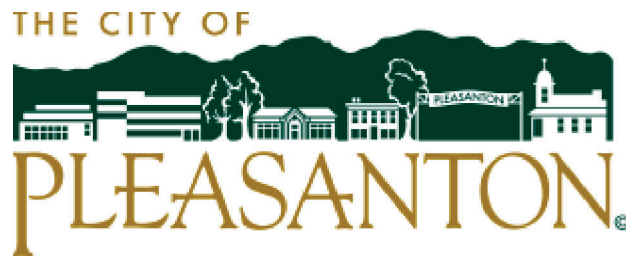


City of Pleasanton
Community Development Department



Hana Japan Restaurant Project
Initial Study/Mitigated Negative Declaration

May 2025

Prepared by



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APPENDICES:

Appendix A: Air Quality and Greenhouse Gas Modeling Results

Appendix B: Biological Resources Site Assessment

Appendix C: Geotechnical Materials

Appendix D: GHG Emission Compliance Checklist

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

A. BACKGROUND

1. Project Title: Hana Japan Restaurant Project
2. Lead Agency Name and Address: City of Pleasanton
Community Development Department
200 Old Bernal Avenue
Pleasanton, CA 94566
3. Contact Person and Phone Number: Jenny Soo
Associate Planner
(925) 931-5615
Jsoo@cityofpleasantonca.gov
4. Project Location: 11991 Dublin Canyon Road
Pleasanton, CA 94588
Assessor's Parcel Number (APN) 941-1710-10-1
5. Project Sponsor's Name and Address: Dan Yoon
7298 San Ramon Road
Dublin, CA 94568
6. General Plan Designations: Retail/Highway/Service Commercial and Business
and Professional Offices
7. Zoning Designations: Central Commercial (C-C)
Planned Unit Development-Commercial-Office (PUD-C-O)
8. Required Approvals from Other Public Agencies: None
9. Surrounding Land Uses and Setting:

The project site is located on the lower northern slope of a hillside in the City of Pleasanton, California, at 11991 Dublin Canyon Road (APN 941-1710-10-1). The approximately 1.16-acre site is bisected by a concrete drainage ditch and includes one oak tree with scattered shrubs; the remainder of the site is undeveloped. A private paved roadway is located along the western boundary of the project site that provides access to the site, as well as to the existing residence to the south. A band of oak woodlands is located to the west and south of the site. Surrounding existing land uses include commercial hotel uses to the north, across Dublin Canyon Road; offices and commercial uses, including the Stonebridge Shopping Center, to the east, across Foothill Road; and single-family residences to the south and west. The project site is designated Retail/Highway/Service Commercial and Business and Professional Offices in the City of Pleasanton General Plan, and zoned Central Commercial (C-C) and Planned Unit Development-Commercial-Office (PUD-C-O) by the City.

10. Project Description Summary:

The Hana Japan Restaurant Project (proposed project) would include the development of a single-story 6,445-square-foot (sf) teppanyaki restaurant with seating available for a total of 136 individuals. The proposed restaurant would include a kitchen, bar, dining room with nine cooking stations, lobby, office, bathrooms, and utility room. The project site is located on a hillside and would therefore require significant grading, as well as removal of the existing paved roadway, the concrete drainage ditch, and the on-site oak tree. The project would include 43 parking stalls in front of the restaurant. The proposed project would also include development of a new drainage ditch along the site boundaries, a new bioretention area, and emergency vehicle turnaround. Finally, the proposed project would include off-site improvements, such as a portion of the driveway, emergency vehicle turnaround, and associated landscaping.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

The City of Pleasanton has not received any letters from tribes requesting notice pursuant to Assembly Bill (AB) 52/Public Resources Code (PRC) Section 21080.3.1. As such, formal notification of the proposed project to any tribes is not required.

B. SOURCES

The following documents are referenced information sources used for the purpose of this Initial Study/Mitigated Negative Declaration (IS/MND):

1. ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.
2. Bay Area Air Quality Management District. *2022 California Environmental Quality Act Guidelines*. April 2023.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
4. Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022.
5. BSK Associates. *Peer Review of Geotechnical and Geologic Hazard Investigations, 11991 Dublin Canyon Road (Hana Japan), Pleasanton, California*. September 6, 2024.
6. California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022.
7. California Building Standards Commission. *2022 California Green Building Standards Code*. 2023.
8. California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed August 2024.
9. California Department of Conservation. *California Williamson Act Enrollment Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html>. Accessed August 2024.
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11. California Environmental Protection Agency. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/search>. Accessed September 2024.

12. City of Pleasanton Community Development Department, Planning Division. *GHG Emission Compliance Checklist*. July 2022.
13. City of Pleasanton. *Climate Action Plan 2.0*. Adopted February 2022.
14. City of Pleasanton. *Emergency Preparedness*. Available at: <https://www.cityofpleasantonca.gov/emergency-preparedness>. Accessed September 2024.
15. City of Pleasanton. *Final Environmental Impact Report*. Certified April 2009.
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18. City of Pleasanton. *Pleasanton Trails Master Plan*. May 7, 2019.
19. Department of Toxic Substances Control. *EnviroStor*. Available at: <https://www.envirostor.dtsc.ca.gov/public/search.asp>. Accessed September 2024.
20. Department of Water Resources. *Sustainable Groundwater Management Act 2018 Basin Prioritization* [Table A-1]. January 2019.
21. East Alameda County Conservation Strategy Steering Committee. *East Alameda County Conservation Strategy*. October 2010.
22. ENGEO Incorporated. *2022 CBC Seismic Design Parameters Update*. January 20, 2023.
23. ENGEO Incorporated. *Fault Exploration, Hana Japan Steak House, Pleasanton, California*. March 31, 2008.
24. ENGEO Incorporated. *Geotechnical Report Update*. January 15, 2025.
25. ENGEO Incorporated. *Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California*. May 2, 2008.
26. ENGEO Incorporated. *Response to Comments*. November 11, 2024.
27. Federal Emergency Management Agency. *Flood Insurance Rate Map 06001C0308G*. Effective August 3, 2009.
28. Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.
29. Monk and Associates, Inc. *Biological Resources Site Assessment*. March 24, 2025.
30. Pleasanton Unified School District. *Developer Fees*. Available at: <https://www.pleasantonusd.net/departments/business-services/developer-fees>. Accessed March 2025.
31. State Water Resources Control Board. *Active CDO and CAO*. Available at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed September 2024.
32. StopWaste. *Amendment to the Alameda Countywide Integrated Waste Management Plan (ColWMP) for Vasco Road Landfill Expansion*. September 28, 2022.
33. Zone 7 Water Agency. *2015 Urban Water Management Plan*. March 31, 2016.
34. Zone 7 Water Agency. *2023 Annual Consumer Confidence Report*. Available at: <https://www.zone7water.com/post/annual-water-quality-reports>. Accessed September 2024.
35. Zone 7 Water Agency. *Groundwater Management Plan for Livermore-Amador Valley Groundwater Basin*. September 2005.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED


The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Less-Than-Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

D. DETERMINATION

On the basis of this initial study:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

Jenny Soo, Associate Planner
Printed Name

May 21, 2025

Date

City of Pleasanton
For

E. BACKGROUND AND INTRODUCTION

This IS/MND identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document are organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures sufficient to reduce the impacts to less-than-significant levels are prescribed. The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the proposed project, as required by CEQA. The mitigation measures would be incorporated into the proposed project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program (MMRP) for the proposed project in conjunction with project approval.

On July 21, 2009, the City of Pleasanton adopted the City's General Plan¹ and certified an associated Environmental Impact Report (EIR).² The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan. Applicable portions of the General Plan and General Plan EIR are incorporated by reference, as necessary, as part of this IS/MND. Project-specific technical reports have been prepared for the proposed project and form the basis of several technical sections of this IS/MND. All technical reports used in the preparation of this IS/MND are included as appendices.

In addition, an Initial Study/Negative Declaration (IS/ND) was prepared for the PDR-804 Project in 2008, which included development of a 6,080-sf, one-story restaurant with 50 parking spaces on the project site. The IS/ND was adopted by the City of Pleasanton Planning Commission in 2009 and a Conditional Use Permit (CUP) was approved for the PDR-804 Project. However, following approvals, the applicant did not proceed with the project and the entitlements expired.

F. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components and the discretionary actions required for the project.

Project Location and Setting

The project site consists of an 1.16-acre parcel (APN 941-1710-10-1) located at 11991 Dublin Canyon Road, southwest of the intersection of Dublin Canyon Road and Foothill Road in the City of Pleasanton, California (see Figure 1 and Figure 2). The project site is undeveloped, although the site is also bisected by a concrete drainage ditch and includes a single tree on-site. A private paved roadway is located along the western boundary of the project site that provides access to the project site, as well as to the existing residence to the south. A band of oak woodlands is located to the west and south of the site.

¹ City of Pleasanton. *Pleasanton General Plan 2005 – 2025*. Available at: <https://www.cityofpleasantonca.gov/assets/our-government/community-development/cop-gen-plan-2005-25.pdf>. Adopted July 21, 2009. Amended August 20, 2019.

² City of Pleasanton. *Final Environmental Impact Report*. Certified April 2009.

**Figure 1
Regional Project Location**

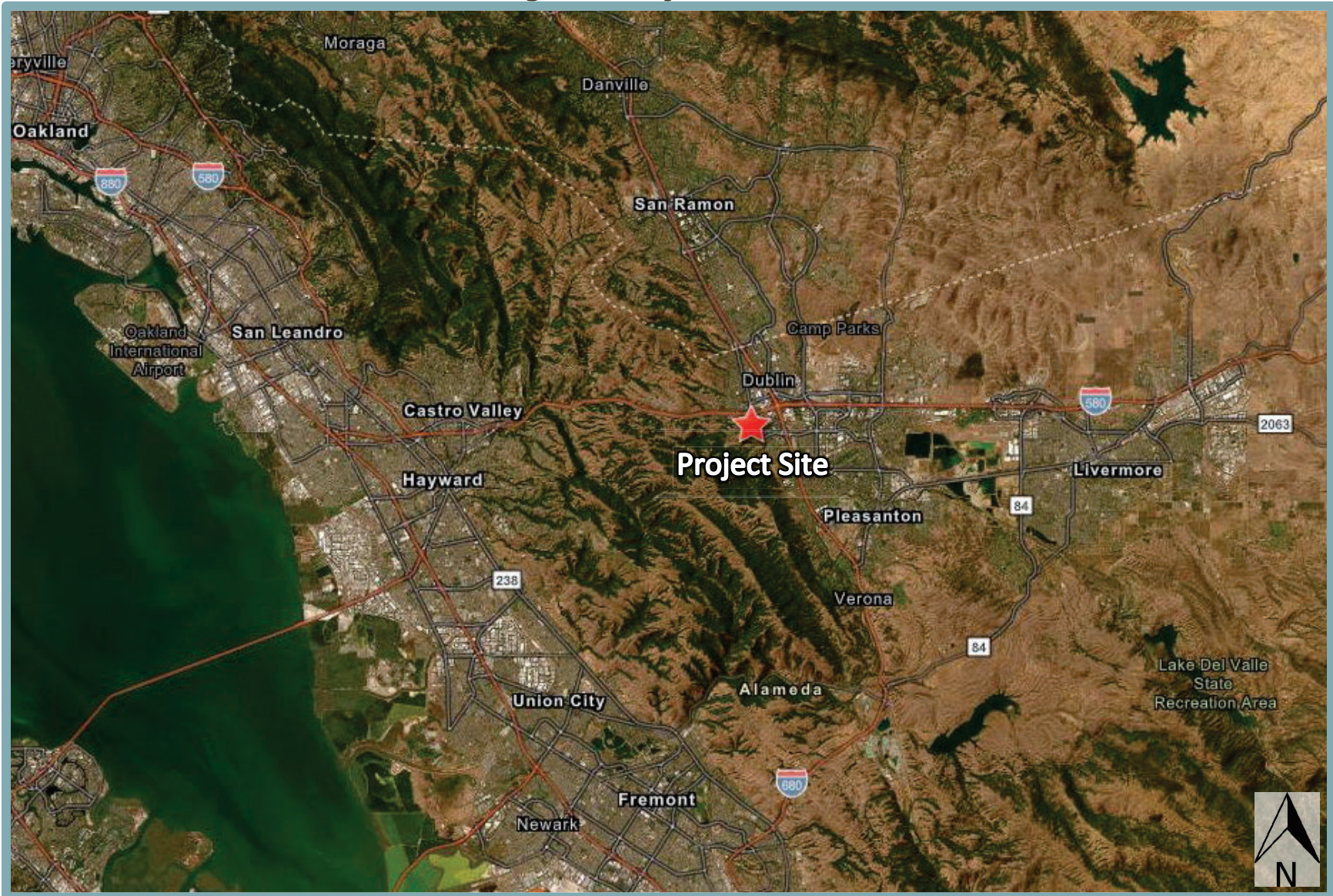
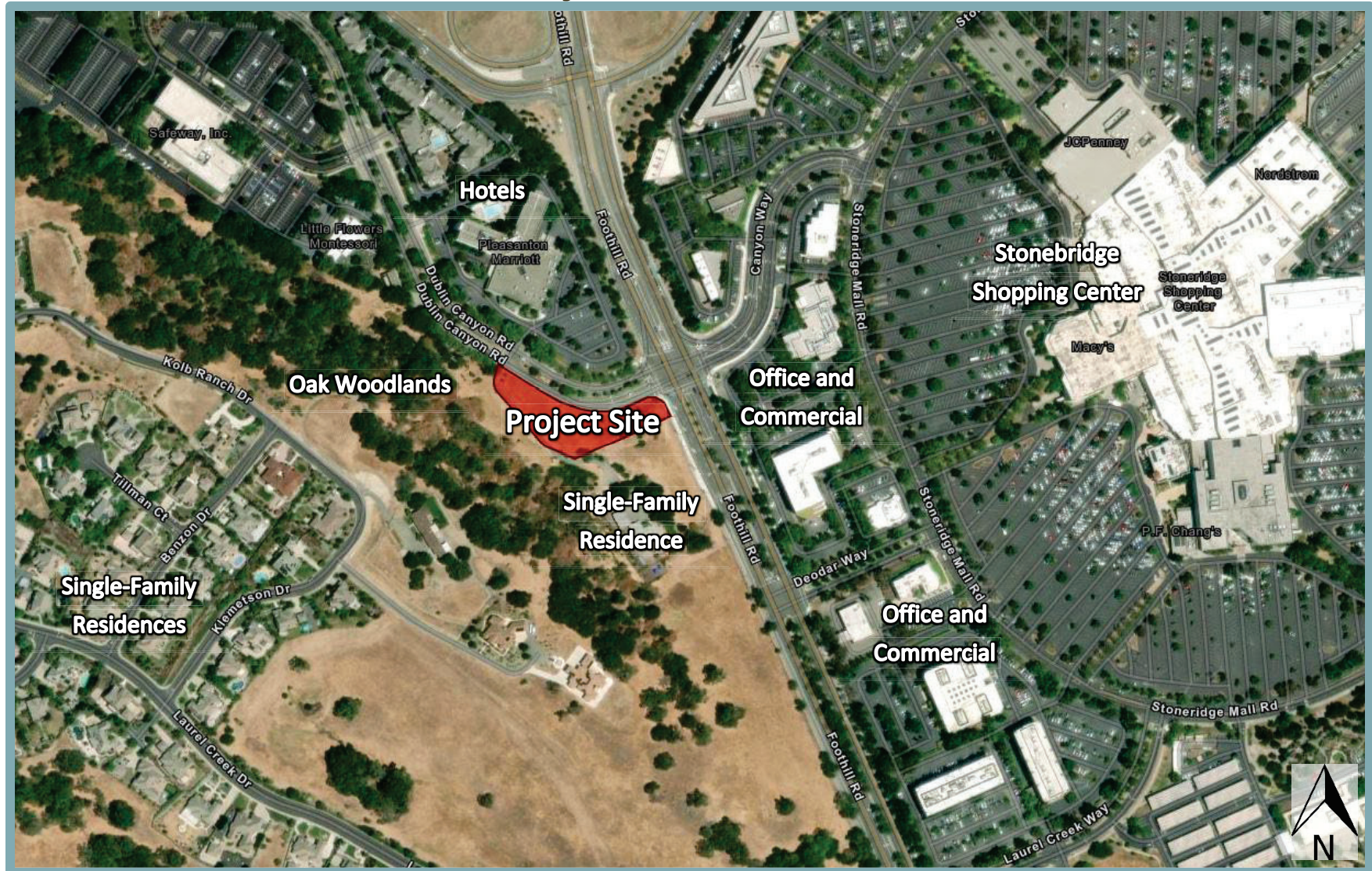


Figure 2
Project Site Boundaries



Surrounding existing land uses include commercial hotel uses to the north, across Dublin Canyon Road; offices and commercial uses, including the Stonebridge Shopping Center, to the east, across Foothill Road; and single-family residences to the south and west. The project site is designated Retail/Highway/Service Commercial and Business and Professional Offices in the City of Pleasanton General Plan, and zoned Central Commercial (C-C) District and Planned Unit Development-Commercial-Office (PUD-C-O) by the City.

Project Components

The proposed project would include the development of a single-story 6,445-sf teppanyaki restaurant with seating available for a total of 136 individuals (see Figure 3 and Figure 4). The restaurant would include a kitchen, bar, and dining room with nine cooking stations, as well as a lobby, office, bathrooms, and utility room. The proposed project would also include cuts up to 21 feet and fills up to five feet at the on-site hillside, which was created when Dublin Canyon Road was constructed, the removal of the existing paved roadway, the concrete drainage ditch, and the on-site oak tree, and the installation of retaining walls.

The existing private roadway along the western project site boundary would be modified to serve the proposed project. Access to the project site would be provided by the driveway, which would connect to a new paved road within the project site. A total of 43 stalls located in front of the restaurant would be provided for staff and customers. The parking lot would generally occupy the portion of the site not covered by the proposed restaurant building. It should be noted that a new sidewalk along Dublin Canyon Road would be constructed as part of the proposed project, and that the proposed off-site improvements would include an emergency vehicle turnaround behind the proposed restaurant building.

Landscaping improvements would be implemented throughout the project site, including the sidewalk. Such improvements would include, but are not limited to, a six-foot-minimum landscape buffer between the sidewalk and Dublin Canyon Road, reeds and grasses within filtration areas, clinging vines on the proposed retaining walls, and shade trees within the parking lot (see Figure 5). All landscaping improvements would be consistent with Chapter 17.14, Water Efficient Landscaping, of the City's Municipal Code, and thus, would comply with the State's Model Water Efficient Landscape Ordinance (MWELO) and the Bay Friendly Basics Landscape Guidelines of the Alameda County Waste Management Authority.

Water and sanitary sewer service for the proposed development would be provided by the City of Pleasanton. Both utilities would be provided through new connections to existing utility lines within the project site or vicinity.

New on-site storm drainage facilities would include a drainage ditch that extends along the site's eastern, southern, and western project site boundaries, as well as a new bioretention area along the northern site boundary. Stormwater runoff within the project site would flow to the landscaped areas located throughout the project site, which would provide treatment and detention of the on-site stormwater runoff (see Figure 6). As discussed above, the project would include various other landscaping elements that would allow for stormwater infiltration. The filtration areas would consist primarily of pervious landscaping, which would treat stormwater by filtering runoff slowly through an active layer of soil, allowing for removal of pollutants. The proposed project would include a series of new on-site pipes which would collect the treated stormwater from the bio-treatment planters and convey the discharged water to the existing City system.

Figure 3
Site Plan

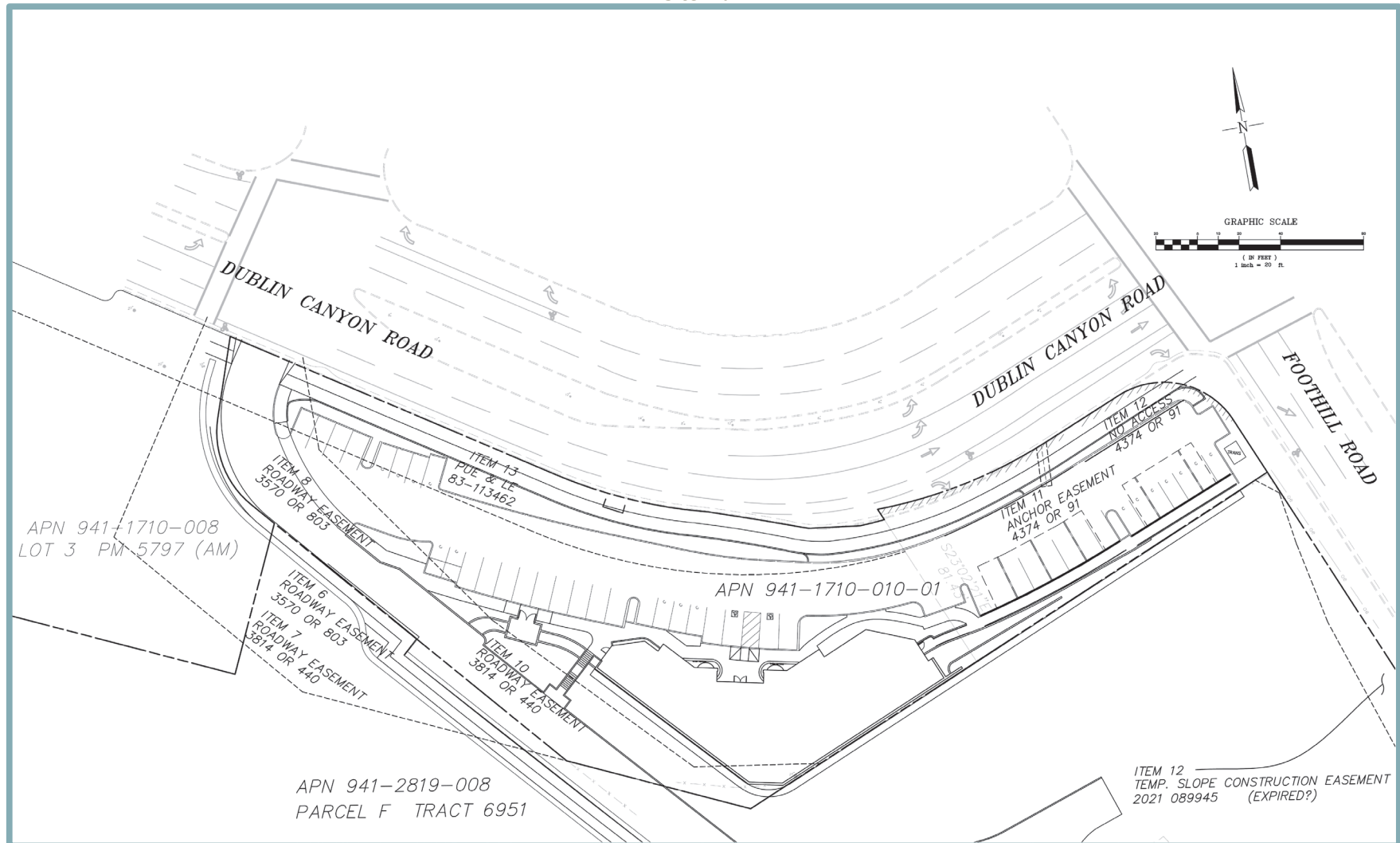


Figure 4
Restaurant Floor Plan

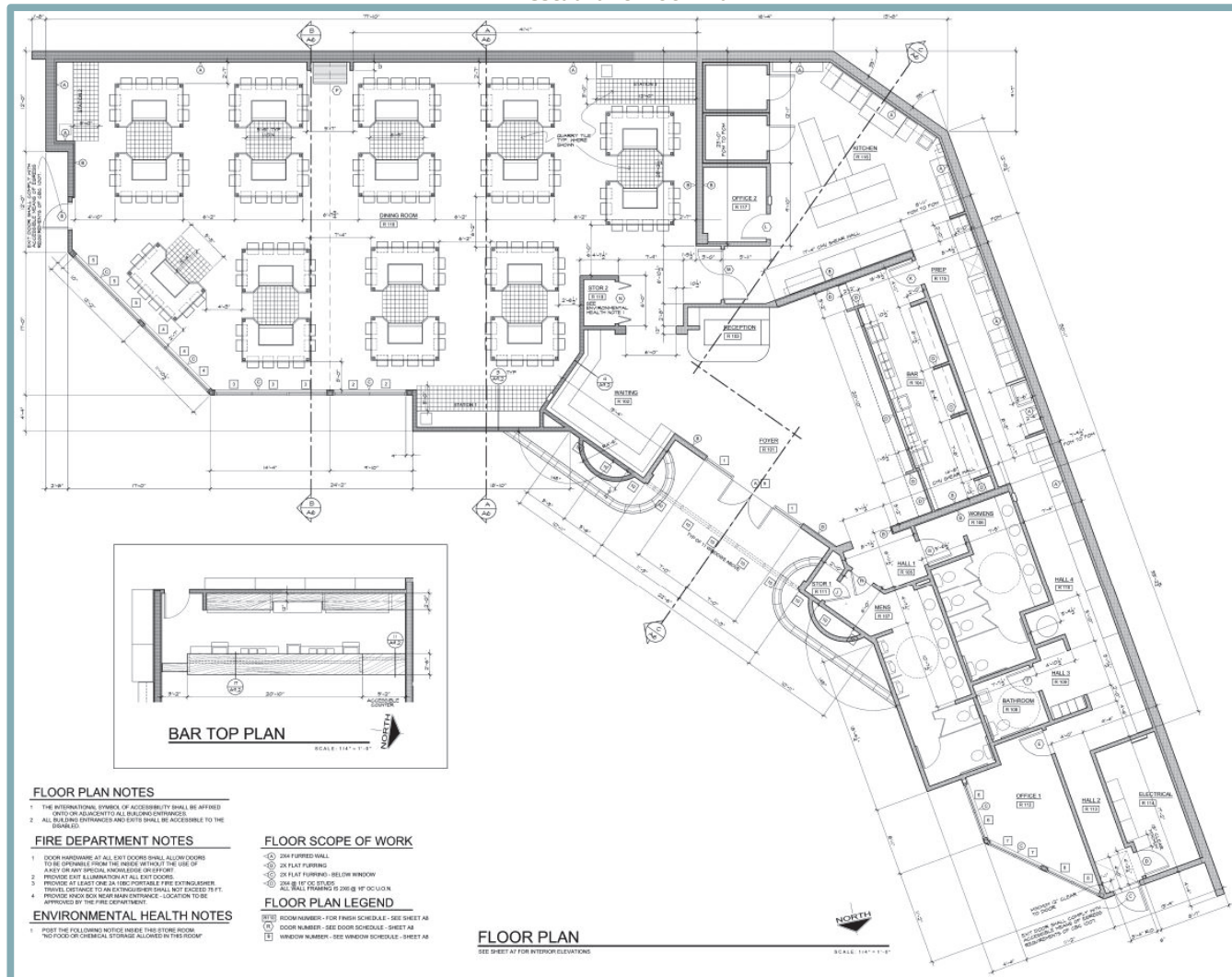
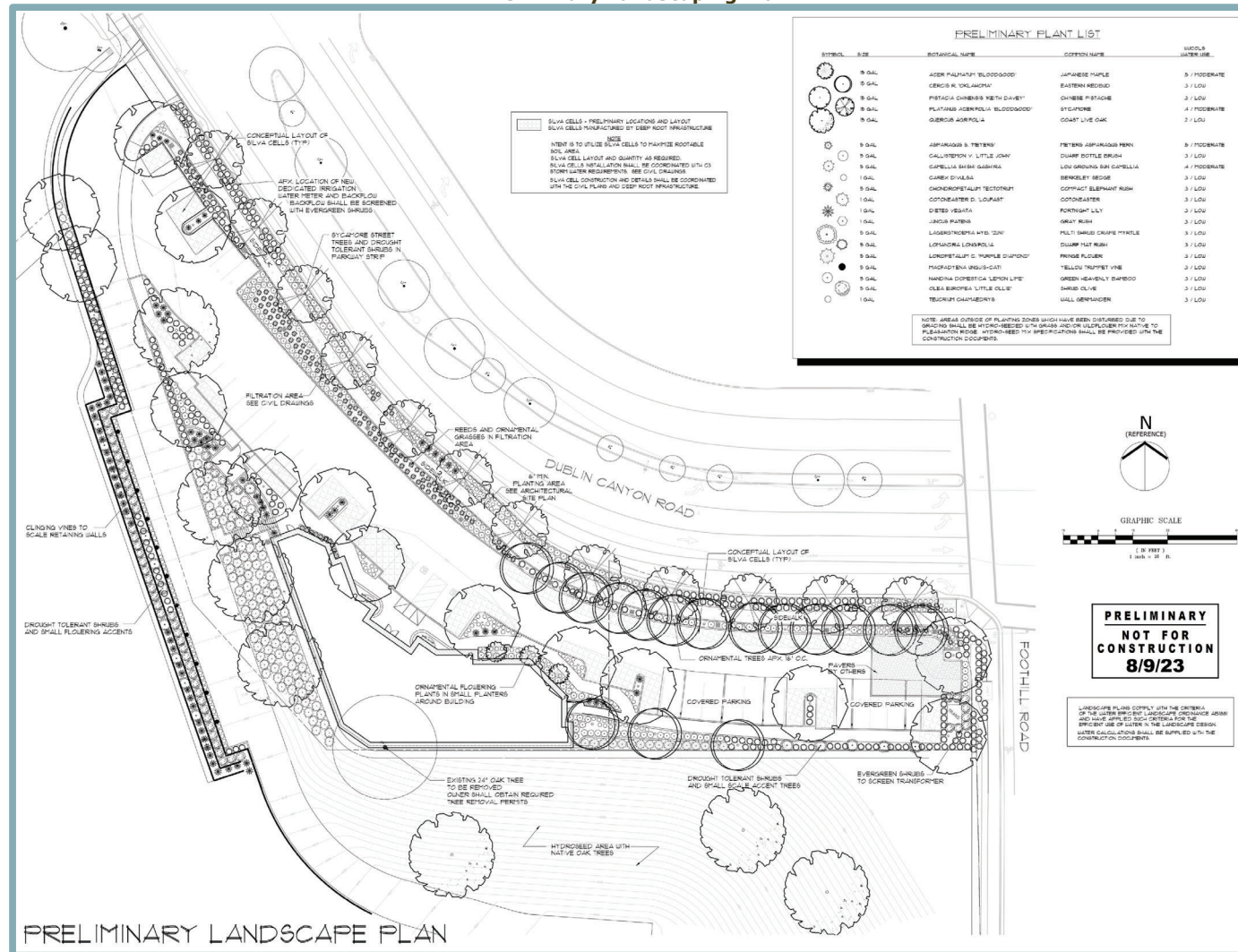


Figure 5 Preliminary Landscaping Plan





Design Review

The proposed project would be subject to Design Review by the City of Pleasanton. Section 18.20.010 of the City's Municipal Code specifies that the purpose of Design Review is to "preserve and enhance the city's aesthetic values and to ensure the preservation of the public health, safety, and general welfare." The Design Review process is applicable to development projects that include the construction of new structures, and thus, would apply to the proposed project.

