be defined as either adverse or significant, would remain. Existing groundwater monitoring for hazardous materials would continue to be implemented under existing management practices. Under the No Project Alternative no soils would be excavated or moved onsite and no buildings would be demolished. Impacts would be less than the proposed project.

Hydrology and Water Quality

The No Project Alternative would avoid potential short-term and long-term impacts to water quality because grading and construction activities would not occur. Under the No Project Alternative, the existing conditions would remain, however, no new water treatment measures would be implemented and improved landscaped areas to serve as bioretention areas would not be constructed. Potential impacts to downstream and other waters would be less than those impacts identified under the proposed project.

Land Use

The No Project Alternative would have no impacts to land use as the project site would remain in its current state and existing land uses would remain. Continuation of the current use of the land would not conflict with any land use plan or policy, or conflict with any habitat or community conservation plan. Impacts in this regard would be the same as the proposed project.

Noise

With no new office development occurring onsite, no new noise would be generated by construction, building operations, or traffic generated by the proposed campus. Hence, any noise-sensitive land uses in the vicinity of the project site would not experience any change in noise levels. Therefore, short-term and long-term noise impacts would be less when compared to that of the proposed project.

Energy Conservation

This Alternative would result in no increase in energy use because of the site would remain in its current condition. As a result, energy use would be less compared to the proposed project.

Population and Housing

The No Project Alternative would have no impacts to population and housing within the City. Under the No Project Alternative there would be no employment growth, and no increased demand for additional housing. Impacts would be less compared to the proposed project.

Public Services

Under the No Project Alternative, the existing demand on public services would remain in its current status. The No Project Alternative would not redevelop the proposed project site; therefore, there would not be an increased demand for public services including fire protection and emergency medical services, law enforcement, schools, and other general governmental services. Because no redevelopment would occur, there would be no need for additional services to be provided. Impacts would be less than the proposed project.

Recreation

The proposed project has less than significant impacts on recreation; however, the No Project Alternative would not result in an increased use of any area recreational facilities and would; therefore, not require construction of new or expansion of any other existing recreational facilities. Impacts would be reduced compared to the proposed project.

Utilities

Under the No Project Alternative, the existing conditions, including those that may not meet current standards or are not adequate to serve existing conditions, would continue on the project site. This alternative would not develop the proposed project site, therefore, there would not be an increased demand for utility and service systems including wet (water/sewer) and dry (electrical, gas, cable, telephone) utilities. Because no redevelopment would occur, there would be no need for additional services to be provided. While this alternative would not increase the demand, this alternative would not provide the infrastructure improvements that would occur under the proposed project. When compared to the proposed project, this alternative would not introduce new demand on utility and service systems. Impacts would be less than the proposed project.

CONCLUSION

Avoid or Substantially Lessen Project Impacts

The No Project Alternative would eliminate the potentially significant impacts associated with the environmental categories discussed. As documented in Chapter 4.1 of this TEIR, traffic impacts associated with the proposed project would be significant and unavoidable for impacts associated with a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive and significant and unavoidable Existing Plus Project impacts along six project study area freeway segments. The proposed project would not result in any other significant unavoidable impacts.

Attainment of Project Objectives

The "No Project" alternative fails to meet all of the stated objectives for the proposed project as described in Chapter 7.1 above.

Comparative Merits

Under the "No Project" alternative, no physical changes would occur on the project site, and there would not be a potential for new environmental impacts to occur. The "No Project" alternative would not allow the project to move forward at this time; however, it would not preclude development at a future date. The "No Project" alternative is considered overall environmentally superior to the proposed project, as it would significantly reduce or eliminate short-term, long-term, and cumulative impacts in all categories when compared to the proposed project.

6.4 ALTERNATIVE 2 – SINGLE BUILDING ALTERNATIVE

The Single Building Alternative is proposed as an alternative that would reduce the amount of traffic generated from the proposed project. This alternative proposes one single office building or approximately half of the traffic generating development compared to the proposed project. Similar to the proposed project, all of the existing buildings onsite would be demolished. Under this alternative, the building located at 200 West Caribbean would not be constructed, nor would the proposed parking garage. This portion of the property would be developed for surface parking with up to 1,000 parking spaces to support the proposed building at 100 West Caribbean. A conceptual site plan is shown in *Figure 6-1: Single Building Alternative Site Plan*. As with the proposed project, this building would be approximately 536,750 square feet with a maximum building height of 120.5 feet. The building would support approximately 2,200 employees. Under this alternative the two proposed bridges over the Sunnyvale West Channel would not be constructed and no improvements to the Sunnyvale West Channel would be constructed. The channel would remain in its current condition. Pedestrian access from the parking lots would be from existing sidewalks along Caribbean Avenue. The remaining development at the 100 West Caribbean site would be the same of the proposed project. The temporary construction office and construction parking would be located on the 200 West Caribbean site and a temporary construction office and construction parking located offsite would not be required or constructed.

IMPACTS COMPARED TO PROJECT IMPACTS

Transportation and Traffic

The Single Building Alternative would generate approximately half of the traffic of the proposed project. A summary of the trip generation for this alternative is provided in *Table 6-1: Single Building Trip Generation Summary.* Based on a trip generation rate of approximately 9.88 trips per 1,000 square feet, the Single Building Alternative would generate approximately 5,306 average daily trips. Assuming the same 12.5% trip reduction (based on VTA guidelines) as the proposed project, approximately 663 trips would be subtracted from this total, leaving the total trip generation at 4,643 ADT compared to 9,017 ADT with the proposed project. When the existing 1,310 ADT generated from the existing buildings onsite are subtracted out, the net new trips for the project is 3,333 trips compared to 8,319 net new trips for the proposed project.

Table 6-1: Single Building Alternative Trip Generation Summary

	Proposed Project	Single Building Alternative
Total Square Feet	1,041,890	536,750
Trip Generation @ 9.88 trips/KSF[1]	10,917[1]	5,306
12.5% Standard Trip Reduction	1,288	663
Total Existing Building Trips	1,310	1,310
Net New Project Trips	**8,319**	**3,333**

Source: Wood Rodgers, 2019.
[1]Includes 612 ADT from Central Utility Plant as shown in Table 10 of Traffic Impact Analysis

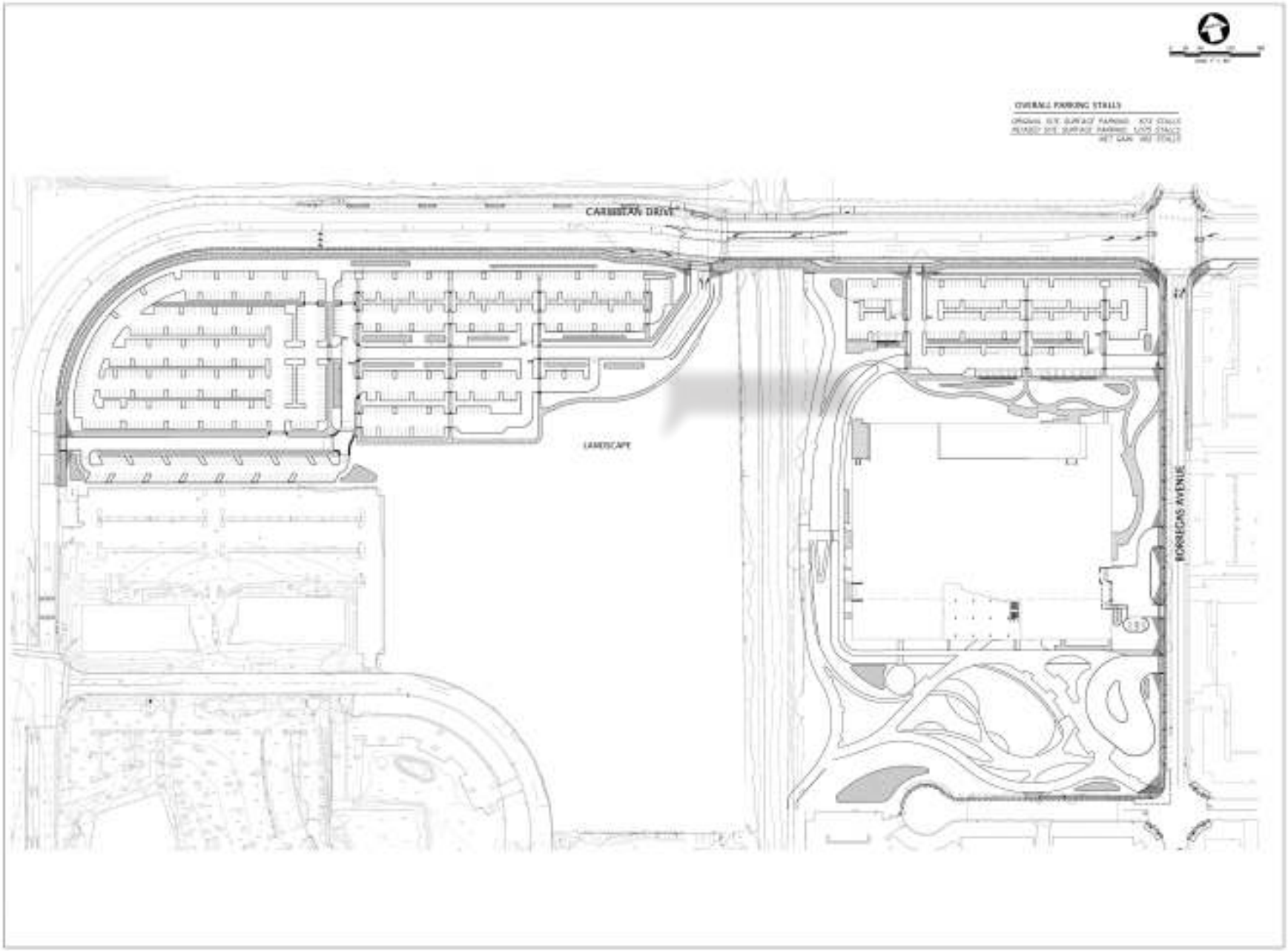

FIGURE 6-1: Single Building Alternative Site Plan
Google Caribbean Campus

Kimley»Horn

The proposed project would result in a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive and significant and unavoidable impacts under Existing Plus Project scenario along six project study area freeway segments by project-generated traffic. Relative to the proposed project, impacts would be of lesser magnitude under the Single Building Alternative because it would generate a reduced amount of Traffic. However, impacts to the Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive intersection impact would remain cumulatively significant and unavoidable because that intersection operates at an unacceptable LOS F in the cumulative condition with or without the addition of any project traffic. Similarly, the six freeway segments impacted under the Existing Plus Project Scenario would remain significant and unavoidable because each of those segments currently operate at an unacceptable LOS F with or without the addition of any project related traffic. While traffic impacts under the Single Building Alternative would remain significant and unavoidable, the impacts would be incrementally less compared to the proposed project because this alternative would generate approximately half the amount of average daily trips.

Other Project Impacts

The Single Building Alternative would also have reduced impacts on the following issue areas discussed in the Initial Study Checklist.

Air Quality

Under the Single Building Alternative, short-term construction air emissions would be similar to the Proposed Project. While only one building would be constructed, a larger parking area would be constructed at the 200 West Caribbean site. The construction of the parking area would involve an increased amount of paving compared to the proposed project. Long-term project operations would be reduced because only one building would be constructed resulting in fewer employees and fewer traffic related stationary source emissions would be generated by the new structures. Although the proposed project as mitigated would not result in significant emissions of air quality pollutants, the air quality impacts associated with the Single Building Alternative would be less than the proposed project.

Biological Resources

Under the Single Building Alternative, the site would be developed with a single building and an expanded surface parking lot. This alternative would have similar impacts to trees onsite but impacts to the Sunnyvale West Channel would be avoided because no bridges crossing the channel would be constructed. The same mitigation measures to reduce impacts on trees and migratory birds would apply to the Single Building Alternative. Mitigation measures would be from the prior EIR's. Additionally, uniformly applied policies and standards also would reduce impacts. Impacts on biological resources would be mitigated to less than significant similar to the proposed project.; however, impacts on biological resources from the Single Building Alternative would be incrementally reduced.

Cultural Resources and Tribal Cultural Resources

Under the Single Building Alternative, impacts on existing and/or undiscovered cultural resources would be similar to the proposed project because ground disturbance from the construction of the single office

building, surface parking area, and supporting infrastructure would have a similar development footprint compared to the proposed project. The same mitigation measures from the other prior EIRs that apply to the proposed project would apply to this alternative. Similar to the proposed project, the potential for direct impacts on cultural resources associated with the Single Building alternative are mitigated to less than significant. Impacts would be equivalent.

Geology/Soils

Under the Single Building Alternative, soil disturbance associated with grading and building activities would be similar to the proposed project. This alternative would include a new building, new parking area, landscaping, utilities, and other infrastructure and have a similar development footprint. Similar mitigation measures as detailed in the prior EIRs would be implemented to minimize impacts associated with landslides, soil stability, or slopes. In addition, similar uniformly applied policies and standards would apply to this alternative compared to the proposed project. Therefore, compared to the proposed project, geology and soil impacts would be similar under this alternative.

Greenhouse Gas Emissions

The Single Building Alternative would have similar construction impacts compared to the proposed project. This alternative would have the same development footprint and a similar amount of grading (approximately 257,000 cubic yards of imported soil and 15,000 cubic yards of exported soil) would be required under this alternative. The equipment needed for construction and the construction timeline would be similar. Therefore, greenhouse gas emissions from construction activities would be similar compared to the proposed project.

Operationally, the Single Building Alternative would result in a reduced amount of greenhouse gas emissions compared to the proposed project. The reduction in the number of traffic trips would significantly reduce the amount emissions from transportation sources, which is usually one the highest contributors to a project's greenhouse emissions. Overall potential impacts related to greenhouse gas emissions are reduced under the Single Building Alternative compared to the proposed project.

Hazards and Hazardous Materials

Hazards and hazardous materials impacts associated with this alternative would be similar to the proposed project. Similar to the proposed project, the transportation, use, and disposal of these materials would be subject to local, state, and federal laws intended to minimize the risk of exposure to hazardous materials. Consistency with these laws and policies would limit hazards to the public from the transportation, use, and disposal of these materials. As discussed above, the use of hazardous materials would be incidental to the operation of the site for all office development and would be similar to other uses found in commercial-office areas. These would include: heavy metals, cleaning chemicals, oils, solvents, paints, pesticides, and fertilizers. As such, the risks associated with the use of these materials would be similarly small. While the proposed project would involve the transportation, use, and disposal of limited small amounts of hazardous materials, compliance with local, state, and federal regulations and City policies would ensure that the proposed project would result in less than significant impacts and no mitigation is required. Impacts would be roughly equivalent to the proposed project.

Hydrology and Water Quality

The Single Building Alternative would have a similar development footprint as the proposed project. The development footprint of the surface parking area on 200 West Caribbean site would be the same as the proposed project. However, this alternative, would have a greater amount impervious surfaces than the proposed project because the surface parking area on the western portion of the property would have less landscaped areas and common open space area. When compared to the parking structure and green rooftop areas of the proposed office building at 200 West Caribbean as part of the proposed project, the number of impervious surfaces and potential for runoff would be increased. Additionally, while the overall drainage plan in this area would be similar to the proposed project, this alternative would conduct more surface water runoff to the bioretention basins needed for infiltration or release into offsite storm drains. Therefore, potential impacts on hydrology and water quality would be greater compared to the proposed project under this alternative.

Land Use

Similar to the proposed project, the Single Building Alternative would have no impacts to land use as the project site. The Single Building Alternative would not conflict with any land use plan or policy, or conflict with any habitat or community conservation plan. Impacts in this regard would be the same as the proposed project.

Noise

Construction noise associated with the proposed project, with mitigation similar to that included to the proposed project, would result in less than significant impacts to surrounding sensitive receptors and reduce noise levels to less than the established standards. Construction activities would cause less significant increased mobile noise along access routes to and from the site due to movement of equipment and workers. The proposed project's construction-related vibration impacts would be less than significant. Similar short-term noise impacts from grading and construction activities would occur with the Single Building Alternative, as the development footprint would be the essentially the same as the proposed project. Although this alternative includes one less building and an expanded parking area, the construction timing, duration, and equipment would be similar to the proposed project. Therefore, the less than significant short-term noise impacts (with mitigation incorporated) that would occur with the proposed project also would occur with the Single Building Alternative. This alternative would also be required to comply with MM NOI-1 to reduce short-term construction noise impacts to a less than significant level.

Similar to the proposed project, traffic generated by the Single Building Alternative would traverse and disperse over project area roadways, where existing ambient noise levels already exist. Future development associated with the Single Building Alternative would result in additional traffic on adjacent roadways, thereby increasing vehicular noise near existing and proposed land uses. Compared to the proposed project, this alternative would generate approximately half the number of traffic trips. The increase in ambient noise level is under the perceptible noise level change of 3.0 dBA. The noise resulting from the increase in traffic would not exceed the City's normally acceptable 60 dBA threshold for the

nearest sensitive receptors. Therefore, impacts would be less than significant and incrementally reduced compared to the proposed project.

Energy Conservation

Development under the Single Building Alternative would create a less intensive development with the replacement of 505,140 square feet of commercial office space with a surface parking lot. Energy consumption during construction would be similar for the Single Building Alternative as the proposed project because the construction equipment and duration of construction would be similar.

The Single Building Alternative would generate substantially fewer daily trips compared the proposed project which would consume less fuel. Therefore, this alternative would consume less energy when compared to the proposed project.

Population and Housing

Under the Single Building Alternative, approximately 505,140 square feet of commercial office space would be replaced with approximately 1,000 parking spaces. Similar to the proposed project, this would it is anticipated that much of the workforce would come from the existing population within the Silicon Valley thus minimizing the demand for additional housing for employees moving to the city and region. Therefore, the proposed project's growth would be consistent with General Plan projections for the City. Impacts on population and housing would be less than significant and similar to the proposed project.

Public Services

This alternative would involve development reduce the amount of commercial office space by approximately 505,140 square feet. Because of the decrease in the amount of office space and associated employees, this alternative would involve a decreased demand for police and fire protection services, library services, and would decrease the number of students that would need to be accommodated at local public schools. Similar to the proposed project, impacts would be less than significant but incrementally reduced under this alternative.

Recreation

The proposed project has less than significant impacts on recreation; however, the Single Building Alternative would result in a decreased use of any area recreational facilities and would; therefore, not require construction of new or expansion of any other existing recreational facilities. Impacts would be reduced compared to the proposed project.

Utilities

The Single Building Alternative would construct approximately 505,140 fewer square feet than the proposed project. Compared to the proposed project, the Single Building Alternative would decrease water use, wastewater and solid waste generation compared to the proposed project because approximately half the building area would be developed and there would be fewer employees working at the project site.

As mentioned under Hydrology and Water Quality above, this alternative would result in more impervious surface coverage and increased stormwater runoff because there would be less landscaped areas (e.g., more surface parking) for water to infiltrate. This alternative would have less solid waste generation compared to the proposed project. Therefore, overall impacts related to water, wastewater, and solid waste generation would be less than proposed project and stormwater infrastructure impacts would be increased compared to the proposed project. Overall, impacts on utilities would be reduced compared to the proposed project.

CONCLUSION

Avoid or Substantially Lessen Project Impacts

The Single Building Alternative would reduce but not eliminate the significant and unavoidable traffic impacts associated with the proposed project. As documented in Chapter 4.1 of this TEIR, traffic impacts associated with the proposed project would be significant and unavoidable for impacts associated with a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive and significant and unavoidable Existing Plus Project impacts along six project study area freeway segments. The proposed project would not result in any other significant unavoidable impacts.

Attainment of Project Objectives

The Single Building Alternative fails to meet the following stated objectives for the proposed project:

- Develop an office campus of sufficient size to accommodate Google's space needs.
- Develop an office campus of sufficient density to take advantage of the site's proximity to existing transit facilities.
- Construct office buildings that accommodate proposed project amenities and efficient/effective employee collaboration space.
- Construct office buildings that reduce impervious surfaces and maximize on-site open space.
- Construct improvements to the portion of the Valley Water's (VW) West Channel to facilitate greater connectivity and public access.
- Be responsive to VW designs for the West Channel to comply with applicable flood protection requirements and improve flood protection.
- Realign the VW's West Channel to enhance its natural habitat value.
- Develop a project of sufficient density to support the proposed project amenities and to be financially feasible.

Comparative Merits

Under the Single Building Alternative, the development footprint would be generally the same as the proposed project, however the intensity of development would be significantly less and impacts to

resources such as air quality, greenhouse gas emissions, and traffic would be decreased. This alternative would not develop an office campus that would meet Google's long term needs for programming future office space. This alternative would not reduce impervious office space and maximize onsite office space through green building design and minimizing surface parking areas. Additionally, this project would not include any environmental or flood protection benefits to the Sunnyvale West Channel.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126.6 (e)(2) of the State CEQA Guidelines requires that an environmentally superior alternative be designated and states that if the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the summary of information presented in *Table 6-2: Comparison of Project Alternatives Environmental Impacts with the Proposed Project*, the environmentally superior alternative is Alternative 1: No Project Alternative. Because Alternative 1 would leave the project site essentially unchanged and would not have the operational effects that would be associated with any of the alternatives, this alternative has fewer environmental impacts than the proposed project or any of the other alternatives.

Section 15126.6(e)(2) of the State CEQA Guidelines states that if the "No Project" alternative is found to be environmentally superior, "the EIR shall also identify an environmentally superior alternative among the other alternatives. Aside from the No Project Alternative, Alternative 2: Single Building Alternative would have the least environmental impacts because it would develop one 505,376 square foot office building and would have a reduction in significant and unavoidable impacts associated with traffic.

The context of an environmentally superior alternative is based on the consideration of several factors including the reduction of environmental impacts to a less than significant level, the project objectives, and an alternative's ability to fulfill the objectives with minimal impacts to the existing site and surrounding environment. According to Table 6-2, the No Project alterative would be the environmentally superior alternative because it would eliminate all of the potentially significant impacts of the proposed project. However, while the No Project alternative is the environmentally superior alternative, it is not capable of meeting any of the basic objectives of the proposed project.

After the No Project alternative, the environmentally superior alternative to the proposed project is the one that would result in the fewest or least significant environmental impacts. Based on the evaluation undertaken, Alternative 2: Single Building Alternative is the environmentally superior alternative.

Table 6-2: Comparison of Project Alternatives Environmental Impacts with the Proposed Project

Project Impacts	Alternative		
	Proposed Project - Level of Impact After Mitigation	Alternative 1- No Project	Alternative 2- Single Building
4.1 – Traffic and Circulation	Less Than Significant	-	-
Air Quality	Less Than Significant	-	-
Biological Resources	Less Than Significant	-	-
Cultural Resources and Tribal Cultural Resources	Less Than Significant	-	=
Geology and Soils	Less Than Significant	-	=
Greenhouse Gas Emissions	Less Than Significant	-	-
Hazards and Hazardous Materials	Less Than Significant	-	=
Hydrology and Water Quality	Less Than Significant	+	+
Land Use	Less Than Significant	-	=
Noise	Less Than Significant	-	-
Energy Conservation	Less Than Significant	-	-
Population and Housing	Less Than Significant	-	-
Public Services	Less Than Significant	-	-
Recreation	Less Than Significant	-	-
Utilities	Less Than Significant	-	-
Attainment of Project Objectives	Meets all of the Project Objectives	Meets none of the Project Objectives	Meets some of the Project Objectives

Notes:
A minus (-) sign means the Project Alternative has reduced impacts from the proposed project.
A plus (+) sign means the Project Alternative has increased impacts from the proposed project.
An equal sign (=) means the Project Alternative has similar impacts to the proposed project.

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7.0 OTHER CEQA REQUIRED TOPICS

7.1 CEQA REQUIREMENTS

Section 15126 of the State CEQA Guidelines requires that all phases of a project must be considered when evaluating its impact on the environment, including planning, acquisition, construction, and operation. Further, the evaluation of significant impacts must consider direct and reasonably foreseeable indirect effects of the project over the short-term and long-term. As part of this analysis, the EIR must identify, to the extent relevant, (1) significant environmental effects of the proposed project, (2) mitigation measures proposed to minimize significant effects, (3) significant environmental effects that cannot be avoided if the proposed project is implemented, (4) significant irreversible environmental changes that would result from implementation of the proposed project, (5) growth-inducing impacts of the proposed project, and (6) alternatives to the proposed project.

Chapter 4, "Environmental Setting, Impacts, and Mitigation Measures," and specifically Section 4.1 Transportation and Traffic present the proposed project's environmental effects to this resource area, proposed mitigation measures, and conclusions regarding the level of significance of each impact both before and after mitigation. The balance of the environmental analysis for other environmental resource areas is contained the Initial Study Checklist (Appendix B) prepared for the project. Like the analysis on Transportation and Traffic, impacts to these resources were evaluated based on the CEQA Appendix G Checklist. It was determined there would be no impact, impacts would be less than significant, or impacts could be mitigated to less than significant; and therefore, these resources were not required to be evaluated as part of the EIR.

Chapter 6, Alternatives, presents a comparative analysis of alternatives to the proposed project. The other CEQA-required analyses described above are presented below.

7.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project regarding the proposed project's impact on transportation and traffic are discussed in detail in Chapter 4.1, Transportation and Traffic. The analysis concluded the proposed project would result in a cumulatively significant and unavoidable intersection impact at Mathilda Avenue/Sunnyvale Saratoga Road-Talisman Drive. No feasible mitigation measures have been identified to reduce potential impacts and impacts at this intersection would remain significant and unavoidable.

7.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would generally commit future generations to the allocation of nonrenewable resources and to irreversible environmental damage (State CEQA Guidelines section 15126.2(c); 15127). Specifically, section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;

1. The project would involve a large commitment of nonrenewable resources;
2. The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
3. The proposed irretrievable commitments of nonrenewable resources is not justified (e.g., the project involves the wasteful use of energy).

Implementation of the proposed project would result in the long-term commitment of resources of the project site to developed land use. The proposed project would likely result in or contribute to the following irreversible environmental changes:

4. Conversion of existing developed land, approximately 40.4 acres, to a more intensive land use, thus precluding other alternative land uses in the future.
5. Increased ambient noise associated with an increase in traffic.
6. Irreversible consumption of goods and services associated with the increased employee base.
7. Degradation of air quality associated with project construction and operation.
8. Irreversible consumption of energy and natural resources associated with construction and operation of the project.

7.4 LONG-TERM COMMITMENT OF LAND AND RESOURCES

Development of the proposed project would result in conversion of the existing commercial and industrial site to a similar use but with increased building density. The proposed project; however, would remove the existing buildings and hardscape and result in a more environmentally sound design that provides certain benefits, yet the proposed project would preclude other less intensive uses for the lifespan of the project.

The State CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the proposed project. The project would result in the use, transport, storage, and disposal of hazardous wastes during construction and operation. In addition, known environmental conditions on the project site could expose workers or the public to impacts to human health and safety if the areas are not property treated and remediated.

As described in the Initial Study Checklist attached as Appendix B to this TEIR, mitigation measures and project design features are in place to ensure the site and all recognized environmental conditions, and other potential environmental effects are appropriately remediated or minimized. Additionally, all project activities would comply with applicable state and federal laws. This would significantly reduce the likelihood and severity of accidents and other effects that could result in irreversible environmental effects.

Typically, implementation of a project such as that proposed would result in significant irreversible impacts from a reduction in natural vegetation for wildlife communities; increased generation of pollutants; and the commitment of non-renewable and / or slowly renewable natural and energy resources, such as lumber and other forest products, mineral resources, fossil fuels, consumption of natural gas and electricity, and water resources, needed for construction activities and the long-term operation of the project. The proposed project would result in a commitment of resources to enable the redevelopment of the site into the new commercial and industrial uses. The most notable demands would be an increase in natural gas and electrical energy and other non-renewable energy such as fuels for vehicles which is discussed in additional detail below. However, while the proposed project would redevelop the site with additional square footage and the size of the structures would increase, the project has been designed to minimize environmental effects and consumption of resources. Nonetheless, the proposed project would result in irreversible impacts, which are unavoidable consequences of urban growth and are described in detail in the applicable sections of the Initial Study Checklist.

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8.0 AGENCY CONTACTS AND PREPARERS

8.1 LEAD AGENCY

Trudi Ryan, Director, Community Development Department
Andrew Miner, Planning Officer, Community Development Department
Michelle King, Principal Planner, Community Development Department
Lillian Tsang, Principal Transportation Engineer, Department of Public Works

8.2 ENVIRONMENTAL DOCUMENT PREPARERS

Kimley-Horn and Associates

Alex Jewell, EIR Project Manager
Brad Stoneman, EIR Preparer
Maria Rodriguez, EIR Preparer
Achilles Malisos, Air Quality, Greenhouse Gas, Noise
Noemi Wyss, Air Quality, Greenhouse Gas, Noise
Amanda McCallum, Document Production

8.3 TECHNICAL STUDY PREPARATION

Air Quality and Greenhouse Gas Emissions

Illingworth and Rodkin, Inc.

Biological Resources

H.T. Harvey and Associates

Cultural, Historical, and Paleontological Resources

SWCA

Transportation and Traffic

Wood Rogers

Water Supply Assessment

Tully and Young

Appendix A

Notice of Preparation

NOTICE OF PREPARATION

DRAFT ENVIRONMENTAL IMPACT REPORT
For the Google Caribbean Campus Project
May 1, 2019

To: Interested Parties

Subject: Notice of Preparation of a Draft Focused Environmental Impact Report for the Google Caribbean Campus Project

Lead Agency:
City of Sunnyvale
Community Development Department
456 W. Olive Avenue
Sunnyvale, CA 94086
Contact: Ryan Kuchenig, (408) 730-7431
rkuchenig@sunnyvale.ca.gov

NOTICE IS HEREBY GIVEN THAT the City of Sunnyvale, as Lead Agency under the California Environmental Quality Act (CEQA), has prepared a Notice of Preparation (NOP) for a Draft Focused Environmental Impact Report (EIR) pursuant to CEQA Guidelines Section 15162 and 15183 for the proposed Google Caribbean Campus Project. The NOP includes a project description and an overview of the potential impacts that will be addressed in the Focused EIR.

Project Title: Google Caribbean Campus Project

The purpose of this notice is: (1) to serve as the Notice of Preparation to potential Responsible Agencies, agencies involved in funding or approving the project, and Trustee Agencies responsible for natural resources affected by the project, pursuant to Section 15082 of the CEQA Guidelines; and (2) to advise and solicit comments and suggestions regarding the preparation of the Focused EIR, environmental issues to be addressed in the Focused EIR, and any related issues, from interested parties in addition to those noted above, including interested or affected members of the public. The City of Sunnyvale requests that any potential Responsible or Trustee Agency responding to this notice do so in a manner consistent with CEQA Guidelines Section 15082(b).

30-Day NOP Review Period: In accordance with CEQA, should your agency have any comments, it is requested to provide a written response to this NOP within the 30-day NOP review period between May 1, 2019 and May 31, 2019. Written comments must be received at the address below no later than 4:00 PM on May 31, 2019. Please indicate a contact person in your response and send it to the following contact:

Ryan Kuchenig, Senior Planner
City of Sunnyvale
P.O. Box 3707
Sunnyvale, CA 94087-3707

Telephone: (408) 730-7431
rkuchenig@sunnyvale.ca.gov

Public Scoping Meeting: The City of Sunnyvale will hold a Scoping Meeting on May 22, 2019 at 6:30 to 8:00 PM, at the City Council Chambers located at 456 West Olive Avenue, Sunnyvale, California 94086 to: 1) inform the public and interested agencies about the proposed project; and 2) solicit public comment on the scope of the environmental issues to be addressed in the EIR.

Project Location: The project area is located within the northern portion of the City of Sunnyvale within the Moffett Park Specific Plan area. The proposed project would occur on 10 existing parcels and result in the construction of two new mid-rise buildings at two new addresses: one at 100 West Caribbean Drive and the second at 200 West Caribbean Drive. The project site is bound by West Caribbean Drive on the north, and lies between Mathilda Avenue on the west, Borregas Avenue on the east, and is bisected north to south by the Santa Clara Valley Water District's (SCVWD) West Channel. Please refer to **Figure 1: Regional Location Map** and **Figure 2: Vicinity Map**.

Project Description: The project proposes demolishing the existing 13 buildings located on the project site, existing surface parking lots, and removal of vegetation and trees on the approximately 40.5-acre site. The existing buildings consist of 710,381 square feet of office and manufacturing buildings. The addresses of the existing buildings to be demolished are shown below:

Address		Address	
140-146	West Caribbean Drive	1393-1395	Borregas Avenue
360-364		1383	
370-376		1323	
380-382		1330-1338	Bordeaux Drive
390-394		1340-1346	
141	Caspian Court	1360-1368	

The proposed project includes two new 5-story office buildings totaling 1,041,890 square feet. The proposed buildings would be located at 100 Caribbean Drive and 200 Caribbean Drive. Please see **Figure 3: Conceptual Site Plan**. Between the two buildings, 100 Caribbean Drive would total 536,750 square feet with a Floor Area Ratio (FAR) of 0.71, and 200 Caribbean Drive would total 505,140 square feet with a FAR of 0.50. Combined, the two buildings would have a FAR of 0.66. The project would also develop a parking structure, a central utility plant and surface parking. The total number of parking spaces to be provided upon completion of the surface lots and parking structure would be 2,198 spaces. The proposed project will integrate measures to reduce reliance on automobiles and car-based commuting, including a Transportation Demand Management (TDM) trip reduction plan. The proposed project includes other amenities conducive to alternative transportation including two shuttle drop-off areas as well as secured bicycle parking at both buildings. Other improvements include infrastructure and utility improvements, walkways, green areas and open spaces.

The proposed 100 and 200 Caribbean Drive buildings would both be 5 stories, with an overall building height of 120 feet 5 inches, as measured from the finished floor to the highest elevation of the building. The proposed parking garage would be 5 levels, and the highest elevation would

be 71 feet 6 inches, as measured from the finished floor to the top point of the central utility plant. The proposed uses within the proposed office buildings are as follows:

Use	Square Feet	Percentage of Building Space
Office Space	271,040	26.01%
Amenities/Meeting Rooms /Food/Fitness	346,394	33.25%
Cores/Circulation/Restrooms	389,397	37.37%
Other	35,059	3.36%
Total	**1,041,890**	**100%**

The existing SCVWD West Channel (West Channel) bisects the campus such that 100 Caribbean Drive lies to the east and 200 Caribbean Drive lies to the west. The portion of the West Channel corridor separating 100 Caribbean Drive and 200 Caribbean Drive is approximately 1,100 feet in length, extending from West Caribbean Drive upstream to the southern end of the property line for the proposed project. The proposed project would excavate the existing storm channel, set back levees, grade a new low flow channel with associated floodplain benches, implement habitat restoration, construct two new bridge crossings (one pedestrian between the two buildings and one pedestrian engineered to support emergency vehicle access at a Caspian Drive extension), enhance the headwall at the box culvert to accommodate a sidewalk as requested by the City of Sunnyvale along West Caribbean Drive, and providing maintenance access for the Santa Clara Valley Water District (SCVWD).

These proposed improvements would provide, at a minimum, an equivalent level of flood protection through project area consistent with SCVWD's Sunnyvale East and West Channels Flood Protection Project. The proposed project would provide enhanced wetland and riparian habitat within the channel area. An enhanced creek corridor would become part of the development landscape of the proposed project to provide flood protection and enhance campus aesthetics, recreational opportunities, and environmental resources for wildlife habitat. The channel would be designed to work effectively with regional flood control and drainage planning and be adaptable to future climate conditions.

The project also includes the demolition of a single story industrial/R&D building at 1362 Borregas Avenue, totaling 26,880 square feet which will be demolished to accommodate temporary construction parking for 745 cars in lieu of onsite construction parking.

The proposed project is consistent with the Moffett Park Specific Plan and is consistent with the City of Sunnyvale's goals of increasing density in this area. The project would use available square footage from the City's Moffett Park Specific Plan development reserve. The project would not require an amendment to the City's General Plan or Moffett Park Specific Plan.

Project construction would begin after all City approvals, land use entitlements, and environmental clearances are obtained. These buildings would be built with similar construction schedules with 200 W. Caribbean Drive starting first, and 100 W. Caribbean Drive following approximately three months behind. It is anticipated that both buildings would be occupied at roughly the same time. The proposed project would be built in a single phase with a duration of approximately 30 months.

Potential Environmental Impacts: Environmental factors that would be potentially affected by the proposed project are:

- Transportation

Given the previously developed nature of the project site and the surrounding Moffett Park area, and the proposed project's consistency with the approved General Plan Land Use and Transportation Element and the approved Moffett Park Specific Plan, the following environmental factors are anticipated to be Effects Found to be Less Than Significant or Less Than Significant with Mitigation as a result of the proposed project and implementation of applicable mitigation measures:

Aesthetics	Greenhouse Gas Emissions
Air Quality	Hazards and Hazardous Materials
Biological Resources	Hydrology and Water Quality
Cultural Resources	Land Use and Planning
Energy	Noise
Geology/Soils	Public Services and Utilities

The following environmental factors are not impacted by the proposed project:

- Agricultural/forestry,
- Mineral resources,
- Population and housing,
- Recreation, and
- Wildfire.

Summary of Key Environmental Issues to be Addressed in Focused EIR:

- **Transportation:** The Focused EIR will evaluate the proposed project's impacts on traffic, circulation, intersection operation, level of service, vehicle miles traveled, public transit, and pedestrian and bicycle conditions.

- **Issues Specific To The West Channel:** The Focused EIR will evaluate the proposed projects' impacts specific to the West Channel improvements.

Other EIR Sections: The Focused EIR will include other sections required by CEQA including sections on: Project Alternatives, Cumulative Impacts, Significant Unavoidable Impacts, Significant Irreversible Environmental Changes, EIR Preparers, EIR References, and EIR Technical Appendices.

ENVIRONMENTAL REVIEW PROCESS

Following completion of the 30-day Notice of Preparation public review period, the City of Sunnyvale will incorporate relevant information into the Draft Focused EIR, including results of public scoping and technical studies. The Draft Focused EIR will be circulated for public review and comment for the required 45-day public review period. All parties that have requested to be included on the project mailing list will be provided with a Notice of Availability for the Draft Focused EIR. In addition, the Draft Focused EIR and related materials will be available for review on the City of Sunnyvale's website: http://sunnyvale.ca.gov/, and at the City of Sunnyvale, located at 456 W. Olive Avenue, Sunnyvale, CA 94086. Following expiration of the public review period for the Draft Focused EIR, the City of Sunnyvale will prepare Responses to Comments as part of the Final Focused EIR, which will be considered and acted upon by the City of Sunnyvale's City Council. The City of Sunnyvale will provide notification of future public meetings for this project to parties that have requested to be included on the project mailing list.

All parties that have submitted their names and mailing addresses for inclusion on the project mailing list will be notified as part of the project's CEQA review process. If you wish to be placed on the project mailing list, have any questions, or need additional information, please contact the person identified below.

A copy of the NOP has been posted on the City of Sunnyvale's website (http://sunnyvale.ca.gov/) and is on file at the City of Sunnyvale Community Development Department/Planning Division and the City of Sunnyvale's One-Stop Permit Center, 456 West Olive Avenue, Sunnyvale, CA 94086.

Should you have any questions or comments regarding this Notice of Preparation, please contact Ryan Kuchenig, Project Manager, City of Sunnyvale, at (408) 730-7431 or by email at: rkuchenig@sunnyvale.ca.gov.

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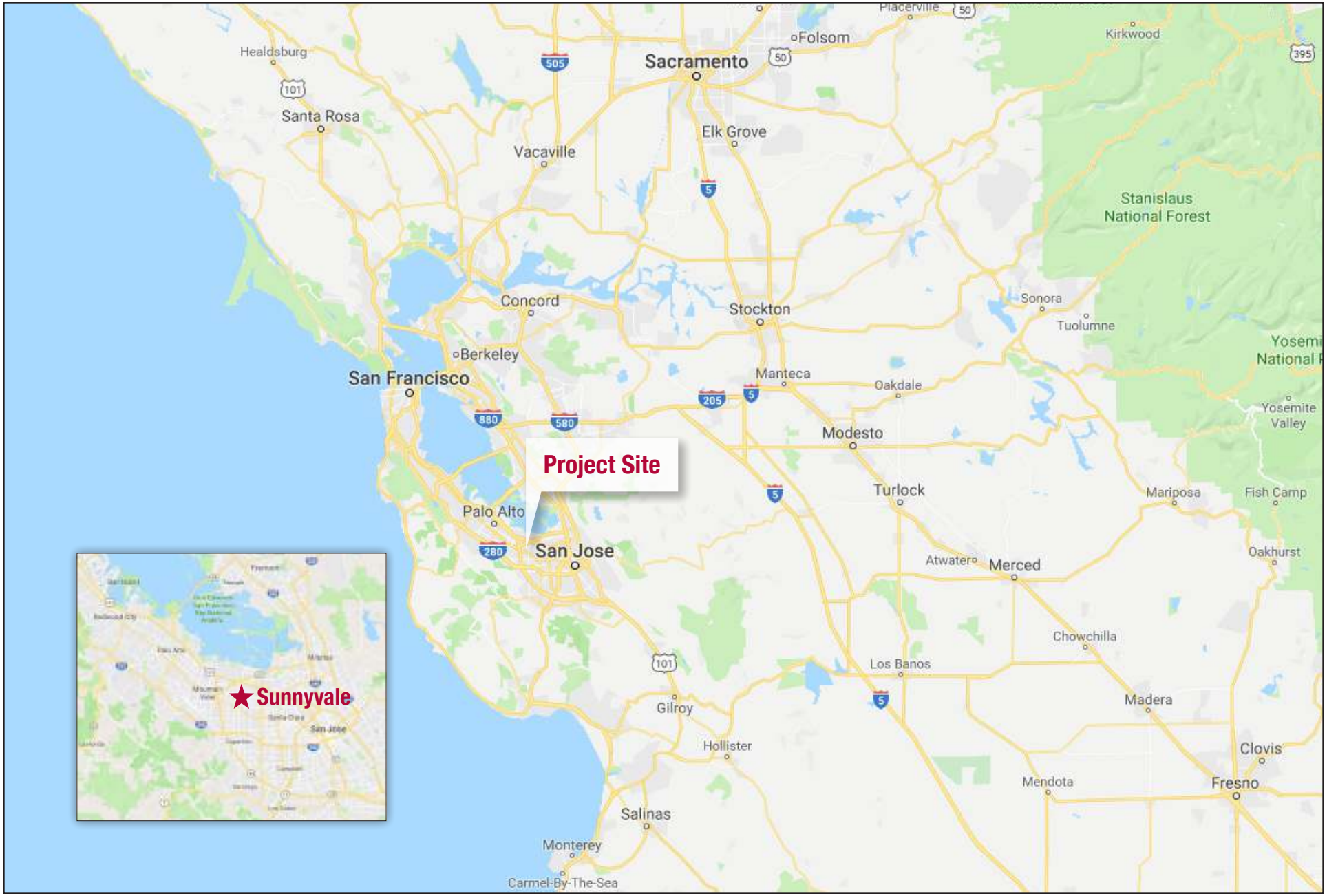

Source: Google Maps, 2019

FIGURE 1: Regional Map
Google Caribbean Campus

Not to scale

Kimley»Horn

Source: Google Earth, 2019

FIGURE 2: Vicinity Map
Google Caribbean Campus

Not to scale

Kimley»Horn

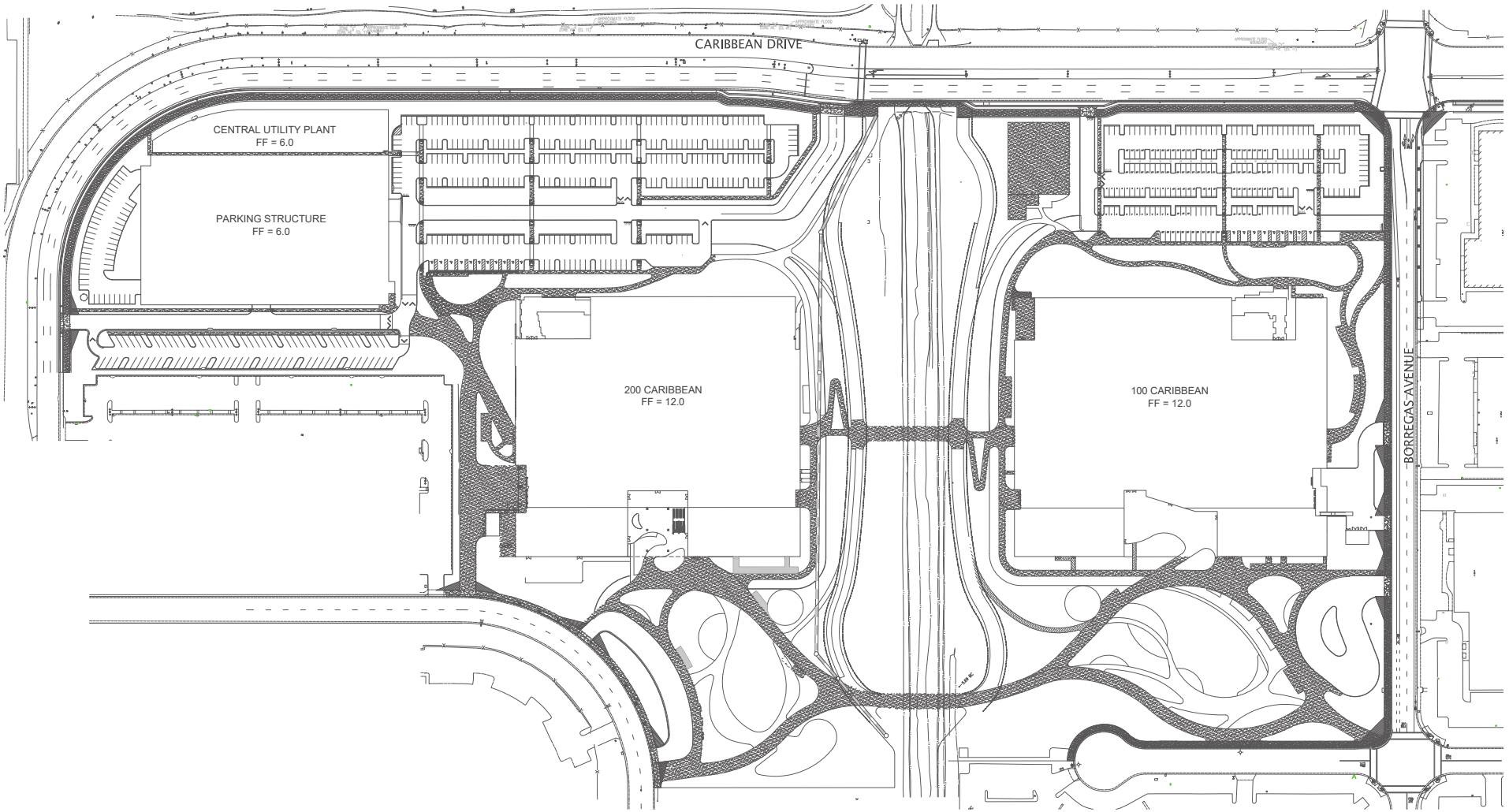

FIGURE 3: Conceptual Site Plan
Google Caribbean Campus

Not to scale

Kimley»Horn

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DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
www.dot.ca.gov

Making Conservation a California Way of Life!

March 12, 2019

04-SCL-2018-00543
GTS ID 10695
Post Mile: SCL – 237- 3.028

Lillian Tsang
City of Sunnyvale
P.O. Box 60607
Sunnyvale, CA 94088

Google 100-200 W Caribbean Drive – Transportation Impact Analysis Scope

Dear Lillian Tsang:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), Caltrans mission signals a modernization of our approach to evaluating and mitigating impacts to the State Transportation Network (STN). Caltrans' *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. We appreciate the opportunity to provide feedback at this critical early stage. Our comments are based on the Transportation Impact Analysis Scope.

Project Understanding

The Project site contains seven vacant existing buildings totaling 400,157 square feet (sf) and six occupied existing buildings totaling 310,224 sf. Occupied building uses include an industrial laboratory, warehouse, light manufacturing, and offices. The Project would demolish the 13 existing buildings to accommodate the proposed new construction. The Project proposes construction of a new a 536,750 sf five-story office building to be located at 100 W Caribbean Drive, and a new 505,140 sf five-story office building and a five-story parking garage containing 3,473 vehicle parking spaces with attached three-story central utility plant to be located at 200 W Caribbean Drive. The total proposed office gross floor area of the entire site is 1,041,890 sf. Regional access is provided via State Route (SR) 237 at Caribbean Drive and Lawrence Expressway ramps, one mile east from the project site. Since this project meets the criteria to be deemed of statewide, regional or areawide significance per CEQA Section 15206, the project's environmental document should be submitted to both the Santa Clara Valley Transportation Authority and MTC for review and comment.

Vehicle Trip Reduction

Given the project's intensification of use and significant amount of vehicle parking spaces, the

Transportation Impact Fees
The Lead Agency should identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward multimodal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. Please consider fair share contributions for the two Express Lane projects identified on SR 237 and US 101 respectively. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

Lead Agency
As the Lead Agency, the City of Sunnyvale is responsible for all project mitigation, including any needed improvements to the STN. The project's financing, scheduling, implementation responsibilities and monitoring should be fully discussed for all proposed mitigation measures. Mitigation that includes the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.

Transportation Permit
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to: Caltrans Transportation Permits Office, 1823 14th Street, Sacramento, CA 95811-7119. See the following website for more information: http://www.dot.ca.gov/hq/traffops/permits.

Should you have any questions regarding this letter, please contact Michael McHenry at (510) 286-5562 or Michael.mchenry@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c. Santa Clara Valley Transportation Authority

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
www.dot.ca.gov

Making Conservation a California Way of Life!

May 21, 2019

04-SCL-2018-00576
GTS ID 10695
Post Mile: SCL – 237 - 3.028

Ryan Kuchenig
City of Sunnyvale
P.O. Box 60607
Sunnyvale, CA 94088

Google 100-200 W Caribbean Drive – Notice of Preparation

Dear Ryan Kuchenig:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), Caltrans mission signals a modernization of our approach to evaluating and mitigating impacts to the State Transportation Network (STN). Caltrans' *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. We appreciate the opportunity to provide feedback at this critical early stage. Our comments are based on the Notice of Preparation of an EIR. Our previous letter regarding the Draft Traffic Impact Analysis dated March 12th 2019 shall be incorporated herein by reference.

Project Understanding

The Project site contains seven vacant existing buildings totaling 400,157 square feet (sf) and six occupied existing buildings totaling 310,224 sf. Occupied building uses include an industrial laboratory, warehouse, light manufacturing, and offices. The Project would demolish the 13 existing buildings to accommodate the proposed new construction. The Project proposes construction of a new a 536,750 sf five-story office building to be located at 100 W Caribbean Drive, and a new 505,140 sf five-story office building and a five-story parking garage containing 3,473 vehicle parking spaces with attached three-story central utility plant to be located at 200 W Caribbean Drive. The total proposed office gross floor area of the entire site is 1,041,890 sf. Regional access is provided via State Route (SR) 237 at Caribbean Drive and Lawrence Expressway ramps, one mile east from the project site. Since this project meets the criteria to be deemed of statewide, regional or areawide significance per CEQA Section 15206, the project's environmental document should be submitted to both the Santa Clara Valley Transportation Authority and MTC for review and comment.

Multimodal Transportation

We would like to reference our March 12th 2019 letter emphasizing the importance of multimodal transportation. The project should be conditioned to ensure connections to existing bike lanes and multi-use trails to facilitate walking and biking to nearby jobs, neighborhood services, and transit. Since the proposed project is adjacent to the existing Sunnyvale Bay Trail Class 1 Bike Path, the proposed project should provide a connection to this Bike Path with the proposed Class 1 Bike Path within the project.

Sea Level Rise

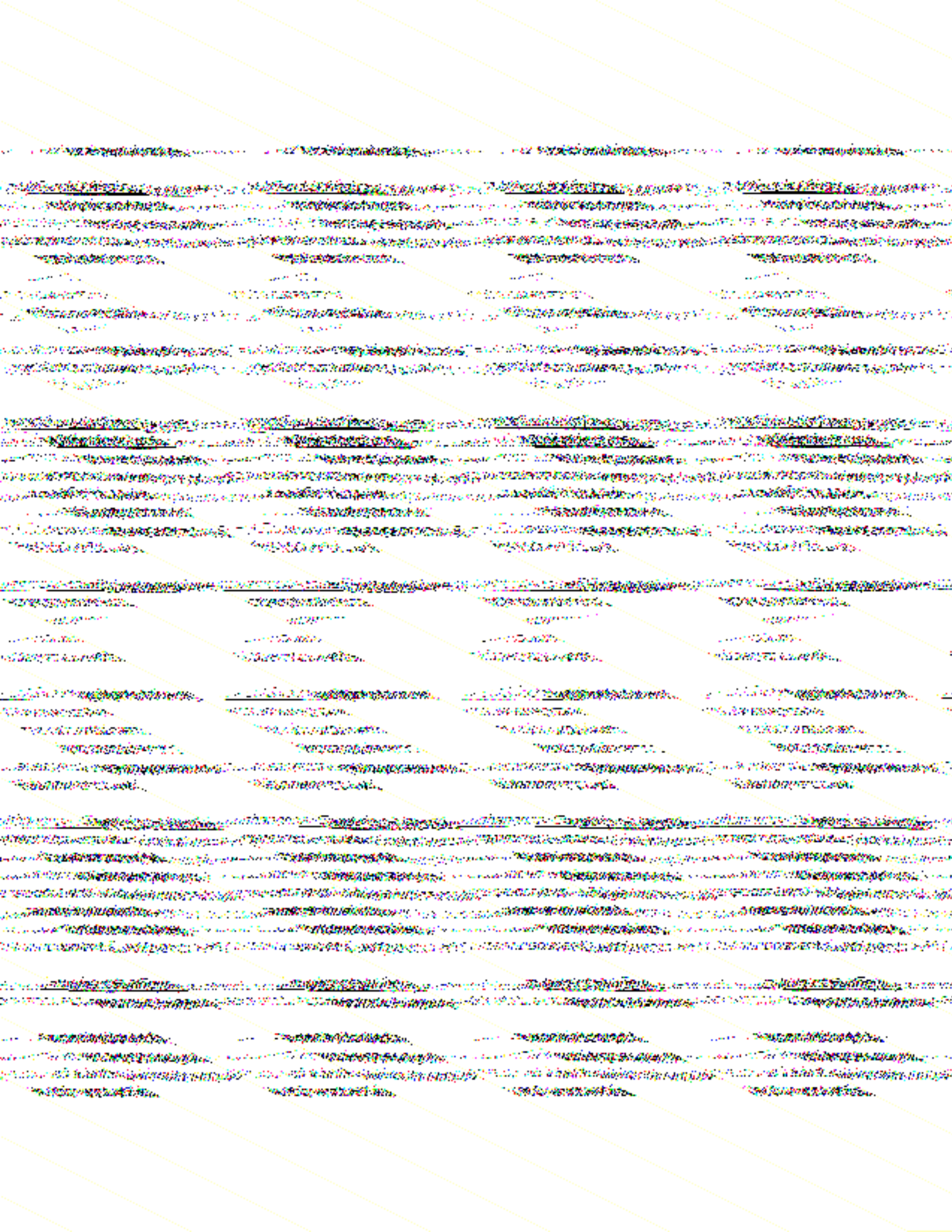
This project is located in an area vulnerable to impacts from sea level rise. The effects of sea level rise may have impacts on transportation facilities located in the project area. Executive Order (EO) S-13-08 directs State agencies planning construction projects in areas vulnerable to sea level rise to begin planning for potential impacts by considering a range of sea level rise scenarios for years 2050 and 2100. Higher water levels may increase erosion rates, change environmental characteristics that affect material durability, lead to increased groundwater levels and change sediment movement along shores and at estuaries and river mouths, as well as affect soil pore pressure at dikes and levees on which transportation facilities are constructed. All these factors must be addressed through geotechnical and hydrological studies conducted in coordination with Caltrans.

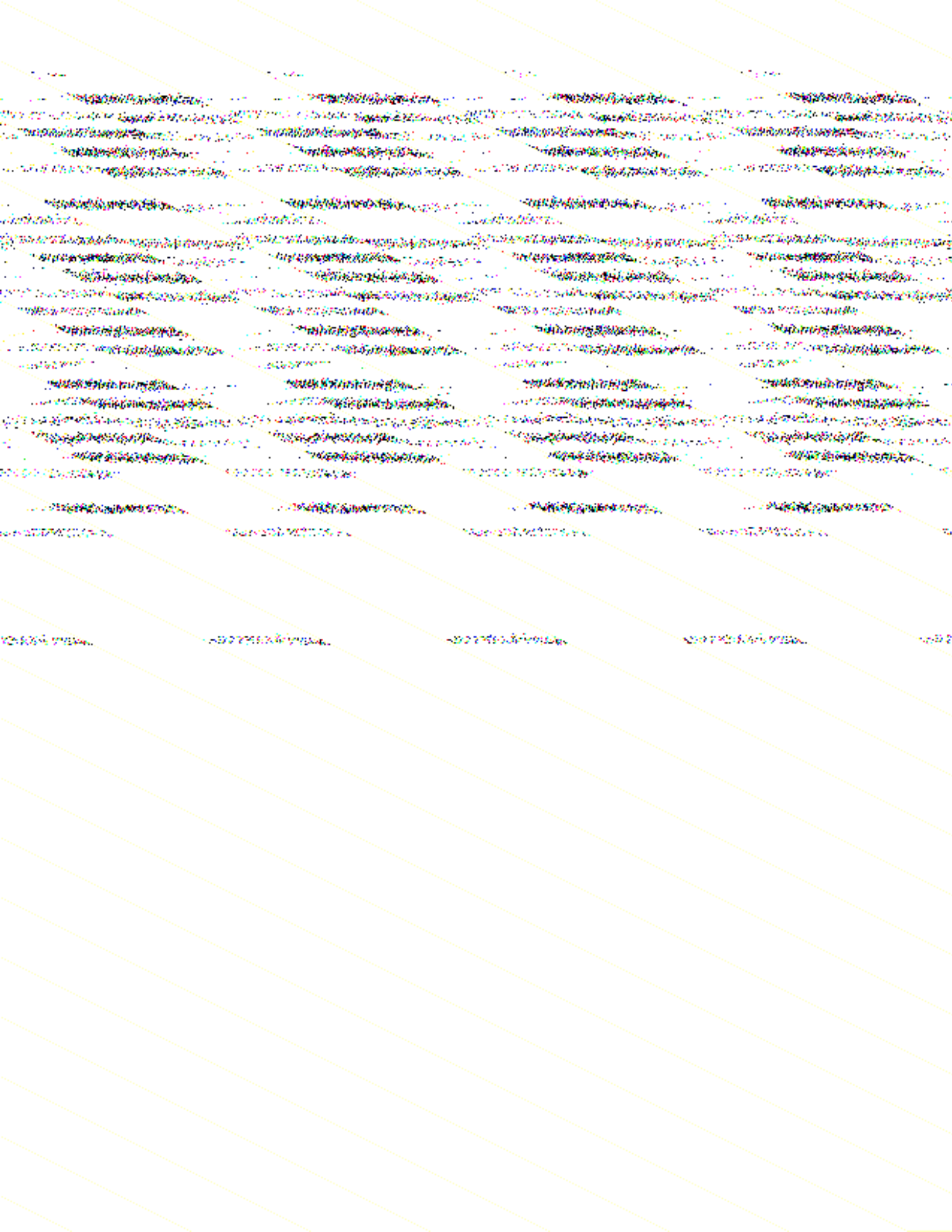
Should you have any questions regarding this letter, please contact Zachary Chop at (510) 622-1643 or zachary.chop@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse





BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

May 31, 2019

Ryan Kuchenig, Senior Planner
City of Sunnyvale
P.O. Box 3707
Sunnyvale, CA 94087-3707

RE: Google Caribbean Campus Project – Notice of Preparation

Dear Mr. Kuchenig,

Bay Area Air Quality Management District (Air District) staff has reviewed the Notice of Preparation (NOP) for a draft Focused Environmental Impact Report (Focused EIR) for the proposed Google Caribbean Campus Project (Project). This Project would demolish 13 existing office and manufacturing buildings to develop two five-story office buildings, a parking structure, surface parking, and a central utility plant on a 40.5-acre site in the City of Sunnyvale. The office buildings would total 1,041,890 square feet and include office space, meeting rooms, and amenities such as food and fitness centers.

Air District staff recommends the Focused EIR include the following information and analysis regarding potential regional and local air quality impacts and greenhouse gas (GHG) emissions in the San Francisco Bay Area Air Basin:

- **The Focused EIR should evaluate the Project's impacts on Air Quality and Greenhouse Gas Emissions.** The NOP states that the Project's impacts to Air Quality and Greenhouse Gas Emissions are anticipated to be Less Than Significant or Less Than Significant with Mitigation. However, the NOP states that Transportation is expected to be potentially affected by the Project. The total number of parking spaces would be 2,198 spaces. Although the Air District supports the Project's inclusion of a Transportation Demand Management trip reduction plan, because the project includes over one million square feet of commercial space and no housing, it is quite likely that increases in vehicle trips will impact air quality and GHG emissions. The Air District urges the City to evaluate Air Quality and Greenhouse Gas Emissions as key environmental issues in the Focused EIR.
- **The Project Description and Project Location should include the 1362 Borregas Avenue site.** The NOP states that the Project would also demolish a single-story industrial/R&D building at 1362 Borregas Avenue to accommodate temporary construction parking for 745 cars in lieu of onsite construction parking. This site and its associated transportation impacts should be added to the Project Description and Project Location and be included in the air quality and GHG analysis.
- **The Air District recommends that a significance determination be based on an evaluation of the Project's consistency with the most recent draft of the SB 32 Scoping Plan by the California Air Resources Board and with the State's 2030 and 2050 climate goals.** The Air District's CEQA Guidelines are based on the State's 2020 greenhouse gas targets, which are now superseded by the 2030 targets for greenhouse gases established in SB 32.

ALAMEDA COUNTY
John J. Bauters
Pauline Russo Cutter
Scott Haggerty
Nate Miley

CONTRA COSTA COUNTY
John Gioia
David Hudson
Karen Mitchoff
Mark Ross

MARIN COUNTY
Katie Rice
(Chair)

NAPA COUNTY
Brad Wagenknecht

SAN FRANCISCO COUNTY
Gordon Mar
Hillary Ronen
Tyrone Jue
(SF Mayor's Appointee)

SAN MATEO COUNTY
David Canepa
Carole Groom
Doug Kim

SANTA CLARA COUNTY
Margaret Abe-Koga
Cindy Chavez
(Secretary)
Liz Kniss
Rod G. Sinks
(Vice Chair)

SOLANO COUNTY
James Spering
Lori Wilson

SONOMA COUNTY
Teresa Barrett
Shirlee Zane

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Connect with the
Bay Area Air District:

- **The Focused EIR should evaluate the Project's consistency with the City of Sunnyvale Climate Action Plan.** The City adopted its Climate Action Plan in 2014 and is working on an updated plan called the Climate Action Playbook, which is expected to be released in Summer 2019. The Focused EIR should evaluate the Project's consistency with the City's most recently adopted Climate Action Plan.
- **The Focused EIR should evaluate the Project's consistency with the Air District's 2017 Clean Air Plan (2017 CAP).** The 2017 CAP can be found on the Air District's website: http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans.
- **The Focused EIR should quantify the Project's potential construction and operational impacts to local and regional air quality.** The Air District's CEQA Guidelines provide guidance on how to evaluate a project's or plan's construction, operational, and cumulative air quality and GHG impacts. The CEQA Guidelines can be found on the Air District's website: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.
- **The Focused EIR should estimate and evaluate the potential health risk to existing and future sensitive populations within the Project area from toxic air contaminants (TAC) and fine particulate matter ($PM_{2.5}$) as a result of the project's construction and operation.** Air District staff recommends that the Focused EIR evaluate potential cumulative health risk impacts of TAC and $PM_{2.5}$ emissions on nearby sensitive receptors.
- **The Air District's CEQA website contains several tools and resources to assist lead agencies in analyzing air quality and GHG impacts.** These tools include guidance on quantifying local emissions and exposure impacts. The tools can be found on the Air District's website: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools.
- **If any aspects of the Project may require a permit from the Air District (for example, back-up diesel generators), then the Air District may be a responsible agency for California Environmental Quality Act (CEQA) purposes.** Please contact Barry Young, Senior Advanced Projects Advisor at (415) 749-4721 or byoung@baaqmd.gov to discuss permit requirements.

We encourage the City to contact Air District staff with any questions and/or to request assistance during the environmental review process. If you have any questions regarding these comments, please contact Josephine Fong, Environmental Planner, at (415) 749-8637, or jfong@baaqmd.gov.

Sincerely,

Greg Nudd
Deputy Air Pollution Control Officer

cc: BAAQMD Director Margaret Abe-Koga
BAAQMD Director Cindy Chavez
BAAQMD Director Liz Kniss
BAAQMD Director Rod G. Sinks

City of Santa Clara
The Center of What's Possible

Planning Division

May 30, 2019

City of Sunnyvale
Community Development Department
456 W. Olive Avenue
Sunnyvale, CA 94086

Attention: Ryan Kuchenig

Subject: Notice of Preparation of a Draft EIR for the Google Caribbean Campus Project

Dear Mr Kuchenig:

Thank you for including the City of Santa Clara in the environmental review process for the First Amendment to the Notice of Preparation of a Draft EIR for the Google Caribbean Campus Project which proposes demolition of multiple buildings and construction of 1,041,890 sq ft of office development and 2,198 parking spaces. The City of Santa Clara has the following comments:

- The City of Santa Clara uses criteria from the VTA TIA Guidelines as a basis for determining study intersections. Accordingly, municipal and CMP intersections with ten or more project trips per approach lane should be analyzed. Please consider analyzing the following intersections as part of your traffic analysis as project trips most likely will traverse these intersections:
  - Lawrence Expressway / Kifer Rd.
  - Lawrence Expressway / Reed Ave.-Monroe St.
  - Lick Mill Blvd. / Tasman Dr.
  - Bowers Ave. / US 101 NB Ramps
  - Bowers Ave. / US 101 SB Ramps
  - Bowers Ave. / Augustine Dr.
  - Bowers Ave. / Scott Blvd.
  - Bowers Ave. / Central Expressway
  - Bowers Ave. / Kifer Rd.-Walsh Ave.
  - Bowers Ave. / Chromite Dr.
  - Bowers Ave. / Monroe St.

- For any intersections analyzed within the City of Santa Clara, the City requests you use the peak hour factor found from the traffic counts and an intersection's actual signal timing in your analysis. Please contact the Santa Clara Traffic Division, for intersection signal timing sheets.

- The project site is located near the western boundary of the City of Santa Clara. Relevant approved projects within Santa Clara need to be included in the study estimates of the Background traffic volumes. Attached is the list of both approved and pending projects within the City of Santa Clara.

- Similarly, pending projects within Santa Clara needs to be incorporated in the Cumulative traffic volume estimates in order to reflect the growth in both the local and regional traffic. Attached is the list of both approved and pending projects within the City of Santa Clara.