Discretionary Actions

The proposed project would require the following approvals from the City of Pleasanton:

- Adoption of the IS/MND;
- Adoption of a Mitigation Monitoring/Reporting Program; and
- Design Review.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

a,b. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City includes portions of officially designated and eligible State scenic highways. Pursuant to the City's General Plan, a scenic highway designation protects the scenic values of an area, as well as providing passive recreational opportunities to view the associated scenic vistas. According to the California Scenic Highway Mapping System, the project site is located within approximately 0.73-mile of Interstate 680 (I-680), which is an officially designated State Scenic Highway. However, I-680 is located to the east of the project site, past the Stoneridge Shopping Center. Because the Stoneridge Shopping Center intervenes between the scenic highway and the proposed project, development of the proposed restaurant would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a **less-than-significant** impact would occur.

c. The project site is currently undeveloped, although the site is bisected by a concrete drainage ditch and includes a private paved access roadway. Surrounding uses include commercial hotel uses to the north, offices and commercial uses to the east, and single-family residences to the south and west. Generally, the site is located within an urbanized area; therefore, the relevant threshold would be whether the proposed project would conflict with applicable zoning and other regulations governing scenic quality.

The proposed project would require approval of a Design Review pursuant to Section 18.20.010 of the City's Municipal Code. Section 18.20.010 of the City's Municipal Code specifies that the purpose of Design Review is to "preserve and enhance the city's aesthetic values and to ensure the preservation of the public health, safety, and general welfare." Design Review would ensure that the development of the proposed project would be in compliance with the City's Development Standards and Design Guidelines, which establishes the City's standards for site planning, architectural design, landscaping, and street design.³ For example, the proposed project would include landscaping consisting

³ City of Pleasanton. *Housing Site Development Standards and Design Guidelines*. Adopted August 21, 2011.

of a combination of trees, shrubs, and groundcover between the restaurant building and Dublin Canyon Road. Such landscaping would screen the parking lot from the street consistent with Design Guideline A7.b. Design Review would also ensure that the aesthetic and architectural design of the development would be compatible with surrounding development.

Based on the above, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality, and a ***less-than-significant*** impact would occur.

- d. The project site is currently located in an urbanized area surrounded by urbanized uses, including commercial hotel uses to the north, offices and commercial uses to the east, and single-family residences to the south and west. In addition, Dublin Canyon Road borders the project site to the north. As such, the project site is subject to light and glare from passing vehicles, as well as spillover from surrounding uses.

Development of the project site with the proposed restaurant would involve sources of light associated with interior light spilling through windows, vehicle headlights entering and exiting the project site, exterior lighting on the proposed building, parking lot lighting, and light reflected off windows. However, such sources of light and glare would be consistent with the type of lighting anticipated for the project site by the City's General Plan land use and zoning designations for the site, and the proposed project would not create new sources of light or glare that would be substantially greater than existing sources.

Furthermore, Section A10, Lighting, of the City's Design Guidelines specifies that Adequate lighting shall be provided along sidewalks, streets, driveways, and parking areas for the safety and security of residents and visitors, and that site lighting shall not produce glare or be of an inappropriate intensity.⁴ Through the City's Design Review process, the proposed project would be reviewed for consistency with the City's Housing Site Development Standards and Design Guidelines, and compliance with all applicable lighting standards would be ensured. Lighting from the proposed project would not be directed off-site, and would not adversely affect existing uses in the project vicinity. Thus, implementation of the project would result in a ***less-than-significant*** impact with respect to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

⁴ City of Pleasanton. *Housing Site Development Standards and Design Guidelines*. Adopted August 21, 2011.

II. AGRICULTURE AND FOREST RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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 Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

a,e. Per the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the entirety of the project site is characterized as Grazing Land and is surrounded by land characterized as Urban and Built-Up Land.⁵ The FMMP defines Grazing Land, a category which is only used in California, as land on which the existing vegetation is suited to the grazing of livestock. Urban and Built-Up Land is occupied by structures at a density of at least one unit to 1.5 acres, such as residential, industrial, or commercial facilities.

The project site does not contain, and is not located adjacent to, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Given the designation of the site as Grazing Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, **no impact** would occur as a result of the proposed project.

b. The project site is currently zoned C-C District and PUD-C-O by the City; thus, the site is not zoned for agricultural uses. Additionally, the site is not under a Williamson Act contract.⁶ Therefore, buildout of the proposed project would not conflict with zoning for an agricultural use or a Williamson Act contract, and **no impact** would occur.

c,d. The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have **no impact** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

⁵ California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed August 2024.

⁶ California Department of Conservation. *California Williamson Act Enrollment Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html>. Accessed August 2024.

III. AIR QUALITY.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

a,b. The City of Pleasanton is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter (PM) 2.5 microns in diameter (PM_{2.5}), and State respirable PM 10 microns in diameter (PM₁₀) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. On January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour PM_{2.5} federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal PM_{2.5} AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour PM_{2.5}.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001, and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001, for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM₁₀ standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the

State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM₁₀ and PM_{2.5}, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding BAAQMD's mass emission thresholds for ROG, NO_x, PM₁₀, or PM_{2.5}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1 BAAQMD Thresholds of Significance			
Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10
Source: BAAQMD, CEQA Guidelines, May 2017.			

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2022.1.1.29 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. All CalEEMod results are included as Appendix A to this IS/MND.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, NO_x, PM₁₀, and PM_{2.5}. Construction activities associated with the proposed project would include the export of 22,580 cubic yards (CY) during grading, as well as the development of a single story, 6,445-sf teppanyaki restaurant and associated on- and off-site improvements.

All projects under the jurisdiction of the BAAQMD are required to implement all BAAQMD Basic Construction Mitigation Measures (BCMMs), which include the following:

1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

2. 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.
3. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
4. 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.
5. 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 CCR). Clear signage shall be provided for construction workers at all access points.
6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
7. 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.

Table 2 Maximum Unmitigated Construction Emissions (lbs/day)			
Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	3.25	54	NO
NO _x	29.7	54	NO
PM ₁₀ *	8.95	82	NO
PM _{2.5} *	4.52	54	NO
* Emissions from exhaust only. BAAQMD has not yet adopted thresholds for fugitive PM emissions.			
Source: CalEEMod, March 2025 (see Appendix A).			

The proposed project's required implementation of the BAAQMD's BCMs listed above would help to further minimize construction-related emissions. In particular, implementation of the foregoing measures would reduce fugitive dust emissions resulting from project construction. Even without consideration of BAAQMD's BCMs, as shown in Table 2, construction of the proposed project would result in emissions of criteria air pollutants below BAAQMD's thresholds of significance. Consequently, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans during project construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be below the applicable thresholds. Consequently, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans during project operation.

Table 3 Unmitigated Maximum Operational Emissions					
Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	2.15	0.31	54	10	NO
NO _x	2.09	0.24	54	10	NO
PM ₁₀ *	3.72	0.35	82	15	NO
PM _{2.5} *	0.97	0.09	54	10	NO
* Emissions from exhaust only. BAAQMD has not yet adopted thresholds for fugitive PM emissions.					
Source: CalEEMod, March 2025 (see Appendix A).					

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions.⁷ If a project exceeds the significance thresholds presented in Table 1, that project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions.

As presented above, the proposed project would not exceed the applicable thresholds for criteria pollutant emissions during project construction or operations. Thus, the project would not result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. Because the proposed project would not result in operational emissions of criteria pollutants in excess of BAAQMD's applicable threshold of significance, conflicts with or obstruction of implementation of the applicable regional air quality plans would not occur. Thus, a **less-than-significant** impact would result.

- c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly,

⁷ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 2-1]. May 2017.

the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The existing land uses in the project area consist of single-family residential development to the south and west, commercial development to the north and east. The nearest existing sensitive receptors are the single-family residences located south of the project site, with the closest to the area of disturbance within the project site located approximately 180 feet to the south.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and TAC emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

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

As discussed in Section XVII, Transportation, of this IS/MND, the City of Pleasanton has not yet established any standards or thresholds regarding VMT; however, the Office of Land Use and Climate Innovation (LCI) (formerly known as the Office of Planning and Research) released a Technical Advisory to evaluate transportation impacts pursuant to CEQA, which includes screening thresholds that can be applied to a project to determine whether that project can be presumed to cause a less-than-significant amount of VMT, in which case the project could be screened out of doing further VMT analysis.⁸ Because the proposed project would include commercial uses less than 50,000 sf, the proposed project can be presumed to be a local-serving facility and, as such, would not have a significant impact related to VMT.

Therefore, the proposed project would remain consistent with applicable congestion management plans and would not increase traffic volumes past 44,000 vehicles per hour

⁸ Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

or 24,000 vehicles per hour where vertical and/or horizontal mixing occurs. As such, based on the LCI screening criteria, the proposed project would result in a less-than-significant impact related to localized CO emissions concentrations and would not expose sensitive receptors to substantial concentrations of localized CO.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the project would not generate any substantial pollutant concentrations during operations.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would likely be limited to approximately one year and two months.

All construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, construction equipment would operate intermittently throughout the day and only on portions of the site at a time.

Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low. Therefore, construction associated with the proposed project would not be expected to expose any sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

- d. Emissions of concern include those leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in questions ‘a’ through ‘d’ above. Therefore, the following discussion focuses on emissions of odors and dust.

Pursuant to the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.⁹ Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, the construction phase is temporary in nature and would only occur over approximately 14 months. In addition, hours of operation for construction equipment would be restricted pursuant to Section 9.04.100 of the City’s Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

As noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD’s BCMMs. The BCMMs would act to reduce construction-related dust by ensuring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within the improvement area, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following construction, the entire improvement area would be either paved or landscaped. Thus, project operations would not generate significant amounts of dust that would adversely affect a substantial number of people.

Based on the above, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would result.

⁹ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

IV. BIOLOGICAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The following discussion is based primarily on a Biological Resources Site Assessment (BRSA), prepared by Monk and Associates, Inc. (M&A) for the proposed project (see Appendix B).¹⁰ The BRSA evaluated the project site to determine if development of the proposed project would have a substantial adverse effect on biological resources, including special-status plant and wildlife species.

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

¹⁰ Monk and Associates, Inc. *Biological Resources Site Assessment*. March 26, 2025.

Currently, the majority of the project site is primarily undeveloped and includes a concrete drainage ditch and a private paved roadway that provides access to the project site, as well as one on-site tree. According to the BRSA, the project site does not contain aquatic resources or other sensitive habitats supporting special-status species. However, the on-site tree may provide nesting habitat for migratory and nesting birds.

A search of the California Natural Diversity Database (CNDDDB) was conducted in 2023 to identify if any special-status species have the potential to exist within a three-mile radius of the project site. The intent of the database review was to identify documented occurrences of special-status species in the vicinity of the project area, to determine their locations relative to the project site, and to evaluate whether the site meets the habitat requirements of such species. Based on the results of the CNDDDB search, one special-status plant species is known to occur within the project region. In addition, the BRSA identified the potential for western burrowing owl, Crotch's bumble bee, nesting birds and raptors, and roosting bats to occur within the project site and surrounding area. The potential for the special-status species to occur on the project site is discussed in further detail below.

Special-Status Plants

Based on the results of the CNDDDB search, one special-status plant species has been documented within three miles of the project site. The only special-status plant species record found within a three-mile radius was for the Congdon's tarplant (*Centromadia parryi congdonii*). According to the BRSA, the type of alkaline soils that would support Congdon's tarplant are not present on-site. Additionally, the CNDDDB record for the species is from 2009 and located the plant approximately 1.3 miles from the project site, outside of the immediate project vicinity.

The majority of the project site has been subject to mass disturbance, and the project site consists of non-native ruderal habitat with one on-site tree. Based on the existing habitat type on site, the aforementioned habitat requirements, and previously recorded occurrence locations, the potential for special-status plant species to occur on-site is low, and the proposed project would have a less-than-significant impact related to the disturbance of special-status plant habitat.

It should be noted that the project site is within the boundaries of the East Alameda County Conservation Strategy (EACCS), specifically within Conservation Zone (CZ) 2.¹¹ Further discussion of the applicability of the EACCS to the proposed project is included in question 'f' of this Section of the IS/MND below. Pursuant to Appendix D of the EACCS, the project site is not located within the range of potential habitat for any plant species covered under the EACCS.

Special-Status Wildlife

As part of the BRSA, M&A conducted a site survey on August 13, 2024. The project site includes highly compacted soils with grass and forb species that have been regularly mowed. In addition, the trees in the oak woodland community west of the project site could provide suitable foraging and nesting habitat for special-status wildlife species. The site survey also identified small mammal burrows on-site.

¹¹ East Alameda County Conservation Strategy Steering Committee. *East Alameda County Conservation Strategy*. October 2010.

It should be noted that the oak woodland habitat located to the south and west of the project site could provide suitable roosting habitat for special-status bat species. However, because the off-site trees are not proposed for removal as part of project construction, substantial adverse effects to special-status bat species associated with development of the proposed project are not anticipated.

Based on the results of the site survey and the CNDDDB search, the BRSA identified the potential for western burrowing owl (*Athene cunicularia hypugaea*) and Crotch's bumble bee (*Bombus crotchii*), as well as nesting birds and raptors, to occur within the project site and surrounding area.

Western Burrowing Owl

Western burrowing owl is classified as a candidate species for potential listing under the California Endangered Species Act (CESA), as well as being protected under the MBTA and covered under the EACCS. The primary habitat requirement for western burrowing owls is small mammal burrows that the species uses for nesting. Typically, the species uses abandoned ground squirrel burrows, but western burrowing owls have been known to dig burrows in softer soils. In urban areas, western burrowing owls may use pipes, culverts, and piles of material as artificial burrows. Western burrowing owls breed semi-colonially from March through August.

The presence of western burrowing owls within suitable burrows can be verified at a site by observation of the owls or signs of recent activity, such as molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (whitewash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to identify predators.

According to the BRSA, the closest CNDDDB record for western burrowing owl is from 2009 and is located approximately 2.1 miles northeast of the project site (Occurrence #780). However, because the August 2024 site survey identified ground squirrel burrows on-site, suitable habitat exists on-site for the western burrowing owl. If western burrowing owls are present on or near the project site, development of the proposed project could result in an adverse impact to the species.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing under CESA. The species is not covered by the EACCS. The range of Crotch's bumble bee historically extended from coastal California east to the Sierra-Cascade crest and south into Mexico, but recent data indicates that the species is absent from the center of this historical range due to extensive agricultural intensification and urbanization. Where Crotch's bumble bee remains present, the species inhabits open grassland and scrub habitats that feature flowers for foraging. Crotch's bumble bees nest underground, such as in abandoned rodent burrows. The flight period for Crotch's bumble bee queens ranges from late February to late October and peaks in early April and in July. The flight period for worker bees extends between late March and September.

The closest CNDDDB record for Crotch's bumble bee is from 1932 and is located approximately three miles southeast of the project site (Occurrence #17). However, because the species has only recently been proposed for protection under CESA, few

species surveys have been conducted in recent years. As such, unrecorded occurrences of the species could occur more recently than 1932.

Because ground squirrel burrows were observed during the August 2024 site survey conducted for the proposed project, the project site could provide suitable nesting habitat for Crotch's bumble bee. In addition, the ruderal herbaceous vegetation on-site could provide suitable foraging resources. For example, the BRSA identifies California poppy (*Eschscholzia californica*) and common thistles as suitable on-site pollen sources for the species. If individual Crotch's bumble bees are present on or near the project site, development of the proposed project could result in an adverse impact to the species.

Nesting Birds and Raptors

The on-site tree may be used by other migratory birds protected by the MBTA and covered by the EACCS for nesting. As part of the proposed project, the on-site tree would be removed. Tree removal could result in direct impacts to nesting birds, and mechanized work and vehicle traffic associated with construction of the proposed project could indirectly disturb nesting birds and result in nest abandonment if individuals are present during initiation of ground-disturbing activity. Construction activities that adversely affect birds or result in mortality of individual birds constitute a violation of State and federal laws. If such species occur on or near the project site during the breeding season, project construction activities could result in an adverse effect to species protected under the MBTA.

Conclusion

Based on the above, development of the proposed project could have an adverse effect, either directly or through habitat modifications, on species identified as special-status wildlife species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Western Burrowing Owl

IV-1. *A pre-construction survey for western burrowing owls shall be conducted by a qualified biologist within the project site and a 100-foot buffer around the project site boundaries within 14 days of the commencement of construction activities. Burrowing owl surveys shall be conducted according to the methodologies prescribed by the CDFW in their 2012 Staff Report on Burrowing Owl Mitigation. In order to ensure western burrowing owls do not migrate into the project site following the initial survey, a secondary site survey shall be conducted within 24 hours prior to ground disturbance. Survey results shall be submitted to the Community Development Department. If active burrows are not detected during the surveys, further mitigation shall not be required.*

If burrowing owls are detected on the site or within 100 feet of the project site boundaries, CDFW shall be contacted to determine if an incidental take permit (i.e., Section 2081 permit) is required due to the species being proposed for listing under CESA. The following restricted activity dates and setback

distances are recommended pursuant to CDFW's Staff Report (2012) or as otherwise coordinated with CDFW:

- From April 1 through October 15, low disturbance and medium disturbance activities shall have a 200-meter buffer while high-disturbance activities shall have a 500-meter buffer from occupied nests.*
- Between September 1st and February 1st, if western burrowing owls are residing within the project footprint or within 200 meters of the project footprint, the owls may be passively evicted by a qualified biologist using CDFW guidelines. If owls are not within the development footprint or within 200 meters of the development footprint, from October 16 through March 31, low-disturbance activities shall have a 50-meter buffer, medium-disturbance activities a 100-meter buffer, and high-disturbance activities a 500-meter buffer from occupied nests.*
- Earth-moving activities or other disturbance shall not occur within the aforementioned buffer zones of occupied burrows. The buffer zones shall also be fenced. If burrowing owls are found in the project area, a qualified biologist shall also delineate the extent of burrowing owl habitat within the site.*
- Buffers may be modified by a qualified biologist knowledgeable enough to establish buffer sizes commensurate with the acclimation of burrowing owls to disturbance. The buffers, if modified over that prescribed above, shall be coordinated with CDFW.*

Crotch's Bumble Bee

IV-2. Consistent with CDFW recommendations, a minimum of three surveys for Crotch's bumble bee shall be conducted prior to construction activities, each survey scheduled two to four weeks apart during the species flight period (April through October). Within 14 days prior to the commencement of construction activities between April 1 and October 31, a qualified biologist shall survey for Crotch's bumble bee. The surveys shall occur at least two hours after sunrise (when temperatures are greater than 60°F and less than 90°F without rain) or two hours before sunset. The survey area shall include the project boundaries and a surrounding 100-foot buffer area. The survey duration shall be appropriate to the size of the project site and buffer area based on the metric of a minimum of one person-hour of searching per three acres of suitable habitat, or an approximately half-hour survey for an average-sized project site.

The biologist leading the survey(s) shall be designated as a qualified biologist for bumble bees. Surveyors shall not capture or handle bumble bees unless authorized specifically for Crotch's bumble bee by CDFW. Bumble bees shall only be netted, chilled, and photographed for identification purposes if the biologist is authorized by a Memorandum of Understanding (MOU) in accordance with Fish and Game Code 2081(a), which does not include take caused by project-related activities. If the lead biologist does not have an MOU, identification techniques shall be limited to photographs of bumblebees in flight or resting on floral resources. Survey results shall be submitted to the Community Development Department. If the species is not detected within or around the project site, further mitigation shall not be required.

If any sign(s) of a bumble bee nest is observed, and if the nest cannot be established to host a species that is not Crotch's bumble bee, then construction shall not commence until CDFW provides further guidance, which may include, but not be limited to, an additional survey by a bumble bee expert, waiting until the colony active season ends, or obtaining take authorization.

If at any time during preconstruction surveys a Crotch's bumble bee is found, a qualified biologist/monitor approved by CDFW for bumble bee monitoring shall be on-site during all construction activities. During construction monitoring, the biologist shall scan for bumble bees using floral resources. If bumble bees are observed after construction commences, construction shall be halted if bumble bees are in harm's way. For example, if an undetected nest is present in the construction area, bumble bees could become visible if the nest is disturbed, leading to construction being immediately halted.

If construction is halted because bumble bees are in harm's way, construction shall only recommence after establishing that the bees present are not Crotch's bumble bees. If Crotch's bumble bees (or bees that could be that species) are identified on-site, construction shall not recommence until CDFW provides further guidance, which could include an additional survey by a bumble bee expert, waiting until the colony active season ends, requiring take authorization, or other actions (such as buffers).

If a suspected Crotch's bumble bee is killed or injured during the source of survey efforts, or during project activities, all work shall be stopped and the CDFW Representative shall be immediately contacted for guidance. The bumble bee shall be collected into a vial and frozen, as well as photographed in accordance with accepted methods. Record the date, location, GPS coordinates, project name, collector, and any other relevant information related to the cause of death or injury (e.g., chilling container may have been too cold; extreme shifts in temperature during collection, vehicle strike, etc.). If the bumble bee is determined to be a Crotch's bumble bee, the specimen shall be sent to CDFW for further assessment.

Nesting Birds and Raptors

- IV-3. *A pre-construction survey for nesting birds shall be conducted by a qualified biologist within seven days of commencing construction activities, including, but not limited to, grubbing, grading, and tree removal, if such activities occur between February 1st and September 1st. The survey shall include an examination of all trees, shrubs, and ground on-site and within a 100-foot buffer around the project site boundaries where bird species could be disturbed by vibrations and/or other construction-related noise (zone of influence). The zone of influence includes areas outside the project site where birds could be disturbed by earth-moving vibrations and/or other construction-related noise. If site work does not commence within seven days of the survey, another survey shall be conducted to ensure that impacts would not occur to nesting birds. Survey results shall be submitted to the Community Development Department. If active nests of migratory birds are not detected within approximately 100 feet of the project site, further mitigation is not required.*

If birds are identified nesting on or within the zone of influence, a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites shall establish a temporary protective non-disturbance buffer around the nest(s). The non-disturbance buffer shall be staked with orange construction fencing and shall be of sufficient size to protect the nesting site from construction-related disturbance. Typically, adequate nesting buffers are located 50 feet from the nest site or nest tree dripline for common passerine birds and up to 100 feet for special-status passerine birds. Upon completion of nesting surveys, if nesting birds are identified on or within the zone of influence, the qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed. The nesting buffer shall be monitored daily for the first week of construction to ensure that nesting birds are not affected by on-site construction activities and that the buffer size does not need to be increased. Once the qualified ornithologist/biologist determines, through direct observations, that birds are not agitated by project construction, monitoring can be reduced to once a week.

Construction or earth-moving activity shall not occur within any established nest protection buffer prior to September 1st unless the qualified ornithologist/biologist determines that the young have fledged and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. The nest completion date can be significantly earlier or later and shall ultimately be determined by the qualified biologist. At the end of the nesting cycle and/or fledging from the nest, as determined by a qualified biologist, temporary nesting buffers may be removed, and grading and construction may commence in established nesting buffers without further regard for the nest site.

- IV-4. *If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, an appropriate non-disturbance buffer shall be established around all active nests. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for common passerine birds and up to 100 feet for special-status passerine birds. The actual size of buffer would be determined by the project biologist, and would depend on species, topography, and type of activity that would occur in the vicinity of the nest. The project buffer shall be clearly staked with construction fencing and shall be monitored periodically by the project biologist to ensure compliance. After the nesting is completed, as determined by the biologist, the buffer would no longer be required. Buffers shall remain in place for the duration of the breeding season or until a qualified biologist has confirmed that all chicks have fledged and are independent of their parents.*

- b,c. The project site is currently undeveloped, though is bisected by a concrete drainage ditch and contains one on-site tree. According to the BRSA prepared for the proposed project, the project site does not contain any wetlands or aquatic features. Therefore, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or federally protected wetlands, and a **less-than-significant** impact would occur.

- d. The project site is currently undeveloped and bordered by Dublin Canyon Road to the north, and an existing single-family residence is located to the south of the project site. Commercial and residential purposes are also located in the site vicinity. Thus, the project site is located within an urbanized area of the City of Pleasanton. According to the BRSA, the project site's proximity to I-580, Stoneridge Mall, and other nearby businesses, as well as increased ambient noise and human presence, generally discourages wildlife use of the project site. In addition, the project site does not contain streams or other waterways that could be used by migratory fish or as a wildlife corridor for other local wildlife species.

Furthermore, if local wildlife species were to move through the general project area, the oak woodland habitat located to the south and west of the project site would function as a more effective movement corridor. As previously discussed, the proposed project would not impact the oak woodland habitat, and thus, would preserve any wildlife corridor functions associated with the habitat. Therefore, the proposed project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and **no impact** would occur.

- e. Pursuant to Section 17.16.010 of the City's Municipal Code, the City prohibits the removal of any heritage tree growing within the City without approval of a Tree Removal Permit. The City defines heritage trees as any tree that meets any of the following criteria:
- Any single-trunked tree with a circumference at least 55 inches measured when measured 4.5 feet above ground level;
 - Any multi-trunked tree of which the two largest trunks have a circumference of at least 55 inches when measured 4.5 feet above ground level;
 - Any tree 35 feet or more in height;
 - Any tree of particular historical significance as designated by the City; or
 - A stand of trees, the nature of which makes each tree dependent upon the other for survival or the area's natural beauty.

The proposed project would include the removal of the on-site tree from the project site during the development of the proposed project. The on-site tree is a coast live oak (*Quercus agrifolia* var. *agrifolia*) located along the southern border of the project site. According to the BRSA, the on-site tree does not meet the City's definition of a heritage tree, and thus, would not require approval of a Tree Removal Permit. However, because the proposed project would remove a tree in association with a new development, the proposed project would be required to comply with the provisions of Section 17.16.050, which generally requires preparation of an arborist report and payment of fees for each tree required to be preserved, as applicable. In addition, the preliminary landscaping plan associated with the proposed project includes the planting of shade trees within the proposed parking lot (see Figure 5). The provision of new trees would address the loss of the on-site oak tree.

Based on the above, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a **less-than-significant** impact would occur.

- f. The project site is within the boundaries of the EACCS, a guidance document for regional conservation and environmental permitting for private and public development projects.

While conservation strategies are provided by the EACCS, the document is not considered an adopted Habitat Conservation Plan or Natural Conservation Community Plan.

Pursuant to the EACCS, the project site is located in CZ-2, which encompasses 37,066 acres of the largely urbanized Livermore Valley. Though the CZ-2 area is largely urbanized, the dominant natural land cover types in the conservation zone are annual grassland (3,409 acres) and mixed riparian forest and woodland (410 acres). The majority of the project site is currently undeveloped and consists of non-native ruderal grasslands with an on-site oak tree and shrubs scattered throughout. However, Mitigation Measures IV-1 through IV-4 above would reduce any potential impacts to protected wildlife species to a less-than-significant level.

Based on the above, the proposed project would not conflict with the applicable provisions of the EACCS, and a ***less-than-significant*** impact would occur related to conflicts with an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a-c. Historical resources are features that are associated with the lives of historically important persons and/or significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics.

A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the project area. The NWIC concluded that the project site does not contain any recorded archaeological resources nor any historic buildings or structures on any lists of historic resources. Based on a review of historical literature and maps, the NWIC concluded that the potential for unrecorded archaeological resources to occur on the project site is low.

In addition, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) returned negative results, indicating that local tribes have not recorded cultural resources within the project site or the immediate area. However, the CHRIS records search identified that tribal cultural resources within Alameda County have been identified near sources of water such as perennial and intermittent springs and streams, near the interface between low-lying terrain and higher elevation foothills, and near oak woodland. Because the project site is located at a hill-to-valley interface approximately 0.25-mile from Laurel Creek and 0.3-mile from Devaney Canyon and Dublin Creek, as well as near oak woodlands, the CHRIS records search concluded that the project site has a moderately high potential to contain unrecorded tribal cultural resources.

The proposed project would include site preparation, installation of driveways and the new off-site emergency vehicle turnaround, trenching for utilities, landscaping, and construction of the proposed restaurant building. Other ground-disturbing activities associated with the proposed project would include the cut and fill of the on-site hillside created during construction of Dublin Canyon Road, as well as the removal of the existing paved roadway, the concrete drainage ditch, and the on-site tree. Therefore, cultural resources could be uncovered during ground-disturbing construction activities at the site. If previously unknown resources are encountered during construction activities, the proposed project could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

- V-1. *Prior to grading permit issuance, the developer shall submit improvement plans to the City of Pleasanton for review and approval which indicate through notation that if unknown cultural resources, including unique historical, archaeological, or paleontological resources, are encountered during site grading or other site work, all such work shall be halted immediately within 200 feet of the find and the developer shall immediately notify the City of Pleasanton Community Development Department of the discovery. If such resources are identified, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist, paleontologist, or historian, as applicable, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology. The qualified professional shall record, protect, or curate the discovery as appropriate and shall submit a report of the findings and method(s) of curation or protection to the City of Pleasanton Community Development Department. Further grading or site work within the area of discovery shall not be allowed until the preceding work has occurred.*
- V-2. *If human remains, or remains that are potentially human, are found during construction, all work shall be halted immediately within 200 feet and a professional archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. Work shall not resume within the radius until the City of Pleasanton determines that appropriate measures have been completed to the City's satisfaction. The archaeologist shall notify the Amador County Coroner pursuant to Section 7050.5 of the State Health and Safety Code. In addition, the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code (PRC), and Assembly Bill 2641 shall be implemented. If the County Coroner determines the remains are Native American, then the Coroner shall notify the Native American Heritage Commission (NAHC) to designate a Native American Most Likely Descendant (MLD) for the project (Section 5097.98 of the PRC). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (PRC Section 5097.94). If an agreement is not reached, the qualified archaeologist or MLD shall rebury the remains where they would not be further disturbed (PRC Section 5097.98) and record the site with the NAHC or the appropriate Information Center or Alameda County (AB 2641).*

VI. ENERGY.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2022 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which will become effective with the rest of the CBSC on January 1, 2023.¹² The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle (EV) charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' MWELO, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Incentives for installation of electric heat pumps, which use less energy than traditional heating, ventilation, and air conditioning (HVAC) systems and water heaters;
- Required solar photovoltaic (PV) system and battery storage standards for certain buildings; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2022 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2019 Building Energy Efficiency Standards,

¹² California Building Standards Commission. 2022 *California Green Building Standards Code*. 2023.

went into effect starting January 1, 2023. The 2022 standards provide for additional efficiency improvements beyond the 2019 standards. The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and Building Energy Efficiency Standards would ensure that the proposed structure would consume energy efficiently.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to the use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and material delivery truck trips, and operation of off-road equipment for demolition and construction activities. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site and off-site improvement areas would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location.

All construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency for equipment used in construction of the proposed project. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and limit emissions associated with construction.

Based on the above, the temporary increase in energy use during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. The proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of commercial uses, requiring electricity for interior and exterior building lighting, HVAC, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employee commutes, customers, and the movement of goods.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewable Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources.