- The local transportation analysis should include an analysis of bicycle facilities in terms of their availability, project effects on future bike plans, and improvements proposed by the project. Maps and information on existing and planned bicycle facilities within Santa Clara can be found on the City's website at http://santaclaraca.gov/government/departments/publicworks/engineering/committees/bicycle-and-pedestrian-advisory-committee.

- Any physical improvements required or planned at study intersections needs to evaluate secondary impacts to alternative modes of transportation.

- Fair share contributions should be made for significant impacts found along roadways and/or intersections, including the expressways.

Should you have any questions regarding this letter, please contact Reena Brilliot, Planning Manager, at (408) 615-2450 or Carol Shariat, Principal Transportation Planner, at (408) 615-3024.

Sincerely,

Andrew Crabtree
Director of Community Development

Attachment: May 29, 2019 City of Santa Clara Project Tracking List

Appendix B

Initial Study Checklist

City of Sunnyvale

Google Caribbean Campus
Initial Study Checklist

Prepared for
City of Sunnyvale
Community Development Department
456 West Olive Avenue
Sunnyvale, California 94086

Prepared by
Kimley-Horn and Associates
555 Capital Mall, Suite 300
Sacramento, CA 95814

Kimley»Horn

November 2019

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- E-4: Google Caribbean Campus Construction Office and Parking Site Arborist Report

F. Google Caribbean Campus Project Cultural Resources Technical Report

G. Geotechnical and Paleontological Technical Studies

- G-1: Preliminary Geotechnical Report
- G-2: Google Caribbean Campus Project Paleontological Resources Technical Report

H. Hazards and Hazardous Materials Analysis

- H-1: Site Management Plan
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- H-3: Import Soil Reuse Approval Letter
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- I-1: West Channel Enhancement for Google Hydraulic Basis of Design Memorandum
- I-2: Dewatering Plan for the Google West Channel Enhancement
- I-3: Site Management Plan Addendum for Sunnyvale West Channel

J. Noise Analysis

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1. INTRODUCTION

1.1 ENVIRONMENTAL REVIEW INTRODUCTION

The City of Sunnyvale (City) is a lead agency under the California Environmental Quality Act (CEQA) and is responsible for preparing this Initial Study Checklist for the proposed Google Caribbean Campus (GCC) (State Clearinghouse No. 2001052121) ("proposed project", "project"). The public agency with the principal responsibility for carrying out or approving a project is the "lead agency." This Initial Study Checklist has been prepared in conformance with CEQA (California Public Resources Code ["PRC"] §21000 et seq.), the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq. ("CEQA Guidelines"), and the rules, regulations, and procedures for the implementation of CEQA.

CEQA requires all public agencies to consider the environmental consequences of projects for which they have discretionary authority. For the purposes of CEQA, the term project refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines §15378[a]).

CEQA requires the lead agency to prepare an Environmental Impact Report (EIR) if there is substantial evidence, in light of the whole record, that a project may have a significant effect on the environment that cannot be mitigated to a less than significant level. A significant effect is defined in CEQA as a substantial, or potentially substantial, and adverse physical change in the environment.

1.2 USE OF PRIOR ENVIRONMENTAL IMPACT REPORTS

Three prior EIRs analyzed and mitigated potentially significant effects related to the proposed project and inform the analysis presented in this EIR. The three documents include the following: (1) the 2016 Land Use and Transportation Element ("LUTE") of the Sunnyvale General Plan ("LUTE EIR") (State Clearinghouse No. 2012032003); (2) the 2013 Valley Water (VW)[1] East and West Channels Flood Protection Project EIR ("VW EIR")[2] (State Clearinghouse No. 2013012041); and (3) the 2016 Mathilda Avenue Improvements at SR 237 and US 101 Project ("Caltrans EIR") (State Clearinghouse No. 2015082030).

The LUTE EIR is a program EIR that considers the environmental effects of the City's planned land uses, development density, transportation, and projected buildout by 2035. The LUTE EIR analyzed potential impacts from the permitted uses, development density, and projected transportation demand at the project site. The VW EIR is a project EIR that analyzes a series of flood protection and water quality improvements, including those for the West Channel. A portion of the West Channel bisects the project site from south to north. The Caltrans EIR is also a project EIR that analyzes the reconfiguration of State the Route (SR) 237 and US 101 interchanges with Mathilda Avenue, and includes: modification to on and off ramps; removal, addition, and signalization of intersections; and the provision of new left-turn lanes. Its analysis covers

[1] The official name of the agency is the Santa Clara Valley Water District (SCVWD); however, the new moniker is Valley Water (VW) and will be used as a shorter reference.

[2] At the time the East and West Channels Flood Protection Project EIR was certified, the agency was using its previous name, Santa Clara Valley Water District.

certain potentially significant transportation impacts the proposed project may produce related to the Mathilda Avenue interchanges with State Route 237 and Highway 101.

STREAMLINED ENVIRONMENTAL REVIEW UNDER CEQA

This Initial Study Checklist relies on the three previously certified EIRs identified above to assess the potential environmental impacts of the proposed project in accordance with CEQA Guidelines Section 15183, which applies to program EIRs, and Section 15162, which applies to project EIRs.

Under CEQA Guidelines Section 15183, "CEQA mandates that projects which are consistent with the development density established by existing zoning, a community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies." (PRC, § 21083.3; CEQA Guidelines § 15183(a).) This Initial Study Checklist, therefore relies on CEQA Guidelines Section 15183 and the LUTE EIR to streamline the proposed project's environmental review and to focus on the proposed project's potentially significant impacts that have not already been addressed as a significant effect in the LUTE EIR, or impacts cannot be substantially mitigated by the imposition of uniformly applied City development policies or standards, including the City's Standard Development Requirements ("SDRs") and policies included in the City Policy Manual ("Council Policies").[3]

Under CEQA Guidelines Section 15162, when a project EIR has been certified, "no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record," that substantial changes occur or are proposed that will require major revisions of the EIR due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects, or that new information now exists indicating that the proposed project will have more significant effects than originally shown in the prior EIR. (CEQA Guidelines § 15162, complete summary below.)

The CEQA Guidelines provide that where multiple methods exist to streamline environmental review based on prior EIRs, lead agencies have discretion to select which methods to apply to a project's environmental review. (CEQA Guidelines, § 15152(h).) Consistent with this approach, this Initial Study Checklist relies on CEQA Guidelines Sections 15183 and 15162 to streamline the proposed project's environmental review by identifying and analyzing potentially significant project impacts, if any, that have not already been analyzed and subject to mitigation measures in prior EIRs, and that cannot be mitigated through application of existing City policies, plans, SDRs, and/or Council Policies.

INITIAL STUDY CHECKLIST APPROACH

This Initial Study Checklist evaluates the CEQA Guidelines Appendix G resource categories to determine whether potentially significant effects from the proposed project have already been analyzed and mitigated in the LUTE EIR or can be mitigated through application of existing City policies, plans, SDRs, and/or Council Policies. Where appropriate for certain proposed improvements to the West Channel and for transportation analyses concerning the State Route 237 and Highway 101 interchanges with Mathilda Avenue, this Initial

[3] Sunnyvale City Council Policy Manual: https://sunnyvale.ca.gov/government/codes/manual.htm

Study Checklist was also used to determine if potentially significant project effects have already been studied and mitigated in the VW or Caltrans project EIRs.

This Initial Study Checklist indicates that the proposed project may have potentially significant impacts that cannot be mitigated to a less than significant level in the CEQA Appendix G category for Transportation. The TEIR for the proposed project will accordingly analyze these potentially significant impacts and prescribe feasible mitigation measures, where appropriate. This Initial Study Checklist establishes where the proposed project would either have no impact on the remaining Appendix G resource categories, or that a project impact was previously analyzed and mitigated in one of the three prior EIRs, or can be mitigated through application of existing City policies, plans, SDRs, and/or Council Policies.

1.3 LUTE EIR AND SECTION 15183 AS APPLIED TO THE PROPOSED PROJECT

The Sunnyvale City Council adopted the updated LUTE of the General Plan in April 2017. The LUTE establishes how streets and buildings in the City of Sunnyvale will be laid out and how various land uses, developments, and transportation facilities will function together over an approximate 20-year time frame (referred to as Horizon 2035).

The LUTE EIR was a program EIR that considered the environmental effects from the 2035 buildout scenario. Consistent with PRC Section 21083.3(b) and CEQA Guidelines Sections 15168 and 15183 the LUTE EIR can be used as the CEQA document for subsequent projects (public and private) consistent with the LUTE. Subsequent development projects, such as the proposed project, are evaluated to determine whether their entitlements/actions fall within the scope of the LUTE and if the impacts were addressed in the certified LUTE EIR and the project incorporates all applicable performance standards and mitigation measures identified therein. If there are specific significant effects which are peculiar to a proposed project or its site and that cannot be addressed by uniformly applied development policies or standards, such as the City's SDRs and/or Council Policies, additional environmental review through the subsequent review provisions of CEQA for changes to previously-reviewed and approved projects may be warranted.

If an impact is not peculiar to the parcel or to the proposed project, has been addressed as a significant effect in the LUTE EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, including the City's SDRs and/or Council Policies, then an additional EIR need not be prepared for the project solely on the basis of that impact.

THE PROPOSED PROJECT IS CONSISTENT WITH THE LUTE AND ELIGIBLE FOR SECTION 15183

The LUTE provides that the Project site's land uses are governed by the Moffett Park Specific Plan ("MPSP"), which zones the Project site as Moffett Park Transit Oriented Development (MP-TOD) and Moffett Park-General Industrial (MP-I). The MP-TOD permits office, corporate headquarters, research, and limited manufacturing; as well as ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-TOD permits a Floor Area Ratio ("FAR") of 0.5 which may be increased to 0.7 by using the City's Development Reserve and/or the Transfer of Development Rights ("TDR") Program prescribed in the MPSP.

The MP-I is intended primarily for office, warehouse, and general industrial development. Ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses are allowed. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-I FAR is .35 but can be increased to a maximum of 0.5 through the City's Development Reserve and TDR program.

Here, the Project's proposed uses and development density would be consistent with the LUTE's development density established in the MPSP and General Plan, making the Project eligible to use the LUTE EIR for Section 15183 streamlining. (CEQA Guidelines§ 15183(d), (i)(2).) The Project would entail the demolition of 13 existing structures and hardscape and redevelopment of the project site with two five-story structures totaling approximately 1,041,890 sf. The two buildings would share a proposed four-story parking garage, surface parking lots, and other project amenities including landscaped courtyards, walkways, and alternative transportation elements. (The proposed site plan is shown in Figure 4: *Proposed Site Plan*.) The project would consist of 271,040 sf of office space, 346,395 sf for amenities/meeting rooms, food service, and fitness; 389,397 sf for cores, circulation, and bathrooms, and 35,059 sf of other (walls), and would include a total of 2,092 parking spaces. The Project would rely on the MPSP Development Reserve and will comply with the City's Green Building requirements to achieve a total FAR of .66, consistent with the MP-TOD and MP-I sub-districts.

Consistent with the process described, the City has evaluated the project application to determine if additional environmental review would be required. The State CEQA Guidelines Section 15183 Initial Study Checklist has been prepared to determine whether the environmental impacts of the proposed project meet any of the following four conditions:

1. Are peculiar to the project or the parcel on which the proposed project would be located;

2. Were not analyzed as significant effects in the LUTE EIR;

3. Are potentially significant off-site impacts and cumulative impacts which were not discussed in the LUTE EIR; or

4. Are previously identified significant effects which, as a result of substantial new information which was not known at the time the LUTE EIR was certified, determined to have a more severe adverse impact than discussed in the LUTE EIR.

The purpose of the Initial Study Checklist is to evaluate the categories listed in CEQA Guidelines 15183 to determine whether, in light of the LUTE EIR, there are any significant environmental effects requiring additional environmental analysis. The row titles of the Initial Study Checklist include the full range of environmental topics, as presented in Appendix G of the State CEQA Guidelines. The column titles of the Initial Study Checklist have been modified from the Appendix G presentation to help answer the questions to be addressed pursuant to PRC Section 21083.3(b) and State CEQA Guidelines Section 15183. A “no” answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact because it was analyzed and addressed with mitigation measures in the LUTE EIR. For instance, the environmental categories might be answered with a “no” in the Initial Study Checklist because the impacts associated with the proposed project were adequately addressed in the LUTE EIR, and the environmental impact significance conclusions of the LUTE EIR remain applicable. The purpose of each column of the Initial Study Checklist is described below:

WHERE IMPACT WAS ANALYZED?

This column provides a cross-reference to the pages of the LUTE EIR where information and analysis may be found relative to the environmental issue listed under each topic.

ANY PECULIAR IMPACT?

Pursuant to CEQA Guidelines Sections 15183(b)(1) and 15183(f), this column indicates whether the project could result in a peculiar impact, including a physical change that belongs exclusively or especially to the project or that is a distinctive characteristic of the proposed project or the project site and that peculiar impact is not substantially mitigated by the imposition of uniformly applied development policies or standards.

ANY IMPACT NOT ANALYZED AS A SIGNIFICANT EFFECT IN LUTE EIR?

Pursuant to CEQA Guidelines Section 15183(b)(2), this column indicates whether the proposed project would result in a significant effect that was not analyzed as significant in the LUTE EIR. A new EIR is not required if such a project impact can be substantially mitigated by the imposition of uniformly applied development policies or standards.

ANY OFF-SITE OR CUMULATIVE IMPACT NOT ANALYZED AS A SIGNIFICANT EFFECT IN LUTE EIR?

Pursuant to CEQA Guidelines Section 15183(b)(3), this column indicates whether the proposed project would result in a significant off-site or cumulative impact that was not discussed in the LUTE EIR. A new EIR is not required if such an off-site or cumulative impact can be substantially mitigated by the imposition of uniformly applied development policies or standards.

ANY ADVERSE IMPACT MORE SEVERE BASED ON SUBSTANTIAL NEW INFORMATION?

Pursuant to CEQA Guidelines Section 15183(b)(4), this column indicates whether there is substantial new information that was not known at the time the LUTE EIR was certified, indicating that there would be a more severe adverse impact than discussed in the LUTE EIR. A new EIR is not required if such an impact can be substantially mitigated by the imposition of uniformly applied development policies or standards.

DO EIR MITIGATION MEASURES OR UNIFORMLY APPLIED DEVELOPMENT POLICIES OR STANDARDS ADDRESS/RESOLVE IMPACTS?

This column indicates whether the LUTE EIR and adopted CEQA Findings provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. This column also indicates whether uniformly applied development standards or policies address identified impacts. A "yes" response will be provided if the impact is addressed by a LUTE mitigation measure or uniformly applied development standards or policies. If "NA" is indicated, this review concludes that there was no impact, the adopted mitigation measures are not applicable to this project, or the impact was less-than-significant and, therefore, no mitigation measures are needed.

Section 15183 further provides:

"If an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or

standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact."

(e) This section shall limit the analysis of only those significant environmental effects for which:

(1) Each public agency with authority to mitigate any of the significant effects on the environment identified in the EIR on the planning or zoning action undertakes or requires others to undertake mitigation measures specified in the EIR which the lead agency found to be feasible, and

(2) The lead agency makes a finding at a public hearing as to whether the feasible mitigation measures will be undertaken.

(f) An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the city or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. The finding shall be based on substantial evidence which need not include an EIR. Such development policies or standards need not apply throughout the entire city or county but can apply only within the zoning district in which the project is located, or within the area subject to the community plan on which the lead agency is relying. Moreover, such policies or standards need not be part of the general plan or any community plan but can be found within another pertinent planning document such as a zoning ordinance. Where a city or county, in previously adopting uniformly applied development policies or standards for imposition on future projects, failed to make a finding as to whether such policies or standards would substantially mitigate the effects of future projects, the decision-making body of the city or county, prior to approving such a future project pursuant to this section, may hold a public hearing for the purpose of considering whether, as applied to the project, such standards or policies would substantially mitigate the effects of the project. Such a public hearing need only be held if the city or county decides to apply the standards or policies as permitted in this section.

(g) Examples of uniformly applied development policies or standards include, but are not limited to:

(1) Parking ordinances.

(2) Public access requirements.

(3) Grading ordinances.

(4) Hillside development ordinances.

(5) Flood plain ordinances.

(6) Habitat protection or conservation ordinances.

(7) View protection ordinances.

(8) Requirements for reducing greenhouse gas emissions, as set forth in adopted land use plans, policies, or regulations.

(h) An environmental effect shall not be considered peculiar to the project or parcel solely because no uniformly applied development policy or standard is applicable to it. (CEQA Guidelines §15183.)

LUTE RELATIONSHIP TO MOFFETT PARK SPECIFIC PLAN

The LUTE provides that the project site's land uses are governed by the Moffett Park Specific Plan (MPSP), which zones the project site as Moffett Park Transit Oriented Development (MP-TOD) and Moffett Park-General Industrial (MP-I). The MP-TOD permits office, corporate headquarters, research, and limited manufacturing; as well as ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-TOD permits a Floor Area Ratio (FAR) of 0.5, which may be increased to 0.7 by using the City's Development Reserve Program prescribed in the MPSP. (See pages 44 and 45) for complete details on this and the City's FAR requirements.)

The MP-I is intended primarily for office, warehouse, and general industrial development. Ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses are allowed. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed. The MP-I FAR is .35 but can be increased to maximum of 0.5 through the City's Development Reserve.

The project's proposed uses and development density would be consistent with the LUTE's development density established in the MPSP and General Plan, making the proposed project eligible to use the LUTE EIR for Section 15183 streamlining. (CEQA Guidelines § 15183(d), (i)(2).) The proposed project includes the demolition of 13 existing structures and hardscape, and redevelopment of the project site with two five-story structures totaling approximately 1,041,890 sf. The two buildings would share a proposed four-story parking garage, surface parking lots, and other project amenities including landscaped courtyards, walkways, and alternative transportation elements. (The proposed site plan is shown in Figure 4: *Proposed Site Plan*.) The proposed project would consist of 271,040 sf of office space, 346,395 sf for amenities/meeting rooms, food service, and fitness; 389,397 sf for cores, circulation, and bathrooms, and 35,059 sf of other (walls), and would include a total of 2,092 parking spaces. The proposed project would comply with the City's Green Building requirements and would use the MPSP Development Reserve to achieve a total FAR of 0.65, consistent with the MP-TOD and MP-I sub-districts (see Table 4 for a complete summary of the proposed project's FAR approach and use of Development Reserve).

1.4 STATE CEQA GUIDELINES SECTION 15162

This Initial Study Checklist relies upon the VW EIR as a basis for compliance with CEQA Guidelines Section 15162 for the Biological Resources analysis discussed in this document. The analysis of transportation section of the TEIR, relies in part on the Caltrans EIR.

The CEQA Guidelines Section 15162 state that when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Therefore, the proposed project relies on the analyses in the certified VW and Caltrans project EIRs.

SUMMARY OF FINDINGS

Based on CEQA Guidelines Sections 15183 and 15162, this Initial Study Checklist determines that preparation of an EIR is needed to analyze and mitigate, as appropriate, certain potentially significant effects in the proposed project. This Initial Study Checklist concludes that the TEIR should focus on Transportation impacts and, hence the TEIR was compiled. The issues of aesthetics, agricultural/forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use, mineral resources, population and housing, public services, recreation, noise, tribal cultural resources, wildfire, and utilities have been analyzed in this Initial Study Checklist and do not require further analysis in an EIR pursuant to CEQA Guidelines Sections 15183 and 15162. This is detailed in Section 4.0 Environmental Analysis, below.

As stated above, this Initial Study Checklist determined that only the Transportation resource category requires additional analysis in an EIR. All other impacts from the proposed project would be less than significant, not peculiar to the parcel or to the proposed project, analyzed and mitigated as a significant

effect in one of the aforementioned prior certified EIRs, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, including City SDRs and/or Council Policies.

1.5 DISCUSSION AND MITIGATION SECTIONS

DISCUSSION

A discussion of the elements of the Initial Study Checklist is provided under each environmental category to clarify the answers. The discussion provides information about the particular environmental issue, how the proposed project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

MITIGATION MEASURES

Applicable mitigation measures from the prior environmental review that would apply to the proposed project are listed under each environmental category.

CONCLUSIONS

A discussion of the conclusion relating to the need for additional environmental documentation is contained in each section.

1.6 Report Organization

This document has been organized into the following sections:

Section 1.0 – Introduction. This section provides an introduction and overview describing the conclusions of the Initial Study Checklist.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The environmental checklist form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Evaluation. This section contains a discussion of environmental resources and effects of the proposed project.

Section 5.0 – References. The section identifies resources used to prepare the Initial Study Checklist.

2. DESCRIPTION OF PROPOSED PROJECT

2.1 Project Overview, Background, Location, and Setting

PROJECT OVERVIEW

The Google Caribbean Campus project (project, or proposed project) is located within the Moffett Park Specific Plan (MPSP) area in the City of Sunnyvale (City). The project site is located on approximately 40.44 acres comprised of 10 existing assessor parcels. The project site is currently developed with 13 existing single-story structures (four of which occur on a single parcel) and are used for commercial business, research and development, and industrial. Other uses include parking lots access roads, sidewalks, and landscaped areas. The proposed project consists of redevelopment of the site. The redevelopment of the project site would include demolition of the existing structures, removal of materials, excavation and grading, and final construction of the project. Site demolition would begin after all City approvals, permits, land use entitlements, and environmental clearances are obtained. The proposed project would be developed with two new buildings, one parking structure, surface parking, interior access roads, extensive landscaping, and pedestrian and bicycle paths. The project site would be readdressed to 100 and 200 West Caribbean Way. 200 Caribbean Way would be the westernmost property and 100 Caribbean Way would be on easternmost property.

The proposed two buildings would be 5-story office buildings totaling 1,041,890 square feet with 2,092 parking spaces, as well as multimodal transportation access for buses, shuttles, connection to the VTA Light Rail, with a focus on pedestrian and bicycle circulation. The specific nature of the project site and detailed project description is provided in the subsequent pages.

PROJECT BACKGROUND

The existing uses have been in place since the 1960s. At that time, the MPSP area was predominately used by the armed forces and defense industry including the Air Force, the Navy, Lockheed Martin Corporation, and the National Aeronautics and Space Administration (NASA). Beginning in the late 1990s, several high-tech businesses began redevelopment in the MPSP area with construction of midrise structures and corporate campuses. Since that time, other campuses and companies such as Rambus, NetApp, Juniper, and Google, have redeveloped areas in the MPSP and the location has become a technology hub in Silicon Valley.

LOCATION

Regional Setting

Regionally, the proposed project is in Santa Clara County in the Silicon Valley and in the northwestern area of the City of Sunnyvale. Santa Clara County is bound by Alameda County to the north, San Mateo and Santa Cruz Counties to the west, San Benito County to the south, and Merced and Stanislaus Counties to the east. The Silicon Valley is generally defined as that portion of the Santa Clara Valley that largely serves as the technology center of the world. Santa Clara County and the Silicon Valley has a diverse urban and natural landscape unique to the southern region of the San Francisco Bay area.

The proposed project is located on the southern edge of the San Francisco Bay and is part of a nearly continuous urban landscape with the neighboring cities including Mountain View, Los Altos, Cupertino, and Santa Clara. Areas such as the proposed project site within the Silicon Valley tend to be highly urbanized, with concentrations of high-technology centers, old and new residential areas, transportation infrastructure, and downtown settings. On the boundaries of these urbanized and high density uses there are large natural areas including the San Francisco Bay to the north, Santa Cruz Mountains to the southwest, and the Diablo Mountain Range to the east. These natural features generally define the borders of the Silicon Valley in which there are numerous other municipalities including Palo Alto to the west, Fruitvale to the southeast, and San Jose to the east. These areas are typified by development patterns that consisting of suburban, urban, and very high-density land uses.

Regional access to Sunnyvale is provided by US Highway 101 (US 101) and State Route (SR) 237. Both are both located approximately one mile to the south of the proposed project. US 101 is an eight-lane freeway with a high occupancy vehicle (HOV) lane in each direction and SR 237 is a six-lane freeway with a high occupancy toll (HOT) lane in each direction. From this location, SR 237 trends northeasterly and southwesterly connecting to Interstate 880 (I-880) approximately seven miles to the east and to Interstate 680 (I-680) approximately eight miles to the east. I-880 generally trends north and south and provides access to points north including San Leandro and Oakland, and points south including San Jose before joining US 101. From this point US 101 continues south through Santa Clara County to as far south as Los Angeles County. Closer to the project area, US-101 generally trends to north and south on the west side of the San Francisco Bay and provides access to Sonoma County, Marin County, San Francisco County, and San Mateo County. *Figure 1: Regional Location Map*, shows the project site in relation to surrounding counties as well as major transportation corridors.

Local Setting

The City is located immediately south of the San Francisco Bay and occupies approximately 22 square miles. The City contains a mix of land uses from residential, commercial, industrial, recreational, open space, and is accessed via major transportation corridors, arterial roadways, and local roads. The majority of the commercial and industrial uses occupy the northerly portion of the City that is located north of the Central Expressway and Caltrain line. These corridors are located approximately 2.5 miles south of the project site. The Caltrain line divides the City roughly in half from west to east and provides service to San Francisco to the northwest and southerly to the City of Gilroy. South of this dividing line the City is characterized by predominantly residential development of an urban scale.

The MPSP is located in the northernmost area of the City and is bound by the southern San Francisco Bay (Bay). The project area occupies the northernmost area of the MPSP plan area and is approximately 0.25 miles from the Bay. The project site is on flat ground and is surrounded by other industrial and commercial uses largely related the technology industry.

The recent expansion and redevelopment within the MPSP has been in response to the rapid growth in the technology sector and corresponding expansion within the Silicon Valley. This has resulted in both the City and Santa Clara County having to respond to substantial amounts of commercial and industrial growth over the last two decades. According to the California Department of Finance (CDOF), the City population was approximately 155,567 on January 1, 2019 (CDOF, 2019). In 2000 the population was approximately 132,198, and 140,081 in 2010. This represents a near 20-year increase of approximately 17% (CDOF, 2019b).

In large part, population growth in the City has been tied to the relatively recent focus on the technology sector and notably within previously developed areas of the MPSP. This is evidenced by the other Google complexes, and other technology companies including Yahoo, Rambus, etc. *Figure 2: Local Vicinity Map* shows the project site in relation to its position within the City and major transportation routes.

PROJECT SITE

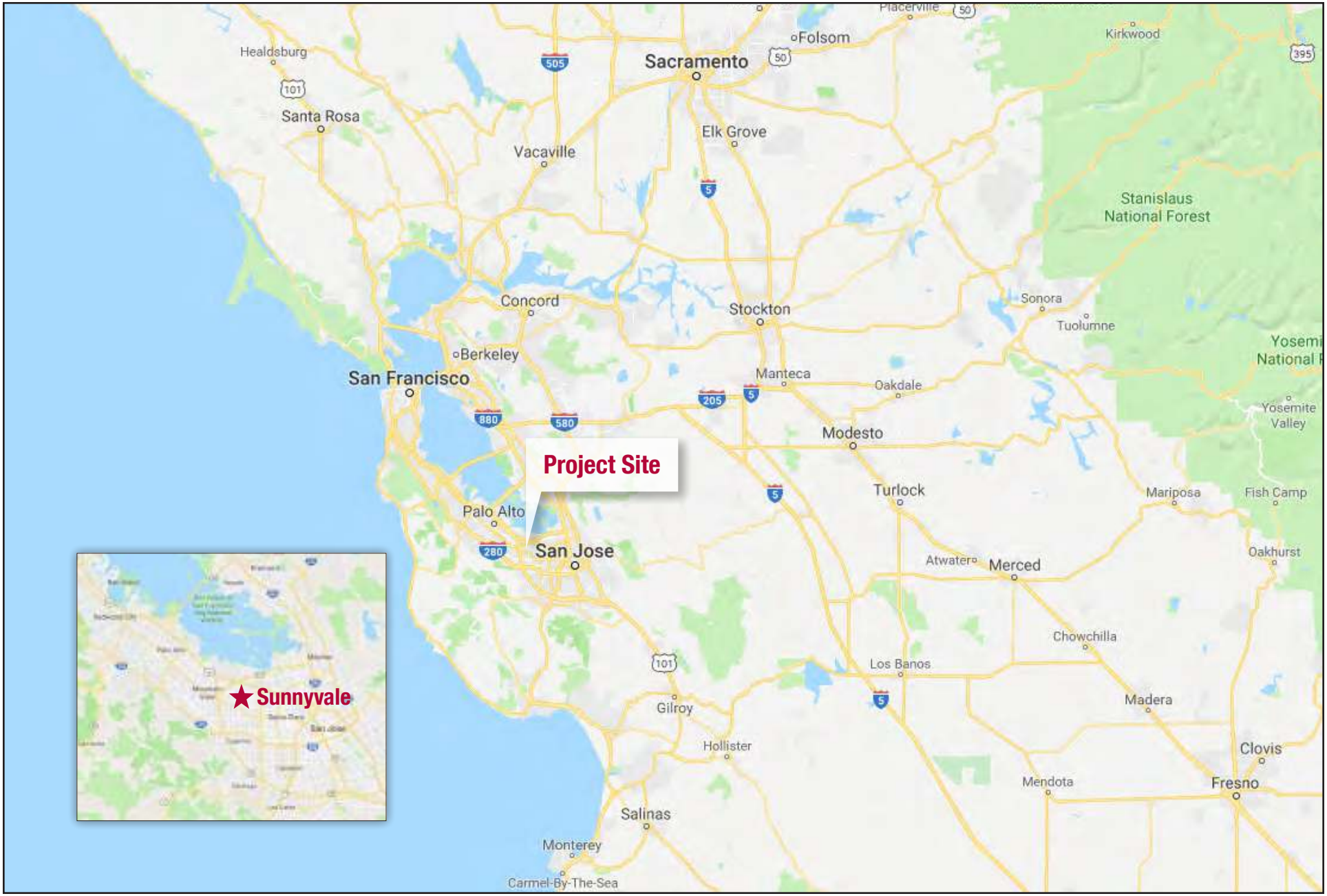
The proposed project is located in the City of Sunnyvale within the northern portion of the highly developed MPSP area. The character of the site is typical of other areas in MPSP that are currently developed with the original single story commercial and industrial uses. The structures are largely rectangular or square in shape and are surrounding by open ground level parking lots and non-native landscaping. The vast majority of the properties are covered in hardscape. *Figure 3: Aerial Photograph of the Proposed Project*, provides a colorized view of the overall characteristics of the project site.

The project site is bisected from north to south by approximately 1,000 feet of the Valley Water (VW) West Channel, which occupies approximately 4.0 acres of the project site. The West Channel is an open topped man-made flood control channel. It is culverted under West Java Drive south of the project site and culverted under West Caribbean Drive at the northerly site boundary. Within the project site the West Chanel has steep vegetated banks and has a heavily disturbed dirt access road on the on the top of the levees. From the top of the levee, the channel slopes downward approximately 40 feet to the adjacent project parcels. This area is characterized by upland vegetation and trees near along the property lines. The total width of the West Channel is approximately 140 feet.

The proposed project would occur on 10 existing parcels with 13 existing structures and result in the construction of two new mid-rise five-story buildings. The addresses of the buildings are shown in *Table 2.1-1: Project Site Current Addresses*. The project site would be readdressed as 100 West Caribbean Way and 200 West Caribbean Way. The area containing the building at 100 West Caribbean Way is bounded by West Caribbean Drive on the north, Borregas Avenue on the east, Caspian Court on the south, and the VW West Channel on the west. The area containing the proposed building at 200 West Caribbean Way is bound by West Caribbean Drive on the north, the VW West Channel on the east, Bordeaux Drive on the south and Mathilda Ave on the west.

Table 2.1-1: Project Site Current Addresses

Address		Address	
140-146	West Caribbean Drive	1393-1395	Borregas Avenue
360-364		1383	
370-376		1325	
380-382		1330-1338	Bordeaux Drive
390-394		1340-1346	
		1350	
141	Caspian Court	1360-1368	

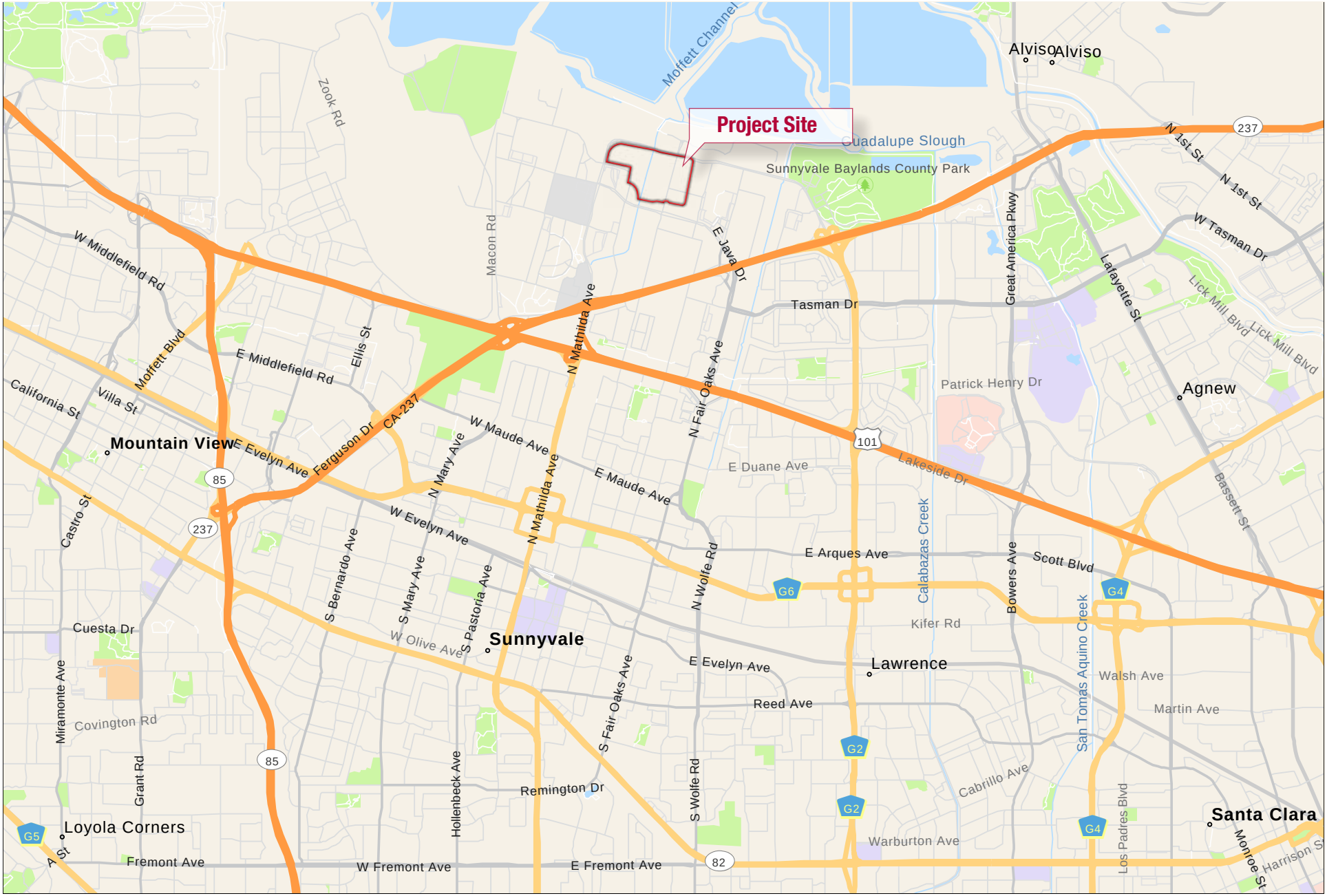


Source: Google Maps, 2019

FIGURE 1: Regional Location Map
Google Caribbean Campus

Not to scale

Kimley»Horn



Source: ESRI, 2019

FIGURE 2: Local Vicinity Map
Google Caribbean Campus

Not to scale

Kimley»Horn

Source: Google Maps, 2019

FIGURE 3: Aerial Photograph
Google Caribbean Campus

Not to scale

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3. INITIAL STUDY CHECKLIST

1. **Project Title**
   Google Caribbean Campus # 2017-8042

2. **Lead Agency Name and Address**
   City of Sunnyvale – Community Development Department
   456 West Olive Avenue
   Sunnyvale CA, 94086

3. **Contact Person and Phone Number**

   Michelle King (408) 730-7463

4. **Project Location**
   100 and 200 West Caribbean Way
   Sunnyvale, CA 94089

5. **Project Sponsors Name and Address**
   Google
   1600 Amphitheatre Parkway
   Mountain View, CA 94043

6. **General Plan Designations**
   Moffett Park Specific Plan (MPSP)
   MP-I Moffett Park Industrial
   MP-TOD Moffett Park Transit Oriented Development

7. **Zoning**
   MP-I Moffett Park Industrial
   MP-TOP Moffett Park Transit Oriented Development

8. **Description of Project**
   See below.

3.1 Project Description

The proposed project would result in the demolition of the existing structures and hardscape and redevelopment of the project site with two modern five-story mid-rise structures totaling approximately 1,041,890 sf. The new buildings would be designed to be consistent with other existing as well as future redevelopment efforts in the MPSP. The two proposed structures would be five stories each, and the buildings would share use of the proposed four-story parking garage, surface parking lots, and other project amenities including landscaped courtyards, walkways, and alternative transportation elements. The proposed site plan is shown in *Figure 4: Proposed Site Plan and Figure 5: Proposed Conceptual Site Plan.* More specifically, the project would consist of 271,040 sf of office space, 346,395 sf for amenities/meeting rooms, food service, and fitness; 389,397 sf for cores, circulation, and bathrooms, and 35,059 sf of other

(walls). The project also would provide a total of 2,092 parking spaces. The buildings are designed for a single tenant, would be designed to be consistent with other projects in the area, includes design features to integrate to the existing landscape and surrounding developments, as well as future redevelopment that would occur within the MPSP.

FIGURE 4: Proposed Project Site Plan
Google Caribbean Campus

Not to scale

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FIGURE 5: Proposed Conceptual Site Plan
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The project site would be re-addressed, and the two five-story buildings would be known as 100 West Caribbean Drive and 200 West Caribbean Drive. The westerly structure would be addressed 200 West Caribbean Drive and occupy the portion of the project site west of the West Channel, and the easterly structure would be addressed 100 West Caribbean Drive and occupy the portion of the site east of the West Channel. The structure at 100 West Caribbean Drive would consist of 536,750 sf, and the structure at 200 West Caribbean Drive would consists of 505,140 sf. Both proposed buildings both would have an overall height of 120 feet, 5 inches as measured from the finished floor to the top of the screening facades for the air handling unit (AHU). The proposed project also includes a parking garage, surface parking lots, and other project components that are discussed in additional detail below. Business serving uses would include office, office supports, rooms for events and tech talk, building support, core/MEP, and flexible use spaces. The proposed project also would provide a range of services to employees that would include amenities such as, food service, recreation, fitness, leisure areas, food service, fitness and massage, wellness, and landscaped and decoratively paved pedestrian pathways. The completed project would require a total of approximately 4,500 employees. Lastly, the proposed project includes uses that would support operations and includes shipping and receiving, maintenance areas, health and safety, storage areas, vehicles to support operations, landscaped areas. The specific overall square footage proposed for these uses are shown in *Table 3.1-1: Project Uses and Area*. Specific details of the project components are discussed in additional detail further below.

Table 3.1-1: Project Uses and Area

Use	Area (square feet)	Percent of Area (sf)
Office Space	271,040 sf	26.01%
Amenities/Meeting Rooms/Food/Fitness	346,394 sf	33.25%
Cores/Circulation/Bathrooms	389,397 sf	37.37%
Other (walls)	35,059 sf	3.36%
Total:	**1,041,890**	**100.00%**

DESIGN CONCEPT

The proposed project's office buildings are designed with unique stepped and sloped green roof lines. The proposed design concepts are shown in *Figure 6: Conceptual Design Concepts*, this plan for the roof would provide a walkable landscaped environment for use by campus personnel. The walkable paths would be Americans with Disabilities Act (ADA) compliant and crisscross the roof and provide access from the ground floor to the fourth floor. The paths would end at a small courtyard with seating and landscaping on the fourth-floor roof and the green roof would terminate where it joins the fifth-floor roofline. The green roofs would incorporate a decorative attractive plant pallet including shrubs and trees.

The project proposes to use differentiated roof lines that would provide diverse but compatible textures, colors, and materials that would break up the visual building massing that is generally associated with the facades of a five-story building and parking structure. The proposed project has been designed to create greater visual variety, a sense of place, and unobtrusive visual interest while establishing its own individual character within the MPSP. Portions of the building facades, in addition to the windows, would have open but fixed metal mesh diamond-shaped shading devices designed to provide visual variety, prevent bird strikes, and reduce energy transferred from and into the structures. The buildings are positioned to provide

functional open spaces, plazas, courtyards and tree and vegetation lined walkways. Views of the structure from the north would be softened as compared to traditional oblique buildings, as the proposed project would integrate the stepped design.

These design elements are intended to create a commercial/industrial project with diverse architectural forms that would balance with the existing environment. The parking structure is designed as an open, naturally ventilated structure which carries minimum open facade requirements. The parking structure would include a public art themed facade to break up the massing. Vegetation and berms including trees are proposed around the outside of the project site and the parking structure may contain creeping vines to break up the visual bulk of the structure.

In addition to the green landscaping, the proposed project would use numerous Leadership in Environmental Design (LEED) measures to increase the sustainability of the project. LEED features include but are not limited to reduced parking footprints, use of open space, rainwater management, heat island reduction, light pollution reduction, numerous water efficiency measures, numerous energy conservation such as metering, using performance standards, and carbon offsets.

PROJECT DENSITY

The MPSP has two different types of density or FAR allowances available for qualifying projects. These allowances include a Development Reserve and Transfer of Development Rights (TDR). No TDR is proposed as part of the project. The proposed building at 100 West Caribbean Drive would be approximately 536,750 sf and 200 West Caribbean Drive would be approximately 505,140 sf. The total area of the new buildings would be approximately 1,041,890.

As discussed, based on the existing zoning designations, proposed sf, and total allowable FAR the proposed project would require a FAR allowance from the MPSP Development Reserve. The proposed project would exceed the standard FAR by a total of approximately 360,851 sf. The proposed project would rely on the MPSP Development Reserve and will comply with the City's Green Building requirements to achieve a total FAR of 0.66, consistent with the MP-TOD and MP-I sub-districts. The 100 West Caribbean Drive site would require a FAR allowance of 209,315 sf, and 200 West Caribbean Drive would require an allowance of 151,536 sf. *Table 3.1-2: Proposed Building Square Feet and Floor Area Ratio* shows this information.

Table 3.1-2: Proposed Building Square Feet and Floor Area Ratio (FAR)

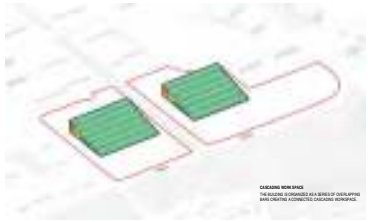
Building Address	Proposed SF	Standard FAR sf	Required sf Allowance	Proposed FAR
100 Caribbean	536,750	327,435	209,315	0.50
200 Caribbean	505,140	353,604	151,536	0.71
Total	**1,041,890**	**681,039**	**360,851**	**0.66**
Abbreviations: FAR = Floor Area Ratio, sf – square feet.				

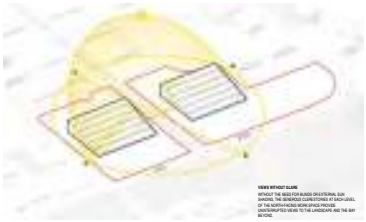
5 AERIAL VIEW OF BUILDINGS 100 & 200

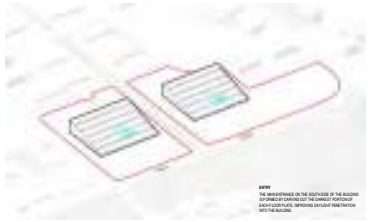
4 NORTH FACADE - BUILDING 100

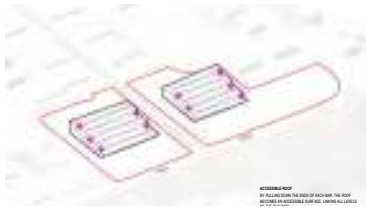
3 GREEN ROOF - BUILDING 200

2 PORCH VIEW OF BUILDING 200









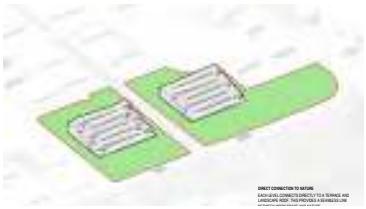


FIGURE 6: Conceptual Design Concepts

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VEHICLE CIRCULATION

The proposed project does not include the construction of any new roadways but does include an internal circulation plan and roadways that would have stop sign-controlled intersections. Regionally, the MPSP is accessed from SR 237 and US HWY 101 and site access to the project would be provided by the existing network of roads within the MPSP. Within the MPSP, direct access to the site would be provided by the local roadways consisting of West Caribbean Drive, North Mathilda Avenue, Borregas Drive, and Bordeaux Drive. The project would include an internal network of access roads and driveways needed for vehicle and shuttle bus turnarounds, drop-off pick-up areas, access to the parking structure surface parking, product delivery and shipping, and access for waste hauling.

The project's 200 W. Caribbean driveway is located approximately 947 feet from the curve on W. Caribbean Drive. Anticipated driveway throat lengths are as follows: Mathilda Avenue: 304 feet; 200 W. Caribbean: 350 feet; 100 W. Caribbean: 110 feet; and Borregas Avenue: 128 feet. In terms of eastbound driveway deceleration lanes (also referred to as queueing lanes), 200 W. Caribbean will have a deceleration lane measuring approximately 150 feet; 100 W. Caribbean's deceleration lane will be approximately 130 feet.

The project proposes new signalization at the intersection of W. Caribbean Drive and the 200 W. Caribbean driveway. The proposed signalized intersection allows for full vehicular movement and a pedestrian crosswalk at the intersection's eastern side, permitting a connection to the Bay Trail located to the north of the project site. The signalization includes installation of a westbound left turn from W. Caribbean Drive onto 200 W. Caribbean, an eastbound deceleration right turn lane from W. Caribbean Drive onto 200 W. Caribbean, and two egress lanes from 200 W. Caribbean: one left-turn lane for westbound access to W. Caribbean Drive and one right turn lane for eastbound access to W. Caribbean Drive.

The project also includes a multi-use trail, which is a paved, two-way trail for pedestrians and bicyclists with an approximate 10-foot width, 2-foot wide shoulders on either side, and a total width of approximately 14 feet. In addition, the pedestrian overcrossing at the Caspian Drive extension over the West Channel would be engineered to support emergency vehicle access. *Figure 7: Project Site Plan*, shows the proposed parking areas, parking structure, and access roads and driveways, and *Figure 8: Vehicular Circulation Plan*, shows the direction of vehicle flow within the site.

Access to 100 West Caribbean

Personal vehicle access to 100 West Caribbean would be provided by one driveway on Borregas Avenue, and one driveway on West Caribbean Drive. Both driveways would access the parking on the northerly portion of the site. The West Caribbean Drive lot would provide for only a right-in/right-out configuration, and the Borregas Avenue access would allow for both left and right turns.

Shuttle Bus access would be provided by a right-in/right-out driveway that would access a small interior loop for bus movement near the southerly portion of the site. The Shuttle Bus pick-up and drop off would provide immediate access to the bicycle and pedestrian pathways.

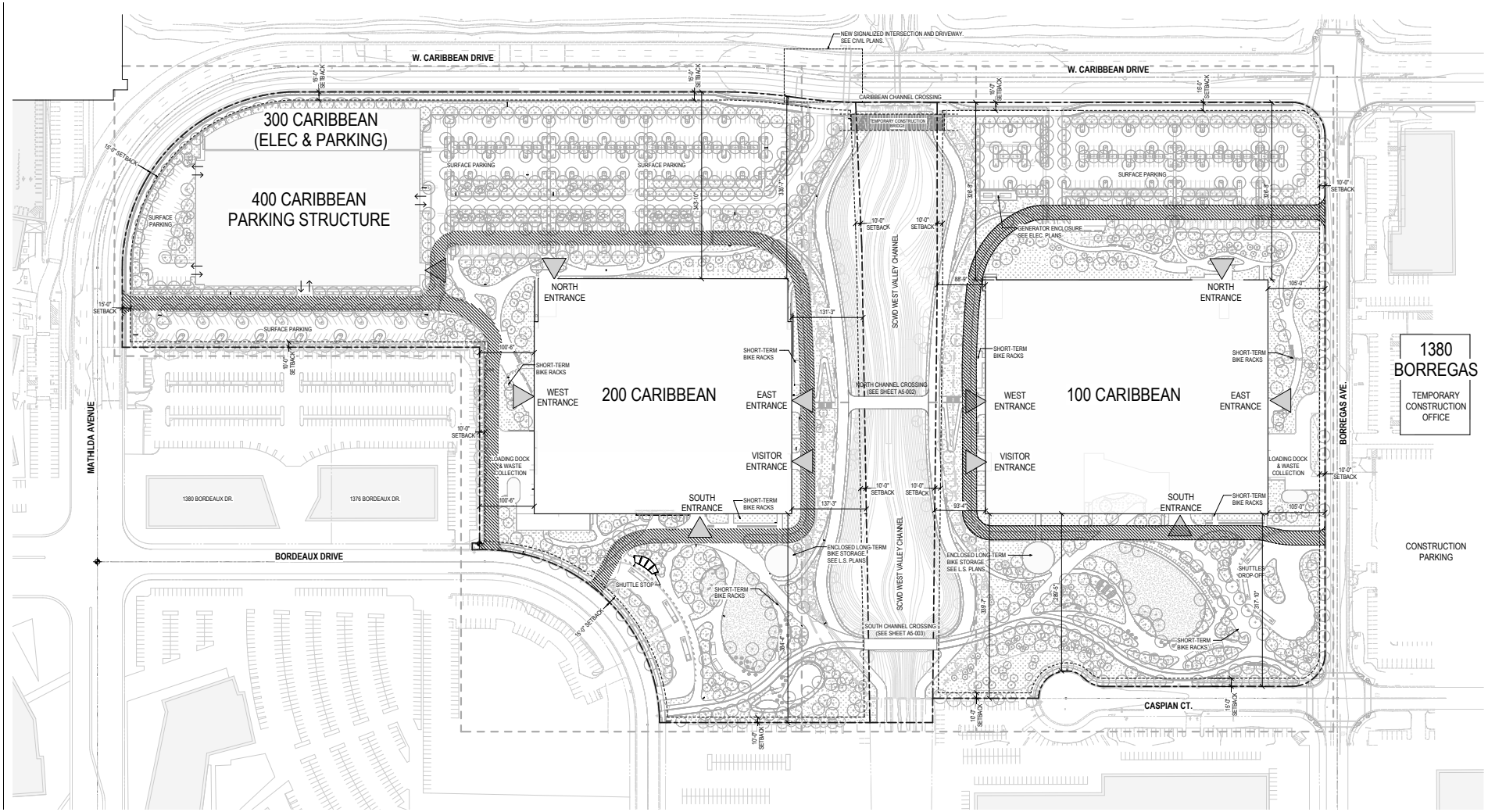

FIGURE 7: Project Site Plan

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Not to scale

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Source:

FIGURE 8: Vehicular Circulation Plan
Google Caribbean Campus

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Service vehicles also would access the 100 Caribbean site via Borregas Avenue via two driveways. The driveways would access the six proposed loading docks, waste enclosure and compactor on the easterly side of the proposed structure. The northerly driveway would be used for ingress and the southerly for egress.

Access to 200 West Caribbean

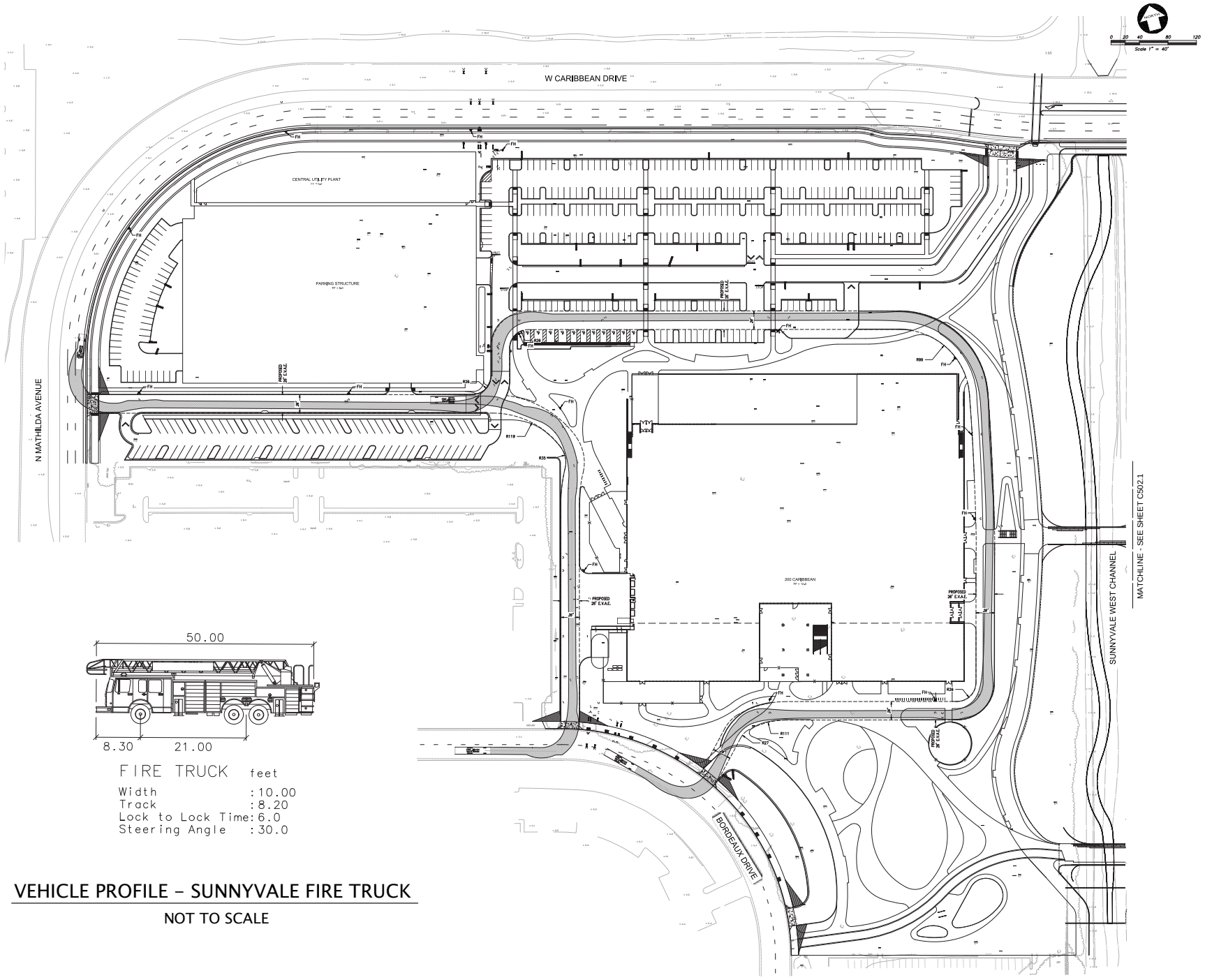
Access to 200 W. Caribbean would be provided by two driveways used to enter surface parking and the parking structure. The parking structure is proposed to be located on the northwest corner of the lot. Two surface parking lots also would be provided. The smaller of the lots would be adjacent to the southerly and westerly side of the parking structure and the larger surface lot would be adjacent to the easterly side of the parking structure and the northerly side of the proposed new building. The parking lots would be joined by an interior lane and they would be accessed via two drive-ways. The primary access driveway for the northerly lot would be fully signalized and located on Caribbean Drive near the West Channel. The driveway that would provide primary access to the smaller lot is proposed to be located on North Mathilda Avenue with a right-in/right-out configuration. Vehicle access to the parking structure would be provided by either of the driveways.

Shuttle bus access to the 200 West Caribbean site would be provided by a looped driveway with right-in/right-out access along Bordeaux Drive. The Shuttle Bus pick-up and drop off would provide immediate access to the bicycle and pedestrian pathways.

Service vehicle and truck access would be provided by a different driveway on Bordeaux Drive adjacent to the western property line. The driveway would provide access to six loading docks and waste enclosure and compactor.

Emergency Vehicle Access

The proposed project has been designed to provide adequate emergency vehicle access to all areas of the campus via interior hardscaped easements. The proposed project includes an integrated emergency vehicle access plan for both 100 and 200 West Caribbean Drive. Emergency Access to the 100 West Caribbean Drive site would be from three separate locations including two via Borregas Avenue, and one via West Caribbean Drive through the parking lot. Emergency access to the 200 West Caribbean Drive site would be from four separate locations including North Mathilda Avenue, two accesses via Bordeaux Avenue, and access via West Caribbean Drive through the parking lot. Within the interior of the site, the emergency access easement will be asphalt, concrete or other material that is all weather and could accommodate a 90,000-pound fire vehicle. The easement would encircle each proposed structure providing 360-degree access and would connect to the surrounding major roadways. This pedestrian overcrossing would be engineered to support emergency vehicle access. These features are shown in *Figure 9: Emergency Vehicle Access Plan*.



VEHICLE PROFILE – SUNNYVALE FIRE TRUCK

NOT TO SCALE

FIGURE 9: Emergency Vehicle Access Plan

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Not to scale

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Transportation Demand Management

The proposed project includes a Transportation Demand Management (TDM) Plan. The TDM Plan incorporates a variety of incentives, services, and actions to reduce single-occupant vehicle trips and relieve vehicle congestion and reduce parking and air quality impacts. The proposed TDM was prepared in accordance with the City and the MPSP Trip Reduction guidelines. The proposed project would be a part of the Moffett Park Business Group Transportation Management Association (MPBGTMA) that works to support and encourage TDM by providing commuter resources, carpools/vanpools, bicycle facilities, transit advocacy, and marketing programs.

Transit and Alternative Transportation

The proposed project would tie into and complement the existing transit and alternative transportation network within the MPSP. The MPSP envisioned a circulation plan including roadways, public transit, pedestrian, and a bicycle system to serve the area. Transit within the MPSP area is provided by both public services and private employers using shuttles, local buses, express buses, and light rail service from the VTA. The VTA Borregas Light Rail Station is located immediately west of the intersection of Borregas Avenue and East Java Drive approximately 800 feet south of the project site.

Shuttle service is provided to the off-site Caltrain and Altamont Express stops at Great America approximately 2.5 mile to the southeast near the intersection of Great America Parkway and Tasman Drive. The MPSP also provides some bicycle lanes, most notably an existing bicycle lane along 11th Avenue that connects to the northerly segment of Innovation Avenue. *Figure 10: Transit within and near the MPSP,* shows the existing bus stops, light rail station(s), and regional transit locations that would serve the MPSP.

Parking

The proposed project would have two surface parking lots and a four-story parking garage. Total parking is for 2,092 spaces. Reserved parking would be conveniently located for all carpoolers, van poolers, and clean-fuel vehicles. Parking for personal electric vehicles (EV), carpools and expectant mothers would be provided close to main building entrances. All parking areas would be screened from public roadways by landscaping or berms.

The parking structure is designed as an open, naturally ventilated structure and carries minimum open facade requirements. The parking structure would be located on the corner of Mathilda Avenue and West Caribbean Drive. The structure would be approximately 399,657 sf and would have approximately 1,417 spaces including 1,286 standard spaces, 108 electric vehicle spaces, and 23 van and accessible parking spaces.

Surface parking would be within two separate lots adjacent to West Caribbean. The surface lot at 100 West Caribbean Drive would consist of approximately 247 total parking spaces including 116 standard spaces, 62 carpool stalls, 48 EV stalls, 12 expectant mother stalls, and 9 ADA compliant van/vehicle stalls. The surface lot at 200 West Caribbean Drive would consist of approximately 428 parking spaces including 217 standard spaces, 88 carpool stalls, 66 electric vehicle stalls, 46 expectant mother stalls, and 11 ADA compliant van/vehicle stalls. Available parking is summarized in *Table 3.1-3: Parking Facilities.*

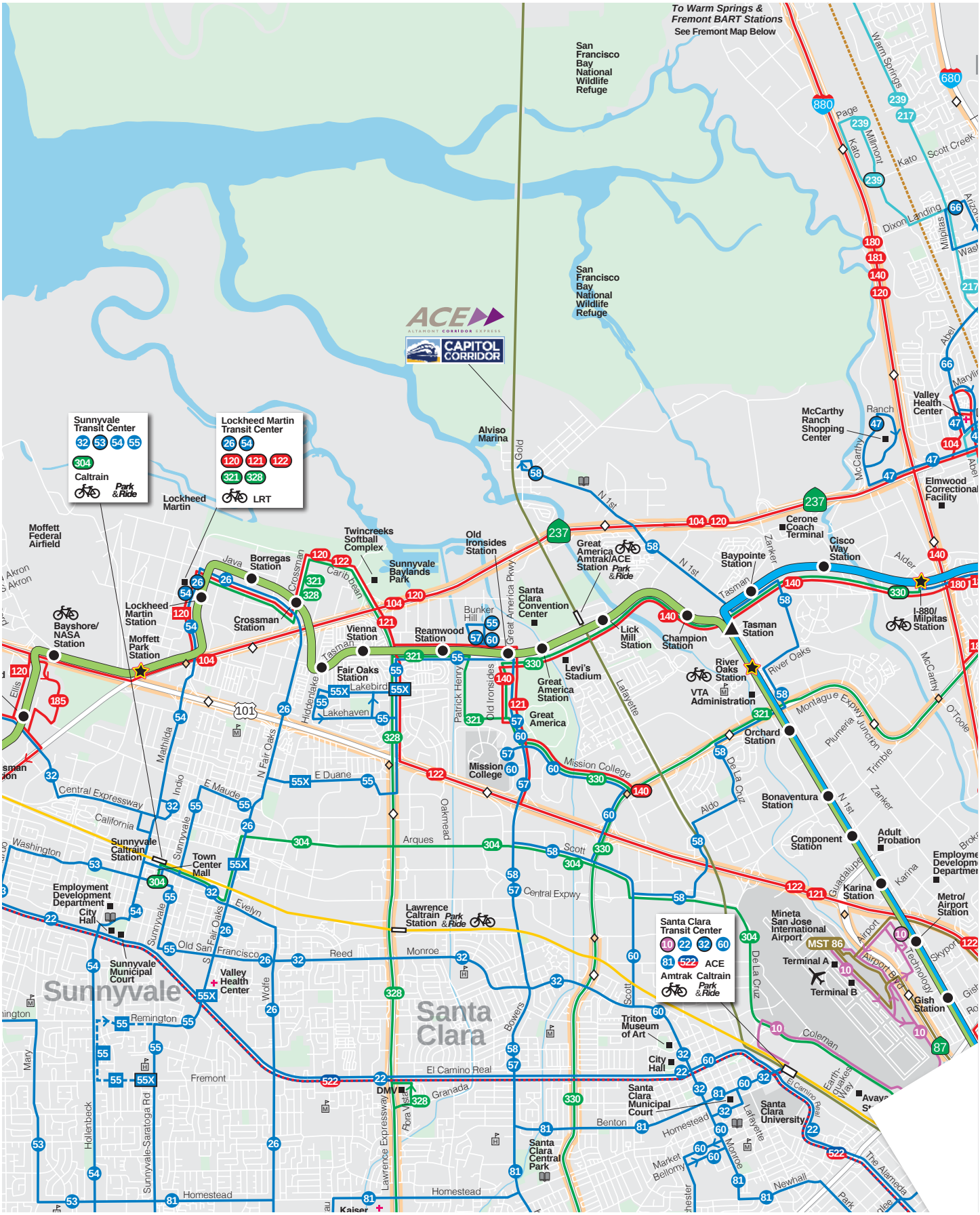

FIGURE 10: Transit Within and near the MPSP

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Table 3.1-3: Parking Facilities

Surface Parking (100 and 200 Caribbean)		Stalls
	Regular Stalls	333
	Carpool Parking Stalls	150
	Electric Vehicle Stalls	114
	Expectant Mother Stalls	58
	ADA-Car	14
	ADA-Van	6
Garage Parking		
	Regular Stalls	1,286
	Electric Vehicle Stalls	108
	ADA-Car	18
	ADA-Van	5
	TOTAL	**2,092**

Pedestrian and Bicycle Facility

The proposed project would incorporate extensive sidewalks and paths throughout the project area as well as bicycle and pedestrian routes with features such as sitting areas and bicycle storage to encourage and increase the frequency of use of non-motorized transportation. The project's proposed pedestrian and bicycle networks, including bicycle lockers, would be extensive and serve areas within and surrounding the project area. The interior pathways would connect to the stepped design of the buildings that would be landscaped with private walking paths for Google employees to the top of the fourth-floor roof. In addition, the exterior sidewalks are included as part of the proposed project. The proposed project would complete the sidewalks on the boundaries of the site along all project street fronts. This includes a sidewalk on the northerly side of Caspian Court, the westerly side of Borregas Avenue, and easterly side of North Mathilda Avenue. In addition, the project frontage along Bordeaux Avenue would be constructed with a sidewalk.

The linkages between use areas and the bicycle and pedestrian pathways is well defined. The pathways would link from the parking lots and parking structure to the main two buildings. For example, the pathways would connect both cyclists and pedestrians to the private shuttle rider route hub off Bordeaux Avenue on the south and the other with access at Borregas Avenue on the east. The project includes two bridges over the Sunnyvale West Channel which bisects the site. The two bridges consist of a north and south channel crossing that provide internal connection within the project area. The north channel crossing provides a connection between the 100 and 200 West Caribbean buildings. The south channel crossing provides a pathway connection between the open space area in the southern portion of the site with connectivity to a proposed shuttle stop located off of Bordeaux Drive in the southwest corner of the site. The proposed pedestrian bridges would be single-span, approximately 125 feet in length and 30 feet in width. The bridges would be installed during the first year of channel reconstruction from April 15 – October 15.

The proposed project would further support the use of bicycles by providing both short-term spaces by providing 241 Class 1 and 100 Class 2 bicycle parking spaces at 100 Caribbean Drive and 241 Class 1 and 96 Class 2 bicycle parking spaces at 200 Caribbean Drive. The proposed project incorporates Google's bike sharing program which provides G-Bikes and V-bikes for employees for both on campus and off-campus commutes. These multimodal transportation designs would provide connectivity to other areas of the corporate campus as well as off-site areas within the MPSP and points more distant served by the VTA light

rail stations and other available mass transit. *Figure 11: Pedestrian Circulation Plan*, and *Figure 12: Bicycle Circulation Plan* shows these improvements graphically.

VALLEY WATER'S WEST CHANNEL

Valley Water's West Channel bisects the project site from north to south. The project applicant is working closely with Valley Water to ensure improvements are consistent with Valley District design requirements and to improve the functionality and overall usability of the area and of the channel for multiple uses.