The CARB prepared the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan),¹³ which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix D of the 2022 Scoping Plan provides suggestions for prioritizing various types of mitigation, such as on-site GHG-reducing design features and mitigation measures. Appendix D includes the methods to reduce Vehicle Miles Traveled (VMT), support building decarbonization, and provide access to shared mobility services or transit, as well as EV charging. Appendix D provides further suggestions for prioritizing other mitigation types, including non-local off-site mitigation, and voluntary offsets issued by a recognized and reputable voluntary carbon registry. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2022 Scoping Plan and the recommended actions included in Appendix D of the 2022 Scoping Plan.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this IS/MND, the project site is located within close proximity to existing pedestrian infrastructure and public transportation facilities. The proposed project would also include installation of a sidewalk along the project frontage. Such existing and proposed facilities would ensure patrons could use alternative transportation to access the project site and help reduce transportation energy.

Based on the above, compliance with the State's latest energy efficiency standards would ensure that the proposed project would implement all necessary energy efficiency regulations, which would reduce any impacts associated with energy consumption. Furthermore, the proposed project would be consistent with the site's existing General Plan land use designations; thus, development of the site and associated energy demands have been previously anticipated by the City.

Conclusion

Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

¹³ California Air Resources Board. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022.

VII. GEOLOGY AND SOILS.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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 based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The following discussion is based primarily on reports prepared for the proposed project, including the following: a Geotechnical Report prepared by ENGEO Incorporated (ENGEO)¹⁴ and a subsequent 2022 California Building Code (CBC) Seismic Design Parameters Update (CBC Update) prepared by ENGEO¹⁵; and a Fault Exploration report prepared by ENGEO.¹⁶ The reports were peer reviewed in 2008 by Cotton, Shires, and Associates, Inc., but required an additional review with the most updated project plans. BSK Associates (BSK) conducted a peer review of the reports and provided comments in September 2024,¹⁷ following which ENGEO prepared responses¹⁸ and an updated Geotechnical Report.¹⁹ The foregoing reports are included in this IS/MND as Appendix C.

- a.i-ii. The site is located within a State Earthquake Fault Zone for the Calaveras fault. The State shows two traces of the Calaveras fault crossing the site (see Figure 7). The eastern trace is mapped by the State near the toe of the hillside, and roughly parallel to Foothill Road with a northern termination near Dublin Canyon Road. The second fault trace is mapped stepping to the left about 100 feet to the west of the eastern trace.

¹⁴ ENGEO Incorporated. *Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California*. May 2, 2008.

¹⁵ ENGEO Incorporated. *2022 CBC Seismic Design Parameters Update*. January 20, 2023.

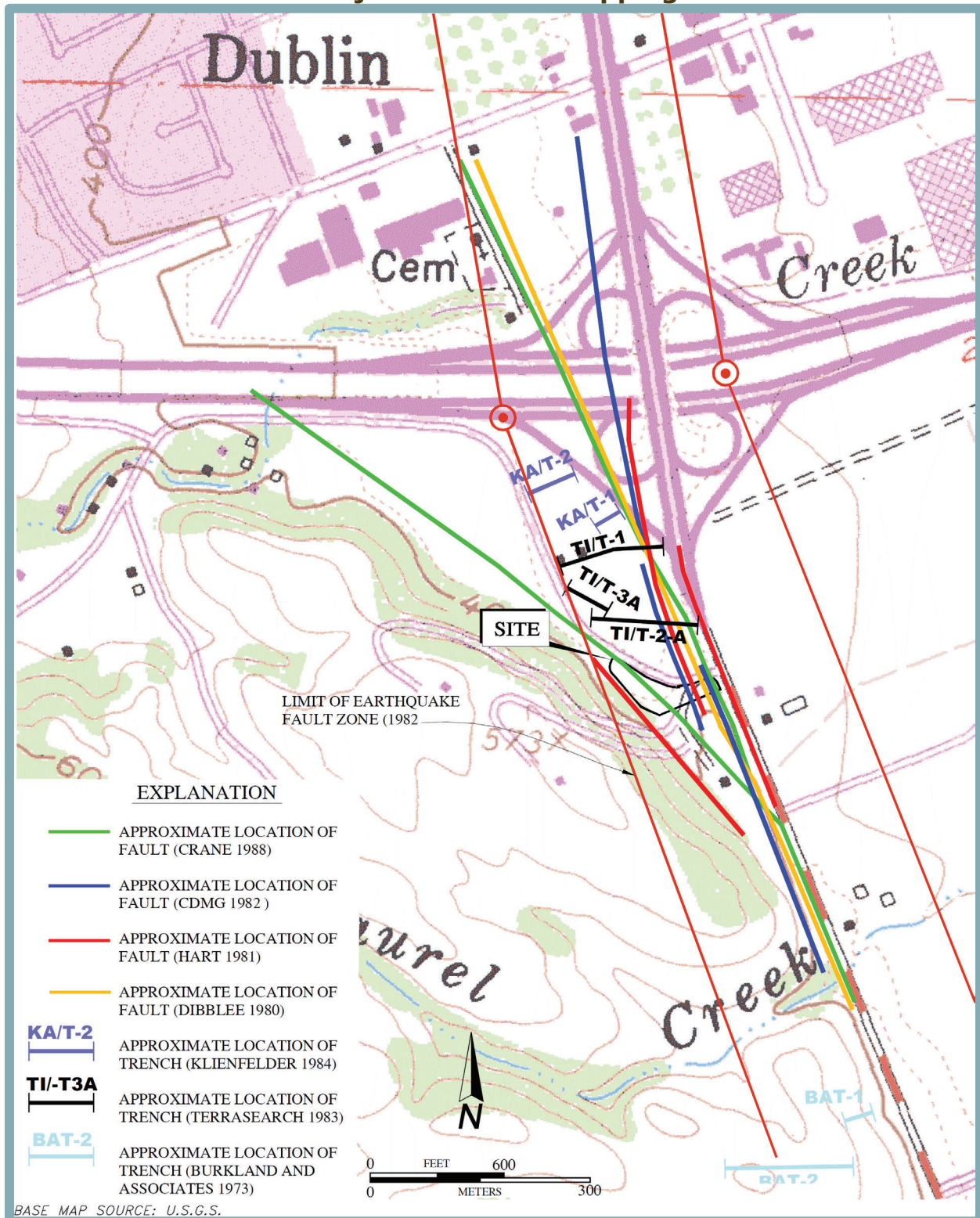
¹⁶ ENGEO Incorporated. *Fault Exploration, Hana Japan Steak House, Pleasanton, California*. March 31, 2008.

¹⁷ BSK Associates. *Peer Review of Geotechnical and Geologic Hazard Investigations, 11991 Dublin Canyon Road (Hana Japan), Pleasanton, California*. September 6, 2024.

¹⁸ ENGEO Incorporated. *Response to Comments*. November 11, 2024.

¹⁹ ENGEO Incorporated. *Geotechnical Report Update*. January 15, 2025.

Figure 7
Project Site Fault Mapping



Other important active faults in the region include the Greenville fault located approximately 12 miles to the northeast of the site and the Hayward and San Andreas faults, located approximately 6.5 and 26 miles, respectively, to the southwest.

During a major seismic event that causes ground rupture on a primary fault zone (such as the Calaveras fault), secondary ground deformations can occur in the region adjacent to the primary fault zone. For example, based on previous mapping reviewed by the Fault Exploration, a fault may exist to the southwest of the on-site trenching, beneath or to the southwest of the existing driveway. Therefore, the Fault Exploration report concluded that the potential for fault rupture in the area is high and recommended all structures intended for human occupancy be set back at least 25 feet from the existing driveway.

As shown on Figure 8, although the building configuration has changed since preparation of the report, the proposed building location remains in conformance with the setback recommendations within the Fault Exploration report. In addition, the Fault Exploration included three exploratory trenches on the west side of the main trace. While the extent and magnitude of secondary ground deformations are difficult to estimate, most secondary deformations occur on shear zones or other faults located near the primary fault zone. Secondary faults or zones of fault related to shearing were not encountered during the trenching; therefore, the Fault Exploration report concluded that the potential for such ground deformations to occur at the proposed building is low. If secondary ground deformation did occur, the Fault Exploration concluded that such deformations would be small, less than four inches, and could be mitigated with appropriate foundation design and construction.

The CBSC provides minimum standards to ensure that the proposed structure would be designed using sound engineering practices and appropriate engineering standards for the seismic area in which the project site is located. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage, but with some non-structural damage; and 3) resist major earthquakes without collapse, but with some structural, as well as non-structural, damage. Although conformance with the CBSC does not guarantee that substantial structural damage would not occur in the event of a maximum magnitude earthquake, conformance with the CBSC can reasonably be assumed to ensure that the proposed structure would be survivable, allowing occupants to safely evacuate in the event of a major earthquake.

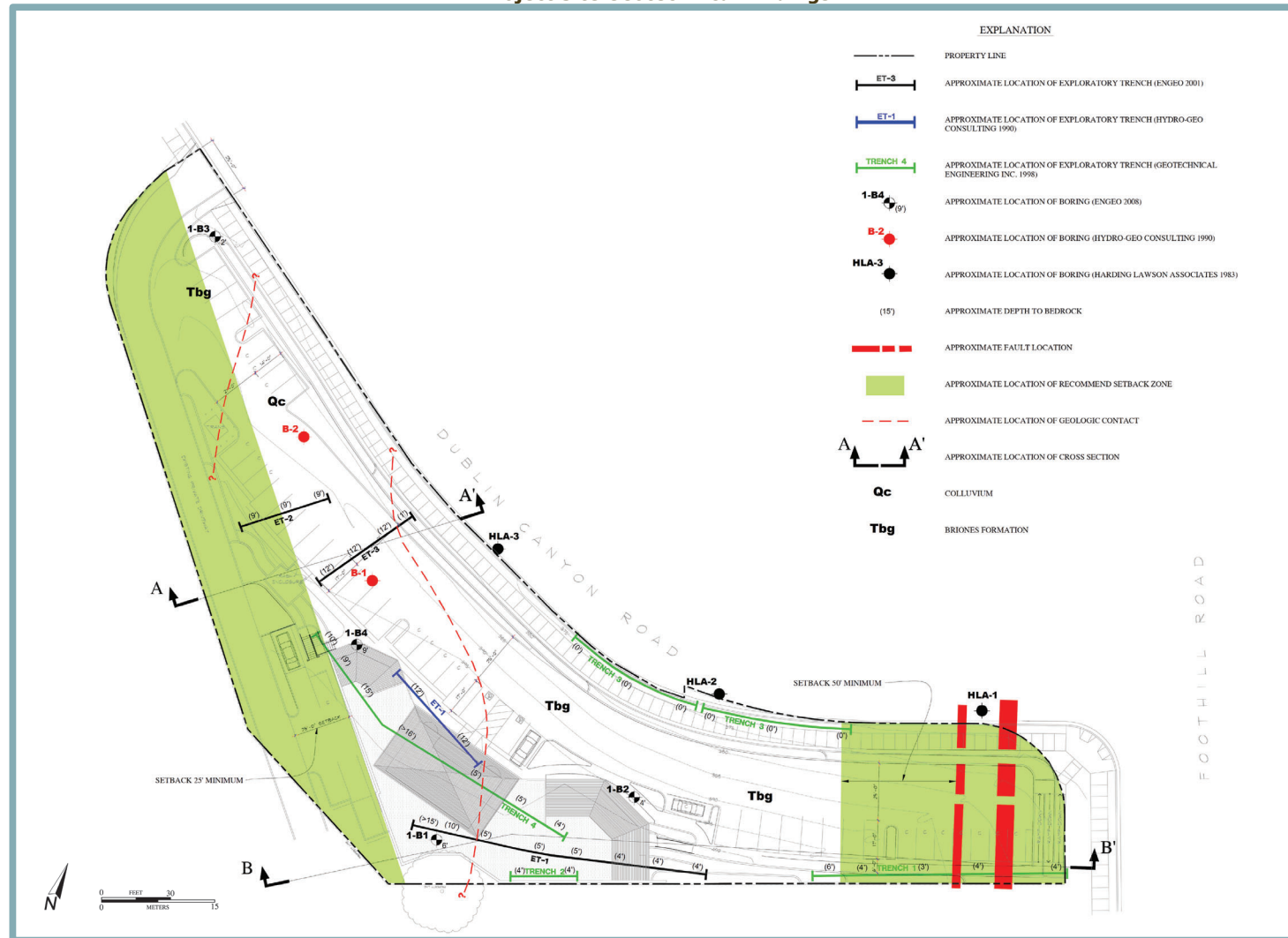
Conformance with the design standards is enforced through building plan review and approval by the City of Pleasanton prior to the issuance of building permits. Proper engineering of the proposed project would ensure that seismic-related effects would not cause adverse impacts. Therefore, a ***less-than-significant*** impact would occur related to seismic rupture of a known earthquake fault or strong seismic ground shaking.

a.iii, a.iv. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, subsidence/settlement, and expansive soils are discussed in detail below.

Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, especially as a result of cyclic loadings induced by earthquakes or ground shaking. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine sands.

Figure 8
Project Site Geotechnical Findings



The updated Geotechnical Report prepared for the proposed project included four borings ranging from seven to 28.5 feet, the site includes shallow bedrock and thicker, clayey soils. Based on the results of the borings, the Geotechnical Report concluded that the probability of soil liquefaction within the project site is low.²⁰ Thus, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death associated with seismic-related ground failure, including liquefaction.

Landslides

Seismically induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The hillside located to the southwest of the site is located within a preliminary State of California Seismic Hazard Zone for areas that may be susceptible to seismically induced landsliding. However, the Geotechnical Report notes that an existing driveway and 25-foot-wide setback zone would be located between the potential landslide area and the proposed building.²¹ The intervening area would serve as a debris catchment area in the event of a landslide. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Conclusion

Based on the above discussion, the proposed project would not result in potential hazards or risks related to seismicity, liquefaction, or landslides, and a ***less-than-significant*** impact would occur.

- b. Issues related to erosion are discussed in Section X, Hydrology and Water Quality, of this IS/MND. As noted therein, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, a ***less-than-significant*** impact would occur.
- c,d. The proposed project's potential effects related to lateral spreading, subsidence/settlement, and expansive soils are discussed in detail below. Impacts related to liquefaction and landslides are discussed in question 'aiii, aiv' above.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Although liquefaction is not expected to occur on-site, the project site is located adjacent to free faces and, thus, the proposed project could be subject to risks associated with lateral spreading.

Subsidence

Subsidence is the settlement of soils of very low density, generally from either oxidation of organic material, desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years, and is a common consequence of liquefaction. As discussed above, the project site is not anticipated to be subject to liquefaction. In addition, Section 5.4.7 of the Geotechnical Report concluded that seismically induced settlement is unlikely. However, the Geotechnical Report also

²⁰ ENGEO Incorporated. *Geotechnical Report Update* [pg. 10]. January 15, 2025.

²¹ ENGEO Incorporated. *Geotechnical Report Update* [pg. 10]. January 15, 2025.

notes that structural areas could be sensitive to settlement of compacted soil. Such areas include, but are not limited to, building pads, sidewalks, pavement areas, and retaining walls. Therefore, without implementation of the recommendations contained within the Geotechnical Report, the proposed project could be subject to subsidence/settlement.

Expansive Soils

When subsurface earth materials move, the movement can cause the gradual settling or sudden sinking of ground. The phenomenon of settling or sinking ground is referred to as subsidence, or settlement. Expansive soils are soils which undergo significant volume change with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted, potentially resulting in damage to building foundations.

As part of the Geotechnical Report, ENGEO conducted a field exploration and obtained soil samples from the project site on April 15, 2008. The samples were analyzed to determine the engineering properties of the soils, including compression, plasticity index, direct shear, and soil corrosion potential. Based on the results of the analysis, expansive soils are located on-site. Specifically, shallow depths of expansive clay were found in Borings 1-B2 and 1-B3, and deeper areas of expansive clay were identified in Borings 1-B1 and 1-B4 (see Figure 8). Although such soils are anticipated to be removed from the project site during site preparation and grading associated with the proposed project, any remaining soils located beneath the proposed building could subject the restaurant to adverse effects.

Based on the above, the proposed project could be subject to substantial adverse effects, including the risk of loss, injury, or death involving expansive soils.

Conclusion

Based on the above, without proper implementation of the recommendations included in the updated Geotechnical Report prepared for the proposed project, the proposed project could result in potential hazards or risks related to lateral spreading, subsidence, and/or expansive soils, and a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

- VII-1. *Prior to approval of Improvement Plans, the plans shall include all relevant 2022 CBSC standards, as well as all recommendations included within the updated Geotechnical Report (2025) and the Fault Exploration report (2008) prepared by ENGEO Incorporated to ensure that the recommended standards are incorporated into project design and construction. All project improvement plans shall be reviewed by a licensed engineer and approved by the City of Pleasanton Community Development Department and the City Engineer.*
- VII-2. *Prior to commencement of building construction and during cut and fill activities associated with the proposed project, any potentially expansive clay encountered within building pads shall be removed to a depth of at least three feet below pad grade, as determined by a licensed geotechnical engineer. In addition, potentially expansive clay shall not be placed within the upper three*

feet of building pads. Proof of compliance with this measure shall be submitted to the City of Pleasanton Community Development Department and the City Engineer.

- e. City sewer infrastructure currently exists on site and the proposed project would connect to the existing on-site City sewer lines. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, **no impact** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.
- f. Paleontological resources or fossils are the remains of prehistoric plant and animal life. Although the City's General Plan EIR does not specifically note known paleontological resources within the City boundaries, the hills in the southern and western portions of the City are noted as having a relatively high sensitivity for containing prehistoric sites. Although the soil types at the project site are not considered unique geologic features likely to contain paleontological resources, the project site is located in the northwestern corner of the City.

Nonetheless, the potential exists for previously unknown paleontological resources to exist within the project site. Ground-disturbing activity such as grading, trenching, or excavating associated with implementation of the proposed project would have the potential to disturb or destroy such resources if present. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

VII-3. *Implement Mitigation Measures V-1 and V-2.*

VIII. GREENHOUSE GAS EMISSIONS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity), water usage, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO₂e/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. The most recent BAAQMD Air Quality Guidelines were released in April 2023.²² The updated GHG thresholds address more recent climate change legislation, including Senate Bill (SB) 32, Executive Order (EO) B-55-18, and EO S-03-05, and provide qualitative thresholds related to Buildings and Transportation.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions. Therefore, such emissions do not require quantification. Nonetheless, the proposed project's construction GHG emissions, as well as operational emissions, have been estimated using CalEEMod under the same assumptions discussed in Section III, Air Quality, of this IS/MND (see Appendix A). The emissions estimates prepared for the proposed project determined that unmitigated construction of the project would result in total GHG emissions of 447 MTCO₂e over the entire construction period.

Potential impacts related to operational GHG emissions resulting from implementation of the proposed project are considered in comparison with BAAQMD's adopted thresholds of significance below. While the BAAQMD's adopted thresholds of significance for GHG

²² Bay Area Air Quality Management District. 2022 California Environmental Quality Act Guidelines. April 2023.

emissions are qualitative, operational GHG emissions have been estimated using CalEEMod for disclosure purposes (see Appendix A). The emissions estimates prepared for the proposed project determined that operation of the project would result in maximum unmitigated annual GHG emissions of 428 MTCO₂e/yr.

BAAQMD Thresholds of Significance

According to BAAQMD's qualitative GHG thresholds of significance, a project must either include specific project design elements (e.g., exclude use of natural gas, achieve a specific reduction in project-generated VMT below the regional average) or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).²³

In February 2022, the City of Pleasanton adopted an updated Climate Action Plan (CAP) 2.0,²⁴ which, according to Section 2.3 of the CAP, meets the criteria to be a GHG reduction strategy under CEQA Guidelines Section 15183.5(b). The CAP 2.0 includes specific strategies and actions to reduce emissions to 4.11 MTCO₂e/yr per capita by 2030 (70 percent below 1990 levels) and provide substantial progress towards carbon neutrality by 2045. Pursuant to Section 15183.5 of the CEQA Guidelines, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with a previously adopted plan. The CAP 2.0 is considered a "qualified" GHG reduction strategy and provides CEQA streamlining for future development that are subject to discretionary review and trigger environmental review pursuant to the CEQA.

Accordingly, a GHG Emission Compliance Checklist (Compliance Checklist)²⁵ has been prepared for the proposed project (see Appendix D) and is summarized below. Therefore, the following analysis is based on the proposed project's consistency with the City's 2022 CAP.

As discussed in the Compliance Checklist, the proposed project would be consistent with CALGreen Code requirement 3 within the CAP by complying with all requirements of the non-residential CALGreen checklist. The proposed project would also include energy-efficient window upgrades, LED lighting, and other efficiency upgrades to satisfy S2 of the CAP. In addition, consistent with CALGreen requirement 13 within the CAP, the proposed project would install EV charging infrastructure, with 10 percent of parking being EV charging stations. Furthermore, the proposed project would comply with Chapter 9.21 of the City's Municipal Code, which would ensure that the majority of concrete and debris resulting from construction and demolition is diverted for recycling or reuse. Additionally, the proposed project would provide adequate recycling, compost, and landfill containers to meet SB 1383 requirements, Municipal Code Chapter 9.20, and CAP strategy MC-1. The proposed project would be consistent with P15 of the CAP and Chapter 17.14 of the City's Municipal Code, as well as incorporate water efficient plumbing, and landscaping consistent with the State's MWEL. Finally, the proposed project would include and incorporate on-site stormwater management and climate-adapted plantings to comply with SF Bay Region Requirements and P13 of the CAP, respectively.

²³ Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022.

²⁴ City of Pleasanton. *Climate Action Plan 2.0*. Adopted February 2022.

²⁵ City of Pleasanton Community Development Department, Planning Division. *GHG Emission Compliance Checklist*. July 2022.

Implementation of all the requirements discussed in the Compliance Checklist would ensure that the proposed project would be considered consistent with the City's CAP.

Conclusion

Based on the above, the proposed project would not conflict with the applicable BAAQMD thresholds. In addition, the project would be generally consistent with the measures included in the City's CAP. Thus, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. Therefore, a ***less-than-significant*** impact would occur.

IX. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. As such, the proposed project's commercial uses are not anticipated to involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. On-site maintenance may involve the use of common cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a **less-than-significant** impact would occur.
- b. Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

A development project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment should a site contain potential Recognized Environmental Conditions (RECs) that are not properly addressed prior to project implementation. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.²⁶

The project site is currently undeveloped, although the site is bisected by a concrete drainage ditch and includes one oak tree with scattered shrubs. A private paved roadway that provides access to the project site. As noted in the CHRIS search response prepared for the proposed project, there is a low potential for any buildings or structures 45 years or older to be located within the project site. Because the project site does not contain buildings or structures constructed prior to federal bans on the use of hazardous building materials, such as asbestos and/or lead-based paint, development of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Therefore, a **less-than-significant** impact would occur.

- c. The project site is located approximately 0.66-mile to the west of Stratford Private Elementary School. Thus, the project site is not located within one-quarter mile of existing schools. Therefore, the proposed project would have a **less-than-significant** impact with respect to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d. Government Code Section 65962.5 requires the California Environmental Protection Agency to annually develop an updated Cortese List. The components of the Cortese List include the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, the list of leaking underground storage tank (LUST) sites from the State Water Resources Control Board's (SWRCB) GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB.

The project site is not located on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, including SWRCB GeoTracker and hazardous materials sites, such as LUST sites²⁷ and DTSC cleanup sites.²⁸ In addition, the project site is not located on or near any hazardous waste sites identified on the list of active CDO and CAO from the SWRCB.²⁹ Therefore, the proposed project would not create a significant hazard to the public or the environment related to located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5, and a **less-than-significant** impact would occur.

²⁶ ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.

²⁷ California Environmental Protection Agency. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/search>. Accessed September 2024.

²⁸ Department of Toxic Substances Control. *EnviroStor*. Available at: <https://www.envirostor.dtsc.ca.gov/public/search.asp>. Accessed September 2024.

²⁹ State Water Resources Control Board. *Active CDO and CAO*. Available at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed September 2024.

- e. The nearest airport to the project site is the Livermore Municipal Airport, located approximately 5.68 miles east of the site. The site is not covered by an airport land use plan. Therefore, **no impact** related to a safety hazard for people residing or working in the project area related to such would occur.
- f. The City of Pleasanton does not have an officially adopted emergency operations plan, but provides responses to a wide range of citywide hazards and vulnerabilities through federal programs, including emergency alerts and evacuation routes through the Department of Homeland Security's Ready program.³⁰ Development of the proposed project would not result in any substantial modifications to the existing roadway system, and thus, would not physically interfere with any emergency evacuation routes. Furthermore, the proposed project would be consistent with what has been planned for the site and would not include land uses or operations that could impair emergency responses. Therefore, the proposed project would not interfere with an emergency evacuation or response plan, and a **less-than-significant** impact would occur.
- g. Issues related to wildfire hazards are discussed in Section XX, Wildfire, of this IS/MND. As noted therein, the project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ).³¹ In addition, the project site is located within an urbanized area of the City of Pleasanton. The developed nature of the surrounding area precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be negligible. The proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a **less-than-significant** impact would occur.

³⁰ City of Pleasanton. *Emergency Preparedness*. Available at: <https://www.cityofpleasantonca.gov/emergency-preparedness>. Accessed September 2024.

³¹ California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones*. Available at: <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones>. Accessed September 2024.

X. HYDROLOGY AND WATER QUALITY.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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;	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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; or	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a, ci-ciii. The following discussion provides a summary of the proposed project's potential to violate water quality standards/waste discharge requirements, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation.

Construction

During the early stages of construction activities, topsoil would be exposed during ground-disturbance. Prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The SWRCB regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) permit, Permit Number CAS612008, requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best

Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading and erosion impacts, as well as non-point source pollution impacts of the project. Because the proposed project would disturb greater than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit.

In addition, the project would be required to comply with Chapter 9.14, Stormwater Management and Discharge Control, of the City's Municipal Code, which includes standards for managing stormwater runoff. Pursuant to Section 9.14.130, construction sites shall implement effective erosion control, run-on and runoff control, sediment control, any appropriate active treatment systems, good site management, and non-stormwater management through all phases of construction until the site is fully stabilized by landscaping or the installation of permanent erosion control measures. Therefore, the proposed project would not discharge sediment or urban pollutants through soil erosion, violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality during construction.

Operation

The proposed project would not involve operations typically associated with the generation or discharge of polluted water. Following completion of project buildout, disturbed areas of the site would be largely covered with impervious surfaces and topsoil would no longer be exposed. However, the addition of impervious surfaces on the site would result in the generation of urban runoff during project operations, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. All municipalities within Alameda County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit.

As discussed throughout this IS/MND, on-site drainage is currently captured by a drainage ditch bisecting the project site. Project construction would remove the on-site drainage ditch, thereby changing the existing drainage pattern of the site. However, pursuant to Section 9.14.140 of the City's Municipal Code, the City of Pleasanton has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 or more sf of impervious area to contain and treat all stormwater runoff from the project site. A total of approximately 40,601 sf of impervious surfaces would exist on site following development of the proposed project, including 6,438 sf of rooftop surfaces. Thus, the project would be subject to the requirements of the C.3 Stormwater Standards related to stormwater treatment, which are included in the City's Municipal Regional Stormwater NPDES Permit. In addition, the proposed project would be subject to Sections 9.14.080 and 9.14.120 of the City's Municipal Code, which establish standards for stormwater discharge. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

In order to manage and treat stormwater, the project site would be divided into 21 drainage management areas (DMAs) (see Figure 6). Stormwater runoff within the project site would flow primarily to IMP-1 and IMP-2 at the eastern and western ends of the site, as well as the proposed landscaped areas and bio-retention areas located throughout the project site, which would vary between six and 15 feet wide. Infiltration through the permeable materials within the bio-retention areas would occur through the pervious landscaping areas. The project site would also include installation of Silva cells beneath the parking

areas and tree openings. Silva cells are landscaping areas with lightly compacted soil intended to grow large trees and treat stormwater on location. The collected stormwater would be treated by filtering runoff through an active layer of soil to remove pollutants. The proposed project would include six-inch storm drainage pipes to convey the treated stormwater to the existing City system.

Each bio-retention area would be sized to adequately handle all runoff from the proposed impervious surfaces within the project site. Thus, the proposed project would comply with the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB) and would meet C.3 Standards related to stormwater treatment. During operation, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality.

Conclusion

Based on the above, the proposed project would not result in the violation of water quality standards or waste discharge requirements, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation. Therefore, a ***less-than-significant*** impact would occur.

- b,e. Water supplies in the City of Pleasanton are provided by the City using water purchased from Zone 7 of the Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency). The City owns and operates three active groundwater wells and a water distribution, pumping, and storage system divided into a number of water pressure zones. Pursuant to the Zone 7 Water Agency's 2023 Annual Consumer Confidence Report, the majority of the water supply originates as Sierra Nevada snowmelt and is conveyed through the Delta and then by the South Bay Aqueduct.³² Other water supply sources include surface water from rain runoff stored in Lake Del Valle and groundwater pumped from the aquifer underlying the Livermore-Amador Valley. Typically, the Zone 7 Water Agency's water supply is comprised of approximately 60 to 80 percent surface water and 20 to 40 percent groundwater each year. The amount of each type of source water varies depending on precipitation, location, and other conditions. In 2023, the Zone 7 Water Agency delivered approximately 95 percent treated surface water and five percent groundwater, allowing the groundwater basin to recharge after years of drought.

Bulletin 118 – Interim Update 2016 defines 517 groundwater basins and subbasins in California. Pursuant to the Sustainable Groundwater Management Act (SGMA), the Department of Water Resources (DWR) is required to prioritize the 517 groundwater basins and subbasins as either High, Medium, Low, or Very Low. Prioritization is based on the following considerations:

- The population overlying the basin or subbasin;
- The rate of current and projected growth of the population overlying the basin or subbasin;
- The number of public supply wells that draw from the basin or subbasin;
- The total number of wells that draw from the basin or subbasin;

³² Zone 7 Water Agency. 2023 Annual Consumer Confidence Report. Available at: <https://www.zone7water.com/post/annual-water-quality-reports>. Accessed September 2024.

- The irrigated acreage overlying the basin or subbasin;
- The degree to which persons overlying the basin or subbasin rely on groundwater as their primary source of water;
- Any documented impacts on the groundwater within the basin or subbasin, including overdraft, subsidence, saline intrusion, and other water quality degradation; and
- Any other information determined to be relevant by the department, including adverse impacts on local habitat and local streamflows.

Each basin's priority determines which provisions of California Statewide Groundwater Elevation Monitoring (CASGEM) and SGMA apply. SGMA requires Medium and High priority basins to develop groundwater sustainability agencies (GSAs), develop groundwater sustainability plans (GSPs), and sustainably manage groundwater over time. The Livermore Valley Groundwater Basin is considered Medium Priority by the DWR³³ and is addressed by the Zone 7 Groundwater Management Plan (2005 GMP).³⁴ The DWR has not identified the Basin as either in overdraft or expected to be in overdraft.³⁵

Given that the proposed project would be consistent with the site's current General Plan land use designations, the project would not result in increased use of groundwater supplies beyond what has been generally anticipated for the site by the City and accounted for in the Urban Water Management Plan (UWMP). Pursuant the 2015 UWMP, water supplies are projected to meet expected demand for normal year, single-dry year, and multiple-dry year scenarios through 2040.