The VW's West Channel bisects the project site from north to south. *Figure 13: Existing West Channel*, shows the existing alignment and contours of the West Channel. As part of the project, flood protection along the approximate 1,000 feet of the West Channel would be improved in manner generally consistent with the Sunnyvale East and West Channels Flood Protection Project. The proposed design requires final approval by Valley Water and would provide at a minimum, an equivalent level of flood protection through the project reach and will not compromise flood protection at this location or any other reach of Valley Water's overall project. The improvements to the West Channel would be similar to those identified within the certified VW Flood Protection Project Final EIR (Valley Water EIR, 2013) but have been modified slightly from the approved design to accommodate the proposed project and enhance flood control, aesthetics, and habitat functionality. Mitigation measures from the Valley Water EIR have been incorporated into the project design and will be included in the project conditions of approval.

More specifically, most of the existing channel on the project site will be filled and reestablished to meander, thereby replicating a natural streambed's flow and ecological functions, and ultimately delivering enhanced flood protection. *Figure 14: New West Channel Meander*, shows the proposed contours for the West Channel improvements. The reestablished channel will match the existing channel location with the exception of two westward meanders of approximately 24 feet and 49 feet. The new channel is designed to be a low flow channel, which matches the existing low flow channel. The West Channel improvements would primarily be constructed over the course of two construction seasons (April 15-October 31) in 2021 and 2022. The majority of the import of levee fill and certain minor preparation work is planned to occur in 2020.

Flood Control

The Valley Water project proposed to use vertical floodwalls along the channel for freeboard standards and to meet FEMA 100-year storm event flood protections. The proposed project would modify the originally proposed use of vertical floodwalls along the length of the channel and instead, proposes to widen the existing bank to bank width of the channel to between 52 to 65 feet and the total width of the channel from 127 to 187 feet, and raise the levee to an elevation of 18 feet. The intent of the proposed project is to construct earthen levees in place of earthen levees with floodwalls. The proposed project widens the existing channel by moving the earthen levees outward, thereby creating a lower slope from the top of the levees to the streambed, which would permit establishment of native vegetation. The redesigned levees will provide the same level of protection as the Valley Water floodwall project: 100-year protection with 2 feet of sea level rise and an additional 4+ feet of freeboard. This redesign includes adaptability features for future sea level rise: levee heights may be increased or a short wall could be placed atop the levees. For additional details, refer to the August 15, 2019 West Channel Enhancement for Google Hydraulic Basis of Design Memorandum, prepared by Schaaf & Wheeler attached as Appendix I-1. The improvements would still meet FEMA 100-year storm event flood protections. Slopes also would be contour graded and levees

FIGURE 11: Pedestrian Circulation Plan

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FIGURE 12: Bicycle Circulation Plan

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Not to scale

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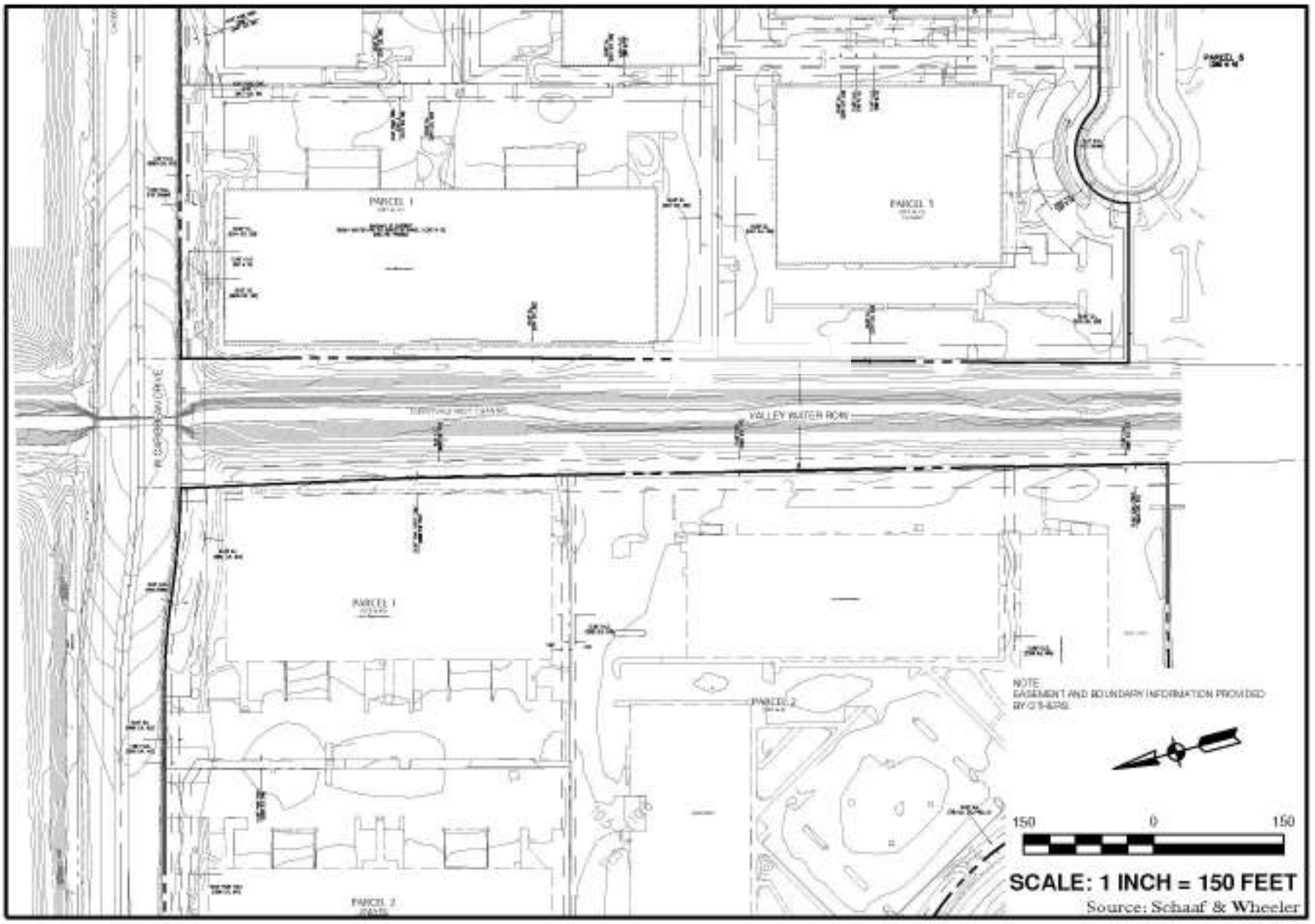

FIGURE 13: Existing West Channel
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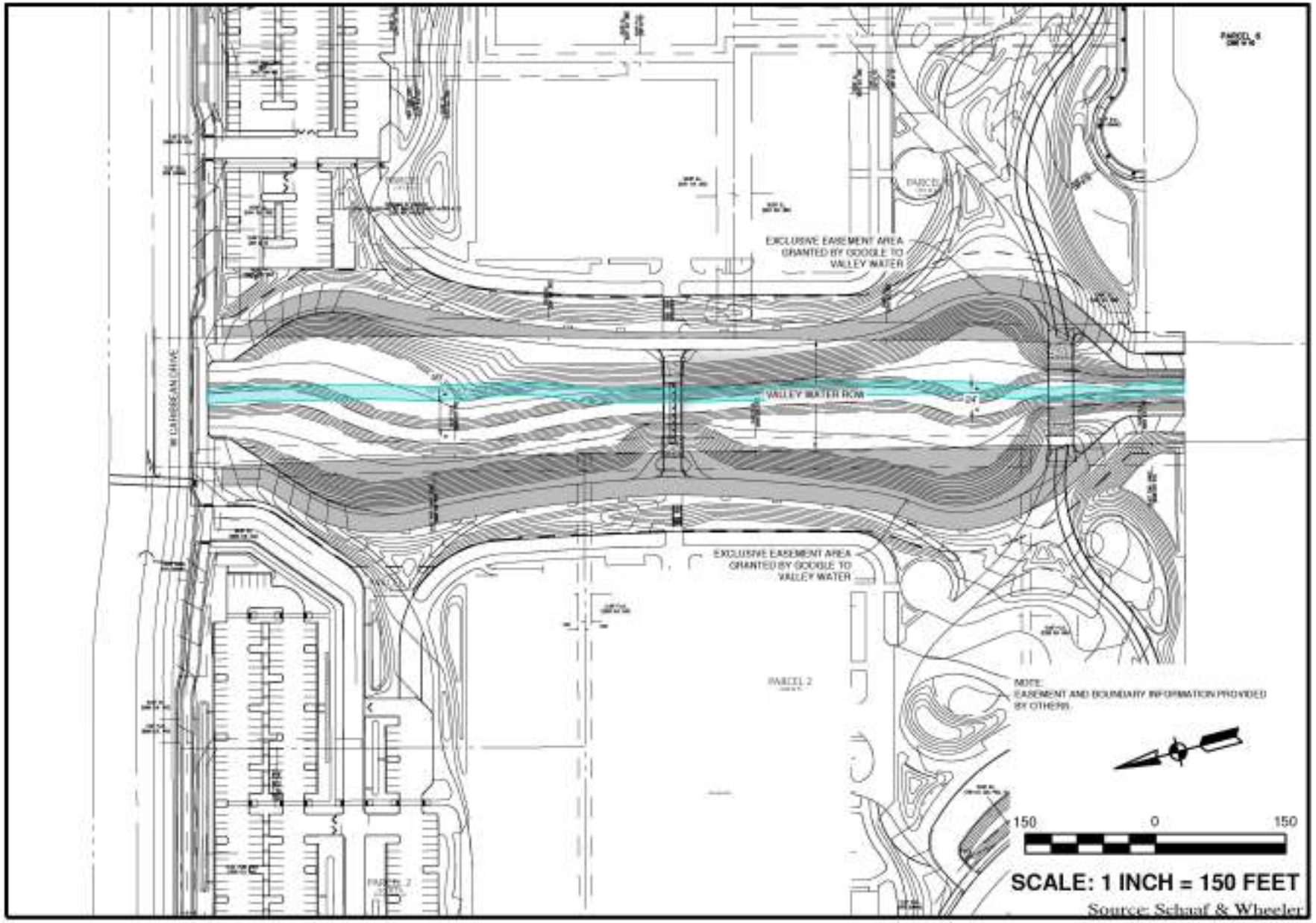

FIGURE 14: New West Channel Meander
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would be laid back to accommodate meanders and facilitate vegetation growth to create a functional habitat for plants and wildlife. The proposed project would maintain sections of floodwalls at the upstream extent of the project reach to conform to Valley Water's floodwall design elevations and would maintain the bridge and culvert modifications. The box culvert also would be extended with new headwall/floodwall to accommodate a sidewalk along West Caribbean Drive (as required by the City of Sunnyvale) and meet the grade and elevation to the new earthen levee top.

These improvements would require some additional grading to accommodate the low-flow storm drainage channel and associated flood plains, and for construction of two new pedestrian bridge crossings (one bridge crossing would accommodate emergency vehicles). VW maintenance vehicles would still be authorized to use the proposed pathways on the levee tops. *Figure 15: Valley Water Access Routes*, shows the levee tops and access that would be used by Valley Water personnel. In addition, an existing 54-inch stormwater pipe that runs along the West Channel will be relocated approximately 110 feet to the west of its current location. Improvements also would require a temporary bridge needed to enable channel improvements for approximately two-years. Lastly, the disturbed areas would be revegetated and a habitat mitigation/restoration plan for the enhancement of wetland and riparian habitat would be implemented. *Figure 16: West Channel Enhancement Project*, shows the channel enhancement areas including tidal aquatic, estuarine wetlands, wetland planting pockets, riparian mitigation, and additional riparian habitat. Overall, West Channel work contemplated in the proposed project would entail approximately 7,843 cubic yards of cut and 69,857 cubic yards of fill for the realignment, levee modifications, and subsequent vegetation improvements discussed above.

Bridges

The two new proposed permanent bridge crossings include one located at the north end (the Pedestrian Bridge) and one at the south end (the Caspian Bridge). (See *Figures 6, 7, 10*, and *16*, which show the location of the bridges. The Caspian Bridge has a 70-foot span, is 30 feet wide, and the top of the bridge path has an elevation of 18 feet and 3 inches. The Caspian Bridge's steel H-pile footings will be driven approximately 90 feet deep and are located within the VW right of way. The Caspian Bridge will be constructed of cast in place concrete. It will be open to the public for pedestrian and bicycle use, and will accommodate emergency vehicle access.

The Pedestrian Bridge spans 70 feet is 22 feet wide, and the top of the bridge path has an elevation of 18 feet and 3 inches. The Pedestrian Bridge's steel H-piles will be driven approximately 90 feet deep and are located within the VW right of way. The Pedestrian Bridge will be constructed of cast in place concrete, and will be open to the public for pedestrian and bicycle use, though it will not provide emergency vehicle access.

West Channel Improvements Construction

The proposed project will temporarily divert the project reach of the West Channel for purposes of constructing the proposed meander realignment. The total length of the diversion to enable project construction will be approximately 1,300 feet.

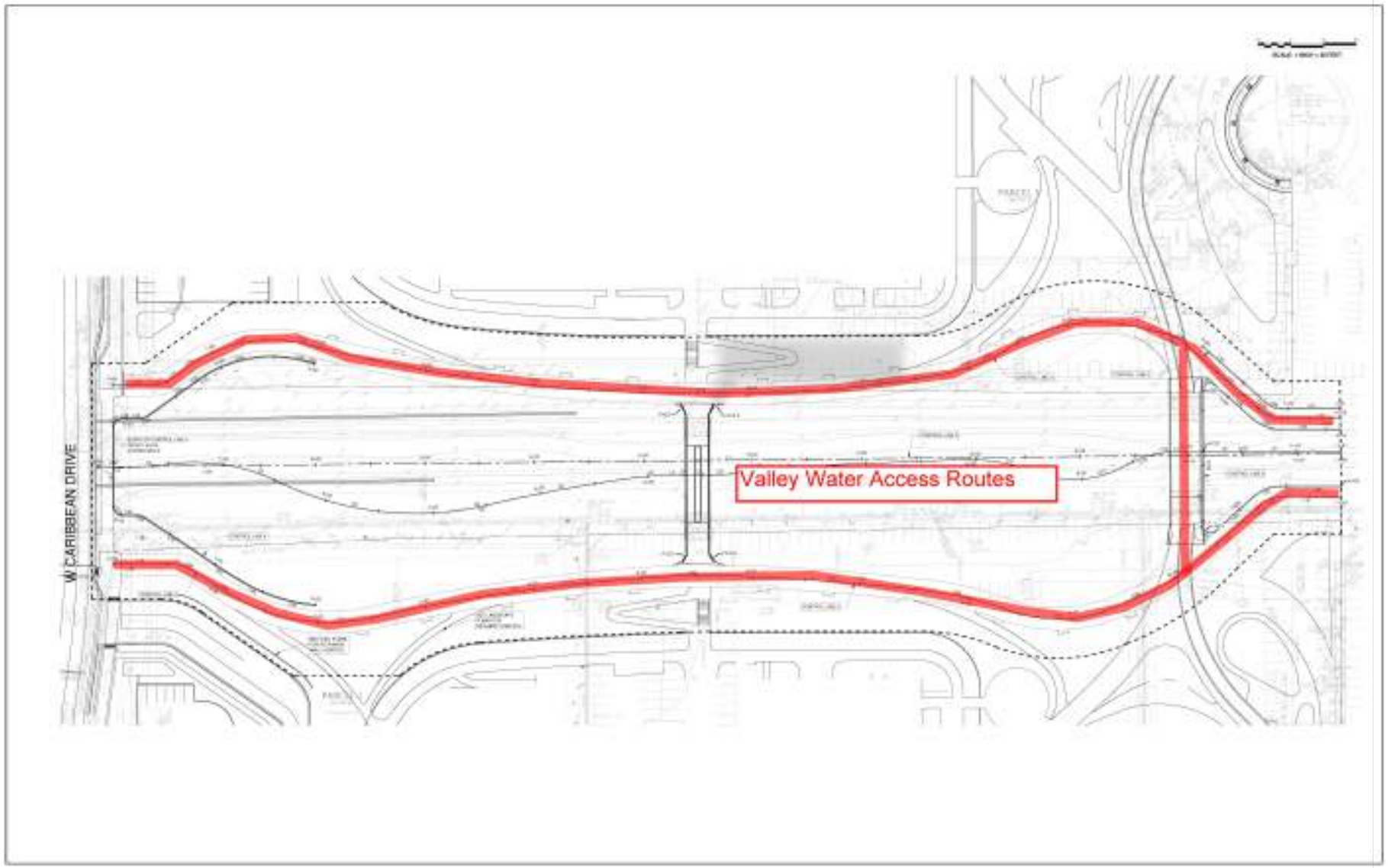

FIGURE 15: Valley Water Access Routes
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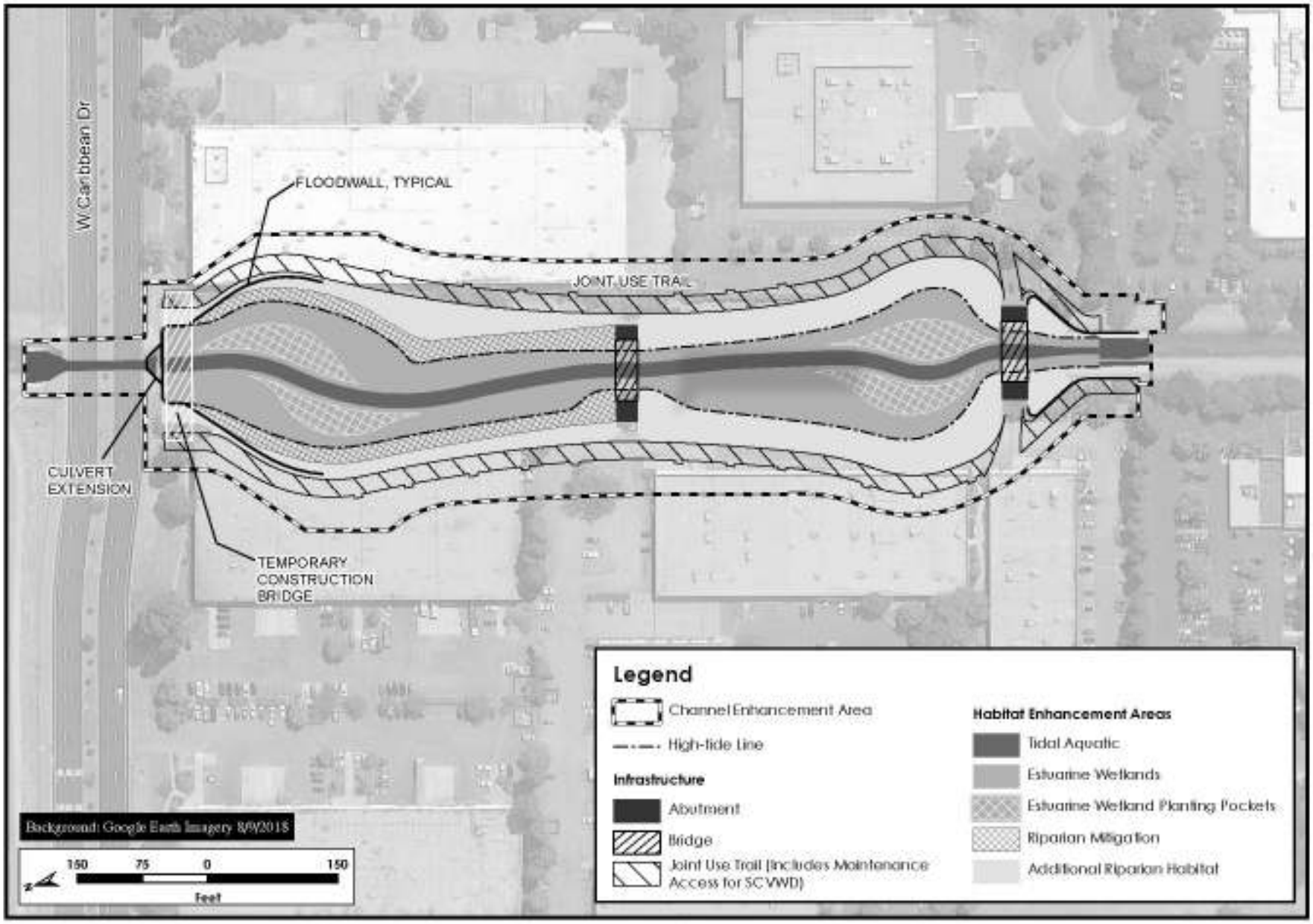

FIGURE 16: West Channel Enhancement Project
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The dewatering system will be composed of an AquaDam spanning the full width of the channel located at the downstream boundary of the construction reach (i.e. just downstream of the proposed Caribbean Drive bridge) and an earthen coffer dam spanning the full width of the channel located at the upstream limits of the construction reach (i.e. upstream of the proposed Caspian Drive Bridge). A 28-inch diameter fused high-density polyethylene (HDPE) pipe (or multiple pipes of the same carrying capacity) will be installed to convey the diverted water around the construction reach and a riprap or equivalent energy flow dissipater device will be installed for the system discharge point. This design is intended to prevent erosion, sedimentation and siltation from occurring in the upstream or downstream channel reach under active construction. Additionally, if groundwater seepage occurs within the dewatered reach, pumps will be used to discharge the seepage flows to intakes of the 28-inch HDPE trunk line. In accordance with standard best management practices, water quality monitoring and testing with contingency plans for parameter exceedances or system upsets will commence two days prior to installation of the dewatering system and will continue until one day after the dewatering system is completely removed. Dewatering is anticipated to occur from April 15-October 31 during the two years needed for construction. Once the construction work is completed, the diversion system and coffer dams will be removed within 48 hours of completion. Flows will be restored within the new construction area in a manner that minimizes erosion. (For details, refer to the Dewatering Plan for the Google West Channel Enhancement, Aug. 15, 2019, prepared by Schaaf & Wheeler, attached as Appendix I-2).

The improvements at the upper and lower ends of the channel would match the design elevations for flood protection project as well as allow for sediment removal to retain flood flows. Overall this aspect of the project is designed to enhance the creek corridor and improve habitat value while providing flood protection and enhancing campus aesthetics, recreational opportunities and environmental resources for wildlife. The channel has been designed to integrate into the existing regional flood control and drainage planning and be adaptable to future climate conditions.

DRAINAGE MANAGEMENT AREAS (DMA) AND LOW IMPACT DEVELOPMENT (LID)

The proposed project would include a total of 29 drainage management areas (DMAs). The DMAs delineate specific locations within the project site that would have stormwater facilities to capture and treat stormwater runoff before being discharged downstream. The DMA's are sized and designed to accommodate the runoff from the areas and are in place to control runoff and reduce sediment and pollutant loads to downstream waters. The treated run-off from the DMA's would drain to an existing central line in West Caribbean Drive and eventual outfall to the south San Francisco Bay. The drainage concept would facilitate capture of runoff and maximize infiltration, facilitate treatment and decrease pollutant loads, and result in a decrease in associated onsite and offsite erosion potential, siltation, and flooding. Overall the improvements would reduce the total volume of stormwater runoff that is currently generated from the project site.

The DMA's would include the treatment control measures (TCM) as part of the BMPs contributing to the Low Impact Development (LID) concept. LID typically refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater to protect water quality and associated aquatic habitats. LID is an approach to land development (or re-development) that works with natural processes to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create

functional and appealing site drainage that treat stormwater as a resource rather than a waste product (EPA, 2019).

The stormwater drainage BMPs and LID design features are sized to accommodate the drainage needs of each DMA. More specifically, the LID treatment measures would include but not be limited to the use of plant materials used for bio filtration, biotreatment ponds, float resistant composted mulch; bio treatment soil(s), Class II permeable rock base; preservation of native soils as practicable; overflow areas; and accessible clean outs to enable removal and disposal of captured debris. 100 West Caribbean Drive would replace approximately 42% of the existing impervious area with pervious surfaces, and 200 West Caribbean Drive would replace approximately 55.5% of the existing impervious area with pervious surfaces. The overall reduction of impervious surfaces would be approximately 52% project wide.

Wastewater

The project proposes to tie into two separate sewer mains. The proposed building at 100 West Caribbean would tie into an existing 24" vitrified clay pipe (VCP) in Borregas Avenue and the building at 200 West Caribbean would tie into an existing 36" VCP in West Caribbean Drive. Wastewater would be conducted to the Donald M. Somers wastewater treatment plant (WPCP), which occupies 16.6 acres at 1444 Borregas Avenue approximately 0.5 miles northeast of the project site. The WPCP maintains 440 acres of treatment and oxidation ponds. The current capacity of the WPCP is 29.5 million gallons per day (City of Sunnyvale, 2019). The project does not propose any off-site improvements other than minor work needed to tie into the existing wastewater system in the existing roadways.

DEMOLITION AND CONSTRUCTION

The proposed project would require the demolition of the existing 13 buildings and removal of the existing vegetation and hardscape after issuance of a demolition permit by the City. Demolition is planned to take approximately 30 months. The existing buildings are single story, consist of a total of approximately 710,381 square feet used for industrial, office, research and development, with some being vacant. The project also includes the demolition of a single-story industrial/R&D building and 1362 Borregas Avenue, totaling 39,642 square feet which will be demolished to accommodate temporary construction parking for 745 cars in lieu of onsite construction parking.

It should be noted that a third, temporary construction channel crossing is proposed adjacent to the south side of the existing Caribbean Drive channel crossing. This temporary channel crossing would be removed once construction is completed. The proposed project would develop and implement a construction and demolition waste management plan (WMP) in an effort to achieve a Leadership in Energy & Environmental Design (LEED) Gold rating. When feasible, demolished materials would be recycled or reused. It is anticipated that much of the existing building materials would require disposal; however, masonry and existing hardscapes could be crushed and used as aggregate or recycled into new hardscape materials. The WMP would include a target of a minimum of 75% construction waste diversion.

Table 3.1-4: Demolition and Excavation Waste Volume, shows the estimated tons of material and cubic yards of exported and imported soil that would be needed.

Table 3.1-4: Demolition and Excavation Volumes

100 West Caribbean Avenue					
Existing Buildings (sf)	**Estimated Hauling Tons**	**Pavement Hauling Tons**	**Soil Export (cu)**	**Soil Import (cu)**	**Area of Disturbance**
309,440	18,000	7,000	0	101,000	Appx. 18.2 acres
200 West Caribbean Avenue					
Existing Buildings (sf)	**Estimated Hauling Tons**	**Pavement Hauling Tons**	**Soil Export (cu)**	**Soil Import (cu)**	**Area of Disturbance**
399,900	24,000	8,000	15,500	156,000	Appx. 26.7 acres
Construction Parking Area					
Existing Buildings (sf)	**Estimated Hauling Tons**	**Pavement Hauling Tons**	**Soil Export (cu)**	**Soil Import (cu)**	**Area of Disturbance**
39,642	18,000	--	--	--	8.7 acres

Source: Illingworth & Rodkin, Inc. 2018, Rev. 2019
Abbreviations: sf=square feet,

The proposed project would conform to all relevant City guidelines and requirements related to noise generation, construction hours, and implement a noise reduction plan (NRP). All building plans would comply with the 2016 (or code versions in effect at the time of building permit submittal) California Building Code, Electrical Code, Plumbing Code, Mechanical Code, Green Building Code, and Energy Code. Construction equipment would include bulldozers, scrapers, blades, excavators, soil compactors, air compressors, generators (one 600 kW and one 1,000 kW diesel engines), loaders, backhoes, dump trucks, concrete trucks, cranes, lifts, and other common construction equipment. In regard to the generators, they would be operated for testing and maintenance purposes, with a maximum of 50 hours each per year of non-emergency operation under normal conditions allowed by BAAQMD. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low sulfur diesel fuel.

Construction Phasing

Construction at the 200 West Caribbean Drive site is planned to start approximately three months prior to construction at 100 West Caribbean Drive. Construction of all improvements would occur in a single phase with a total duration of approximately 30 months. It is anticipated that both buildings would be occupied at roughly the same time. Construction of the West Channel improvements would begin with the landside elements, including installation of the temporary bridge. The West Channel improvements would be completed over 24 months.

The proposed project would include a temporary construction office in an existing vacant building at 1362 Borregas Avenue instead of temporary construction trailers. Demolition of an existing 39,642 sf structure at this site would be needed to provide temporary construction parking for 745 vehicles.

Tree Removal and Replacement

The project site currently contains a total of 445 trees. Existing species of trees on the project site include 36 different species of trees. Depending on the trunk diameter and specific species the trees may or may not be considered protected trees. Of the trees, 399 trees would be removed and 46 trees including 44

protected trees would be preserved. 254 of the trees to be removed are considered protected trees. Protected trees are defined by the City of Sunnyvale Municipal Code Chapter 19.94 as trees of significant size or 38 inches in circumference at 4.5 feet above ground level (agl). *Figure 17: Tree Disposition Plan*, shows the location of the trees to be removed and those that would be preserved.

The proposed project includes a landscaping plan to replace the protected trees with a total of 255 trees. The planting pallet includes a variety of species of trees including native species. This include 93 trees in 24" box replacements, 89 trees in 36" box replacements, and 73 trees in 48" box replacements. In addition, 1,110 other trees would be planted within the proposed project site.

WASTE MANAGEMENT

The proposed project would generate waste that would be collected by Specialty Waste Services. The waste produced by the proposed project would primarily consist of office waste such as paper, bulk packaging, pallets, and containers; food waste from food services including used food and beverage containers and waste food items; and other miscellaneous operational waste such as old fixtures, fittings, and furniture. The proposed project would include bins for the collection and storage of recyclable materials to help ensure that all waste materials are properly sorted prior to be disposed of in a landfill or recycles. Waste materials would be collected from the buildings and taken to the loading areas and compacted. Waste would be transported to the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®) where it would be sorted and unrecyclable materials would be transported to the Kirby Landfill operated by Waste Management.

FIGURE 17: Tree Disposition Plan

Google Caribbean Campus

Not to scale

Kimley»Horn

3.2 Planning

The proposed project is located in the City of Sunnyvale within the northern portion of the MPSP area. The MPSP provides the governing land use districts and is the primary land use and planning policy document that guide the development and redevelopment include the MPSP. In addition, the City of Sunnyvale Municipal Code has incorporated the MPSP by reference. Accordingly, these documents as well as the City of Sunnyvale General Plan's direct development within the project areas and each are discussed in more detail below.

CITY OF SUNNYVALE MUNICIPAL CODE

Zoning of the Sunnyvale Municipal Code is referred to as the Uniform Planning and Zoning Code (UPZC) of the City of Sunnyvale. As defined in Title 19.02.030 the three main purposes of this section are:

(a) To protect and promote the public health, safety, peace, comfort and general welfare;

(b) To establish the procedure for adoption of the general plan for the physical development of the City of Sunnyvale and land outside its corporate limits which may be included within the city of Sunnyvale at a future time, and adoption of specific plans, precise plans, including precise zoning plans, and amendments thereof; and

(c) To create zoning districts and regulations applicable thereto;

Under the last point (c), the UPZC lists eleven related regulations including: classifications of building types, densities, heights, and allowable locations; protection of City character and the provision of orderly development, access, and proper transportation; creation of districts to best carry out the purpose of the UPZC; prevention of unlawful development; provision for safe development and avoid hazards; prevention of incompatible and nonconforming uses; and defining the powers of the City in relation to fulfilling the purposes of the UPZC.

The UPZC establishes specific zoning districts for uses including residential, commercial, public facilities, industrial, open space, etc. The UPZC also establishes larger Specific Plan Districts, which are further refined in a Specific Plan document. Chapter 19.29 relates to the MPSP and the findings and purpose of this section are as follows:

(a) The MPSP district is established to implement the MPSP, which is incorporated herein by reference. The MPSP is a comprehensive, long term planning document for the MPSP area, and includes architectural and design guidelines, site development standards, public facility improvement plans, and an environmental mitigation monitoring program to be implemented through zoning and subdivision regulations, development standards, and public and private improvements.

(b) The City Council makes the following findings:

(1) Implementation of the MPSP will diversify and strengthen the economic opportunities and fiscal health of the City.

(2) Implementation of the MPSP will contribute positively to the City's regional prominence and community character.

(3) Implementation of the MPSP is in accordance with the City's goal to promote smart growth and sustainable development.

(c) It is the purpose of the provisions of this chapter to:

(1) Protect and promote the public health, safety, peace, comfort and general welfare;

(2) Define development procedures and administrative requirements to obtain the objectives of the MPSP. (Ord. 2750-04 § 6)

Within the UPZC there are specific regulations pertaining to permitted and conditionally permitted uses, development intensity, the design review and permitting process, green building requirements, site development standards, and application of mitigation measures. Similar to the General Plan, the UPZC also relies on the MPSP for development noting that the owner or occupant of land or buildings used for any purpose in the MPSP district shall provide the facilities as required by and which conform with the regulations set forth in the MPSP. *Figure 18: Zoning Map,* shows the City Zoning Map and Land Use Zones, which carry the same designation.

CITY OF SUNNYVALE GENERAL PLAN

The City of Sunnyvale General Plan (SGP) is the City's long-term blueprint for the community and provides the vision for future growth. The SGP includes goals, policies and programs that convey long-term planning for the Sunnyvale community, guides local decision-making, and is the basis for determining acceptable land uses. The SGP consists of a Community Vision and five supporting chapters addressing the physical development of the City. These chapters group related topics together such as Community Character, Safety and Noise, and Environmental Management.

Typically, a general plan designates areas within a city or county to be used for certain uses such as residential (single-family, multi-family, etc.), commercial (community commercial, highway commercial, etc.), or industrial (heavy, medium, light, etc.). General plans also may designate areas as special districts or adopt or recognize that development will proceed according to a Specific Plan. Specific Plan areas can range in size from relatively small to thousands of acres. Specific Plans typically provide a more finely defined development scheme, and planning tends to be more precise in terms of the locations and specificity of certain land uses. Specific plans may designate the precise location of roadways and include a narrower range of allowable land uses than under a general plan. *Table 3.2-1: Project Site Parcels, Land Use Designations and Acres*, shows the planning characteristics of the existing parcels, and *Figure 19: General Plan,* shows the City General Plan Map and associated land use designations.

MOFFETT PARK SPECIFIC PLAN

The proposed project is located within the MPSP area as identified in the General Plan. While the SGP provides some guidance for the overall development patters within Moffett Park, it defers specific development guidance to the MPSP. The MPSP was originally adopted by the City in July of 2004 and has been revised four times – [November 2006 (Resolution No. 244-06), March 2009 (Resolution No. 369-09), September 2011 (Resolution No. 498-11, and most recently updated in December 2013 (Resolution No. 622-13)]. The MPSP area is located in the northwestern portion of the City of Sunnyvale and generally occupies approximately 1,156 acres of which 1,068 acres are developable. The MPSP is generally bound by Caribbean Drive, Carl Road, and the Bay Trail on the north; SR-237 on the south; Caribbean Drive on the east; and Enterprise Way on the west. The MPSP defines land uses, development opportunities, goals and objectives, etc., for the specific plan area.

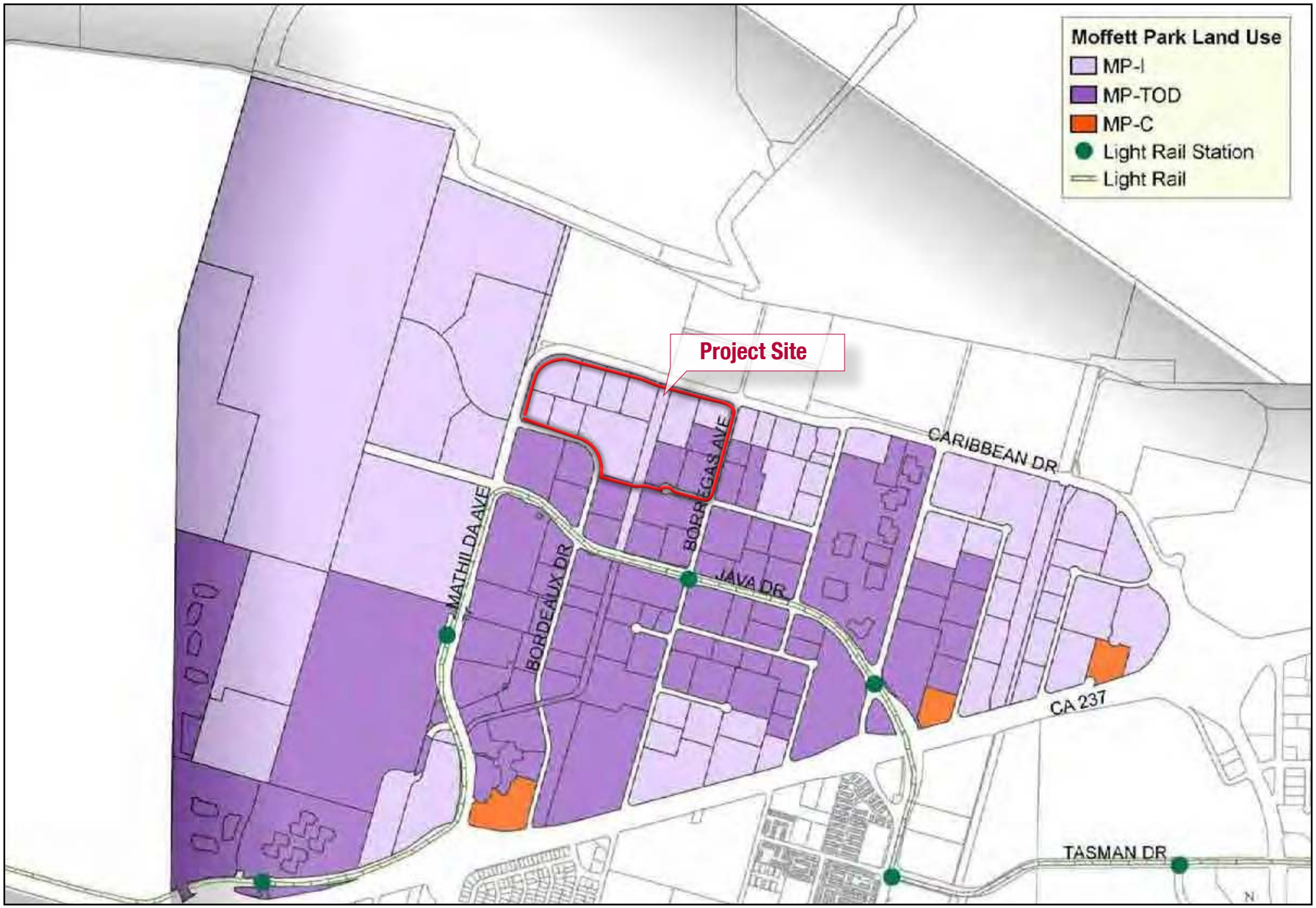

FIGURE 18: Zoning Map
Google Caribbean Campus

Not to scale

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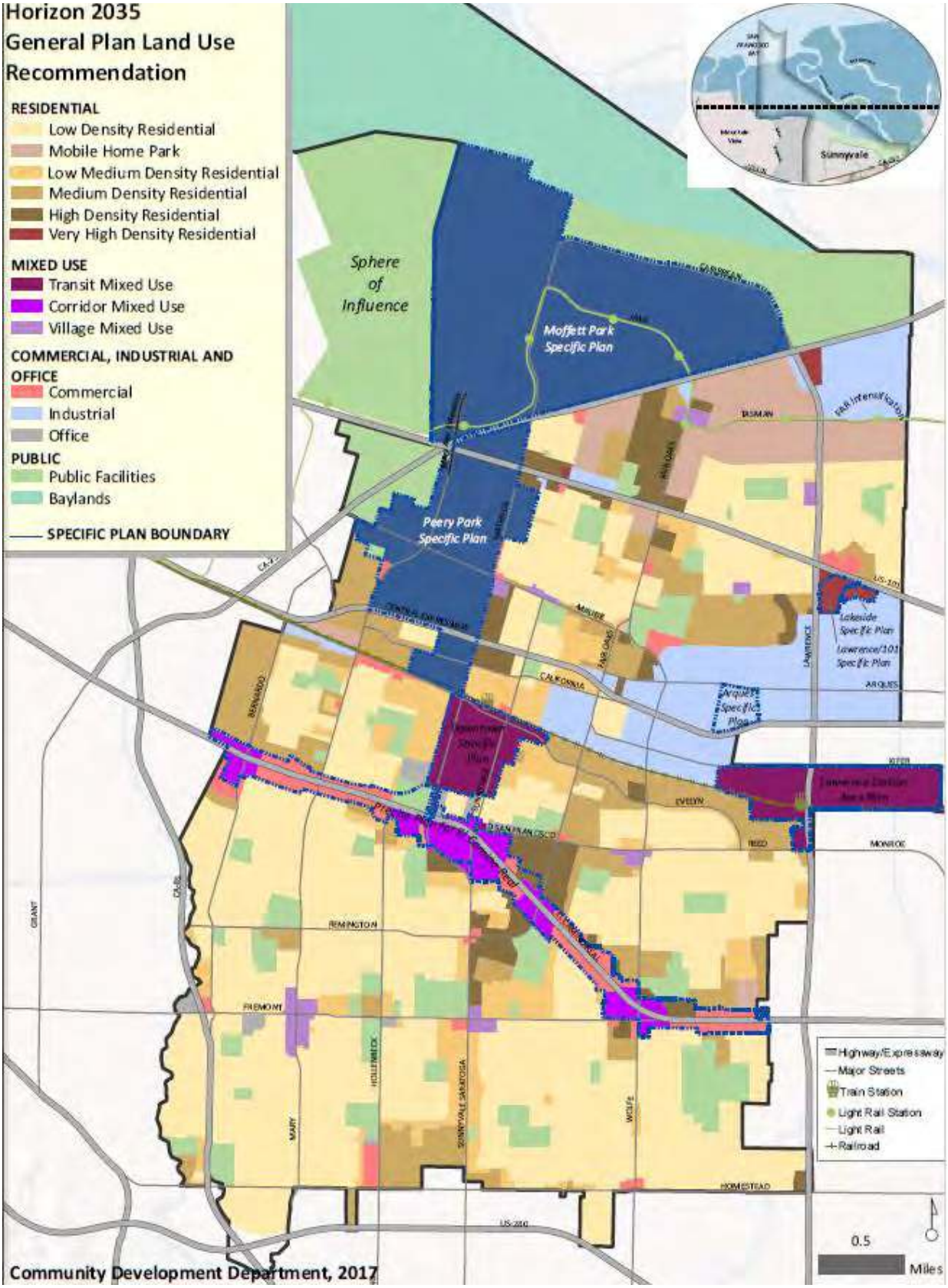


FIGURE 19: General Plan
Google Caribbean Campus

Not to scale

Kimley»Horn

Table 3.2-1: Project Site Parcels, Land Use Designations and Acres

Address	Parcel Number	Zoning	General Plan District	Acres	Existing Building sf
200 West Caribbean Drive					
1330-1338 Bordeaux Drive 1340-1346 Bordeaux Drive 1350 Bordeaux Drive 1360-1368 Bordeaux Drive	110-26-025	MP-I	MP	9.26	25,200 50,400 34,500 25,200
390-394 West Caribbean Drive	110-26-020	MP-I	MP	4.58	86,000
380-384 West Caribbean Drive	110-26-021	MP-I	MP	2.95	54,000
370-376 West Caribbean Drive	110-26-022	MP-I	MP	2.91	54,000
360-364 West Caribbean Drive	110-26-023	MP-I	MP	3.49	72,000
			Sub-Total	**23.19**	**401,300**
100 West Caribbean Drive					
140-146 West Caribbean Drive	110-26-027	MP-I	MP	4.50	90,000
1393-1395 Borregas Avenue	110-26-028	MP-I	MP	2.88	50,880
1383 Borregas Avenue	110-26-029	MP-TOD	MP	2.63	50,880
141 Caspian Court	110-26-031	MP-TOD	MP	3.63	57,344
1325 Borregas Avenue	110-26-030	MP-TOD	MP	3.61	50,000
			Sub-Total	**17.25**	**299,104**
--	--	--	**TOTAL**	**40.44**	**700,404**
--	110-26-049 (West Channel Parcel)	MP-I	MP – VW	4.915	--

Note(s): The VW parcel is included. Although VW would maintain control over the parcel, some improvements in this area would occur. The official name of the agency is the Santa Clara Valley Water District; however, the new moniker is Valley Water (VW).

The purpose of the MPSP is to provide a framework to facilitate and encourage comprehensive development within a long-term plan that supports the development of a mix of land uses including those uses that are supportive of the targeted principal Class A office and R&D uses. *Figure 18* shows the MPSP area and associated land use designations. Properties surrounding the project site consist of MP-I and MP-TOD to the south, west, and east. To the north, the area is designated for Public Facilities and is occupied by a landfill and undeveloped Baylands.

As discussed above, the overall goal of the MPSP is to provide a comprehensive, long-term plan that supports the development of a mix of land uses and addresses the potential impacts of future development within the MPSP area. The MPSP encourages development types such as corporate headquarters, office uses, and research/development facilities with high technology companies. The MPSP designates three specific land uses to meet the purpose of the MPSP, two of which are applicable to the proposed project. These designations in include Moffett Park Transit Oriented Development (MP-TOD), Moffett Park – General Industrial (MP-I).

MP-TOD: This subdistrict includes parcels within ¼ mile of an existing light rail station. It permits the highest intensity of development (such as Class A office, R&D and corporate headquarters). It is assumed that

proximity to light rail will encourage a larger proportion of workers to commute by transit rather than by automobile. The purpose of the MP-TOD subdistrict is to encourage higher intensity uses in close proximity to the Tasman Light Rail Corridor. The MP-TOD subdistrict is intended for the construction, use, and occupancy of buildings for office, corporate headquarters, research, and limited manufacturing; as well as ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed and encouraged. MP-TOD encourages mixed use approach to future development to provide needed support services in the transit core.

The MP-TOD subdistrict provides approximately 539 gross acres primarily for office, commercial, and industrial development at a standard intensity of 50% FAR. In addition, the allowable floor area ratio may be increased to 70% FAR by utilizing the Development Reserve program as outlined in the Specific Plan.

MP-I: The MP-I subdistrict is intended for general industrial development at moderate FAR levels due to its proximity to regional transportation facilities and transit services. The Standard FAR for this zone is 35%, but it can be increased to maximum of 50% by utilizing the Development Reserve. The MP-I subdistrict provides is intended for the construction, use, and occupancy of buildings for primarily office, warehouse, and general industrial development. Ancillary uses that include hotels, restaurants, financial institutions, retail sales and services, professional services, and similar compatible uses. Accessory uses for the benefit of onsite employees (e.g., small childcare facilities, recreational facilities, cafeterias) are also allowed and encouraged.

PROJECT DENSITY

The proposed building at 100 West Caribbean Drive would be approximately 536,750 sf and 200 West Caribbean Drive would be approximately 505,140 sf. The total sf of the new buildings would be approximately 1,041,890. Based on the existing zoning designations, proposed sf, and total allowable floor area ratio's (FAR) the proposed project would require a FAR allowance from the MPSP Development Reserve. 100 West Caribbean Drive site would require a FAR allowance of 209,315 sf, and 200 West Caribbean Drive would require an allowance of 151,536 sf. The proposed project would exceed the standard FAR by a total of approximately 360,851 sf. *Table 3.2-2: Proposed Building Square Feet and Floor Area Ratio* shows this information.

Table 3.2-2: Proposed Building Square Feet and Floor Area Ratio

Building Address	Proposed SF	Standard FAR sf	Required sf Allowance	Proposed FAR
100 Caribbean	536,750	327,435	209,315	0.50
200 Caribbean	505,140	353,604	151,536	0.71
Total	**1,041,890**	**681,039**	**360,851**	**0.65**
Abbreviations: FAR = Floor Area Ratio, sf – square feet.				

Uses within the MP-I have a standard intensity of 35% FAR but has an allowable 50% FAR maximum, as shown in *Table 3.2-3: Summary of Land Use Districts and Intensities*. In addition, the allowable FAR may be increased to 50% for all development by utilizing the Development Reserve as outlined in the Specific Plan.

Table 3.2-3: Summary of Land Use Districts and Intensities

Subdistrict	Acres	Developable Acres	Standard FAR	Max FAR	Development Potential at Standard (FAR)
MP-TOD	539	469	50%	70%	9.73
MP-I	604	586	35%	50%	8.93
Dev. Reserve					5.44
Total	**1,156**	**1,068**			**24.33**

3.3 Project Objectives

Section 15124(b) of the State CEQA Guidelines requires that an EIR include "[a] statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the proposed project."

- Develop a project that is consistent with the existing Moffett Park Specific Plan.
- Develop a project that is consistent and compatible with the existing land uses in the surrounding area.
- Develop an office campus of sufficient size to accommodate Google's space needs.
- Develop an office campus of sufficient density to take advantage of the site's proximity to existing transit facilities.
- Construct office buildings that accommodate proposed project amenities and efficient/effective employee collaboration space.
- Provide adequate parking spaces to accommodate the parking needs of Google employees and visitors;
- Implement transportation demand management programs (TDM) to minimize vehicle trips and encourage pedestrian and bicycle use.
- Develop an environmentally sensitive office campus with LEED Gold certification as required by the City's green building requirements.
- Construct office buildings that reduced impervious surfaces and maximize on-site open space.
- Construct improvements to the portion of the Santa Clara Valley Water District's (SCVWD) West Channel to facilitate greater connectivity and public access.
- Be responsive to Valley District SCVWD designs for the West Channel to comply with applicable flood protection requirements and improve flood protection.
- Realign the Valley District SCVWD West Channel to enhance its natural habitat value.

- Develop a project that would create construction jobs and employment opportunities in the City of Sunnyvale.
- Develop a project of sufficient density to support the proposed project amenities and to be financially feasible.

3.4 Surrounding Land Uses and Setting

The areas surrounding the project site are typical of the larger MPSP area with some portions having been redeveloped with modern mid-rise buildings by the technical industry. The areas are heavily landscaped with a variety of ornamental trees and shrubs within adjacent to roadways, within roadway medians, and along the sidewalks, and in planting islands in the surface parking lots.

Areas to the south, east, and west, contain a mix of similar original land uses as well as redeveloped sites associated with technology uses typical of the Silicon Valley. The area north and northeast of the project site; however, is designated for use as public facilities is occupied by a landfill and a wastewater treatment plant. The Bay Trail and detention ponds and the Guadalupe Slough within Moffett Channel are located further to the north. To the south and east across Borregas Avenue and Caspian Court, respectively, are single-story office, research and development, and industrial buildings that were constructed as part of the original development of Moffett Park. On the northwest corner of Borregas Avenue and E. Java Drive is a six-story structure, the Java Metro Center, currently occupied by Google. The Valley Transit Authority (VTA) Borregas Light Rail Station is located immediately west of the intersection of Borregas Avenue and East Java Drive approximately 800 feet south of the project site.

To the southwest of the project site across Bordeaux Drive are two previously developed sites on which the buildings have been removed. That site is now heavily disturbed and occupied by grass, shrubs, and trees. West of the vacant parcels is a large parking lot used for the two, three-to four-story Yahoo buildings. This lot is bound by Mathilda Avenue to the west and Bordeaux Drive to the north. To the southwest is five-story building with an approximate four-acre surface parking lot with solar panels canopies. To the west, across Bordeaux Drive is a three-story parking structure and three additional Yahoo buildings ranging in height from four to five stories.

3.5 Project Approvals

REQUIRED PERMITS AND APPROVALS

City of Sunnyvale

- Adoption of the Initial Study Checklist and Environmental Impact Report

Santa Clara County

- Santa Clara Valley Water District
- Bay Area Air Quality Management District

State of California

- California Department of Fish and Wildlife
- Regional Water Quality Control Board

Federal

- United States Army Corps of Engineers
- Federal Aviation Administration
- Occupational Safety and Health Administration

3.6 Native American Consultation

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

No tribes have requested consultation.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

4. ENVIRONMENTAL ANALYSIS

4.1 Aesthetics

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
a) Have a substantial adverse effect on a scenic vista?	Draft EIR Setting pp. 3.12-1 to 3.12-5 Impact 3.12.1 and 3.12.5	No	No	No	No	NA, impacts would remain less than significant.
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	Draft EIR Setting pp. 3.12-1 to 3.12-5 Impact 3.12.2 and 3.12.5	No	No	No	No	NA, no impact would occur.
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Draft EIR Setting pp. 3.12-1 to 3.12-5 Impact 3.12.3 and 3.12.5	No	No	No	No	Yes, impacts would remain less than significant.

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Draft EIR Setting pp. 3.12-1 to 3.12-5 Impact 3.12.4 and 3.12.5	No	No	No	No	Yes, impacts would remain less than significant.

DISCUSSION

No substantial change in the environmental and regulatory setting related to aesthetics, described in the LUTE EIR Section 3.12, Visual Resources and Aesthetics, has occurred since certification of the EIR in April 2017.

a) Have a substantial adverse effect on a scenic vista?

A scenic vista is generally described as a clear, expansive view of significant regional features possessing visual and aesthetic qualities of value to the community. Impact 3.12.1 of the LUTE EIR identifies that Sunnyvale does not have any designated scenic vistas, but there are several trees and historic resources, as well as the Libby Water Tower, the Murphy Avenue Commercial District, and the cherry orchards on Mathilda Avenue that comprise important local scenic attributes. The LUTE EIR identified no significant project impacts (Impact 3.12.5) to scenic vistas would occur.

The project site is flat, developed with existing commercial and industrial buildings and is surrounding by similar uses within the MPSP. There are no designated scenic vistas on the project site or in the vicinity of the project site. Therefore; the proposed project would not affect a scenic vista and no new significant impacts to any off-site resources would occur. The findings of the certified LUTE EIR remain valid. No further analysis is required.

Conclusion

The project site does not contain any scenic vistas and would not affect any scenic vistas. Impacts would not occur.

b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

The project site does not contain any scenic resources such as historic buildings or rock outcroppings. The proposed project would result in the removal of 399 trees, 254 of which are considered protected trees by the City of Sunnyvale Municipal Code Chapter 19.94. None of the trees are within a state scenic highway. Impact 3.12.2 of the LUTE EIR identifies that there are no designated state scenic highways in the City. The nearest officially designated state scenic highway is Highway 9 approximately 11 miles to the south. The nearest highway eligible for listing as a State Scenic Highway is Highway 280 located approximately 5.5 miles south of the project site. Therefore, because the project site is not located within proximity to a state-designated scenic highway, no impacts would occur from build out of the City under the LUTE or for the proposed project.

Conclusion

The project site does not contain any scenic resources and is not located near a scenic highway. Impacts would not occur.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Impact 3.12.3 of the LUTE EIR identifies that new development under the LUTE would be concentrated around transit nodes and other areas that are visually appropriate for increased development intensities, building densities, and structure heights. The proposed project would be similar to existing developed conditions along Mathilda Avenue. Under the LUTE, redevelopment would be limited in scale and spatial coverage, would occur in already developed areas, would not displace natural environments, has been designed with high-level visual quality, and would result in new urban uses that would complement the City's existing urban character. The LUTE policies and associated actions (Policy 51 and related Action 1, 2, 3, 4 and 5) are applicable to the proposed project and require future development to comply with design guidelines and zoning standards related to mass and scale of new structure, maintain compatibility with surrounding neighborhoods, and respect character and scale. Actions items include require review for consistency with zoning and building standards and provide incentives for projects with special architectural and pedestrian design features and contribute to the overall image of the community. These guidelines support the direction provided in the Citywide Design Guidelines. The LUTE EIR identified that no significant project or cumulative impacts (Impact 3.12.5) on visual character would occur.

The proposed project is located in a highly developed area of the MPSP. The proposed project is designed to be consistent with the design guidelines in the MPSP and all associate zoning regulations related to scenic quality. The proposed project would result in the removal of 13 existing single-story structures that total approximately 710,381 square feet. The existing buildings are used for industrial, office, and research and development. The proposed project would consist of two new 5-story office buildings totaling 1,041,890 square feet, a parking structure, improvements to the West Channel, surface parking, extensive landscaping, and other amenities.

Short-Term (Construction) Impacts. Demolition would occur over approximately six months and construction-related activities would occur in a single phase for approximately 30 months. Demolition would require the issuance of a demolition permit by the City and would include the removal of existing structures, pavement, hardscape, and vegetation. Construction activities would include site grading, construction of new structures, installation of hardscaped areas, roadways, and landscaping.

Construction-related activities would temporarily influence the visual character of the project site. Views to the project site are primarily afforded from surrounding office and commercial land uses, as well as from local roadways, in particular West Caribbean Drive on the north, Borregas Avenue on the east, East Mathilda Avenue on the west, and Bordeaux Avenue and Caspian Court on the south. Views of the project site as seen from these surrounding offices and commercial uses and motorists traveling along area roadways would change with the initiation of demolition and would extend through the completion of construction. The various construction activities would intermittently alter the character of the proposed project site and its surroundings. Graded surfaces, construction debris, construction equipment, and truck traffic would be visible. Additionally, soil would be stockpiled on-site and equipment for grading activities would be staged at various locations on the project site. The intensity of construction including the amount and type of equipment and visual changes, however, would vary throughout the construction phase. Most of the heavy grading equipment would be onsite for the period needed to complete the demolition and rough grading. During construction of the proposed buildings it is anticipated that less heavy equipment vehicles would be needed and would be visible. While construction activities would continue until this phase is completed, the short-term visual impacts would cease upon project completion. Thus, due to the temporary and short-term nature of proposed project construction (approximately 30 months), and because the proposed project is consistent with other redevelopment of the MPSP area, potential construction-related aesthetic impacts are considered to be less than significant.

Long-Term (Operational) Impacts. The proposed project would result in the construction of a two new five-story midrise office buildings, parking structures, surface parking, and extensive landscaping on the project site within the MPSP area. All parking areas would be screened by landscaping or berms from the view of the public streets. Development surrounding the project site consists of both existing single-story industrial structures as well as newer nearby corporate campus developments. Construction of the proposed project may result in visual differences between the other areas within the project, but the proposed would be constructed to conform to design standards that were not in place when some of the original structures were built. The proposed project would undergo design review and has included substantial landscaping, pedestrian accessibility, and architectural elements that complement the MPSP. Additionally, as the MPSP area continues to be redeveloped a uniform business park setting would continue to be established in the areas surrounding the proposed project. This is evidenced by other nearby properties that are constructed to current design standards and with modern design elements as used by the proposed project.

The proposed project is subject to the Citywide Design Guidelines, as well as the MPSP Design Guidelines and the Bird Safe Building Design Guidelines. Further, as indicated in the conceptual renderings of the proposed buildings at 100 and 200 West Caribbean Drive as shown in *Figure 4: Proposed Project Site Plan*, *Figure 5: Proposed Conceptual Site Plan*, and *Figure 6: Conceptual Design Concepts* above, the proposed architectural

style would be consistent with the goals and policies of the General Plan, the City-wide Design Guidelines, the MPSP, and the MPSP Design Guidelines. The proposed project has integrated a green design and differentiated roof lines, different but compatible textures, colors, and materials in order to break up the building massing that would generally be associated with the facades of five story buildings and parking structure. The proposed project has been designed to create greater visual variety, a sense of place, and unobtrusive visual interest with its own individual character. The parking structure has been designed to conform to the City of Sunnyvale Design Guidelines and to be responsive surrounding developments for consistency and context. Views of the parking structure from adjacent roadways would be obscured by landscaping and berms.

The proposed structures are cited to provide functional open spaces, plazas, courtyards and tree-lined walkways. Lastly, southerly views of the two new Google buildings would be different from the sides of a traditional building by integrating a landscaped stepped green roofline. These elements and themes would result in an attractively designed commercial/industrial project with diverse architectural forms that would blend with the existing environment. Long-term impacts would be reduced through the variations in the building design and the decoratively paved pedestrian amenities provided throughout the project site.

A tree inventory was conducted to include the physical location, diameter at breast height (DBH), overall height, and species of the trees located on the project site. The project site currently contains a total of 445 trees. Of these, 399 trees would be removed and 46 trees including 44 protected trees would be preserved. 254 of the trees to be removed are considered protected trees. The City of Sunnyvale Municipal Code Chapter 19.94 defines a protected tree as a tree of significant size or 38 inches in circumference at 4.5 feet above ground level (agl). The basic purpose of this Chapter 19.94 is to regulate the protection, installation, removal and long-term management of significantly sized trees on private property. Additional Chapters 19.94.080 Replacements trees; 19.94.090 Requirements for replanting programs; 19.94.100 Relocation of trees; and 19.94.110 Requirements concerning protected trees during site development or modification; and 19.94120 Tree protection during construction set forth additional requirements regarding tree removal and protection.

The proposed project would replace the 254 protected trees at slightly greater than a one for one ratio with 255 trees. Of these trees, 93 would be 24” box replacements, 89 would be 36” box replacements, and 73 would be 48” box replacements. In addition, 1,110 other trees would be planted within the proposed project site. Plantings would occur as the project site is developed and landscaping installed. Because the proposed project has been designed to be consistent with the applicable design guidelines and the listed municipal codes related to trees and tree replacement, although the visual character of the site would change, the proposed project would not conflict with applicable municipal code and other regulations governing scenic quality.

Future development of the project site would be subject to a formal development review process, including site and architectural plan review. The purpose of the site plan and architectural review is to recognize the interdependence of land values and aesthetics. Such discretionary review would ensure that the design of the proposed buildings would maintain and enhance the character and quality of the project area. Adherence to the goals and policies of the General Plan and MPSP, the Citywide Design Guidelines, and MPSP Design Guidelines, and the City’s development

review process would ensure that development of the proposed project would not substantially degrade the existing visual character or quality of the project site or its surroundings.

Therefore, with application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Conclusion

The project site does not contain any agricultural land. Impacts would not occur.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site currently generates light and glare from indoor and outdoor lighting, security lighting, and parking lot lighting. Glare is generated from sunlight that is reflected off building surfaces (windows, aluminum siding, etc.), equipment, and vehicles from the site and surrounding development. Glare impacts from sunlight reflections in the MPSP area is the most severe during the morning and evening hours when the sun is low on horizon and sunlight is directly reflected from glass windows and building surfaces. Glare can affect motorists, pedestrians and bicyclists, and other persons traveling in or through the area.

The proposed project could increase the amount of light and glare on the site and in the area by increasing the number of reflective surfaces compared to existing conditions. Impact 3.12.4 of the LUTE EIR identifies that future development under the LUTE would not result in substantial increases in existing daytime glare or nighttime lighting conditions in the City. The proposed project has been designed to limit exterior wall-mounted light fixtures, but the proposed project would include lighting in the surface parking areas, interior roads, pedestrian walkways and on handrails, along bicycle pathways, and in seating areas. Lighting in these areas is needed to ensure safe pedestrian, bicycle, and vehicular circulation. All lighting on poles to illuminate pathways, internal roadways, and parking areas would be dimmable. All proposed exterior light sources would consist of light-emitting diodes (LED), and would be directed and shielded to minimize spill light and focus the light on areas that need illumination. The proposed project would adhere to existing City policies for community design and aesthetics and would require implementation of the lighting guidelines as defined in Chapter 5, Development Regulations, of the MPSP. Additionally, Citywide Design Guideline 3.B9 provides guidance on reducing light impacts and associated glare. Guideline 2.E3 provides design considerations to address glare, such as avoiding large expanses of highly reflective surfaces and mirror glass exterior walls. Furthermore, compliance with Sunnyvale Municipal Code Chapter 19.42.050 regarding restrictions on lighting would ensure that all lights, spotlights, floodlights, reflectors, and other means of illumination are shielded or equipped with special lenses in such a manner as to prevent any glare or direct illumination on any public street or other property.

The glass windows could generate glare as result of reflecting sunlight. The proposed project would integrate a diamond-shaped metal mesh wall panel on the easterly, westerly, and southerly sides of the buildings. The mesh would block and disperse much of the sunlight in the morning, daytime, and evening hours and substantially reduce window glare. The northerly side of the building has a stepped green roof design and light and glare impacts would be minimized by the oblique angles and vegetation.

The LUTE EIR identified that no significant project or cumulative impacts (Impact 3.12.5) from glare and nighttime lighting would occur. This is because the proposed project would be required to conform to uniform development policies and standards including Chapter 19.42.050 Lights-Restrictions of the Sunnyvale Municipal Code. This code requires that lights, spotlights, floodlights, reflectors, and other means of illumination shall be shielded or equipped with special lenses in such a manner as to prevent any glare or direct illumination on any public street or other property. Additionally, as a Condition of Approval (COA), the City would require all exterior windows and glass used on building surfaces to be non-reflective or treated with a non-reflective coating. Lastly, due to the project proximity to Moffett Federal Airfield, which is approximately one mile to the west, the proposed project would be required to develop a lighting plan that would locate all lighting in such a manner that it cannot be mistaken for airport approach or runway lights by pilots. Exterior lighting is also required to be consistent with the City's Bird Safe Design Guidelines. All of these requirements would be included to all applicable project plans and verified by City staff prior to project approval.

Therefore, with application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, and standard COA's will reduce impacts to less than significant.

CUMULATIVE IMPACTS

The cumulative impact area for light and glare for the proposed project would generally be the MPSP and consist of the area north of SR 237, west of Caribbean Drive, south of the San Francisco Bay, and east of Enterprise Way. The original uses in this area generally consist of single-story industrial buildings, and buildings used by the armed forces and defense industry including the Air Force, the Navy, Lockheed Martin Corporation, and the NASA. Much of this area, predominantly west of the project site, has been and is in the process of being redeveloped with midrise commercial and industrial areas associated with the technology sector.

The existing 13 single-story buildings consisting of a total of approximately 710,381 square feet and are used for industrial, office, research and development, with some being vacant. While the construction of the proposed project may initially result in a change in appearance compared

to the older areas of the MPSP, the proposed project would be constructed in accordance with design standards consistent with recently redeveloped areas that are being integrated into the MPSP area. Accordingly, as the area continues to redevelop as directed and guided the MPSP, a more uniform business park setting would be established. This is evidenced by nearby properties that are constructed to design standards that would blend well with the style and design of the project.

Future development at the project site and of surrounding cumulative projects in the area would be subject to a formal development review process including site and architectural plan review. Such discretionary review would recognize the interdependence of land values and aesthetics and ensure that the design of future projects would maintain and enhance the character and quality within the area. As a result, the proposed project in combination with future projects would result in views from surrounding areas that are consistent with existing sights and would minimize visual conflict and intrusion. Therefore, the proposed project would result in a less than significant cumulative aesthetic impact in this regard.

With regard to cumulative light and glare impacts, implementation of the proposed project and future projects would increase the amount of light and glare in the surrounding area. These projects would increase the amount of development compared to existing conditions. It is anticipated that lighting would include interior lighting, exterior wall-mounted light fixtures and lighting within the onsite surface parking areas to ensure public safety and safe pedestrian and vehicular circulation. To ensure that cumulative light and glare impacts are reduced to levels considered less than significant, future proposed projects, including the proposed project, would be required adhere to existing City policies for community design and aesthetics. The proposed project would include design features for all exterior windows and glass used on building surfaces to include use of non-reflective or treated with a non-reflective coating, and which require the required lighting plan to locate all lighting in such a manner that it cannot be mistaken for airport approach or runway lights by pilots. Therefore, the proposed project would not result in cumulatively considerable light and glare impacts since impacts would be reduced to less than significant.

As discussed above, there are no significant cumulative impacts to aesthetics that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The proposed project would not result in any potentially significant off-site impacts or cumulative impacts on scenic vistas, impacts on resources within a state scenic highway, or from increased light and glare that were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to aesthetics would be less than significant. Thus, the conclusions of the LUTE EIR remain valid and approval of the project would not require additional environmental review.

4.2 Agriculture and Forestry Resources

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:						
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Scoped out at Notice of Preparation stage. Resources do not exist on the project site.	No	No	No	No	NA
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Scoped out at Notice of Preparation stage. No agricultural zoning or Williamson Act contracted lands exist in the City.	No	No	No	No	NA
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources	Scoped out at Notice of	No	No	No	No	NA

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Preparation stage. Resources do not exist in the City.					
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Scoped out at Notice of Preparation stage. Resources do not exist in the City.	No	No	No	No	NA
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Scoped out at Notice of Preparation stage. Resources do not exist on the project site.	No	No	No	No	NA

DISCUSSION

With the exception of ornamental landscaping and the West Channel, the project site is completely urbanized. Agricultural resources do not exist on the project site or any adjacent area.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The proposed project would occur on 40.44 acres that is currently developed with 13 existing single-story structures, parking lots, access roads, sidewalks, and ornamental landscaping. The project site is completely developed and is not used for agricultural production. The site was used for agriculture until the late 1970's when the existing structures were built (Cornerstone, 2019). Since the site was developed it has not been in agricultural production. The California Department of Conservation (CDOF) Important Farmland mapping tool shows the project site as Urban and Built Up Land. Urban and Built Upland is defined as land that is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures (CDOC, 2016). The LUTE EIR and West Channel DEIR did not evaluate impacts to agricultural lands. Therefore, the proposed project would not convert any farmland to a non-agricultural use and no impacts would occur. The proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any agricultural land. Impacts would not occur.

b) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The project site does not contain any forest land defined in Public Resources Code (PRC) § 12220(g), or timberland as defined in PRC § 4526, or land zoned for timber production as defined by Government Code § 51104(g) and no impacts would occur. The project site consists of urban and built up land and does not contain any timber resources that meet the definitions of the listed PRC sections. The project site is zoned by the City of Sunnyvale as MP-TOD and MP-I. Neither timber or forest production are listed as a permitted use, or are allowable with a special development permit, or a miscellaneous permit on the project site. The LUTE EIR and West Channel DEIR did not evaluate impacts to conflicts with applicable forest or agricultural codes. Therefore, the proposed project would not conflict with a forest or timberland related code and no impacts would occur. The proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any forest land. Impacts would not occur.

c) Result in the loss of forest land or conversion of forest land to non-forest use?

The proposed project does not contain any forest land and no impacts would occur. The project consists of 40.44 acres and is currently developed with 13 existing single-story structures and other uses include parking lots access roads, sidewalks, and landscaped areas. The LUTE EIR and the West Channel DEIR did not evaluate impacts to forest lands. Therefore, the proposed project would not result in the conversion of any forest lands. The proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any forest land. Impacts would not occur.

d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project site is not located adjacent to or close to any farmland or forest land. To the west, south, east, and north, the surrounding land uses consist of other urban and built up land within the MPSP. Approximately 0.25 miles to the north is the San Francisco Bay. Neither the LUTE EIR or West Channel DEIR evaluated impacts to these resources. Therefore, the proposed project would not result in changes to the environment that would result in the conversion of farmland or forestland to another use and no impact would occur. The proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any agricultural land or forest land. Impacts would not occur.

CUMULATIVE IMPACTS

There are no significant cumulative impacts associated with agricultural resources that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The proposed project does not have any potential to result in significant off-site impacts or cumulative impacts on agricultural resources that would affect the quality or use of such resources. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts associated with agricultural resources would not occur.

4.3 Air Quality

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:						
a) Conflict with or obstruct implementation of the applicable air quality plan?	Draft EIR Setting pp. 3.5-1 to 3.5-13 Impact 3.5.1	No	No	No	No	Yes, impacts would remain less than significant.
b) 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?	Draft EIR Setting pp. 3.5-1 to 3.5-13 Impact 3.5.2, 3.5.3 and 3.5.8	No	No	No	No	Yes, impacts would remain less than significant.
c) Expose sensitive receptors to substantial pollutant concentrations?	Draft EIR Setting pp. 3.5-1 to 3.5-13 Impact 3.5.4, 3.5.5, 3.5.6, and 3.5.8	No	No	No	No	Yes, impacts would remain less than significant.
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	Draft EIR Setting pp. 3.5-1 to 3.5-13 Impact 3.5.7	No	No	No	No	Yes, impacts remain would remain less than significant.

DISCUSSION

There have been changes in the regulatory setting related to Air Quality, described in LUTE EIR Section 3.5, Air Quality, since certification of the EIR in April 2017, but these changes do not result in any new or more severe significant effects than were analyzed in the LUTE EIR. In some instances, impacts have been reduced at the project level and are less than those previously disclosed by the LUTE DEIR. These changes relate to impacts b) and c), which are discussed in additional detail further below. In both instances, the LUTE DEIR found that overall buildout would result in significant and unavoidable impacts. However; due to the nature and components of the proposed project and different regulatory setting and improved air quality emission reduction measures, impacts of the proposed project would be less than significant.

On April 19, 2017, the Bay Area Air Quality Management District (BAAQMD) adopted an updated Clean Air Plan (2017 CAP). Like the 2010 CAP, the 2017 CAP provides a regional strategy to protect public health and protect the climate. The 2017 CAP updates the most recent Bay Area ozone plan, the 2010 CAP, pursuant to air quality planning requirements defined in the California Health & Safety Code. To fulfill state ozone planning requirements, the 2017 CAP control strategy includes all feasible measures to reduce emissions of ozone precursors, reactive organic gases (ROG) and nitrogen oxides (NOx), and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 CAP builds on the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants.

This analysis is based on the report entitled 100 and 200 W. Caribbean Campus Project – Air Quality and Greenhouse Gas (GHG) Emissions Assessment, as Appendix D. The report was prepared in May of 2018 and updated August 13, 2019 by Illingworth & Rodkin, Inc., The report examines the air quality and GHG emissions associated with the proposed project. Air Quality and GHG modeling used the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 to estimate emissions from construction and operation of the site assuming full build-out of the project. Separate modeling was used for both construction and operational emissions for the proposed project.

The report evaluates the potential effects of five types of air pollutants. These pollutants are listed and briefly defined below. Two pollutants Sulfur Dioxide (SO_2) would be emitted at negligible levels, and lead (Pb), which would not be emitted by the project were not included to the evaluations.

Ozone: Ozone (O_3) is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_X).

Carbon Monoxide: Carbon Monoxide (CO) is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels.

Nitrogen Dioxide: Nitrogen Dioxide (NO_2) is a reddish-brown gas that is a byproduct of combustion processes and contribution to ozone formation, a high concentration of fine particulate matter, poor visibility, and acid deposition.

Particulate Matter: Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are larger than 2.5 microns ($PM_{2.5}$) but smaller than 10 microns (PM_{10}). $PM_{2.5}$ refers to fine suspended particulate matter with an aerodynamic diameter of 2.5 microns or less that is not readily filtered out by the lungs.

Toxic Air Contaminants: TACs are injurious in small quantities and are regulated by the EPA and the California Air Resources Board (CARB). Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide.

Air Quality Setting

The proposed project is in San Francisco Bay Area Air Basin (SFBAAB) within the jurisdiction of the BAAQMD. The SFAAB includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County. The ambient concentrations of air pollutants, and the number of days during which the region exceeds air quality standards have decreased substantially as new guidelines related to air quality have been implemented. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

National ambient air quality standards (NAAQS) were established the U.S. Environmental Protection Agency (EPA) established in the federal Clean Air Act (FCAA) of 1970. NAAQS were established for major pollutants, termed "criteria" pollutants, which are defined as pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health. The FCAA required EPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implement Plan (SIP). The Federal Clean Air Act Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution.

The California Clean Air Act (CCAA) was adopted in 1988 and the California Air Resources Board (CARB) is responsible for implementation, ensuring coordination, and oversight. CARB requires that all air districts in the State achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources.

To achieve these mandates, both the EPA and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the public with a reasonable margin of safety. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each criteria pollutant. CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. *Table 4.3-1: San Francisco Bay Area Attainment*

Status shows the State and Federal standards for criteria pollutants and provides a summary of the attainment status for the San Francisco Bay Area.

Table 4.3-1: San Francisco Bay Area Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentrations	Attainment Status	Concentrations	Attainment Status
Ozone (O_3)	8-Hour	0.07 ppm (137 µg/m^3)	Nonattainment	0.070 ppm (137 µg/m^3)	Nonattainment
	1-Hour	0.09 ppm (180 µg/m^3)	Nonattainment	Not Applicable	Not Applicable
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	1-Hour	0.18 ppm (338 µg/m^3)	Attainment	0.100 ppm (188 µg/m^3)	Unclassified
	Annual Mean	0.030 ppm (57 mg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
Sulfur Dioxide (SO_2)	24-Hour	0.04 ppm (105 µg/m^3)	Attainment	14 ppm (365 µg/m^3)	Attainment
	1-Hour	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Attainment
	Annual Mean	Not Applicable	Not Applicable	0.030 ppm (80 µg/m^3)	Attainment
Suspended Particulate Matter (PM_{10})	Annual Mean	20 µg/m^3	Nonattainment	Not Applicable	Not Applicable
	24-Hour	50 µg/m^3	Nonattainment	150 µg/m^3	Nonattainment
Suspended Particulate Matter ($PM_{2.5}$)	Annual Mean	12 µg/m^3	Nonattainment	12 µg/m^3	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m^3	Nonattainment

ppm = parts per million; mg/m^3 = milligrams per cubic meter; µg/m^3 = micrograms per cubic meter

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, January 5, 2017, available at: http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status, accessed September 3, 2019.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Impact 3.5.1 of the LUTE EIR evaluated whether the LUTE would conflict with or obstruct implementation of the applicable air quality plan. The Bay Area Air Quality Management District's (BAAQMD) 2010 Clean Air Plan includes various control strategies to reduce emissions of local and

regional pollutants and promotes health and energy conservation. As stated in Impact 3.5.1, the LUTE supports the goals, includes applicable pollutant control mechanisms, and is consistent with the 2010 Clean Air Plan. The LUTE found this impact less than significant.

The BAAQMD seeks to attain and maintain air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. Each nonattainment district is required to adopt a plan to achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards.

The BAAQMD's 2017 CAP is the latest CAP which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_X), particulate matter and greenhouse gas emissions and does the following:

- Updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Provides a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan;
- Reviews progress in improving air quality in recent years; and
- Continues and updates emission control measures.

Impact 3.5.1 of the LUTE EIR evaluated whether the LUTE would conflict with or obstruct implementation of the 2010 Bay Area Air Quality Management District's (BAAQMD) 2010 CAP. As stated in Impact 3.5.1, the LUTE supports the goals, includes applicable pollutant control mechanisms, and is consistent with the 2010 CAP. The 2010 CAP includes various control strategies to reduce emissions of local and regional pollutants and promote health and energy conservation. Similarly, the updated 2017 CAP contains control strategies and the proposed project is consistent with the requirements of the 2017 CAP.

The proposed project is an integrated development plan for the property and would result in redevelopment of the project site by replacing the existing 13 structures with two modern commercial office and research and development buildings. Although it would increase the square feet (sf) of building area it would not substantially alter the types of uses. The proposed project would increase building sf and floor area ratio (FAR) over what currently exists and would use the existing MPSP Development Reserve. The Development Reserve is allowed for properties which meet certain MPSP standards including energy-efficient designs such as the City's Green Building Program and incorporation of Leadership in Energy and Environmental Design (LEED) measures.

A project would be consistent with the 2017 Clean Air Plan Progress Report if the project would not exceed the growth assumptions in the plan. The primary method of determining consistency with the 2017 CAP growth assumptions is consistency with the General Plan land use designations and zoning ordinance designations for the site. If the General Plan growth forecast was adopted prior to the adoption of the 2017 CAP, then it can be assumed that the 2017 CAP incorporates the growth forecast from the General Plan.

The CAP assumptions for projected air emissions and pollutants in the City are based on the land use and development projection assumptions in the General Plan including the land use and traffic assumptions in the LUTE of the General Plan. The site is consistent with the MPSP which was accepted by the City as a conceptual planning study in 2004. The MPSP defines land uses, development opportunities, and goals and objectives for the specific plan area. The purpose of the MPSP is to provide a framework to facilitate and encourage comprehensive development within a long-term plan that supports the development of a mix of land uses including those uses that are supportive of the office and R&D uses.

The project is conforming with City regulations (i.e., consistent with the current land use designations for the project site). Additionally, as described below in Threshold 4.3(b), 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. Therefore, the proposed project would comply with the 2017 Clean Air Plan and impacts would be less than significant.

The proposed project would be consistent with land use and zoning designations and would not include development beyond that assumed and analyzed in the LUTE EIR. Thus, with application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR concerning consistency with air quality plans remain valid and no further analysis is required.

Conclusion

Conformance to uniformly applied requirements of the State CAP and uniformly applied City development standards and policies, impacts would be less than significant.

b) 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?

Impacts 3.5.2, 3.5.3 and 3.5.8 of the LUTE EIR identified that implementation of the LUTE would result in short-term construction and long-term operation emissions that would substantially contribute to air pollution or result in a projected air quality violation. The City adopted Mitigation

Measure 3.5.3 that requires construction projects to implement BAAQMD's basic construction mitigation measures as well as use construction equipment that is California Air Resources Board (CARB) Tier 3 Certified or better to address construction emissions. While the LUTE would improve the viability of walking, biking, and transit that would reduce vehicle use, the LUTE EIR concluded that construction and operational air quality impacts of the implementation of the LUTE were significant and unavoidable under both the project and cumulative conditions (Impact 3.5.8).

As discussed in the Discussion Section above, a site-specific air quality analysis was conducted for the proposed project. The analysis found that impacts to air quality related to this threshold would be reduced to less than significant.

CONSTRUCTION EMISSIONS

CalEEMod was used to provide emission estimates for on-site construction activities including the construction build-out scenario. This analysis included the type of equipment used, the quantity of equipment, the number of days equipment would operate, and the average operating hours per day and phase. Calculations accounted for construction equipment emissions as well as off-site activity including traffic generated by construction including worker trips, vendor deliveries, and material hauling. Note, too, that the proposed project's site-specific air quality analysis included West Channel improvements, the results of which are included in the 200 Caribbean area of the project site discussed in this section and as listed in the below Table 4.3-2.

Construction would result in traffic from worker trips and truck trips (haul trips) based on the estimate of demolished material to be exported, soil material to be imported and the estimate of cement truck trips. PM10 and PM2.5 and fugitive dust would be primarily generated during site preparation and grading and could be exacerbated from uncovered loads and mud deposited on local streets from truck trips. The calculations assumed a construction schedule over a period of approximately three years. *Table 4.3-2: Mitigated Construction Period Emissions* shows the projected emission for construction efforts. Temporary air emissions would result from particulate emissions (fugitive dust) from grading and building construction and exhaust emissions from the construction equipment and the motor vehicles of the construction crew. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. As shown, construction emissions would not exceed the BAAQMD significance thresholds for ROG, NOX, PM10, and PM2.5.

Table 4.3-2: Mitigated Construction Period Emissions

Scenario	ROG	NO_X	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Parking and Office				
Equipment:	0.13 tons	0.46 tons	0.06 tons	0.06 tons
Traffic:	<0.01 tons	0.02 tons	<0.00 tons	<0.00 tons
100 Caribbean				
Equipment:	3.12 tons	4.85 tons	0.07 tons	0.08 tons
Traffic:	0.35 tons	3.79 tons	0.07 tons	0.07 tons
200 Caribbean				
Equipment:	2.96 tons	3.12 tons	0.04 tons	0.04 tons
Traffic:	0.46 tons	3.79 tons	0.10 tons	0.09 tons
Total construction emissions	7.01 tons	17.44 tons	0.35 tons	0.34 tons
Average Daily Emissions	18 lbs.	45 lbs.	1 lbs.	1 lbs.
BAAQMD Thresholds (pounds per day)	*54 lbs.*	*54 lbs.*	*82 lbs.*	*54 lbs.*
Exceed Threshold?	**No**	**No**	**No**	**No**

Note: [1] Assumes 3 years or 780 workdays.
Source: Illingworth & Rodkin, Inc., *100 and 200 W Caribbean Campus Project- Air Quality and Greenhouse Gas Emissions Assessment*, May 10, 2018 revised August 13, 2019.

The proposed project would incorporate all applicable BMPs, and also includes mitigation from previously adopted plans as COAs to further reduce the effects of construction-related emissions. As shown in Table 4.3-2, all criteria pollutant emissions would remain below their respective thresholds. However, BAAQMD considers fugitive dust emissions to be potentially significant without implementation of fugitive dust controls. Accordingly, the proposed project would implement fugitive dust controls to reduce fugitive dust emissions to less than significant. NOX emissions are primarily generated by engine combustion in construction equipment, haul trucks, and employee commuting, requiring the use of newer construction equipment with better emissions controls would reduce construction-related NOX emissions. COAs included as part of the project would require construction to use Tier 4 construction equipment. *Table 4.3-2* shows that the strategies to reduce air quality impacts associated with ROG, NOX, PM10, and PM2.5 would be at a level below thresholds.

OPERATIONAL EMISSIONS

Operational emissions were calculated using the CalEEMod model for a full build-out scenario for 2023 because this is earliest the proposed project would be in operation. Emissions from operations of the proposed project would be generated primarily from autos driven by future employees and customers. A 25- percent vehicle trip reduction was used to account for the Traffic Demand Modeling (TDM). Other inputs to the model included use of the earliest model year for equipment, trip generation and trips length, energy use predicted by the 2016 Title 24 building standards to achieve the LEED Gold standard, project generator use (one 600 kW and one 1,000 kW diesel engines), and emissions associated with the

provision of solid waste, and water and wastewater services at the project site. Lastly, evaporative emissions from architectural coatings and maintenance products (classified as consumer products) also were calculated.

To provide a baseline for comparison to the existing on-site uses to those that would occur under the proposed project, *Table 4.3-3: Summary of CalEEMod Operational Model Runs*, shows the existing uses compared to the proposed uses based on square feet.

Table 4.3-3: Summary of CalEEMod Operational Model Runs

CalEEMod Run/Land Uses	Size	Units	Building Floor Area (sf)
Run: Google Caribbean Campuses - *Begin Operation = 2023*			
Office Park	1,041.89	1,000 sf	1,041,890
Unenclosed Parking with Elevator	1,235	Space	379,145
Parking Lot	286.4	1000sf	286,400
Run: Existing 100-200 Caribbean Uses - *Begin Operation = 2023*			
General Light Industry	50.88	1,000 sf	50,880
General Office Building	25.20	1,000 sf	25,200
Unrefrigerated Warehouse- No Rail	108.51	1,000 sf	108,510
Manufacturing	125.64	1,000 sf	125,640
Source: Illingworth & Rodkin, Inc., *100 and 200 W Caribbean Campus Project- Air Quality and Greenhouse Gas Emissions Assessment*, May 10, 2018 revised August 13, 2019.			

Table 4.3-4: Operational Emissions, shows the projected emissions of the proposed project based on 2023 operation date and the above-listed factors**.**

Table 4.3-4: Operational Emissions

Scenario	ROG	NO_x	PM_{10}	$PM_{2.5}$
2023 Project Operational Emissions (*tons/year)*	6.64 tons	7.29 tons	6.40 tons	1.82 tons
Existing Operational Emissions (*tons/year*)	1.65 tons	1.26 tons	1.16 tons	0.33 tons
Net Project Total Operational Emission (*tons/year*)	4.99 tons	6.03 tons	5.24 tons	1.49 tons
BAAQMD Thresholds (tons/year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed threshold?	**No**	**No**	**No**	**No**
Net Project Total Operational Emissions (*pounds/day*)	27 lbs.	33 lbs.	29 lbs.	8 lbs.
BAAQMD Thresholds (pounds/day)	*54 lbs.*	*54 lbs.*	*82 lbs.*	*54 lbs.*
Exceed Threshold?	**No**	**No**	**No**	**No**
* Assumes 365-day operation Source: Illingworth & Rodkin, Inc., *100 and 200 W Caribbean Campus Project- Air Quality and Greenhouse Gas Emissions Assessment*, May 10, 2018 revised August 13, 2019.				

Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the proposed project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards. The proposed project would not cause the violation of an air quality standard or worsen an existing violation of an air quality standard. As noted above, the LUTE EIR Mitigation Measure 3.5.3 requires construction project to implement BAAQMD's basic construction mitigation measures, which is a uniformly applied development standard because is it required by the CAP. The dust control measures that would be applied to the proposed project include the following: (1) all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day; (2) All haul trucks transporting soil, sand, or other loose material off-site shall be covered; (3) 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; (4) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph); (5) 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; (6) 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; (7) 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; and (8) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The 2017 BAAQMD CEQA Air Quality Guidelines recommend enhanced measures to further ensure impacts to air quality are reduced. The enhanced measures would be included as COA's to the proposed project and are as follows: (1) All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust clouds cannot be confined to the site; (2) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel; (3) Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent; (4) Minimizing the idling time of diesel-powered construction equipment to two minutes; and (5) The project shall develop a plan demonstrating that the combination of off-road equipment and on-road vehicle traffic that is part of the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project-wide 32-percent NOx reduction compared to the CalEEMod modeled average used in this report. There are several options available to meet this requirement. Acceptable options for reducing emissions include the use of late-model engines and trucks, low-emission

diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods: (i) All diesel construction equipment used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 4 engines, where not feasible, engines must meet Tier 3 standards. A plan showing that equipment usage, based on total horsepower hours will include at a minimum 80 percent Tier 4 equipment; (ii) Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators, air compressors and welders. Where access to alternative sources of power are available, portable diesel engines shall be prohibited; (iii) Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than 2 minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit; and (iv) All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) be model year 2010 or newer.

Compliance with these uniformly applied policies as standards recommended by BAAQMD would reduce the air quality impacts associated with grading and new construction to a less than significant level.

Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for O3, PM10, and PM2.5 for State standards and nonattainment for O3 and PM2.5 for Federal standards. As discussed above, the project's construction-related emissions by themselves would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants. Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The BAAQMD recommended Basic Construction mitigation measures are recommended for all projects whether or not construction-related emissions exceed the thresholds of significance. These measures would be incorporated as COAs, as outlined in response 4.3 (a) above. Compliance with BAAQMD construction-related requirements are considered to reduce cumulative impacts at a Basin-wide level. Emissions would be further reduced through use of Tier 4 equipment. Therefore, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively

considerable contribution to a significant cumulative impact. As discussed in Impact 4.3(a) above, the proposed project's operational emissions would not exceed BAAQMD thresholds. Therefore, these impacts would be less than significant.

Therefore, with application of uniformly applied development standards and policies mitigation from the LUTE EIR, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR, uniformly applied City development standards and policies, conformance to State and BAAQMD regulations, and adoption of standard COA's would reduce impacts to less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Impacts 3.5.4, 3.5.5, 3.5.6, and 3.5.8 of the LUTE EIR evaluated whether construction and operational activities would expose sensitive receptors to substantial pollutant concentrations of TACs. Sensitive receptors include residences, schools, medical facilities, family daycares, and places of worship. Construction-related TACs potentially affecting sensitive receptors include off-road diesel-powered equipment, and operational TACs include mobile and stationary sources of diesel particulate matter. Both impacts are identified in the LUTE EIR as potentially significant. Implementation of Mitigation Measure 3.5.5 and Mitigation Measure 3.5.6 form the LUTE EIR, in addition to BAAQMD permitting requirements, were determined to provide adequate reductions to these impacts and result in a less than significant impact under project conditions but found that the LUTE's contribution to significant cumulative impacts would be cumulatively considerable (Impact 3.5.8).

As discussed above, a site-specific air quality analysis was conducted for the proposed project. The analysis found that impacts to air quality related to this threshold from implementation of the proposed project would be less than significant both at the project level and cumulatively.

Sensitive receptors are groups of people that are more affected by air pollution than groups that may be more resilient. Sensitive receptors typically include children under 14 years of age, the elderly over 65, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

CONSTRUCTION

Construction of the proposed project includes the use of machinery and equipment that would result in the emission of some pollutants and chemicals that that could be harmful to sensitive receptors. This includes temporary grading activities could result in the production of dust which

would contribute to airborne particles of PM10 and PM2.5 and other toxic air contaminants (TAC). Additionally, most on-site construction equipment would be diesel-powered and diesel particulate matter (DPM) also would be emitted. DPM is a TAC that can elevate cancer risk and PM2.5 concentrations.

To evaluate increased cancer risk and other noncancer adverse health impacts to sensitive receptors from air quality emissions BAAQMD has developed community risk thresholds. The community risk thresholds evaluate these hazards in terms of a hazard index. In applying the community risk thresholds, BAAQMD recommends that sensitive receptors within 1,000 feet of a project be considered. In addition, BAAQMD developed a guidebook that provides air quality and public health information intended to assist local governments in addressing potential air quality issues related to exposure of sensitive receptors to exposure of emissions from local sources of air pollutants. The guidance provides tools and recommended best practices that can be implemented to reduce exposures. The information is provided as recommendations to develop policies and implementing measures in city or county General Plans, neighborhood or specific plans, land use development ordinances, or into projects.

The project site is surrounded by other development within the MPSP that consists of industrial, commercial, and other uses associated with the technology sector. The closest sensitive receptors to the proposed project are located at more than 3,000 feet from the project site. Based on this, a health risk assessment of the project construction activities was not conducted since sensitive receptors are located far from the site. Given the large distance and temporary nature of this impact, community risk caused by construction to sensitive receptors is considered less than significant. The proposed project would incorporate COAs to reduce impacts and the proposed project would conform with uniformly applied development policies and standards as detailed above. This would reduce the emissions of TACs, NOX, PM2.5, and PM10 during construction further reducing emissions of these particles and compounds.

OPERATION

Operation of the proposed project would generate some emissions that could affect sensitive receptors. Generators and other machinery on-site would have minor emissions of TACs or PM2.5. The emissions from generator operation would be limited to approximately 50 hours per year for non-emergency conditions. Additionally, natural gas combustion would be located more than 3,000 feet from sensitive receptors and have negligible effects.

Operation of the proposed project would result in increased vehicular traffic that would result in vehicle emissions. Traffic emissions would be spread out over a large area and have a negligible effect on any one sensitive receptor. In their guidance for evaluating traffic community risk thresholds, BAAQMD recommends projects evaluate roadways near sensitive receptors with over 10,000 average daily trips. The proposed project would generate about 8,319 daily trips distributed over various surrounding roadways. The net increase in traffic when considering operation of the existing uses would be less than significant.

In the short-term (i.e., during construction) or long-term (i.e., operation), the proposed project would not result in cancer risk, non-cancer health effects or annual PM2.5 concentrations in exceedance of the community risk thresholds. Therefore, these impacts would be less than significant with incorporation and conformance to the COAs.

Thus, the proposed project would be consistent with land use and zoning designations and would not include any development beyond that allowed by the LUTE EIR. Therefore, with application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR concerning the exposure of sensitive receptors to substantial pollutant concentrations remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR, uniformly applied City development standards and policies, and standard COA's would reduce impacts to less than significant.

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

Impact 3.5.7 of the LUTE EIR identified that development associated with the LUTE could create objectionable odors affecting a substantial number of people. The LUTE EIR concluded that implementation Mitigation Measure 3.5.7 would reduce this impact to less than significant.

Potential odors could arise from the diesel-fueled construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated during construction activities would be temporary and are not considered to be a significant impact. Emissions produced during demolition, grading, and construction activities are short-term, as they would exist only during construction. Construction activity associated with the proposed project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon completion of the proposed project. Any impacts to existing adjacent land uses would be short-term and are considered less than significant.

According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The proposed project does not include any uses identified by the BAAQMD as being associated with odors. Thus, the proposed project would not be a source of objectionable odors and the surrounding development, which also consists of primarily commercial and office/R&D uses, is not a source of objectionable odors, and there is no cumulative impact related to objectionable orders. Therefore, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information

indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to odors remain valid and no further analysis is required. Impacts in this regard would be less than significant.

Conclusion

Application of mitigation measures from the LUTE EIR would result in less than significant impacts.

CUMULATIVE IMPACTS

Impact 3.5.8 of the LUTE EIR evaluated the cumulative impacts to air quality. The analysis noted that, while contribution of the LUTE to adverse impacts to air quality would be cumulatively considerable, the BAAQMD-recommended significance thresholds, as applied to each individual project, would be used to determine whether a project's contribution to a significant impact to air quality would be cumulatively considerable. As discussed above, it should be noted that a site-specific air quality analysis was conducted for the proposed project. The analysis found that cumulative impacts to air quality related to this threshold from implementation of the proposed project would be reduced to less than significant.

The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational emissions. With respect to regional air pollution, the development of the proposed project would result in population growth that is consistent, if not less the City's General Plan projections. Therefore, the proposed project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts. Additionally, as noted above, the proposed project is anticipated to result in a lower vehicle trip generation rate than traditional development in because the proposed project includes a TDM plan that includes an extensive alternative transportation network and opportunity for use of multimodal means of travel. These opportunities include walking, bicycling, light rail, bus, Caltrain, and Google provided shuttles that would enhance the ability of employees and visitors to utilize regional transit.

The proposed project also would be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. In addition, the BAAQMD CEQA Air Quality Guidelines note that no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. This document further states, if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary. Accordingly, consistency with the 2017 Clean Air Plan control measures and the fact, impacts would be less than significant ensuring that the proposed project would not cumulatively contribute to air quality impacts in the Basin. Therefore, impacts would be less than significant in this regard.

As discussed, there are no significant cumulative impacts associated with air quality that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The proposed project would not have any potentially significant off-site impacts or cumulative impacts on air quality emissions during construction or operation, or that would violate air quality management plans, or substantially affect sensitive receptors that were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to air quality would be less than significant. Thus, the conclusions of these documents remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

Conclusion

Application of mitigation measures from the LUTE EIR, uniformly applied City development standards and policies required as part of other air quality impacts would reduce impacts to less than significant.

4.4 Biological Resources

ENVIRONMENTAL Issues	New Potentially Significant Impact	New Less Than Significant with Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than Approved Project
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X	
c) 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?				X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X	

ENVIRONMENTAL Issues	New Potentially Significant Impact	New Less Than Significant with Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than Approved Project
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X	

DISCUSSION

The VW Sunnyvale East and West Channels Flood Protection Project Draft EIR (VW EIR) was prepared in 2013 and the LUTE EIR was certified in April 2017. No substantial new information pertaining to biological resources on the proposed project site has become available since that time. The project site is in a similar condition today as in the years the applicable EIR's were written and the biological resources and the potential presence for resources to occur has not changed substantially. The VW EIR analyzed impacts associated with proposed improvements to the entire West Channel. This included the approximately 1,000-foot portion of the West Channel within the project site. The analysis in this section of the Initial Study Checklist tiers off of the 2013 Valley Water (VW) East and West Channels Flood Protection Project EIR ("VW EIR") (State Clearinghouse No. 2013012041) and the LUTE EIR. The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant.

Improvements discussed for the West Channel within the project area included installation of an inboard floodwall, bridge/culvert modifications, and levee ramps on the north side of West Caribbean Drive. As part of the flood control improvement program the VW EIR incorporated and was adopted with thirteen mitigation measures and seventeen best management practices (BMPs) to reduce impacts to biological resources. The mitigation measures and BMPs reduced potential impacts to biological resources to less than significant. The mitigation measures would be implemented as part of the proposed project, would be implemented as appropriate, and are incorporated by reference.

*Table 4.4-1: VW EIR Biological Resources Mitigation***,** below. Applicable mitigation measures also are discussed in the individual impact sections[a), b), c), d), and e), further below. Eleven of the fourteen BMPs listed would be applicable to the proposed project and these are shown in *Table 4.4-*

2: VW EIR Best Management Practices. The BMPs contained in the VW EIR would be applied to the proposed project and associated improvements to the West Channel as needed. The BMPs are discussed in the individual impact sections a), b), c), d), and e), further below.

Table 4.4-1: VW EIR Biological Resources Mitigation

MM BIO-1: Implement Compensatory Mitigation for Temporal Loss of Vegetated Wetlands and Permanent Loss of Vegetated and Unvegetated Wetlands and Other Waters	**MM BIO-2**: Conduct Fish Removal during Project Site Dewatering Activities
MM BIO-3: Conduct Pre-Construction Surveys for Western Pond Turtles	**MM BIO-4**: Pre-Construction Surveys for Nesting Birds
MM BIO-5: Implement Buffer Zones for Nesting Birds	**MM BIO-6**: Conduct Pre-Construction Surveys for Burrowing Owls
MM BIO-7: Implement Buffer Zones for Burrowing Owls	**MM BIO-8**: Monitor Owls during Construction
MM BIO-9: Passively Relocate Burrowing Owls	**MM BIO-10**: Restoration of Temporary Impact Areas
MM BIO-11: Compensatory Mitigation for Burrowing Owls	**MM BIO-12**: Maintain Buffer during Construction Adjacent to Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Habitat
MM BIO-13: Avoid Construction during Bat Maternity Season	

Table 4.4-2: VW EIR Best Management Practices

BMP BIO-1: Avoid relocating mitten crabs	**BMP BIO-2**: Avoid and minimize impacts on native aquatic vertebrates
BMP BIO-3: minimize impacts to steelhead	**BMP BIO-4**: minimize access impacts
BMP BIO-5: Remove temporary fills as appropriate	**BMP BIO-8**: Avoid impacts to nesting migratory birds
BMP BIO-9: Use exclusion devices to prevent migratory bird nesting	**BMP BIO-10**: Minimize impacts to vegetation whenever clearing (or trimming) is necessary.
BMP BIO-11: Minimize root impacts to woody vegetation	**BMP BIO-13**: Plant local ecotypes of native plants and choose appropriate erosion-control seed mixes
BMP BIO-14: Maintain low-flow fish passage	**BMP BIO-15**: Restore riffle/pool configuration of channel bottom
BMP BIO-16: Avoid animal entry and entrapment	**BMP BIO -17:** Minimize predator attraction effects on wildlife.
* Only BMP's from the VW EIR that are applicable to the proposed project are listed above.	

The proposed project would occur on a 40.44-acre site that is fully developed with 13 structures and has been used for light industrial and commercial uses. The site is vegetated with landscaping but lacks native habitat except for some areas within the West Channel. The project site

is bound by West Caribbean Drive to the north, North Mathilda Avenue to the west, Bordeaux Drive and Caspian Court to the south, and Borregas Drive to the east. The central portion of the project site is bisected from south to north by the VW West Channel which occupies approximately 8.1 acres. The West Channels flows off-site across West Caribbean Drive and into the Moffett Channel approximately 0.25 miles to the north and eventual outfall to the south San Francisco Bay via the Guadalupe Slough. Within the project area the West Channel contains open water, wetland habitat, ruderal vegetation, and riparian and disturbed areas. Uses surrounding the project site to the east, west and south consist of similar industrial and commercial uses. Across West Caribbean Avenue to the north, is an undeveloped parcels consisting of a landfill. This area is not anticipated to be developed. Approximately 0.25 miles north is the southern end of the San Francisco Bay.

Four biological resources reports were prepared for the proposed project by H.T. Harvey & Associates (HTHA) including the Google Caribbean Campus Biological Resources Report, attached as Appendix E-1, and the Google West Borregas Campus Biological Resources Report in August of 2019, attached as Appendix E-2. The third report, Google West Channel Enhancement Project, also was prepared in August 2019 and Google Caribbean Campus Construction Office and Parking Site Arborist Report from March 30, 2018, are attached as Appendix E-3, and Appendix E-4, respectively.

The biological resources reports relied on data from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR). Species listed as 1A, 1B, 2A, and 2B that are considered either extinct, rare, endangered, or threatened and that would have the potential to occur within the region and project site also are included in a plant search of the CNPS inventory record for Santa Clara County. For avian species, the records of the Sunnyvale Baylands Park and Sunnyvale Water Pollution Control Plan on eBird and on the South-Bay-Birds List were consulted.

Reconnaissance level surveys of the project site were conducted to evaluate the existing biological conditions and the project site's potential to support special-status and protected plants and animals. Onsite habitats and habitats in adjacent areas and the potential for these habitats to be used by sensitive species also were assessed (HTHA, 2017a, and 2017b, HTHA, 2019).

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

As identified in LUTE EIR Impact 3.9.1, the urbanized portions of the City are largely built out and do not contain large areas of natural habitat, but some ruderal infill lots could support burrowing owl and Congdon's tarplant, and urban parks, open space, and riparian areas could support nesting birds. Active nests of all migratory birds, including raptors, are protected by state and federal law. Direct impacts on special-status species could occur as a result of construction of private development and/or public projects. The LUTE policies and actions include protections that address natural habitat conditions in the City. The City of Sunnyvale is also required to comply with all applicable federal and state laws and regulations

pertaining to species and habitat protection. In addition, as shown in the Discussion Section above, the VW EIR analyzed impacts associated with proposed improvements to the entire West Channel. This included the approximately 1,000-foot portion of the West Channel within the project site. The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant.

The portion of the project site containing the West Channel within the project site is the area most likely to contain sensitive species. However, the combination of minimal channel diversity and the narrowness of the channel substantially diminishes the value of the habitat to wildlife. More naturally formed channels may contain more high-quality habitats such as pool and riffle complexes. The water in the channel is relatively shallow resulting in temperature increases and regular disturbance by human activities has reduced the value of the habitat. Few aquatic species are supported, but the nonnative cray fish (*Procambarus clarkia*), and birds including mallard (*Anas platyrnchos*), American coot (*Fulica Americana*), and great blue herons (*Ardea Herodias*) and other common and widespread wetland associated species were observed. Common mammal species including raccoons and rodents also are likely present. The common Pacific treefrog (*Hyliola regilla*) also occurs.

Although no special status wildlife was observed, some special status species with the potential to occur include Burrowing Owl (*Athene cunicularia*), White-Tailed Kite (*Elanus leucurus*), San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*), Alameda Song Sparrow (*Melospiza melodia pusillula*), nesting birds, and roosting bats including Yuma myotis (*Myotis yumanensis*) and Mexican free-tailed bat (*Tadarida brasiliensis*). Within the channel two fish species including the Central California Coast (CCC) steelhead (*Oncorhychus mykiss*) and North American green sturgeon (*Acipenser medirostris*) may occur. Only one rare or endangered plant, Congdon's Tarplant (*Centromadia parry*), was determined to have potential to exist on the project site; however, the site surveys concluded Congdons tarplant is not present. These species also are discussed in additional detail in Impact d), below.

Burrowing owl. Suitable nesting and roosting habitat for burrowing owls is absent from the project site. The project site does not contain any California ground squirrels and it lacks ruderal habitat except the narrow strip along the West Channel. Although limited the ruderal habitat could provide suitable foraging habitat for burrowing owls that may nest or roost in nearby areas such as at the Sunnyvale Water Pollution Control Plant (WPCP). The WPCP is within approximately 250 feet of the project site. Therefore, some potential exists for project-related construction to occur near active burrows and result in disturbance and abandonment of burrows.

While-Tailed Kite- The white-tailed kite is a state fully protected species and can be found in the Central Valley and along the coast in grasslands, agricultural fields, cismontane woodlands, and other open habitats. White-tailed kites commonly inhabit portions of the project region where open grassland, ruderal, or agricultural habitats are present. This species does occur year-round at the WPCP and within the Sunnyvale Baylands Park approximately 1.1 mile to the east. Large trees on the project site and along the southern boundary of the WPCP could be potential nesting sites for this species. The trees could provide suitable sites for nesting by up to one pair of white-tailed kites. In addition, and this species may

forage in the open grassland habitat along the Sunnyvale West Channel. Although no white-tailed kites, or potential nests of this species, were observed it has the potential to be present on the project site.

San Francisco Common Yellowthroat– The San Francisco Common Yellowthroat inhabits emergent vegetation, and nests in freshwater, brackish marshes and moist floodplain vegetation. Ideal habitat comprises extensive and thick riparian, marsh, or herbaceous floodplain vegetation. The species is fairly common in the South Bay and has been observed in the spring and summer in project site. Although the typical habitat on the project site for this species is low, if emergent vegetation is sufficiently dense, it may breed on the project site.

Alameda Song Sparrow– Prime habitat for the Alameda song sparrow is fully tidal salt marsh consisting of large areas of tidally influenced salt marsh vegetation dominated by cordgrass is sedentary and is not known to disperse upstream into freshwater habitats. Where suitable nesting habitat is continuous along creeks, song sparrows appear to nest continuously from tidal salt marshes. The lower reaches of the West Channel including the project site may provide habitat for this species.

Nesting Birds - Several California special status species of common native birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC) may nest in trees, shrubs, or on buildings, or areas immediately adjacent to the project site. The proposed project has the potential to result in the direct injury or mortality of common, native birds, especially eggs or young in nests. If disturbances, such as ground clearing, vegetation removal, demolition, or construction activities occurs during the nesting season (i.e., February 1 through August 31) these activities could result in the removal of active bird nests. In addition, increased disturbance near active nests could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. In addition, some common (i.e., non-special-status) bird species that may nest on the site include the black phoebe, mourning dove, lesser goldfinch, Anna's hummingbird, dark-eyed junco, bushtit, house finch, California scrub-jay, and California towhee. Based on site observations, a few pairs of each of these species could potentially nest on or adjacent to the site.

Roosting Bats - The existing buildings on the project site provide suitable roosting habitat for colonies of common species of bats, including the Yuma myotis (Myotis yumanensis) and Mexican free-tailed bat. All bat species in California are protected under the CFGC. Bats do not commonly roost in office buildings and warehouses; however, if the buildings are unoccupied for extended periods of time and bats can enter and exit there is a low possibility bats could be present.

Central California Coast steelhead and North American green sturgeon- The project site provides marginal quality habitat for the listed steelhead and sturgeon. This fact combined with the inclusion of mitigation and avoidance measures including passive fish relocation and measures to prevent entrapment and to protect fish will be used to avoid and minimize impacts to essential fish habitat (EFH). In the *VW EIR*, USACE determined Section 7 consultation under the Endangered Specific Act (ESA) would not be required.

Other sensitive species are listed in the biological resource study and include the following: Yellow Warbler (*Setophaga petechia*), Loggerhead Shrike (*Lanius ludovicianus*), American Perigrine Falcon (*Falco peregrinus anatum*), Golden Eagle (*Aquila chrysaetos*), Northern Harrier (*Circus cyaneus*), Tricolored Blackbird (*Agenlaius tricolor*) – Tricolored blackbirds, Western Pond Turtle (*Actinemys marmorata*). These species have been documented in the vicinity and areas surrounding the project site; however, the project site would provide marginal habitat and foraging sites, and the low-quality breeding or nesting habitat. These species are not anticipated to be found within the project site. If; however, they are located, the listed mitigation and BMPs from the VW EIR would reduce impacts to less than significant.

The proposed project includes large surface areas with screened façades, but some areas would contain unobstructed paths to unobstructed glass windows. Because birds do no perceive glass as an obstruction they may collide with glass resulting in injury or death to the bird(s). This effect would minimized by including variations in building facades, window screens, articulated rooflines, and avoiding large expanses of unobstructed glass window panes. In addition, the northerly side of the building has a stepped and staggered design which would help break up large window areas.

The parking structure includes an open-air design and would minimize the use of any windows. The structure also includes vegetation, creeping vines, and mural to give depth to the facade. These features would minimize the potential for bird strikes resulting in harm to avian species.

The proposed project would include extensive native landscaping, which could be an attractant for some bird species. The proposed project is located approximately 0.5 miles from the WPCP buffer lands so there is the potential for large numbers of birds to be present in and around the project site. However, as discussed above, using the listed design elements it is unlikely that large numbers of birds would collide with the proposed buildings. Additionally, although a number of common and urban-associated bird species may use the landscaped areas of the proposed project, the number of birds that may collide with project structures is not expected to affect regional populations of the species.

Development of the proposed project with the current design is unlikely to result a high number of bird strikes. As a uniformly applied development policy, the final design of the proposed project would require approval by a qualified biologist to ensure the proposed project meets the Bird Safe Design Guidelines as well as any other applicable bird safe design measures. these impacts also were previously addressed in impacts 3.9.1 and 3.9.5 in the LUTE EIR and the proposed project would be required to comply with all applicable state and federal laws.

There are no impacts to biological resources or mitigation measures in this report that are not covered under the VW EIR. The discussion in the VW EIR includes the areas that proposed project would impact and impacts would be similar. All applicable mitigation measures and BMP's presented in the VW EIR are listed in *Table 4.4-1: VW EIR Biological Resources Mitigation* and *Table 4.4-2: VW EIR Best Management Practices*, above and are incorporated by reference. The mitigation measures and BMPs from the VW EIR are applicable for inclusion to the proposed project and would be implemented as COA's. In addition, the LUTE EIR analyzed the potential environmental effects associated with the implementation of the LUTE, which is an element of the City of Sunnyvale General Plan. The analysis in the LUTE EIR focused on environmental impacts that could

arise through development of the land uses in Sunnyvale as regulated and guided by the LUTE. The LUTE also contains policies and actions that include protections to address natural habitat conditions in the City. Lastly, the City of Sunnyvale is also required to comply with all applicable federal and state laws and regulations pertaining to species and habitat protection. All applicable measures and protections afforded by these documents would be applied to the proposed project. Thus, there are no new significant impacts that were not previously analyzed in the VW EIR, the LUTE EIR, or new significant off-site impacts and cumulative impacts not discussed in either document. There is no substantial new information indicating that an impact would be more severe than discussed previously disclosed would occur. Therefore, the previous findings of the certified VW and LUTE EIR's remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR and VW EIR, uniformly applied City development standards and policies, and COA's would reduce impacts to less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

As identified in LUTE Draft EIR Impact 3.9.1, the urbanized portions of the City are largely built out and do not have large areas of natural habitat. LUTE EIR Impact 3.9.2 and 3.9.5 address potential impacts to sensitive habitats from implementation of the LUTE. The analysis identifies that subsequent projects under the LUTE are required to comply with all applicable federal and state laws and regulations pertaining to species and habitat protection in addition to listed LUTE policies and actions, and the City's Municipal Code. In addition, as shown in the Discussion Section above, the VW EIR analyzed impacts associated with proposed improvements to the entire West Channel which includes riparian habitat and other potentially sensitive natural communities. This included the approximately 1,000-foot portion of the West Channel within the project site. The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant. Through the incorporation of previously adopted mitigation and BMP's, impacts to riparian habitat and other sensitive community would be less than significant.

The proposed improvements to the West Channel are consistent with those evaluated in the VW EIR. Improvements are proposed to increase flood control function while enhancing and minimizing impacts to riparian habitat and other potentially sensitive natural communities. The VW EIR previously analyzed impacts to riparian habitat within the project site. The West Channel is a human-made feature and no naturally occurring riparian habitats or other sensitive natural communities are present on the project site. The West Channel is a linear flood control channel and was constructed in response to flooding, land subsidence, and inadequate drainage outlets to south San Francisco Bay. The West Channel is approximately three miles in length and water is pumped into the West Channel upstream of the project site. The project site is bisected by

approximately 1,000 feet of the West Channel from south to north before flowing off-site into the Moffett Channel and eventual outfall to the Guadalupe Slough (City of Sunnyvale, 2013).

The West Channel contains four general habitat types and include tidal aquatic and estuarine wetland in the channel, ruderal riparian grassland on the banks of the levee, and developed/landscaped outside the levee. The channel contains a narrow tidal aquatic area and the adjacent habitats on the bank and levee have been subject to moderate to high levels of anthropogenic disturbance including channelization, hardening of streambanks, installation of culverts, and other human influences. The channel is confined on both sides by urban development and generally lacks native habitats associated with more natural channel systems and has a relatively low-quality habitat value. The channel consists of a narrow, linear channel, relatively steep banks dominated by ruderal riparian vegetation and lacks woody species. The top of the levee is unvegetated and has dirt access roads on both sides. Ruderal, nonnative grassland and scattered nonnative trees are located on the outboard sides of the channel.

The ruderal riparian habitat covers approximately 0.44 acres within the channel. Estuarine wetlands within the channel are classified by the National Wetlands Inventory as an estuarine and marine wetland. This classification refers to estuarine and intertidal wetlands occurring within a streambed that is completely dewatered at low tide but is regularly flooded and was originally excavated by humans. There is 0.17 acres of estuarine wetlands within the project site. These areas are discontinuous and contain patches of hydrophytic vegetation on the east and west sides of the channels. Species include California bulrush (*Schoenoplectus californicus*), and alkali brush (*Bolboschoneus maritmus*).

Tidal Aquatic habitat accounts for approximately 0.73 acres of the channel habitat types. Tidal aquatic habitat consists of the unvegetated muddy channel bed that is subject to tidal inundation, is located in the middle portion of the channel and at times is under open water.

Outside of the levee, the areas that would be disturbed for improvements to the channel consist of approximately 6.77 acres of developed land with parking lots, other pavement, existing commercial buildings, and landscaping. Landscaped areas consist of a variety of non-native trees, plants and shrubs and ground cover including lawns and ivy. These areas provide relatively low habitat quality and are used by species adapted to a heavily urbanized environment.

LUTE Draft EIR Impact 3.9.2 and 3.9.5 addressed potential impacts to wetlands from implementation of the LUTE. The analysis identifies that subsequent projects under the LUTE are required to comply with all applicable federal and state laws and regulations pertaining to species and habitat protection in addition to LUTE policies and actions and the City's Municipal Code. This impact was identified as less than significant under project and cumulative conditions (Impact 3.9.5). In addition, mitigation previously adopted as part of the VW EIR (MM BIO-1) concluded that the components of the measure would result in the creation, restoration, and/or enhancement of wetlands, and would reduce this potential impact to a less-than significant. Conformance with the mitigation would be included as a COA for the proposed project. The proposed project would fully mitigate impacts in accordance with all regulatory requirements. Construction of the West Channel improvements will result in temporary impacts on approximately .72 acres of tidal aquatic habitat, .16 acres of estuarine wetlands, and removal of .43 acres of ruderal riparian grassland

habitat. Permanent impacts to habitat are significantly less: .01 acres (573 sq. ft.) of tidal aquatic habitat resulting from the planned culvert extension at the northern end of the West Channel project site, .01 acres (520 sq. ft.) of shading on estuarine wetlands resulting from the placement of the bridges, and .01 acres (457 sq. ft.) of conversion of ruderal riparian habitat to hardscape to accommodate construction of headwalls/floodwalls, one bridge abutment, and the culvert extension.

By reference to MM BIO-1 from the VW EIR, and intrinsic to the West Channel's proposed meandering channel and the new levee slopes to be planted with native vegetation, the proposed project's design as an environmental enhancement project feature achieves full compensation for all temporary and permanent impacts on habitats.

Consistent with the mitigation ratios required by MM BIO-1 in the VW EIR, the proposed project will provide onsite mitigation for temporary aquatic impacts at a 1:1 ratio and for permanent impacts at a 2:1 ratio, through a combination of restored tidal aquatic (0.54 ac) and estuarine wetland habitats (0.24 ac). For temporary estuarine wetland habitat impacts resulting from dewatering and grading, the project proposes to mitigate at a 1.2:1 ratio, and for permanent impacts (shading from bridges), at a 2:1 ratio, totaling 0.21 ac of additional estuarine wetland. These mitigation ratios represent a total project mitigation obligation of 0.54 ac of tidal aquatic habitat and 0.45 ac of estuarine wetland habitat. Temporary impacts on ruderal riparian habitat will be mitigated at a 1:1 ratio and permanent impacts at a 2:1 ratio, resulting in a total of 0.46 ac of riparian habitat. Beyond meeting these VW EIR mitigation ratio prescriptions, the project proposes to create an additional 1.85 acres of estuarine wetland and 1.34 acres of riparian habitat. In total, new habitat created in accordance with the mitigation ratios prescribed in the VW EIR MM BIO-1, plus the additional habitat to be created under the proposed project, will yield .54 acres of tidal aquatic habitat, 2.3 acres of estuarine wetland, and 1.8 acres of riparian habitat.

The proposed project includes revegetation of the West Channel corridor within the project site. The proposed project design includes relying primarily on passive revegetation of the estuarine wetland areas and utilizing native seed from adjacent reaches that will be naturally dispersed to the site from upstream storm drain flows and from downstream through tidal action. However, revegetation of the floodplains will also be supplemented by installing pockets of native wetland plants. Supplemental plantings will be installed after all mitigation site construction is complete and immediately prior to removing dewatering infrastructure. The two most common species anticipated to colonize the floodplains include California bulrush and alkali bulrush. Planting pockets will be planted with these two species from 1-gallon container stock. Both species will be installed near the upper edge of the known tidal elevation ranges to allow establishment under limited inundation stress

Implementation of the proposed project and the applicable VW MM’s and BMPs, would reduce impacts to less than significant. Thus, with the application of uniformly applied development standards and policies, and the listed mitigation measures the proposed project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR or the VW EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR or the VW EIR , and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR and VW EIR, uniformly applied City development standards and policies, and COA's would reduce impacts to less than significant.

c) 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?

The LUTE EIR Impact 3.9.2 addresses potential impacts to wetlands from implementation of the LUTE. The analysis identifies that subsequent projects under the LUTE are required to comply with all applicable federal and state laws and regulations pertaining to species and habitat protection in addition to LUTE policies and actions and the City's Municipal Code. In addition, as shown in the Discussion Section above, the VW EIR analyzed impacts associated with proposed improvements to the entire West Channel. This included the approximately 1,000-foot portion of the West Channel within the project site. The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant.

As discussed in impact b) above, the proposed project would include improvements within the West Channel. The West Channel bisects the site from south to north for approximately 1,000 feet before it flows into the Moffett Channel and outfall to the south San Francisco Bay via the Guadalupe Slough. Water is pumped into the West Channel upstream of the project site. The West Channel was constructed in response to flooding caused by a combination of major storm events with land subsidence and inadequate drainage outlets to south San Francisco Bay.

As part of the VW EIR, wetlands within the project site were mapped and impacts to wetlands that would occur with the proposed improvements were analyzed. In addition, the biological resources study also evaluated wetland impacts and would limit construction in wetland areas to the dry season (April 15 to October 15). The VW EIR incorporated thirteen mitigation measures and BMPs to reduce these and other impacts to biological resources. The biological resources study discussed these measures and they are incorporated as applicable. One of these measures, VW MM BIO-1 requires the implementation of compensatory mitigation for temporal loss of vegetated wetlands and permanent loss of vegetated and unvegetated wetlands. The requirement will be included as a COA to the proposed project and would ensure the impacts associated with improvements to flood and drainage of the West Channel are fully mitigated. Implementation of all protection measures and project implementation by the applicant would occur in close coordination with VW, and would require agency approval of the USACE, CDFW, and RWQCB.

In addition to the COAs, six BMPs from the VW EIR would be applicable in regard to this impact and include: *BMP BIO-4; BMP BIO-5; BMP BIO-10, BMP BIO 11, BMP BIO-13, and BMP BIO-15.* Implementation of the VW BMPs would further ensure impacts are less than significant. Thus, with the application of uniformly applied development standards and policies, and the listed mitigation measures, the proposed project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR or the VW EIR, or (3) significant off-site impacts and cumulative impacts not discussed

in the LUTE EIR or the VW EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

LUTE Draft EIR Impact 3.9.2 and 3.9.5 address potential impacts to wetlands from implementation of the LUTE. The analysis identifies that subsequent projects under the LUTE are required to comply with all applicable federal and state laws and regulations pertaining to species and habitat protection in addition to LUTE policies and actions and the City's Municipal Code. This impact was identified as less than significant under project and cumulative conditions (Impact 3.9.5). In addition, mitigation previously adopted as part of the VW EIR (MM BIO-1) concluded that the components of the measure would result in the creation, restoration, and/or enhancement of wetlands, and would reduce this potential impact to a less-than significant level. Conformance with these measures would be included as a COA's for the proposed project and the proposed project would fully mitigate impacts in accordance with all regulatory requirements. The proposed project would create an additional 0.02 acres of tidal aquatic habitat; 1.5 acres of estuarine wetland, 1.52 acres of total jurisdictional waters; and 1.141 acres of riparian habitat beyond what is required for to be considered full compensation.

Therefore, implementation of the applicable VW MM's and BMPs, would reduce impacts to less than significant. Thus, with the application of uniformly applied development standards and policies, and the listed mitigation measures the proposed project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR or the VW EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR or the VW EIR , and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR and VW EIR, uniformly applied City development standards and policies, and COA's would reduce impacts to less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The LUTE EIR Impact 3.9.3 identified no significant impacts to wildlife movement as planned development of the city under the LUTE would occur within existing developed areas of the city and would not extend into wetlands and open space areas along San Francisco Bay that provide habitat and movement corridors for wildlife species in the region. As shown in the Discussion Section above, the VW EIR analyzed impacts associated with proposed improvements to the entire West Channel. This included the approximately 1,000-foot portion of the West Channel within the project site. The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant.

The project site is developed in a high-density urban environment. The proposed project contains 13 existing industrial buildings, parking lots, landscaping, other hardscaped areas, and 1,000 feet of the West Channel. While landscaping and structures may provide refuge, foraging, and even breeding opportunities for some wildlife, species most likely to occur within the area are generally those that have wide tolerances for human activities and disturbances and would not consist of sensitive species.

The proposed project also provides limited habitat that would facilitate wildlife movements and migration. Wildlife movement and migration can generally be divided into three major behavioral categories:

- Movements within a home range or territory;
- Movements during migration; and
- Movements during dispersal.

While the project site may provide some marginal habitat for use by a limited number of special status species and non-special status species, the project site does not provide wildlife a substantial benefit in relation to migration or movement. The project site is highly disturbed and developed and does not provide valuable habitat for use by wildlife as a home range or during migration. Because the site is not used as a breeding ground, the proposed project also would not result in substantial effects on species dispersal.

The West Channel supports some open water and wetland habitat and provides connectivity to the Moffett Channel adjacent to the WPCP and eventual outfall to the south San Francisco Bay via the Guadalupe Slough. The habitat within the West Channel in the project area; however, is generally considered low quality. The VW discusses this and notes the approximate culvert crossing over West Caribbean Drive culvert crosses West Java Drive detract from habitat value. Other habitat associations include generally urban and ruderal vegetation, and because the channel is typically narrow and is confined on both sides by dense urban development its value for migrations and movement is limited.

The VW EIR found that in the areas upstream (south) of West Caribbean Drive the West Channel does not likely function as high-quality movement corridors for most species, particularly special-status species due to the patchy nature of high-quality habitat and the small, scarce amount of cover (VW, 2013). The biological resources study did find; however, that removal of the vegetation could affect some fish species including the CCC steelhead and North American green sturgeon. In addition, removal of habitat could affect some nesting birds if removal occurred during the nesting season.

Mitigation and BMPs included to the proposed project as COAs and as required by the VW EIR, and conformance with all applicable regulations as discussed in the LUTE EIR would reduce these impacts to less than significant. As prescribed by MM BIO-2 in the VW EIR, prior to dewatering activities, a qualified biologist would use nets to exclude fish from the construction area. During a falling tide, a block net will be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists will walk from the upper to lower end of the reach with a net stretched

across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net will be installed to isolate the construction reach. This procedure will be repeated a minimum of three times to assure no fish remain within the construction area. Mesh size of the net will not exceed 9.5 mm." In relation to nesting birds, channel vegetation would be removed at the mudline and in accordance with VW EIR, VW MM BIO-2, VW MM-BIO-4, and VW MM BIO-5, and VW BMP-33, VW BMP-38, VW BMP-3, VW BMP-14, and VW BMP-16. To ensure impacts remain low, channel vegetation would be removed prior to February 1 of the first year of construction and maintained at mudline to prevent establishment of nests. Implementation of these measures and BMPs would reduce impacts to less than significant in this regard.

As discussed in impact a) above, it is noted that the proposed project would increase the potential for avian injury and mortality resulting from collisions with buildings. This could occur if migrating avian species fly through the project site. The frequency of bird collisions in this regard depends on many factors, including local and migratory avian populations; densities and species composition; migration characteristics; resting and feeding patterns; habitat preferences; time of year; prevailing winds; and weather conditions.

Therefore, construction and operation of the proposed project would not have a significant effect on wildlife movements, with native species populations, migration corridors, or activities associated with nursery sites for terrestrial species. The project site supports habitats that were created and maintained as a result of human activities. Impacts are in this regard are considered less than significant.

Regarding avian species, impacts are considered potentially significant because the proposed project could result in a substantial adverse effect (through loss of eggs or young) on species (migratory birds and raptors) that are protected by the MBTA and by CDFG Code Sections 3503 and 3503.5. To reduce these impacts mitigation from the VW EIR would be included to the proposed project as COA's and the proposed project would be subject to *BMP-BIO-8, BMP BIO-9, BMP BIO-10, BMP BIO-11, BMP BIO-13, and BMP BIO-16* from that document. Additionally, the project would be subject to the Sunnyvale Municipal Code requirements for construction noise and hours of construction contained in Chapter 16.08.030, which would minimize noise disturbance to species.

The proposed project is located within an existing developed area, where sensitive species are unlikely to occur due to human activities and history of and on-going disturbances. With the implementation of mitigations as COA', BMPs, and conformance with federal and state regulations, development and operation of the proposed project would have a less than significant impact on wildlife movements, including migratory fish, or use of native wildlife nursery sites. Thus, with the application of uniformly applied development standards and policies, and the listed mitigation measures, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR or the, TEIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR or the VW EIR , and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR and VW EIR, uniformly applied City development standards and policies, and COA's would reduce impacts to less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As identified in Impact 3.9.4, the LUTE includes policies that support the objectives of the San Francisco Bay Plan and would not conflict with the City's tree protection provisions provided in Chapter 19.94 of the City's Municipal Code. In addition, as shown in the Discussion Section above, the VW EIR analyzed impacts associated with proposed improvements to the entire West Channel. This included the approximately 1,000-foot portion of the West Channel within the project site The VW EIR did not study the exact same improvements as the proposed project; however, improvements to the West Channel would be similar and in the same area. Therefore, conformance with mitigation measures and BMPs from the VW EIR would be applied to the proposed project and would reduce impacts to less than significant.

The proposed project would be consistent with the City of Sunnyvale General Plan. General Plan policies LT-1.10, LT-1.10e, and LT-2.6 would be applicable. The proposed project would be consistent by enhancing the habitat within the West Channel, introducing landscaped areas planted with native vegetation and greatly increasing the amount of open areas. Ultimately, the proposed project would result in a net reduction of impervious surfaces compared to the existing conditions. This is consistent with the General Plans goal to adequately mitigate impacts to biological resources. Lastly, the proposed project would not conflict with policies related to sea-level rise and other impacts of climate change by incorporating a green design, incorporating measures that would reduce project emissions to levels below the BAAQMD significance threshold of 10,000 MT/year, and by increasing the flood protection by widening and laying back the West Channel. Therefore, impacts would be less than significant.

Related to tree preservation, the 100 and 200 Caribbean Drive Campus project sites contains 445 existing trees. The proposed project would require the removal of 399 trees from these locations of which 254 trees are protected trees. 44 of the 46 trees that would remain are considered protected trees. The 1362 Borregas Avenue site proposed for demolition contains approximately 31 trees within the property boundaries. Of these trees, 12 are protected trees. The trees are largely lining the outside of the property line between the adjacent Borregas Avenue and Caspian Drive and it is unknown how many trees may be removed. Protected trees are defined as trees of significant size or 38 inches in circumference at 4.5 feet above ground level (agl) by the City of Sunnyvale Municipal Code Chapter 19.94. Regarding the 100 and 200 Caribbean Drive project areas, the proposed project includes a landscaping plan that would replace the protected trees with a total of 255 trees. This include 93 trees in 24" box replacements, 89 trees in 36" box replacements, and 73 trees in 48" box replacements. In addition, 1,110 other trees would be planted within the proposed project site. Regarding the 1362 Borregas Avenue site, replacement of protected trees that may be taken as part of demolition and reuse of that site is included.

The planting pallet includes species such as Boxelder (*Acer negundo*), California Buckeye (*Aesculus Californica*), Coast live oak (*Quercus Agrifolia*), Valley Oak (*Quesrcus Lobota*) and Valley oak (*Quercus Lobata*), which are native trees. The proposed project is designed to be consistent with Chapters 19.94.080 Replacements Trees; 19.94.090 Requirements for replanting programs; 19.94.100 Relocation of trees; 19.94.110 Requirements concerning protected trees during site development or modification; and 19.94120 Tree protection during construction. As part of uniformly applied development policies an standards, the proposed project would conform the listed requirements. While the proposed project would remove some trees, it would result in planting of 1,111 more trees than currently exist on-site. This would meet all city and policies and standards listed in applicable code sections and also was discussed and required in the LUTE EIR as in Impacts 3.9.4 and 3.9.5. Therefore, the proposed project would not conflict with these policies and impacts would be less than significant. Impacts in this regard would be similar to those previously identified in the LUTE EIR. Thus, conformance with the uniformly applied development standards and policies the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR or the VW EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR or the VW EIR , and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and conformance to the City Municipal Code would reduce impacts to less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The City is not located in a habitat conservation plan area. As a result, the LUTE EIR determined there would be no conflict with an adopted habitat conservation plan, and no impact would occur. No new conservation plans have been adopted since approval of the LUTE. Neither the proposed project site nor the immediately surrounding area is in an area covered by the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation. The proposed project is located approximately 1.75 miles west of the northwestern boundary of the Santa Clara Valley Habitat Conservation Plan. Therefore, potential impacts are considered less than significant. Impacts in this regard would be similar to those previously identified in the LUTE EIR and VW EIR. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR or the VW EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR or the VW EIR , and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR. The findings of the certified LUTE EIR and the VW EIR remain valid and no further analysis is required.

Conclusion

As discussed above and in the LUTE EIR impacts would be less than significant.

CUMULATIVE IMPACTS

The cumulative impacts analysis for biological resources considered the proposed project site as well as the land uses surrounding the project site. MPSP area and the City of Sunnyvale overall is primarily developed and urbanized, and most project sites in the MPSP or City would not likely support significant wildlife habitats or species. Other projects in the area include office and commercial development (e.g., various Google properties in between Caribbean Dr., North Mathilda Ave. and Highway 237), as well VW projects (e.g. the Sunnyvale East and West Channels Flood Protection Project) that could adversely affect these species, as well as restoration projects (e.g., the South Bay Salt Pond Restoration Project Phase 2, SAFER Bay Project) that would benefit these species.

The cumulative impact on biological resources resulting from the project in combination with other projects in the project area and larger region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the City of Sunnyvale General Plan contains conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on these resources. Further, the proposed project would result in net beneficial enhancement habitat for special-status species and biological resources in general. Thus, provided that the proposed project successfully incorporates all require requirements to reduce impacts to biological resources, the project would not contribute to substantial cumulative effects on biological resources.