Based on the above, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Livermore Valley Groundwater Basin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or the 2005 GMP. Thus, a ***less-than-significant*** impact would occur.

- civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map number 06001C0308G, the project site is located within an Area of Minimal Flood Hazard (Zone X).³⁶ The site is not classified as a Special Flood Hazard Area or otherwise located within a 100-year or 500-year floodplain. Therefore, development of the proposed project would not impede or redirect flood flows and ***no impact*** would result.
- d. As discussed under question 'civ' above, the project site is not located within a flood hazard zone. Thus, the proposed project would not be subject to substantial flooding risks. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Due to the project site's substantial distance from the coast, the proposed project would not be exposed to flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to any closed body of water. Therefore, the proposed project would not pose a

³³ Zone 7 Water Agency. *Groundwater Management Plan for Livermore-Amador Valley Groundwater Basin*. September 2005.

³⁴ Department of Water Resources. *Sustainable Groundwater Management Act 2018 Basin Prioritization* [Table A-1]. January 2019.

³⁵ Zone 7 Water Agency. *2015 Urban Water Management Plan* [pg. 6-7]. March 31, 2016.

³⁶ Federal Emergency Management Agency. *Flood Insurance Rate Map 06001C0308G*. Effective August 3, 2009.

risk related to the release of pollutants due to project inundation due to flooding, tsunami, or seiche, and ***no impact*** would occur.

XI. LAND USE AND PLANNING.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site is undeveloped and does not contain existing housing. The site is bounded by Dublin Canyon Road to the north, Foothill Road to the east, oak woodlands to the west and south, and a single-family residence is also located to the south. In addition, the proposed project would be compatible with the existing surrounding land uses in the project area and would not alter the existing general development trends in the area or isolate an existing land use. Therefore, the proposed project would not physically divide an established community, and a **less-than-significant** impact would occur.
- b. The project site is currently designated Retail/Highway/Service Commercial and Business and Professional Offices by the City's General Plan and is zoned C-C District and PUD-C-O. As discussed throughout this IS/MND, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable SWRCB regulations related to stormwater, and EACCS standards. Therefore, the proposed project would not cause a significant environmental impact in excess of what has already been analyzed and anticipated in the General Plan EIR, and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Thus, a **less-than-significant** impact would occur.

XII. MINERAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

Discussion

- a,b. According to Figure 7-2 of the City's General Plan, approximately 1,750 acres of regionally significant sand and gravel deposits are located within and adjacent to the easternmost portion of the City. The California Division of Mines and Geology has designated the area as an "Aggregate Resource Area of Regional Significance." The project site is located in a developed area within the western portion of the City, approximately 4.41 miles from the designated aggregate resource area. The City's General Plan EIR states that much of the developed Planning Area is categorized as Mineral Resource Zone (MRZ) 1, which is defined as an area without significant mineral deposits. The General Plan EIR therefore concluded that buildout of the Planning Area would result in a less-than-significant impact to mineral resources. Given that the proposed project would be consistent with the site's current General Plan land use designations, the project would be consistent with the foregoing conclusion.

Based on the above, ***no impact*** to mineral resources would occur as a result of development of the proposed project.

XIII. NOISE.

Would the project result in:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	×	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	×	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	×

Discussion

- a. The following sections present information regarding sensitive noise receptors in proximity to the project site, applicable noise standards, the existing noise environment, and the potential for the proposed project to result in noise impacts during project construction and operation. The following terms are referenced in the sections below:
- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to dB in this report will be A-weighted unless noted otherwise.
 - Community Noise Equivalent Level (CNEL): The cumulative noise exposure over a 24-hour period. Weighting factors of +5 and +10 dBA are applied to the evening and nighttime periods, respectively, to account for the greater sensitivity of people to noise during those periods.
 - Average, or equivalent, sound level (L_{eq}): The L_{eq} corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour).
 - Day-Night Average Level (L_{dn}): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
 - Maximum Sound Level (L_{max}): The maximum sound level over a given time-period.
 - Median Sound Level (L_{50}): The sound level exceeded 50 percent of the time over a given time-period.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. In the vicinity of the project site, sensitive land uses include the existing single-family residences located south of the project site, approximately 180 feet from the nearest disturbance areas on-site.

Standards of Significance

Chapter 9.04 of the City's Municipal Code establishes noise regulations within the City. Pursuant to Section 9.04.040, Noise Limits – Commercial Property, noise levels are not allowed to exceed 70 dBA. In addition, if the proposed restaurant's hours of operation include any hours between 10:00 PM and 6:00 AM, the proposed project would be subject to the standards contained within Section 9.04.035, Noise Limits – Commercial or Industrial Use Adjacent to Residential Zone, of the City's Municipal Code. However, Section 9.04.100, Construction, of the Municipal Code exempts noise generated construction activities so long as construction is performed during the permitted hours of 8:00 AM and 8:00 PM, Monday through Friday and between the hours of 10:00 AM to 6:00 PM on Saturdays, Sundays, and holidays. To be exempt, the construction must also avoid producing a noise level exceeding 86 dBA and an individual piece of equipment must not produce noise above 83 dBA at 25 feet.

In addition, General Plan Policy 4 within the City's Noise Element establishes acceptable noise levels in Table 11-5 (reproduced as Table 5 below). As shown therein, normally acceptable noise levels for areas with residential uses are less than or equal to 75 dBA L_{dn} and unacceptable levels exceed 75 dBA L_{dn} . Should project operational noise result in exterior noise levels exceeding 75 dBA L_{dn} , due to the adjacent single-family residence, the proposed project would be considered to result in a significant noise impact.

**Table 4
City of Pleasanton General Plan Noise and Land Use
Compatibility Guidelines (General Plan Table 11-5)**

Land Use Category	Exterior Noise Exposure (L_{dn})					
	55	60	65 ^b	70	75	80
Single-Family Residential ^a						
Multi-Family Residential, Hotels, and Motels ^a						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business, Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

^a In noise environments resulting primarily from railroad trains, exterior noise levels up to 70 dBA L_{dn} are normally acceptable recognizing that day-night average noise levels are controlled by intermittent, loud events.

^b <65 dBA outdoors = < 45 dBA indoors

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements

CONDITIONALLY ACCEPTABLE
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

UNACCEPTABLE
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

The City of Pleasanton has not established a threshold for significant increases in traffic noise. Therefore, for short-term noise associated with project construction, the California Department of Transportation (Caltrans) increase criteria of 12 dBA is applied to existing

sensitive receptor in the project vicinity. The 12 dBA increase is approximately equivalent to a doubling of sound energy and has historically been the standard of significance for Caltrans projects.

The Federal Interagency Committee on Noise (FICON) has also developed guidance for determining increases in project-related traffic noise. The criteria shown in Table 6 was developed by FICON as a means of developing thresholds for impact identification for project-related traffic noise level increases. FICON's significance thresholds are used to identify the significance of an incremental increase in noise levels.

Table 5 FICON Noise Exposure Increases for Determining Level of Significance	
Noise Exposure without Project	Potential Significant Impact
< 60 dB CNEL	+5 dB or more
60-65 dB CNEL	+3 dB or more
>65 dB CNEL	+1.5 dB or more
<i>Source: Federal Interagency Committee on Noise (FICON), 2000.</i>	

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State. For example, the California Energy Commission (CEC) considers project-related noise level increases between five to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding significant noise impacts as low as 1.5 dB, provides a conservative approach to the impact assessment for the proposed project and are used as the applicable noise increase threshold to analyze project-generated operational traffic noise, as discussed in further detail below.

Impact Analysis

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for grading, excavation, paving, and building construction, which would temporarily increase ambient noise level when in use. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, dozers, and dump trucks would be used in association with project construction.

The maximum noise level for various types of construction equipment at a distance of 50 feet is presented in Table 7. Based on the table, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet. Typical construction noise sources include construction vehicle engines, idling equipment, and power generators. In addition to on-site construction noise sources, noise would also be generated during the construction phase by increased truck traffic on area roadways. Although project construction would be limited to daytime hours, consistent with Section 9.04.100 of the City's Municipal Code, construction would take place throughout the site.

Table 6 Construction Equipment Noise	
Type of Equipment	Maximum Level, dB at 50 feet
Auger Rill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85
<i>Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.</i>	

As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. For the project site, the closest receptor for construction noise would be the existing single-family residence located approximately 180 feet to the south of the site. The proposed off-site emergency vehicle turnaround is located closer to the single-family residence; however, the turnaround would connect to existing fire road and driveway, which are located approximately 140 feet from the residence. Because the distance between the proposed construction area and the nearest receptors is significantly greater than 50 feet, pursuant to the maximum construction equipment noise levels established in Table 9 above, the closest receptor would be exposed to maximum noise levels below the allowable construction noise limit of 86 dBA set forth in Section 9.04.100 of the City's Municipal Code. Therefore, construction noise associated with the proposed project would be less than significant.

Operational Noise

Operations associated with the proposed development would generate noise primarily associated with vehicle traffic along the local roadways, as well as vehicle noise within the on-site parking lot associated with the proposed restaurant.

The City of Pleasanton does not have a significance threshold for increases in non-transportation noise sources. In the absence of a specific threshold, the FICON criteria established in Table 8 are used to assess increases in ambient noise environment. As such, where existing traffic noise levels are greater than 65 dB L_{dn}, a 1.5 dB L_{dn} increase in roadway noise levels would be considered significant.

As shown in Figure 11-1, City-Wide Noise Monitoring Sites, of the City's General Plan, the project site is located in a similar position to Monitoring Site 31 (i.e., similar distances from a major interstate). As listed in Table 11-2 of the General Plan, Monitoring Site 31 recorded a noise level of 65 to 68 dBA L_{dn}. In addition, Table 11-3 notes that the segment of Dublin Canyon Road located west of Foothill Road, on which the project site is located, experiences 910 vehicle trips at the PM peak hour. Due to the nature and relatively small size of the proposed project, substantial daily vehicle trips sufficient to increase traffic

volumes and, subsequently, noise levels, would not be generated on local roadways as a result of the proposed project. In addition, additional traffic would not occur during peak hours.

Noise sources associated with operation of the proposed project could include parking lot movements, delivery truck circulation, and delivery activities. However, the proposed project would be consistent with the project site's current land use and zoning designations. Therefore, operational noise level increases associated with commercial uses on the site have been previously anticipated by the City. In addition, the proposed restaurant building would be located between the parking lot and single-family residence, thereby blocking exterior on-site noise. As such, the proposed project would not be anticipated to substantially increase noise in the project vicinity.

Based on the above, the proposed project would not result in operational noise increases that would result in significant effects on sensitive receptors in the project vicinity.

Conclusion

Based on the above, construction and operation of the proposed project would not result in the 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 City's General Plan and Municipal Code. Thus, a ***less-than-significant*** impact would occur.

- b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception, as well as damage to structures, have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 8, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phase of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours, consistent with Section 9.04.100 of the City's Municipal Code.

The primary vibration-generating activities associated with the proposed project would occur during building construction. Table 9 shows the typical vibration levels produced by construction equipment at various distances. As shown in the table, the most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors during construction of the proposed parking areas within the project site; however, the nearest sensitive receptor is located approximately 180 feet from the nearest area where construction would occur within the project site and approximately 140 feet from the proposed off-site improvements. Thus, groundborne vibration would be below the 0.10 in/sec PPV threshold established by Caltrans for annoyance to sensitive receptors, as well as the 0.20 in/sec PPV threshold established by Caltrans for building damage.

Table 7			
Effects of Vibration on People and Buildings			
PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage
<i>Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.</i>			

Table 8		
Vibration Levels for Various Construction Equipment		
Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.</i>		

Based on the above, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and a **less-than-significant** impact would occur.

- c. The nearest airport to the project site is the Livermore Municipal Airport, located approximately 5.68 miles east of the site. The site is not covered by an airport land use plan. Given that the project site is not located within two miles of a public airport or public use airport, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with such. Thus, ***no impact*** would occur.

XIV. POPULATION AND HOUSING.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	×	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	×	<input type="checkbox"/>

Discussion

- a,b. The project site does not contain any existing residential development, nor would the proposed project result in the addition of residential development to the site. As such, development of the proposed project would not require the demolition of any existing residential units nor directly induce population growth. While the proposed project could create new jobs in the area, which could potentially result in an increase in the housing demand, such an increase would be minimal due to the relatively small scale of the proposed project. As such, the proposed project would create employment, but would not lead to influx of new residents to the project area. In addition, as discussed in Section XIX, Utilities and Service Systems, of this IS/MND, adequate utility infrastructure would be available to support the proposed project. Therefore, the proposed project would not induce substantial unplanned population growth, either directly or indirectly, and a ***less-than-significant*** impact would occur.

XV. PUBLIC SERVICES.

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:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

a-e. Fire protection services are currently provided to the site by the Livermore-Pleasanton Fire Department (LPFD) through a joint powers authority agreement with the City of Livermore. The nearest fire station to the project site is Station #2, located at 6314 Stoneridge Mall Road, approximately 0.61-mile east of the project site. According to the City's General Plan, LPFD maintains 10 fire stations, half of which are located within the City along with a training center. The LPFD employs an on-duty force of 18 personnel per day and operates a total of 52 vehicles to maintain a response time goal of five minutes 90 percent of the time. The General Plan EIR determined that buildout of the General Plan would increase the overall demand on fire protection services, but that implementation of the General Plan policies would ensure impacts related to fire protection services would be less-than-significant. Because the proposed project would be consistent with the site's existing General Plan land use designations, development of the site with the proposed uses and the associated increase in demand for fire services has been previously anticipated by the City. In addition, the proposed building would include a fire sprinkler system, which would decrease the likelihood of fire-related incidents at the site.

The Pleasanton Police Department (PPD) provides police protection services to the project site. The City's police department headquarters is located at 4833 Bernal Avenue, approximately 3.93 miles southeast of the project site. According to the City's General Plan EIR, the PPD contains three divisions staffed by approximately 125 employees: Operations, Professional Standards, and Investigations and Services.³⁷ The PPD's average emergency response time is just over five minutes, while the average nonemergency response time is almost 31 minutes. According to the General Plan EIR, implementation of the General Plan Policies addressing urban design crime prevention approaches would ensure that impacts associated with increased demand for police protection services would be less than significant.³⁸ Because the proposed project would be consistent with the site's existing General Plan land use designations, development of the site with the proposed uses and the associated increase in demand for police protection services has been previously anticipated by the City.

³⁷ City of Pleasanton. *Pleasanton General Plan 2005 – 2025*. [pg. 5-31 to 5-32]. Available at: <https://www.cityofpleasantonca.gov/assets/our-government/community-development/cop-gen-plan-2005-25.pdf>. Adopted July 21, 2009. Amended August 20, 2019.

³⁸ City of Pleasanton. *Final Environmental Impact Report*. [pg. 3.4-2 and 3.4-10]. Certified April 2009.

School services in the City are provided by the Pleasanton Unified School District (PUSD), which operates nine public elementary schools, three public middle schools, and four high schools.³⁹ Because the project would include commercial uses, the proposed project is not anticipated to generate new residents in the City. In addition, the project would be subject to payment of development mitigation fees to fund local school services. Specifically, PUSD requires commercial development to pay \$0.84 per sf.⁴⁰ Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “[...] legislative or adjudicative act...involving ...the planning, use, or development of real property” (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be “full and complete mitigation.” Overall, development of the proposed project would not result in a significant increase in demand for schools.

With respect to parks and other public facilities, such as libraries, the proposed project includes commercial uses and would not directly generate new residents in the City. Therefore, the proposed project would not be anticipated to result in a permanent substantial increase in population or the associated demand for such services, such that expanded facilities would be required.

Based on the above, the proposed project would have a ***less-than-significant*** impact related to the need for new or physically altered fire protection, police protection, schools, parks, or other public facilities, the construction of which could cause significant environmental impacts.

³⁹ City of Pleasanton. *Pleasanton General Plan 2005 – 2025*. [pg. 6-2]. Available at: <https://www.cityofpleasantonca.gov/assets/our-government/community-development/cop-gen-plan-2005-25.pdf>. Adopted July 21, 2009. Amended August 20, 2019.

⁴⁰ Pleasanton Unified School District. *Developer Fees*. Available at: <https://www.pleasantonusd.net/departments/business-services/developer-fees>. Accessed March 2025.

XVI. RECREATION.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a,b. As discussed under Impact PS-5 of the General Plan EIR, buildout of the City's General Plan would result in a less-than-significant impact to parks and recreation facilities. According to the City's General Plan EIR, the City contains various neighborhood, community and regional parks, as well as additional community and recreation facilities, such as the Amador Theater, Livermore-Amador Valley Historical Society Museum, and Memorial Gardens,⁴¹ as well as a total of 101 miles of bicycle trails. As discussed throughout this IS/MND, the proposed project would include the development of a single-story 6,445-sf teppanyaki restaurant and, thus, would not result in any direct population growth. Due to the commercial nature of the proposed project, the proposed project would not result in population growth that could result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities. Thus, a ***less-than-significant*** impact would occur.

⁴¹ City of Pleasanton. *Pleasanton General Plan 2005 – 2025*. [pg. 6-13]. Available at: <https://www.cityofpleasantonca.gov/assets/our-government/community-development/cop-gen-plan-2005-25.pdf>. Adopted July 21, 2009. Amended August 20, 2019.

XVII. TRANSPORTATION.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Previously, lead agencies used a performance metric entitled 'level of service' (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of SB 743 (2013), PRC Section 21099(b)(1), directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It should be noted that OPR is currently known as LCI.

Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018, which became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, VMT refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact." See question 'b' for a discussion of VMT.

Pedestrian, Bicycle, and Transit Facilities

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

Pedestrian Facilities

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities. Existing pedestrian facilities in the project area include sidewalks along Dublin Canyon Road and Foothill Road, as well as the crosswalks at the Dublin Canyon Road/Foothill Road intersection. However, the section of Dublin Canyon Road between the road's intersection with Foothill Road and the existing on-site private driveway does not contain a sidewalk. The proposed project would include a new sidewalk along Dublin Canyon Road would be constructed, thereby improving pedestrian facilities in the project area. Thus, adequate pedestrian facilities would be available to serve the proposed

project; and the project would not conflict with any existing or planned pedestrian facilities in the project vicinity. A less-than-significant impact related to pedestrian facilities would occur.

Bicycle Facilities

According to the Pleasanton Trails Master Plan,⁴² the existing bicycle network includes approximately 80 miles of trails and routes throughout the City, including Class I paved trails, bicycle lanes, and bicycle routes. In the project vicinity, existing Class II bicycle lanes are located along Dublin Canyon Road, north of the proposed project site. Thus, adequate bicycle facilities would be available to serve the proposed project; and the project would not conflict with any existing or planned bicycle facilities in the project vicinity. A less-than-significant impact related to bicycle facilities would occur.

Public Transit Impacts

The City's connections to regional transit options include Bay Area Rapid Transit (BART), Altamont Corridor Express (ACE) trains, and the BART express bus service (including connections between the Walnut Creek BART Station and the Pleasanton/Dublin BART station). Local public transit services in the City are provided by the Livermore Amador Valley Transit Authority (LAVTA) through the WHEELS and the ACE service. In addition, the City currently maintains a Dial-A-Bus (paratransit) service for senior and disabled residents on weekdays. The closest bus stop to the proposed project site is the Stoneridge Mall bus stop, located approximately 0.32-mile east of the project site.

The City also promotes an internal employee trip reduction program by providing incentives for City employees to use a commute alternative, such as riding public transit, carpooling, walking or biking. Pursuant to Chapter 3.26 of the City's Municipal Code, upon issuance of a building permit, the proposed project would be subject to a transportation development fee. Payment of the fee would help fund any transportation improvements deemed necessary by the City and help further reduce any impacts related to transit facilities. Overall, because the project site is located within close proximity to existing transit facilities and would be subject to a fair-share payment to support future transportation improvements, a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project would not conflict with any existing or proposed roadway, pedestrian, bicycle, or transit facilities, or conflict with an applicable plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and, a ***less-than-significant*** impact would occur.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The City of Pleasanton has not yet established any standards or thresholds regarding VMT; however, LCI released a Technical Advisory to evaluate transportation impacts pursuant to CEQA, which includes screening thresholds that can be applied to a project to determine whether that project can be presumed to cause a less-than-significant amount of VMT, in which case the project could be screened out of doing further

⁴² City of Pleasanton. *Pleasanton Trails Master Plan*. [pg. 31] May 7, 2019.

VMT analysis.⁴³ The LCI screening threshold recommendations are based on project size, maps, transit availability, and provision of affordable housing. One of the criteria in the Technical Advisory is that local-serving retail developments (i.e., developments less than 50,000 sf in size) may be assumed to result in a less-than-significant impact on VMT because improving destination proximity by adding retail opportunities into the urban fabric tends to shorten trips and reduce VMT.

The proposed project would include the development of a single-story, 6,445-sf teppanyaki restaurant. Because the proposed project would include commercial uses less than 50,000 sf, the proposed project can be presumed to be a local-serving facility and, as such, would not have a significant impact related to VMT.

Based on the above, the proposed project is consistent with the LCI screening criteria and would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). Therefore, a ***less-than-significant impact*** would occur.

- c,d. Access to the project site would be provided by a repaved driveway at the westernmost corner of the project site that would lead to the proposed parking lot, which would generally occupy the portion of the site not covered by the proposed restaurant. The driveway currently provides full access, and site access changes are not proposed as part of the project. The proposed project would also include a new emergency vehicle turnout behind the proposed building. Overall, the proposed project would provide sufficient emergency vehicle access and circulation. Therefore, the proposed project would not substantially increase hazards due to design features or incompatible uses, emergency access to the site would be adequate, and a ***less-than-significant impact*** would occur.

⁴³ Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

XVIII. TRIBAL CULTURAL RESOURCES.

Would the project 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:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. 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).	<input type="checkbox"/>	×	<input type="checkbox"/>	<input type="checkbox"/>
b. 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	×	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a,b. A search of the NAHC Sacred Lands File did not yield any information regarding the presence of cultural resources within the project site or the immediate area. The project site is primarily undeveloped with a concrete drainage ditch bisecting the project site. The surrounding area has been developed with existing commercial and residential uses.

As previously discussed, the City of Pleasanton has not received any letters from tribes requesting notice pursuant to AB 52/PRC Section 21080.3.1. As such, formal notification of the proposed project to any tribes is not required.

As stated in Section V, Cultural Resources, of this ISMND, a records search of the CHRIS was performed by the NWIC for cultural resource site records and survey reports within the project area. The results of the CHRIS search indicated that Native American resources within the project region are generally identified near sources of water and near the interface between low-lying terrain and higher elevation foothills, as well as near oak woodland. The project site is located at the hill-to-valley interface at the edge of oak woodlands, approximately 0.25-mile from Laurel Creek and 0.3-mile from Devaney Canyon and Dublin Creeks. The CHRIS search concluded that, due to the similarity in environmental factors, as well as the ethnographic and archaeological sensitivity of the area, a moderately high potential exists for unrecorded Native American resources to be within the project area.

Prior to the construction of the proposed restaurant, the proposed project would include the cut and fill of the on-site hillside that was created during construction of Dublin Canyon Road, as well as the removal of the existing paved roadway, the concrete drainage ditch, and the on-site tree. The proposed project would also include the installation of retaining walls at the former hillside. Other ground disturbing activities resulting from the proposed project would include site preparation, construction of a new off-site sidewalk, landscaping, and trenching for utilities such as new storm drainage facilities and bioretention area.

Based on the above, unknown tribal cultural resources could be uncovered during ground-disturbing activities at the project site and the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

XVIII-1. *Implement Mitigation Measures V-1 and V-2.*

XIX. UTILITIES AND SERVICE SYSTEMS.

Would the project:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. The project site is currently undeveloped, and the proposed project would include development of a drainage ditch that extends along the site's eastern, southern, and western boundaries, as well as a new bioretention area along the northern site boundary. However, all utilities for the proposed project would be sized to serve only the proposed project and would connect to existing infrastructure within the vicinity, such as within Dublin Canyon Road. The proposed project would not require new development, modifications, relocation or expansion of electricity, natural gas, or telecommunications facilities. In addition, because the proposed project is consistent with the project site's existing land use designations, utility demand associated with the proposed uses on the project site has been anticipated by the City. Therefore, the proposed project would result in a **less-than-significant** impact related to 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.
- b. Water supplies in the project area are provided by the City using water purchased from Zone 7 Water Agency. The City owns and operates three active groundwater wells and a water distribution, pumping, and storage system divided into a number of water pressure zones. Estimated demand for the Zone 7 service area is approximately 69,210 acre feet (af) of water in 2025. Pursuant the 2015 UWMP, water supplies are projected to meet expected demand for normal year, single-dry year, and multiple-dry year scenarios through 2040.⁴⁴ Given that the proposed project would be consistent with the site's current land use and zoning designations, the project would not result in an increased use of

⁴⁴ Zone 7 Water Agency. 2015 Urban Water Management Plan. March 31, 2016.

groundwater supplies beyond what has been anticipated for the site by the City and accounted for in the UWMP. In addition, the proposed project would be subject to the standards established in Chapter 17.14, Water Efficient Landscaping, of the City's Municipal Code, which incorporates standards from the State's MWELO and landscape guidelines of the Alameda County Waste Management Authority.

Based on the above, the City would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a **less-than-significant** impact would occur.

- c. Within the City of Pleasanton, sewer service is provided by the City's Public Works Department. Wastewater facility planning involves a collection system comprised of gravity pipelines, force mains, and sewage lift/pumping stations; a treatment plant where raw sewage is treated; and an export system to transport the treated effluent to an approved discharge location. According to the City's General Plan EIR, the City is estimated to discharge approximately 14.3 million gallons per day (mgd). The cities of Pleasanton and Livermore, as well as the Dublin-San Ramon Services District, share the allocated expansion increment (20.2 mgd) of the Livermore-Amador Valley Water Management Agency system among them, with the City of Pleasanton acquiring an additional 6.9 mgd of wet-weather discharge capacity for a total capacity of 14.4 mgd. The City's capacity is sufficient to accommodate buildout of the proposed General Plan.⁴⁵

The project site is currently undeveloped and the proposed project is consistent with the existing General Plan land use designations. Thus, the demand for wastewater collection and treatment facilities associated with buildout of the site have been anticipated by the City. In addition, the proposed project would be subject to the City's sewer permit fee as established by Chapter 15.20 of the City's Municipal Code. Payment of the applicable sewer fees would ensure that funds are available for costs associated with new sewer construction and connections, capacity allocations, wastewater discharge permits, special permits, and other services.

Based on the above, the City would have adequate capacity to serve the wastewater demand associated with the proposed project in addition to the City's existing commitments, and a **less-than-significant** impact would occur.

- d,e. Solid waste, recyclable materials, and compostable material collection within the project area is provided by the Republic Services Vasco Road Landfill, located at 4001 North Vasco Road. The landfill operates under a Full Solid Waste Facility Permit (SWFP) issued by CalRecycle (SWIS #01-AA-0010), which allows for a maximum daily inflow rate of 2,518 tons per day. Although the landfill is being considered for expansion, the current design has sufficient capacity to operate through 2031.⁴⁶

Because the proposed project is consistent with the existing General Plan land use designations, construction and operation of the proposed project would not result in substantially increased solid waste generation beyond what has been previously anticipated for the site by the City. In addition, pursuant to the CALGreen Code, at least 65 percent diversion of construction waste is required. With respect to operation, the

⁴⁵ City of Pleasanton. *Final Environmental Impact Report*. [pg. 3.5-16 to 3.5-17] Certified April 2009.

⁴⁶ StopWaste. *Amendment to the Alameda Countywide Integrated Waste Management Plan (CoIWMP) for Vasco Road Landfill Expansion*. September 28, 2022.

proposed project would not be expected to generate substantial amounts of solid waste due to the relatively small scale of the project. The proposed project would also be subject all applicable provisions of Chapter 9.20, Solid Waste, of the City's Municipal Code, which regulates the preparation, collection, removal, and disposal of solid waste.

Therefore, the proposed project would not 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 and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, a ***less-than-significant*** impact would occur.

XX. WILDFIRE.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a-d. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within or near a VHFHSZ or State Responsibility Area.⁴⁷ As the proposed project site is consistent with zoning and General Plan land use designations for the site, any impacts related to wildland fires as a result of General Plan buildout have already been anticipated by the City and analyzed in the City's General Plan EIR, which concluded that a less-than-significant impact would occur. Additionally, the proposed project would include fire sprinklers and other fire suppression features, consistent with the CBSC and California Fire Code (CFC). Therefore, the proposed project would not be expected to be subject to or result in substantial adverse effects related to wildfires, and a **less-than-significant** impact would occur.

⁴⁷ California Department of Forestry and Fire Protection. *Fire Hazard Severity Zones*. Available at: <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones>. Accessed September 2024.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. As discussed in Section IV, Biological Resources, of this IS/MND, while the potential exists for western burrowing owl, Crotch's bumble bee, and/or nesting birds and raptors protected by the MBTA to occur on-site or within the site vicinity, Mitigation Measures IV-1 through IV-4 would ensure that impacts to special-status species would be less than significant. The project site is not known to contain a previous archaeological site or any cultural or tribal cultural resources. However, the potential exists for such resources to occur beneath the ground surface. As such, Mitigation Measures V-1 and V-2 ensure that, in the event that cultural and/or tribal cultural resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, the proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations 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. Therefore, a ***less-than-significant*** impact would occur.

- b. Development of the proposed project in conjunction with other projects within the City could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project development would be reduced to a less-than-significant level through compliance with the mitigation measures included herein, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations. In addition, the project would be consistent with the site's existing land use and zoning designations.

As noted in Section 21083.3 of the CEQA Guidelines, where a project is consistent with zoning and general plan designations for the site, and an EIR has been certified with

respect to that general plan, the analysis of potential environmental impacts resulting from the individual project should focus on those effects that are peculiar to the proposed project. As demonstrated throughout this IS/MND, the proposed project would not result in any significant environmental impacts peculiar to the project, and, thus, the proposed project would not contribute any new or additional impacts not previously analyzed in the City's General Plan EIR. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts in the City of Pleasanton. Overall, such impacts would be ***less than significant***.

- c. As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in the Air Quality, Geology and Soils, Hazards and Hazardous Materials, GHG Emissions, and Noise sections of this IS/MND, the proposed project would not cause substantial effects to human beings, which cannot be mitigated to less-than-significant levels, including effects related to exposure to air pollutants, geologic hazards, GHG emissions, hazardous materials, and excessive noise. Therefore, the proposed project's impact would be ***less than significant***.