As discussed above, there are no significant cumulative impacts associated with biological resources that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The project would not have any potentially significant off-site impacts or cumulative impacts on sensitive or protected species, habitats, such as wetlands or waters, migration routes, or result in any conflicts with plans or policies that were not discussed in the LUTE EIR or VW EIR. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to biological resources would be less than significant. Thus, the conclusions of these documents remain valid and approval of the proposed project would not require additional environmental review.

4.5 Cultural Resources

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	Draft EIR Setting pp. 3.10-1 to 3.10-11 Impact 3.10.1 and 3.10.3	No	No	No	No	Yes, impacts would remain less than significant.
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Draft EIR Setting pp. 3.10-1 to 3.10-11 Impact 3.10.2	No	No	No	No	Yes, impacts would remain less than significant
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Draft EIR Setting pp. 3.10-1 to 3.10-11 Impact 3.10.2	No	No	No	No	Yes, impacts would remain less than significant

DISCUSSION

A cultural resources report was prepared for the project site by SWCA in April of 2019 (Google Caribbean Campus Project Cultural Resources Technical Report, Sunnyvale, Santa Clara County, California), attached as Appendix F. The study included the following tasks: (1) cultural resources records search and literature review, including Sacred Lands File (SLF) search; (2) an intensive-level built environment survey; and (3) an evaluation to determine if the identified built environment resource is eligible for listing in the National Register of Historic Places (NRHP) or in the California Register of Historical Resources (CRHR), and therefore constitutes a historical resource for the purposes of the California Environmental Quality Act (CEQA).

a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

The LUTE EIR Impact 3.10.1 identified that the City includes numerous buildings that have historical value that are associated with its previous industrial and military related industries. Subsequent actions under the LUTE have the potential to directly (i.e., demolition) or indirectly (i.e., effect historical setting from adjacent construction) impact historic buildings and structures that qualify as historic resources under CEQA. The Community Character chapter of the Sunnyvale General Plan includes various policies addressing this issue. Policy CC-5.1 states that the City will preserve existing landmarks and cultural resources and their environmental settings, Policy CC-5.3 seeks to identify and work to resolve conflicts between the preservation of historic resources and alternative land uses, and Policy CC-5.4 states that the City will seek out, catalog, and evaluate heritage resources that may be significant. The LUTE EIR concluded that the implementation of the LUTE would result significant and unavoidable impacts under project and cumulative conditions (Impact 3.10.3).

As part of the Cultural Resources Report prepared for the proposed project, a search of the California Historical Resources Information System (CHRIS) records was conducted. The report identified 10 previous cultural resources studies within a 0.8-km (0.5-mile) radius of the project area. Two of these study areas, S-043999 and S-046899, include a portion of the proposed project area. Within study area S-04399, a multi-component archaeological site (P-43-000421) was identified. Although the study area overlaps with the proposed project area, the location where the resources were located does not occur within the proposed project site and areas of disturbance.

The second site is the Sunnyvale West Channel, but this site was never assigned a primary number and was never formally recorded on California Department of Parks and Recreation (DPR) Series 523 forms. As part of the Cultural Resources Report the West Channel was formally recorded on DPR forms and has since received a permanent CHRIS designation of P-43-003980 / CA-SCL-992H.

The VW EIR evaluated the West Channel and recommended it as being ineligible for listing in the NRHP, ineligible for the CRHR, and ineligible for designation as a Sunnyvale Heritage resource. The West Channel also is not eligible for listing under Criteria A/1 because it lacks association with events significant to national, state, or local history, and it is not eligible for listing under Criteria B/2 because it lacks association with persons significant to national, state, or local history. The West Channel it is not eligible under Criteria C/3 because it lacks distinctive characteristics of a type, period, or method of construction; is not the work of a master; and does not possess high artistic values. The West Channel also is not eligible under Criteria D/4 because it does not have the potential to yield information important in prehistory or history.

Lastly, as part of the Cultural Resources Report prepared for the proposed project an intensive site survey of the project area was conducted to document the existing site conditions. The survey did not reveal the presence of any historical resource pursuant to in § 15064.5. Therefore, the potential for impacts to a historic resource pursuant to § 15064.5 to occur would be less than significant and no mitigation is required. Thus, the project site does not include any known historic resources (LSA 2018b). Therefore, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding historical resources remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, incorporation of COAs listed in Impact b), below, and conformance to federal and state regulations would reduce impacts to less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

The LUTE EIR concluded that implementation of Policy 10 Action 6 (now Policy LT-1.10f) would ensure that impacts to archaeological resources are reduced to a less-than-significant level under project and cumulative conditions (Impact 3.10.3). As part of conformance to the Policy an archaeological monitor would be required during ground disturbing activities. Policy LT-1.10f reads as follows:

> *Continue to condition projects to halt all ground-disturbing activities when unusual amounts of shell or bone, isolated artifacts, or other similar features are discovered. Retain an archaeologist to determine the significance of the discovery. Mitigation of discovered significant cultural resources shall be consistent with Public Resources Code Section 21083.2 to ensure protection of the resource.*

Consistent with the above, the City will include COA's to the proposed project should previously unidentified archaeological resources be located. COA's that will be included to the proposed project include the following:

> *If archaeological resources are encountered during construction, work shall be temporarily halted in the vicinity of the discovered materials and workers shall not alter the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel shall not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies; and*
>
> *Any identified cultural resources shall be recorded on DPR 523 historic resource recordation forms.*

The project area currently contains 13 single story structures, which are used as commercial businesses for research and development and industrial uses. The area also contains parking lots, access roads, sidewalks, and landscaped areas. Redevelopment of this area would include demolition of the existing structures, removal of materials, excavation, and grading to facilitate construction of the proposed project. As discussed in impact a), above, the Cultural Resources Report prepared for the project reviewed the VW EIR and Cultural Resources Report prepared for the proposed project did not locate any archaeological resources pursuant to § 15064.5. Although the site has been previously disturbed and contains numerous existing structures and hardscape, after demolition of the existing structures the project site would require grading and excavation.

However unlikely, if archaeological resources are exposed during any phase of construction and an archaeological resource is lost, damaged or destroyed, a significant impact to an archaeological resource pursuant to § 15064.5 would occur.

The proposed project would be consistent with General Plan Policy LT-1.10f, as listed above. Conformance with this policy is identified as a requirement in the LUTE EIR and would be implemented as a uniformly identified development policy or standard. Conformance with this policy would be required as a COA and would ensure proper precautions are taken if archaeological resources are encountered during project activities. With the application of this uniformly applied development standards and policies and COAs, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding archaeological resources remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, incorporation of COAs, and conformance to federal and state regulations would reduce impacts to less than significant.

c) Disturb any human remains, including those interred outsides of dedicated cemeteries?

The LUTE EIR concluded that implementation of Policy 10 Action 6 (now Policy LT-1.10f) would ensure that impacts to human remains (in combination with Health and Safety Code Section 7050.5[b]) are reduced to a less-than-significant level under project and cumulative conditions. Policy LT-1.10f reads as follows:

> *Continue to condition projects to halt all ground-disturbing activities when unusual amounts of shell or bone, isolated artifacts, or other similar features are discovered. Retain an archaeologist to determine the significance of the discovery. Mitigation of discovered significant cultural resources shall be consistent with Public Resources Code Section 21083.2 to ensure protection of the resource.*

The proposed project site is not within a known cemetery or other burial ground, but unknown human remains could be encountered during grading activities. Therefore, site preparation, grading, and construction activities could adversely impact previously undiscovered human remains. Impacts to unknown human remains would be reduced by implementation of uniform standards including Policy LT-1.10f, above. In addition, conformance to the requirements of also would be required as a uniformly applied development policy or standards but also would be included as a COA. Health and Safety Code Section 7050.5(b) and (c) state the following in regard to the discovery and protection of human remains:

> (b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the

coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

(c) If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Conformance with the listed standards and policies, and state laws incorporated as COA's would ensure impacts to unknown human remains are less than significant. If found, consistent with the conclusions of the LUTE EIR, these measures would ensure proper precautions are taken if human remains are encountered during project activities and would reduce this impact to less than significant. Therefore, with the application of these uniformly applied development standards and policies included as COA's there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding archaeological resources remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, incorporation of COAs, and conformance to federal and state regulations would reduce impacts to less than significant.

CUMULATIVE IMPACTS

There are no significant cumulative impacts associated with cultural resources that are peculiar to the project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The potential for encountering historical archaeological and/or paleontological resources at the proposed project site and potential for resulting cumulative effects taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to cultural resources would is considered to be low. The proposed project would not have any potentially significant off-site impacts or cumulative impacts on cultural resources or result in any conflicts with protection plans or policies that were not discussed in the LUTE EIR or disclosed above. There is a potential to

encounter previously undiscovered cultural resources during construction. However, since the proposed project's impacts on cultural resources would be site-specific and reduced to a less than significant level with incorporation of COAs and conformance to federal and state regulations, the proposed projects contribution to any such impacts would not be cumulatively considerable. Thus, impacts in this regard would similar to those previously identified in the LUTE EIR and the conclusions of these documents remain valid and approval of the proposed project would not require additional environmental review.

4.6 Energy

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Draft EIR Setting pp. 3.11-30 to 3.11-33 Impact 3.11.4.1	No	No	No	No	Yes, impacts would remain less than significant.
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Draft EIR Setting pp. 3.11-34, 3.13-5	No	No	No	No	Yes, impacts would remain less than significant.

DISCUSSION

The CEQA impact thresholds applicable to energy, were updated in 2018 and adopted in 2019. CEQA impact thresholds had not previously included a specific environmental issue area related to Energy. Certain sections of the LUTE; however, related to the use of energy are applicable to this discussion and are included below. These changes and updates do not negate the use of relevant information contained in the LUTE. Energy consumption is closely related to greenhouse gas emissions and Section 3.13 of the LUTE EIR discussed the Climate Action Plan and other measures that would reduce GHG emissions by reducing energy consumption.

The City tracks the progress of the Climate Action Plan (CAP) through biennial progress reporting. The City's CAP and its reduction targets are aligned with the statewide GHG target for 2020 established by Assembly Bill (AB) 32 of 2006; however, the CAP was prepared prior to the establishment of a statewide GHG target for 2030 by Senate Bill (SB) 32 in 2016. SB 32 established a statewide target of 40 percent less than 1990 emissions levels by 2030. The City is currently in the process of updating its CAP (CAP 2.0) to be aligned with the statewide target for 2030. In addition, there have been several new or updated GHG related executive orders, plans, policies, or regulations issued since certification of the LUTE EIR. None of these new items, which are part of the regulatory setting and to which the project would conform, constitute substantial information indicating that the proposed project would have a significant impact not analyzed in the LUTE EIR.

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

As described in Impact 3.11.4.1, implementation of the LUTE would increase the consumption of energy. The Pacific Gas & Electric Company (PG&E) provides electricity and natural gas service to the project area. The proposed project includes two five-story office buildings totaling 1,041,890 square-feet with 2,092 parking spaces, multimodal transportation access for buses, shuttles, connection to VTA Light Rail, with a focus on pedestrian and bicycle circulation. During operations, energy consumption would be associated with general office uses. The proposed project would provide transit, circulation, pedestrian and bicycle improvements. These improvements would increase access to public and active transportation, further reducing the need to drive and decreasing fuel demand.

During construction, transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Most construction equipment during demolition and grading would be gas-powered or diesel-powered, and the later construction phases would require electricity-powered equipment. *Table 4.6-1: Project Energy Consumption During Construction,* shows the energy use of the project during construction. Impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure; impacts would not be significant.

The proposed project would comply with Building Energy Efficiency Standards included in Title 24 of the California Code of Regulations and implement the energy efficiency requirements of the City's CAP. In addition, the proposed project would implement Action Items EC-1.3 (energy efficient lighting), EC-2.2 (building orientation for efficiency), EC-5.1 (energy monitors), EC-6.2 (use of cool roofs), EP-2.1 (wiring for solar), OR-1.2 (charging sites for electric powered equipment), OVT-1.1 (preferred parking for electric, hybrid, and flex-fuel vehicles), and OVT 1.3 (vehicle charging stations). The proposed project would meet the requirements of the City's Green Building Program to obtain LEED Gold certification and implement a TDM that would reduce vehicle trips.

Table 4.6-1: Project Energy Consumption During Construction

Source	Project Construction Usage	Santa Clara County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	**Megawatt Hours (MWh)**		
Water Consumption [1]	241	**16,668,161**	$1.45x10^{-5}$%
Construction Electricity Total	**241**		**$1.45x10^{-5}$%**
Diesel Use	**Gallons**		
On-Road Construction Trips [2]	1,059	101,253,089	0.2577%
Off-Road Construction Equipment [3]	260,887	101,253,089	0.0010%
Construction Diesel Total	**261,946**	**101,253,089**	**0.2587%**
Gasoline	**Gallons**		
On-Road Construction Trips [2]	17	610,142,526	0.00%

Notes:
1. Construction water use estimated based on acres disturbed per day per construction sequencing and estimated water use per acre (AWMA 1992).
2. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2017 in Santa Clara County. Electricity demand based on VMT and calculated average electric vehicle fuel economy for 2015 models (in kWh per mile) from the DOE Fuel Economy Guide.
3. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA.
Abbreviations:
CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2017; kWh: kilowatt-hour;
Sources: AWMA, 1992; DOE 2016; USEPA 1996.

Table 4.6-2: Project Annual Energy Consumption During Operations, shows the energy use of the project during operations. The project proposes to install solar photovoltaic power systems at the parking facility that is estimated to produce 1,794,800 kilowatts of electricity annually. Additionally, the proposed project is designed to be LEED Gold and would likely exceed Title 24 standards for building efficiency by at least five percent. High efficiency appliances would be utilized such as low-flow water fixtures and water-efficient irrigation systems. The proposed project would have a nominal increase in natural gas and electricity use compared to overall demand in PG&E's service area. Therefore, projected electrical and natural gas demand would not significantly impact PG&E's level of service.

The project site and surrounding areas are highly urbanized with numerous gasoline fuel facilities and infrastructure. Consequently, the proposed project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or

expansion of existing facilities. Fuel consumption associated with vehicle trips generated by the proposed project would not be considered inefficient, wasteful, or unnecessary. The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to energy consumption remain valid and no further analysis is required.

Table 4.6-2: Project Annual Energy Consumption During Operations

Source	Project Operational Usage	Santa Clara County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	**Megawatt Hour/Year (MWh/year)**		
Area [1]	19,215	16,668,161	0.12%
Water [1]	1,228		0.007%
Total Electricity	**20,443**		**0.12%**
Natural Gas Use	**Therms/year**		
Area [1]	193,394	440,030,822	0.04%
Fuel Use	**Gallons/Year**		
Mobile [2]	677	711,395,615	0.0001%

Notes:
1. The electricity, natural gas, and water usage are based on project-specific estimates and CalEEMod defaults.
2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2017 for operational year 2022.

Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2017: California Air Resources Board Emission Factor Model; kBTU: thousand British Thermal Units; kWh: kilowatt-hour

Conclusion

Application of uniformly applied City development standards and policies, and conformance to state requirements requiring energy reduction measures would reduce impacts to less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As described in Impact 3.11.4.1, PG&E is subject to California's Renewables Portfolio Standard (RPS) which requires energy procurement from renewable energy resources to 33 percent by 2020, and to 50 percent by 2030. Page 3.13-5 refers to compliance with the CARB achieving a statewide renewables energy mix of 33 percent.

Project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. As discussed above in Impact 4.6 (a), project development would not cause inefficient, wasteful or unnecessary energy use, and impacts would be less than significant.

The proposed project includes two five-story office buildings and would provide transit, pedestrian and bicycle improvements. As discussed in the Transportation Impact Analysis (TIA) prepared for the project (Appendix C) the proposed project would generate 8,319 daily trips. The proposed project would include an aggressive Transportation Demand Program (TDM), dedicated shuttle program, proximity to light rail, construction of energy-efficient buildings, and infrastructure that includes solar photovoltaic panels to generate renewable energy. Additionally, as discussed further in Threshold 4.8 (b), the proposed project would be consistent with the California Air Resources Board (CARB) Scoping Plan measures as well as the overall goals of the Sunnyvale Climate Action Plan (CAP), which is the City's strategic planning document to reduce GHG emissions. The proposed project would not conflict with any strategies to reduce GHG emissions in the CAP and impacts would be less than significant. Therefore, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to energy consumption remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, and conformance to state requirements requiring energy reduction measures would reduce impacts to less than significant.

CUMULATIVE IMPACTS

There are no significant cumulative impacts associated with energy that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring analysis beyond which is provided above. Construction and operation associated with implementation of the proposed project would result in the consumption of fuel and energy, but it would not do so in a wasteful manner. The consumption of fuel and energy would not be substantial in comparison to statewide electricity, natural gas, gasoline, and diesel demand; refer to *Table 4.6-1* and *Table 4.6-2*. New capacity or supplies of energy resources would not be required. Additionally, the proposed project would be subject to compliance with all Federal, State, and local requirements for energy efficiency.

The anticipated project impacts, in conjunction with cumulative development in the site vicinity, would increase urbanization and result in increased energy consumption. Potential land use impacts are site-specific and require evaluation on a case-by-case basis. Each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential energy consumption impacts and identify necessary mitigation measures, where appropriate.

As noted above, the proposed project would not result in significant energy consumption impacts. Taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to energy resources would be less than significant. The proposed project would not be considered inefficient, wasteful, or unnecessary with regard to energy. Thus, the proposed project and identified cumulative projects are not anticipated to result in a significant cumulative impact.

4.7 Geology and Soils

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) 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? Refer to Division of Mines and Geology Special Publication 42.	Draft EIR Setting pp. 3.7-1 to 3.7-13 Impact 3.7.1	No	No	No	No	Yes, impacts would remain less than significant
ii) Strong seismic ground shaking?	Draft EIR Setting pp. 3.7-1 to 3.7-13 Impact 3.7.1	No	No	No	No	Yes, impacts would remain less than significant
iii) Seismic-related ground failure, including liquefaction?	Draft EIR Setting pp. 3.7-1 to 3.7-13 Impact 3.7.1	No	No	No	No	Yes, impacts would remain less than significant

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
iv) Landslides?		No	No	No	No	Yes, impacts would remain less than significant
b) Result in substantial soil erosion or the loss of topsoil?	Draft EIR Setting pp. 3.7-1 to 3.7- 3 Impact 3.7.2	No	No	No	No	Yes, impacts would remain less than significant
c) 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?	Draft EIR Setting pp. 3.7-1 to 3.7- 3 Impact 3.7.3	No	No	No	No	Yes, impacts would remain less than significant
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Draft EIR Setting pp. 3.7-1 to 3.7- 3 Impact 3.7.3	No	No	No	No	Yes, impacts would remain less than significant
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Draft EIR on page 3.7- 14.	No	No	No	No	NA, impacts would not occur

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Draft EIR Setting pp. 3.7-1 to 3.7-13 Impact 3.7.4	No	No	No	No	Yes, impacts would remain less than significant

DISCUSSION

No substantial change in the environmental and regulatory settings related to geology and soils, described in the LUTE EIR Section 3.7 Geology, Soils, and Paleontological Resources, has occurred since certification of the LUTE EIR and the regional and local settings remain the same.

A preliminary geotechnical report was prepared by ENGEO on February 5, 2018, attached as Appendix G-1. The report presents ENGEO's observation of the geotechnical conditions as well as preliminary conclusions and recommendations for the geotechnical preparation of the site prior to initiation and construction of the project. The geotechnical report provided preliminary site grading, drainage, and foundation recommendations for use during land planning. Based on the initial assessment, the site is suitable for the planned development from a geotechnical standpoint provided the conclusions and preliminary recommendations are incorporated into preliminary design. It should be noted that a design-level study is currently in-progress and this study will further assess the identified conditions and incorporate specific site-specific recommendations to ameliorate impacts associated with geotechnical conditions.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

b) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting or surface rupture. Surface rupture occurs when movement on a fault deep within the earth breaks through to the earth's surface. The San Francisco Bay Area (Bay Area) is one of the most seismically active regions in the United States.

Significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well-defined active fault zones. As discussed in the LUTE, Sunnyvale is not within an Alquist-Priolo Earthquake Fault Zone and would not be subject to hazards associated with significant fault surface rupture. The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone (known formerly as a Special Studies Zone), or a Santa Clara County Fault Rupture Hazard Zone. The nearest faults to the project site are the San Jose Fault located approximately 1.5 miles to the southwest and the Silver Fault located approximately 4.0 miles to the east (CDOF, 2010). The nearest Alquist Priolo Fault Hazard Zones are within the San Andreas Fault approximately 12 miles to the west and the Crosley Fault approximately 8 miles to the east. Since no known surface expression of active faults crosses the site, fault rupture through the site is not anticipated, and the potential impact from fault rupture would not occur. Therefore, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding these geotechnical conditions remain valid and no further analysis is required.

Conclusion

The proposed project is not located on or adjacent to an Alquist-Priolo Earthquake Fault Zone. No impacts would occur.

c) Strong seismic ground shaking?

The most common secondary seismic hazards include ground shaking, and liquefaction (liquefaction is discussed in Impact *iii)*, below). Ground shaking is the cause of most damage during earthquakes. The degree of shaking that would be expected at a particular site is dependent on the distance from the earthquake source, the magnitude of the earthquake, and the type, thickness, and condition of the geologic materials (bedrock, sediment, soil, fill) underlying a particular area. An earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the project site.

The LUTE EIR recognized that all new development and redevelopment would be subject to CBC and Municipal Code provisions for geologic stability. The City's Municipal Code has adopted the California Building Code (CBC) by reference in Chapter 16.16.020. Seismic design provisions of current California Building Codes (CBC) generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. The proposed project would be constructed in accordance with the CBC, which would lessen impacts.

As part of the application for a building permit, the applicant would be required to determine the appropriate seismic design criteria for the proposed structures on the basis of soil type, the magnitude of the controlling seismic event, slip rate of the nearest fault, and distance to the nearest active fault. The structural design for the proposed structures would be based on Chapter 16 of the 2016 CBC, which provides criteria for the seismic design of buildings including structural requirements and structural design (Chapter 16A). In addition, Chapter 17 and 17A sets forth requirements and standards regarding Special Inspections and Tests, and Chapters 18 and 18A related to Soils and foundations.

The City of Sunnyvale would review the planned design to confirm compliance with the CBC and Municipal Code provisions for geologic instability. In addition, as a COA, the proposed project would be required to implement all recommendations noted in the Preliminary Geotechnical Report prepared by ENGEO, dated February 5, 2018. It is anticipated that compliance with the CBC, conformance with the listed recommendations in the ENGEO report as required by the COA would ensure that all construction is completed in compliance with all requirements to reduce impacts associated with geotechnical conditions to less than significant. Plan review by the City and following all required design measures would ensure that the buildings constructed under the proposed project do not collapse or cause loss of life in a major earthquake. The final design would incorporate seismic design recommendations as necessary and would safeguard against significant damage to structures that could result from seismic activity. Therefore, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding these geotechnical conditions remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, standard COA's, and building in conformance with the CBC would reduce impacts to less than significant.

d) Seismic-related ground failure, including liquefaction?

LIQUEFACTION

Soil liquefaction results from loss of strength during cyclic loading a condition that can result earthquakes and ground shaking. Cyclic loading results from the ground shaking event causing a complex deformation of subsurface soils that are caused by the erratic sequence of ground motions induced by the earthquake(s). Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine sand, as well as some silty sands, below the groundwater table. When the sand or other layers are unable to resist the deformation, it is said to have liquefied and can reduce stability of surface soils and structures. If the sand consolidates or vents to the surface during or after liquefaction, the ground may settle, and surface deformation may occur. In addition to liquefaction of sandy materials, clayey soil can also undergo "cyclic softening" or a loss of strength due to cyclic loading.

The LUTE EIR indicates that future structures and improvements that could be developed in the City under the LUTE could experience stresses on various sections of foundations and connected utilities and structural failure and damage to infrastructure if located on expansive or unstable soils (Impact 3.7.3) and liquefaction occurs. Under Municipal Code Chapter 18.20.100. The City requires preparation of geotechnical reports for all development projects. Reports must include soil sampling and laboratory testing to determine the soil's susceptibility to expansion and differential settlement. The final geotechnical report that will be prepared for the proposed project will provide recommendations for design and construction methods to reduce potential impacts, as necessary.

The preliminary geotechnical report evaluated the liquefaction potential for the project site using soil samples, cone penetration tests (CPTs), and subsurface borings. Based on the CPT results, the subsurface soils likely consist of medium stiff to stiff sandy clay and silt interlayered with medium dense to dense clayey sand to a depth of approximately 40 feet. Between 40 and 95 feet, the subsurface soils likely consist of medium stiff to very stiff clay. Several of the CPTs suggest the soils transition to a sandier material between approximately 95 to 100 feet.

The liquefaction and cyclic-softening analyses for the proposed project used two methodologies including the Robertson (2009) and Boulanger and Idriss (2014). Results from the Robertson (2009) method predicts 4 to 6 inches of seismically induced settlement resulting primarily from cyclic softening in clay materials at depths below 30 feet. Conversely, the Boulanger and Idriss (2014) method results estimated an approximate 1½ to 3 inches of seismically induced settlement resulting from liquefaction of sand materials at depths above 30 feet. In addition, the studies found that the subsurface soils consisting of many thick clay layers, cyclic softening could potentially occur. Based on this information, liquefaction-induced settlement may range between approximately 1½ to 6 inches.

Considering the higher end of the liquefaction range, the potential for settlement to occur would make the project site unsuitable if the proposed buildings are not properly mitigated. Based on the results of the analysis of the preliminary geotechnical report, the potential impacts from liquefaction are considered potentially significant. The preliminary geotechnical report made recommendations regarding design of the building foundations to account for the expansion of potential of near surface soils. The recommendations included the potential use of; 1) Structural mat foundation in conjunction with ground improvements; 2) Shallow footings with slabs-on grade in conjunction with ground improvement; and 3) Deep foundation system such as auger-cast piles. The report also discussed retaining walls, secondary slabs on grade, and preliminary pavement design.

The preliminary geotechnical report noted that a site-specific, design level geotechnical exploration was being completed for the project site which is consistent with Municipal Code Chapter 18.20.100. The exploration included borings and laboratory soil testing that will provide additional data so that site-specific recommendations regarding grading, foundation design, and drainage can be prepared for the proposed development. This will allow for the preparation for more detailed evaluations of the geotechnical issues and will include site specific recommendations regarding techniques and procedures to that would be needed during construction to mitigate potential geotechnical/geological hazards. As a COA, the proposed project would be required to implement all recommendations noted in the Preliminary Geotechnical Report prepared by ENGEO, dated

February 5, 2018. Therefore, with compliance with the CBC and Municipal Code provisions for geologic instability, and conformance with the listed recommendations in the ENGEO report as required by the COA would ensure that all construction is completed in compliance with all requirements and would reduce impacts associated with liquefaction to less than significant. The project applicant would be required to submit the design-level geotechnical report to the City and the applicant would be required to implement all recommendations contained in the report. This would ensure all recommendations and requirements are included.

Lateral Spreading. Lateral spreading is a failure within a nearly horizontal soil zone (possibly due to liquefaction) that causes the overlying soil mass to move toward a free face or down a gentle slope. Minor movements in the direction of the Sunnyvale West Creek are possible. However, based on observations of the relatively flat site topography, the potential for significant lateral spreading is low to negligible. However, the embankment adjacent to the Sunnyvale West Creek could potentially undergo deformations as a result of strong ground shaking. As part of the preliminary geotechnical report, a detailed geologic assessment and stability analyses of the embankment was not conducted. As a COA, the proposed project would be required to implement all recommendations noted in the Preliminary Geotechnical Report prepared by ENGEO, dated February 5, 2018. In addition to the above, the CBC includes common engineering practices requiring special design and construction methods to reduce potential expansive soil and settlement-related impacts. Preparation of final geotechnical reports and continued compliance with CBC regulations would ensure the adequate design and construction of building foundations, and ground preparation to resist soil movement. Adherence to the City's Municipal Code, the CBC, and geotechnical reports would reduce potential impacts associated with development on unstable soils to a less-than-significant.

Therefore, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding these geotechnical conditions remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, standard COA's, and building in conformance with the CBC would reduce impacts to less than significant.

e) Landslides?

Slope failures, commonly referred to as landslides, include phenomena that involve the downslope displacement and movement of material that can be triggered either by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Exposed rock slopes undergo rockfalls, rockslides, or rock avalanches, while soil slopes experience soil slumps, rapid debris flows, and deep-seated rotational slides. Slope stability can depend on several complex variables, including the geology, structure of materials, topography, slope geometry, and amount of groundwater present. External

processes such as climate and human activity also can affect the potential for landslides. The project site is relatively level and ranged in heights of approximately 4 to 6 feet above mean sea level (amsl) and has very little slope. Additionally, the proposed project is not located in a landslide hazard zone. Therefore, the potential for landslides is low and impacts are less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding geologic and soil stability remain valid.

Conclusion

The proposed project is not located on or adjacent to an Alquist-Priolo Earthquake Fault Zone.

f) Result in substantial soil erosion or the loss of topsoil?

Impact 3.7.2 identifies that implementation of the LUTE would allow new development, redevelopment, and infrastructure improvements. Grading and site preparation activities associated with such development could temporarily remove buildings and pavement, which could expose the underlying soils to wind and water erosion. The project site is currently developed with 13 existing structures. Subsurface conditions consist of medium stiff to stiff sandy clay and silt interlayered with medium dense to dense clayey sand. Additionally, past excavation and grading associated with construction of the structures would have removed any topsoil historically present. Nonetheless, without proper soil stabilization controls, construction activities such as building demolition, excavation, backfilling, and grading can increase the potential for soil loss and erosion by wind and stormwater runoff through the removal of stabilizing vegetation and exposure of areas of loose soil. Newly constructed and compacted engineered slopes can also undergo substantial erosion through dispersed sheetflow runoff. More concentrated runoff can cause the formation of small erosional channels and larger gullies which can compromise the integrity of a slope and result in soil loss.

The proposed project would not involve construction on an existing steep slope or result in newly created slopes that would substantially increase the potential for long-term erosion. Soil disturbance would occur during construction as a result of excavation, grading, and other earth moving activities. As part of the project, substantial landscaping would be included and would reduce erosive potential. Therefore, the potential for erosion-related impacts would be restricted to the construction period and before the landscaping is installed. The project applicant would be required to obtain a grading permit and comply with the requirements of the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009- DWQ (Construction General Stormwater Permit) of the National Pollution Discharge Elimination System (NPDES) to control erosion during the construction period.

As specified by the City's Municipal Code Chapter 12, the intent of this section of code is to give legal effect to certain requirements of the NPDES permit regarding municipal stormwater and urban runoff requirements. Among other types of project, this chapter applies to ministerial as well as discretionary approvals of development located on applicable sites and regulated projects for new development or significant redevelopment

projects. This section would apply to the proposed project. In addition, the City's grading standards (Municipal Code Section 18.12.110) specify that when grading will create a nuisance or hazard to other properties, public way, or public facilities due to erosion from storm runoff or rainfall, grading cannot commence or continue without specific consent in writing from the Director of Public Works or the Director of Community Development. The grading standards also regulate gradients for cut-and-fill slopes. As detailed more fully in the Hydrology section, the proposed West Channel enhancements will increase the carrying capacity of the channel and thereby reduce average channel velocities. This change in velocity, coupled with a reconstruction of the channel bed, eliminates the need to provide erosion protection. And, as explained in this subpart b), all proposed project construction will comply with applicable laws, City policies, standards, BMPs, and COAs governing erosion control measures.

The City would require the project applicant to prepare and implement a Stormwater Management Plan (SMP) complete with BMPs for erosion and sediment control. The SMP would be accompanied by plans and related documentation demonstrating how the requirements of this chapter will be met. The permit or approval would not be granted unless the authorized enforcement official determines that the plan complies with the requirements of the chapter. The project applicant would be required to implement effective erosion control, run-on and runoff control, sediment control, installation of an active treatment systems (as appropriate), good site management, and stormwater management through all phases of construction (including but not limited to, site grading, building and finishing of lots) until the site is fully stabilized by landscaping or the installation of permanent erosion control measures is made. The LUTE EIR concluded that impacts from soil erosion and loss of topsoil would be less than significant under both project and cumulative conditions (Impact 3.7.5). Accordingly, since compliance with the City's grading permit, conditions of approval, and implementation of BMPs to reduce soils erosion is required, geologic impacts related to erosion during construction of the proposed project would be less than significant.

The proposed project would be subject to the above standards and code requirements. With the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding loss of topsoil and erosion remain valid.

Conclusion

Application of uniformly applied City development standards and policies, standard COA's, and conformance with the NPDES as required by the RWQCB would reduce impacts to less than significant.

g) 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?

The LUTE EIR indicates that future structures and improvements that could be developed in the City under the LUTE could experience stresses on various sections of foundations and connected utilities, as well as structural failure and damage to infrastructure if located on expansive or unstable soils (Impact 3.7.3) such as subsidence and liquefaction and lateral spreading, or collapse. Under Municipal Code Chapter 18.20.100. The City requires preparation of geotechnical reports for all development projects, which include soil sampling and laboratory testing to determine the soil's susceptibility to expansion and differential settlement and would provide recommendations for design and construction methods to reduce potential impacts, as necessary.

As described in the 2018 ENGEO report, fifteen cone penetration tests, and three boring were evaluated in preparation for construction of the existing development. Of the CPT's, ENGO used three CPTs previously performed by BSK Associates (BSK). The BSK field exploration involved drilling three exploratory borings (B-1 through B-3) and performing three CPTs (CPT-1 through CPT-3). The borings were drilled to depths ranging from 41½ to 50 feet and the CPTs were advanced to approximately 75 feet below existing ground surface (bgs). Based on the results of test pit explorations it is anticipated that the subsurface layers consist of medium stiff to stiff sandy clay and silt interlayered with medium dense to dense clayey sand to a depth of approximately 40 feet. Between 40 and 95 feet, it is anticipated subsurface soils could consist of medium stiff to very stiff clay but some CPTs indicate soils may transition to a sandier material at approximately 95 to 100 feet bgs.

Subsidence

Subsidence is the sinking of the earth's surface as a result of geologic or human activities with little or no horizontal motion. Subsidence is generally caused by the evacuation of an area under the earth surface so that overlying layers sink into the void. The risk of subsidence and landslides is low to negligible based on ENGEO's review of topographic and soils sample data.

Liquefaction and Lateral Spreading

The risk of liquefaction at the project site is potentially significant and could result in damage to the proposed structures; however, the potential for lateral spreading was low to negligible except the potential for lateral spreading near the West Channel is not known. Both liquefaction and lateral spreading are discussed in greater detail above under impact b). As discussed, the proposed project would be required to implement all recommendations noted in the Preliminary Geotechnical Report prepared by ENGEO, dated February 5, 2018. In addition, the CBC includes common engineering practices requiring special design and construction methods to reduce potential impacts from subsidence, liquefaction, and lateral spreading. Preparation of final geotechnical reports and continued compliance with CBC regulations would ensure the adequate design and construction of building foundations, and ground preparation to resist soil movement. Adherence to the City's Municipal Code, the CBC, and geotechnical reports would reduce potential impacts associated with development on unstable soils to a less-than-significant.

All recommendation and final site design to reduce associated geotechnical impacts would be required to be reviewed and approved by the City of Sunnyvale prior to issuance of any grading permit. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not

analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding geologic and soil stability remain valid.

Conclusion

Application of uniformly applied City development standards and policies, standard COA's, and building in conformance with the CBC would reduce impacts to less than significant.

h) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils can damage buried utilities or building foundations and increase maintenance requirements. Expansive soils are characterized by their ability to undergo significant volume change (i.e., to shrink and swell) as a result of variations in moisture content. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater. Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Expansion and contraction of expansive soils in response to changes in moisture content can lead to differential and cyclical movements that can cause damage and/or distress to structures and equipment.

The CPT data indicate clayey near-surface soil, which may exhibit a high shrink/swell potential and could potentially change in volume with changes in moisture. If these soils shrink or swell they could cause heaving and cracking of slabs-on-grade, pavements, and structures on shallow foundations. Successful performance of structures on expansive soil requires special attention during construction. For example, exposed soil must be kept moist prior to placement of concrete for foundation construction. In addition, the 2018 ENGEO report also provided specific grading recommendations for compaction of expansive clay soil at the site, the purpose of which was to reduce the swell potential of the clay by compacting the soil at a high moisture content and controlling the amount of compaction. As discussed, the proposed project would be required to implement all recommendations noted in the Preliminary Geotechnical Report prepared by ENGEO, dated February 5, 2018. In addition to the above, the CBC includes common engineering practices requiring special design and construction methods to reduce potential impacts from expansive soils. Preparation of final geotechnical reports and continued compliance with CBC regulations would ensure the adequate design and construction of building foundations, and ground preparation to resist soil movement. Adherence to the City's Municipal Code, the CBC, and geotechnical reports would reduce potential impacts associated with development on unstable soils to a less-than-significant.

All geotechnical reports and proposed remediation, and needed COAs and BMPs would be reviewed and approved by the City of Sunnyvale prior to issuance of any grading permit. This would reduce impacts to less than significant. Thus, the project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4)

there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding geologic and soil stability remain valid.

Conclusion

Application of uniformly applied City development standards and policies, standard COA's, and building in conformance with the CBC would reduce impacts to less than significant.

i) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

As described in the LUTE EIR, development in the City, as well as of the proposed project, would utilize the City's existing wastewater conveyance and treatment. Septic systems or other alternative wastewater disposal systems are not proposed, would not be required, and there would be no impact under project or cumulative conditions. The proposed project would to tie into two separate existing sewer mains. The proposed building at 100 West Caribbean would tie into an existing 24" vitrified clay pipe (VCP) line on Borregas Avenue and the building at 200 West Caribbean would tie into an existing 36" VCP on West Caribbean Drive. Wastewater would be conducted to the Donald M. Somers wastewater treatment plant (WWTP). Therefore, impacts to soil supporting a septic system or alternative wastewater disposal system would not occur. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding waste disposal systems where sewers are not available remain valid and no further analysis is required.

Conclusion

Septic tanks or alternative wastewater disposal systems would not be used. No impacts would occur.

j) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found.

A paleontological resources report was prepared for the project site by SWCA in March of 2019 (Google Caribbean Campus Project Paleontological Resources Technical Report, Sunnyvale, Santa Clara County, California), attached as Appendix G-2. The study included the following tasks: (1)

paleontological resources records search from the Natural History Museum of Los Angeles County (LACM); (2) a review of the online collections database of the University of California Museum of Paleontology (UCMP); and (3) a review of geologic mapping and the scientific literature.

Geologic mapping by Dibblee and Minch (2007) indicates that the project area is underlain by silty clay dating to the middle or early Holocene. Museum collections records maintained by the LACM and the UCMP online database indicate that fossil localities have been recorded from similar geologic units in the vicinity of the project area. The combined results of the museum records searches and literature review indicate that the geologic unit underlying the project area has high paleontological sensitivity.

Impact 3.7.4 of the LUTE EIR noted that while implementation of the LUTE could impact undiscovered paleontological resources during construction activities. The LUTE EIR concluded that implementation of Policy 10 Action 6 (now Policy LT-1.10f) identified below would ensure that impacts to paleontological resources are reduced to a less-than-significant level under project and cumulative conditions (Impact 3.10.3).

> *Continue to condition projects to halt all ground-disturbing activities when unusual amounts of shell or bone, isolated artifacts, or other similar features are discovered. Retain an archaeologist or paleontologist to determine the significance of the discovery. Mitigation of discovered significant cultural resources shall be consistent with Public Resources Code Section 21083.2 to ensure protection of the resource.*

Consistent with the LUTE EIR, retention of an archaeological or paleontological monitoring included and subsequent development of a mitigation plan in accordance with PRC Section 21083.2 is included as a COA to the proposed project. Implementation of this COA would reduce impacts to less than significant. Thus, with the application of uniformly applied development standards and policies and this COA, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding paleontological and unique geologic features remain valid and no further analysis is required.

Conclusion

Application of the uniformly applied City development standards and policies, and the standard COA would reduce impacts to less than significant.

CUMULATIVE IMPACTS

As discussed above, there are no significant cumulative impacts associated with geology and soils that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The geographic scope of potential cumulative geologic and seismic impacts encompasses the project site and its immediate vicinity. These types of impacts are generally site-specific and depend on local geologic and soil conditions. The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (formerly known as a Special Studies Zone), or a Santa Clara County Fault Rupture

Hazard Zone. Since no known surface expression of active faults is believed to cross the site, fault rupture through the site is not anticipated, and the potential impact from fault rupture would be considered less than significant. Therefore, the cumulative exposure of people or structures to this geologic or seismic hazard would be less than significant. All future proposed projects within the City, including the proposed project, would be required to comply with the CBC requirements regarding seismic safety. In addition, the proposed project includes COAs that would require a site-specific geotechnical report and recommendations for project design. This would reduce the site-specific impacts associates with liquefaction and lateral spreading to less than significant. Similarly, impacts to paleontological resources would be reduced by implementation of a monitoring plan. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to geology and soils would be less than significant. Thus, the conclusions of the LUTE EIR related to cumulative impacts remain valid and approval of the project would not require additional environmental review.

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Draft EIR Setting pp. 3.13-1 to 3.13-9 Impact 3.13.1 Final EIR pp. 3.0-5 to 3.0-6	No	No	No	No	Impact remains less than significant
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Draft EIR Setting pp. 3.13-1 to 3.13-9 Impact 3.13.1 Final EIR pp. 3.0-5 to 3.0-6	No	No	No	No	Impact remains less than significant

DISCUSSION

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors. The state and local jurisdictions use legislation, regulations, and planning document to try to reduce GHG emissions. For example, the City uses a Climate Action Plan (CAP) to set goals and policies to reduce emissions. The progress of the Climate Action Plan (CAP) is monitored through biennial progress reporting. According to the City's 2018 CAP Biennial Progress Report, communitywide GHG emissions in 2016 were approximately 12 percent less than 1990 levels and that an estimated 28 percent less than 1990 levels is achievable by 2020 (City of Sunnyvale 2018). According to the report, the City is ahead of schedule in meeting its GHG reduction goals.

The proposed project was evaluated for consistency with City's previous CAP that was adopted in 2014. The 2014 CAP and its reduction targets were aligned with the statewide GHG target for 2020 established by Assembly Bill (AB) 32 of 2006; however, the CAP was prepared prior to the establishment of a statewide GHG target for 2030 by Senate Bill (SB) 32 in 2016. SB 32 established a statewide target of 40 percent less than 1990 emissions levels by 2030. More recently, the City adopted its updated CAP (CAP 2.0) in August of 2019 to be aligned with the statewide target for 2030. The date was well after the Notice of Preparation (NOP) was filed for the proposed project and after the date the Air Quality (AQ) and Greenhouse Gas (GHG) Emissions Assessment, attached as Appendix D, was prepared.

The AQ and GHG Emissions Assessment was prepared in May of 2018 and updated August 13, 2019 by Illingworth & Rodkin, Inc., the report examines the air quality and GHG emissions associated with the proposed project. Air Quality and GHG modeling used the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described previously for computing criteria air pollutant emissions.

The CAP does not provide GHG significance thresholds, so the proposed project was evaluated against the BAAQMD CEQA Air Quality Guidelines recommended GHG significance thresholds for land use projects and stationary sources (i.e., equipment that emits GHG and has to obtain a permit to operate from BAAQMD). BAAQMD's recommended GHG threshold of 1,100 metric tons or 4.6 metric tons per capita was developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the proposed project would occur beyond 2020, so a threshold that addresses a future target is appropriate. The basis of the BAAQMD thresholds were used to develop plan level thresholds for 2040. Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.8 MT CO2e/year/service population (SP). This is calculated for 2030 based on the GHG reduction goals of SB 32 and EO B-30-15, taking into account the 1990 levels by 2030. This analysis assumes that 2020 levels would be equal or below 1990 levels. CARB reports that California is on target for meeting the 2020 GHG emission reduction goal. Many of the GHG reduction measures (e.g., Low Carbon Fuel Standard, Advanced Clean Car Standards, and Cap-and-Trade) have been adopted over the last five years and implementation activities are ongoing. The threshold for stationary sources that are permitted by BAAQMD is 10,000 MT/year.

There have been several new or updated GHG executive orders, plans, policies, or regulations issued since certification of the LUTE EIR, but none of these new items, which are part of the regulatory setting, constitute substantial information indicating that the project would have a significant impact not analyzed in the LUTE EIR. For references, updates to the regulatory setting include the following:

- Executive Order B-55-18;
- Executive Order B-30-15 and SB 32 require CARB to prepare another update to the Scoping Plan to address the 2030 target for the state;
- 2017 Update to the SB 375 Targets;

- Senate Bill 100;
- Building Energy Efficiency Standards;
- CALGreen Updates.

The changes to the regulatory environment will act to reduce the project's long term GHG emissions by reducing emissions from energy and automobiles and therefore do not constitute substantial new information that would cause a more severe adverse impact on climate change than discussed in the LUTE EIR.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Short-term GHG emissions associated with development of the proposed project would occur during construction activities primarily due to emissions from equipment exhaust and worker and vendor trips. There also would be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

In 2014, the City adopted the City of Sunnyvale Climate Action Plan (CAP). The CAP contains strategies to reduce GHG emissions that achieve a 15 percent reduction below 2008 emissions levels by 2020. While intended to streamline environmental review the proposed project would exceed the assumptions of the CAP forecast and project-level GHG emissions estimates the CalEEMod must be used. The CAP may still be used to identify measures and standards for mitigation but for the proposed project emissions were further evaluated using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod assumed full build-out of the project and land uses. In addition, project features including the proposed installation of solar photovoltaic power systems at the parking facility low-flow water fixtures and water-efficient irrigation systems, LEED Gold design and likely exceedance of Title 24 standards were included to the analysis. Since the project would have a high density of workers, approximately 4,500, the rate of solid waste generated was adjusted based on the applicant's projections of 43.02 cubic yards per workday. GHG emissions modeling also include the indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod to the projected GHG intensity factor for the year 2020 of 295 pounds of CO_2 per megawatt of electricity produced.

The LUTE is intended to implement local land use and transportation planning efforts in a manner consistent with the CAP and MTC's Sustainable Communities Strategy (Plan Bay Area) and seeks to reduce the environmental impact (including GHG emissions) of land use development as described above. Impact 3.13.1 of the LUTE EIR evaluated the projected GHG emissions associated with implementation of the LUTE (176,672 metric tons of carbon dioxide-equivalent per year [MTCO2e/year] at buildout in 2035).

However, the LUTE used different growth projections than what were utilized in the CAP. As noted above the City has recently adopted CAP 2.0, which sets goals and criteria for projects moving forward. The GHG estimates presented in the LUTE EIR were based on different assumptions and inputs using CalEEMod than the activity-based estimates used in the City's CAP. For this reason, there is no straightforward method to determine whether the LUTE is consistent with the GHG reduction targets in the CAP for 2035. The LUTE Final EIR also acknowledged the adoption of SB 32, which established a statewide GHG target for 2030. Mitigation Measure 3.13.1 requires the City to update the CAP to reflect the LUTE growth projections. With this mitigation measure the LUTE EIR concluded that the LUTE would make a less than cumulatively considerable contribution to the significant cumulative impact of global climate change.

CONSTRUCTION EMISSIONS

GHG emissions associated with construction were computed to be 7,303 MT of CO_2e for the total construction period, including for the proposed West Channel enhancements. Emission calculations include all operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions. However, BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction.

BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials. COAs that would be adopted as part of project approval would further reduce emissions during construction. Impacts would be less than significant.

OPERATIONAL EMISSIONS

To calculate the annual emissions that would be associated with the proposed project compared to the existing or baseline emissions, emissions from the existing operations were calculated.

Table 4.8-1: Annual Project GHG Emission (CO_2e) in Metric Tons shows the annual emissions associated with operation of the fully-developed site would be 11,019 MT of CO_2e (plus 76 MT that is associated with stationary sources). The emissions associated with the existing building operations is 2,015 $MTCO_2e$. The net emissions resulting from the proposed project would be 9,004 MT of CO_2e. *Table 4.8-1* shows the existing emissions, annual emissions of the proposed project in 2023 and 2030. Using a BAAQMD significance threshold of 10,000 MT/year, the proposed project would be below the threshold in 2023 by 9,004 MT/yr and 7,983 MT/yr in 2030.

According to the applicant, the proposed project would use an estimated 4,500 employees. Therefore, with 11,019 $MTCO_2e$ annually, the project would generate 2.45 MT CO_2e per service population. This is under the BAAQMD threshold of 4.6 MT/SP/yr in 2020 and 2.8 MT/SP/yr in 2.8.

Table 4.8-1: Annual Project GHG Emission (CO_2e) in Metric Tons

Source Category	Existing in 2023	Proposed Project in 2023	Proposed Project in 2030
Area	0	0	0
Energy Consumption	677	3,588	3,588
Mobile	1,069	5,965	4,944
Solid Waste Generation	173	1,208	1,206
Water Usage	95	260	260
Total	**2,015**	**11,019**	**9,998**
Net New Emissions	--	9,004	--
Service Population Emissions (Net New Emissions/Number of Employees)	--	2.45	2.22
Significance Threshold		4.6 in 2020 2.8 in 2030	2.8 in 2030
Permitted Stationary Sources		76	76
Significance Threshold		10,000	

Source: Illingworth & Rodkin, Inc., *100 and 200 W Caribbean Campus Project- Air Quality and Greenhouse Gas Emissions Assessment*, May 10, 2018 revised August 13, 2019.

The project proposes to install solar photovoltaic power systems at the parking facility that is estimated to produce 1,794,800 kilowatts of electricity annually. Additionally, the project is designed to be LEED Gold and would likely exceed Title 24 standards for building efficiency by at least five percent. Low-flow water fixtures and water-efficient irrigation systems would be included in the project. Since the project would have a high density of workers, the rate of solid waste generated was adjusted based on the applicant's projections of 42.8 cubic yards per workday. The project would include an aggressive Transportation Demand Program (TDM), dedicated shuttle program, proximity to light rail, construction of energy-efficient buildings, and infrastructure that includes solar photovoltaic panels to generate renewable energy.

According to *Table 4.8-1,* the project is below the significance threshold of 10,000 MT and below the service population thresholds of 4.6 MT/SP/yr and 2.8 MT/SP/yr.

Lastly, the project's land use and development intensities are consistent with the LUTE and what was assumed in the GHG analysis in the LUTE EIR. No changes in the GHG conditions for the project site have occurred since approval of the LUTE and the LUTE EIR. The proposed project would not include any development beyond that assumed and analyzed in the LUTE EIR. Therefore, with the application of uniformly applied development

standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding GHG emissions remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR, conformance with the CAP, and uniformly applied City development standards and policies would reduce impacts to less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed above, the proposed project was evaluated for consistency with the 2014 CAP, and for consistency with the BAAQMD thresholds related to GHG emissions. The proposed project is responsive to the CAP either through direct action implementing energy reduction measures, or conformance with state legislation and regulations adopted to reduce GHG's. AB 32, the Global Warming Solutions Act of 2006, codifies the State of California's GHG emissions target by directing CARB to reduce the state's global warming emissions to 1990 levels by 2020. In December of 2008, CARB adopted a Scoping Plan for AB 32 that contained the State of California's main strategies to reduce GHGs from business as usual (BAU) emissions projected in 2020 back to 1990 levels. BAU is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. It required CARB and other state agencies to develop and adopt regulations and other initiatives reducing GHGs by 2012.

As directed by AB 32, CARB also approved a statewide GHG emissions limit in 2007 but later uprated the limit to 545 MMT of CO_2e in light of the economic downturn. In addition, two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory are included and these measures resulted in a reduction of the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020. While the State is on track to exceed the AB 32 scoping plan 2020 targets (i.e., meeting 1990 levels by 2020), this plan is an update to reflect the enacted SB 32 reduction target of reducing 1990 levels 40 percent by 2030.

The proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan. The project would comply with requirements of the new Green Building Standards Code. For example, proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures and water-efficient irrigation systems. The project would be designed to meet the City's requirement of Gold certification under LEED v4 BD+C: New Construction as a condition of entitlement.

The City of Sunnyvale 2014 CAP includes a checklist that identifies the minimum criteria a project must demonstrate to use the City's CAP for purposes of streamlining the analysis. Minimum criteria outlined below includes: 1) consistency with CAP forecasts, and 2) incorporation of applicable Near-Term (prior to 2016) strategies and measures from the CAP as binding and enforceable components of the project. The Sunnyvale 2014 CAP checklist is contained in the AQ and GHG Emissions Assessment, attached as Appendix D. As illustrated, the proposed project is consistent with the CAP forecasts, does not include large stationary emission sources, would not trigger any plan amendments, and is consistent with all 14 applicable CAP Measures (five measures would not apply). Any projects that exceed the 2020 forecasts may still rely on the CAP for identification of measures and standards for mitigation. However, since such projects would exceed the assumptions of the CAP forecast, the City requires that the project demonstrate anticipated project-level GHG emissions estimates using CalEEMod. As shown in *Table 4.8-1*, GHG emissions would be under the threshold and therefore less than significant. The project's consistency with the City's CAP is described in the Air Quality and Greenhouse Gas Emissions Assessment prepared for the project. Thus, with the application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding GHG emissions remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR, conformance with the CAP, and uniformly applied City development standards and policies would reduce impacts to less than significant.

CUMULATIVE IMPACTS

As discussed above, there are no significant cumulative impacts associated with GHG's that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed project as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As discussed above, the project would not conflict with any GHG reduction plans including the CARB Scoping Plan or result in any conflicts with plans or policies that were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to GHG's would be less than significant. Thus, the conclusions of this documents remain valid and approval of the project would not require additional environmental review.

4.9 Hazards and Hazardous Materials

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.1	No	No	No	No	Yes, impact remains less than significant.
b) 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?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.2	No	No	No	No	Yes, impact remains less than significant.
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.3	No	No	No	No	Yes, impact remains less than significant.
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.2	No	No	No	No	Yes, impact remains less than significant.

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.4 Final EIR pp 3.0-2 to 3.0-3	No	No	No	No	Yes, impact remains less than significant.
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.5	No	No	No	No	Yes, impact remains less than significant.
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Draft EIR page 3.3-15 No Impact	No	No	No	No	Yes, no impact would occur.

DISCUSSION

No substantial change in the environmental and regulatory settings related to hazards and hazardous materials, described in LUTE EIR Section 3.3, Hazards and Human Health, has occurred since certification of the LUTE EIR.

The evaluation of the potential for hazards and hazardous materials to be present on the project site and have potential effects on the proposed project is based on two sources. A Site Management Plan (SMP) was prepared by Cornerstone Earth Group for the proposed project and is attached as Appendix H-1. The report was prepared on February 14, 2019 and was evaluated the hazardous conditions and potential for presence of hazardous materials that may pose a threat to human health and safety during construction and operation of the proposed project. The report also recommends, in accordance with state and federal law, measures to ameliorate or reduce potential effects. Second, a search of the GeoTracker website hosted by the State Water Resources Control Board (SWRCB) that lists hazardous materials cleanup sites including leaking

underground storage tanks (LUST), other permitted facilities, waste sites, and other known hazardous materials conditions was conducted (attached as Appendix H-2). A letter dated June 4, 2019 from the Santa Clara County Department of Environmental Health approving the reuse of imported soil is included as Appendix H-3. A Vapor Management Plan, dated July 20, 2019, prepared by Cornerstone Earth Group and a letter dated October 25, 2019 from the Santa Clara County Department of Environmental Health approving the Plan are included in Appendix H-4.

A brief summarization of the findings of the reports and previous uses of the project site are provided immediately following. This information is provided here to avoid redundant discussions in the seven listed significance criteria questions. The site was historically used for agricultural uses until the late 1970's and early 1980's when the existing buildings were constructed. Uses generally consisted of commercial, light industrial, warehouse and storage, research and development and office space. Separate Phase II Soil, Soil Vapor, and groundwater quality evaluations were performed for the project site. Although limited information is known about the tenants, one company A.C. Ball Company, a Department of Defense contractor occupied 141 Caspian Court from 1978 to 1982 (Geotracker, 2019). Information from both the SMP and GeoTracker database for both on-site and off-site areas of concern have been combined and are discussed below.

On-Site Locations of Concern

100/200 West Caribbean Drive- Google Caribbean Campus – This site is an open case with verification monitoring as of March 11, 2019. Although this listing is shown with the new 100/200 Caribbean Drive address, it is associated with previous incidents that occurred on the A.C. Ball site and associated 141 Caspian Court address and other listing shown immediately following. The site has been monitored and tested and is known to have potential contaminants of concern including 1,4-dioxane, dichloroethane (dca), dichloroethene (dce), tetrachloroethylene (pce), trichloroethylene (tce), vinyl chloride. The media of concern includes other groundwater (uses other than drinking water), soil, and soil vapor. Specific site management practices are in place and include a prohibition of activities which disturb the remedy and monitoring systems without approval, land use covenant, residence use prohibited. To address this concern an SMP was prepared for the project site. The SMP clearly identified all existing known hazardous materials conditions and provided recommendations to ameliorate the effects. The recommendations have been incorporated as COAs to this document, or the needed remediation efforts listed in the SMP have been incorporated by reference and will be implemented and verified by the City Planning and Development Department as required (Cornerstone, 2019, Geotracker, 2019).

A.C. Ball Company 141 Caspian Court - From 1978 to 1982, volatile organic compounds (VOCs) were released to soil and ground water as a result of leaking underground solvent storage tanks. The USTs were removed and clean up and monitoring was completed. In the closure documentation, dated December 15, 2004, the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) included a deed restriction that included three requirements 1) – no water production wells are to be installed on the property; 2) the Water Board is to be advised of all changes in property ownership; and 3) a Health and Safety Plan (HSP) must be prepared for any excavation work within the property boundaries with provision for properly managing any VOC-impacted soils (Cornerstone, 2019).

141 Caspian Court – AC Ball (T0608591628). This case involved a release of contaminants of concern and potentially affecting groundwater. The closure letter states that Volatile Organic Compounds (VOCs) were released to the soil and groundwater as a result of leaking underground storage tanks at the site, including tetrachloroethylene (PCE), trichloroethylene (TCE), 1,1,1- trichloroethane (TCA), l,l-dichloroethylene (l,l-DCE), 1,2-dichloroethylene (1,2-DCE), 1-2 dichloroethane (DCA), and 1,4-dioxane. This case; however, was closed as of February 18, 2004. Due to the relatively low contaminant concentrations, significant impacts to human health or the environment are unlikely, and no further action is needed. (Geotracker, 2004a).

141 Caspian Court - AC Ball (T0608501788). This case involved a release of waste oil / motor / hydraulic / lubricating potentially affecting groundwater. This case; however, was closed as of December 15, 2004. It should be noted that correspondence from the RWQCB had reviewed the SLIC closure for 141 Caspian Court, Sunnyvale, and the LUFT was initially erroneously listed as 133 Caspian Court even though the Notice of Responsibility shows the site address as being 141 Caspian Court. The 141 Caspian Court site was a SLIC site, which was remediated under the oversight of the RWQCB. Closure was granted and this site is considered closed (Geotracker, 2004b).

141 Caspian Court – AC Ball (CAD009225434). This listing is for the project site showing that protective filler was installed. No violations or closures are listed.

Federal Express 1393-1395 Borregas Avenue- This site is at the northeastern property boundary and was operated by Federal Express which had a 10,000-gallon diesel/gasoline underground storage tank near the southeast corner of the building. A leak was found, and testing revealed contamination to the groundwater, and subsequent testing and monitoring was conducted. A closure letter from the Water Boards was issues on August 8, 1996 indicating that no further remedial action was required. The letter also indicated that the chlorinated VOCs was likely from upgradient sources (Cornerstone, 2019).

Various Companies 1325 Borregas Avenue-This site was occupied by different companies starting in 1983. These companies used and stored some hazardous materials. In 1991 groundwater monitoring wells were installed likely to monitor potential ground water contamination from the A.C. Ball location. Sampling indicated the presence of VOCs but the site was later closed by the Waterboards because the, "VOC concentrations were not high enough to be of concern and…no further action is required for addressing contamination at the subject property (Cornerstone, 2019)."

Off-Site Locations of Concern

Lockheed Plant One – This site occupies approximately 560-acres adjacent to the southwest on which several environmental investigations were performed for reported releases of VOCs, hexavalent chromium, and nitrates that impacts soil and ground water quality. The monitoring is ongoing. Based on a review of the most recent semi-annual monitoring report (September 2017) TCE is the primary contaminant of concern with the others being limited to the Lockheed property. The TCE appears to have migrated to the southwesterly corner of the project site encompassing approximately 50% of parcel 110-26-020 (Cornerstone, 2019).

Unidentified Sources of Groundwater Contamination-The project site is located in an area of regional VOC water contamination from unknown sources. It is unknown what entity is the source but are reportedly associated with an upgradient source.

Chemicals of Concern – Chemicals of concern are those that exceed environmental screening levels (ESL) and maximum contaminant level (MCL) established by the State Water Resources Control Board. Contaminants that exceed these levels at the project site (200 Caribbean Drive) COC in soil vapor and ground water include PCE, TCE, cis-1,2-DCE, and vinyl chloride. At 100 Caribbean Drive COC in soil vapor and ground water include PCE, TCE, cis 1,2, DCE, 1,1-DCE, vinyl chloride, 1,2-DCA, and 1,4-dioxane (Cornerstone, 2019).

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Impact 3.3.1 in the LUTE EIR evaluated whether implementation of the LUTE would increase the routine transport, use, or disposal of hazardous materials. The analysis stated that although LUTE policies provide for additional nonresidential growth, hazardous materials use would not be expected to expand appreciably because the types of new businesses that would be expected would not involve extensive use of hazardous materials, as has occurred historically, but rather primarily green technology and office/R&D uses. The analysis also stated that the transport, storage, and use of hazardous materials in land use activities associated with the LUTE would be required to comply with all applicable federal, state, and local regulations during construction and operation. Facilities that use hazardous materials are required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous materials releases. Compliance with federal, state, and local regulations and implementation of LUTE policies (Policy 78, Policy 95 Action 3, and Policy 101 Action 2) would ensure that impacts related to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant and that the LUTE would make a less than cumulatively considerable contribution to significant cumulative impacts (Impact 3.3.6).

Policy 78: Encourage businesses to emphasize resource efficiency and environmental responsibility and to minimize pollution and waste in their daily operations.

Policy 95: Require high design standards for office, industrial, and research and development buildings in all business districts.

Action 3: Carefully review the impacts, such as noise, odors, and facility operations, of commercial, office, and industrial uses and development adjacent to residential areas.

Policy 101: Use the Industrial-to-Residential (ITR) combining district to help meet the community's housing needs for all ages and economic sectors and balance its use with maintaining a healthy economy and employment base. ITR zoning allows industrial/commercial/office uses to continue as conforming uses while an area transitions to residential uses. ITR areas include Tasman Crossing, East Sunnyvale, Futures 4a, Futures 4b, and Futures 6a.

Action 2: During the transition from industrial to residential uses, anticipate and monitor compatibility issues between residential and industrial uses (e.g., noise, odors, and hazardous materials). Identify appropriate lead departments and monitoring strategies for each compatibility issue.

The proposed project would include development of approximately 1,041,890 square feet of total building area; an increase of approximately 344,890 square feet over the existing 710,381 square feet. The new office uses could potentially involve the use of hazardous materials or generation of hazardous waste. If accidentally released during storage, use, or transportation, these materials and wastes could cause human health effects to occupants of the new business park, as well as surrounding populations, and could result in adverse environmental effects.

The proposed project would be required to comply with the City Municipal Code requirements for the proper storage and handling of hazardous materials as well as the requirements for regulated materials that could produce toxic gases (City Municipal Code, Section 20.10.030(6), which incorporate State and Federal requirements. Permitted facilities also are required to follow City Municipal Code requirements for reporting and cleanup of a release of hazardous materials which would ensure that any substantial release is appropriately contained and remediated. Compliance with the requirements of the City of Sunnyvale would ensure that hazardous materials are stored and handled safely, and that if a release did occur it would be appropriately reported and remediated. Therefore, operational impacts related to the use and storage of hazardous materials would be less than significant.

Transportation of hazardous materials would be subject to the requirements of a well-established regulatory framework. The regulatory framework provides specific guidance and measures for the proper handling and transporting of hazardous materials. The measures include safety training and methodologies for conducting such activities. With compliance with the guidance and requirements of the established regulatory framework, the potential for exposure of the public to the release of hazardous materials into the environment would be significantly reduced and operational impacts related to the transportation of hazardous materials would be less than significant. Thus, with the application of uniformly applied development standards and policies, the project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR regarding impacts from the routine transport, use, or disposal of hazardous materials remain valid and no further analysis is required.

Conclusion

Application of mitigation measures from the LUTE EIR, conformance with state laws and regulations, and uniformly applied City development standards and policies would reduce impacts to less than significant.

b) 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?

Impact 3.3.2 in the LUTE EIR evaluated whether implementation of LUTE policies and actions would provide for land uses that would involve the transportation, storage, use, and disposal of hazardous materials. These activities could result in the release of hazardous materials into the environment and exposure of the public to hazardous materials as a result of inadvertent releases or accidents. The analysis in LUTE states that the transport, storage, and use of hazardous materials by developers, contractors, business owners, and others must occur in compliance with local, state, and federal regulations. Facilities that store or use hazardous materials are required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous material releases. Special regulations apply to operations that may result in hazardous emissions or use large quantities of regulated materials and to ensure accidental release scenarios are considered and measures are included in project design and operational procedures to reduce the risk of accidents. In addition, transportation of hazardous materials into and within the City of Sunnyvale is regulated to reduce the potential for transportation accidents involving hazardous materials. The LUTE EIR concludes that such impacts would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.3.6).

Impact 3.3.2 also identified that implementation of the LUTE could expose the public to hazardous materials if new development or redevelopment were to be located on a site where historical uses have resulted in hazardous materials contamination of soil or groundwater due to discharges that may not have been regulated prior to the enactment of stringent regulations in place today, or through illegal waste disposal activities. This would include sites with electrical transformers containing PCBs and persistent residual chemicals, including pesticides, herbicides, and fertilizers. In addition, redevelopment activities associated with the LUTE could result in exposure to hazardous materials by disturbing and thus releasing asbestos and/or lead during demolition and remodeling activities. General Plan Safety and Noise Chapter Policy SN-1 requires that prior to approving any project at a site that is known to have contamination from historic uses or at a site where the potential exists based on historic or current uses but has not yet been evaluated, the City must ensure the project is consistent. In addition, under Policy SN-1.5, the City intends to promote a living and working environment safe from exposure to hazardous materials. The LUTE EIR concludes that the potential for impacts from hazards released through redevelopment of contaminated sites would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.3.6).

Potential Exposure to Contaminated Soils at the West Channel. Based on soil sampling of levee fill in the West Channel, organochlorine pesticides (OCPs) (4,4'-DDE, dieldrin, chlordane, toxaphene) were detected in the levee fill samples at concentrations that exceeded their respective Environmental Screening Criteria. Additionally, total DDT and/or toxaphene were detected above its Total Threshold Limit Concentration (TTLC) in several fill samples. Soil exceeding its TTLC that is excavated and off-hauled will require disposal at a Class I hazardous landfill. Naphthalene and PCBs also were detected in three levee fill samples above their respective Environmental Screening Criteria. Chromium, cobalt, and nickel also were detected in one levee fill sample above their respective Environmental Screening Criteria; however, the reported metal concentrations are likely natural background and not from an anthropogenic source. This impacted fill appears to be limited to the upper approximate 5 feet of soil at the western levee and 4 feet of soil in portion of the eastern levee.

Construction of the West Channel realignment will involve excavating into portions of the existing levees to reach finished grades. Levee soil that is excavated above NAVD88 Elevation 6 feet is assumed contaminated and is not suitable for reuse at the proposed project. At this elevation, approximately 7,360 cubic yards of impacted levee fill will require offsite removal to a landfill permitted to receive this excavated soil.

In addition to removing the impacted soil, access to impacted fill areas during construction will be governed by a Site Management Plan and Best Management Practices, which will be adopted and implemented as COAs. The BMP details are listed in an addendum to the County-approved Site Management Plan addressing off-haul of impacted fill and restricted access to impacted fill areas during construction that was prepared by letter dated September 11, 2019. (Refer to the Addendum to 100/200 Caribbean SMP for Sunnyvale West Channel letter, Sept. 11, 2019, prepared by Cornerstone Earth Group, attached as Appendix I-3.) This off-haul of impacted fill is consistent with the prescribed Environmental Site Assessments that have been conducted pursuant to the Phase 1 and Phase 2 Environmental Site Assessments required by VW EIR MM HH-1.

Potential Exposure to Hazardous Building Materials. The existing buildings on the project site were constructed in the 1970s with one structure being constructed in the 1980s. Based on the age of the structures, asbestos-containing materials and lead-based paint may have been used during construction. In addition, fluorescent light tubes containing mercury vapors, fluorescent light ballasts containing PCBs or DEHP, Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbon (HCFCs) and PCB containing electrical equipment may be present in the buildings that would be demolished. Materials within the buildings that may pose a risk include lamps, thermostats, and light switches containing mercury; batteries from exit signs, emergency lights, and smoke alarms; lighting ballasts which can contain PCB's, and lead pipes and roof vent flashing. All such materials would require being inventoried and then removed prior to demolition to ensure human health and safety is not impacted from accidental release or upset.

If friable or non-friable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the construction workers, occupants of the business park, and adjacent residents to airborne asbestos fibers. Similarly, if lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles, unless proper lead abatement procedures are followed. The demolition of existing structures would follow BAAQMD and Cal/OSHA regulations regarding abatement of asbestos-containing materials and the Cal/OSHA Lead in Construction Standard for the abatement of lead-based paint.

If PCBs are present in the building to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 ppm, based on Title 22, CCR). Removal of fluorescent light tubes and fixtures could result in exposure to mercury vapors if the lights are broken or exposure to DEHP, if present, is in the light ballasts.

Potential exposure to hazardous building materials during building demolition could result in harm to human health and safety. The project applicant would be required to conduct surveys for hazardous building materials prior to demolition, and if warranted and to the extent feasible,

implement appropriate abatement and disposal procedures in compliance with applicable regulations. It is anticipated that such measures would mitigate potential impacts to less than significant. In addition, the project applicant would be required to obtain clearance for asbestos removal from BAAQMD prior to issuance of a demolition permit. To obtain this clearance, BAAQMD (and as required by existing Federal and State law) would require specific testing for confirmation for the presence of materials. If the materials are present, proper handling prior to and during demolition to avoid/minimize worker exposure during demolition would be required. These requirements also would require proper disposal of hazardous materials after demolition.

Demolition of Facilities Used for Hazardous Materials Storage. The project site currently consists of existing commercial and industrial buildings several of which used hazardous materials during past operations. These properties are subject to the hazardous materials management requirements specified in Chapter 20.10.030 of the City Municipal Code. Demolition and disturbance of on-site structures that have experienced hazardous materials incidents and have building materials that contain hazardous materials and could expose workers and the occupants of the business park to a release of hazardous materials. To minimize this, potential hazardous materials stored on the project site would be removed and the hazardous materials facilities onsite would be closed in accordance with applicable laws and regulations designed to address hazardous materials and protect human health and the environment. This would include a closure permit from the City of Sunnyvale.

In accordance with the closure permit, a closure plan would be prepared prior to demolition. The closure plan would describe activities to safeguard materials and demonstrate that hazardous materials stored, dispensed, handled, or used at the facility would be transported, disposed of, or reused in a manner that eliminates any threat to public health and safety or the environment. The closure plan would include a description of the size and type of facility to be closed (including a site plan); the chemicals used at the facility; the procedures to be used for decontamination of the facility and equipment (if required) and the proposed method for disposal of all hazardous wastes generated from cleaning operations; planned disposal of hazardous materials and wastes from the facility in accordance with all State and Federal laws; and a description of the planned sampling program to demonstrate that the facility has been completely decontaminated. Upon completion of closure, a post-closure report documenting compliance with the closure plan, confirming appropriate disposal of all hazardous materials, and documentation of all sampling conducted, including analytical results would be submitted and approved by the City. Compliance with these regulatory requirements would be required of the proposed project. Prior to demolition of each building the construction contractor(s) will have a hazardous building materials survey completed by a Registered Environmental Assessor or a registered engineer. If any friable asbestos-containing materials or lead-containing materials shall be identified, and adequate abatement practices, such as containment and/or removal, shall be implemented in accordance with applicable laws prior to demolition. Specifically, asbestos abatement will be conducted in accordance with Section 19827.5 of the California Health and Safety Code, as implemented by the BAAQMD, and Title 8 CCR Section 1529 and Sections 341.6 through 341.14, as implemented by Cal/OSHA. Lead-based paint abatement will be conducted in accordance with Cal/OSHA's Lead in Construction Standard. Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of in accordance with applicable laws including 22 CCR Section 66261.24 for PCBs, Title 22 CCR Section 66273.8 for fluorescent lamp tubes, and 22 CCR

Division 4.5, Chapter 11 for DEHP. Conformance with these regulatory requirements would ensure that impacts related to exposure to hazardous materials stored or used in the existing buildings would be less than significant.

The proposed project would require the use of imported fill material from two off-site locations for use on the project site during grading operations. Imported fill would be needed for the parcels at the 200 West Caribbean Site and include APNs: 110-26-020, -021, -022, -023, -025, -027, -028, -029, -030, -031. Approximately 15,500 yards of soil would be imported from 2200 Lawson Lane. Soils from 10 feet and above would not be suitable but soils from 10-30 feet would be usable. Soils from the second site at 333 West Fernando Street in San Jose. Existing fill soils from 0-7.5 feet are not acceptable for use as part of the proposed project and only native soils below 7.5 could be used. To ensure appropriate fill soils are used, the Santa Clara Department of Environmental Health (SCDEH) requested COAs related to soil use. The COAs would require the project applicant to ensure that all imported fill materials from 2200 Lawson Lane and 333 West Fernando Street, meet the requirements of the SCDEH. The COAs will require the applicant to ensure that all imported soils from these sites are from appropriate depths from the respective sites; that the soils meet the requirements of the Soil Import Request Letter, and are appropriate for reuse. A letter from the SCDEH approving the reuse of imported soil on the project site is included as Appendix H-3.

As discussed above, the project site was evaluated for the potential to result in the release of hazardous materials. Demolition activities are required to follow BAAQMD and California Department of Occupational Safety and Health (Cal/OSHA) regulations regarding abatement of asbestos-containing materials and lead-based paint. The Sunnyvale Municipal Code also includes requirements for the management of hazardous materials. In addition to these requirements, two mitigation measures were recommended as part of the report. These have been added as COAs to ensure impacts remain less than significant. Therefore, with the application of uniformly applied development standards and policies and COAs the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to hazardous material handling remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, COA's based on recommendations from the SMP, and conformance to state regulations, and BAAQMD and SCDEH requirements, would reduce impacts to less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Impact 3.3.3 in the LUTE EIR analyzes the potential for implementation of the LUTE to locating schools in the vicinity of land uses involving the use, transport, disposal, or release of hazardous materials. The LUTE EIR concludes that such impacts would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.3.6).

The proposed project is located within the MPSP which contains commercial and industrial uses and has a history of use by the military and aeronautics industry. There are no school sites located within one-quarter mile of the project site. The nearest Sunnyvale School District Schools are Lakewood Elementary approximately 1.5 miles to the southeast and Columbia Middle School approximately 1.5 miles to the south. The project proposes to receive some fill soils from 2200 Lawson Lane in Sunnyvale and 333 West Fernando Street in San Jose. 2200 Lawson Lane is an undeveloped but disturbed field and is surrounded by urban development consisting low rise and mid-rise office and industrial buildings and is adjacent to the northern alignment of the Central Expressway. 333 West Fernando Street is a paved parking lot is adjacent to the SR 87 on the west, a parking structure to the north and Highrise buildings in downtown San Jose to the east and south. Based on a search of aerial imagery, there are no schools within 0.25 miles of these site.

Therefore; the proposed project would not have an impact in regard to use or movement of acutely hazardous materials, emissions, substances, or waste near an existing or proposed school. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding impacts from hazardous materials near schools remain valid and no further analysis is required.

Conclusion

No schools are located within 0.25 miles of the project site. No impacts would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Impact 3.3.2 in the LUTE EIR identified that implementation of the LUTE could expose the public to hazardous materials if new development or redevelopment were to be located on a site where historical uses have resulted in hazardous materials contamination of soil or groundwater due to discharges. Contamination from discharges may have occurred prior to current regulations and through illegal waste disposal activities, or uses of electrical transformers containing PCBs and persistent residual chemicals, pesticides, herbicides, and fertilizers. In addition, redevelopment could disturb asbestos and/or lead containing material. Because of this, the City must ensure the project is consistent with General Plan Safety and Noise Chapter Policy SN-1.1 and Policy SN-1.5, as discussed in Impact b), above. The LUTE EIR concludes that the potential for impacts from

hazards released through redevelopment of contaminated sites would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.3.6).

The project site has experienced hazardous materials incidents in the past. All but the most recently listed cases (141 Caspian Court), have been closed. Some releases of chemical pollutants were identified in soil and groundwater samples performed onsite. Based on the documentation provided in the Phase I and Phase II reports, evidence exists of releases that exceed conservative regulatory screening levels for VOCs, specifically PCE and TCE, within areas of the project site. Exposure or release of these chemicals to the public or the environment is a potential significant impact. The cleanup and remediation efforts that would be required at the sites are anticipated to ameliorate any existing or remaining effects of these previous incidents.

The SMP prepared for the project site verified previous studies and evaluation that there had been past releases of chemical pollutants identified in soil and groundwater samples. The reports concluded that the pollutants or constituents of concern (COCs) were likely the result of the historical uses onsite related to the property's connection to the A.C. Ball company. Based on the documentation evidence exists that releases PCE, TCE, cis-1,2-DCE, and vinyl chlorate at 200 West Caribbean Drive; and PCE, TCE, cis-1,2 DCE, trans-1,2 DCE, 1,1-DCE, vinyl chlorate, 1,2-DCA, 1,1-DCA, and 1-4 dioxane at 100 West Caribbean Drive and exposure during demolition and constructions from a release of these chemicals to the public or the environmental could occur.

To reduce the impacts of the existing onsite hazardous materials conditions, the SMP proposed measures to reduce impacts related to human exposure should any hazardous materials or chemicals be upset during phases of the proposed project. The SMP recognized that soil, soil vapor, and groundwater with concentrations of COCs may be present at on-site and off-site locations. The SMP provided a protocol for construction activities that could encounter residual levels of COCs. All phases of construction were included: building demolition and utility removal; trenching, excavating, and grading; subsurface utility installation, building foundation construction, hardscapes; and landscapes.

As a COA, the proposed project would be required to implement all recommendations related to hazards and hazardous materials noted in the Site Management Plan prepared by Cornerstone Earth Group dated February 14, 2019. It is anticipated that compliance with the all recommendations would ensure that all demolition and any remediation required would be completed in compliance with all state, local, and regulatory requirements of BAAQMD, Cal/OSHA, SCDEH, and to the satisfaction of the City Planning and Building Department. This would be verified through submission of an SMP completion report. A Vapor Management Plan prepared for the project site and a letter from SCDEH approving the plan are included in Appendix H-4. This would reduce impacts associated with hazards and hazardous materials in this regard to less than significant.

Thus, with the application of uniformly applied development standards and policies, and COAs incorporated to the proposed project, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative

impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding impacts from hazardous materials near schools remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, COA's, and conformance to state regulations, and BAAQMD and SCDEH requirements, would reduce impacts to less than significant.

Conclusion

Application of uniformly applied City development standards and policies, COA's, and conformance to state regulations, and BAAQMD and SCDEH requirements, would reduce impacts to less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Impact 3.3.4 in the LUTE EIR evaluated the potential for hazards associated with exposure of workers and visitors to aircraft-related safety hazards by locating additional development within the approach path of the Moffett Federal Airfield. The analysis noted that the Moffett Federal Airfield Comprehensive Land Use Plan (CLUP) includes land use policies and height restrictions for construction and new structures near the airfield. The LUTE also contains several policies and actions that would assist in reducing airport hazards (Policy 8 and associated Actions 1, 4, and 5) are listed below:

Policy 8: Actively participate in discussions and decisions regarding transportation between regions, including regional airport and regional rail planning, to ensure benefit to the community.

Action 1: Comprehensively review any proposed aviation services at Moffett Federal Airfield that could increase aviation activity or noise exposure.

Action 4: Monitor and participate in regional airport planning decision making processes with agencies such as the Metropolitan Transportation Commission and the Regional Airport Planning Commission.

Action 5: Monitor and participate in efforts by the Santa Clara County Airport Land Use Commission to regulate land uses in the vicinity of Moffett Federal Airfield.

In the LUTE EIR, this impact was determined to be less than significant because compliance with FAA regulations and ALUC requirements, including CLUP restrictions, as well as implementation of LUTE policies and actions would reduce airport safety hazards. The LUTE EIR concludes that the LUTE's contribution to aircraft-related safety hazards would be less than cumulatively considerable under cumulative conditions (Impact 3.3.6).

The proposed project is located within two miles of Moffett Field but is not within two miles of a public or public use airport. The proposed project site is not located within a public airport land use plan. Therefore, the proposed project would not have an impact related to public airport safety hazards for people residing or working in the project area. Thus, with the application of uniformly applied development standards and policies, the project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant offsite impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to airport safety hazards remain valid and no further analysis is required.

Additional discussion regarding Moffett Field is provided in Section 4.11 Land Use and Planning.

Conclusion

Application of uniformly applied FAA regulations and policies, and conformance to ALUC policies would reduce impacts to less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Sunnyvale Emergency Plan specifies actions for the coordination of operations, management, and resources during emergencies. The LUTE EIR would not alter the City's overall land use patterns or land use designations to such an extent that they would conflict with this plan. Impact 3.3.5 in the LUTE EIR evaluated the potential for implementation of the LUTE to interfere with the City of Sunnyvale Emergency Plan. The analysis stated that the proposed roadway system in the LUTE would improve City roadway conditions from existing conditions and allow improved emergency vehicle access to residences as well as evacuation routes. Thus, impacts from implementation of the LUTE would result in a less-than-significant impact under project conditions and would make a less than cumulatively considerable contribution related to interference with an adopted emergency response plan or emergency evacuation plan. Consistent with these findings, the proposed project would not substantially change the street network or include construction within a street such that emergency evacuation would be affected. In addition, the proposed project would be required to comply with Fire Department Standard Details and Specifications to ensure adequate emergency access to project site and all proposed project buildings are accessible by fire engines and ladder trucks used for multi-story buildings. The proposed project includes an emergency vehicle access plan for both 100 and 200 West Caribbean Drive. The emergency access would be asphalt, concrete or other material that is all weather and could accommodate a 90,000-pound fire vehicle. One of the pedestrian bridges would be rated for emergency access linking both sides of the campus. As part of the project approval process, an emergency easement would be dedicated, and the concept and design would be required to be approved by the Fire Department prior to issuance of a building permit.

The proposed project would have a less than significant impact related to impairment or interference with an emergency response plan or emergency evacuation plan. With the application of uniformly applied development standards and policies, the project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to impacts from interference with emergency plans remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies including the City of Sunnyvale Emergency Response Plan, impacts would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

As identified on page 3.3-15 in the LUTE EIR, the LUTE would have no impact under project or cumulative conditions related to this threshold. The proposed project is not located in an area susceptible to wildfire. The proposed project is surrounded by commercial and industrial development within the MPSP area and there are no undeveloped or wildlands immediately adjacent. The project site is identified as a Local Responsibility Area (LRA) by the California Department of Forestry and Fire Protection (CALFIRE). An LRA is a zone where incorporated local agencies have the primary responsibility for fire protection as opposed to a State Responsibility Area (SRA) where CALFIRE would have the primary responsibility. CALFIRE also designated Fire Hazard Severity Zones in both SRA's and LRA's. CALFIRE designates the project site as a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) (CALFIRE, 2007 and 2008). Therefore, no impact would occur in regard to wildland fires and no mitigation is required. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to impacts from wildland fires remain valid and no further analysis is required.

Conclusion

There are no wildlands or areas susceptible to wildfires in proximity to the project site. No impacts would occur.

CUMULATIVE IMPACTS

As discussed above, there are no significant cumulative impacts to hazards and hazardous materials that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification in this regard. The geographic scope of impacts associated with hazards and hazardous materials encompasses the project site and its vicinity. Due to the site-specific nature of hazardous materials, there would be no potential for cumulative effects of hazards

or hazardous materials from construction and operation of the proposed project in conjunction with other cumulative development (listed above). Compliance with applicable laws and regulations as well as implementation of appropriate hazardous buildings materials surveys and abatement would avoid the potential for local or regional cumulative effects related to the exposure to hazardous materials during construction or operation of the proposed project, and cumulative impacts would be less than significant. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to hazards and hazardous materials would be less than significant. Thus, the conclusions of the LUTE EIR remain valid and approval of the proposed project would not require additional environmental review.

4.10 Hydrology and Water Quality

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Draft EIR Setting pp.3.8-1 to 3.8-15 Impact 3.8.1 and 3.8.4	No	No	No	No	Yes, impact remains less than significant.
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Draft EIR Setting pp. 3.11-1 to 3.11-11 Impact 3.11.1.1 and 3.11.1.2	No	No	No	No	Yes, impact remains less than significant.
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:						
i. Result in substantial erosion or siltation on- or off-site?	Draft EIR Setting pp. 3.8-1 to 3.8-15 Impact 3.8.1 and 3.8.4	No	No	No	No	Yes, impact remains less than significant.
ii. Substantially increase the rate or amount of surface runoff in a manner	Draft EIR Setting pp. 3.8-1 to 3.8-15	No	No	No	No	Yes, impact remains less than significant.

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
which would result in flooding on- or offsite?	Impact 3.8.2 and 3.8.5					
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Draft EIR Setting pp. 3.8-1 to 3.8-15 Impact 3.8.1 and 3.8.4	No	No	No	No	Yes, impact remains less than significant.
iv. Impede or redirect flood flows?	Draft EIR Setting pp. 3.8-1 to 3.8-15 Impact 3.8.2 and 3.8.5	No	No	No	No	Yes, impact remains less than significant.
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Draft EIR Setting pp. 3.8-1 to 3.8-15 Impact 3.8.3	No	No	No	No	Yes, impact remains less than significant.
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Draft EIR Setting pp. 3.11-1 to 3.11-11 Impact 3.11.1.1 and 3.11.1.2	No	No	No	No	Yes, impact remains less than significant.

DISCUSSION

No substantial change in the environmental and regulatory settings related to hydrology and water quality, described in LUTE EIR Section 3.8, Hydrology and Water Quality, has occurred since certification of the LUTE EIR.

The central portion of the project site is bisected by the VW West Channel. The West Channels flows off-site across West Caribbean Drive and into the Moffett Channel approximately 0.25 miles to the north and eventual outfall to the south San Francisco Bay via the Guadalupe Slough. An EIR was prepared for proposed improvement to the West Channel in 2013. The VW EIR analyzed impacts associated with proposed improvements to the entire West Channel including the portion within the project site. Within the project site, proposed improvements included inboard floodwall, bridge/culvert modifications, and levee ramps on the north side of West Caribbean Drive. As part of the flood control improvement program the VW EIR incorporated and was adopted with 30 BMPs related to water Quality. The BMPs appropriate to the proposed project would be implemented and are incorporated by reference. *Table 4.10-1: VW EIR Water Quality Best Management Practices***,** lists the BMPs below. The BMPs also are discussed in the individual impact sections a), b), c), d), and e), further below, as needed.

Table 4.10-1: VW EIR Water Quality Best Management Practices

BMP WQ-1:- Conduct Work from Top of Bank	**BMP WQ-2**: Evaluate Use of Wheel and Track Mounted Vehicles in Stream Bottoms
BMP WQ-3: Assess Pump/Generator Set Operations and Maintenance	**BMP WQ-4**: Handle Sediments so as to Minimize Water Quality Impacts
BMP WQ-5: Avoid Runoff from Soil Stockpiles	**BMP WQ-6**: Stabilize Construction Entrances and Exits
BMP WQ-7: Prevent Erosion Downstream of Bank Protection Sites	**BMP WQ-9**: Minimize Local Erosion Increase from In-channel Vegetation Removal
BMP WQ-10: Evaluate and Select the Most Appropriate Use of Concrete Near Waterways	**BMP WQ-11**: Use Coffer Dams for Tidal Work Areas
BMP WQ-13: Minimize Hardscape in Bank Protection Design	**BMP WQ-14**: Use Temporary Seeding for Erosion Control As Appropriate
BMP WQ-15: Manage Groundwater at Work Sites	**BMP WQ-16**: Avoid Erosion When Restoring Flows
BMP WQ-17: Prevent Scour Downstream of Sediment Removal	**BMP WQ-18**: Maintain Clean Conditions at Work Sites
BMP WQ-19: Control Emergency Discharges	**BMP WQ-20**: Control Unplanned Discharges
BMP WQ-21: Control Sediment/Turbidity for Discharges Less than 50 NTU	**BMP WQ-22**: Control Sediment/Turbidity for Discharge Greater than 50 NTU
BMP WQ-23: Evaluate Use of Flow Path - Vegetation Filtration	**BMP WQ-24**: Evaluate Use of Flow Path - Check Filters
BMP WQ-25: Evaluate Use of On-Line Filter Systems	**BMP WQ-26**: Evaluate Use of Silt Fence Culvert Entrance Protection
BMP WQ-27: Evaluate Use of Surface Protection - Armoring	**BMP WQ-28**: Evaluate Use of Surface Protection - Flow Diversion
BMP WQ-30: Evaluate Use of Discharging to Sanitary Sewer System	**BMP WQ-40:** Prevent Water Pollution
BMP WQ-41: Prevent Stormwater Pollution	**BMP WQ-42**: Prevent Sedimentation of Aquatic Habitats during Construction
*The list did not include 42 total BMPs. Some number were omitted.	

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction

As addressed in LUTE EIR Impact 3.8.1, construction activities associated with development of projects allowed under the LUTE would include grading, demolition, and vegetation removal which would disturb and expose soils to water erosion, potentially increasing the amount of silt and debris entering downstream waterways. In addition, refueling and parking of construction equipment and other vehicles onsite during construction could result in oil, grease, or related pollutant leaks and spills that may discharge into storm drains. Individual development projects would be required to comply with Chapter 12.60 Stormwater Management of the Sunnyvale Municipal Code, as well as implement BMPs for the prevention of erosion and the control of loose soil and sediment. BMPs would help ensure that construction does not result in the movement of unwanted material into waters within or outside the plan area. The Stormwater Management chapter provides regulations and gives legal effect to certain requirements of the NPDES permit issued to Sunnyvale regarding municipal stormwater and urban runoff requirements. During construction of projects in the City, the dischargers, through individual coverage under the State's General Construction NPDES permit must develop and implement a SWPPP and perform monitoring of discharges to stormwater systems to ensure compliance with State regulations and General Plan Policy EM-8.5.

The proposed project includes demolition of the existing 13 on-site buildings and replacement of the structures with two new four-story office buildings, parking structure(s), surface parking, landscaping, as well as associated drainage improvements and infrastructure. Excavation and stockpiling of soil during construction are anticipated to be required as well as the placement of imported fills. Without proper controls, these construction activities could induce erosion and related sedimentation, resulting in degradation of water quality in the existing storm drain system or adjacent Sunnyvale West Channel. Construction activities would also require the discharge of groundwater produced during excavation dewatering and the use of hazardous materials, each of which could degrade water quality.

The project applicant would be required to obtain a grading permit from the City of Sunnyvale, and also comply with the Construction General Stormwater Permit under the NPDES. All construction-site erosion control plans would be evaluated for consistency with local requirements, including the appropriateness and adequacy of proposed BMPs as well as verification that site operators/developers have complied with the Construction General Stormwater Permit. In accordance with these and the City's grading permit requirements, a site map and grading plan as well as an erosion and sediment control plan would be prepared. Erosion control measures and BMPs could use methods such as silt fences, fiber rolls, erosion control blankets, seeding, filter berms, check dams, and retention basins. The City would not issue a grading permit until the site plan, grading plan, and final erosion and sediment control plans are approved. Future construction activities would be inspected to determine compliance with local grading and applicable stormwater requirements.

Specifically with regard to the West Channel, the channel improvements are not anticipated to have impacts on sediment accumulation. Sediment present in the channel is believed to be tidal deposition from the San Francisco Bay as there is no upstream source of sediment. Sediment from the Bay generally deposits into the downstream portions of the West Channel and settles to elevation 2.3 feet NAVD, which is above Carl Road, north of Caribbean Drive. Removing any tidally deposited sediment that may reach the project site for the proposed West Channel realignment therefore does not improve the channel carrying capacity, and the proposed channel improvements are not expected to have any impact on the existing long term sediment deposition site downstream of the project site. Additionally, the proposed West Channel enhancements will increase the carrying capacity of the channel and thereby reduce channel velocities throughout the reach. Average channel velocities will be reduced from 0.92 to 0.78 foot per second. This change in velocity, coupled with a reconstruction of the channel bed, eliminates the need to provide erosion protection. (Refer to West Channel Enhancement for Google Hydraulic Basis of Design, August 15, 2019, prepared by Schaaf & Wheeler).

As discussed in Section 4.0 Biological Resources above, the West Channel does not have existing beneficial uses for fish spawning, cold freshwater habitat, and fish migration. Accordingly, the West Channel would be considered to a have a low receiving water risk. None the less, if substantial volumes of surface water, surface water runoff or sediment laden runoff is allowed to enter the channel, it could impact water quality within the West Channel, the wetland habitat within, as well as downstream receiving water. The sediment risk for the site would depend on the expected intensity of rainfall during the construction period, soil erodibility, and slope of the construction site.

The risk to receiving water is rated on a three-level system that ranks the danger to received waters. Sites with a low receiving water risk and a low sediment risk are considered a Level 1 risk. Sites with a medium receiving water risk and medium or high sediment risk are considered a Level 2 risk site. Sites with a high receiving water risk are considered a Level 2 risk site if the sediment risk is low or medium. A Level 3 risk site is one with a high sediment risk. Therefore, due to the proximity of the project site to the West Channel, it would have a Level 2 risk or Level 3 risk depending on the proximity to the Channel. To help reduce the risk of erosion to the West Channel or other off-site areas that could experience runoff to adjacent areas, the proposed project would be required to implement a Storm Water Pollution Prevention Plan (SWPPP). The particular components and requirement of the SWPPP are listed below.

- A SWPPP would be implemented and would include at least minimum BMPs related to: housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, landscape materials, pollutant control); non-stormwater management; erosion control; sediment control; and run-on - run-off control. Additional requirements apply to Risk Level 2 sites, including the preparation of a Rain Event Action Plan prior to any likely precipitation event to identify construction activities and trades underway at the time, suggested actions for each phase, and appropriate contact information for the Trade Contractor, Site Stormwater Manager, Erosion and Sediment Control provider, and Storm Water Sampling Agent. At sites where traditional erosion and sediment controls would not effectively control accelerated erosion, and stormwater discharges may contribute to an exceedance of a water quality standard, it may be necessary to use an Active Treatment System to avoid impacts to water quality.

- The SWPPP would include BMPs for excavation dewatering discharges, including ways to impound the water, as necessary, to settle out solids before discharging.
- Stormwater discharges and authorized non-stormwater discharges associated with all risk levels cannot contain hazardous substances above reportable quantities unless a separate NPDES permit has been issued for those discharges. Dischargers are required to minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and implementation of BMPs. Risk Level 2 dischargers are also subject to a pH Numeric Action Level (NAL) of 6.5 to 8.5 and a turbidity NAL of 250 NTU.
- The discharger must implement a construction site monitoring program as part of the SWPPP to demonstrate compliance with the discharge prohibitions of the Construction Stormwater General Permit; demonstrate whether non-visible pollutants are present and could contribute to an exceedance of water quality objectives; identify the need for correction actions, additional BMPs, or SWPPP revisions; and evaluate the effectiveness of the existing BMPs. For all risk levels, visual inspection requirements include a baseline inspection of the stormwater BMPs before a rain event, daily inspections during a rain event, and post-storm inspection as well as a quarterly inspection. If the daily inspection identifies a condition that could result in a discharge of pollutants, a sample must be collected and analyzed for non-visible pollutant parameters identified in the SWPPP. Risk level 2 and 3 sites would also be required to collect grab samples of any stormwater discharges to determine compliance with NALs of 6.5 to 8.5 for pH and 250 NTU for turbidity. Dischargers would immediately implement additional BMPs and revise the SWPPP if NALs are exceeded.

The Construction General Stormwater Permit is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program for the program area. Dischargers would be required to submit a notice of intent (NOI) and permit registration documents (PRDs) in order to obtain coverage under this Construction General Stormwater Permit. Dischargers would be responsible for notifying the relevant RWQCB of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

Compliance with the City's grading permit and Construction General Stormwater Permit would: (1) restrict non-stormwater discharges from the construction site; (2) require use of BMPs to restrict soil erosion and sedimentation as well as releases of hazardous materials; and (3) require implementation of a construction site monitoring program to demonstrate compliance with permit requirements. Related to BMPs, BMP WQ-1 through BMP WQ-42 from the VW EIR would be applicable. Compliance with these requirements would ensure that construction activities do not result in a violation of water quality standards or waste discharge requirements, or otherwise result in water quality degradation. Therefore, this impact would be less than significant during construction.

Operation

The proposed project would not violate any water quality standards or otherwise result in water quality degradation during operation because stormwater runoff from the project site would be managed in accordance with the provisions of the San Francisco Bay Municipal Regional Stormwater NPDES permit. The provisions of this permit require new development projects to incorporate Low Impact Development (LID) measures to reduce the amount of pollutants washing off the site and to maintain pre-development surface water runoff rates.

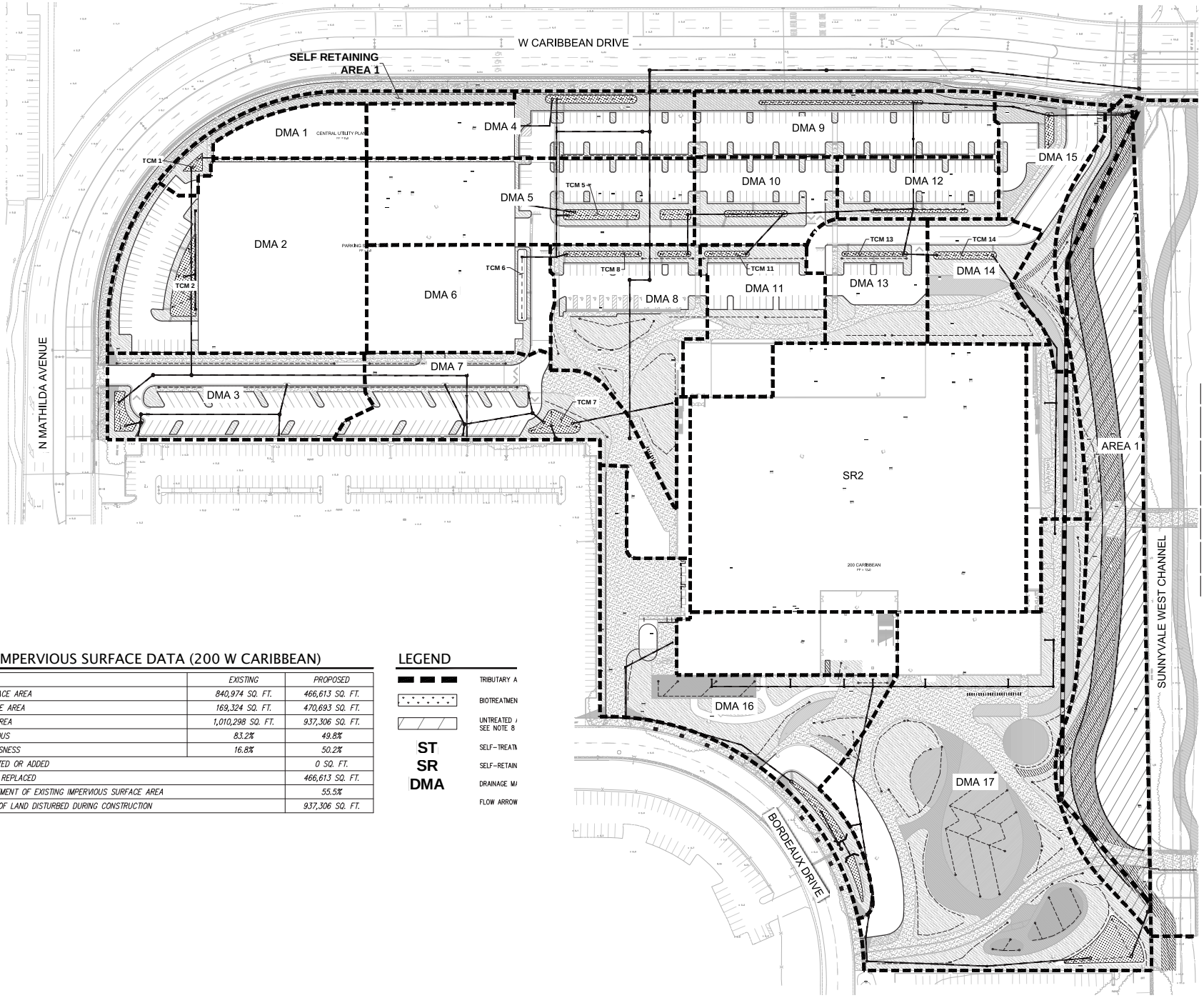
The LUTE EIR indicates that urban runoff pollutants such as heavy metals, oil, and grease, sediment, and other chemicals would continue to be generated. However, because the changes in land use are primarily related to the intensity of development and not new land uses, the types and amounts of pollutants in stormwater runoff would not vary considerably from existing conditions. The proposed project would be required to include appropriate features to meet applicable regional Municipal Regional Stormwater Permit (MRP) Provision C.3 requirements and implement low impact design (LID). Common LID strategies that would be appropriate for the proposed project would include treatment methods such as bio-retention basins and flow-through planters, green roofs, media filtration devices, and pervious surfaces. These types of features would be included within to the proposed project. The proposed project also would comply with existing requirements of Chapter 12.60 of the Municipal Code, the City's Municipal Code Chapter 12.60, the City of Sunnyvale Urban Runoff Management Plan, and MRP Provision C.3 requirements. In addition, the proposed project would follow General Plan policies EM-8.6, EM- 10.1, and EM-10.3, and would reduce surface water quality impacts associated with occupancy of projects. This is consistent with the findings in the LUTE, and impacts would be less than significant under project and cumulative conditions (Impact 3.8.4).

In accordance with these requirements, specific measures related to stormwater runoff from the new impervious surfaces (driveways, parking areas, and building rooftops) would increase treatment and infiltration to the ground through bioretention areas and capture of flows from walkways and pedestrian improvements that would encourage infiltration via adjacent landscaped areas. The proposed project contains drainage management areas (DMAs) designed with these features and associated LID components. The DMAs are discussed in additional detail in Impact c i), below. These are shown in *Figure 20: 100 West Caribbean Stormwater Plan, Figure 21: 200 West Caribbean Stormwater Plan,* and *Figure 22: Conceptual LID Treatment*. In addition to reducing pollutants using treatment areas, the proposed project provides more landscaped area for infiltration than currently exists on the project site. The proposed project also includes numerous bioretention basins and water capture systems, that while reducing the existing rates of off-site flows, would contain beneficial landscaping, minimize irrigation needs, and reduce pollutant flows to receiving waters. The proposed project would reduce the on-site impervious by from 1,459,105 to 756,602 or result in an overall reduction of impervious surfaces by approximately 52%. The increased onsite capture rate and proposed stormwater drainage systems would result in an overall decrease in stormwater flows to the off-site drainage system. All proposed on-site stormwater drainage would occur within the footprint of the proposed project and areas proposed for disturbance. With these and conformance to regulatory requirements and use of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Impacts in this regard would be less than significant. Thus, with the application of uniformly applied development

standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to impacts from conflicts with water quality standards and waste discharge requirements remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.



PROJECT IMPERVIOUS SURFACE DATA (200 W CARIBBEAN)

DESCRIPTION	EXISTING	PROPOSED
IMPERVIOUS SURFACE AREA	840,974 SQ. FT.	466,613 SQ. FT.
PERVIOUS SURFACE AREA	169,324 SQ. FT.	470,693 SQ. FT.
TOTAL PROJECT AREA	1,010,298 SQ. FT.	937,306 SQ. FT.
PERCENT IMPERVIOUS	83.2%	49.8%
PERCENT PERVIOUSNESS	16.8%	50.2%
IMPERVIOUS CREATED OR ADDED		0 SQ. FT.
IMPERVIOUS AREA REPLACED		466,613 SQ. FT.
PERCENT REPLACEMENT OF EXISTING IMPERVIOUS SURFACE AREA		55.5%
ESTIMATED AREA OF LAND DISTURBED DURING CONSTRUCTION		937,306 SQ. FT.

LEGEND

TRIBUTARY A
BIOTREATMEN
UNTREATED / SEE NOTE 8
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FIGURE 20: 100 West Caribbean Stormwater Plan

Google Caribbean Campus

Not to scale

Kimley»Horn

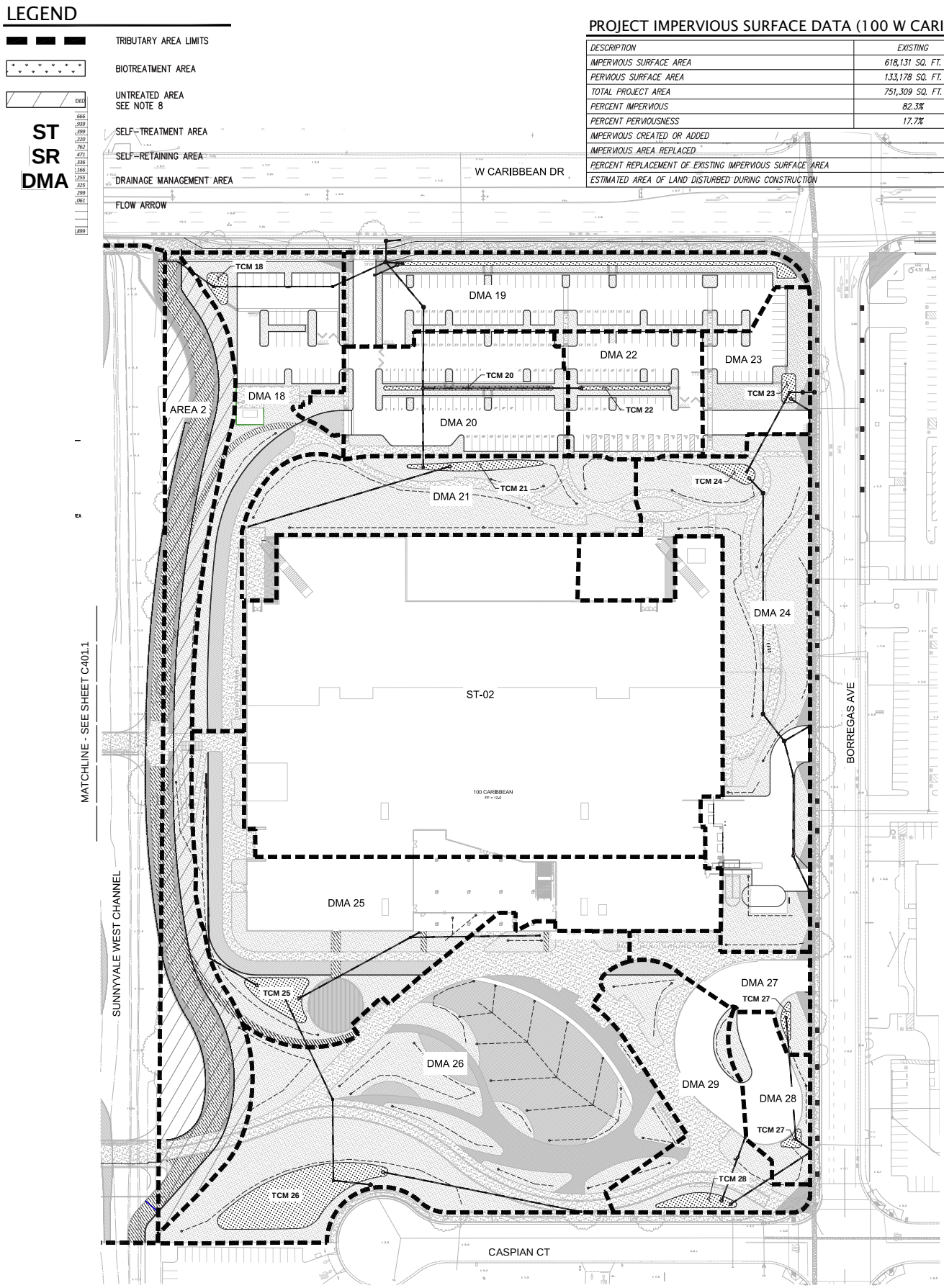
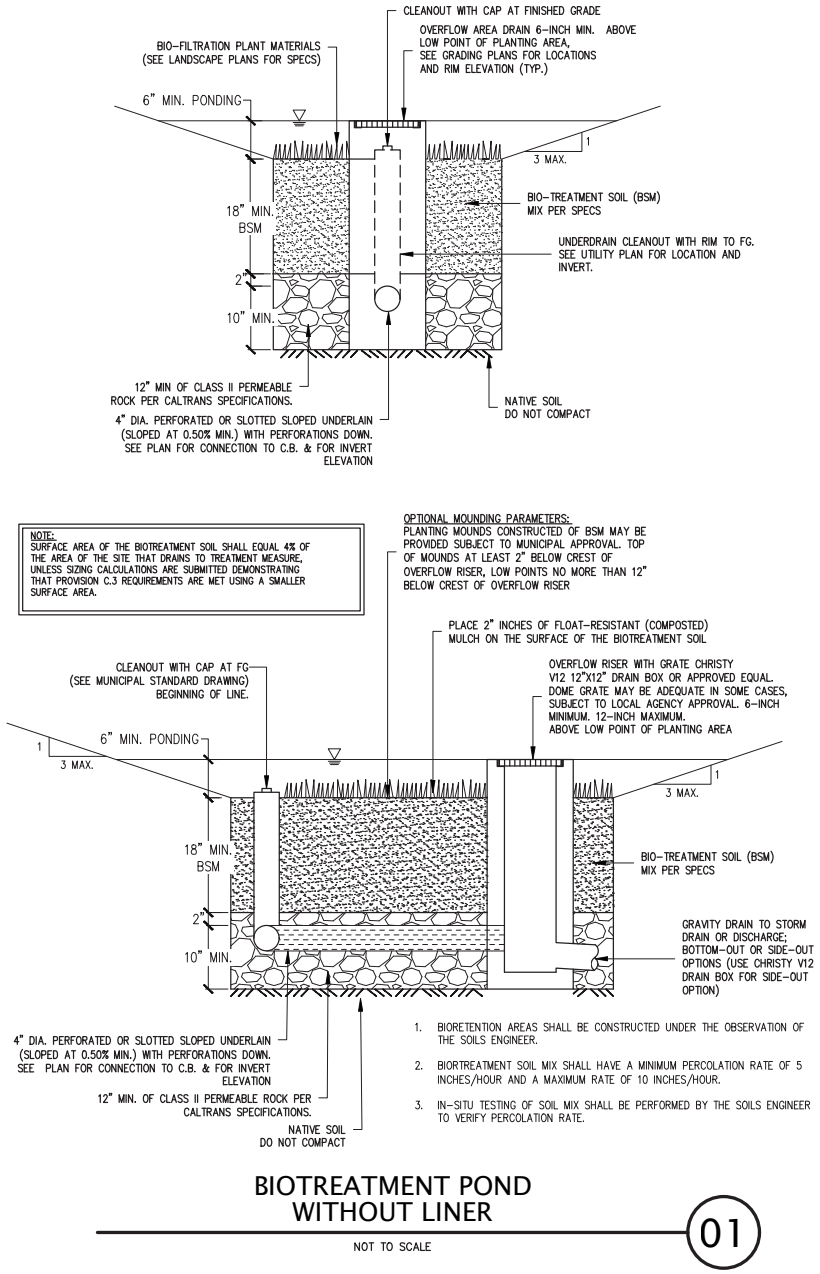


FIGURE 21: 200 West Caribbean Stormwater Plan

Not to scale

Google Caribbean Campus

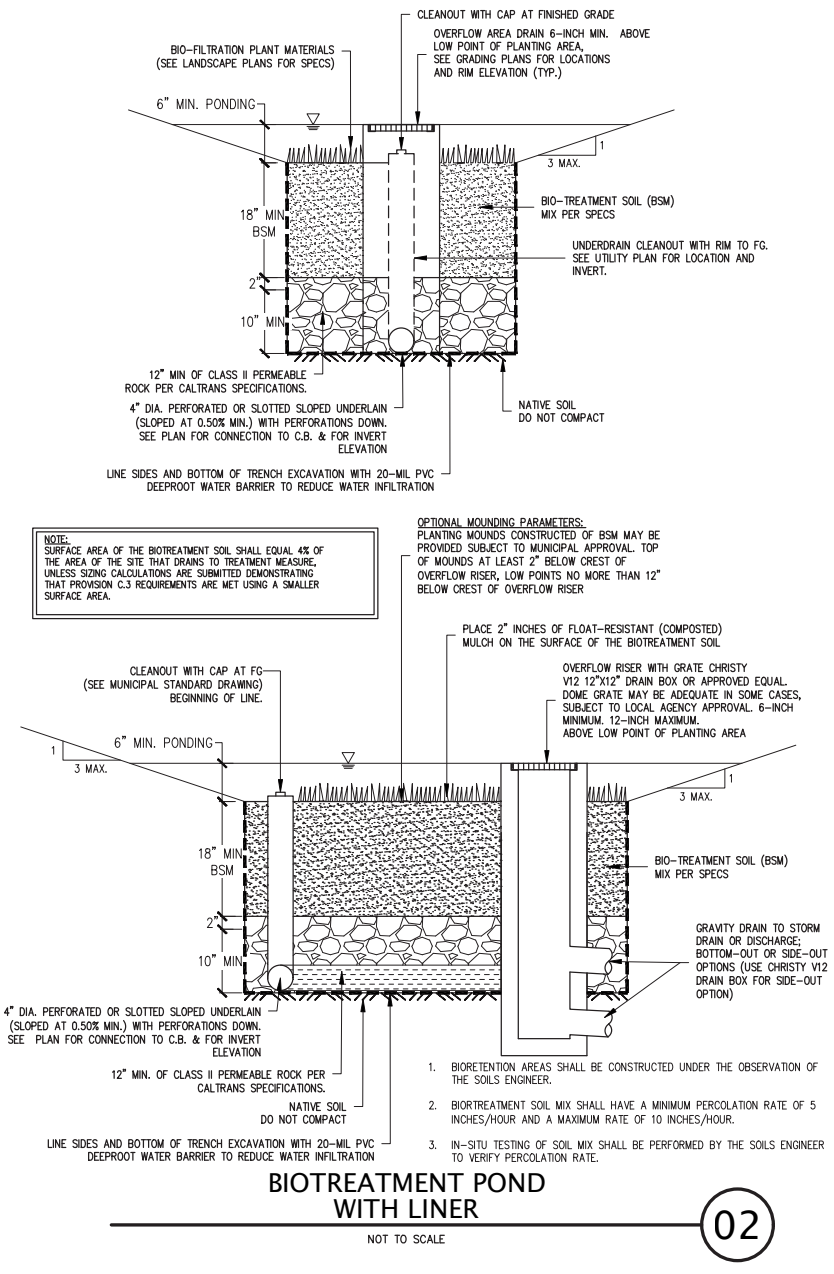
Kimley»Horn



BIOTREATMENT POND WITHOUT LINER

NOT TO SCALE

01



BIOTREATMENT POND WITH LINER

NOT TO SCALE

02

FIGURE 22: Conceptual LID Treatment

Google Caribbean Campus

Not to scale

Kimley»Horn

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The LUTE EIR indicates that implementation of projects allowed by the LUTE would have little or no effect on groundwater recharge because the City is largely built out and would not reduce the area of permeable surfaces. The LUTE EIR concludes that impacts related to groundwater would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.11.1.3). No mitigation was required.

The project site is underlain by groundwater at a relatively shallow depth. The groundwater; however, is not considered potable and due to the proximity to the south San Francisco Bay is likely impacted by salt water intrusion from the Bay. As such, the water is not usable and replacement of the existing structures with the proposed project would not impact the availability of groundwater. Additionally, the proposed project would increase the permeable area of the site and would increase the area over which rainfall and irrigation water can infiltrate. This would aid in ground water recharge compared to the existing conditions.

The proposed project would not utilize ground water from under the project site for on-site potable water use. Groundwater management occurs over a much larger area than the project site and is a function of VW and the City which operates its own wells in the regional context. The City has six operating wells and an additional emergency well that can be used as needed. The wells are used for supplemental supplies and to augment the SFPUC and VW imported water if required. The City overlies the Santa Clara Subbasin, which has historically been used as a source for local water and also has a history exceeding recharge. Groundwater pumping was reduced as imported water became available. The proposed project would not utilize groundwater from the local basin such that supplies would be diminished. In addition, the proposed project increases the landscaped area, would use recycles water for irrigation, and would increase groundwater infiltration leading to a potential benefit for groundwater recharge. Therefore, these impacts would be less than significant. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to groundwater impacts remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

The project site does not include any existing streams or water courses other than the West Channel. It should be noted that while some improvements to the West Channel are proposed, all improvements would occur under the planning and approval of VW and would not alter the overall course of the West Channel. As discussed in Impact a) above, the proposed project would result in disturbances to the existing site, but the proposed project would not substantially alter the existing drainage patterns. During site grading the changes to drainage that could result in erosion would be mitigated by measures including use of a SWPPP, and BMP WQ-1 through BMP WQ-42. These measures and BMPs would reduce this impact to less than significant.

Currently, surface water runoff from the site is either conveyed to the existing storm drain system or infiltrates into the ground where pervious surfaces exist. If the proposed project increased the number of impervious surfaces it could increase the rate, duration, and quantity of stormwater runoff and potentially cause erosion and related water quality effects or flooding in the receiving water. However, under the proposed project, there would be a net reduction of 702,503 square feet (374,361sf at 200 West Caribbean Drive and 328,142sf at 200 West Caribbean Drive or an overall reduction of approximately 48% of the existing impervious surfaces. Additionally, the proposed drainage plan includes various bioretention areas and new landscaping that would capture and store, as needed, stormwater runoff from impervious surfaces and provide for infiltration to the groundwater.

The proposed project would include a total of 29 DMAs that would capture and treat stormwater drainage from defined locations within project site. The DMA's are sized and designed to accommodate the runoff from the areas they define and reduce sediment and pollutant loads to downstream areas. While the proposed project and use of the DMAs would slightly alter drainage patterns in these areas compared to the existing conditions, the overall drainage pattern of the site would not change. Flows from the project site would be conducted to existing stormwater drainage system under West Caribbean Drive. The modernization of the project site with the upgraded drainage concept would be an improvement over existing conditions because it would reduce the total volume of stormwater runoff, facilitate capture, treatment, and infiltration, and result in a decrease in associated onsite and offsite erosion potential and siltation and flooding. Therefore, changes to the existing drainage the proposed project and increases in sedimentation and erosion would be less than significant. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to groundwater impacts remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite?

As identified in LUTE EIR Impact 3.8.2, there are some locations in the City that are within FEMA-designated 100-year flood hazard Zone AO or could be inundated from levee failure. The Prevention of Flood Damage Chapter (Chapter 16.62) of Sunnyvale's Buildings and Construction Ordinance provides standards for construction in 100-year flood hazard areas. The standards for construction generally require that the lowest floor of any structure be elevated to or above the base flood elevation, anchoring, and the use of flood damage-resistant materials and methods. Individual development projects are required under Section 12.60.160 of the City's Municipal Code to demonstrate that development each individual development project would not increase runoff over pre-project rates and durations. In addition, General Plan policy EM- 9.1 requires that the City maintain and operate the storm drain system so that stormwater is drained from 95 percent of the streets within one hour after a storm stops. For flood-prone locations, policy EM10.2 requires incorporation of appropriate controls to detain excess stormwater. Compliance with the existing regulations contained in the City's Municipal Code would reduce potential impacts associated with flooding and stormwater drainage to a level that is less than significant for the LUTE under project and cumulative conditions (Impact 3.8.5).

As discussed in Impact c i) above, the proposed project would remove the existing 1,459,105 sf of impervious surfaces on the project site and reduce it by approximately 48% or 702,503 sf. Surface water runoff from storm events would be managed by 29 DMAs that would capture and release water to downstream drainage facilities. The increased number of pervious surfaces is anticipated to reduce the overall amount of run-off by allowing vegetated and landscaped areas to capture, retain, and promote infiltration of water. This would reduce the overall volume of water transported to the existing drainage facilities in West Caribbean Drive. Because more water would infiltrate the ground, and the DMAs have been designed to accommodate stormwater runoff, the potential for the proposed project to increase the rate or amount of surface runoff is remote. Impacts in this regard are less than significant.

The proposed project also includes improvements to the West Channel. All improvements would be made with the approval and oversight of the VW. The design includes new floodwalls within the project area, and the proposed design would provide at a minimum, an equivalent level of flood protection through the project area and would not compromise flood protection in any reach of the VW's larger project area. Overall, the improvements to the West Channel would not affect or alter the alignment or position of streams (the drainage network), including culverts discharging into the West Channel or the route and destination of water conveyed by the West Channel. The proposed improvements to the West Channel would not result in increased runoff from the project area or water that is delivered to the channel. Existing stormwater outfalls would be maintained and repaired similar to under existing conditions. Impacts in this regard are less than significant. Thus, with the application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to flooding impacts remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed in Impact C i and ii) above, the proposed project includes a comprehensive stormwater drainage plan that would capture, retain, and then release water from rain events. There are currently 1,459,105 sf of impervious surfaces at the project site. Under the proposed project, all existing buildings would be demolished, and two new five-story office buildings, a parking garage, surface parking and other amenities including bicycle and pedestrian pathways and landscaping would be constructed or installed. The existing impervious area would be reduced by approximately 48%, and a total of 756,602 sf of new impervious surfaces would be installed. The reduction of impervious surfaces would result in a reduction of stormwater runoff from the project site. Further, stormwater runoff from the new impervious surfaces (driveways, parking areas, and building rooftops) would be managed by 29 DMA's which would promote infiltration to the groundwater through various bioretention areas. With the reduction of impervious surface and new infiltration areas, discharges to the storm drain system would be reduced and therefore stormwater discharges would not exceed the capacity of an existing or planned stormwater drainage system.

The proposed project also would incorporate LID features to reduce pollutants carried to the stormwater runoff from post-project impervious surfaces. LIDs would be built in accordance with Provision C.3.c of the Municipal Regional Stormwater Permit and would include: 1) implementation of source control features to minimize the generation of stormwater pollutants; 2) site design features to minimize impervious surfaces and direct onsite drainage to natural areas for infiltration or storage containers for reuse; and 3) stormwater treatment measures to treat 100% of the site drainage. The stormwater treatment systems would need to meet the numeric sizing criteria specified in Provision C.3.d of the Municipal Stormwater Permit and in accordance with City Municipal Code Chapter 12.60.

The proposed project also would minimize impervious surfaces and associated stormwater runoff by including multi-story buildings and garage parking rather than open parking lots. Stormwater runoff from the new impervious surfaces (driveways, interior roadways and pathways, the parking structure and surface parking areas) would be infiltrated to the groundwater through various bioretention areas. The proposed project would implement sustainable landscape practices and design to minimize runoff and the use of pesticides and fertilizers in compliance with the City's BMPs. With the reduction in impervious surfaces and implementation of LID stormwater treatment features in accordance with Provisions C.3.c and C.3.d of the Municipal Regional Stormwater Permit, impacts related to exceeding the capacity of an existing or planned storm drain system or providing an additional source of polluted stormwater runoff would be less than significant.

All improvements to the West Channel would be made with the approval and oversight of the VW. The proposed improvements would not result in increased runoff within the channel to downstream areas. The design includes new floodwalls and the proposed design would provide at a minimum, an equivalent level of flood protection through the project area. Improvements would not compromise flood protection in any reach of the VW's larger project area. All work within the West Channel would incorporate required mitigation measures and BMPs, contained in the VW EIR to ensure impacts from polluted water are minimized. Impacts in this regard are less than significant. Thus, with the application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to flooding impacts remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

iv. Impede or redirect flood flows?

As discussed in Impact C ii) above, the proposed project is located within a special flood hazard area as mapped by the Federal Emergency Management Agency (FEMA). The project site is mapped on Flood Map Number 06085C0045H which shows that the project site is within a special flood hazard area zone AE and is subject to inundation by the 1 percent annual chance flood.

The proposed project would not impede or redirect flood flows in an existing floodway. The proposed new structures would replace the 13 existing buildings with two new five-story buildings, a parking garage, surface parking, interior roadways and bicycle and pedestrian pathways. Overall, the proposed project would decrease the impervious area and enhance stormwater runoff via various bioretention areas and DMA's. Given the decrease in impervious area, incorporation of various bioretention facilities, and existing VW flood control, impacts related to impedance and redirection of flood flows in this regard would be less than significant.

As part of the proposed project, the applicant also would make improvements along the approximate 1,000 feet of the West Channel that bisects the project site. The improvements to the West Channel have been designed to integrate into the existing regional flood control and drainage planning and be adaptable to future climate conditions. The effect of the improvements to the flood carrying capacity of the West Channel would not be decreased and would not affect the base flood elevation downstream.

The improvements to the West Channel would include new floodwalls, provide enhanced wetland and riparian habitat and include two new bridge crossings (one pedestrian between the two buildings and one pedestrian engineered to support emergency vehicle access at a Caspian Drive

extension). The proposed project also would enhance the headwall at the box culvert to accommodate a sidewalk at W. Caribbean Drive, as requested by the City of Sunnyvale and provide maintenance access for the VW. An enhanced creek corridor would become part of the development landscape, providing flood protection while enhancing campus aesthetics, recreational opportunities and environmental resources for wildlife habitat. At a minimum the improvements would ensure flood protection is at least equivalent to what currently exists and would provide a level of flood protection equal to that planned as part of the approved EIR for the "Sunnyvale East and West Channels Flood Protection Project." (VW, 2013). VW has begun the process with regulatory agencies such as USACE, CDFW, and RWQCB for obtaining regulatory permits. Impacts in this regard are less than significant. Thus, with the application of uniformly applied development standards and policies, there are no (1) peculiar impacts, (2) impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to flooding impacts remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As described in LUTE EIR Impact 3.8.3, seiches and tsunamis would not be expected to affect areas developed as part of the LUTE. It is probable that an earthquake similar to the 1906 earthquake would be the largest to occur in the Bay Area; consequently, seiches with an increase in water elevation of more than 4 inches would be considered unlikely. Tsunamis would only be expected to affect low-lying marsh areas and bayward portions of sloughs. The LUTE EIR concludes that impacts related to inundation by seiche, tsunami, or mudflow would be less than significant under project conditions. The LUTE would not exacerbate the likelihood for inundation by seiche, tsunami, or mudflow.

Tsunamis, which are large sea waves that are caused by an earthquake, submarine landslide, or other disturbance that displaces or causes the movement of a large volume of ocean water. The project site is located approximately 0.25-miles south of the San Francisco Bay shoreline; however, the site is not mapped within the Santa Clara County Tsunami Inundation Map for the Mountain View Quadrangle by the California Geological Survey (CGS). The nearest inundation boundary line is near the outlet to the Guadalupe Slough and outfall to the south San Francisco Bay approximately two miles north of the project site. The inundation map uses the best currently available scientific information and the inundation line represents the maximum considered tsunami runup from a number of extreme, yet realistic, tsunami sources. Tsunamis are rare events and due to a lack of known occurrences the map does not include information about the probability of any tsunami affecting any area within a specific period of time (CGS, 2009). Therefore, the risk associated with tsunamis would be less than significant.

Seiches are standing waves caused by large-scale, short-duration phenomena (e.g., wind or atmospheric variations or seismic activity) that result from the oscillation of confined bodies of water (such as reservoirs and lakes) that may damage low-lying adjacent areas as a result of changes in the surface water elevation. The project site would not be subject to a seiche, because there are no reservoirs or lakes near the project site. In this regard, impacts would be less than significant.

The proposed project is located on relatively flat ground that ranges in height from approximately 4 to 6 feet in elevation. The project site is not located adjacent to any hills or steep slopes that would be subject to mudflows. Therefore, impacts in this regard would be less than significant. Thus, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to impacts from inundation by seiche, tsunami, and mudflow remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above in Impacts B, and C i), ii), ii, and iv), the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. In regard to water quality, the proposed project includes numerous measures including 29 DMAs to capture and treat stormwater drainage. The DMAs are sized and designed to meet certain needs of the area the DMA is located. In general, the DMA's would include bio filtration plant materials, float resistant composted mulch; bio treatment soil(s), Class II permeable rock base; preservation of native soils as practicable; overflow areas; and accessible clean outs to enable disposal of captures debris. All bioretention basins would be designed by and constructed under the oversight of the soils engineer meet required percolation rates and undergo in-situ testing. Impacts in this regard are less than significant. Thus, there are no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, and (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR related to impacts from inundation by seiche, tsunami, and mudflow remain valid and no further analysis is required.

Conclusion

Application of mitigation measures and BMPs from the LUTE EIR and VW EIR, and uniformly applied City development standards and policies, conformance with federal and state requirements would reduce impacts to less than significant.

CUMULATIVE IMPACTS

As discussed above, there are no significant cumulative impacts to hydrology and water quality that are peculiar to the proposed project or the parcels on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. The geographic scope of potential cumulative hydrology and water quality impacts encompasses the Sunnyvale West watershed. The West Channel watershed is almost entirely urbanized with public/institutional development, as well as industrial and residential areas. The only open space in the watershed is the Sunnyvale Baylands along the San Francisco Bay shoreline and several smaller City-owned parks in Sunnyvale. No fish species are known to occur upstream of the tidally influenced area in the watershed.

Cumulative development in the project area may increase the quantities of urban pollutants that enter the local drainage system. Because all stormwater in the City of Sunnyvale ultimately enters the San Francisco Bay, the cumulative effect of new development in the City of Sunnyvale and the Bay Area may have a significant adverse effect on water quality in the Bay. Through project design an incorporation of BMP's, LID's, use of 29 DMA's, installation of landscaping and reduction of impervious surfaces by approximately 48%, impacts to water quality would be less than significant. Accordingly, this would reduce the proposed project's incremental impact and it would not contribute to cumulatively significant regional water quality impacts.

In addition, the other cumulative projects within the watershed would be required to implement stormwater Best Management Practices (BMPs) to treat water to State and regional standards to ensure that surface water pollutants would be treated before leaving those respective sites. With required implementation of BMPs in all cumulative projects, cumulative water quality impacts would be less than significant.

Cumulative development in the project area also would result in alterations to the drainage pattern and flow rates in the vicinity of the project site. Impacts would be mitigated on a project-by-project basis and each project would be required to be designed to minimize both the volume and velocity of surface runoff though the proper design of subsurface drains, onsite retention, appropriate grading and construction BMPs, and landscaping programs. Also, with the implementation of City and regional drainage plans, cumulative impacts to drainage and flood control are not anticipated to be significant. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to hydrology and water quality would be less than significant. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review.

4.11 Land Use and Planning

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Physically divide an established community?	DEIR EIR Setting pp. 3.1-1 to 3.1-10 Impact 3.1.1 and 3.1.5	No	No	No	No	Yes, impact remains less than significant.
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	DEIR EIR Setting pp. 3.1-1 to 3.1-10 Impact 3.1.2, 3.1.3, and 3.1.5	No	No	No	No	Yes, impact remains less than significant.

DISCUSSION

No substantial change in the environmental and regulatory settings related to land use and planning, described in LUTE EIR Section 3.1, Land Use, has occurred since certification of the LUTE EIR.

a) Physically divide an established community?

Impact 3.1.1 of the LUTE EIR, identifies that the LUTE does not include large-scale infrastructure projects such as new freeways or high-volume roadways that would divide an established community. Likewise, critical transportation infrastructure linking one neighborhood to another would not be removed as part of the LUTE. Implementation of the policy provisions of the LUTE would ensure integration and compatibility of new development with existing land use conditions and this impact was determined to be less than significant under the LUTE and cumulative conditions (Impact 3.1.5).

The proposed project is located within the MPSP area which is primarily used as an industrial technology center. There are no residential uses or an established residential community within or adjacent to the project site. The project site is located between industrial, commercial, and technology-oriented business and would redevelop the project site with proposed industrial uses. The proposed project is consistent with the existing transportation network and includes pedestrian, bicycle, and roadway improvements that would increase the linkages between the site and surrounding areas. The closest residential uses are approximately 0.75 miles to the south and these uses are further separated from the MPSP by SR-237. The proposed project would not physically divide an established community and no impacts would occur. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no potential to cause (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to physical divisions of established communities remain valid and no further analysis is required.

Conclusion

There are no communities within the project area. No impacts would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impact 3.1.2 and 3.1.3 of the LUTE EIR evaluated whether the LUTE would be consistent with adopted City and regional land use plans and policies and concluded that the LUTE's impact would be less than significant under project and cumulative conditions (Impact 3.1.5).

The proposed project is consistent with the goals and policies of the General Plan Land Use Element relating to the coordination of land use and transportation planning in the region; the preservation and enhancement of the City's industrial/technology community character; the establishment of an efficient and convenient transportation system; and the proposed project supports the industrial neighborhood concept with improvements through redevelopment of the MPSP area.

The proposed project incorporates architectural variety and landscaping throughout the site and is consistent with the General Plan's numerous policies and action statements that encourage locating higher intensity land uses and developments within easy access of transit services. The proposed project would result in a development consistent with the MPSP and other planning policy documents while providing multi-modal transportation opportunities and in close proximity to the VTA Borregas Station.