Appendix A

Air Quality and Greenhouse Gas Modeling Results

Hana Japan Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hana Japan
Construction Start Date	3/3/2025
Operational Year	2026
Lead Agency	City of Pleasanton
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	17.2
Location	37.694376199903765, -121.93480388898737
County	Alameda
City	Pleasanton
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1678
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Quality Restaurant	6.45	1000sqft	0.75	6,445	6,200	—	—	—

Parking Lot	40.0	Space	0.41	0.00	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.94	3.25	29.7	32.8	0.06	1.21	7.75	8.95	1.11	3.60	4.71	—	7,144	7,144	0.31	0.32	4.61	7,252
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.86	3.24	26.1	27.0	0.05	1.03	7.65	8.68	0.95	3.57	4.52	—	6,175	6,175	0.27	0.31	0.11	6,274
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.34	1.12	9.70	9.99	0.02	0.40	3.56	3.96	0.37	1.67	2.04	—	2,226	2,226	0.10	0.11	0.63	2,260
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.20	1.77	1.82	< 0.005	0.07	0.65	0.72	0.07	0.31	0.37	—	369	369	0.02	0.02	0.10	374

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	3.94	3.25	29.7	32.8	0.06	1.21	7.75	8.95	1.11	3.60	4.71	—	7,144	7,144	0.31	0.32	4.61	7,252
2026	1.83	1.60	9.47	11.2	0.02	0.32	0.03	0.35	0.29	0.01	0.30	—	1,990	1,990	0.08	0.02	0.17	1,998
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.86	3.24	26.1	27.0	0.05	1.03	7.65	8.68	0.95	3.57	4.52	—	6,175	6,175	0.27	0.31	0.11	6,274
2026	1.83	1.60	9.47	11.2	0.02	0.32	0.03	0.35	0.29	0.01	0.30	—	1,988	1,988	0.08	0.02	< 0.005	1,996
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.34	1.12	9.70	9.99	0.02	0.40	3.56	3.96	0.37	1.67	2.04	—	2,226	2,226	0.10	0.11	0.63	2,260
2026	0.42	0.37	2.12	2.51	< 0.005	0.07	0.01	0.08	0.06	< 0.005	0.07	—	443	443	0.02	< 0.005	0.02	445
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.24	0.20	1.77	1.82	< 0.005	0.07	0.65	0.72	0.07	0.31	0.37	—	369	369	0.02	0.02	0.10	374
2026	0.08	0.07	0.39	0.46	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	73.4	73.4	< 0.005	< 0.005	< 0.005	73.7

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.33	2.15	1.82	16.3	0.04	0.04	3.67	3.72	0.04	0.93	0.97	6.92	4,586	4,593	0.92	0.19	24.6	4,697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.21	2.03	2.09	15.3	0.04	0.04	3.67	3.72	0.04	0.93	0.97	6.92	4,352	4,359	0.94	0.21	10.5	4,454
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	1.72	1.33	9.42	0.02	0.03	1.86	1.89	0.03	0.47	0.50	6.92	2,508	2,515	0.88	0.13	13.3	2,588
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.34	0.31	0.24	1.72	< 0.005	0.01	0.34	0.35	0.01	0.09	0.09	1.15	415	416	0.15	0.02	2.20	428
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2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.10	1.94	1.58	15.8	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	4,127	4,127	0.16	0.18	14.5	4,198
Area	0.21	0.21	< 0.005	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.15	1.15	< 0.005	< 0.005	—	1.16
Energy	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	451	451	0.05	< 0.005	—	453
Water	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Total	2.33	2.15	1.82	16.3	0.04	0.04	3.67	3.72	0.04	0.93	0.97	6.92	4,586	4,593	0.92	0.19	24.6	4,697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.03	1.86	1.85	15.1	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	3,894	3,894	0.19	0.19	0.38	3,956
Area	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	451	451	0.05	< 0.005	—	453
Water	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Total	2.21	2.03	2.09	15.3	0.04	0.04	3.67	3.72	0.04	0.93	0.97	6.92	4,352	4,359	0.94	0.21	10.5	4,454
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.63	1.53	1.10	9.09	0.02	0.01	1.86	1.88	0.01	0.47	0.49	—	2,049	2,049	0.13	0.11	3.22	2,089
Area	0.18	0.18	< 0.005	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.57	0.57	< 0.005	< 0.005	—	0.57
Energy	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	451	451	0.05	< 0.005	—	453

Water	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Waste	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Total	1.84	1.72	1.33	9.42	0.02	0.03	1.86	1.89	0.03	0.47	0.50	6.92	2,508	2,515	0.88	0.13	13.3	2,588
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.30	0.28	0.20	1.66	< 0.005	< 0.005	0.34	0.34	< 0.005	0.09	0.09	—	339	339	0.02	0.02	0.53	346
Area	0.03	0.03	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Energy	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.7	74.7	0.01	< 0.005	—	75.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.62	1.20	1.82	0.06	< 0.005	—	3.88
Waste	—	—	—	—	—	—	—	—	—	—	—	0.52	0.00	0.52	0.05	0.00	—	1.84
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.67	1.67
Total	0.34	0.31	0.24	1.72	< 0.005	0.01	0.34	0.35	0.01	0.09	0.09	1.15	415	416	0.15	0.02	2.20	428

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.56	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.26	0.22	1.99	2.00	< 0.005	0.09	—	0.09	0.08	—	0.08	—	339	339	0.01	< 0.005	—	341
Dust From Material Movement	—	—	—	—	—	—	1.03	1.03	—	0.49	0.49	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.05	0.04	0.36	0.36	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.2	56.2	< 0.005	< 0.005	—	56.4
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	64.9	64.9	< 0.005	< 0.005	0.26	66.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.6	73.6	< 0.005	0.01	0.16	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	60.2	60.2	< 0.005	< 0.005	0.01	61.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.7	73.7	< 0.005	0.01	< 0.005	77.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.97	9.97	< 0.005	< 0.005	0.02	10.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.00	2.00	< 0.005	< 0.005	< 0.005	2.11

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	7.10	7.10	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	7.10	7.10	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.50	4.62	4.77	0.01	0.21	—	0.21	0.19	—	0.19	—	807	807	0.03	0.01	—	810
Dust From Material Movement	—	—	—	—	—	—	2.33	2.33	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.84	0.87	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	134

Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	86.6	86.6	< 0.005	< 0.005	0.34	87.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	0.04	1.99	0.80	0.01	0.03	0.44	0.47	0.03	0.12	0.15	—	1,650	1,650	0.09	0.27	3.66	1,735
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	80.3	80.3	< 0.005	< 0.005	0.01	81.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.12	0.04	2.11	0.81	0.01	0.03	0.44	0.47	0.03	0.12	0.15	—	1,651	1,651	0.09	0.27	0.10	1,732
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.05	27.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.01	0.68	0.26	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	543	543	0.03	0.09	0.52	570
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	0.01	4.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.12	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	89.8	89.8	< 0.005	0.01	0.09	94.4

3.5. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	1.94	2.18	< 0.005	0.07	—	0.07	0.07	—	0.07	—	391	391	0.02	< 0.005	—	393
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.35	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.8	64.8	< 0.005	< 0.005	—	65.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.4	23.4	< 0.005	< 0.005	0.09	23.8
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.1	28.1	< 0.005	< 0.005	0.08	29.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	< 0.005	22.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.2	28.2	< 0.005	< 0.005	< 0.005	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.76	4.76	< 0.005	< 0.005	0.01	4.83
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.11	6.11	< 0.005	< 0.005	0.01	6.39
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.01	1.01	< 0.005	< 0.005	< 0.005	1.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.27	0.22	1.89	2.20	< 0.005	0.06	—	0.06	0.06	—	0.06	—	398	398	0.02	< 0.005	—	400
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.05	0.04	0.35	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	65.9	65.9	< 0.005	< 0.005	—	66.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.0	23.0	< 0.005	< 0.005	0.08	23.4
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	0.07	29.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	< 0.005	21.6
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.7	27.7	< 0.005	< 0.005	< 0.005	28.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.75	4.75	< 0.005	< 0.005	0.01	4.82
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.12	6.12	< 0.005	< 0.005	0.01	6.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.01	1.01	< 0.005	< 0.005	< 0.005	1.06
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.03	0.03	0.25	0.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	54.3	54.3	< 0.005	< 0.005	—	54.5
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.01	< 0.005	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.00	9.00	< 0.005	< 0.005	—	9.03
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.54	5.54	< 0.005	< 0.005	0.01	5.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.92	0.92	< 0.005	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.45	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.45	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.03	0.02	0.17	0.22	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	25.3	25.3	< 0.005	< 0.005	—	25.4
Architect ural Coating s	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.01	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.20	4.20	< 0.005	< 0.005	—	4.21
Architect ural Coating s	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.69	4.69	< 0.005	< 0.005	0.02	4.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.35	4.35	< 0.005	< 0.005	< 0.005	4.41

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.83	0.83	< 0.005	< 0.005	< 0.005	0.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.45	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.45	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.21	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.2	33.2	< 0.005	< 0.005	—	33.3
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.60	4.60	< 0.005	< 0.005	0.02	4.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.27	4.27	< 0.005	< 0.005	< 0.005	4.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	2.10	1.94	1.58	15.8	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	4,127	4,127	0.16	0.18	14.5	4,198

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.10	1.94	1.58	15.8	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	4,127	4,127	0.16	0.18	14.5	4,198
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	2.03	1.86	1.85	15.1	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	3,894	3,894	0.19	0.19	0.38	3,956
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.03	1.86	1.85	15.1	0.04	0.03	3.67	3.70	0.02	0.93	0.96	—	3,894	3,894	0.19	0.19	0.38	3,956
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	0.30	0.28	0.20	1.66	< 0.005	< 0.005	0.34	0.34	< 0.005	0.09	0.09	—	339	339	0.02	0.02	0.53	346
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.30	0.28	0.20	1.66	< 0.005	< 0.005	0.34	0.34	< 0.005	0.09	0.09	—	339	339	0.02	0.02	0.53	346

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	163	163	0.03	< 0.005	—	165
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	8.83	8.83	< 0.005	< 0.005	—	8.92
Total	—	—	—	—	—	—	—	—	—	—	—	—	172	172	0.03	< 0.005	—	174

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	163	163	0.03	< 0.005	—	165
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	8.83	8.83	< 0.005	< 0.005	—	8.92
Total	—	—	—	—	—	—	—	—	—	—	—	—	172	172	0.03	< 0.005	—	174
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	27.1	27.1	< 0.005	< 0.005	—	27.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	1.46	1.46	< 0.005	< 0.005	—	1.48
Total	—	—	—	—	—	—	—	—	—	—	—	—	28.5	28.5	< 0.005	< 0.005	—	28.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	279	279	0.02	< 0.005	—	279
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	279	279	0.02	< 0.005	—	279
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	279	279	0.02	< 0.005	—	279
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	279	279	0.02	< 0.005	—	279
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	46.1	46.1	< 0.005	< 0.005	—	46.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	46.1	46.1	< 0.005	< 0.005	—	46.3

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.14	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.15	1.15	< 0.005	< 0.005	—	1.16
Total	0.21	0.21	< 0.005	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.15	1.15	< 0.005	< 0.005	—	1.16
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	0.14	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Total	0.03	0.03	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.75	7.27	11.0	0.39	0.01	—	23.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.62	1.20	1.82	0.06	< 0.005	—	3.88
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.62	1.20	1.82	0.06	< 0.005	—	3.88

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.17	0.00	3.17	0.32	0.00	—	11.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.52	0.00	0.52	0.05	0.00	—	1.84
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.52	0.00	0.52	0.05	0.00	—	1.84

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.67	1.67
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.67	1.67

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati on	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/3/2025	5/23/2025	5.00	60.0	—
Grading	Grading	5/26/2025	11/7/2025	5.00	120	—
Building Construction	Building Construction	9/12/2025	4/23/2026	5.00	160	—
Paving	Paving	8/18/2025	9/12/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	9/26/2025	5/7/2026	5.00	160	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45

Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	1.05	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	23.5	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2.71	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	1.06	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	12.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.54	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	9,668	3,223	1,082

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	500	56.3	0.00	—
Grading	—	22,580	120	0.00	—
Paving	0.00	0.00	0.00	0.00	0.41

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Quality Restaurant	0.00	0%
Parking Lot	0.41	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Quality Restaurant	540	580	464	195,322	1,861	5,201	4,157	973,105
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	9,668	3,223	1,082

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Quality Restaurant	292,466	204	0.0330	0.0040	869,565
Parking Lot	15,798	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Quality Restaurant	1,956,275	70,440
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
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Quality Restaurant	5.88	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Quality Restaurant	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Quality Restaurant	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Quality Restaurant	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage adjusted to represent overall acreage of the project site.
Construction: Construction Phases	Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days. Demolition not required for the proposed project. Phase timing based on project specific information provided by the applicant team.

Appendix B

Biological Resources Site Assessment



MONK & ASSOCIATES INC

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March 26, 2025

Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834

Attention: Ms. Jesse Fahrney

RE: Biological Resources Site Assessment
Hana Japan Steak House, 11991 Dublin Canyon Road, Pleasanton, California
APN: 941-1710-101 (~1.2 Acres)

Dear Ms. Fahrney:

1. INTRODUCTION

This letter-report has been prepared to present the results of Monk & Associates' (M&A) biological resources site assessment of the Hana Japan Steak House project site located in Pleasanton, Alameda County, California (herein referred to as the "project site") (Figures 1-3). The associated assessor parcel number is 941-1710-101.

On Tuesday, August 13, 2024, M&A biologists, Ms. Sarah McNamara and Ms. Zarina Pascetto, conducted a biological resources survey of the project site to determine if there are any sensitive plant communities, nesting birds, or if the project site provides suitable habitat for any special-status species and/or waters of the U.S./State regarded as wetlands or other waters subject to regulation by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and/or California Department of Fish and Wildlife (CDFW). ***No aquatic resources or other sensitive biological resources were identified onsite; however, prior to site work, considerations for nesting birds, roosting bats, Western Burrowing Owl, and bumble bees are warranted (see below).***

This report presents the results of M&A's survey of the project site, describes biological resources onsite or in the surrounding area, and discusses applicable environmental laws.

2. PROJECT SITE DESCRIPTION

The approximately 1.2-acre project site is located at 11991 Dublin Canyon Road in an urban area of Pleasanton in Alameda County, California. The project site is located less than 500 feet south of Interstate 580, adjacent to Foothill Road, a moderately-trafficked and noisy road along the site's eastern boundary, and Dublin Canyon Road, located immediately north of the site. At the intersection of these two roads is a Marriot hotel and a Residence Inn. A paved road on the project site leads south to a beauty salon. To the east is the Stoneridge Mall, as well as a bank and hospice center. Although the majority of the surrounding area is developed, immediately southwest of the site is a small, oak woodland that leads to a residential housing area further west.

3. PLANT COMMUNITIES AND ASSOCIATED WILDLIFE HABITATS ONSITE

The project site is an undeveloped, ruderal (weedy) herbaceous area with only a few native plants. There is also scattered coyote brush (*Baccharis pilularis*) onsite that populates the



mowed, sloping landscape. However, there are not enough shrubs to provide suitable wildlife habitat. Furthermore, there is a 3-foot cement culvert that runs throughout the center and along the southeastern border of the project site. There is also one coast live oak (*Quercus agrifolia* var. *agrifolia*) tree that sits on the border fencing of the site. Since this tree is proposed for removal, M&A reviewed the City of Pleasanton's tree ordinance and determined that this coast live oak tree does not meet the definition of a "heritage tree", and, thus, does not possess any of the protections of a heritage tree.

3.1 Ruderal Herbaceous

The project site is dominated by ruderal (weedy) herbaceous habitat. Ruderal communities are assemblages of plants that thrive in waste areas, roadsides, and other sites that have been routinely disturbed by human activity, often supporting many non-native plant species. Typically, hardpacked soils of roadsides, parking lots, industrial areas, and construction sites support communities of ruderal species. Ruderal vegetation is adapted to high levels of disturbance, and persists almost indefinitely in areas with continuous disturbance.

The project site supports highly compacted soils that appear to be regularly mowed. Dominant grass and forb species that were observed within this habitat are non-native species such as slender wild oat (*Avena barbata*), Harding grass (*Phalaris aquatica*), Italian thistle (*Carduus pycnocephalus* subsp. *pycnocephalus*), and coyote brush (Table 1). Other vegetation observed included turkey mullein (*Croton setiger*), rose clover (*Trifolium hirtum*), curly dock (*Rumex crispus*), summer cottonweed (*Epilobium brachycarpum*), and California poppy (*Eschscholzia californica*).

Ruderal habitats typically provide suitable environments for common animals that are adapted to living in association with humans. Wildlife species observed on or in the vicinity of the project site during the survey include Red-tailed Hawk (*Buteo jamaicensis*), Red-Shouldered Hawk (*Buteo lineatus*), House Finch (*Haemorhous mexicanus*), Anna's Hummingbird (*Calypte anna*), Oak Titmouse (*Baeolophus inornatus*), Black Phoebe (*Sayornis nigricans*), California Scrub Jay (*Aphelocoma californica*), western fence lizard (*Sceloporus occidentalis*), black-tailed deer (*Odocoileus hemionus columbianus*), Audubon's cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*) (Table 2).

Trees in the small, oak woodland community outside of the project site provide foraging, roosting, and nesting habitat for a large variety of wildlife species, including nesting passerine birds and potentially raptors such as the Red-shouldered Hawk and Red-tailed Hawk, both of which were observed during the site visit. There are also small mammal burrows onsite, specifically, California ground squirrel burrows.

4. SPECIAL-STATUS SPECIES

Special-status species are those plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species also include plants and animals that meet the definition of endangered, rare, or threatened under the California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either CESA or FESA lists.



Prior to conducting the August 13, 2024 survey on the project site, M&A searched the CDFW's Natural Diversity Database RareFind 6 Application (CNDDDB)¹ for occurrences of special-status plants within a three-mile radius of the project site. Drawings, photographs and written descriptions of all special-status plants known from the area were reviewed prior to or during the survey period. Table 3, attached, lists the special-status plant species known to occur within 3 miles of the project site. The only special-status plant species record found within a 3-mile radius was for the Congdon's tarplant (*Centromadia parryi congdonii*). The closest record for this species is located approximately 1.3 miles from the project site and was last observed in 2009. There are no alkaline soils present onsite that would support this plant.

Given the proximity to Interstate 580, Stoneridge Mall, and other nearby businesses, a significant amount of ambient noise and human presence greatly discourages wildlife use of the project site. However, the offsite oak trees that border the southwestern edge of the project site approximately 50-100 feet away provide adequate nesting substrate for urban-adapted, tree-nesting songbirds and could provide suitable nesting habitat for raptors. The trees offsite could also offer suitable roosting habitat for bats. Onsite there are small mammal burrows that could provide potential habitat for Western Burrowing Owl (*Athene cunicularia hypugaea*) and Crotch's bumble bee (*Bombus crotchii*). Both of these species rely on rodent burrows for nesting and refugia.

Therefore, to avoid impacts to Western Burrowing Owl, raptors, other nesting birds, and bumble bees, preconstruction surveys for these wildlife species should be conducted. Mitigation measures are also prescribed below should these resources be found onsite.

4.1 Nesting Birds

Nesting passerine birds and raptors could be impacted by the proposed project. Nesting birds are protected under the Migratory Bird Treaty Act (50 CFR 10.13), and their eggs and young are protected under California Fish and Game Code Sections 3503, 3503.5. Any project-related impacts to these species would be considered a significant adverse impact pursuant to CEQA. Potential impacts to these species from the proposed project include disturbance to nesting birds and possibly death of adults and/or young. In the absence of survey results, it must be concluded that impacts to nesting raptors and songbirds (i.e., passerines) from the proposed project would be ***potentially significant pursuant to CEQA***. This impact could be mitigated to a level considered less than significant.

4.1.1 APPLICABILITY TO THE PROPOSED PROJECT

To avoid impacts to nesting birds, a nesting survey should be conducted within 7 days of commencing with grubbing, grading, construction work or tree removal if this work would commence between February 1st and September 1st. The nesting survey should include an examination of all trees, shrubs, and the ground onsite (for ground-nesting birds) and within 100 feet of the entire project site (i.e., within a zone of influence of nesting birds). The zone of influence includes those areas outside the project site where birds could be disturbed by earth-moving vibrations and/or other construction-related noise. Since passerine birds can quickly

¹ California Natural Diversity Data Base (CNDDDB). 2023. RareFind 6. Computer printout for special-status species within a 3-mile radius of the project site. California Natural Heritage Division, California Department of Fish and Game, Sacramento, CA.



inhabit an area and build a nest, if site work does not commence within 7 days of the nesting survey, another survey should be conducted to ensure that no impacts occur to nesting birds.

If birds are identified nesting on or within the zone of influence of the construction project, a qualified biologist should establish a temporary protective non-disturbance buffer around the nest(s). The non-disturbance buffer should be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and should be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for common passerine birds and up to 100 feet for special-status passerine birds. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds should prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

No construction or earth-moving activity should occur within any established nest protection buffer prior to September 1st unless it is determined by a qualified ornithologist/biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete nesting by mid-July. This date can be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed, and grading and construction may commence in established nesting buffers without further regard for the nest site. ***Implementation of these mitigation measures would reduce impacts to nesting birds to a level regarded as less than significant pursuant to CEQA.***

4.2 Western Burrowing Owl

The Western Burrowing Owl (*Athene cunicularia hypugaea*) was proposed as a candidate for potential listing under the California Endangered Species Act (CESA) in October 2024. The CDFW will undertake a one-year review of the species' status before the Fish and Game Commission is expected to make a final decision on listing. As a candidate for potential listing, the species is temporarily afforded the same protections as a state-listed endangered or threatened species. Burrowing owls are also protected from direct take under the federal Migratory Bird Treaty Act (16 U.S.C. 703-711 and 50 CFR 10.13), and their active nests, eggs, and/or young are protected by California Fish and Game Code §3505, §3503.5, and §3800. The Migratory Bird Treaty Act as amended makes it unlawful to kill, harm, or harass any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Finally, based upon this species' rarity status, any unmitigated impacts to rare species would be considered a "significant effect on the environment" pursuant to §21068 of the CEQA Statutes and §15382 of the CEQA Guidelines. Thus, this owl species must be considered in any project that will, or is currently undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency. When these owls occur on project sites, typically, mitigation requirements are mandated in the conditions of project approval from the CEQA lead agency.

Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often, the burrowing owl utilizes rodent burrows, typically California



ground squirrel burrows, for nesting and cover. They may also on occasion dig their own burrows, or use man-made objects such as concrete culverts or rip-rap piles for cover. They exhibit high site fidelity, reusing burrows year after year. Occupancy of suitable burrowing owl habitat can be verified at a site by observation of these owls during the spring and summer months or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement (whitewash) at or near a burrow. Burrowing owls typically are not observed in grasslands with tall vegetation or wooded areas because the vegetation obscures their ability to detect avian and terrestrial predators. Since burrowing owls spend most of their time sitting at the entrances of their burrows, grazed grasslands seem to be their preferred habitat because it allows them to view the world at 360 degrees without obstructions.

4.2.1 APPLICABILITY TO THE PROPOSED PROJECT

The closest CNDDDB record for this species is from 2009 and is located approximately 2.1 miles northeast of the project site (Occurrence #780). There is little suitable nesting habitat for Western Burrowing Owls on or near the project site due to the paucity of ground squirrel burrows or other suitable refugia. Regardless, since there are burrows onsite, surveys should be conducted to prevent potential impacts to this species which can include disturbance to over-wintering birds, nesting birds, and possibly death of eggs and/or young. Surveys on the project site and within 100 feet of the project site are recommended within 7 days of the start of construction to determine presence/absence of this special-status species, and again within 24 hours of project site grading, regardless of the time of year as wintering and nesting burrowing owls could use the site. ***In the absence of survey results, it must be concluded that impacts to Western Burrowing Owls from the proposed project would be potentially significant pursuant to CEQA.*** This impact could be mitigated to a level considered less than significant.

4.3 Crotch's Bumble Bee

Crotch's bumblebee is a California candidate for listing under the California Endangered Species Act. It has no federal status. The range of Crotch's bumble bee historically extended throughout the southern two-thirds of California, from coastal California east to the Sierra-Cascade crest and south into Mexico, but recent data indicates that this species is absent from the center of its historical range due to extensive agricultural intensification and urbanization².

In California, Crotch's bumble bees inhabit open grassland and scrub habitats. Suitable habitat is based on the availability of flowers on which to forage throughout the duration of the colony (spring through fall), colony nest sites, and overwintering sites for the queens. Bumble bees are generalist foragers (i.e., they do not depend on any one flower type). Crotch's bumble bees, like most bumble bee species, nest underground (e.g., in abandoned rodent holes). The flight period for Crotch's bumble bee queens is from late February to late October, peaking in early April and again in July. The flight period for workers and males extends between late March and September.

² "Crotch's Bumble Bee". Xerces Society, 2023.



4.3.1 APPLICABILITY TO THE PROPOSED PROJECT

The closest CNDDDB record for this species is from 1932 and is located approximately 3.0 miles southeast of the project site (Occurrence #17); however, until the recently proposed listing of this bumble bee, few people have surveyed for this species in recent years and there are few new occurrences discovered. A few rodent burrows were observed during the site survey which could provide nesting habitat and the ruderal herbaceous vegetation on the project site could provide suitable nectar and pollen resources for this species. Although this site is small and situated in a developed area with low amounts of floral resources, the California poppy (*Eschscholzia californica*) was observed within this field and is a nectar/pollen source for this species. Common thistles are also a floral resource. Although Crotch's bumble bee is unlikely to occur on the project site, this species cannot be entirely discounted without preconstruction surveys to rule out its presence. To minimize the take of Crotch's bumble bees, a qualified entomologist shall conduct take avoidance surveys for active bumble bee colony nesting sites in any previously undisturbed area prior to the start of construction if the work will occur during the flying season (March through August). CDFW recommends a minimum of three surveys, each survey a week apart, prior to concluding the bee is absent. Therefore, ***impacts to Crotch's bumblebee are regarded as potentially significant pursuant to the CEQA. Mitigation could be implemented to reduce these impacts to a level regarded as less than significant pursuant to the CEQA.***

5. WATERS OF THE U.S./STATE

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

5.1 Applicability to the Proposed Project

There are no aquatic resources on the project site that would be regulated by the Corps pursuant to Section 404 of the Clean Water Act or the California Regional Water Quality Control Board pursuant to Section 401 of the Clean Water Act or the Porter-Cologne Water Quality Control Act. *No seasonal wetlands or other waters were observed onsite or immediately adjacent to the project site that could be affected by project development.*

6. RECOMMENDATIONS AND MITIGATION MEASURES

There are no waters of the U.S./State on the project site. There is an absence of natural habitats on the project site, and the site only supports ruderal (weedy), herbaceous vegetation. However, due to the project site's proximity to an oak woodland, the presence of California ground squirrel burrows, and floral resources onsite, M&A recommends surveys prior to site work for nesting birds, Western Burrowing Owl, and Crotch's bumble bee. If any of these species are found, the following mitigation measures would be required:



6.1 Nesting Birds

The ruderal herbaceous vegetation provides nesting opportunities for ground nesting birds. Similarly, there are oak trees bordering the southwestern side of the project site that could be utilized by nesting songbirds and raptors. To avoid impacts to nesting birds, a nesting survey should be conducted within 7 days of commencing with grubbing, grading, construction work or tree removal if this work would commence between February 1st and September 1st. The nesting survey should include an examination of all trees, shrubs, and the ground onsite (for ground-nesting birds) and within 100 feet of the entire project site (i.e., within a zone of influence of nesting birds), not just trees slated for removal. The zone of influence includes those areas outside the project site where birds could be disturbed by earth-moving vibrations and/or other construction-related noise. Since passerine birds can quickly inhabit an area and build a nest, if site work does not commence within 7 days of the nesting survey, another survey should be conducted to ensure that no impacts occur to nesting birds.

If birds are identified nesting on or within the zone of influence of the construction project, a qualified biologist should establish a temporary protective non-disturbance buffer around the nest(s). The non-disturbance buffer should be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and should be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for common passerine birds and up to 100 feet for special-status passerine birds and up to 300 feet for nesting raptors (i.e., birds of prey). A qualified ornithologist/biologist who frequently works with nesting birds should prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed. This buffer should be monitored daily for the first week of construction to make sure the nesting birds are not affected by the work activities onsite and that the buffer size does not need to be increased. Once it is determined through direct observations that the birds are not agitated by the site work, monitoring can be reduced to once a week.

No construction or earth-moving activity should occur within any established nest protection buffer prior to September 1st unless it is determined by a qualified ornithologist/biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete nesting by mid-July. This date can be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed, and grading and construction may commence in established nesting buffers without further regard for the nest site.

Implementation of the above mitigation measures would reduce impacts to nesting birds to a level considered less than significant.



6.2 Western Burrowing Owl

Due to the presence of ground squirrel burrows onsite creating potential habitat for Western Burrowing Owl, a survey should be conducted onsite and within a zone of influence around the project site prior to the start of construction. Burrowing owl surveys should be conducted according to the methodologies prescribed by the CDFW in their 2012 *Staff Report on Burrowing Owl Mitigation*³. The *Staff Report* states that take avoidance (pre-construction) surveys should be conducted 14 days prior or less to initiating ground disturbance. As burrowing owls may recolonize a site after only a few days, time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance to ensure absence. If no owls are found during these surveys, no further regard for the burrowing owl would be necessary.

If burrowing owls are detected on the site, it will be necessary to contact CDFW and determine if an incidental take permit (ITP) (i.e., Section 2081 permit) is required since the burrowing owl is proposed for listing under CESA at this time. The following restricted activity dates and setback distances are recommended per the CDFW's *Staff Report* (2012) or as otherwise coordinated with CDFW:

- From April 1 through October 15, low disturbance and medium disturbance activities should have a 200 meter buffer while high disturbance activities should have a 500 meter buffer from occupied nests.
- Between September 1st and February 1st, if Western Burrowing Owl are residing within the project footprint or within 200 meters of the project footprint they may be passively evicted by a qualified Western Burrowing Owl biologist using Department guidelines. If owls are not within the development footprint or within 200 meters of the development footprint, from October 16 through March 31, low disturbance activities should have a 50 meter buffer, medium disturbance activities should have a 100 meter buffer, and high disturbance activities should have a 500 meter buffer from occupied nests.
- No earth-moving activities or other disturbance should occur within the afore-mentioned buffer zones of occupied burrows. These buffer zones should be fenced as well. If burrowing owls were found in the project area, a qualified biologist would also need to delineate the extent of burrowing owl habitat on the site.
- Buffers may be modified by a qualified Western Burrowing Owl biologist that is knowledgeable enough to establish buffer sizes that are commensurate with the acclimation of burrowing owls to disturbance. These buffers if modified over that prescribed above, should be coordinated with the Department.

Implementation of the above mitigation measures would reduce impacts to Western Burrowing Owl to a level considered less than significant.

³ California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. March 7, 2012. 15 pages plus appendices.



6.3 Crotch's Bumble Bee

Since there are small mammal burrows onsite and floral resources, preconstruction surveys for bumble bees should be conducted. The project proponent is responsible for ensuring that project activities do not result in take of Crotch's bumble bee.

CDFW recommends three surveys during Crotch's bumble bee's flight period (April through October for worker bees), with each survey ideally scheduled 2-4 weeks apart⁴, to determine presence/absence (details below). For all work proposed that may include ground disturbance or vegetation removal within the geographic range of Crotch's bumble bee, Crotch's bumble bee avoidance measures detailed below should be implemented to ensure that no Crotch's bumble bee are taken during project implementation. All Crotch's bumble bee measures may be revised as more information on the species becomes available.