The proposed project also would conform to the goal of promoting convenient and efficient alternatives to automobile travel by including a pedestrian and bicycle network that would create a direct connection between all the proposed buildings, shuttle services, and other areas within the MPSP. The proposed project would support these goals of the MPSP by improving overall access to public transit. The proposed project also

provides on-site showers, lockers, and changing rooms that would encourage the use of bicycles to ride to work as well as for transportation across the campus. These features are consistent with policies promoting developments that provide pedestrian scale and transit-oriented services and amenities.

The proposed project is consistent with General Plan goals and policies that promote a strong local economy by providing substantially increased economic opportunities associated with the overall operation of the proposed project. The proposed project also would include onsite employee amenities such as fitness center, café, and other areas to purchase small goods, so it is consistent with policies that encourage the location of convenient services in industrial areas to support businesses and their employees. The proposed project includes a building design with green walkable roof concept that is consistent with policies requiring high quality site, landscaping, and building design for higher intensity development.

Moffett Park Specific Plan

The proposed project conforms to the relevant Guiding Principles of the MPSP. The proposed project would provide for strategic retention and attraction of business and private investment. The proposed project coordinates land use planning within the MPSP area with transportation planning by proposing higher intensity development within approximately 0.75 miles of the SR 237 and US Highway 101 transportation corridors and approximately 0.2 miles to the existing Borregas Station VTA light rail line. The project's proposed pedestrian network provides for improved pedestrian mobility and connectivity throughout the project site and to adjacent trails and walkable areas. As stated in impact discussions above, the proposed project incorporates green building techniques into site design, building construction, and occupancy and operation of the building, drainage, and to improve water quality, as well as sustainable design features as a whole. These elements are consistent with guidance provided in the MPSP.

The proposed project would be consistent with the Citywide Design Guidelines, Industrial Design Guidelines, and Moffett Park Design Plan for all new development and renovations by differentiating the three traditional parts of the building (base, mid-section and top). Most notably, the proposed project will vary the planes of the roof lines making the first four roofs walkable with pedestrian pathways, sitting areas, and a landscaped green roof concept. The stepped design of the buildings would be landscaped with private paths for Google employees to the top of the fourth-floor roof. The exterior walls will be articulated and many of the windows will be screened by open but fixed metal diamond shaped shading devices designed to reduce energy transferred from and into the structures. In addition, the buildings will use a mix of color, change of materials, vegetation, and arrangement of other façade elements to break up the bulk and scale of the five story structures and parking garage. The proposed architectural elements and site layout would be consistent with the Citywide Design Guidelines, Industrial Design Guidelines, and Moffett Park Design Plan. Refer to *Figure 4: Proposed Project Site Plan*, *Figure 5: Proposed Conceptual Site Plan*, and *Figure 6: Conceptual Design Concepts* for a depiction of architectural renderings, conceptual building elevations, and building sections.

The project's proposed pedestrian and bicycle networks extend beyond the roofs of the buildings and would serve other areas of the project site and connect to surrounding areas. The bicycle and pedestrian corridors would link from the parking lots and parking structures to the main two buildings. The 200 and 100 Caribbean Drive sites also would be connected via two proposed overcrossing spanning the West Channel. The bicycle and pedestrian pathways throughout the site and would connect to a public VW trail on the east and west sides of the West Channel. The trails also are designed to connect to private shuttle rider route within one hub off Bordeaux Avenue and the second with access off Borregas Avenue. These multimodal transportation designs would provide connectivity to other areas of the corporate campus as well as off-site areas within the MPSP and points more distant served by the VTA light rail stations and other available mass transit. Overall, the proposed project would enhance pedestrian accessibility and increase opportunities to utilize public transit through coordinated land use, transportation, and infrastructure planning. The proposed project incorporates the principles of "smart growth," sustainable design, and green building concepts.

Development Reserve

The proposed project would not request a change to the MPSP subdistrict or zoning and is consistent with the existing MP-I to MP-TOD. The proposed project; however, would require a square footage adjustment to maximize the allowable development intensity by using a square foot allowance of 360,851 sf from the Development Reserve. This allowance would place the higher intensity development of the proposed project in close proximity to the existing Borregas VTA light rail line that runs along West Java Drive south of the project site.

The proposed project is consistent with the MPSP and the request to utilize 360,851 sf of the Development Reserve. The Development Reserve was established to encourage redevelopment of lower intensity uses to the targeted primary uses of the MPSP. A total of 5.4 million square feet was allocated to the development reserve to encourage higher intensity development of targeted uses up to the maximum FAR of the underlying zone MP-TOD 70% and MP-I 50%. At the time the proposed project was initiated, approximately 4,885,040 square feet of development potential from the Development Reserve had been applied to various parcels within the MPSP area, including pending development applications (including the proposed project). Currently, there is a remainder of approximately 105,766 square feet of development potential within the Development Reserve.

The proposed project would use a blended FAR supported by the MP-TOD and MP-I subdistricts resulting in a total FAR of 0.65 resulting in an allowable FAR. To access the Development Reserve, projects must either submit a Major Moffett Park Special Development Permit application or a Major Moffett Park Design Review Permit. A Major Moffett Park Design Review Permit is applicable only if the project proposes to achieve the Green Building/Sustainable Design standards outlined in the MPSP as well as LEED standards. The City of Sunnyvale deducts potential Development Reserve allocations from the total at the time an application is deemed complete and able to meet the Major Moffett Park Design Review green building obligations.

The proposed project would meet and has demonstrated to staff, through the inclusion of specific design features, that it would meet these requirements. The proposed project would do the following:

- Placement of higher intensity development in close proximity to existing VTA light rail lines;
- Incorporation of LEED features;
- Include LID and landscaping features to clean stormwater runoff prior to it discharging;
- Include water-conservation (use of recycled water and drought-tolerant landscaping);
- Divert 50% of waste from local and regional landfills, and
- Preserve the MPSP are for Industrial Uses into the future and help prevent erosion of its industrial base to non-compatible uses.

In addition, the use of the development reserve for the proposed project would contribute to the full build-out of the MPSP by using the allowances and efficiently permitting the development for this proposed use within the area as intended. This would require allocation of the needed sf from the reserve pending approval of the proposed project.

Under the current land use designation, parcels in the MP-I are permitted a standard FAR of 35% and a maximum FAR of 50%. Parcels in the MP-TOD are permitted a standard FAR of 50% and a maximum FAR of 70%. The MPSP permits an increase in development intensity greater than the standard FAR limitation for parcels in the MP-TOD and MP-I subdistricts through access to the Development Reserve. In addition, the City's green building program permits a 10% FAR increase for projects in the MP-TOD zone that comply with specific requirements outlined in the program. Based on the existing zoning, and 10% green building program bonus the proposed project would be within an allowable range for FAR. The proposed project would be consistent with this aspect of the MPSP FAR requirements and would not exceed maximum development thresholds.

General and Overflight Compatibility Policy Compliance. The proposed project would result in the construction of a corporate campus with two five-story structures approximately 1.0 miles from Moffett Field. The proposed project would not cause a hazard to aircraft in flight, as it would not produce electrical interference, include high-intensity lighting, or attract birds in large numbers. The proposed project also would not produce smoke, dust, or substantial amounts of glare because the use of large panel windows is minimized, and the majority of windows would be screened with an architectural screening. In addition, all exterior windows and glass used on building surfaces would be required to be non-reflective or treated with a non-reflective coating. Exterior building materials would minimize the production of glare. Finally, all new exterior lighting would be designed to not interfere with aircraft operations. All lighting would adhere to existing City policies for community design and aesthetics and would require implementation of the lighting guidelines in Chapter 5, Development Regulations of the MPSP. The MPSP lighting guidelines require an exterior lighting plan for new development and is subject to the approval of the Director of Community Development. As discussed in Section 4.1, above, this requires that the proposed lighting plan locate all lighting in such a manner that it cannot be mistaken for airport approach

or runway lights by pilots. The proposed project also would be required to ensure that all lighting illuminates only the intended area, off-site glare is fully controlled, and exterior lighting would be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.

Height and Tall Structure Compatibility Policy Compliance. The proposed two new five-story office buildings and four-story parking structure would be compatible with the Moffett Federal Airfield Comprehensive Land Use Plan (CLUP) height and tall structure compatibility policies. The proposed structures would not exceed the maximum allowable height at the project site of 182 feet above MSL, as specified by Federal Air Regulations (FAR) Part 77. The building heights would be approximately 120'5", which is 61"5" less than what is allowed. As COA's, the project applicant would dedicate an avigation easement to the County of Santa Clara. This COA would be consistent with General Plan Policy LT-18(f) that requires land uses, densities, and building heights within the Air Influence Area for Moffett Federal Airfield to be in compliance with the CLUP. Lastly, the applicant would be required to notify the FAA as required by FAR Part 77, Subpart B on FAA Form 7460-1. Thus, the height and illumination of the proposed project through adherence to existing City policies, LUTE policies, and local and federal regulations incorporated as COAs, as applicable, would be enforced and would restrict non-conforming uses and reduce potential impacts to less than significant.

Thus, with the application of uniformly applied development standards and policies and COAs, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding consistency with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, and standard COA's for projects within proximity to an airport would reduce impacts to less than significant.

Conclusion

Application of uniformly applied City development standards and policies, and standard COA's will reduce impacts to less than significant.

CUMULATIVE IMPACTS

There are no significant cumulative impacts associated with land use that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. Construction of currently approved and pending projects in the vicinity of the proposed project would permanently alter the nature and appearance of the area as future development occurs over upcoming years. Gradual buildout of the projects would result in a change in the

existing conditions of the local areas and City overall; however, it is not anticipated that the changes would result in a significant cumulative land use impact. It is not anticipated that these projects would substantially or adversely alter the overall land use setting of the community. Future construction activities within the cumulative study area would occur on various sites and at varied times and only after an application for development is made and construction begins. Such construction-related impacts would be short-term and would cease upon completion.

In addition, all new development projects within the cumulative study area would be subject to additional environmental and design review on a site-specific, project-by-project basis. City review of all projects is anticipated to ensure potential land use conflicts are limited to the extent feasible prior to approval and before and during any construction phases. All future construction activities would be required to be consistent with the City's regulatory requirements and applicable conditions of approval to reduce potential cumulative effects of construction to a less than significant level. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to land use would be less than significant. Thus, the conclusions of the LUTE DEIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

4.12 Mineral Resources

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Not discussed in the LUTE EIR	No	No	No	No	N/A, no impacts would occur
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Not discussed in the LUTE EIR	No	No	No	No	N/A, no impacts would occur

DISCUSSION

LUTE EIR page 3.7-14 identifies that there are no active mines and no known areas with mineral resource deposits or resources of statewide importance in the City.

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The proposed project site consists of 40.44 acres and is currently developed with 13 existing single-story structures and other uses include parking lots access roads, sidewalks, and landscaped areas. The project site does not consist of and is not used for mineral production. The proposed project site is not delineated by the CDOC mineral resource maps as being in an aggregate resource sector (CDOC, 1982). In addition, the existing development and surrounding uses would preclude the value of the project site for use for extracting mineral resources. Therefore, the proposed project would not result in the loss of a known mineral resources and no impacts would occur. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any agricultural land. Impacts would not occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The proposed project site is shown on the SGP for uses designated by the MPSP. The MPSP as well as the Zoning Ordinance designated the site for uses consistent with the MP-I – Moffett Park Industrial and MP-TOD – Moffett Park Transit Oriented Development. Neither the General Plan, the MPSP, or any other applicable land use plan delineate the site for use for mineral resource recover. No impacts would occur. Therefore, no impact to availability of a known mineral resource would result. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to mineral resources remain valid and no further analysis is required.

Conclusion

The project site does not contain any agricultural land. Impacts would not occur.

CUMULATIVE IMPACTS

As discussed above, the proposed project would not result in any impact associated with the loss of an available mineral resource. The project site is not designated for use for mineral extraction, is not planned for mineral extraction, and does not have a history of being used for mineral extraction. The project site is surrounded by other developed sites that preclude the use of these areas for mineral extraction. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts associate with mineral resources would not occur. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

4.13 Noise

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project result in:						
a) 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 applicable standards of other agencies?	Draft EIR Setting pp. 3.6-1 to 3.6-27 Impact 3.6.1	No	No	No	No	Yes, impact remains less than significant.
b) Generation of excessive groundborne vibration or groundborne noise levels?	Draft EIR Setting pp. 3.6-1 to 3.6-27 Impact 3.6.3	No	No	No	No	N/A, impact remains less than significant
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Draft EIR Setting pp. 3.6-1 to 3.6-27 Impact 3.6.5	No	No	No	No	N/A, impact remains less than significant

DISCUSSION

No substantial change in the environmental and regulatory settings related to noise and vibration, described in LUTE EIR Section 3.6 Noise, has occurred since certification of the LUTE EIR. No new substantial noise sources have been introduced near the project since the LUTE EIR was prepared.

A Construction Noise Evaluation was prepared by Arup North America Ltd in March 2018 and Noise Measurement Field Data was collected and analyzed by Kimley-Horn and Associates in October 2018. These studies are included in Appendix J-1 and AppendixJI-2, respectively, of this Initial Study Checklist and the results are summarized herein.

The proposed project is located in the MPSP area on approximately 40.44 acres. The project site is currently developed with 13 existing single-story structures and is used for commercial business, research and development, and industrial. The site also includes parking lots, interior roads, sidewalks, and landscaped areas.

Regulatory

City of Sunnyvale

All construction activities are regulated by the City of Sunnyvale Municipal code regarding allowable activities and the times and days in which construction can occur. The City of Sunnyvale Municipal Code Section 16.08.030 describes the allowable hours of construction and construction noise limits. The code specifies that:

> *Construction activity shall be permitted between the hours of seven a.m. and six p.m. daily Monday through Friday. Saturday hours of operation shall be between eight a.m. and five p.m. There shall be no construction activity on Sunday or federal holidays when city offices are closed.*
>
> *No loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., will be allowed where such noises may be a nuisance to adjacent residential neighborhoods.*

Further, the code states that:

> *(b) As determined by the chief building official:*
>
> > *(1) No loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., will be allowed where such noises may be a nuisance to adjacent properties.*
> >
> > *(3) Where additional construction activity will not be a nuisance to surrounding properties, based on location and type of construction, a waiver may be granted to allow hours of construction other than as stated in this section.*

City of Santa Clara

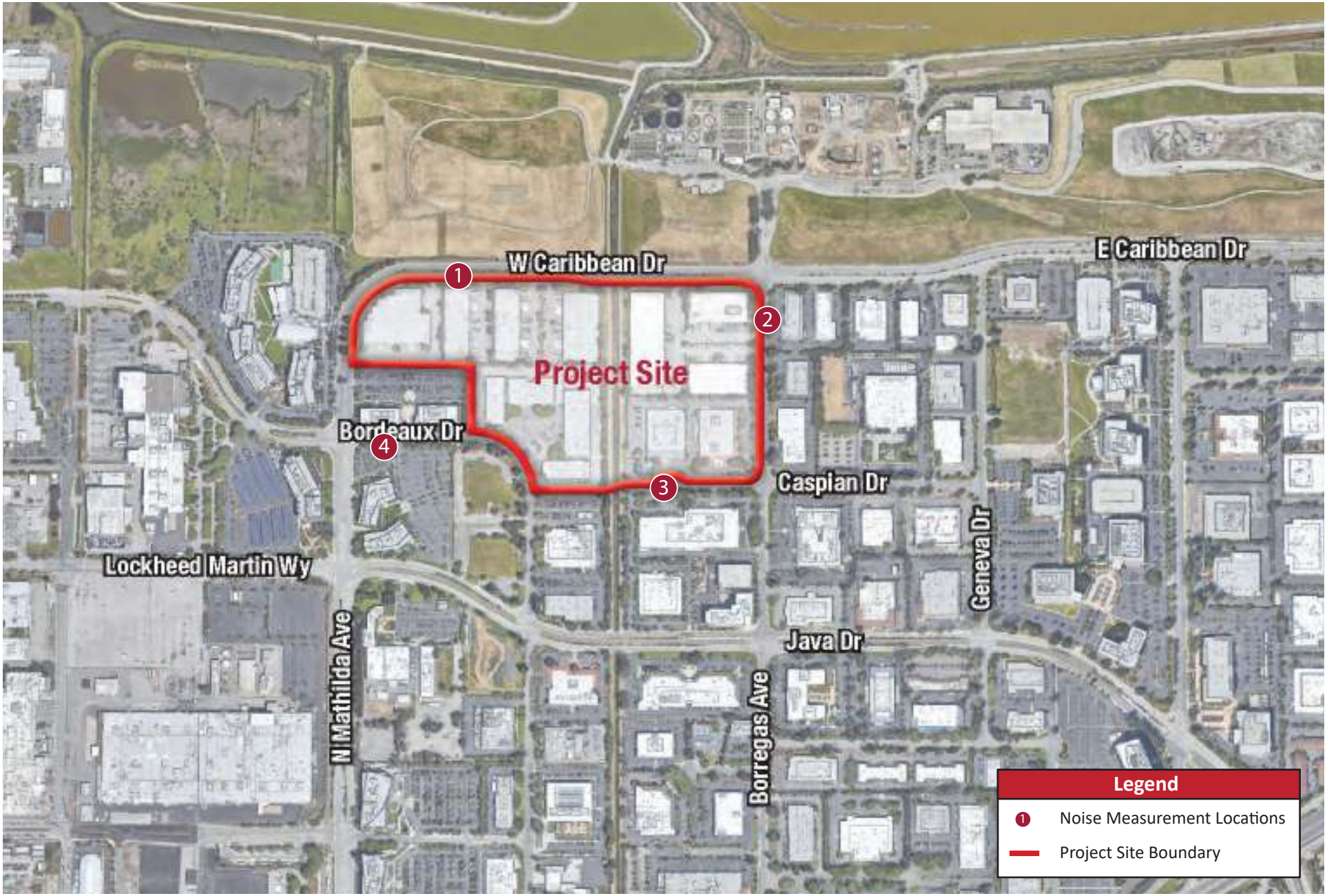
The City of Santa Clara's General Plan establishes policies to control noise within the community. Residential land uses are considered compatible with the noise levels up to 55 dBA CNEL. The guidelines state that where the exterior noise levels are greater than 55 dBA CNEL and less than 70 dBA CNEL, the design of the project should include measures to reduce noise levels to acceptable levels.

Existing Conditions

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 2:43 p.m. and 3:39 p.m. on October 17, 2018; refer to Appendix J-2 for existing noise measurement data and *Figure 23: Noise Measurement Locations*. Noise Measurement 1 was taken to represent the ambient noise level on Caribbean Drive on the northside of the Project site near existing roadways; Noise Measurement 2 was taken to represent the ambient noise level east of the project site near existing office buildings; Noise Measurement 3 and 4 were taken to represent the ambient noise level southeast and southwest of the site, respectively, in the existing office complex. The primary noise sources during all four measurements was traffic noise, airplanes, crosswalk beeping, parking lot noise, and people talking. *Table 4.13-1: Noise Measurements* provides the ambient noise levels measured at these locations.

Table 4.13-1: Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	380-384 West Caribbean Drive	67.2	38.5	81.1	2:43 p.m.
2	Borregas Avenue and Caribbean Drive	57.5	43.5	72.2	3:02 p.m.
3	Caspian Court	52.1	47.7	62.9	3:22 p.m.
4	Bordeaux and Mathilda Avenue	64.3	49.7	82.6	3:39 p.m.
Source: Noise Measurements taken by Kimley-Horn on October 17, 2018.					



Source: Google Maps, 2019

FIGURE 23: Noise Measurement Locations
Google Caribbean Campus

Not to scale

Kimley»Horn

Existing Traffic Noise

Existing roadway trips range from approximately 49.8 dBA Ldn and 69.9 dBA Ldn. As previously described, Ldn is 24-hour average noise level with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. *Table 4.13-2: Existing Traffic Noise* provides existing roadway segment average daily trip (ADT) and noise level.

Table 4.13-2: Existing Traffic Noise

Roadway Segment	Existing Conditions (Existing Development)	
	ADT	dBA Ldn[1]
Caribbean Drive		
Mathilda Ave / Parking Garage Driveway to Borregas Avenue	10,205	62.8
Borregas Avenue to Geneva Drive	14,480	64.3
Geneva Drive to Twin Creeks-Commercial Driveway	17,530	65.1
Twin Creeks-Commercial Driveway to Moffett Park Dr-Baylands Park	19,250	65.5
South of Moffett Park Dr-Baylands Park	28,730	67.4
Bordeaux Drive		
Mathilda Avenue to Java Drive	1,670	51.6
South of Java Drive	3,390	54.7
Borregas Avenue		
Caribbean Drive to Caspian Court-Caspian Drive	3,696	55.8
Caspian Court-Caspian Drive to Java Drive	3,950	56.1
South of Borregas Avenue / Java Drive	2,920	54.8
Java Drive		
West of Bordeaux Drive	3,850	58.7
Bordeaux Drive to Borregas Avenue	7,360	61.6
Borregas Avenue to Geneva Drive	7,710	61.8
East of Geneva Drive	8,380	62.1
Geneva Drive		
Java to Caribbean Drive	1,110	49.8
Crossman Avenue		
North of Crossman Ave-SR 237 WB On-Ramp / Moffett Park Dr	4,700	59.4
Fair Oaks Avenue		

Table 4.13-2: Existing Traffic Noise

Roadway Segment	Existing Conditions (Existing Development)	
	ADT	dBA Ldn[1]
North of Java Drive/Fair Oaks Ave / Fair Oaks Wy-Kensington Pl	15,340	64.8
Between Java Drive to Ahwanee Avenue	37,250	68.4
Ahwanee Avenue to Caliente Drive	34,750	65.0
Caliente Drive to Wolfe Road	27,610	64.0
South of Wolfe Road	16,110	62.6
Lawrence Expressway		
North of Persian Dr-Elko Drive	36,810	69.9
South of Persian Dr-Elko Drive	32,340	69.3
Tasman Drive		
East of Great America Parkway	23,050	65.3
West of Great America Parkway	11,750	62.4
Great America Parkway		
North of Tasman Drive	20,840	64.9
South of Tasman Drive	25,740	65.9
Mathilda Avenue		
North of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	27,720	66.2
Sunnyvale-Saratoga Road		
South of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	34,290	67.1
ADT = average daily trips; dBA = A-weighted decibels; Ldn = day-night noise level		
[1] Traffic noise levels are at 100 feet from the roadway centerline. [2] This level is above the perceptible noise level change of 3.0 dBA. However, at 53.8 dBA the noise level is under the City's noise threshold for residential uses.		
Source: Based on traffic data provided by Wood Rogers, 2019. Refer to Appendix A in the TIA for traffic noise modeling results.		

a) 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 applicable standards of other agencies?

Short-Term Noise (Construction)

Existing structures and hardscape would require demolition and/or excavation after issuance of a City demolition permit. Demolition activities would only begin after all City approvals, land use entitlements, and environmental clearances are obtained. After demolition and excavation, site preparation would begin and make the site ready for the construction phase. Construction would include the development of the site with the proposed two new main buildings, parking structure, improvements to the West Channel, interior roadways, parking lots, and other project infrastructure and amenities.

The ambient noise levels near the project site were measured between 52.1 and 67.2 L_{eq} dBA (*Table 4.13-1*). The way the noise levels are calculated compensates for inaudible frequencies approximates the sensitivity of the human ear. Decibels are based on the logarithmic scale which presents the numbers in a more usable range/scale. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud).

The nearest residential receptors to the project site are located approximately 0.75 miles to the south on the southerly side of SR 237. Because the residential area is located adjacent to the freeway and due to the existing urbanized uses, the noise levels at the residences is anticipated to be similar to that of the proposed project.

The proposed project includes demolition of the existing structures and excavation of existing hardscape prior to initiation of grading. After grading occurs and the site is prepared, construction of the proposed project would begin. Construction activities are anticipated to last approximately 30 months and occur over a single phase. Throughout the construction process, noise would be generated by demolition and use of construction equipment. *Table 4.13-3: Noise Sources and Anticipated Noise Levels at Distance* provides a listing of the types of equipment that would be used and the noise level at the source and the noise level anticipated at a distance of approximately 3,200 ft.

Table 4.13-3: Noise Sources and Anticipated Noise Levels at Distance

Equipment	Source Noise Level (dBA@50ft)	Source Noise Level (dBA Lmax @ 3,200ft*)	Equipment	Source Noise Leve (dBA@50ft)	Source Noise Level (dBA @ 3,200ft*)
All other equipment > 5 horsepower	85	49	Man Lift	75	39
Auger Drill Rig	84	48	Mounted Impact Hammer	90	54
Backhoe	78	42	Pavement scarifier	90	54
Chain saw	84	48	Asphalt Grinder	90	54
Compactor (ground)	83	47	Concrete/Asphalt Crusher	90	54
Compressor (air)	78	42	Paver	77	41
Concrete Batch Plant	83	47	Pickup Truck	75	39

Equipment	Source Noise Level (dBA@50ft)	Source Noise Level (dBA Lmax @ 3,200ft*)	Equipment	Source Noise Leve (dBA@50ft)	Source Noise Level (dBA @ 3,200ft*)
Concrete Mixer Truck	85	49	Pneumatic Tools	85	49
Concrete Pump Truck	82	46	Pumps	81	45
Concrete Saw	90	54	Rivit Buster/Chipping Gun	79	43
Crane	81	45	Roller	80	44
Dozer	82	46	Scraper	84	48
Drill Rig Truck	79	43	Sheers (on backhoe)	96	60
Dump Truck	76	40	Tamper	90	54
Excavator	81	45	Tractor	84	48
Flat Bed Truck	74	38	Vacuum Excavator (Vac Truck)	85	49
Front End Loader	79	43	Vacuum Street Sweeper	82	46
Generator	81	45	Ventilation Fan	79	43
Generator(25KVA, VMS Signs)	73	37	Welder/Torch	74	38
Gradall	83	47	Hydra Break Ram	90	54
Grader	85	49	Jackhammer	89	53
Grapple (on backhoe)	87	51	Loudest Equipment	96	60.
Source: Federal Highway Administration, *RCNM User's Guide*, 2006.					

Impact 3.6.1 of the LUTE EIR identified less significant impacts related to subsequent development generating noise levels that exceed City noise standards. The proposed land uses and development intensity is consistent with the LUTE. In addition, the LUTE EIR identified that compliance with Sunnyvale Municipal Code Chapter 16.08 (limitations on hours of construction activity) and Mitigation Measure MM 3.6.4 that requires projects to employ site-specific noise attenuation measures during construction to reduce the generation of construction noise would reduce this impact to a less-than significant level.

Based on the existing noise environment and the anticipated noise generated from construction at the project site it is not anticipated that the estimated peak equipment noise levels would result in a disturbance at the nearest residential locations. While, the proposed project has the potential to result in occasional noise levels that may be audible above the background ambient outdoor noise conditions, the noise is not anticipated to be audible inside residences. In addition, all construction work would be required to occur during daytime hours and in accordance with City of Sunnyvale Municipal Code Section 16.08.030. This would ensure that increases to the ambient noise environment only occurs during the times of day 7 a.m. to 6 p.m. Monday through Friday and on Saturday from 8 a.m. to 5 p.m. Based on these factors and required conformance with the listed Code Sections, the potential construction noise sources and impacts on nearby residential properties would be less than significant.

With the application of uniformly applied development standards and policies, inclusion of requirements as COAs, and the listed mitigation from the LUTE EIR, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR pertaining to exposure of persons to noise in excess of applicable standards remain valid and no further analysis is required.

OPERATIONAL NOISE

Implementation of the proposed project would create new sources of noise in the project vicinity. The major noise sources associated with the proposed project that would potentially impact sensitive receptors include the following:

- Off-site traffic noise;
- Mechanical equipment (i.e., trash compactors, air conditioners, etc.);
- Delivery trucks on the project site, and approaching and leaving the loading areas;
- Activities at the loading areas (i.e., maneuvering and idling trucks, loading/unloading, and equipment noise);
- Parking areas (i.e., car door slamming, car radios, engine start-up, and car pass-by); and
- Landscape maintenance activities.

According to the City of Sunnyvale Municipal Code Section 19.42.030 operational noise shall not exceed 75 dBA at any point on the property line of the project site, exceed 50 dBA during nighttime or 60 dBA during daytime hours at any point on adjacent residentially zoned property. In addition to municipal code requirements, the LUTE contains a policy aimed at reducing the exposure of noise-sensitive land uses to excessive noise levels. More specifically, Policy 95 requires high design standards for office, industrial, and research and development (R&D) buildings in all business districts. Other policies are contained in the City of Sunnyvale General Plan that are intended to highlight overall design considerations and address potential noise impacts at a programmatic level. For instance, General Plan Safety and Noise Element Policy SN-8.9a requires the use of a combination of barriers, setbacks, site planning, and building design techniques to reduce such impacts, keeping in mind their benefits and shortcomings. Policy SN-9.1 Regulates land use operation noise, Policy SN-9.2 Regulates select single-event noises and periodically monitor the effectiveness of the regulations, Policy SN-9.3 Apply conditions to discretionary land use permits which limit hours of operation, hours of delivery and other factors which affect noise. The proposed project would be required to conform to the listed policies and include design features to the proposed project to ensure compliance. This would reduce operational noise effects to less than significant.

Traffic Noise

The proposed land uses and development intensity is consistent with the LUTE and was programmatically factored in the traffic noise analysis. Impact 3.6.2 and 3.6.6 of the LUTE EIR identified that predicted increases in traffic noise levels associated with the LUTE would be significant for Pastoria Avenue between Evelyn Avenue and El Camino Real, and Remington Avenue between Hollenbeck Avenue and Sunnyvale Avenue. This impact was identified as significant and unavoidable under project and cumulative conditions.

Future development generated by the project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. Based on the Traffic Impact Analysis, the project would result in approximately 8,319 net daily trips. In general, a traffic noise increase of less than 3 dBA is barely perceptible to people, while a 5-dBA increase is readily noticeable (Caltrans, 2013). Generally, traffic volumes on project area roadways would have to approximately double for the resulting traffic noise levels to increase by 3 dBA. Therefore, permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant.

According to the City of Sunnyvale's General Plan Noise Element, a noise level of up to 60 dBA Ldn is considered normally acceptable for multi- or single-family residential land uses. These noise level standards are generally intended to be used as compatibility standards for the construction of new housing, to ensure that newly constructed multi- or single-family housing is not constructed in an area that would cause disturbance or annoyance to future residents. The project would not involve the addition of any new housing but would result in changes to existing traffic noise; as such, the traffic noise increase thresholds of 5 dBA and 3 dBA are more appropriate for evaluating the project's effects than the compatibility standards.

When assessing noise impacts, the following thresholds are applied to determine the significance of project-related traffic noise increases:

(1) An increase of more than 5 dBA is considered a significant noise increase if the existing or resulting noise environment is "normally acceptable," and

(2) An increase of more than 3 dBA and the total Ldn exceeds the "normally acceptable" category for an area that has an existing or resulting noise level of "normally acceptable" is considered significant over existing noise levels, and

(3) In places where the existing or resulting noise environment is "conditionally acceptable," or "unacceptable" based on the City of Sunnyvale Land Use Compatibility Guidelines, any noise increase greater than 3 dBA is considered significant over existing noise levels.

Traffic noise levels for roadways primarily affected by the proposed project were calculated using the FHWA's Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise modeling was conducted for conditions with and without the proposed project, based on traffic volumes (Wood Rogers, 2019). *Table 4.13-4: Near Term with Project Traffic Noise*, shows the background conditions or Near-Term traffic. Per the TIA, Near Term

includes two approved/pending projects that were added to the existing 2019 volumes. The two background developments are #1 Sunnyvale-Saratoga Road Traffic Signal, Bicycle and Pedestrian Safety Project and #2 Caribbean Drive Parking and Trail Access Enhancements.

Table 4.13-4: Near Term with Project Traffic Noise

Roadway Segment	Near Term Year		With Project		Project Change from Existing Conditions	Significant Impact?
	ADT	dBA Ldn[1]	ADT	dBA Ldn[1]		
Caribbean Drive						
Mathilda Ave / Parking Garage Driveway to Borregas Avenue	12,185	63.5	17,189	65.0	1.5	**No**
Borregas Avenue to Geneva Drive	16,870	64.9	20,748	65.8	0.9	**No**
Geneva Drive to Twin Creeks-Commercial Driveway	21,720	66.0	25,186	66.7	0.6	**No**
Twin Creeks-Commercial Driveway to Moffett Park Dr-Baylands Park	23,440	66.4	26,906	67.0	0.6	**No**
South of Moffett Park Dr-Baylands Park	32,950	68.0	36,416	68.5	0.4	**No**
Bordeaux Drive						
Mathilda Avenue to Java Drive	2,140	52.7	2,266	52.9	0.2	**No**
South of Java Drive	5,900	57.1	5,910	57.1	0.0	**No**
Borregas Avenue						
Caribbean Drive to Caspian Court-Caspian Drive	4,106	56.3	6,501	58.3	2.0	**No**
Caspian Court-Caspian Drive to Java Drive	4,470	56.6	6,911	58.5	1.9	**No**
South of Borregas Avenue / Java Drive	3,550	55.6	4,766	56.9	1.3	**No**
Java Drive						
West of Bordeaux Drive	5,660	60.4	6,594	61.1	0.7	**No**
Bordeaux Drive to Borregas Avenue	10,270	63.0	11,245	63.4	0.4	**No**
Borregas Avenue to Geneva Drive	10,180	63.0	10,743	63.2	0.2	**No**
East of Geneva Drive	12,160	63.7	12,793	64.0	0.2	**No**
Geneva Drive						
Java Drive to Caribbean Drive	2,820	53.8	2,910	54.0	0.1	**No**
Crossman Avenue						

Roadway Segment	Near Term Year		With Project		Project Change from Existing Conditions	Significant Impact?
	ADT	dBA Ldn[1]	ADT	dBA Ldn[1]		
North of Crossman Ave-SR 237 WB On-Ramp / Moffett Park Dr	7,720	61.5	7,911	61.6	0.1	**No**
Fair Oaks Avenue						
North of Java Drive/Fair Oaks Ave / Fair Oaks Wy-Kensington Pl	20,120	65.9	20,894	66.1	0.2	**No**
Java Drive to Ahwanee Avenue	41,940	68.9	42,352	68.9	0.0	**No**
Ahwanee Avenue to Caliente Drive	39,190	65.5	39,602	65.5	0.0	**No**
Caliente Drive to Wolfe Road	31,660	64.6	31,971	64.6	0.0	**No**
South of Wolfe Road	19,130	63.3	19,381	63.4	0.1	**No**
Lawrence Expressway						
North of Persian Dr-Elko Drive	43,910	70.6	46,120	70.9	0.2	**No**
South of Persian Dr-Elko Drive	39,410	70.2	41,620	70.4	0.2	**No**
Tasman Drive						
East of Great America Parkway	56,070	69.1	56,231	69.2	0.0	**No**
West of Great America Parkway	28,730	66.2	29,122	66.3	0.1	**No**
Great America Parkway						
North of Tasman Drive	27,170	66.1	27,170	66.1	0.0	**No**
South of Tasman Drive	47,310	68.5	47,541	68.6	0.0	**No**
Mathilda Avenue						
North of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	34,720	67.1	35,373	67.2	0.1	**No**
Sunnyvale-Saratoga Road						
South of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	42,840	68.1	43,493	68.2	0.1	**No**
ADT = average daily trips; dBA = A-weighted decibels; Ldn = day-night noise level						
[1] Traffic noise levels are at 100 feet from the roadway centerline.						
Source: Based on traffic data provided by Wood Rogers, 2019. Refer to Appendix A in the TIA for traffic noise modeling results.						

As noted in *Table 4.13-4*, the project would range from 52.9 to 70.9 dBA. The maximum increase in noise levels would occur along Borregas Road between the Caribbean Drive and Caspian Court-Caspian Drive. Noise levels along Borregas Road would increase by 2.0 dBA with the proposed project. This level is under the perceptible noise level change of 3.0 dBA. Project traffic would traverse and disperse over project area roadways,

where existing ambient noise levels already exist. Future development associated with the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise near existing and proposed land uses. This level is under the perceptible noise level change of 3.0 dBA. The full results of the traffic noise modeling analysis, including the existing and with-project noise levels for each roadway segment and each project condition, are shown in Appendix C. As such, project traffic noise impacts would be less than significant.

Traffic noise levels would exceed the City's "Normally Acceptable" limit of 60 dBA Ldn for some residential land uses; however, the noise level increase would not be perceivable (i.e., increase would be less than 3 dBA Ldn) consistent with the City of Sunnyvale Noise Element. Therefore, the proposed project would not significantly increase noise levels along the roadway segments analyzed.

Mechanical Equipment

Municipal Code Section 19.42.030 notes that operational noise may not exceed 75 dBA at any point on the property line of the premises upon which the noise or sound is generated or produced. Additionally, Municipal Code Section 19.42.030 states that the noise or sound level may not exceed 50 dBA during nighttime or 60 dBA during daytime hours at any point on adjacent residentially zoned property. Section 19.48.100 of the City's Municipal Code stipulates that mechanical equipment, including HVAC units, cannot be located between the face of the building and the street, and must be screened from view.

The proposed project would include two generators to be used for emergency purposes only. One of the generators is a 600 kW and the other 1,000 kW diesel engine. The generators would be located in an enclosed area on the northeast portion of the site in a parking lot near Caribbean Avenue. The generators would intermittently be operated for testing and maintenance purposes, with a maximum of 50 hours each per year of non-emergency operation under normal conditions. During testing periods, the engine would typically be run for less than one hour and would use commercially available California low sulfur diesel fuel. The nearest sensitive receptor is approximately 0.9 miles south of the enclosed generators. It should be noted that the proposed building would screen the generator from the southern property line. A typical noise level for a generator would be 68 dBA at a distance of 7 meters (23 feet) during operation at full load. Based upon the 0.9-mile (4,730-foot) distance, noise levels would be approximately 21.7 dBA at the nearest receptors. The generators would be located approximately 150 feet from the property line at Caribbean Drive. The noise levels would be approximately 51.7 dBA and would not exceed the City's standards of 75 dBA at the property line.

HVAC systems typically result in noise levels that average between 40 and 50 dBA Leq at 50 feet from the equipment. Additionally, equipment is anticipated to be located adjacent to the proposed buildings, which would be approximately 100 feet or more from the closest property line. As HVAC equipment would be located approximately 100 feet or more from the property line, HVAC noise levels would not exceed the City's standards noted above. The nearest residential uses are located approximately 0.9 miles (4,730 feet) southeast of the project site, noise emanating from mechanical equipment at the project site would not impact sensitive receptors. Therefore, the stationary noise sources associated with the

proposed project would not exceed the standards set forth in the City's noise ordinance. Required compliance with the City's noise ordinance would ensure potential stationary source noise impacts would be less than significant.

Loading Area Noise

The proposed project includes two five-story office buildings that would necessitate occasional truck delivery operations. The proposed project is not anticipated to require a significant number of truck deliveries. The occasional delivery trucks associated with the proposed project would not significantly increase noise within the project area. It should be noted that truck deliveries/operations (including trash pickup trucks) currently occur at the project site and are not anticipated to increase to a point where additional noise would be perceptible. Based on average daily traffic (ADT) data within the TIA, with project vehicle volumes would be approximately 6,501 total vehicles per day along Borregas. Therefore, truck deliveries associated with the proposed project site would not double the number of trucks in the area and would not be an intrusive or significant noise source compared to existing conditions. Impacts resulting from truck delivery activities would be less than significant.

Parking Areas

The proposed project would include two surface parking areas and a four-story parking garage. However, these areas would also be adjacent to existing parking lots. The parking garage structure would be located on the corner of Mathilda Avenue and West Caribbean Drive. Surface parking would be within two separate lots adjacent to West Caribbean.

Typical parking lot activities include people conversing, doors shutting, engines starting up, or vehicles idling generate noise levels of approximately 60 dBA to 63 dBA at 50 feet. These activities are expected to occur intermittently throughout the day, as visitors and employees arrive and leave the parking lot areas. As such, noise 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 or Ldn scale. Also, parking noise would primarily remain on-site and would be intermittent (during peak business hours). However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys may be an annoyance to adjacent noise-sensitive receptors.

Parking lot noise from pedestrians and vehicles would be partially masked by background noise from traffic along Mathilda Avenue, Caribbean Drive and other nearby roadways. Noise associated with the surface parking areas would be consistent with the existing parking lot noise that currently occurs on the site. The closest off-site sensitive receptors would be located approximately 0.9 miles (4,730 feet) from the project site. At this distance, parking lot noise would attenuate to 23.5 dBA, which is below the City's most stringent noise standards (i.e., 60 dBA). Parking lot noise would not result in substantially greater noise levels than currently exist in the vicinity. Noise impacts from parking areas would be less than significant.

Landscape Maintenance Activities

Development and operation of the proposed project includes new landscaping that would require 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 City Municipal Code and would not permanently increase ambient noise levels in the project vicinity and would be consistent with activities that currently occur at the surrounding uses. Therefore, with adherence to the City's Municipal Code, impacts associated with landscape maintenance would be less than significant.

The proposed project's land uses and development intensity is consistent with the LUTE. Thus, as it relates to Operational Noise (traffic, mechanical equipment, loading, parking, and landscape maintenance), with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR pertaining to exposure of persons to noise in excess of applicable standards and creation of excessive ambient noise remain valid and no further analysis is required

Conclusion

Application of uniformly applied City development standards and policies and Municipal Code requirements, and inclusion of COAs as required, would reduce impacts to less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

CONSTRUCTION

Impact 3.6.3 of the LUTE EIR evaluated the potential for construction activities to generate excess groundborne vibration and identified that damage to older buildings can occur at 0.25 inches per second of peak particle velocity (PPV) and at 0.5 for conventional buildings. This impact was identified as potentially significant in the LUTE EIR. To reduce potential impacts the LUTE EIR incorporated Mitigation Measure 3.6.3, which requires noise and vibration reducing pile-driving techniques to be employed during construction and to be monitored to ensure no damage to nearby structures occurs (i.e., vibrations above PPVs of 0.25 inch per second at nearby structures). The LUTE EIR identified that implementation of this mitigation would reduce the construction vibration impact to a less-than significant level.

Construction of the proposed project could generate varying degrees of ground borne vibration, depending on the construction procedure and the construction equipment used. Pile driving; however, is not proposed and excessive ground borne vibration is not anticipated. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude as distance increases from the source. The effect on buildings located in the vicinity of the construction site can vary depending on soil type, ground strata, and construction

characteristics of the receiving 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. Slight damage at the highest levels may occur. Groundborne vibrations from construction activities rarely reach levels that damage structures.

Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 inch per second (in/sec) is considered safe and would not result in any construction vibration damage. Beyond damage to buildings, construction vibration can result in impacts to human receivers. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Maximum vibration levels that could be generated by construction equipment are presented in *Table 4.13-5: Typical Vibration Levels for Construction Equipment*.

Table 4.13-5: Typical Vibration Levels for Construction Equipment

Type of Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 100 feet (inches/second)[2]
Large bulldozer	0.089	0.011
Caisson Drilling	0.089	0.011
Loaded trucks	0.076	0.010
Jackhammer	0.035	0.0044
Small bulldozer	0.003	0.000
Note: 1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ Where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV (ref) = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines Manual;* D = the distance from the equipment to the receiver.		
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines Manual*, September 2018.		

Pile driving is not proposed for construction of the proposed project. The proposed project would use structural mat foundations; shallow footings with slabs on grade; or deep foundation systems such as augercast piles.

Structural mat foundations are supported on a rigid mat foundation over improved ground. Depending on the structural design and maximum bearing pressure, the thickness of the mat will vary. The bearing pressure may be increased in areas with more loading concentration. Shallow

footings with slabs would be a convention design but the footings would be required to a minimum depth of 30 inches and minimum width of 12 inches. Augercast piles are deep foundation elements that are cast-in-place, using a hollow stem auger with continuous flights. The auger is drilled into the soil and/or rock to design depths. The auger is then slowly extracted, removing the drill soil/rock as concrete or grout is pumped through the hollow stem. Reinforcing steel is then lowered into the wet concrete or grout. When use of the auger occurs, it would be intermittent and not continuous throughout the day. Thus, with the implementation of Mitigation Measure 3.6.3 as defined in the LUTE EIR, if needed, and with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant offsite impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to groundborne vibration and noise remain valid and no further analysis is required.

Operational

Other groundborne vibration and noise may emanate from the Valley Transit Authority (VTA) light rail line that extends along West Java Drive approximately 0.2 miles south of the project site. According to the Federal Transit Administration (FTA), light rail systems typically generate vibration levels of 70 VdB near their tracks. The vibration threshold for office uses is 78 VdB for occasional vibration events (defined as between 30 and 70 vibration events per day and is typical of most commuter lines). The nearest proposed building to the light rail line would be approximately greater than 850 feet from the tracks. Therefore, the nearest proposed office building would experience vibration levels of less than the 78 VdB threshold. Impacts in this regard are less than significant.

The proposed project includes two five-story office buildings totaling 1,041,890 sf, 2,092 parking spaces, multimodal access and associated landscaping. Operations of the proposed project would not generate groundborne vibration that could be felt by surrounding uses. The proposed project does not involve heavy manufacturing drilling or other subterranean activities, railroads, or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to ambient noise remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and Municipal Code requirements would reduce impacts to less than significant

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Impact 3.6.5 of the LUTE EIR identified that compliance with the Comprehensive Land Use Plan (CLUP) for Moffett Federal Airfield and with the City's normally acceptable noise level standards effectively reduces potential aircraft noise impacts. LUTE EIR page 3.6-28 identified that there are no private airfields are located near the City and thus there would be no impact.

The proposed project is located approximately 1.0 miles east of Moffett Field. Moffett Field could have a potential to expose the project site to noise from aircraft operations. The Final Comprehensive Land Use Plan, Santa Clara County – Moffett Federal Airfield, depicts the anticipated 65, 70, and 75 dBA CNEL contours associated with Moffett Field (*Figure 24: 2022 Aircraft Noise Contours*). The project site is approximately 0.75 miles outside the 65-dBA contour of Moffett Field. Some intermittent noise may be audible from aircraft overflights; however, the proposed project is not in the aircraft approach and flight path and substantial exposure to this noise source is not anticipated.

On-site employees would primarily be located indoors once construction is complete, and not be exposed to excessive noise levels from Moffett Field. Thus, the proposed project would not result in noise impacts regarding exposure of construction workers or project employees to excessive airport-related noise levels. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR regarding exposure of people to excessive noise from airports remain valid and no further analysis is required.

Conclusion

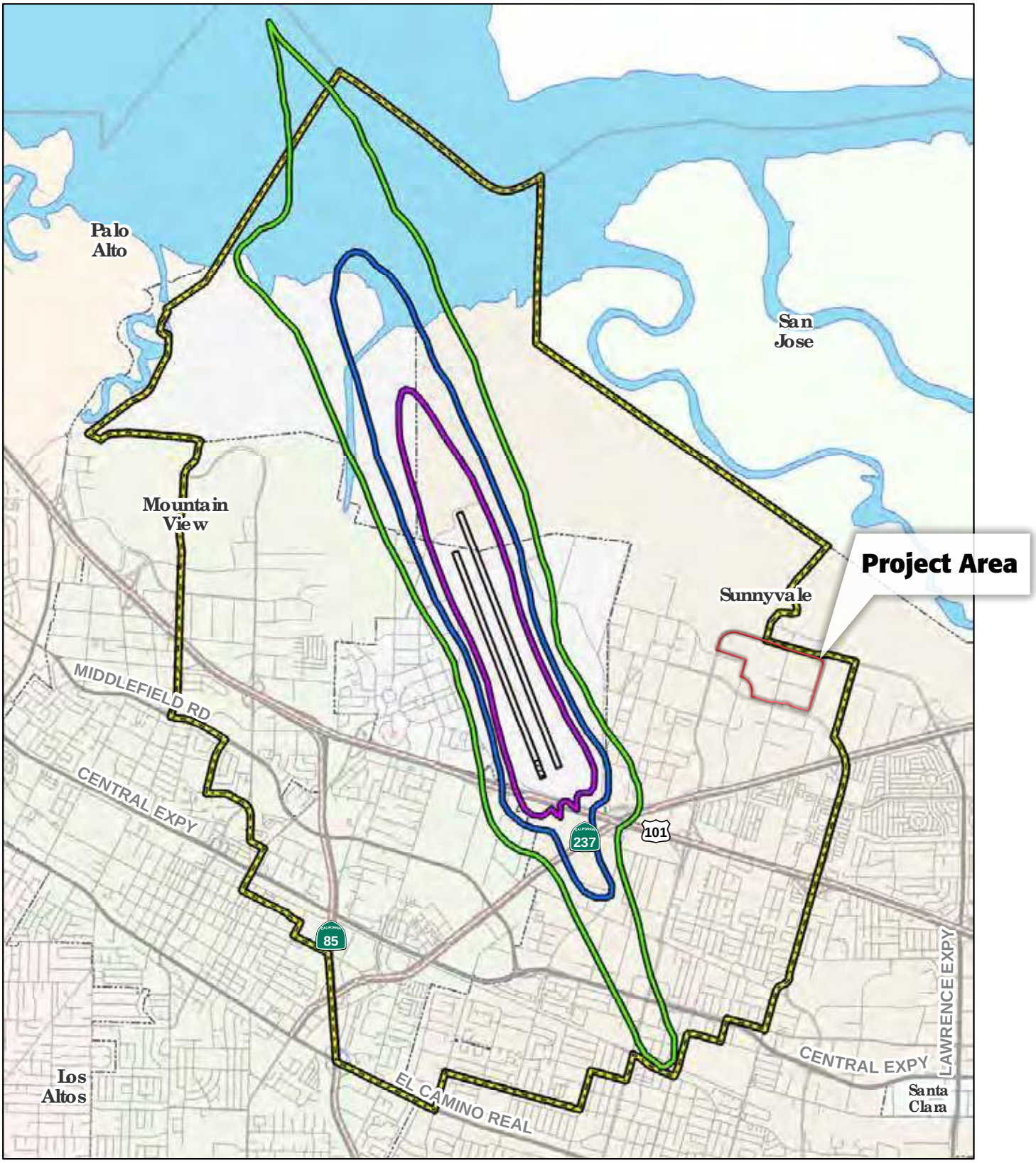
Application of uniformly applied City development standards and policies and the CLUP for Moffett Federal Airfield would reduce impacts to less than significant.

CUMULATIVE IMPACTS

Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Cumulative noise impacts involve development of the proposed project in combination with ambient growth and other related development projects. As noise levels decrease as distance from the source increases, only projects in the nearby area could combine with the proposed project to potentially result in cumulative noise impacts. There are no significant cumulative impacts associated with noise that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification.

Short-Term Cumulative Impacts

The proposed project's construction activities would not result in a substantial temporary increase in ambient noise levels because they would conform with all required noise reduction requirements and implement COAs as needed. The City permits construction activities between the hours of 7:00 a.m. and 6:00 p.m. during the week, and between 8:00 a.m. and 5:00 p.m. on Saturdays. Construction is not allowed on Sundays or weekday holidays. There would be periodic, temporary, noise impacts that would cease upon completion of construction activities. The proposed project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the proposed project's construction-related noise impacts would be less than significant following compliance with local regulations and COAs.



CNEL (dBs)

65 70 75

FIGURE 24: 2022 Aircraft Noise Contours

Google Caribbean Campus

Not to scale

Kimley»Horn

Cumulative construction noise impacts from the proposed project could result if construction of other planned projects occurred in the same vicinity at the same time. If this occurred some adjacent receptors could be subject to additive noise from the multiple projects. The nearest projects that have the potential to be constructed at the same time as the proposed project would occur on the southerly side of West Java Drive and westerly side of Geneva Drive, and consists of a redevelopment and conversion to a hotel. Other projects closer to the project site are currently under construction south of West Java Drive and west of Bordeaux Drive and a larger 47-acre projects on the Lockheed Property. Both these projects; however, are anticipated to be completed prior to initiation of the proposed project. Although the properties just north of the project site across West Caribbean Drive have been graded, there are no current plans for new construction.

Construction activities at other planned and approved projects would be required to take place during daytime hours, and the City and project applicants would be required to evaluate construction noise impacts and implement COAs to minimize noise impacts. Each project would be required to comply with the applicable City of Sunnyvale Municipal Code limitations on allowable hours of construction. Therefore, construction of the proposed project would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

Long-Term Cumulative Impacts

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the proposed project and other projects in the vicinity. However, noise from generators and other stationary sources could also generate cumulative noise levels.

Cumulative Stationary Noise.

As discussed above, impacts from the proposed project's operations would be less than significant. Due to site distance, intervening land uses, and the fact that noise dissipates as it travels away from its source, noise impacts from on-site activities and other stationary sources would be limited to the project site and vicinity. No known past, present, or reasonably foreseeable projects would compound or increase the operational noise levels generated by the proposed project. Thus, cumulative operational noise impacts from related projects, in conjunction with project-specific noise impacts, would not be cumulatively significant.

Cumulative Mobile Noise. A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. Cumulative increases in traffic noise levels were estimated by comparing the Existing and Cumulative scenarios to existing conditions. The traffic analysis considers cumulative traffic from future growth assumed in the traffic mode, as well as cumulative projects identified by the City of Sunnyvale.

The following criteria is used to evaluate the combined effect of the cumulative noise increase.

- Combined Effect. The cumulative with Project noise level ("Cumulative With Project") would cause a significant cumulative impact if a 3.0 dB increase over "Existing" conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the project.

The following criteria have been used to evaluate the incremental effect of the cumulative noise increase.

- Incremental Effects. The "Cumulative With Project" causes a 1.0 dBA increase in noise over the "Cumulative Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the general area would contribute to cumulative noise impacts. *Table 4.13-5: Cumulative Plus Project Conditions Predicted Traffic Noise Levels*, identifies the traffic noise effects along roadway segments in the vicinity of the project site for "Existing," "Cumulative Without Project," and "Cumulative With Project," conditions, including incremental and net cumulative impacts.

Table 4.13-5: Cumulative Plus Project Conditions Predicted Traffic Noise Levels

Roadway Segment	Existing	Cumulative Without Project[1]	Cumulative With Project[1]	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
				dBA Difference: Existing and Cumulative With Project	dBA Difference: Cumulative Without and With Project	
Caribbean Drive						
Mathilda Ave / Parking Garage Driveway to Borregas Avenue	62.8	64.1	65.5	2.7	1.3	**No**
Borregas Avenue to Geneva Drive	64.3	65.6	66.4	2.1	0.8	**No**
Geneva Drive to Twin Creeks-Commercial Driveway	65.1	66.6	67.2	2.1	0.6	**No**
Twin Creeks-Commercial Driveway to Moffett Park Dr-Baylands Park	65.5	67.0	67.5	2.0	0.5	**No**
South of Moffett Park Dr-Baylands Park	67.4	68.7	69.1	1.6	0.4	**No**

Roadway Segment	Existing	Cumulative Without Project[1]	Cumulative With Project[1]	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
				dBA Difference: Existing and Cumulative With Project	dBA Difference: Cumulative Without and With Project	
Bordeaux Drive						
Mathilda Avenue to Java Drive	51.6	53.2	53.4	1.9	0.2	**No**
South of Java Drive	54.7	57.6	57.6	2.9	0.0	**No**
Borregas Avenue						
Caribbean Drive to Caspian Court-Caspian Drive	55.8	56.9	58.7	2.9	1.8	**No**
Caspian Court-Caspian Drive to Java Drive	56.1	57.3	59.0	2.9	1.7	**No**
South of Borregas Avenue / Java Drive	54.8	56.3	57.4	2.6	1.1	**No**
Java Drive						
West of Bordeaux Drive	58.7	61.0	61.6	2.8	0.6	**No**
Bordeaux Drive to Borregas Avenue	61.6	63.6	63.9	2.4	0.3	**No**
Borregas Avenue to Geneva Drive	61.8	63.5	63.8	2.0	0.2	**No**
East of Geneva Drive	62.1	64.3	64.5	2.4	0.2	**No**
Geneva Drive						
Java Drive and Caribbean Drive	49.8	54.2	54.3	4.5	0.1	**No**
Crossman Avenue						
North of Crossman Ave-SR 237 WB On-Ramp / Moffett Park Dr	59.4	62.0	62.1	2.7	0.1	**No**
Fair Oaks Avenue						
North of Java Drive/Fair Oaks Ave / Fair Oaks Wy-Kensington Pl	64.8	66.5	66.7	1.9	0.1	**No**
Java Drive to Ahwanee Avenue	68.4	69.6	69.6	1.2	0.0	**No**
Ahwanee Avenue to Caliente Drive	65.0	66.2	66.2	1.3	0.0	**No**
Caliente Drive to Wolfe Road	64.0	65.3	65.3	1.3	0.0	**No**
South of Wolfe Road	62.6	64.1	64.1	1.5	0.0	**No**

Roadway Segment	Existing	Cumulative Without Project[1]	Cumulative With Project[1]	Combined Effects: dBA Difference: Existing and Cumulative With Project	Incremental Effects: dBA Difference: Cumulative Without and With Project	Cumulatively Significant Impact?
Lawrence Expressway						
North of Persian Dr-Elko Drive	69.9	71.3	71.5	1.7	0.2	**No**
South of Persian Dr-Elko Drive	69.3	70.9	71.1	1.8	0.2	**No**
Tasman Drive						
East of Great America Parkway	65.3	69.5	69.5	4.2	0.0	**No**
West of Great America Parkway	62.4	66.6	66.7	4.3	0.1	**No**
Great America Parkway						
North of Tasman Drive	64.9	66.7	66.7	1.8	0.0	**No**
South of Tasman Drive	65.9	69.0	69.0	3.1	0.0	**No**
Mathilda Avenue						
North of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	66.2	67.8	67.8	1.7	0.1	**No**
Sunnyvale-Saratoga Road						
South of Mathilda Avenue/ Sunnyvale-Saratoga Rd-Talisman Drive	67.1	68.7	68.8	1.6	0.1	**No**

ADT = average daily trips; dBA = A-weighted decibels; Ldn = day-night noise level

[1] Traffic noise levels are at 100 feet from the roadway centerline.

Source: Based on traffic data provided by Wood Rodgers, 2019. Refer to Appendix A in the TIA for traffic noise modeling results.

First, it must be determined whether the "Future With Project" increase above existing conditions (Combined Effects) is exceeded. As indicated in the table, the proposed project does not have any street segment that exceed the combined effects criterion. Next, under the Incremental Effects criteria, cumulative noise impacts are defined by determining if the forecast ambient ("Future Without Project") noise level is increased by 1 dB or more.

The proposed project's contribution to traffic noise is evaluated in *Table 4.13-5*. As shown in the table, no segments evaluated exceed the combined effects and incremental effects criterion. As discussed above, the proposed project would increase local noise levels by a maximum of 4.5 dBA Ldn on Geneva Drive, 4.3 dBA Ldn on Tasman Drive, and 3.1 dBA Ldn on Great America Parkway. The combined effects increase is greater than 3 dBA; however, the incremental effects remain under 1 dBA. Therefore, the resulting noise level would not have a significant impact and the proposed project's cumulative noise contribution would be less than significant. Based on the significance criteria set forth in this EIR, no roadway segments would result in significant impacts because they would not exceed the City's threshold for noise at nearby sensitive receptors. The proposed project would not result in long-term mobile noise impacts based on project-generated traffic as well as cumulative and incremental noise levels. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in a less than significant cumulative impact. The proposed project's contribution to noise levels would not be cumulatively considerable.

Transportation (existing and cumulative) and non-transportation sources of noise at new and existing receptors have been analyzed and appropriate mitigation measures would be implemented. The proposed project and any other projects also would be required to achieve compliance with the applicable City exterior and interior noise level standards. In addition, other planned and approved projects would be required to mitigate for stationary and transportation-related noise impacts at nearby sensitive receptors. Moreover, stationary noise and transportation noise are localized phenomena and there is a very limited potential for other projects to contribute to cumulative noise impacts, beyond the transportation-related noise that is already analyzed above and found not to be cumulatively significant. As such, the proposed project, in conjunction with other projects, would not cause a cumulatively considerable permanent increase in ambient noise levels in the proposed project vicinity. Impacts would be less than significant. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

4.14 Population and Housing

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Draft EIR Setting pp. 3.2-1 to 3.2-3 Impact 3.2.1 and 3.2.3	No	No	No	No	NA, impact remains less than significant.
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Draft EIR Setting pp. 3.2-1 to 3.2-3 Impact 3.2.2 and 3.2.4	No	No	No	No	NA, impact remains less than significant.

DISCUSSION

No substantial change in the regulatory settings related to population and housing, described in LUTE EIR Section 3.2, Population, Housing, and Employment, has occurred since certification of the LUTE EIR. As described in the project description, the proposed project is consistent with the LUTE and would contribute to the anticipated employment growth expected under the LUTE.

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Impact 3.2.1 in the LUTE EIR evaluated whether new development in Sunnyvale under the LUTE would induce new growth. The analysis noted that the number of additional jobs that would be generated by the LUTE would be within the overall employment growth projections identified by the

Association of Bay Area Governments (ABAG). The LUTE does not propose any new housing and would not directly induce population growth in the area under project or cumulative conditions (Impact 3.2.3).

The proposed project consists of two new 5-story office buildings totaling 1,041,890 square feet, a parking structure and surface parking. The proposed project does not include any residential development and would not directly impact population growth. The proposed project does not propose new infrastructure such as public roadway extensions or increase accessibility to areas that are undeveloped. Similarly, the proposed project does not propose new infrastructure that would serve or could be used to serve other growth-inducing uses. The proposed project would tie into existing utility lines but would not expand the service capacity of them.

Indirectly, the proposed project could result in population growth. However, growth within the MPSP has been planned for and overall the growth would not be substantial. The proposed project is part of the MPSP which designates the site for uses as MP-I Moffett Park Industrial, and MP-TOD Moffett Park Transit Oriented Development. Growth within the MPSP has been planned for, for greater than two decades. The MPSP was originally adopted by the City in July of 2004 and has been revised four times – [November 2006 (Resolution No. 244-06), March 2009 (Resolution No. 369-09), September 2011 (Resolution No. 498-11, and most recently updated in December 2013 (Resolution No. 622-13)].

According to the California Department of Finance (CDOF), the City population was approximately 155,567 on January 1, 2019 (CDOF, 2019). In 2000 the population was approximately 132,198, which represents a near 20-year increase of approximately 17% (CDOF, 2019b). In part, this population as well as resulting economic growth within the City has occurred due to the presence of technology sector in the region.

The proposed project is anticipated to require a total of approximately 4,500 employees once the site is fully operational. This represents an approximately increase of 2.9% of the current estimated population of the City. The proposed project is not anticipated to be staffed all at once, but employees are anticipated to be hired over a period of time. In addition, it is anticipated that much of the workforce would come from the existing population within the Silicon Valley thus minimizing the demand for additional housing for employees moving to the city and or region. This would further reduce the effect of the population increase because of the proposed project.

The City of Sunnyvale General Plan Housing Element included a housing needs assessment, identified constraints, identified housing resources, and included a housing plan which focuses on 1) Preserving and improving housing and neighborhoods; 2) providing adequate housing sites; 3) assisting in providing affordable housing; 4) removing constraints to housing development; and 5) promoting fair and equal housing opportunities. Based on the Housing Needs Assessment and Regional Housing Needs Allocation (HNA) and (RHNA) developed by the Association of Bay Area Governments (ABAG), Sunnyvale was allocated 5,452 new housing units.

Lastly, the proposed project would be subject to payment of the housing impact fee as noted in Municipal Code Section 19.75 which discusses housing impact fees. The housing impact fees are needed by the City to meet the regional housing needs of the Bay Area as required by state law.

Housing impact fees help pay for certain types of development to mitigate the impact of nonresidential and residential development on the need for affordable housing in the City and to implement the housing element of the General Plan and California Government Code Section 65583(c) to meet the needs of lower-income households. Housing impact fees are placed in the city's housing mitigation fund and used to support the development of affordable housing within the City. Based on the proposed sf of the proposed project, the estimated housing impact fee would be approximately $5,777,722.50. The fee would be paid prior to issuance of a building permit.

Therefore, the proposed project does not constitute unplanned growth and would not induce unplanned growth and would compensate the City for a fair share contribution to providing future housing within the scope of existing planning. Accordingly, the City has planned for the redevelopment and associated employment growth within the MPSP area for many years. Planned residential growth within the City could accommodate some of the increased employees and others would be anticipated to come from nearby areas. Impacts in this regard would therefore be less than significant. The proposed project is consistent with the land use designations and anticipated employment growth set forth in the LUTE. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to population growth remain valid and no further analysis is required.

Conclusion

The proposed project is consistent with population growth forecasts and would comply with city, and application of uniformly applied City development standards and policies would reduce impacts to less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

LUTE EIR Impact 3.2.3 identifies that the intent of the LUTE is to accommodate anticipated growth through a compact urban form that seeks to make efficient use of existing infrastructure and public services, thus minimizing the need for new or significantly expanded infrastructure that could be the impetus for the removal of housing units and/or businesses. Because most of Sunnyvale has been developed with urban uses, the LUTE focuses on redeveloping existing properties. It is not anticipated that residential uses would convert to nonresidential uses. The LUTE EIR concludes that impacts related to displacement of people are less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.2.4).

The proposed project includes redevelopment of the project site. The project site is developed with 13 existing single-story structures (four of which occur on a single parcel) and are used for commercial business, research and development, and industrial uses. The proposed project would not remove any existing housing units and therefore, would not displace any existing residents in the surrounding areas. Thus, the proposed project would not require the construction of replacement housing and impacts would be less than significant. The proposed project would have

no impact related to the displacement of housing or people. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to displacement remain valid and no further analysis is required.

Conclusion

The proposed project would not displace any housing. No impacts would occur.

CUMULATIVE IMPACTS

Impacts of the proposed project would be cumulatively considerable if they have the potential to combine with similar impacts of the identified cumulative projects. Cumulative development in the region as well as development anticipated by the City and Santa Clara County would increase the population and number of housing units in these areas. The proposed project; however, would not directly result in population growth and the proposed project would not create a cumulatively significant increase in population within the City or region as a whole. Population growth is largely accounted for within applicable planning documents, specifically the MPSP and HNA and RHNA. The proposed project is not itself considered to directly result in growth inducement because it does not include any residential uses that would provide housing members of the population. As discussed above, the proposed project may result in indirect population growth by inducing people to move to the area for new jobs that would be created by the proposed project.

It is anticipated that new housing needs would be provided through existing vacancies as well as planned residential development. The environmental impacts of population growth associated with the proposed project are addressed in the various technical sections of this environmental document, with mitigation measures previously certified EIRs identified as necessary. While cumulative development projects would increase the population and number of housing units in the City and County, the proposed project would not. Development of the project site consists of a commercial and industrial development, would pay applicable development fees, would not provide any housing units and would have a less than significant impact on population and housing. Therefore, there are no significant cumulative impacts associated with land use and planning that are peculiar to the proposed project or the parcel on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification. Accordingly, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts in this regard would be less than significant. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

4.15 Public Services

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project result in:						
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
i) Fire protection?	Draft EIR Setting pp. 4.0-1 – 4.0-3 Impacts 4.1.1 and 4.1.2	No	No	No	No	Yes, impact remains less than significant
ii) Police protection?	Draft EIR Setting pp. 4.0-6 Impact 4.2.1 and 4.2.2	No	No	No	No	Yes, impact remains less than significant
iii) Schools?	Draft EIR Setting pp. 4.0-9 – 4.0- 10 Impact 4.3.1 and 4.3.2	No	No	No	No	Yes, impact remains less than significant

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
iv) Parks?	Draft EIR Setting pp. 4.0-15 Impact 4.4.1 and 4.4.2	No	No	No	No	Yes, impact remains less than significant
v) Other public facilities?	No	No	No	No	No	N/A, no impacts.

DISCUSSION

No substantial change in the regulatory settings related to public services, described in LUTE EIR Chapter 4, Public Services, has occurred since certification of the LUTE EIR.

The Sunnyvale Department of Public Safety provides fully integrated public safety services including Police, Fire, and Emergency Medical Services. This model of service delivery requires each sworn officer to be fully trained in all three disciplines. Public Safety Officers (PSOs) are assigned to a specific bureau (Police or Fire) but can be called upon to provide cross bureau services on a daily basis. PSOs assigned to the Bureau of Police Field Operations are deployed to emergency medical services calls requiring lifesaving measures, as well as all structure fires (Sunnyvale, 2019a). All of these services are provided through a professional staff of approximately 201 sworn officers and 88 non-sworn personnel (SVV, 2019).

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Impact 4.1.1 in the LUTE EIR evaluated whether implementation of the LUTE would increase the demand for fire protection and emergency medical services. The analysis noted that it is anticipated that population and employment growth resulting from implementation of the LUTE would increase the demand for fire protection services. The LUTE includes Policy 104 that provides general direction regarding how public services should

be provided and the Sunnyvale General Plan contains fire protection policies that address maintaining timely response to emergencies and ensuring adequate equipment and facilities are maintained (Policies SN-3.1 and SN-5.1). Additionally, Impact 4.1.2 notes that development under the LUTE would be subject to developer fees, which would provide adequate resources to serve the projected needs of the Sunnyvale Department of Public Safety Bureau of Fire Services (Fire Bureau) under cumulative conditions. Implementation of the LUTE would result in a less-than-significant impact under project conditions and be less than cumulatively considerable impact under cumulative conditions (Impact 4.1.2).

The Sunnyvale Department of Public Safety Fire Services provides fire protection services to the proposed project area. Of the six fire stations within the City, there are three fire stations that would most likely serve the proposed project. Station 5 would provide the primary fire protection service to the Specific Plan area, with Stations 1 and 6 providing auxiliary support when needed.

Station 5 – Station 5 is located at 1120 Innovation Way, near the intersection of Innovation Way and Mathilda Avenue, within the Moffett Park Specific Plan (MPSP) area approximately 0.4 miles south of the proposed project site. Station 5 would be the primary responding station to the project site with the following apparatus: Engine 45 (2008 Ferrara Igniter) staffed with a Lieutenant (Company Officer) and a PSO (Engine Operator); Truck 45 (2015 Ferrara Inferno with HD-100 Rear Mount Platform) staffed by two Public Safety Officers; and the Mobile Emergency Operations Center (Freightliner MT55).

Station 1 – Station 1 is located at 171 N. Mathilda Avenue, approximately 1.5 miles south of the Specific Plan area and 2.5 miles south of the project site. Station 1 is equipped with one fire truck and one fire engine including Engine 41 (2008 Ferrara Igniter); Engine 241 (2003 American LaFrance); and Reserve Engine 141 (2000 American La France).

Station 6 – Station 6 is located at 1282 North Lawrence Station Road, approximately 0.4 miles east of the Specific Plan area and 1.5 miles east of the project site. This station is equipped with two fire engines including: Engine 46 (2004 American LaFrance) staffed with a Lieutenant (Company Officer) and a PSO (Engine Operator); and Engine 246 (2000 American LaFrance) staffed with two PSO's (SDPS, 2019).

The Department of Public Safety has the following response time goals:

1. Fire response to Emergency Events will be responded to within 5 minutes 42 seconds or less from dispatch to on-scene arrival for 92% of emergency events.
2. The response time to a Fire Event will be within 6 minutes 14 seconds or less from dispatch to on-scene arrival by Fire apparatus for 86% of emergency events.
3. Fire response to EMS Events will be responded to within 5 minutes 42 seconds or less from dispatch to on-scene arrival for 92% of EMS emergency events.

Fire Station 5, located within the MPSP area, would provide primary fire protection services to the proposed project. It is anticipated that with current equipment and personnel, adequate resources exist to serve the proposed project. In addition, to Fire Station 5 the City has five other stations, three within 2.5 miles that could respond to provide emergency services. The proposed project is consistent with development assumptions analyzed in the LUTE EIR and the proposed project would be required to meet all City and state requirements regarding fire protection measures and public safety, including fire access. The proposed project would redevelop an existing site within the MPSP area that was planned for revitalization and would pay all required development impact fees, including those related to fire services. While, the additional demands of the proposed project have the potential to increase demand and creating the need for additional staff within the service area, the proposed project would meet all requirements related to fire safety and would pay all applicable fees to enable continuation of service. Thus, with the application of uniformly applied development standards and policies and payment of fees, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR pertaining to fire protection services remain valid.

Conclusion

Application of uniformly applied City development standards and policies would reduce impacts to less than significant.

ii. Police protection?

Impact 4.2.1 in the LUTE EIR evaluated whether implementation of the LUTE would increase the demand for law enforcement services. The analysis in the LUTE EIR noted that development within the City is anticipated to increase population, increase the number of housing units, and increase in employment resulting in an increase the demand for law enforcement services. The LUTE includes Policy 104 that provides general direction regarding how public services should be provided and the Sunnyvale General Plan contains Policy SN-3.1 that addresses maintaining timely responses to emergencies. Implementation of the LUTE would result in a less-than-significant impact under project conditions and be less than cumulatively considerable under cumulative conditions (Impact 4.2.2).

Public Safety services for the proposed project site include police protection by the City of Sunnyvale Police Services Bureau (SVPD). The SVPD serves approximately 24 square miles and a population of approximately 155,567 residents (CDOF, 2019). The location of the Public Safety office is located at 700 All America Way, approximately 4.0 miles away near Mathilda Avenue and El Camino Real. The police department consists of the following squads: Traffic Safety Unit, Special Weapons and Tactics (SWAT), Crisis Negotiations Team, Canine Unit, Desk Officer, Police Training Officer, Crime Scene Investigator, Bicycle Patrol, Gang Enforcement Team, Crisis Intervention Team, Mobile Field Force, and Technical Services. In total, the police department has 88 sworn Officers and Lieutenants who provide patrol services to the City. Priority calls for police service are categorized as either “emergency” or “urgent”. The average response time for emergency calls is 4 minutes, 41 seconds. The average response time for urgent calls is 5 minutes, 54 seconds.

The proposed project is consistent with development assumptions analyzed in the LUTE EIR. The proposed project would redevelop an existing site within the MPSP area that was planned for revitalization. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant offsite impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR pertaining to law enforcement services remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies would reduce impacts to less than significant.

iii. Schools?

The proposed project is consistent with development assumptions analyzed in the LUTE EIR. Impact 4.3.1 in the LUTE EIR evaluated whether implementation of the LUTE would increase population in the local school districts' service areas and subsequently increase student enrollment in local schools. Development under the LUTE EIR, including both residential and commercial development, would be subject to payment of school facility fees to offset costs for additional school facility needs. With payment of school facility fees, this impact from buildout of the LUTE would be less than significant under project conditions and less then cumulatively considerable under cumulative conditions (Impact 4.3.2).

The proposed project site is located within the jurisdictions of the Sunnyvale School District (SSD) and Fremont Union High School District (FUHSD). Implementation of the proposed project would not result in the direct addition of new housing units that would generate students requiring service by the listed school districts. However, there is a relationship between commercial development and an increase in the number of school-age children that can result from an increase in employees who reside within the school district. Therefore, the SSD and FUHSD require the payment of development fees based on a per square foot basis of new commercial development. These fees are collected at the building permit stage and are paid prior to construction of a project. The payment of school fees consistent with Section 65995(3)(h) of the California Government Code, would occur prior to the issuance of a building permit, and is considered adequate to reduce indirect impacts on school facilities.

Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR pertaining to schools remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies would reduce impacts to less than significant.

iv. Parks?

Impact 4.4.1 and 4.4.2 of the LUTE EIR evaluated whether the increase in employees and residents from implementation of the LUTE would increase demand for public parks. Per the City's Municipal Code, new residential development would be required to dedicate land, pay a fee in lieu thereof, or both, for park or recreational purposes at a ratio of 5 acres per 1,000 residents. These fees may be used to upgrade existing park facilities. The LUTE EIR also programmatically evaluated the environmental impacts of upgrading existing parks and the development of new park facilities as part of the overall development analyzed in the EIR (LUTE EIR page 4.0-17), and therefore the impact conclusions in the LUTE EIR capture the impacts from construction of new parks and recreational facilities. The LUTE EIR concludes that the LUTE's impact on recreational facilities and parks would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 4.4.2).

The proposed project consists of the development of a new office/R&D building and would not generate a direct demand for recreation facilities. The proposed project would not require construction or improvements offsite, and would not require the construction or expansion of existing recreational facilities that might have an adverse physical effect on the environment. The proposed project does include onsite recreational facilities including numerous paths used for walking and bicycling and a fitness center for use by the employees working onsite. The physical impacts of these onsite private recreational facilities are addressed as part of the overall proposed project and would be within the area proposed to be disturbed as part of the proposed project. Therefore, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to recreation remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies would reduce impacts to less than significant.

v. Other public facilities?

Other public services generally refer to public uses such as libraries, museums, cultural centers, medical facilities, and other governmental functions such as City services needed for permitting and licensing. The Sunnyvale Public Library is located at 665 West Olive Avenue and is open at seven days a week with the exception of holidays. The library also provides public computers, Wi-Fi, and printing for a small fee (Sunnyvale, 2019).

Museums and cultural centers in the City also are numerous and include the Sunnyvale Heritage Park Museum at 570 East Remington Drive; the Hiller Aviation Museum at 601 Skyway Road; the Children's Discovery Museum at 180 Woz Way, and the Palo Alto Junior Museum and Zoo at 4050 Middlefield Road.

Medical services are provided by numerous hospitals, doctors offices, and health clinics throughout the City. Many of these sites are located along El Camino Real approximately 2.5 miles south of the project site. Among these are the Valley Health Center Sunnyvale at 660 South Fair Oaks Avenue; Sunnyvale Center: Palo Alto Medical Foundation (also serving pediatrics) at 301 Old San Francisco Road; the Santa Clara Valley Medical Center at 660 S. Fair Oaks Avenue. Other medical clinics include the Mayview Community Health Center at 785 Morse Avenue and Chandler Family Health Center at 401 Old San Francisco Road.

Buildout of the proposed project would not result in a significant increase in demand for these types of public facilities such that new buildings, or ancillary structures would be needed or require expansion to serve the proposed project. The impact would be less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact to other public facilities would occur and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies would reduce impacts to less than significant.

CUMULATIVE IMPACTS

The geographic scope of the cumulative public services analysis consists of the service areas of the various service agencies. Development of the proposed project would have the potential to contribute incrementally to cumulative effects on the demand for public services as a result of future growth in the community. Project-specific impact fees would be required and would be a part of an agreement with the City of Sunnyvale and the Sunnyvale Public Safety Department regarding the addition of adequate police and fire protection resources including the potential for new equipment. Although not listed as specific fees to Fremont Union High School District and Sunnyvale School District in the amount adopted by the districts also would be required. Other project within the same service areas would be anticipated implement similar measures as required by the City and as part of future development agreements. This would ensure cumulative impacts are less than significant.

The proposed project would not induce substantial new growth to the area, and future employees are anticipated to be served by existing other public services including medical, libraries, and museums and cultural centers. The increased demand in comparison to the existing users would be insignificant. There are no significant cumulative impacts associated with public services that are peculiar to the proposed project or the parcel

on which the proposed project would be located. No new impacts have occurred nor has any new information been found requiring new analysis or verification is needed.

All proposed development plans would be reviewed and evaluated to coordinate community growth in a manner that adheres to the goals of the General Plan and does not significantly affect the levels of service of existing services, utilities, and service systems. The City's development review process guides community development in a manner that achieves the its goal of maintaining balanced growth and providing adequate services and infrastructure, as stated in the Community Vision of the City's General Plan. The adherence of the above-listed cumulative projects within the City to the land use guidelines and objectives of the General Plan will ensure that potential cumulative effects on public services, utilities, and service systems would be less than significant. The proposed project's demand on public services, would result in a less than cumulatively considerable contribution to this less than significant cumulative impact. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to public services would be less than significant. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review or cumulative analysis.

4.16 Recreation

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Draft EIR Setting p. 4.0-15 and 4.0-16 Impact 4.4.1 and 4.4.2	No	No	No	No	NA, impact remains less than significant
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Draft EIR Setting p. 4.0-15 and 4.0-16 Impact 4.4.1 and 4.4.2	No	No	No	No	NA, impact remains less than significant

DISCUSSION

No substantial change in the regulatory settings related to recreation, described in LUTE EIR Chapter 4, Public Services related to recreation, has occurred since certification of the LUTE EIR. Impact 4.4.1 and 4.4.2 of the LUTE EIR evaluated whether the increase in employees and residents from implementation of the LUTE would increase demand for public parks. Although the proposed project does not include any residential development, per the City's Municipal Code, new residential development is required to dedicate land, pay a fee in lieu thereof, or both, for park or recreational purposes at a ratio of 5 acres per 1,000 residents. Fee's may also be used to upgrade existing park facilities. The LUTE EIR also programmatically evaluated the environmental impacts of upgrading existing parks and the development of new park facilities as part of the overall development analyzed in the EIR (LUTE EIR page 4.0-17). Therefore, the impact conclusions in the LUTE EIR capture the impacts from construction of new parks and recreational facilities.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed project would result in the construction of approximately 1,041,890 square feet of commercial and industrial office space that would at a FAR of 0.65. The proposed project is projected to require approximately 4,500 employees at the site. This increase of employees could incrementally increase demand on public and private recreational facilities in the immediate vicinity of the proposed project because some employees may utilize nearby facilities to exercise before or after work, or during lunch. Additionally, it is possible that employees of the proposed office buildings could use the San Francisco Bay Trail, which is located approximately 0.5 miles north of the project site. The proposed project includes onsite amenities building including a fitness facility, showers and changing areas. The amenities would be for the exclusive use of the employees working onsite and are anticipated of off-set some of the potential increased demand for recreational areas. The proposed project also includes landscaped pathways that connect to area sidewalks, open landscaped area, as well as a green roof accessible by walkways. These areas could be used for both outdoor passive or active recreation. Given the proposed recreational facilities and the availability of public and private recreational facilities in the project vicinity, it is not anticipated that the increased demand for recreational facilities from the proposed project would result in substantial physical deterioration of existing recreational facilities. Impacts in this regard would be less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to recreation remain valid and no further analysis is required.

Conclusion

The proposed project would not result in substantial deterioration of recreational facilities. Impacts would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project does not require the construction of or improvement of offsite recreational areas. The proposed project would not require the construction or expansion of off-site existing recreational facilities that might have an adverse physical effect on the environment. As discussed above, the project proposes onsite recreational facilities for use by future employees. The physical impacts of these onsite private recreational facilities to serve site occupants are addressed as part of the overall project addressed in this document. Impacts in this regard would be less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to recreation remain valid and no further analysis is required.

Conclusion

All proposed recreational improvements would happen within the project footprint. Impacts would be less than significant.

CUMULATIVE IMPACTS

The analysis of cumulative recreational impacts considers the larger context of future development within Sunnyvale as envisioned by the City's General Plan and relies upon the projections of the General Plan. The proposed project's buildings would support recreation with walkway accessible green-roofs as well as numerous landscaped pathways providing connectivity for pedestrians through the site. The pathways also would connect to local trails that would be usable by future employees. Integral to the campus, the proposed development would also provide amenities including a fitness center, café, and extensive outdoor facilities for walking a cycling. These amenity areas would be solely for the use of the project employees. Creating this type of facility would reduce traffic trips, as employees are more likely stay on site for lunch and alter their commute times to allow for before or after business hours workouts or activities.

The LUTE EIR concludes that the impact on recreational facilities and parks would be less than cumulatively considerable under cumulative conditions (Impact 4.4.2). The proposed project's contribution to cumulative increases in non-residential space would be within growth levels anticipated in the City's General Plan, and the proposed project's incremental contribution to this cumulative increase would be less than cumulatively considerable. Potential cumulative impacts associated with the construction of new recreational facilities and requirements of the proposed project to conform to developments standards, rules and regulations, inclusion of COAs, etc. are included within each section of this document. Impacts were found to be less than significant. Therefore, the proposed project would not contribute to cumulative long-term impacts on recreation, nor would the proposed project result in the physical deterioration of existing recreational facilities or require the addition of new parks beyond those identified in the General Plan. Thus, cumulative impacts from the proposed project would not be greater than discussed in the LUTE EIR or those disclosed above.

4.17 Transportation

ENVIRONMENTAL Issues	New Potentially Significant Impact	New Less Than Significant with Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact Than Approved Project
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	X				
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	X				
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	
d) Result in inadequate emergency access?				X	

DISCUSSION

A Transportation Impact Analysis Study (TIA) was completed by Wood Rodgers in August 2019 (Wood Rogers, 2019) that evaluated 27 study intersections within the project site and surrounding area that were projected to experience 10 or more peak hour trips generated by the proposed project. The TIA did not include intersections that were previously analyzed in the 2016 Mathilda Avenue Improvements at SR 237 and US 101 Project ("Caltrans EIR"). The Caltrans EIR is a project EIR that analyzes the reconfiguration of the SR 237 and US 101 interchanges with Mathilda Avenue, including: modification to on and off ramps; removal, addition, and signalization of intersections; and provision of new left turn lanes. The analysis in the TIA covers certain potentially significant transportation impacts the proposed project may produce related to the Mathilda Avenue interchanges with SR 237 and US 101. The TIA did not include intersections that were included in the LUTE EIR. The LUTE EIR evaluated potential traffic impacts based on the City's planned land uses, development density, transportation, and projected buildout by 2035. The LUTE EIR analyzed permitted uses, development density, and projected transportation impacts at the project site and evaluated potential traffic impacts on the surrounding roadway network. Therefore, as discussed in Section 1.2 above, the analysis in this section of the Initial Study Checklist tiers off of the Caltrans EIR (State Clearinghouse No. 2015082030) and the LUTE EIR" (State Clearinghouse No. 2012032003). This Initial Study Checklist determined that the proposed project is likely to result in potentially significant impact to transportation that were not previously analyzed and

mitigated by the requirements of the LUTE EIR, or Caltrans EIR, indicating that further environmental review is required. These impacts are discussed in further detail within the TEIR.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impacts to Transportation related to conflicts with a program plan ordinance or policy addressing the circulation system have not been evaluated within this document. These impacts are evaluated in Chapter 4.1 Transportation of the TEIR. Please refer to that document, to which this Initial Study Checklist attached, for a discussion and complete analysis.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impacts to Transportation related to an inconsistency with CEQA Guideline Section 15064.3(b) have not been evaluated within this document. These impacts are evaluated in Chapter 4.1 Transportation of the TEIR. Please refer to that document, to which this Initial Study Checklist is attached, for a discussion and complete analysis.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impacts to Transportation related to hazards due to geometric design features have not been evaluated within this document. These impacts are evaluated in Chapter 4.1 Transportation of the TEIR. Please refer to that document, to which this Initial Study Checklist is attached, for a discussion and complete analysis.

d) Result in inadequate emergency access?

Impacts to Transportation related to emergency access have not been evaluated within this document. These impacts are evaluated in Chapter 4.1 Transportation of the TEIR. Please refer to that document, to which this Initial Study Checklist is attached, for a discussion and complete analysis.

CUMULATIVE IMPACTS

Cumulative impacts to Transportation have not been evaluated in this document. These impacts are evaluated in Chapter 4.1 Transportation of the TEIR. Please refer to that document, to which this Initial Study Checklist is attached, for a discussion and complete analysis.

4.18 Tribal Cultural Resources

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) 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:						
i) 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)?	No	No	No	No	No	Yes, impacts would be less than significant
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	No	No	No	No	No	Yes, impacts would be less than significant

DISCUSSION

As part of the Cultural Resources Report, SWCA requested a search of the SLF and list of Native American contacts through the California Native American Heritage Commission (NAHC) on January 28, 2019. The NAHC emailed a response on March 26, 2019 and stated that the SLF search was completed with negative results. The NAHC also provided a contact list of six Native American tribes that may have knowledge of cultural resources in or near the project area.

At the time the LUTE EIR was written, Tribal and Cultural Resources were not an individual Environmental Resources area and were not included to the CEQA Checklist. Subsequent actions under the LUTE have the potential to directly or indirectly impact cultural resources in regard to the size and scope of the landscape, a sacred place, or object with cultural value to a California Native American tribe, and that qualify as historic resources under CEQA. This analysis provides and evaluation of potential proposed project impacts related to these resources.

a) *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: i) Listed or eligible for listing in the California:*

   i) *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)?*

   ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

The NAHC was contacted for a check of their Sacred Lands file for properties near the project site; they indicated there were no known sacred sites in the immediate vicinity of the project site. An additional six Native American tribes that may have knowledge of cultural resources in or near the project site was contacted. No subsequent communication from the representative was received. Further archival research from the Northwest Information Center (NWIC) and California Historical Resources information System (CHRIS) was conducted. The CHRIS records search identified 10 previously conducted cultural resources studies within a 0.8-km (0.5-mile) radius of the project area; two of these, S-043999 and S-046899, include a portion of the project site. Within these larger study areas there are two previously recorded archaeological sites that were identified during the records search. P-43-000421 is a multicomponent site that does not intersect the project area. The other site, the Sunnyvale West Channel, does not have a primary number and was never formally recorded on California Department of Parks and Recreation (DPR) Series 523 forms. However, it is mentioned in an environmental document. SWCA has formally recorded the site on DPR forms and received permanent

CHRIS designations of P-43-003980 / CA-SCL-992H. This is in reference to the Sunnyvale West Channel which is ineligible for listing in the NRHP, CRHR, or as a Sunnyvale Heritage Resource.

Implementation of the proposed project could result in disturbance or destruction of unknown buried tribal cultural resources that were not located during previous study and site evaluation. Potential adverse impacts on tribal cultural resources include but are not limited to, being directly destroyed or indirectly impacted by construction equipment and project-related vehicles, unauthorized collection of cultural resources by project personnel as well as amateur and commercial collectors who would have greater access to the area, and vandalism. As part of the discussion of Cultural Resources, above, the proposed project includes COAs related to the inadvertent discovery of archaeological materials and human remains. All such finds would be required to be treated in accordance with all CEQA requirements and all other applicable laws and regulations. Conformance to these requirements would reduce this impact to less than significant.

With the application of uniformly applied development standards and policies and listed COAs for Cultural Resources, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies, incorporation of COAs, and conformance to federal and state regulations would reduce impacts to less than significant.

CUMULATIVE IMPACTS

The geographic scope for cumulative impacts is defined in Section 3.7, Cumulative Projects. With respect to cultural and tribal cultural resources, the geographic scope of analysis is the City of Sunnyvale and Santa Clara County. This area provides a reasonable context wherein cumulative actions could affect these resources.

For these resources, impacts are site-specific and not generally subject to cumulative impacts unless multiple projects impact a common resource, or an affected resource extends off-site, such as a historic townsite or district. The cumulative analyses for historical, archaeological, and tribal cultural resources consider whether the proposed project, in combination with the past, present, and reasonably foreseeable projects, could cumulatively affect any common cultural or paleontological resources.

The proposed project could result in potential site-specific impacts to unknown archaeological, cultural, and tribal cultural resources. Other projects within the cumulative study area also have the potential to result in damage and/or loss to such resources. The combination of the proposed project as well as past, present, and reasonably foreseeable projects in the City and Santa Clara County would be required to comply

with all applicable State, federal, and County and local regulations concerning preservation, salvage, or handling of cultural and paleontological resources, including compliance with required standards and monitoring requirements. Similar to the proposed project, these projects also would be required to implement and conform to the same standards or could implemented mitigation measures, which would be anticipated to reduce impacts to less than significant. Although in the process of development, some known or unknown resources may be lost, it is not anticipated that these impacts would be cumulatively considerable. In addition, implementation of COAs, would reduce project-specific impacts to a less than significant level. Therefore, the proposed project contribution to cumulative impacts would be less than significant. Thus, the conclusions of the LUTE EIR and disclosures above remain valid and approval of the proposed project would not require additional environmental review.

4.19 Utilities and Service Systems

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Would the project:						
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Draft EIR Setting pp. 3.11-30 to 3.11-31 Impact 3.11.4.1	No	No	No	No	Yes, impact remains less than significant
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Draft EIR Setting pp. 3.11-1 to 3.11-9 Impact 3.11.1.1 and 3.11.1.3	No	No	No	No	Yes, impact remains less than significant
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Draft EIR Setting pp. 3.11-17 to 3.11-19 Impact 3.11.2.2 and 3.11.2.3	No	No	No	No	Yes, impact remains less than significant
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair	Draft EIR Setting pp. 3.11-24 Impact 3.11.3.1	No	No	No	No	Yes, impact remains less than significant

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
the attainment of solid waste reduction goals?						
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Draft EIR Setting pp. 3.11-24 Impact 3.11.3.2	No	No	No	No	Yes, impact remains less than significant

DISCUSSION

A water supply assessment (WSA) was prepared that addressed the LUTE as well as the Peery Park Specific Plan and the Lawrence Station Area Plan in accordance with state water planning law. The information about existing and planned supplies, historic and future demand, and supply reliability presented in Section 3.11.1, Water Supply and Service, of the LUTE EIR is taken from the WSA.

Since completion of the WSA, the City adopted a 2015 Urban Water Management Plan (UWMP) that is not reflected in the above discussed WSA. While there is some variation in the estimates for water demand and supply between the WSA and the 2015 UWMP, both documents conclude that there is adequate water supply for growth anticipated under the LUTE EIR under normal year and drought conditions. Thus, the 2015 UWMP does not substantially change water supply impact analysis provided in the LUTE EIR.

Since completion of the LUTE EIR, the City of Sunnyvale as well as the cities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Saratoga, and unincorporated Santa Clara County became members of Silicon Valley Clean Energy (SVCE), which serves as the Community Choice Aggregation (CCA) for its member communities. SVCE works in partnership with Pacific Gas and Electric (PG&E) to deliver direct, renewable electricity to customers within its member jurisdictions. Consistent with State law, all electricity accounts within the city of Sunnyvale were automatically enrolled in SVCE; however, customers can choose to opt-out or remain with PG&E. According to the Sunnyvale Climate Action Plan Biennial Progress Report released in 2018, 98 percent of residential and commercial accounts received carbon-free electricity from SVCE (City of Sunnyvale 2018). Electricity is supplied to the City using infrastructure built and maintained by PG&E.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Wastewater Facilities and Service

Impact 3.11.2.1 in the LUTE EIR evaluated whether implementation of the LUTE would exceed wastewater treatment requirements of the San Francisco Bay RWQCB. The analysis noted that the increase in wastewater flows under the LUTE would be within the permitted design flow capacity of the Donald M. Sommers Water Pollution Control Plant (WPCP) and would be within the design flow capacity assumed in the Water Pollutant Control Plant Master Plan. The City would regulate any new industrial or commercial facilities through the pretreatment program. The analysis concluded that implementation of the LUTE would not exceed the requirements and the impact would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.11.2.3).

Impact 3.11.1.2 and 3.11.2.2 evaluated whether implementation of the LUTE would require the construction of new or expanded water and wastewater infrastructure and treatment facilities. The analysis identifies that the City's wastewater collection system has the capacity to convey sewage and industrial wastes generated when the city is fully developed in accordance with the development potential. The City's Wastewater Collection System Master Plan, Water Master Plan, and Capital Improvement Program identify the conveyance improvements projects including improvements to lift stations, pump stations 1 and 2, and pipeline improvements. Wastewater treatment capacity is addressed under a) above. The LUTE EIR concludes that impacts related to construction of wastewater treatment facilities would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.11.2.3).

The project site is served by existing 12-inch water mains. For this type of development, required water flows usually dictate the size of water main needed to serve the project. Per the City's Department of Public Safety, the proposed development has a maximum fire flow of 4,500 gpm. This fire flow can be accommodated with the existing water mains without exceeding City design standards.[4] The proposed project would not require any additional offsite water infrastructure capacity and as such, no new offsite water infrastructure facilities are required. Water for the proposed project would be piped through existing lines and would be connected to new lines within the project site constructed as part of the proposed project. The on-site improvements would occur within area already proposed for disturbance, the impacts of that disturbance are analyzed in the respective sections of this document. Therefore, no additional impacts associated with expanded infrastructure would occur, and potential impacts are considered less than significant.

Once constructed the proposed project would include, two new office buildings and one parking structure that would require wastewater service. The project site currently consists of 13 office buildings which would be demolished to enable redevelopment of the proposed project. The

[4] Mansour Nasser, City of Sunnyvale, personal communication, October 9, 2019

proposed structures at 100 West Caribbean and 200 West Caribbean would tie into two separate sewer mains. One main is located on West Caribbean Drive and the other on Borregas Avenue. The existing 36" vitrified clay pipe (VCP) on West Caribbean Drive has a slope of 0.68% and a capacity of approximate 23.4 mgd. The existing 24" VCP line on Borregas Avenue has a slope of 0.68% and a capacity of approximate 10 mgd. Wastewater from the proposed project would flow to the Donald M. Somers Water Pollution Control Plant (WPCP) provides wastewater treatment for the City of Sunnyvale. The treatment plant is located at the northern terminus of Borregas Avenue, approximately 0.25 miles northeast of the project site.

The proposed project would increase the sanitary sewer load of the City's systems. On West Caribbean, the net increase during a 10-year event is approximately 0.041 mgd, which accounts for a 0.17% increase as compared to the overall capacity of the existing line. The flows on Borregas Avenue would account for an additional 0.133 mgd, or a 1.32% increase to the overall capacity of the sewer main. Because the increased percentage of flow volume is minimal and because the proposed project is in close proximity to the WPCP there is ample volume in both the 36" and 24" sewer mains. Thus, the flow increases that would result from the proposed project are less than significant and would be similar to those previously identified in the LUTE EIR.

The WPCP is designed and permitted for a daily average dry weather effluent flow of 29.5 MGD and has a peak wet weather flow design capacity of 40.0 MGD. Influent flow rates are based on daily, dry weather, and wet weather flows, and are 12.5 MGD, 12.2 MGD, and 12.7 MGD, respectively. Effluent rates are based on the same flows and are 10.3 MGD, 8.5 MGD, and 11.6 MGD, respectively. The annual average influent and effluent flow rates for 2018 was 12.5 and 10.3 MGD, respectively. Annual average dry weather flows (May 1-Sept 30) were approximately 12.2 MGD for influent and 8.5 MGD for effluent. Annual average wet weather flows (Oct 1-Apr 30) were approximately 12.7 MGD for influent and 11.6 MGD for effluent (Sunnyvale, 2018). This leaves an existing capacity of approximately 17 MGD. In addition, the proposed project wastewater flows to the WPCP were calculated in the Sunnyvale Water Pollution Control Plan Master Plan Program EIR. The projected flows for 2035 were calculated using historical flows and peaking factors from 2000-2012, and anticipated community growth. In 2035 wastewater flows are anticipated to be approximately 19.5 MGD (Sunnyvale, 2016). This would leave a capacity of approximately 10 MGD.

Therefore, based on growth projections, to include the proposed project, the City does not anticipate that flows would exceed the capacity of the overall collection system and impacts would be less than significant. Additionally, because the proposed project would be consistent with the land use assumptions included in the LUTE, the proposed project's contribution to wastewater flows were generally factored in the LUTE EIR and the proposed project would not exceed wastewater treatment requirements of the San Francisco Bay RWQCB. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to wastewater treatment and wastewater treatment capacity remain valid and no further analysis is required.

Storm Water Drainage

Impact 3.8.1 evaluated whether buildout under the LUTE would increase impervious surfaces, and as a result, alter drainage patterns and increase drainage rates and runoff over existing conditions. The analysis notes that the amount and type of runoff generated by various projects under the LUTE would be greater than that under existing conditions due to increases in impervious surfaces. These impacts would be reduced through compliance with existing regulatory programs, including the City's Municipal Code Chapter 12.60, and the City's Urban Runoff Management Plan. Implementation of the LUTE would result in a less than-significant impact under project conditions and would be less than cumulatively considerable under cumulative conditions (Impact 3.8.4).

The proposed project would replace or relocate the existing storm drains onsite, as necessary, to accommodate the proposed building locations. The required physical alterations to existing facilities to serve the proposed project site would not have impacts beyond those identified in this document. The proposed improvements to the stormwater drainage system would occur within the project footprint and areas already proposed to be disturbed. The proposed project would include bio retention areas that would allow for more surface water to infiltrate into the ground, which results in less water entering the storm drain system. The 200 West Caribbean Drive project site currently consists of approximately 840,974 sf of impervious surfaces and the proposed project includes 466,613 sf, which is a reduction of 374,361 sf, or approximately 45%. The 100 West Caribbean Drive project site consists of approximately 618,131 sf of impervious surfaces and the proposed project includes 289,989 sf, which is a reduction of approximately 53%.

The proposed project also includes numerous bioretention basins and water capture systems, that while reducing the existing rates of off-site flows, would increase landscaped areas, minimize irrigation demand and runoff, promote infiltration and reduce polluted flows to receiving waters. The project includes a total of 29 DMAs to capture and treat stormwater drainage. In sum, the proposed project would reduce the on-site impervious by from 1,459,105 to 756,602, which is an overall reduction of approximately 52%. The increased onsite capture rate and proposed stormwater drainage systems would result in an overall decrease in stormwater flows to the off-site drainage system. All proposed on-site stormwater drainage would occur within the footprint of the proposed project and areas already proposed for disturbance. As such, implementation of the stormwater drainage plan would not result in any impacts beyond those already identified. The proposed project would not require an expansion or replacement of any offsite storm drain facilities and the proposed project's potential impacts would be less than significant.

Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to the construction or expansion of storm water drainage facilities remain valid and no further analysis is required.

Electricity, Natural Gas, and Telecommunications Facilities

The project area contains a number of utility lines that serve the existing uses on site. These utilities include electric and gas lines, telephone service lines, and cable television lines. According to the MPSP, natural gas and electric power are supplied to the MPSP area by Pacific Gas and Electric Company (PG&E) under a franchise agreement with the City of Sunnyvale. The MPSP states that the existing infrastructure, including the existing Lockheed Martin Electrical substation on E. Street approximately 0.75 miles to the southwest. Services of these utilities already is established within the project site and surrounding area as part of the existing development. Telephone and data transmission within the City and MPSP area is provided by Pacific Bell (a division of SBC Communications, Inc.). All additional telephone and data services lines would be installed as guided by the proposed MPSP, pursuant to SBC Communications, Inc. recommendations and adopted City standards (Moffett Park Specific Plan, April 27, 2004). Although some of the existing on-site infrastructure for these services would be realigned in some areas within the project site, impacts are considered less-than-significant because no new facilities would need to be constructed to serve the proposed project. Thus, impacts in this regard would less than significant and similar to those previously identified in the LUTE EIR.

Conclusion

Application of uniformly applied City development standards and policies and conformance to state regulations would reduce impacts to less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As described in Impact 3.11.1.1 and 3.11.1.3, cumulative development in Sunnyvale would result in a net additional water demand of 2,274 acre-feet per year. The LUTE WSA identifies that there is adequate water supply available to meet build out of the City in year 2035 under normal, single dry and multiple-dry years. This impact was identified as less than significant under project and cumulative conditions.

The proposed project would be served by the City of Sunnyvale for potable water. Senate Bill 610 (SB 610) added section 21151.9 to the Public Resources Code (PRC) and requires that any project as defined in section 10912 of the Water Code, comply with Water Code section 10910 and prepare an "SB 610 WSA." A WSA is required for certain residential developments, large scale businesses, as well as some commercial office buildings. The proposed project requires a WSA because it exceeds 250,000 square feet of floor space and would employ more than 1,000 people. Accordingly, a WSA to comply with SB 610 was prepared on behalf of the City of Sunnyvale for the proposed project by Tully & Young in April 2019 (Appendix K). The WSA evaluated the total estimated annual water demand that would be needed to serve the proposed project. The WSA relies on the City's 2015 Urban Water Management Plan (UWMP) and the City's 2010 Water Utility Master Plan (WUMP), as well as regional planning documents of the City's wholesale water supplier and the local groundwater sustainability agency. As part of the WSA, certain requirements related to water use reduction measures were factored and include the following:

Senate Bill 7 - Water Conservation Objectives- These objectives were established by Senate Bill 7 in 2009 and established a statewide goal of a 20 percent water use reduction by 2020 and hence, will be in effect for the proposed project and generally consists of water-saving appliances, fixtures, landscaping and other features.

Indoor Infrastructure Requirements – The California Building Code adopted the Green Building Standard Code (CAL Green Code) in January 2010 and it was revised in 2016. The CAL Green Code requires nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside the building by 20 percent.

California Model Water Efficient Landscape Ordinance and County Ordinances (MWELO) – The MWELO was adopted in 2006 and was revised in 2015 which included a reduction to 45% of water that may be a landscape for non-residential projects.

Metering, Volumetric Pricing, and Water Budgets – California Water Code §525 requires the installation of water meters to all new service connections.

The proposed project would satisfy the water use required through the use of appliances and fixtures such as high-efficiency toilets, faucet aerators, on-demand water heaters, or other fixtures as well as Energy Star and California Energy Commission-approved appliances. Furthermore, the proposed project would achieve LEED certification, which would entail water efficiency measures commensurate with the CAL Green Code.

In an effort to reduce water use outside the listed regulatory requirements the proposed project would include the following design elements:

- Limited hardscape area- The proposed project will limit hardscape to maximize the area that will allow for water percolation;
- Recycles Water for Landscape Irrigation – The outdoor water demand will utilize recycles water;
- Indoor Water Use Efficient Fixtures – The indoor water fixtures would include low flow toilets, low flow shower heads, and waterless urinals to comply with LEED and CAL Green requirements.

Based on the proposed project uses, the overall water demand for the proposed project was calculated. The water demand was broken into indoor and outdoor water demand. The uses prescribed to indoor areas included 1) Technology Related Office Space; 2) Onsite Food Service; and 3) Onsite Fitness Facilities. The outdoor water demand accounts for the proposed landscaped areas and includes 1) High water use turf areas; 2) Rooftop Landscaped Areas; 3) Low to medium water use landscape areas; 4) Low water use landscape area. Due to the use of recycled water, landscape irrigation limits under MWELO are not applicable and allows the areas to be treated as "Special Landscape Areas." Using this allowance and the City's Maximum Applied Water Allowance, the landscape demand is estimated to be approximately 70-acre feet[5] per year.

[5] Acre foot is equal to the volume that would cover an acre of land at a depth of one foot.

Construction Water Demand

As part of grading operations, the proposed project would require water for dust suppression and other incidental uses. These uses are considered minimal and would not continue beyond the excavation and grading phases. These uses are conservatively estimated to require approximately one-acre foot of water for year.

Non-Revenue Water Demand

Non-Revenue water demand refers to water lost through the distribution system and includes system leaks, fire protection, construction water, unauthorized connections, and inaccurate meters. Generally, the greatest loss is from leaks. The City estimates that a value of 4 to 8 percent is representative of the City-wide loss. For the purpose of the WSA, an estimate of 6 percent loss was used. *Table 4.19-1: Estimated Project Water Use at Buildout*, provides the estimated proposed project demand.

Table 4.19-1: Estimated Proposed Project Water Use at Buildout

Proposed Project Water Use	Demand (AF/Yr)
Traditional Office Space	48
Onsite Food Service	18
Onsite Fitness Center	5
Landscaping (all)	70
Subtotal Potable Water Demand	71
Subtotal recycled water demand	70
Total	**141**
Non-revenue potable water (6% loss)	4.5
Non-revenue recycled water (6% loss)	4.5
Total Potable Water Demand	76
Total Recycled Water Demand	74
Total Proposed Project Demand	**150**

The 2015 UWMP included projections of future demand for both residential and non-residential land uses through 2035. The projected demands include growth in the Commercial, Industrial, and Institutional (CII) uses such as the proposed project. In 2015 demand was 3,806-acre feet per year (af/y) and this value is anticipated to increase to 10,268 af/y in 2035, an increase of over 6,400 acre-feet. The UWMP predicted this non-residential growth for a 2033 buildout condition, and specifically included a “development reserve” for the MPSP area that anticipated future demands beyond the projections at that time. The Water Utility Master Plan (WUMP) notes the development of the CII component within MPSP were anticipated and the development reserve was provided adequate supply. Accordingly, the expected increase in CII demands reflected in the

2015 UWMP, and the indication that the forecast growth originated with the WUMP indicates that planned growth in the MPSP area is specifically recognized as part of the City's CII growth and accounts for development that would occur under the proposed project. Thus, given the proposed projects location within the MPSP area the water demand is accommodated. The water that would be allocated to the proposed project would come from the City's potable water supply, which is shown in *Table 4.19-2: City Potable Water Supplies*. *Table 4.19-3: Normal Year Water Supply Availability*, and *Table 4.19-4: Dry Year Water Supply Availability*, show normal and dry year water availability.

Table 4.19-2: City Potable Water Supplies

Water Supplier	Total Right or Safeguard	2020	2025	2030	2035	2040
SFPUC Purchased Water	14,100	11,124	12,266	12,266	12,266	12,266
VW Purchased Water	10,200	10,642	11,202	11,762	12,614	12,726
Local Groundwater	8,000	448	336	336	336	336
Recycled Water	--	1,456	1,567	1,680	1,680	1,680
Total	--	**23,670**	**25,373**	**26,045**	**26,898**	**27,009**
Source: UWMP, 2015						

Table 4.19-3: Normal Year Water Supply Availability

Water Supplier	2020	2025	2030	2035
SFPUC Purchased Water	11,124	12,266	12,266	12,266
VW Purchased Water	10,642	11,202	11,762	12,614
Local Groundwater	448	336	336	336
Recycled Water	1,456	1,567	1,680	1,680
Supply Totals	23,670	25,372	26,044	26,896
Demand Totals	23,670	25,372	26,044	26,896
Difference	**0**	**0**	**0**	**0**
Difference as % Supply	0%	0%	0%	0%
Difference as % Demand	0%	0%	0%	0%
Source: UWMP, 2015				

Table 4.19-4: Dry Year Water Supply Availability

Water Supplier	Year 1 2035	Year 2 2036	Year 3 2037
SFPUC Purchased Water	11,124	12,266	12,266
VW Purchased Water	10,642	11,202	11,762
Local Groundwater	448	336	336
Recycled Water	1,456	1,567	1,680
Supply Totals	23,670	25,372	26,044
Demand Totals	23,670	25,372	26,044
Difference	**0**	**0**	**0**
Difference as % Supply	**0%**	**0%**	**0%**
Difference as % Demand	**0%**	**0%**	**0%**
Source: UWMP, 2015			

As shown in the tables above, the proposed project demands are incorporated within the City's anticipated future customer demands are approximately 26,896 acre-feet per year. This volume is satisfied by the City's existing water supply and based on the 2015 UWMP and would be sufficient to meet the demands of the proposed project, which would require approximately 150 af/yr or 0.5% of supply. The proposed project would be constructed in a similar manner to what was anticipated by the 2015 UWMP and with uses that would increase building sf by 331,509 or approximately 32% over what currently exists. This increased demand is satisfied by the existing and projected supply from VW and SFPUC. In addition, the City has a Water Shortage Contingency Plan (WSCP) to ensure adequate supplies are available during an unforeseen shortage. Based on this analysis, adequate water exists to serve the proposed project and impacts would be less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to water supplies remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and conformance to state regulations would reduce impacts to less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As discussed in impact discussion a), above, the proposed project would be served by the WPCP which is located approximately 0.25 miles to the north. The existing sewer lines that would connect the proposed project to the WPCP consist of a 36" vitrified clay pipe (VCP) on West Caribbean Drive has a capacity of approximate 23.4 mgd, and an existing 24" VCP line on Borregas Avenue has a capacity of approximate 10 mgd. The proposed project would increase flows in these pipes approximately 0.17%, and 1.32%, respectively. The increased flow volume is considered insignificant and new sewer lines would not be required. Additionally, Impact 3.11.2 evaluated whether implementation of the LUTE would require the construction of new or expanded wastewater infrastructure and treatment facilities. The analysis identifies that the City's wastewater collection system has the capacity to convey sewage and industrial wastes generated when the City is fully developed in accordance with the development potential (with an approximately 55.7 mgd collection capacity) of the City. The City's Wastewater Collection System Master Plan and Capital Improvement Program identify the conveyance improvements projects including improvements to lift stations, pump stations 1 and 2, and pipeline improvements. Wastewater treatment capacity is addressed under a) above. The LUTE identified this impact as less than significant under project and cumulative conditions.

Wastewater from the proposed project would be treated at the WPCP, which has current permitted daily capacity of 29.5 MGD and has a peak wet weather flow design capacity of 40.0 MGD. Average daily flows (influent and effluent) were approximately 12.5 MGD and 10.3 MGD, respectively. This leaves a current existing capacity of approximately 17 MGD. The 2035 wastewater flows, including those from the proposed project, are anticipated to be approximately 19.5 MGD (Sunnyvale, 2016) leaving a capacity of approximately 10 MGD. The capacity; therefore, is adequate, expansion is not currently required, and impacts would be less than significant. The proposed project is consistent with LUTE land use designations and development intensities that were utilized in the LUTE EIR wastewater impact analysis. Therefore, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to wastewater treatment capacity remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and conformance to state regulations would reduce impacts to less than significant.

d) 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?

As identified in Impact 3.11.3.1 and 3.11.3.3 of the LUTE EIR, the City would generate approximately 54,020 tons annually of solid waste at buildout. The LUTE EIR identifies that there is available combined remaining capacity of 32.8 million tons at three local landfills. This includes the Waste

Management–owned Guadalupe Landfill, which has 11,055,000 tons of remaining capacity. The LUTE estimated that by 2035, approximately 412,979 pounds (206.49 tons) of solid waste would be generated per day in Sunnyvale (including the LUTE, Peery Park Specific Plan, and Lawrence Station Area Plan). This amount of waste represents approximately 12.6 percent of the permitted daily throughput of the Kirby Canyon Landfill or 5.9 percent of the throughput at the Monterey Peninsula Landfill. The LUTE EIR identified this impact as less than significant under project and cumulative conditions.

In addition to disposal at the listed landfills Sunnyvale provides solid waste management services to its residents and businesses via Specialty Waste Services (SWS). SWS provides for the collection of solid waste and recyclables and operation of Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®). After collection solid waste is delivered to the SMaRT Station for processing. At the SMaRT Station, a materials recovery facility sorts recyclable materials from refuse delivered from the cities of Sunnyvale, Mountain View and Palo. Other parts of the facility receive and prepare for marketing source separated recyclables and compostable materials delivered by the cities. Residues from these processes are consolidated in large transfer trailers for delivery to the landfill. In 2018, the SMaRT Station received from the City of Sunnyvale approximately 107,364 tons of municipal solid waste (MSW). Of this MSW, 72,686 tons was disposed of at the Kirby Canyon Landfill, located at 901 Coyote Creek Golf Drive in San Jose. The balance of the waste, approximately 18,535 tons, was disposed of at other landfills. The SMaRT station removed approximately 61,699 tons of the total 107,364 tons, or 57% of materials, from the waste stream and diverted it from the landfills (Sunnyvale, 2018a).

The Kirby Canyon Landfill site is operated by Waste Management of Northern California (Waste Management). The City has landfill capacity under contract through 2021, with an option to extend the disposal agreement for up to 10 years (to 2031) if the landfill operator agrees and is able to extend its land lease. The Kirby Landfill is permitted to accept 2,600 tons of material per day, and based on current disposal volumes, Waste Management estimates the landfill can be in operation until 2059 and beyond (Waste Management, 2019). Communication with Waste Management Industrial Accounts indicates the landfill has adequate capacity to serve the proposed project (Pasewalk, 2019).

The proposed project would comply with the City's Zero Waste Policy in place (Zero Waste Policy 3.2.4) that directs staff to reduce the amount of waste being disposed, and the City Council approved a Zero Waste Strategic Plan that requires 70-90% diversion of material from the landfill. The proposed project construction phase would include a comprehensive materials management plan in accordance with the City's Green Building requirements as well as adequate planning and space for both recycling and garbage containers. The post-occupancy phase of the proposed project would include comprehensive recycling and waste reduction activities, including source separated recycling and food and landscape trimming collection for composting. To ensure these are accomplished, the proposed project includes a three-point waste management strategy focused on 1) waste minimization and material reuse; 2) Closed-loop waste partnership(s); and 3) recycling and landfill diversion.

The waste produced by the proposed project would primarily consist of office waste such as paper, bulk packaging, pallets, and containers; food waste from food services including used food and beverage containers and waste food items; and other miscellaneous operational waste such as

old fixtures, fittings, and furniture. The estimated waste generation was calculated based on the estimated 4,500 employees which was determined by using Googles historic northern California waste data. *Table 4.19-5: Anticipated Waste Stream*, provides this information in volume of cubic yards per day.

Table 4.19-5: Anticipated Waste Stream (cubic yards/day)

Waste items	Volume (cubic Yards) per day)	Waste items	Volume (cubic Yards) per day)
Ops Landfill	38.0	Batteries	0.02
Cans and Bottles	0.30	Cardboard	22.7
Compost	18.0	Confidential Paper	0.82
E-scrap	1.20	Foam	1.20
Kitchen Grease	0.06	Lightbulbs	0.01
Metal	0.61	Mixed Recycling	17.70
Plastic	0.25	Special Projects	0.57
Wood	2.85	--	--
Subtotal	**61.27**	**Subtotal**	**43.02**
TOTAL:	**104.29**		

Waste will be separated within the building into three separate primary waste streams including compost (green waste); mixed recyclable materials; and landfill waste. The waste would be processed by employees in the waste handling area and materials would be disposed of at the proper waste disposal site.

The proposed project would generate approximately 38 cubic yards of waste per day that would require disposal at a landfill. The balance of the materials listed above, would account for approximately 66.29 cubic yards or approximately 64% of the waste materials and would be recycled or require special disposal (such as for batteries) outside the landfill. The proposed project would utilize an industrial compactor to reduce the space needed to process and hold the waste. The Environmental Protection Agency (EPA) provides estimates of the weight per volume of waste materials in its publication Volume-to-Weight Conversion Factors U.S. EPA Office of Resource Conservation and Recovery April 2016. The publication includes numerous categories of waste from automobiles, to carpeting, food waste, and yard trimmings. The also is a category for Municipal Solid Waste (MSW). Based on the description of Mixed MSW – waste from residential, institutional, and commercial, this category was chosen. Due to the proposed uses within the project including cafeteria, office space, as well as training and other areas geared to continuing education and learning, this was the most appropriate waste category to use. The EPA estimate for compacted MSW waste is 400-700 pounds per cubic yard

(EPA, 2016). As a conservative estimate the value of 700 pounds was utilized, and this would result in an estimated 13.3 tons of waste requiring transport to the landfill per day. The Kirby Landfill has a permitted capacity of 2,600 tons per day (CalRecycle, 2019). The proposed project would account for approximately 0.5% of the daily capacity. Therefore, impacts would be less than significant. The proposed project's contribution to solid waste generation were factored in the LUTE EIR given that its land use and intensities are consistent with the LUTE. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to landfill capacity remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and conformance to state regulations would reduce impacts to less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As discussed in Impact 3.11.3.2 of the LUTE EIR, Sunnyvale had a waste diversion rate of 66 percent as of 2011, and under current methods for tracking progress with AB 939, the per capita disposal rates are less than the targets. The City has developed its new Zero Waste Strategic Plan, intended to identify the new policies, programs, and infrastructure that will enable the City to reach its Zero Waste goals of 75% diversion by 2020 and 90 percent diversion by 2030. Additionally, the City of Sunnyvale has committed to the waste reduction programs, plans, and policies that would apply to new development. Construction of subsequent projects under the LUTE that would result in demolition or renovation of existing structures would generate solid waste, and the City requires the recycling and reuse of materials to reduce landfill disposal. Therefore, implementation of the LUTE would not conflict with a federal, state, or local statute or regulation related to solid waste disposal. This impact would be less than significant under project conditions and less than cumulatively considerable under cumulative conditions (Impact 3.11.3.3).

Construction Phase

The proposed project would generate construction and demolition debris typical of office building and parking structure construction during the phased development. To the extent feasible, the demolition debris material would be reused on site for the construction of the proposed project. Material that could not be recycled or reused would be transported to the SMaRT Station and the Kirby Canyon Landfill. In order to comply with the [Council-adopted] Zero Waste Strategic Plan (ZWSP), the construction phase would need to include a comprehensive materials management plan in accordance with the City's Green Building requirements as well as adequate planning and space for both recycling and garbage containers.

Operations Phase

The implementation of the requirements of the City's ZWSP goals are tied to specific diversion targets (75% by 2020 and 90% by 2030) that require specific City programs and specific behaviors by waste generators would result in waste reduction and compliance with recycling regulations. The post-occupancy phase of the proposed project would need to and does include comprehensive recycling and waste reduction activities, including source separated recycling and food and yard trimmings collection for composting. As discussed above, approximately 64% of the waste material generated by the proposed project would be diverted from the Kirby Landfill.

Thus, consistency with the existing General Plan goals and policies, the ZWSP goals, not exceeding the capacity for the Kirby Canyon Landfill, and participating in the SMaRT Station recycling program ensures the proposed project would meet federal, state, and local statutes and regulations for solid waste disposition. Participation in a commercial recycling program is required under the Council-adopted ZWSP also would satisfy the requirements to divert recycled materials from the landfill. As such, the proposed project is consistent with the solid waste regulations of the Sunnyvale Municipal Code, AB 939, California Integrated Waste Management Act, and the Santa Clara Integrated Waste Management Plan. Consequently, the proposed project's effects on solid waste generation and disposal are less than significant. Thus, with the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. The findings of the certified LUTE EIR pertaining to solid waste remain valid and no further analysis is required.

Conclusion

Application of uniformly applied City development standards and policies and conformance to state regulations would reduce impacts to less than significant.

CUMULATIVE IMPACTS

Water

The proposed project water demands are incorporated within the City's anticipated future customer demands which total approximately 26,896 acre-feet. This volume is satisfied by the City's existing water supply and based on the 2015 UWMP and would be sufficient to meet the demands of the proposed project, existing, and anticipated projects. This is consistent with growth in the 2015 UWMP and supplies from VW and SFPUC. Lastly, the City Water Shortage Contingency Plan (WSCP) would help ensure adequate supplies are available during an unforeseen shortage. The proposed project would not have any potentially significant off-site impacts or cumulative impacts on water resources, that were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts to water

resources would be less than significant. The findings of the certified LUTE EIR pertaining to water resources remain valid and no further analysis is required.

Electricity, Natural Gas, other Utilities

Utilities provided to the proposed project would be from PG&E under a franchise agreement with the City of Sunnyvale and other services such as phone and internet would be provided by Pacific from lines within the MPSP and would be installed or extended as guided by the proposed Moffett Park Specific Plan, pursuant to SBC Communications, Inc. recommendations and adopted City standards (Moffett Park Specific Plan, April 27, 2004. Electricity services from the existing infrastructure, Lockheed Martin Electrical substation on E. Street is already established within the project site and surrounding area as a result of the current development. Other future project within the MPSP would also be served by these utility lines. It is anticipated that areas of disturbance to make the connections would be within previously developed areas and from existing lines. The proposed project would not have any potentially significant off-site impacts or cumulative impacts on electricity, natural gas, or other utilities that were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts in this regard would be less than significant. The findings of the certified LUTE EIR pertaining to these resources remain valid and no further analysis is required.

Wastewater

In conjunction with past, present and reasonably foreseeable projects, the proposed project would not make a cumulatively considerable contribution to impacts to wastewater. The proposed project would tie into existing service lines and require less than 2% of the capacity in the existing lines and a remining capacity of approximately 10 MGD, post project would be available at the wastewater treatment plant. Therefore, the proposed project would account for a marginally small decrease in capacity. The proposed project would not have any potentially significant off-site impacts or cumulative impacts on wastewater were not discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts in this regard would be less than significant. The findings of the certified LUTE EIR pertaining to these resources remain valid and no further analysis is required.

Solid Waste

The proposed project in conjunction with past, present and likely foreseeable future projects in the vicinity would likely utilize the Kirby Landfill which has substantial capacity and is anticipated to serve projected demand through the lifecycle of the landfills. In addition, all other projects considered on a cumulative basis also would be required to undergo site specific environmental and CEQA review. In addition, through the planning process, all other projects would be required to comply with waste reduction strategies both for construction and during operation of the proposed project. It is anticipated that impacts would be reduced to less than significant and would be less than cumulatively considerable. Therefore, the proposed project would not have any potentially significant off-site impacts or cumulative impacts on solid waste that were not

discussed in the LUTE EIR or disclosed above. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts in this regard would be less than significant. The findings of the certified LUTE EIR pertaining to these resources remain valid and no further analysis is required.

4.20 Wildfire

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:						
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Draft EIR Setting pp. 3.3-1 to 3.3-9 Impact 3.3.5	No	No	No	No	Yes, impacts would remain less than significant
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Draft EIR page 3.3-15 No Impact	No	No	No	No	Yes, impacts would remain less than significant
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No	No	No	No	No	N/A, no impacts would occur.
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	No	No	N/A, no impacts would occur.

DISCUSSION

At the time the LUTE EIR was written, wildfire was not an individual Environmental Resources area and was not included to the CEQA Checklist. A single threshold question related to wildfire; however, is included in the Hazards and Hazardous Materials section and that analysis is reflected as appropriate below. The proposed project is located in a highly urbanized area and there are no wildlands within or adjacent to the project site. The following analysis provides an evaluation of potential project impacts related to the wildfires and potential secondary effects.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Impact 3.3.5 in the LUTE EIR evaluated the potential for implementation of the LUTE to interfere with the City of Sunnyvale Emergency Plan. The analysis stated that the proposed roadway system in the LUTE would improve City roadway conditions from existing conditions, allowing better emergency vehicle access to residences as well as evacuation routes for area residents. Thus, impacts from implementation of the LUTE would result in a less-than-significant impact under project conditions and would make a less than cumulatively considerable contribution under cumulative conditions related to interference with an adopted emergency response plan or emergency evacuation plan.

The proposed project is located in the MPSP and would result in the redevelopment of the project site with two five story mid-rise structures. The proposed project is not located in an area that would obstruct the response plan to an emergency and is not located in an area that would impair an emergency evacuation plan.

The Santa Clara County Operation Area Hazard Mitigation Plan (HMP) was adopted by the City of Sunnyvale in November of 2017. The HMP identifies resources, information, and strategies for reducing risk from natural hazards. The HMP is broken into two volumes. Volume 1 includes the federally required elements of a disaster mitigation plan including a description of the planning process, public involvement strategy, goals and objectives, hazard risk assessment, mitigation actions, and a plan maintenance strategy. Volume 2 includes the required elements, in annexes for each participating jurisdiction. It includes a description of the participation requirements established for participants in this plan, as well as instructions and templates that the partners used to complete their annexes (Santa Clara County, 2017).

Other emergency services provided by the City of Sunnyvale Department of Public Safety (DPS). The DPS is a fully integrated service delivery model for police, fire, and emergency medical services. The DPS also provides training, support, and services to ensure the City is prepared to respond to and recover from the effects of major emergencies. Emergency situations are broadcast to citizens using the Santa Clara County Emergency Alert System (AlertSCC) and the Santa Clara County Disaster Prep App (ReadySCC). In addition, the City has the Sunnyvale Emergency Response Volunteers (SERV) which is facilitated by the DPS, the purpose of which is to provide Sunnyvale residents with tools to be self-sufficient in their homes as well as their neighborhoods following a disaster.

As discussed above, the proposed project would not impair or obstruct any emergency contingencies set forth by any of the listed emergency plans, or organizations or units providing emergency response or evacuation and impacts would be less than significant. With the application of uniformly applied development standards and policies, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the findings of the certified LUTE EIR related to impacts from interference with emergency plans remain valid and no further analysis is required.

Conclusion

The project site is not located in an areas susceptible to wildfire. No impacts would occur.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

As identified on page 3.3-15 in the LUTE EIR, the LUTE was determined to have no impact under project or cumulative conditions related to this the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The LUTE EIR did not specifically analyze slope, prevailing winds, or other factors that could exacerbate wildfires. As provided in the Discussion Section above, this criterion was not a part of the CEQA Checklist at the time the LUTE EIR was written. Nonetheless, the proposed project is not located in an area susceptible to wildfire.

The proposed project is surrounded by commercial and industrial development within the MPSP area and there are no undeveloped or wildlands immediately adjacent. The project site is identified as a Local Responsibility Area (LRA) by the California Department of Forestry and Fire Protection (CALFIRE). An LRA is a zone where incorporated local agencies have the primary responsibility for fire protection as opposed to a State Responsibility Area (SRA) where CALFIRE would have the primary responsibility. CALFIRE also provide designations of Fire Hazard Severity Zones in both SRA's and LRA's. CALFIRE designates the project site as a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) (CALFIRE, 2007 and 2008). Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact not previously discussed in the LUTE EIR would occur. Impacts related to wildfire in this regard would not occur.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The LUTE EIR did not specifically analyze the potential requirement for installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. As discussed in the Discussion Section above, this criterion was not a part of the CEQA Checklist at the time the LUTE EIR was written. The project site is completely developed and surrounded by existing urbanization. No unidentified impacts associated with this criterion would occur.

The proposed project is located in the MPSP and would result in the redevelopment of the project site with two five-story mid-rise structures. The proposed project is surrounded by existing industrial and commercial development and there are no wildlands in these areas or the project site. The proposed project would include features such as roads and utilities that would be installed during project construction and require upkeep. Both construction and the maintenance of these facilities would have little to no potential to exacerbate fire risk resulting in a temporary or ongoing impact to the environment. Installation and future work on electrical utilities has the potential to result in isolated ignitions but has not potential to result in wildfire impacts. Following standard safety protocols and standards related to installation and maintenance of these facilities would ensure impacts do not occur.

Conclusion

The project site is not located in an areas susceptible to wildfire. No impacts would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The LUTE EIR did not specifically analyze the potential for impacts related to the exposure of people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage change as a result of a wildfire. As discussed in the Discussion Section above, this criterion was not a part of the CEQA Checklist at the time the LUTE EIR was written. No unidentified impacts associated with this criterion would occur.

The proposed project site and surrounding areas are not susceptible to wildfire. The project site is relatively flat with minimal slopes as are the surrounding areas. The project site does not have the potential to be affected by downslope or downstream flooding or landslides as a result of fire slop instability. The nearest Very High Fire Hazard Severity Zone as mapped by CALFIRE is approximately 10 miles to the southwest of the project site (CALFIRE, 2008). No impacts would occur.

Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact not previously discussed in the LUTE EIR would occur. Impacts related to wildfire in this regard would not occur.

Conclusion

The project site is not located in an areas susceptible to wildfire. No impacts would occur.

CUMULATIVE IMPACTS

As discussed above, the proposed project would not result in any impact associated with wildfire or emergency response. The project site is not in an area susceptible for wildfires and is not designated for use as an emergency or evacuation site. The project site is surrounded by other developed sites that preclude the threat of wildfire. Therefore, taken in sum with past, present, and reasonably foreseeable projects, cumulative impacts associated with wildfires would not occur. This impact was not previously discussed in the LUTE EIR or disclosed above.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
Does the project:						
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Draft EIR Sections 3.9, Biological Resources, and 3.10, Cultural Resources.	No	No	No	No	Yes, impact remains less than significant
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)?	Draft EIR Sections 3.1 through 3.13 and Sections 4.1 through 4.4	No	No	No	No	Yes, impact remains less than significant

ENVIRONMENTAL Issues	Where Impact was Analyzed in the LUTE EIR	Any Peculiar Impact?	Any Impact Not Analyzed as Significant Effect in LUTE EIR?	Any Significant Off-Site or Cumulative Impact Not Analyzed?	Any Adverse Impact More Severe Based on Substantial New Information?	Do EIR Mitigation Measures or Uniformly Applied Development Policies or Standards Address/ Resolve Impacts?
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Draft EIR Sections 3.3, Hazards and Human Health, 3.5, Air Quality, and 3.6, Noise	No	No	No	No	Yes, impact remains less than significant

DISCUSSION

Since the LUTE Final EIR was certified, there have been regulatory changes noted in the above checklist. However, these regulatory changes would not affect the analysis or conclusions of the LUTE EIR. Regarding the above-listed mandatory findings of significance, with the application of uniformly applied development standards and policies, mitigation required by the LUTE EIR, and SCVWCDEIR, as applicable, would reduce associated impacts to less than significant. All applicable mitigation measures in the LUTE EIR would continue to be implemented with the proposed project. Therefore, no new significant impacts would occur with implementation of the proposed project.

a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As described throughout the analysis above, the proposed project would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. All potentially significant impacts related to plant and animal species would be mitigated to a less than significant level. The proposed project would be required to implement best management practices from the West Channel DEIR that are aimed at protecting special status species as well as COAs and previously adopted mitigation as part of the certified VW EIR, which require avoidance or minimization for the disturbance of sensitive habitats and plant and animal species. Conformance with these requirements would reduce the cumulative impacts from the proposed project in relation to biological resources. These impacts would be less than significant. Thus, the proposed project would have no (1) peculiar impacts, (2) significant

impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR or VW EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)?

No cumulative impacts resulting from the proposed development of the proposed project in combination of future remodels/additions to existing residences allowed by the SGP, Municipal Code, or MPSP requirements have been identified. As such, the project's contribution to cumulative effects would be less than cumulatively considerable. Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the proposed project has been determined not to meet this Mandatory Finding of Significance.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in the respective sections (Sections 4.4 and 4.5) of this checklist. In addition to project specific impacts, this evaluation considered the project's potential for significant cumulative effects. There is no substantial evidence that there are biological or cultural resources that are affected or associated with the proposed project.

The potential for adverse direct or indirect impacts to human beings were considered in the response to certain questions in sections 1. Aesthetics, 3. Air Quality, 6. Geology and Soils, 8. Hazards and Hazardous Materials, 9. Hydrology and Water Quality, 12. Noise, 13. Population and Housing, and 16. Transportation and Traffic. As a result of this evaluation, there is no substantial evidence that there are adverse effects on human beings associated with the proposed project.

Thus, the proposed project would have no (1) peculiar impacts, (2) significant impacts not analyzed in the LUTE EIR, or (3) significant off-site impacts and cumulative impacts not discussed in the LUTE EIR, and (4) there is no substantial new information indicating that an impact would be more severe than discussed in the LUTE EIR. Therefore, the proposed project has been determined not to meet this Mandatory Finding of Significance.

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