No more than 14 days prior to the commencement of construction activities during the colony active period (April – August), which is the period with the highest detection probability, the qualified biologist will survey for Crotch's bumble bee. The survey will occur at least two hours after sunrise (when temperatures are > 60°F and < 90°F with no rain) or two hours before sunset. The survey area will include the project boundaries and a surrounding 100-foot buffer area. The survey duration will be appropriate to the size of the project site and buffer area based on the metric of a minimum of one person-hour of searching per three acres of suitable habitat; this will be an approximately 0.5 hour survey for an average-sized project site.

The biologist leading the survey must be designated as a qualified biologist for bumble bees. Surveyors may not capture or handle bumble bees unless authorized specifically for Crotch's bumble bee by CDFW. Bumble bees may only be netted, chilled, and photographed for identification purposes if the biologist is authorized by a Memorandum of Understanding (MOU) in accordance with Fish and Game Code 2081(a). This authorization does not include take caused by project-related activities. If the lead biologist does not have an MOU, identification techniques will be limited to photographs of bumblebees in flight or resting on floral resources.

If any sign(s) of a bumble bee nest is observed, and if it cannot be established the species present is not Crotch's bumble bee, then construction will not commence until CDFW provides further guidance, which may include an additional survey by a bumble bee expert, waiting until the colony active season ends, obtaining take authorization, or other actions.

If at any time during preconstruction surveys a Crotch's bumble bee is found, a qualified biologist/monitor will be onsite during all construction activities and that individual shall be approved by CDFW for bumble bee monitoring. During construction monitoring, the biologist shall scan for bumble bees using floral resources. If bumble bees are observed after construction commences, construction will be halted if bumble bees are in harm's way. For example, if an undetected nest is present in the construction area, it is assumed that bumble bees will become visible if the nest is disturbed, and construction will be immediately halted.

If construction is halted because bumble bees are in harm's way, construction may only recommence after it has been established that the bees present are not Crotch's bumble bees. If

⁴ CDFW (California Department of Fish and Wildlife). 2023. Survey considerations for California Endangered Species Act (CESA) candidate bumble bee species. June 6, 2023.



Crotch's bumble bees (or bees that could be that species) are identified on the site, construction shall not recommence until CDFW provides further guidance, which may include an additional survey by a bumble bee expert, waiting until the colony active season ends, requiring take authorization, or other actions such as buffers.

If a suspected Crotch's bumble bee is killed or injured during the source of survey efforts, or during project activities, stop all work and immediately contact the CDFW Representative for guidance and to determine if an ITP is required, since the Crotch's bumble bee is proposed for listing under CESA at this time. Collect the bumble bee into a vial and freeze it. Photograph in accordance with accepted methods, record the date, location, GPS coordinators, project name, collector, and any other relevant information related to the cause of death or injury (e.g., chilling container may have been too cold; extreme shifts in temperature during collection, vehicle strike, etc.). If the bumble bee is determined to be a Crotch's bumble bee the specimen may be sent to CDFW for further assessment.

Implementation of the above mitigation measures would reduce impacts to Crotch's bumble bee to a level considered less than significant.

7. CONCLUSIONS

There are no other constraints pertaining to biological resources that would impact the proposed development. Should you have any questions or wish to discuss any other aspect of this report, please do not hesitate to call Ms. Sarah Lynch at (925) 947-4867, extension 203, or Ms. Zarina Pascetto, at (925) 947-4867, extension 217.

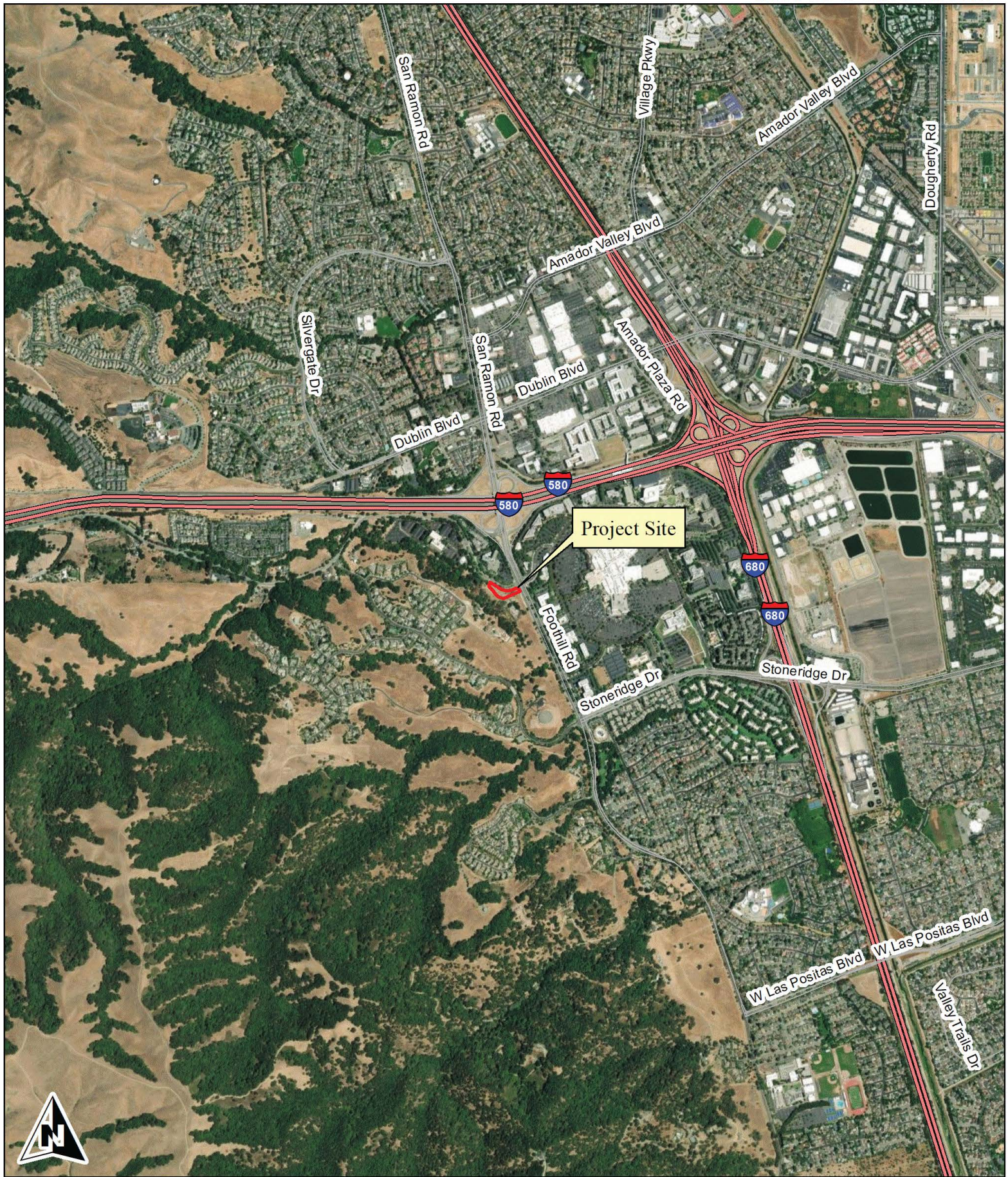
Sincerely,

Zarina Pascetto
Staff Biologist

Sarah Lynch
Principal Biologist

Attachments: Figures 1-3
Tables 1-3





Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Figure 2. Hana Japan Steak House Project Site
11991 Dublin Canyon Road Location Map
Pleasanton, California

37.694344 -121.934808
Section: 2, 11; T3S R1W
7.5-MinuteDublin quadrangle
Aerial Photograph Source: ESRI
Map Preparation Date: August 26, 2024



Table 1

Plant Species Observed on the Hana Japan Steak House Project Site

Angiosperms - Dicots

Apiaceae

<i>*Torilis arvensis</i>	Tall sock destroyer
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Asteraceae

<i>Baccharis pilularis subsp. pilularis</i>	Baccharis
<i>*Carduus pycnocephalus subsp. pycnocephalus</i>	Italian thistle
<i>*Dittrichia graveolens</i>	Stinkwort
<i>Erigeron canadensis</i>	Horseweed
<i>Madia gracilis</i>	Slender tarweed

Brassicaceae

<i>*Hirschfeldia incana</i>	Short-podded mustard
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Euphorbiaceae

<i>Croton setiger</i>	Turkey mullein
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Fabaceae

<i>*Trifolium hirtum</i>	Rose clover
<i>*Vicia sativa</i>	Common vetch

Fagaceae

<i>Quercus agrifolia var. agrifolia</i>	Coast live oak
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Myrsinaceae

<i>*Lysimachia arvensis</i>	Scarlet pimpernel
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Onagraceae

<i>Epilobium brachycarpum</i>	Summer cottonweed
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Papaveraceae

<i>Eschscholzia californica</i>	California poppy
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Polygonaceae

<i>*Rumex crispus</i>	Curly dock
<i>*Rumex pulcher</i>	Fiddle dock

Angiosperms - Monocots

Poaceae

<i>*Avena barbata</i>	Slender wild oat
<i>*Bromus diandrus</i>	Ripgut grass
<i>*Bromus hordeaceus</i>	Soft chess
<i>*Festuca myuros</i>	Rattail sixweeks grass
<i>*Festuca perennis</i>	perennial ryegrass
<i>*Phalaris aquatica</i>	Harding grass

Table 2
Wildlife Observed on the Hana Japan Steak House Project Site

Reptiles	
Western fence lizard	<i>Sceloporus occidentalis</i>
Birds	
Northern Flicker	<i>Colaptes auratus</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Anna's Hummingbird	<i>Calypte anna</i>
Acorn Woodpecker	<i>Melanerpes formicivorus</i>
Nuttall's Woodpecker	<i>Picoides nuttallii</i>
Black Phoebe	<i>Sayornis nigricans</i>
California Scrub Jay	<i>Aphelocoma californica</i>
Chestnut-backed Chickadee	<i>Poecile rufescens</i>
Oak Titmouse	<i>Baeolophus inornatus</i>
Bushtit	<i>Psaltiriparus minimus</i>
California Towhee	<i>Melospiza crissalis</i>
House Finch	<i>Haemorhous mexicanus</i>
Mammals	
Black-tailed deer	<i>Odocoileus hemionus columbianus</i>
Audubon's cottontail	<i>Sylvilagus audubonii</i>
California ground squirrel	<i>Otospermophilus beecheyi</i>
Coyote	<i>Canis latrans</i>

Table 3

Special-Status Plant Species Known to Occur Within 3 Miles of the Hana Japan Steak House Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Asteraceae					
<i>Centromadia parryi condonii</i> Congdon's tarplant	Fed: - State: - CNPS: Rank 1B.2	May-November	Valley and foothill grassland (alkaline).	Closest record for this species is located approximately 1.3 miles southeast of the project site (Occurrence No. 92). 2009.	None. No alkaline soils onsite. No impact expected.

***Status**

Federal:
 FE - Federal Endangered
 FT - Federal Threatened
 FPE - Federal Proposed Endangered
 FPT - Federal Proposed Threatened
 FC - Federal Candidate

State:
 CE - California Endangered
 CT - California Threatened
 CR - California Rare
 CC - California Candidate
 CSC - California Species of Special Concern

CNPS:
 Rank 1A - Presumed extinct in California
 Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
 Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
 Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
 Rank 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
 Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
 Rank 2A - Extirpated in California, common elsewhere
 Rank 2B.1 - Seriously endangered in California, but more common elsewhere
 Rank 2B.2 - Fairly endangered in California, but more common elsewhere
 Rank 2B.3 - Not very endangered in California, but more common elsewhere
 Rank 3 - Plants about which we need more information (Review List)
 Rank 3.1 - Plants about which we need more information (Review List)
 Seriously endangered in California
 Rank 3.2 - Plants about which we need more information (Review List)
 Fairly endangered in California
 Rank 4 - Plants of limited distribution - a watch list
 Rank 4.2 - Plants of limited distribution; fairly threatened in California
 Rank 4.3 - Plants of limited distribution; not very threatened in California

Appendix C

Geotechnical Materials

Project No.
5150.100.001

January 15, 2025

Mr. Dan Yoon
Hana Japan Steak House
7298 San Ramon Road
Dublin, CA 94568

Subject: Hana Japan Steak House
11991 Dublin Canyon Road
Pleasanton, California

GEOTECHNICAL REPORT UPDATE

- References:
1. ENGEO. 2023. 2022 CBC Seismic Design Parameters Update, Hana Japan Steak House. January 23, 2023, Latest Revision November 3, 2023. Project No. 5150.100.001.
 2. ENGEO. 2008. Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California. May 2, 2008. Project No. 5150.100.101.

Dear Mr. Yoon:

We prepared this Geotechnical Report Update to address changes and clarifications to our recommendations related to References 1 and 2; these changes and clarifications address comments received by the City of Pleasanton's third-party reviewer, BSK, and supersede the recommendations in References 1 and 2, attached.

REFERENCE 1

The information in Reference 1 is updated to include that due to the lack of shear-wave velocity measurement, we classify the site as Site Class D and developed seismic design parameters for Site Class D – Default, such that the value of site parameter F_a is 1.2 in accordance with Sections 11.4.3, and 11.4.4 of the ASCE 7-16.

REFERENCE 2

Section 1.0

This section is updated to indicate that the finished floor of the buildings, as reflected in the civil plans by Alexander & Associates, Inc., is planned to be Elevation 382 feet (NGVD 1929). The report conclusions and recommendations are appropriate for this finished floor level.

Section 3.0

This section is updated to indicate the development will include cut up to 21 feet in depth.

Section 5.1

This section is updated to indicate that the colluvium is thicker in the western portion of the site. Based on the explorations and the finished floor at Elevation 382 feet, we anticipate that most, if not all of the soil will be removed down to bedrock across the building footprint. The thick layers of colluvium were encountered outside of the building footprint. If any soft colluvium is encountered at the base of the cut, it should be removed and reworked.

Section 5.4.1

This section is updated to indicate that the secondary displacement across the building pad could result in lateral offset up to 4 inches. As such, the criteria in Section 7.1 should be implemented in building foundation design, as well as connections to utilities that cannot be repaired after an earthquake.

Section 5.4.3

This section is updated to indicate that the updated Reference 1 should be used for seismic design of the building.

Section 5.5

This section is updated to indicate that during grading, samples should be collected from the building pad for the purpose of performing resistivity testing to check if special corrosion resistance measures are necessary for buried metals in contact with site soil.

Section 6

This section is updated to refer to Section 6 in lieu of Section 4.

Section 6.1

This section is updated to define building pad as the top of finished subgrade in the building footprint. Acceptable fill for any required overexcavation should conform with Section 6.5.

Section 6.4

This section is updated to refer to Section 6.5 in lieu of Section 4.5.

Section 6.5

This section is updated to indicate that for building pad fill, only material with a plasticity index of 12 or less should be used.

Section 6.6.2.2

This section is updated to replace the text of Item 2 with, "Trench backfill should be moisture conditioned outside of the trench to a moisture content at or slightly above the optimum moisture content."

Section 6.6.3

This section is updated to refer to Section 6.5 in lieu of Section 4.5.

Section 6.8.1

This section is updated to remind the civil designer that the 2022 CBC requires that pervious surfaces should slope down a minimum of 5 percent for a minimum distance of 10 feet from the building; this slope can be decreased to 2 percent if impervious surfacing is used.

Section 6.8.2

This section is updated to refer to Section 6.4 in lieu of Section 4.4. Additionally, this section is updated to indicate that if any seeps are encountered during building pad preparation, we should be consulted regarding additional underdrains within the building pad to manage seepage.

Section 7.1

This section is updated to indicate that potential displacement of up to 4 inches could occur due to secondary fault displacement. To reduce the impacts of ground offset due to fault-induced ground deformations, we recommend that isolated footings be connected with either grade beams or ties designed for the strength requirements in Section 12.13.7.2 of ASCE 7-16.

Section 9.3

This section is updated to refer to Section 6.5 in lieu of Section 4.5.

Section 10.3

This section is updated to refer to Section 6.5.1 in lieu of Section 4.5.1.

Section 11

This section is updated to refer to Section 3 in lieu of Section 1.3.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.


Sincerely,

ENGEO Incorporated


Jeff Fippin, GE

jaf/dsh/ar




Daniel S. Haynosch, GE

Attachments: 2022 CBC Seismic Design Parameters Update (ENGEO, 2023)
Geotechnical Report (ENGEO, 2008)

2022 CBC SEISMIC DESIGN PARAMETERS UPDATE (ENGEO, 2023)

Project No.
5150.100.001

January 20, 2023
Latest Revision November 3, 2023

Mr. Dan Yoon
7298 San Ramon Road
Dublin, CA 94568

Subject: Hana Japan Steak House
Pleasanton, Alameda County, California

2022 CBC SEISMIC DESIGN PARAMETERS UPDATE

- References:
1. ENGEO. 2008. Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California. May 2, 2008. Project No. 5150.100.101.
 2. ENGEO. 2008. Response to Review Comments, Dublin, California. July 21, 2008. Project No. 5150.100.101.
 3. City of Pleasanton. 2023. Memorandum, Subject: P22-0902, APN# 941-1710-10-1, 11991 Dublin Canyon Road (Hana Japan), Design Review. May 11, 2023.

Dear Mr. Yoon:

As requested, we are providing updated 2022 California Building Code (CBC) seismic design parameters for the Hana Japan Steak House in Pleasanton, California. The findings, conclusions, and recommendations in the above-referenced documents remain valid for the proposed development.

Both the 2019 and 2022 CBCs utilize seismic design criteria established in the ASCE/SEI Standard "Minimum Design Loads and Associated Criteria for Buildings and Other Structures," (ASCE 7-16); therefore, the seismic design parameters will not change from the 2019 to the 2022 CBC. However, since the publication of the above-referenced report, Supplement 3 of ASCE 7-16 was released. Therefore, we are providing updated seismic design parameters below for F_v , S_{M1} , and S_{D1} .

Based on the subsurface conditions encountered, we characterized the site as Site Class D. ASCE 7-16 requires a site-specific ground-motion hazard analysis for Site Class D sites with a mapped S_1 value greater than or equal to 0.2; however, Section 11.4.8 of ASCE 7-16 and Supplement No. 3 provide an exception to this requirement. A site-specific ground-motion hazard analysis is not required where the value of the parameter S_{M1} determined by Equation 11.4-2, and shown in Table 1, is increased by 50 percent for developing the mapped Risk-Targeted Maximum Considered Earthquake (MCER) spectral response, calculating S_{D1} , and evaluating C_s in accordance with Chapter 12 of ASCE 7-16.

In the following Table 1, we provide the 2022 CBC seismic parameters based on the United States Geological Survey's (USGS's) Seismic Design Maps for your use. When using this table, considerations should be given to exceptions in Section 11.4.8 of ASCE 7-16, as described in this report.

TABLE 1: 2022 CBC Seismic Design Parameters, Latitude: 37.69444, Longitude: -121.93483

PARAMETER	VALUE
Site Class	D
Mapped MCE _R Spectral Response Acceleration at Short Periods, S _S (g)	1.98
Mapped MCE _R Spectral Response Acceleration at 1-second Period, S ₁ (g)	0.73
Site Coefficient, F _a	1.2
Site Coefficient, F _v	1.7*
MCE _R Spectral Response Acceleration at Short Periods, S _{MS} (g)	2.38
MCE _R Spectral Response Acceleration at 1-second Period, S _{M1} (g)	1.24*
Design Spectral Response Acceleration at Short Periods, S _{DS} (g)	1.59
Design Spectral Response Acceleration at 1-second Period, S _{D1} (g)	0.83*
Long period transition-period, T _L (sec)	8

*The parameters above should only be used for calculation of T_s, determination of Seismic Design Category, and, when taking the exceptions under Items 1 and 2 of ASCE 7-16 Section 11.4.8. (Supplement Number 3 <https://ascelibrary.org/doi/epdf/10.1061/9780784414248.sup3>).

The design parameters remain valid from the previous 2019 CBC to the new 2022 CBC. Since the seismic design methodology did not change, the building can still be designed under either building code. Recommendations in the original report are still valid for this project.

In addition, Comment 4.b. of Reference 3 states:

“Section 5.4.4 “Seismically Induced Landsliding” indicates that an existing driveway and 25-foot setback will provide a debris catchment area in the event of seismically induced landsliding. This area will be significantly altered by grading and the installation of tiered retaining walls with combined heights up to 15'. The geotechnical engineer shall indicate whether the retaining walls will be designed to support additional surcharge loading from landslide debris, and/or whether the intent is for landslide debris to flow over the walls and accumulate on the new driveway below the walls. Note that Figure 2 of the report shows Cross-Section A-A through this area, yet the relationship between the landslide, set-back, and debris catchment, as well as the tiered retaining walls, new driveway, and exterior building wall are not accurately shown.”

Due to changes in the Building Code since the time our geotechnical report was published, we recommend that walls taller than 6 feet in height be designed for seismic loading; the active incremental seismic force along the face of a retaining wall should be added to the static active pressures and can be calculated as follows.

$$\Delta P = 18 \times H^2 \text{ (level backfill slope)}$$

H is the design height of the wall (in feet) and ΔP is the active incremental seismic force in pounds per horizontal foot of the wall. This force has a horizontal direction and should be applied at $0.3 \times H$ from the base of the wall. Since seismic loading requires soil movement, the evaluation of the seismic case should consist of adding the seismic increment to the active soil pressure for all wall types. If retaining walls greater than 6 feet in height are planned with sloping backfill conditions, we can provide active incremental seismic forces upon request.

We are not recommending designing the retaining walls to retain any debris from the slope above. Should any debris be mobilized, this debris would flow over the walls into the parking/drive area and maintenance would be required to clean it up should this occur. The note about Cross-Section A-A is acknowledged. The intent of this cross section is to schematically demonstrate the recommended setback from the property line in our fault study and was not intended to reflect final design conditions that were developed after our report was published.

If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated


Jeff Fippin, GE

jf/ue/ca




Uri Eliahu, GE

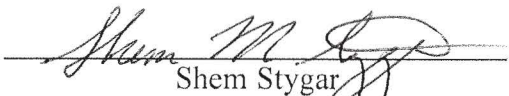
GEOTECHNICAL REPORT (ENGEO, 2008)

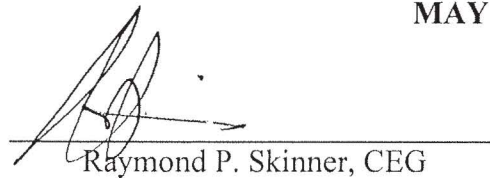
GEOTECHNICAL REPORT
HANA JAPAN STEAKHOUSE
PLEASANTON, CALIFORNIA

SUBMITTED
TO
MR. DAN YOON
DUBLIN, CALIFORNIA

PREPARED
BY
ENGEO INCORPORATED
PROJECT NO.: 5150.100.101

MAY 2, 2008


Shem Stygar


Raymond P. Skinner, CEG

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Project No.
5150.100.101

May 2, 2008

Mr. Dan Yoon
7298 San Ramon Road
Dublin, CA 94568

Subject: Hana Japan Steakhouse
11991 Dublin Canyon Road
Pleasanton, California

GEOTECHNICAL REPORT

Dear Mr. Yoon:

ENGEO Incorporated prepared this geotechnical report for Mr. Dan Yoon as outlined in our agreement dated October 15, 2007. We characterized the subsurface conditions at the site to provide the enclosed geotechnical recommendations for design.

Our experience and that of our profession indicates that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to review the project plans and specifications and provide geotechnical observation and testing services during construction. Please let us know when working drawings are nearing completion, and we will be glad to discuss these additional services with you.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated

Shem Stygar

Jeff Fipplin, GE
ss, rps/jf/jb

cc: 4 – Mr. Tom Kubo, William Wood Architects



Raymond P. Skinner, CEG

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FIGURES

- Figure 1: Site Vicinity Map
- Figure 2: Site Plan
- Figure 3: Regional Geologic Map
- Figure 4: Compilation of Fault Mapping
- Figure 5: Seismic Hazard Zone Map

SELECTED REFERENCES

Appendix A - Field Exploration Description & Logs

Appendix B - Laboratory Test Data

1. INTRODUCTION

ENGEO Incorporated prepared this geotechnical report as outlined in our agreement dated October 15, 2007 and revised February 11, 2008 for design of the Hana Japan Steakhouse in Pleasanton, California. This report contains geotechnical recommendations for design of the commercial restaurant including driving and parking areas at the site.

For our use, we received a Site plan prepared by William Wood Architects, dated January 10, 2008, delivered electronically via e-mail on March 21, 2008, and finished floor elevations of 385.5 feet MSL conveyed through phone conversations with William Wood Architects on April 17, 2008.

We performed previous subsurface exploration at the site as referenced in our report titled "Fault Exploration for Hana Japan Steakhouse" dated March 31, 2008, and "Fault Exploration for Stewart-Kramer Property" dated March 8, 2001.

1.1 SCOPE OF SERVICES

The proposed scope of services included the following:

- Review of previous geotechnical explorations at the site.
- Review of published geologic maps and literature pertinent to the site.
- Subsurface Field Exploration.
- Soil Laboratory Testing.
- Analysis of field and laboratory data.
- Report Preparation.

2. PROJECT LOCATION

The site is located on the west side of Foothill Road and the south side of Dublin Canyon Road in Pleasanton, California, as shown on the Vicinity Map, Figure 1. The property is situated on a north-facing slope that has been partially graded as a cut slope adjacent to Dublin Canyon Road.

The site is currently open space and vegetation consists of open grass land with one large oak tree in the southern corner of the property. Existing improvements are limited to an asphalt-paved road that services existing residences upslope of the site and a concrete-lined V-ditch. According to the Site Plan previously referenced, site elevations range from approximately Elevation 402 feet (Datum: 0 feet = Mean Sea Level), in the southern corner to Elevation 370 feet MSL along the eastern boundary.

Conceptual development plans indicate that the site will be developed with a restaurant building and associated parking areas. The location of the site boundaries, proposed building, parking areas, and our exploratory locations are shown on the attached Figure 2. In order to provide a flat pad to construct the building and parking, the project will include a substantial amount of grading and construction of retaining walls.

3. PROJECT DESCRIPTION

Based on our discussion with Mr. Yoon and a review of the provided information, we understand that site improvements will consist of construction of:

1. Earthwork cuts and fills up to 16 and 5 feet, respectively.
2. The proposed restaurant is a one-story wood-framed building with slab-on-grade floor; while we do not have structural loads at this time, we anticipate structural loading will be consistent with this type of structure and use.
3. Paved parking areas, and driving lanes.
4. Utilities and other infrastructure improvements.
5. Retaining walls up to 16 feet in height. Due to the limited amount of space at the site, a portion of the building wall may also act as a retaining wall or be constructed in close proximity to a retaining wall.
6. Concrete flatwork.

4. FINDINGS

Our geotechnical field exploration was conducted on April 15, 2008. Section 2 of this report presents descriptions of mapped geologic features and subsurface conditions observed during our exploration.

4.1 REGIONAL GEOLOGY

The site is located in the Coast Ranges geomorphic province of California. In this part of the province, bedrock is mapped as Miocene marine sedimentary sandstone by Dibblee (1980) and Graymer (1994). The geologic setting of the site is depicted on the attached Regional Geologic Map, Figure 3.

Regional bedrock structure is mapped by Dibblee (1980) striking to the northwest and dipping at inclinations of about 65 to 75 degrees to the southwest.

4.2 SEISMIC SETTING

The site is located within a State of California Earthquake Fault Zone (CDMG, 1982) for the Calaveras fault, as shown on Figure 4. The State mapping shows two traces of the Calaveras fault crossing the site. The eastern trace is mapped by the State near the toe of the hillside, and roughly parallel to Foothill Road (N25W). The State maps the northern termination of this trace near Dublin Canyon Road. The second fault trace is mapped stepping to the left about 100 feet to the west of the eastern trace.

The findings of our fault exploration were presented in a report dated March 31, 2008. Based on the findings of our exploration, recommendations for building setbacks were provided as shown on the attached Figure 2.

As shown on Figure 5, the site is located within a preliminary State of California Seismic Hazard Zone for areas that may be susceptible to liquefaction. The slope located to the southwest of the property is mapped as an area that may be susceptible to seismically induced landsliding. Additional discussion regarding these potential seismic hazards is provided in the Conclusions section of this report.

Other important active faults in the region include the Greenville fault located approximately 12 miles to the northeast of the site and the Hayward and San Andreas faults located 6½ and 26 miles, respectively to the southwest.

4.3 SUBSURFACE CONDITIONS

We observed the drilling of 4 borings to depths ranging from 7 to 24 feet at the locations shown on the Site Plan, Figure 2. Shown on Figure 2 are depths to native rock and expected thickness of colluvial material from all known explorations conducted at the site.

In general, the borings encountered medium stiff to very stiff, sandy silty clay to depths between 4 to 5 feet below existing grade along the eastern flat upper portion of the site. Beneath the clay, we observed friable, highly weathered siltstone, claystone and sandstone. At a depth of 20 feet in Boring 1-B1, strong, moderately weathered conglomerate was found. Our previous explorations at the site encountered similar conditions but also encountered colluvium in the western portion of the site. The colluvium encountered in our previous explorations varied in depth from approximately 9 feet to over 16 feet.

Consult the Site Plan and boring logs for specific soil, rock, and groundwater conditions at each location. We include our boring logs in Appendix A. The logs contain the soil/rock type, color, consistency, and visual classification in general accordance with the Unified Soil Classification

System. Appendix A also provides additional exploratory information in the general notes to the logs.

4.4 GROUNDWATER CONDITIONS

We observed static groundwater in several of our subsurface explorations. In our previous fault exploration, groundwater was encountered in several exploratory trenches. The following table summarizes our groundwater observations in the recent exploratory borings:

Boring/ Trench Location	Approximate Depth to Groundwater (ft.)	Approximate Groundwater Elevation (ft.)
1-B1	27.5	374.5
1-B4	17.5	379.5
B-1	30.0	363.0
B-2	36.0	351.0
HLA-2	9.0	363.0

Fluctuations in the level of groundwater may occur due to variations in rainfall and other factors not evident at the time measurements were made.

4.5 LABORATORY TESTING

We performed laboratory tests on selected soil samples to determine their engineering properties. For this project, we performed unconfined compression, plasticity index, direct shear and soil corrosion potential testing (pH and sulfates). Plasticity indexes are recorded on the boring logs in Appendix A. All other laboratory data is included in Appendix B.

5. CONCLUSIONS

From a geotechnical engineering viewpoint, in our opinion, the site is suitable for the proposed development. The primary geotechnical concerns that could affect development on the site are areas of expansive soil, perched groundwater conditions, potential seismic hazards and excavatability of native rock. We summarize our conclusions below.

5.1 EXPANSIVE SOIL

Expansive clay should not affect the proposed development based on our subsurface explorations, laboratory test results, and preliminary project data presented in Section 4. Shallow depths of expansive clay were found in Borings 1-B2 and 1-B3. Deeper areas of expansive clay were found in 1-B1 and 1-B4, with thicker colluvium soils on the eastern portion of the site and as discussed in Section 2.3. We anticipate that most if not all of this material will be removed during site grading. If any expansive material is encountered at the base of the cuts, the cut should be extended to non-expansive material or a maximum of 3 feet below finished grade and backfilled with suitable material as discussed in the Acceptable Fill portion of this report. Expansive clay should be off hauled from the site. In order to confirm our conclusions, we should be retained to review final grading and site improvement plans, and to observe and test site grading operations.

5.2 EXCAVATABILITY

We used a B24 drill rig to perform our exploratory work. Based upon our observation and experience, conventional grading and backhoe equipment will likely be able to excavate the soil and rock deposits in the upper 5 to 15 feet at the locations explored. More difficult conditions are likely to be encountered below these depths that will require greater excavation effort.

We provide the above excavatability information for general planning purposes only. This information is not intended for bidding purposes.

5.3 STATIC AND PERCHED GROUNDWATER

It does not appear that the static groundwater level beneath the site will affect the proposed development. However, we anticipate that a significant amount of perched water will be encountered in the cuts to grade the site. Perched water can:

1. Impede grading activities;
2. Cause instability of temporary cuts;
3. Cause moisture damage to sensitive floor coverings;
4. Transmit moisture vapor through slabs causing excessive mold/mildew build-up, fogging of windows, and damage to computers and other sensitive equipment.
5. Cause premature pavement failure if hydrostatic pressures build up beneath the section.

We provide recommendations to reduce the effects of perched water in the sections on Site Drainage, Slab Moisture Vapor Reduction, and Cut-Off Curbs.

5.4 SEISMIC HAZARDS

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, which is also called surface faulting. The common secondary seismic hazards include ground shaking, seismically induced landsliding, lurch cracking, soil liquefaction, and lateral spreading. These hazards are discussed in the following sections. Based on the topographic setting, risk from tsunamis, or seiches is considered negligible at the site.

5.4.1 Ground Rupture

As noted above, the site is located within a State of California Earthquake Fault Zone, for the active Calaveras fault. Based on the findings of our previous fault exploration, recommendations for building setbacks have been provided as shown on Figure 2. Provided that the setbacks recommendations are respected, the potential for fault rupture through the proposed building site is considered low.

5.4.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the 2007 California Building Code (CBC) requirements, as a minimum.

Seismic design provisions of current building codes 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. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAO, 1996).

5.4.3 2007 CBC Seismic Design Parameters

Using the USGS website Seismic Design Values for Buildings, Ground Motion Parameter Calculator, we provide the 2007 CBC seismic parameters using the ASCE 7.5 and 2006 IBC calculation modules.

TABLE 1
2007 CBC Seismic Parameters

Coefficient	Value
Mapped MCE Spectral Response Acceleration at Short Periods, S_S	1.985
Mapped MCE Spectral Response Acceleration at a Period of 1 second, S_1	0.745
Site Class	C
Long-period Transition Period, T_L	8 sec
MCE, 5% Damped, Spectral Response Acceleration at Short Periods Adjusted for Site Class Effects, S_{MS}	1.985
MCE, 5% Damped, Spectral Response Acceleration at a Period of 1 second Adjusted for Site Class Effects, S_{M1}	0.969
Design, 5% Damped, Spectral Response Acceleration at Short Periods, S_{DS}	1.324
Design, 5% Damped, Spectral Response Acceleration at a Period of 1 second, S_{D1}	0.646

5.4.4 Seismically Induced Landsliding

Seismically induced landslides are triggered by earthquake ground shaking. The risk of this hazard is generally greatest in the winter when groundwater levels are highest and surficial soils are saturated. As with all slopes in the region, this risk is also present at the site to varying degrees depending on the slope conditions and time of year. As noted above, the hillside located to the southwest of the site is within a preliminary State of California Seismic Hazard Zone for areas that may be susceptible to seismically induced landsliding.

Siting of the proposed structures in accordance with the recommendations provided in this report is intended to mitigate the potential for adverse impacts from seismically induced landsliding.

An existing driveway and 25-foot-wide setback zone are located between the potential landslide area and the proposed building location. This intervening area will serve as a debris catchment area in the event of seismically induced landsliding.

5.4.5 Liquefaction

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary, but essentially total, loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses associated with earthquakes. As noted above, the site is located within a preliminary State of California Seismic Hazard Zone for areas that may be susceptible to liquefaction. Relatively shallow bedrock was encountered on the eastern portion of the site and the thicker colluvial soils that were encountered on the western portion of the site consist of clayey soils. Based on the subsurface conditions encountered in our exploration, it is our opinion that liquefaction at the site during strong earthquake shaking is unlikely.

5.4.6 Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Recommendations for foundation and pavement design provided in this report are intended to reduce the potential for adverse impacts from lurch cracking.

5.4.7 Densification Due to Earthquake Shaking

Densification of sandy soils above and below the groundwater level can cause settlement during an earthquake. Based on the soil and geologic data analyzed for this site, densification due to ground shaking is unlikely.

5.4.8 Lateral Spreading

Lateral spreading is the movement of weaker soils toward a free face, or down a slope that is induced by ground shaking during a major earthquake. Recommendations for foundation and pavement design provided in this report are intended to reduce the potential for adverse impacts from lateral spreading.

5.5 SOIL CORROSION POTENTIAL

We submitted select soil samples to an analytical lab for determination of pH and sulfate. The sulfate lab test results indicate that sulfate exposure may be categorized as “Negligible” in accordance with Table 19-A-4 of the California Building Code. For “Negligible” sulfate exposure, the CBC indicates that either Type I or Type II Portland Cement may be used for concrete mix designs for the project.

If further investigation is desired, we recommend a corrosion consultant be retained to determine if specific corrosion recommendations are necessary for the project. We present the analytical lab test results in Appendix B.

6. EARTHWORK RECOMMENDATIONS

The relative compaction and optimum moisture content of soil, rock, and aggregate base referred to in this report are based on the most recent ASTM D1557 test method. Compacted soil is not acceptable if it is unstable. It should exhibit only minimal flexing or pumping, as determined by an ENGEO representative.

As used in this report, the term “moisture condition” refers to adjusting the moisture content of the soil by either drying if too wet or adding water if too dry.

We define “structural areas” in Section 4 of this report as any area sensitive to settlement of compacted soil. These areas include, but are not limited to building pads, sidewalks, pavement areas, and retaining walls.

6.1 EXPANSIVE SOIL MITIGATION

Any potentially expansive clay encountered within building pads should be removed to a depth of at least 3 feet below pad grade, as determined by an ENGEO representative. Because the site will have extensive cutting of the native material, any expansive material that is encountered should be removed from the site during cut and fill operations. In addition, no potentially expansive clay should be placed within the upper 3 feet of building pads.

6.2 BUILDING PAD PREPARATION

Because of the depth of cut across the site and the presence of colluvial deposits in one half of the building footprint, there is a possibility of encountering soil on one side of the building pad and rock on the other. To reduce the risk of differential settlement due to the relative stiffness difference between these materials, we recommend that the building pad be overexcavated and backfilled with acceptable compacted fill. In building pads, and extending laterally a minimum of 5 feet beyond, the foundation soil should be overexcavated a minimum of 2 feet and the excavation should be backfilled with properly compacted, processed fill. Fill material type and compaction should meet the requirements of this report.

6.3 GENERAL SITE CLEARING

Clear areas to be developed of all surface and subsurface deleterious materials including existing building foundations, slabs, buried utility and irrigation lines, pavements, debris, and designated trees, shrubs, and associated roots. Clean and backfill excavations extending below the planned finished site grades with suitable material compacted to the recommendations presented in Section 4.5. ENGEO should be retained to observe and test all backfilling.

Following clearing, strip the site to remove surface organic materials from the ground surface to a depth of at least 2 to 3 inches below the surface. Strippings should be removed from the site.

6.4 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum (wet) soil moisture conditions during winter or spring grading, or during or following periods of rain. In addition, wet soil conditions may be encountered during the cutting operations perched on more resistant rock below. Wet soil can make proper compaction difficult or impossible. Wet soil conditions can be mitigated by:

1. Frequent spreading and mixing during warm dry weather;
2. Mixing with drier materials;
3. Mixing with a lime, lime-fly ash, or cement product; or
4. Stabilizing with aggregate, geotextile stabilization fabric, or both.

Options 3 and 4 should be evaluated and approved by ENGEO prior to implementation.

6.5 ACCEPTABLE FILL

On-site soil and rock material is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and particles greater than 8 inches in maximum dimension. Fill material should meet the above requirements and have a plasticity index less than 12.

6.6 FILL COMPACTION

6.6.1 Grading in Structural Areas

Perform subgrade compaction prior to fill placement, following cutting operations, and in areas left at grade as follows.

1. Scarify to a depth of at least 8 inches;
2. Moisture condition soil to at least 1 percentage point above the optimum moisture content;
and
3. Compact the subgrade to at least 90 percent relative compaction. Compact the upper 6 inches of finish pavement subgrade to at least 95 percent relative compaction prior to aggregate base placement.

After the subgrade soil has been compacted, place and compact acceptable fill (defined in Section 4) as follows:

1. Spread fill in loose lifts that does not exceed 8 inches;
2. Moisture condition lifts to at least 1 percentage point above the optimum moisture content;
and
3. Compact fill to a minimum of 90 percent relative compaction; Compact the upper 6 inches of fill in pavement areas to 95 percent relative compaction prior to aggregate base placement.

Compact the pavement Caltrans Class 2 Aggregate Base section to at least 95 percent relative compaction (ASTM D1557). Moisture condition aggregate base to or slightly above the optimum moisture content prior to compaction.

6.6.2 Underground Utility Backfill

6.6.2.1 General

The contractor is responsible for conducting all trenching and shoring in accordance with CALOSHA requirements. Project consultants involved in utility design should specify pipe bedding materials.

6.6.2.2 Structural Areas

Place and compact trench backfill as follows:

1. Trench backfill should have a maximum particle size of 8 inches;
2. Moisture condition trench backfill to or slightly above the optimum moisture content. Moisture condition backfill outside the trench;
3. Place fill in loose lifts not exceeding 12 inches;
4. Compact fill to a minimum of 90 percent relative compaction (ASTM D1557).

Where utility trenches cross perimeter building foundations, backfill with native clay soil for pipe bedding and backfill for a distance of 2 feet on each side of the foundation. This will help prevent the normally granular bedding materials from acting as a conduit for water to enter beneath the building. As an alternative, a sand cement slurry (minimum 28-day compressive strength of 500 psi) may be used in place of native clay soil.

Jetting of backfill is not an acceptable means of compaction. We may allow thicker loose lift thicknesses based on acceptable density test results or for the first lift of fill over pipe bedding.

6.6.3 Landscape Fill

Process, place and compact fill in accordance with Sections 4.5, expect to compact soils to at least 85 percent relative compaction (ASTM D1557).

6.7 SLOPES

6.7.1 Gradients

Construct final slope gradients to 2:1 (horizontal:vertical) or flatter. The contractor is responsible to construct temporary construction slopes in accordance with CALOSHA requirements.

6.8 SITE DRAINAGE

6.8.1 Surface Drainage

The project civil engineer is responsible for designing surface drainage improvements. With regard to geotechnical engineering issues, we provide the following minimum recommendation for surface drainage.

1. Slope pavement areas at a minimum of 1 percent towards drop inlets or other surface drainage devices.
2. Slope finished grades away from building exterior at a minimum of 2 percent for a distance of at least 5 feet.

3. Discharge roof down spouts into closed conduits and direct away from buildings to appropriate drainage devices.

6.8.2 Subsurface Drainage

Because of the anticipated perched groundwater in the proposed cuts, we recommend designing a subdrain system below the floor to remove any seepage that goes below the adjacent wall drain and surfaces under the building. We recommend that, as a minimum, the following measures be incorporated in the floor and wall design:

1. A subdrain should be constructed around the perimeter of the building. The subdrain pipe should be lower in elevation than the interior floor grade. It is preferred to design the subdrain to drain by gravity to an appropriate discharge location rather than use some type of sump pump that is subject to power supply failure and maintenance concerns.
2. The floor slab should be designed with an underslab subdrain system.
3. The building walls that act as retaining structures should be designed with a waterproofing system and all construction joints should incorporate some type of water stop.
4. A waterproofing expert should be consulted for more specific recommendations as the client feels is necessary.

Construct subdrains as follows:

1. Excavate an 8-inch-wide trench to a minimum depth of 3 feet below (finish grade, existing grade, finish subgrade).
2. Slope the entire trench bottom at a minimum of 1 percent.
3. Lay enough filter fabric equivalent (Mirafi 140NC or equivalent) in the trench to completely encapsulate the aggregate subdrain following completion, including a minimum overlap of 12 inches.

4. Place approximately 4 inches of washed crushed rock bedding along the trench bottom. Washed crushed rock should have 100 percent passing the $\frac{3}{4}$ -inch sieve and less than 5 percent passing the No. 4 sieve.
5. Place a minimum 4-inch-diameter slotted or perforated pipe over the initial bedding layer. Orient slots/perforations towards the bottom of the trench. Slope the pipe at least 1 percent towards the collector system.
6. Fill the remaining trench with washed crushed rock to approximately $\frac{1}{2}$ foot below finished grade.
7. In structural areas, compact all crushed rock using 2 to 3 passes of a vibratory plate compactor for each 12-inch loose lift.
8. Fold the filter fabric over the last lift of crushed rock and overlap at least 12 inches.
9. Cover the drainage system with $\frac{1}{2}$ foot of native fill, compacted in accordance with Section 4.4.
10. Remove collected water down gradient by connecting the subdrain pipes to storm drains or another suitable collector system.

7. FOUNDATION RECOMMENDATIONS

We developed structural improvement recommendations using data obtained from our field exploration, laboratory test results, and engineering analysis.

7.1 CONVENTIONAL FOOTINGS WITH SLAB-ON-GRADE

The proposed restaurant can be supported on continuous or isolated spread footings bearing in competent native soil or compacted fill.

7.2 FOOTING DIMENSIONS AND ALLOWABLE BEARING CAPACITY

Provide minimum footing dimensions as follows:

Table 4
Minimum Footing Dimensions

Footing Type	*Minimum Depth (in.)	Minimum Width (in.)
Continuous	18	18
Isolated	18	18

*below lowest adjacent pad grade

Minimum footing depths shown above are taken from lowest adjacent pad grade. The cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent exterior grade.

Design foundations recommended above for a maximum allowable bearing pressure of 3,000 pounds per square foot (psf) for dead plus live loads. Increase this bearing capacity by one-third for the short-term effects of wind or seismic loading

The maximum allowable bearing pressure is a net value; the weight of the footing may be neglected for design purposes. All footings located adjacent to utility trenches should have their bearing surfaces below an imaginary 1:1 (horizontal:vertical) plane projected upward from the bottom edge of the trench to the footing.

7.3 WATERSTOP

If a two-pour system is used for footings and slab, the cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent finish exterior grade. If this is not done, then we recommend the addition of a waterstop between the two pours to reduce moisture penetration through the cold joint and migration under the slab. Use of a monolithic pour would eliminate the need for the waterstop.

7.4 REINFORCEMENT

The structural engineer should design footing reinforcement to support the intended structural loads without excessive settlement. Reinforce all continuous footings with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. At a minimum, design continuous footings to structurally span a clear distance of 5 feet.

7.5 FOUNDATION LATERAL RESISTANCE

Lateral loads may be resisted by friction along the base and by passive pressure along the sides of foundations. The passive pressure is based on an equivalent fluid pressure in pounds per cubic foot (pcf). We recommend the following allowable values for design:

Passive Lateral Pressure: 300 pcf

Coefficient of Friction: 0.3

The above allowable values include a factor of safety of 1.5. Increase the above values by one-third for the short-term effects of wind or seismic loading.

Passive lateral pressure should not be used for footings on or above slopes.

7.6 SETTLEMENT

Provided our report recommendations are followed, and given the proposed construction (Section 1.3), we estimate total and differential foundation settlements will be less than approximately $\frac{3}{4}$ and $\frac{1}{2}$ inch, respectively.

8. SLABS-ON-GRADE

8.1 EXTERIOR FLATWORK

Exterior flatwork includes items such as concrete sidewalks, steps, and outdoor courtyards exposed to foot traffic only. Provide a minimum concrete flatwork thickness of 4 inches.

Construct control and construction joints in accordance with current Portland Cement Association Guidelines.

8.2 INTERIOR CONCRETE FLOOR SLABS

8.2.1 Minimum Design Section

We recommend the following minimum design:

1. Place No. 3 rebar on 18-inch centers within the middle third of the slab to help control the width of shrinkage crack, which inherently occur as concrete cures.
2. Provide a minimum concrete thickness of 5 inches.

The structural engineer should provide final design thickness and additional reinforcement for any structural loads, including traffic or rack loads.

8.2.2 Slab Moisture Vapor Reduction

When buildings are constructed with concrete slab-on-grade, water vapor from beneath the slab will migrate through the slab and into the building. This water vapor can be reduced but not stopped. Vapor transmission can negatively affect floor coverings and lead to increased moisture

within a building. When water vapor migrating through the slab would be undesirable, we recommend the following to reduce, but not stop, water vapor transmission upward through the slab-on-grade:

1. Construct a moisture retarder system directly beneath the slab on-grade that consists of the following:
 - a) Vapor retarder membrane sealed at all seams and pipe penetrations and connected to all footings. Vapor retarders shall conform to Class A vapor retarder per ASTM E 1745-97 "Standard Specification for Plastic Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs." The vapor retarder should be **underlain by**
 - b) 4 inches of clean crushed rock. Crushed rock should have 100 percent passing the $\frac{3}{4}$ -inch sieve and less than 5 percent passing the No. 4 Sieve.
2. To reduce porosity of the floor slab, use a concrete water-cement ratio for slabs-on-grade of no more than 0.45 and a minimum compressive strength of 4,500 psi.
3. Provide inspection and testing during concrete placement to check that the proper concrete and water cement ratio are used.
4. Moist cure slabs for a minimum of 3 days or use other equivalent curing specific by the structural engineer.

The structural engineer should be consulted as to the use of a layer of clean sand or pea gravel (less than 5 percent passing the U.S. Standard No. 200 Sieve) placed on top of the vapor retarder membrane to assist in concrete curing.

8.3 TRENCH BACKFILL

Backfill and compact all trenches below building slabs-on-grade and to 5 feet laterally beyond any edge in accordance with Section 4.5.2.

9. RETAINING WALLS

Due to the anticipated seepage at the cuts for the walls, temporary vertical cuts may not be stable. This condition may necessitate temporary shoring or top-down wall construction such as soil nail or cement-soil mixed walls.

9.1 LATERAL SOIL PRESSURES

Design proposed retaining walls to resist lateral earth pressures from adjoining natural materials and/or backfill and from any surcharge loads. Provided that adequate drainage is included as recommended below, design walls restrained from movement at the top to resist an equivalent fluid pressure of 65 pounds per cubic foot (pcf). In addition, design restrained walls to resist an additional uniform pressure equivalent to one-half of any surcharge loads applied at the surface.

Design unrestrained retaining walls with adequate drainage to resist an equivalent fluid pressure of 50 pcf plus one-third of any surcharge loads.

The above lateral earth pressures assume level backfill conditions and sufficient drainage behind the walls to prevent any build-up of hydrostatic pressures from surface water infiltration and/or a rise in the groundwater level. If adequate drainage is not provided, we recommend that an additional equivalent fluid pressure of 40 pcf be added to the values recommended above for both restrained and unrestrained walls. Damp-proofing the walls should be included in areas where wall moisture would be problematic.

Construct a drainage system, as recommended below, to reduce hydrostatic forces behind the retaining wall.

9.2 RETAINING WALL DRAINAGE

Construct either graded rock drains or geosynthetic drainage composites behind the retaining walls to reduce hydrostatic lateral forces. For rock drain construction, we recommend two types of rock drain alternatives:

1. A minimum 12-inch-thick layer of Class 2 Permeable Filter Material (Caltrans Specification 68-1.025) placed directly behind the wall, or
2. A minimum 12-inch-thick layer of washed, crushed rock with 100 percent passing the $\frac{3}{4}$ -inch sieve and less than 5 percent passing the No. 4 sieve. Envelope rock in a non-woven geotextile filter fabric such as Mirafi 140NC, or equivalent.

For both types of rock drains:

1. Place the rock drain directly behind the walls of the structure.
2. Extend rock drains from the wall base to within 12 inches of the top of the wall.
3. Place a minimum of 4-inch-diameter perforated pipe at the base of the wall, inside the rock drain and fabric, with perforations placed down.
4. Place pipe at a gradient at least 1 percent to direct water away from the wall by gravity to a drainage facility.

ENGEO should review and approve geosynthetic composite drainage systems prior to use.

9.3 BACKFILL

Backfill behind retaining walls should be placed and compacted in accordance with Section 4.5. Use light compaction equipment within 5 feet of the wall face. If heavy compaction equipment is used, the walls should be temporarily braced to avoid excessive wall movement.

9.4 FOUNDATIONS

Retaining walls may be supported on continuous footings designed in accordance with recommendations presented in Section 5.2, except the minimum embedment depth should be increased to 24 inches below lowest adjacent soil grade.

10. PAVEMENT DESIGN

10.1 FLEXIBLE PAVEMENTS

Based on soil observed during our field exploration, an R-value of 25, was judged to be appropriate for design. Using estimated traffic indices for various pavement loading requirements, we developed the following recommended pavement sections using Procedure 608 of the Caltrans Highway Design Manual (including the asphalt factor of safety), presented in Table 1 below.

Table 1
Recommended Asphalt Concrete Pavement Sections

Traffic Index	Section	
	Asphalt Concrete (in.)	Class 2 Aggregate Base (in.)
5	3	7
6	3	10

If soil, such as clay, with an R-value less than 25 is encountered during subgrade preparation, the subgrade should be excavated a depth of 18 inches and backfilled with soil or aggregate base with an R-value of at least 25. The civil engineer should determine the appropriate traffic indices based on the estimated traffic loads and frequencies.

10.2 RIGID PAVEMENTS

Use concrete pavement sections to resist heavy loads and turning forces in areas such as fire lanes or trash enclosures. Final design of rigid pavement sections, and accompanying reinforcement, should be performed based on estimated traffic loads and frequencies. We recommend the following minimum design sections for rigid pavements:

- Use a minimum section of 6 inches of Portland Cement concrete over 4 inches of Caltrans Class 2 Aggregate Base.
- Concrete pavement should have a minimum 28-day compressive strength of 3,500 psi.
- Provide minimum control joint spacing in accordance with Portland Cement Association guidelines.

10.3 SUBGRADE AND AGGREGATE BASE COMPACTION

Compact finish subgrade and aggregate base in accordance with Section 4.5.1. Aggregate Base should meet the requirements for $\frac{3}{4}$ -inch maximum Class 2 AB per section 26-1.02a of the latest Caltrans Standard Specifications.

10.4 CUT-OFF CURBS

Saturated pavement subgrade or aggregate base can cause premature failure or increased maintenance of asphalt concrete pavements. This condition often occurs where landscape areas directly abut pavements. If increased protection against saturated subgrade or aggregate base is desired, construct concrete cut-off curbs where pavements abut landscape areas. Extend the curbs at least 4 inches into the subgrade below the aggregate base course level.

11. RISK MANAGEMENT

Our experience and that of our profession clearly indicates that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to provide construction monitoring services as outlined below:

1. Retain ENGEO to review the final grading and drainage plans prior to construction to determine whether our recommendations have been implemented, and to provide additional or modified recommendations, if necessary.
2. Retain ENGEO to perform construction monitoring to check the validity of the assumptions we made to prepare this report. Our services would include testing and observation during site clearing, mass grading, subdrain installation, foundation excavation, underground utility construction, and pavement subgrade and aggregate base compaction.
3. If any changes occur in the nature, design or location of the proposed improvements, then retain ENGEO to review the changes and prepare a written response and validate the conclusions and recommendations in this report.
4. If 2 years or more lapse between the time this report was prepared and construction, or if conditions have changed because of natural causes or construction operations on or near the site, then retain ENGEO to review this report for applicability to the new conditions. This report is applicable only for the project and site studied.

If we are not retained to perform the services described above, then we are not responsible for any party's interpretation of our report (and subsequent addenda, letters, and verbal discussions).

12. LIMITATIONS

This report presents geotechnical recommendations for construction of improvements discussed in Section 1.3 for the Hana Japan Steakhouse project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any.

We strived to perform our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty is expressed or implied.

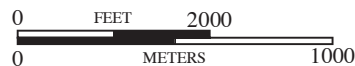
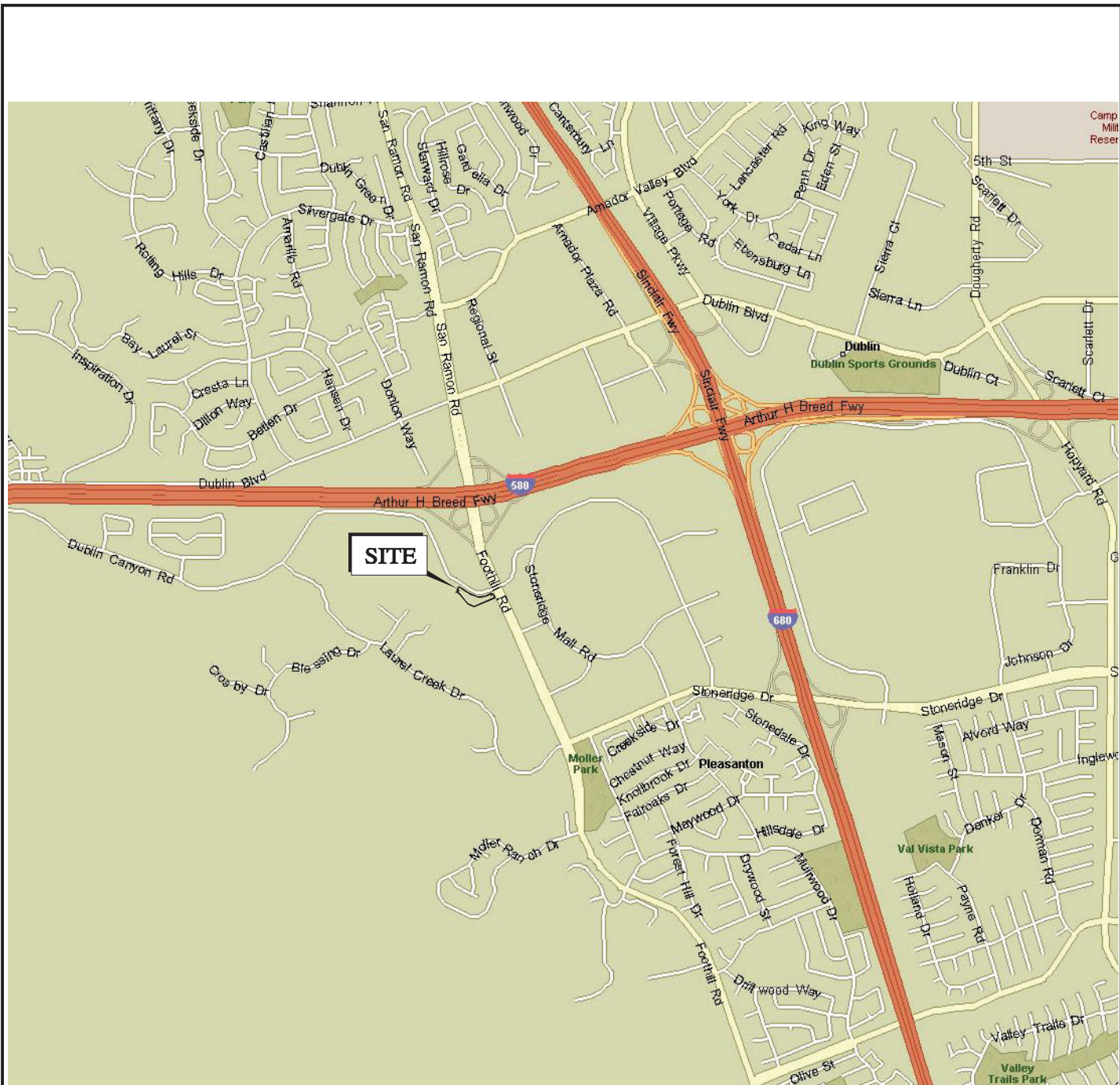
We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data is representative of soil/rock and groundwater conditions across the site. Considering possible underground variability of soil, rock, stockpiled material, and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, notify ENGEO immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

The location and elevations of our borings are approximate and were estimated by pacing from features shown on the Site Plan previously referenced.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration.

This geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, then notify the proper regulatory officials immediately.

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BASE MAP SOURCE: MS STREETS AND TRIPS



VICINITY MAP
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101

DATE: MAY 2008

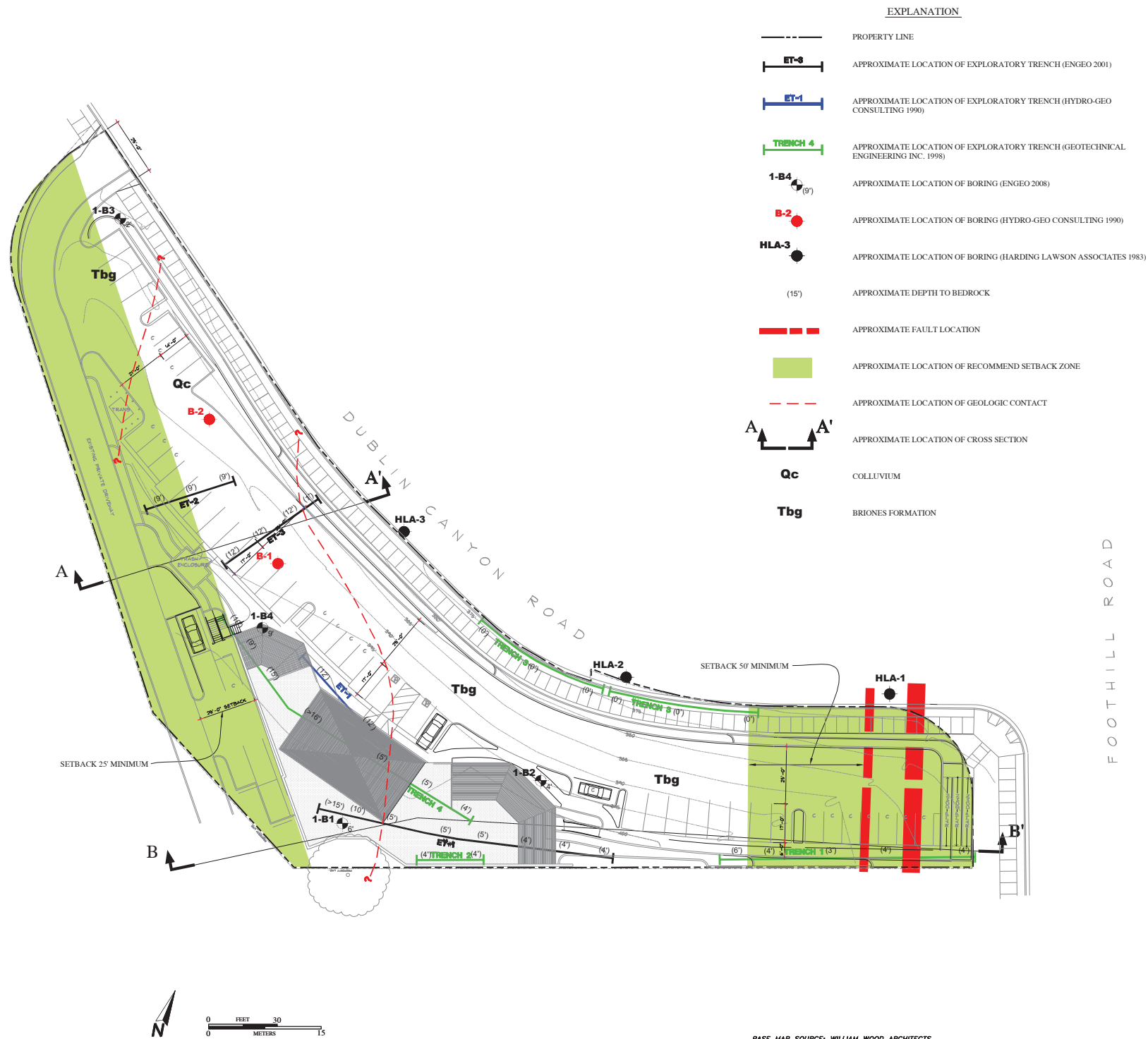
DRAWN BY: SRP

CHECKED BY: JB

FIGURE NO.

1

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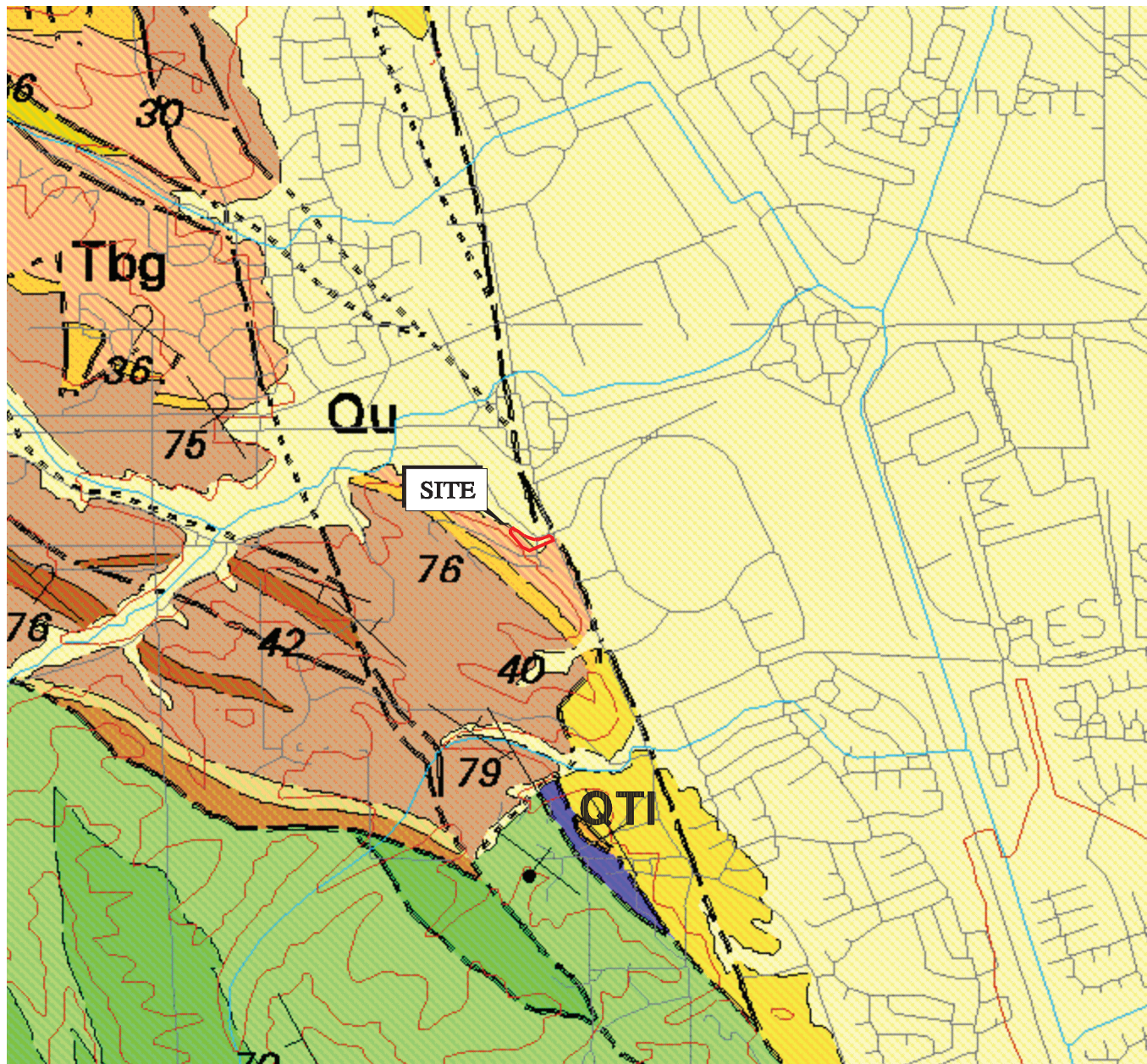
BASE MAP SOURCE: WILLIAM WOOD ARCHITECTS



SITE PLAN
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO: 5150.100.101	FIGURE NO: 2
DATE: MAY 2008	
DRAWN BY: SRP	CHECKED BY: JB

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

Qu UNDIVIDED SURFICAL DEPOSITS

QTI LIVERMORE GRAVELS

Tbg BRIONES FORMATION

--- FAULT-DASHED WHERE APPROXIMATELY LOCATED,
- - - SHORT DASHED WHERE INFERRED, DOTTED WHERE
CONCEALED, QUERIED WHERE LOCATION IS UNCERTAIN
STRIKE-SLIP MOVEMENT

30 / STRIKE AND DIP OF BEDDING



0 FEET 2000
0 METERS 1000

BASE MAP SOURCE: GRAYMER, 1996

ENGEO
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REGIONAL GEOLOGIC MAP
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101

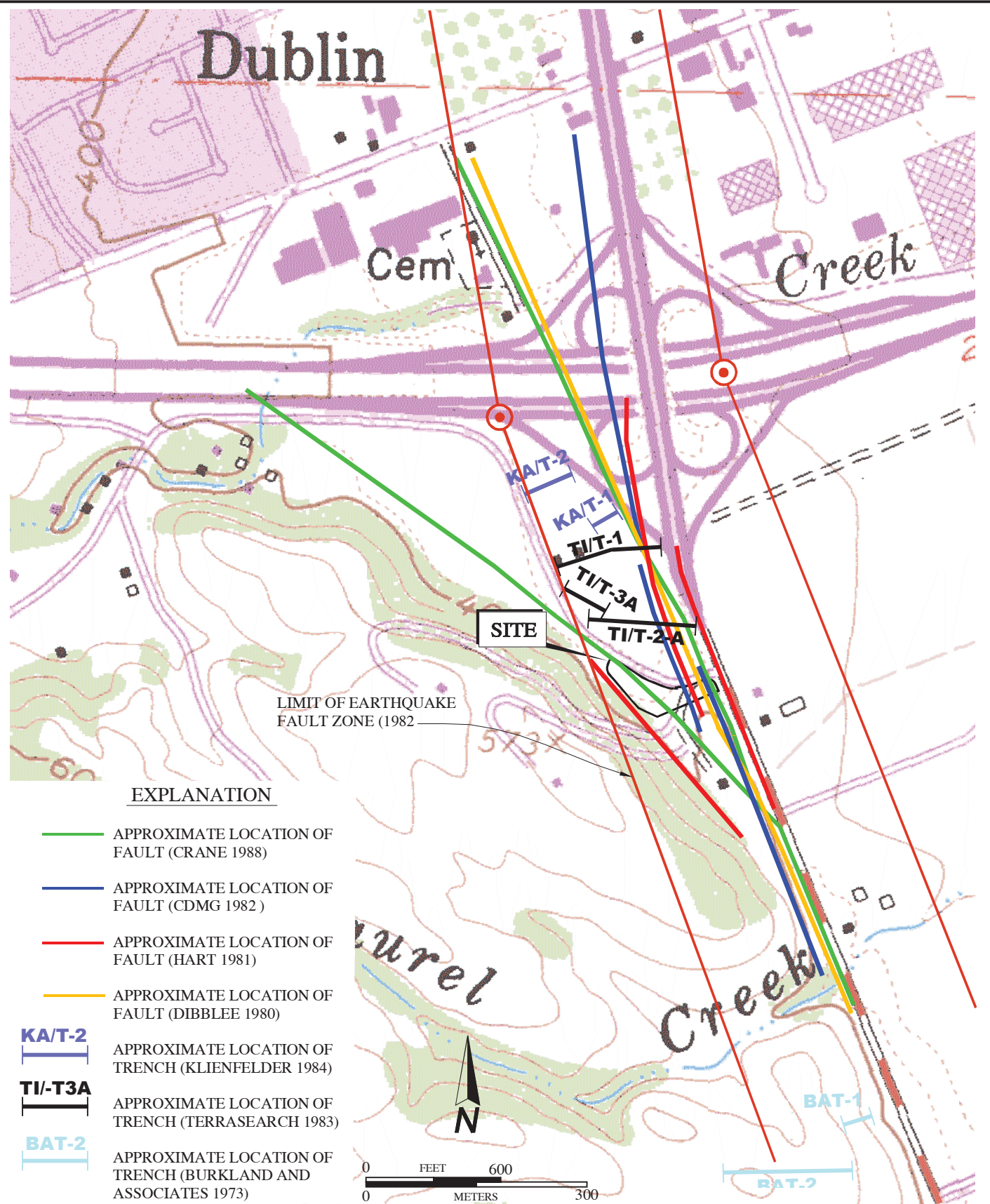
DATE: MAY 2008

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FIGURE NO.

3



BASE MAP SOURCE: U.S.G.S.

ENGEO
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EXCELLENT SERVICE SINCE 1971

COMPILATION OF FAULT MAPPING
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101

DATE: MAY 2008

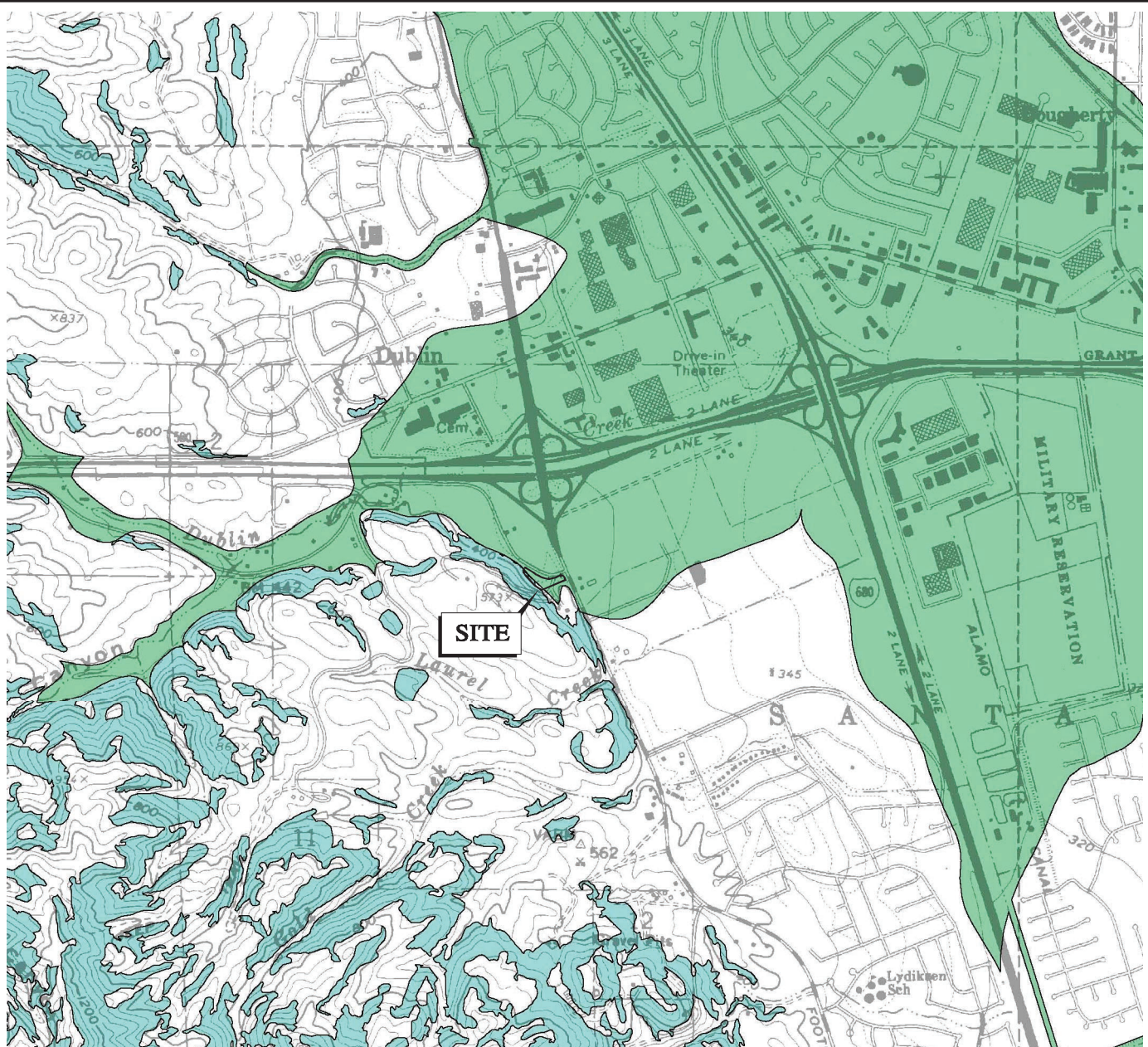
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FIGURE NO.

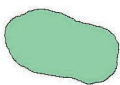
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ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

Liquefaction



Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides



Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.



BASE MAP SOURCE: STATE OF CALIFORNIA

ENGEO
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SEISMIC HAZARD ZONES
HANA JAPAN STEAKHOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101
DATE: MAY 2008
DRAWN BY: SRP CHECKED BY: JB

FIGURE NO.
5

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APPENDIX A

Field Exploration Notes

Key to Boring Logs

Exploratory Logs

FIELD EXPLORATION NOTES

We drilled four borings on the site for this report. An ENGEO representative supervised the drilling, and logged the subsurface conditions. A B24 drill rig was used to drill the borings using solid flight auger methods.

The boring logs present descriptions and graphically depict the subsurface soil, rock and groundwater conditions encountered. The maximum depth penetrated by the borings was 28.5 feet.

We obtained bulk soil samples from drill cuttings. We retrieved both disturbed and relatively undisturbed soil samples at various intervals in the borings using 2-1/2 inch O.D. split spoon sampler.

The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. We also retrieved soil samples at various intervals in the borings using Standard Penetration Tests (SPT) and a Modified California Sampler (3-inch O.D. split spoon sampler with thin walled liners). Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 12 inches.

NOTES TO THE LOGS













We determined the lines designating the interface between soil/rock materials on the logs using visual observations. The transition between the materials may be abrupt or gradual.

The logs contain information concerning samples recovered, indications of the presence of various materials such as sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the soil/rock conditions between samples. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs. The final logs represent our interpretation of the contents of the field logs.

KEY TO BORING LOGS

MAJOR TYPES

DESCRIPTION

COARSE-GRAINED SOILS MORE THAN HALF OF MAT'L LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES		GW - Well graded gravels or gravel-sand mixtures GP - Poorly graded gravels or gravel-sand mixtures
		GRAVELS WITH OVER 12 % FINES		GM - Silty gravels, gravel-sand and silt mixtures GC - Clayey gravels, gravel-sand and clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES		SW - Well graded sands, or gravelly sand mixtures SP - Poorly graded sands or gravelly sand mixtures
		SANDS WITH OVER 12 % FINES	 	SM - Silty sand, sand-silt mixtures SC - Clayey sand, sand-clay mixtures
FINE-GRAINED SOILS MORE THAN HALF OF MAT'L SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50 % OR LESS		  	ML - Inorganic silt with low to medium plasticity CL - Inorganic clay with low to medium plasticity OL - Low plasticity organic silts and clays
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50 %		  	MH - Inorganic silt with high plasticity CH - Inorganic clay with high plasticity OH - Highly plastic organic silts and clays
	HIGHLY ORGANIC SOILS			PT - Peat and other highly organic soils

GRAIN SIZES

U.S. STANDARD SERIES SIEVE SIZE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4 "	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS

	BLOWS/FOOT (S.P.T.)
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

MOISTURE CONDITION

DRY	Absence of moisture, dusty, dry to touch
MOIST	Damp but no visible water
WET	Visible freewater
SATURATED	Below the water table

SAMPLER SYMBOLS

	Modified California (3" O.D.) sampler
	California (2.5" O.D.) sampler
	S.P.T. - Split spoon sampler
	Shelby Tube
	Continuous Core
	Bag Samples
	Grab Samples
NR	No Recovery

CONSISTENCY

SILTS AND CLAYS	STRENGTH*	BLOWS/FOOT (S.P.T.)
VERY SOFT	0-1/4	0-2
SOFT	1/4-1/2	2-4
MEDIUM STIFF	1/2-1	4-8
STIFF	1-2	8-15
VERY STIFF	2-4	15-30
HARD	OVER 4	OVER 30

MINOR CONSTITUENT QUANTITIES (BY WEIGHT)

TRACE	Particles are present, but estimated to the less than 5%
SOME	5 to 15%
WITH	15 to 30%
.....Y	30 to 50%

LINE TYPES

—————	Solid - Layer Break
-----	Dashed - Gradational or approximate layer break

GROUND-WATER SYMBOLS

	Groundwater level during drilling
	Stabilized groundwater level

LOG OF BORING 1-B1

Geotechnical Exploration
Hana Japan Steakhouse
Pleasanton, CA
5150.100.101

DATE DRILLED: 4/15/2008
HOLE DEPTH: Approx. 28½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (MSL): Approx. 402 ft.

LOGGED / REVIEWED BY: S. Stygar / JAF
DRILLING CONTRACTOR: Ram Geotechnical
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead






Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits			Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
							Liquid Limit	Plastic Limit	Plasticity Index				
1			SANDY LEAN CLAY (CL), very dark grayish brown, soft to medium stiff, moist, with silt, trace fine-grained sand			9	33	13	20				0.85*
5													
2			SANDSTONE, dark reddish yellow, friable, completely weathered			33	37	12	25				>4.0*
3			CLAYSTONE, very dark brown, friable to weak, completely weathered			82							
4						63							
15													
5													
6			SANDSTONE, reddish brown, friable, completely weathered			48							
20													
7						62/6"							
25													
8													
			Becomes friable to weak.			66/6"							
			Bottom of boring at approximately 28.5 feet. Ground water encountered at 27.5 feet during drilling.										

LOG OF BORING 1-B2

Geotechnical Exploration
Hana Japan Steakhouse
Pleasanton, CA
5150.100.101

DATE DRILLED: 4/15/2008
HOLE DEPTH: Approx. 24½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (MSL): Approx. 395 ft.

LOGGED / REVIEWED BY: S. Stygar / JAF
DRILLING CONTRACTOR: Ram Geotechnical
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits			Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
							Liquid Limit	Plastic Limit	Plasticity Index				
1			SILTY CLAY (CL), dark gray, stiff to very stiff, moist, trace organics			28							
5			SANDSTONE, light gray mottled with dark yellowish red, friable, completely weathered			52/6"							
2													
10			SILTSTONE, olive gray, weak, completely weathered			84							
4													
15			CLAYSTONE, dark grayish brown, friable			81							
5													
20			CONGLOMERATE, dark reddish brown, strong, moderately weathered			101							
7			Becomes moderately to highly weathered.			55/6"							
			Bottom of boring at approximately 24.5 feet. Groundwater not encountered during drilling.										



DATE DRILLED: 4/15/2008
HOLE DEPTH: Approx. 7½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (MSL): Approx. 381 ft.

LOGGED / REVIEWED BY: S. Stygar / JAF
DRILLING CONTRACTOR: Ram Geotechnical
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead





LOG - GEOTECHNICAL BORING LOGS.GPJ ENGEO INC.GDT 5/2/08

LOG OF BORING 1-B4

Geotechnical Exploration
Hana Japan Steakhouse
Pleasanton, CA
5150.100.101

DATE DRILLED: 4/15/2008
HOLE DEPTH: Approx. 18½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (MSL): Approx. 397 ft.

LOGGED / REVIEWED BY: S. Stygar / JAF
DRILLING CONTRACTOR: Ram Geotechnical
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits			Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Unconfined Strength (tsf) *field approx
							Liquid Limit	Plastic Limit	Plasticity Index				
			SILTY CLAY (CL), dark brown, medium stiff, moist			12							
1			Becomes dark gray mottled with dark reddish brown, very stiff to hard, some fine-grained sand, some carbonates.			29							
5													
2			SILTY CLAY (CL), very dark yellowish brown, hard, wet			65/6"							
			SANDSTONE, reddish brown, friable, completely weathered										
10													
3			Becomes yellowish red, weak, completely weathered.			56/6"							
4													
15													
5													
			Bottom of boring at approximately 18.5 feet. Ground water encountered at 17.5 feet during drilling.			50/3"							

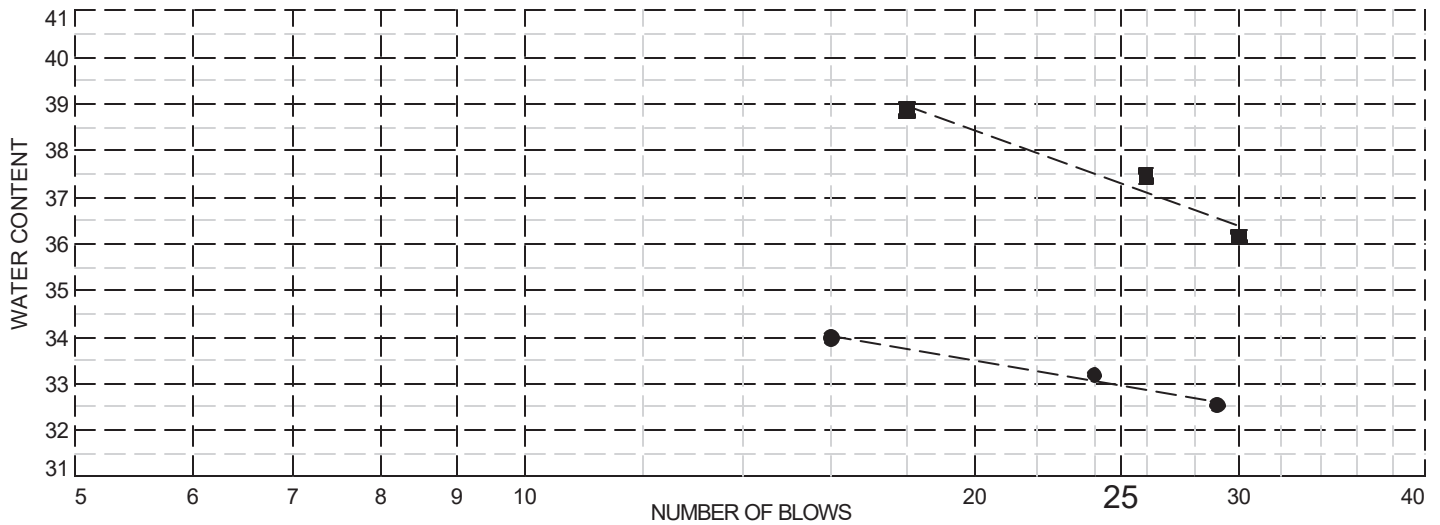
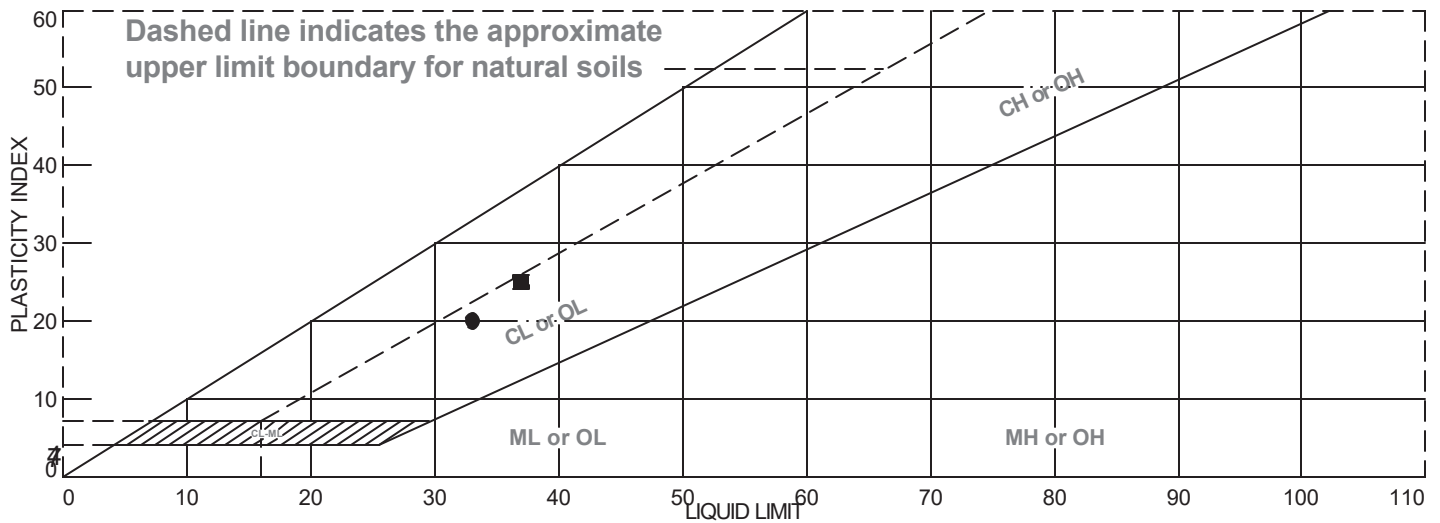
APPENDIX B
LABORATORY TEST DATA

Liquid and Plastic Limits Test Report

Direct Shear Tests (4 pages)

Analytical Results of Soil Corrosion (2 pages)

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Very dark grayish brown sandy silty CLAY	33	13	20			CL
■	Grayish brown sandy silty CLAY	37	12	25			CL

Project No. 5150.100.101 **Client:**

Project: Hana Japan Steakhouse, Pleasanton CA

● **Sample Number:** B1@2.5'

■ **Sample Number:** B1@5.5'

Remarks:

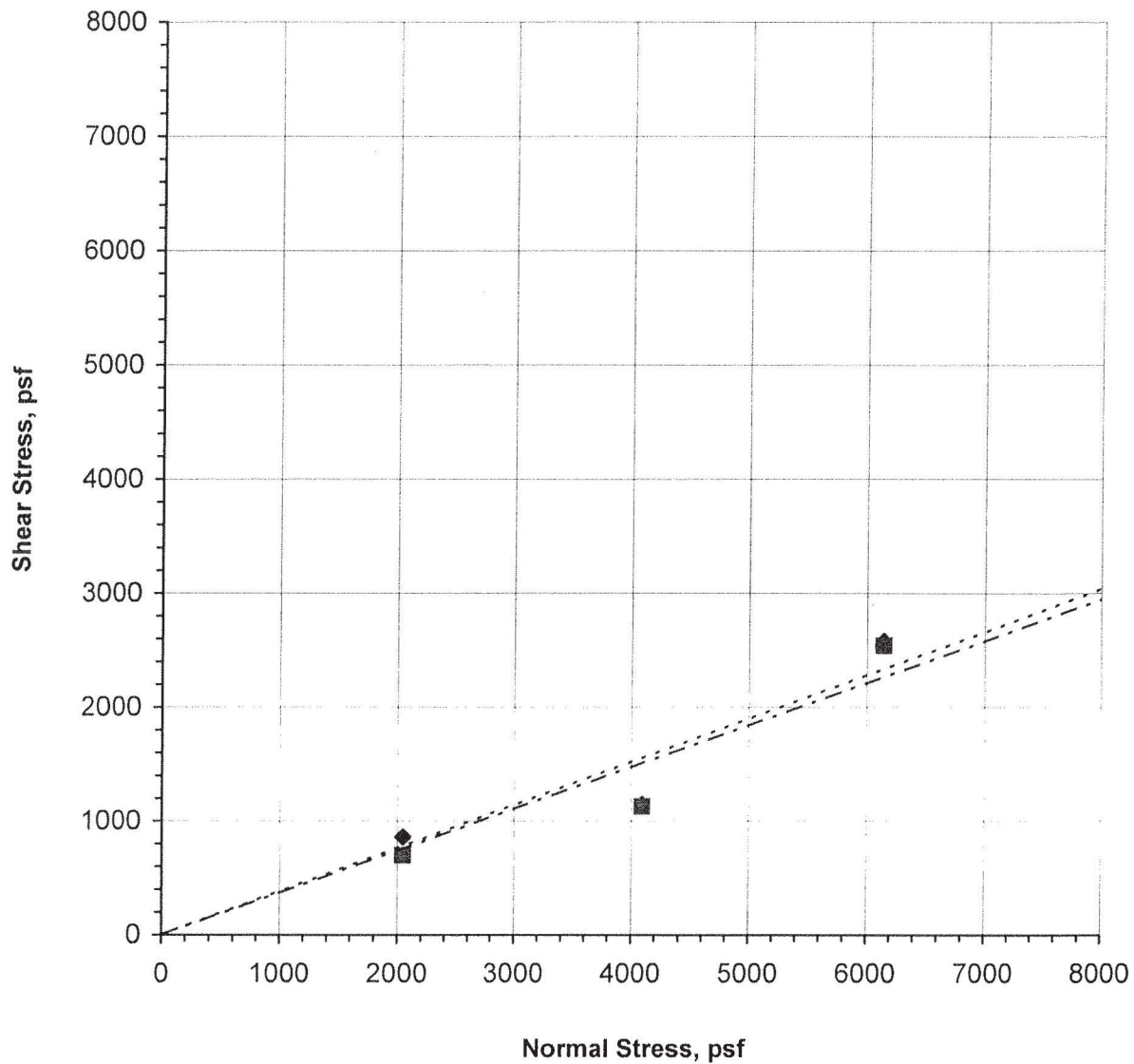
● Depth: 2.5'

■ Depth: 5.5'

ENGEO
INCORPORATED

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS
MATERIALS TESTING

**Direct Shear Test
ASTM Test Method D3080**



	FRICITION ANGLE	COHESION
Peak	24 degrees	0 psf
Softened	16 degrees	0 psf

Dry Density:	106.3 pcf
Moisture Content:	18.6 %
USCS Classification:	CL
Shear Type:	CD
Shear Rate:	Slow

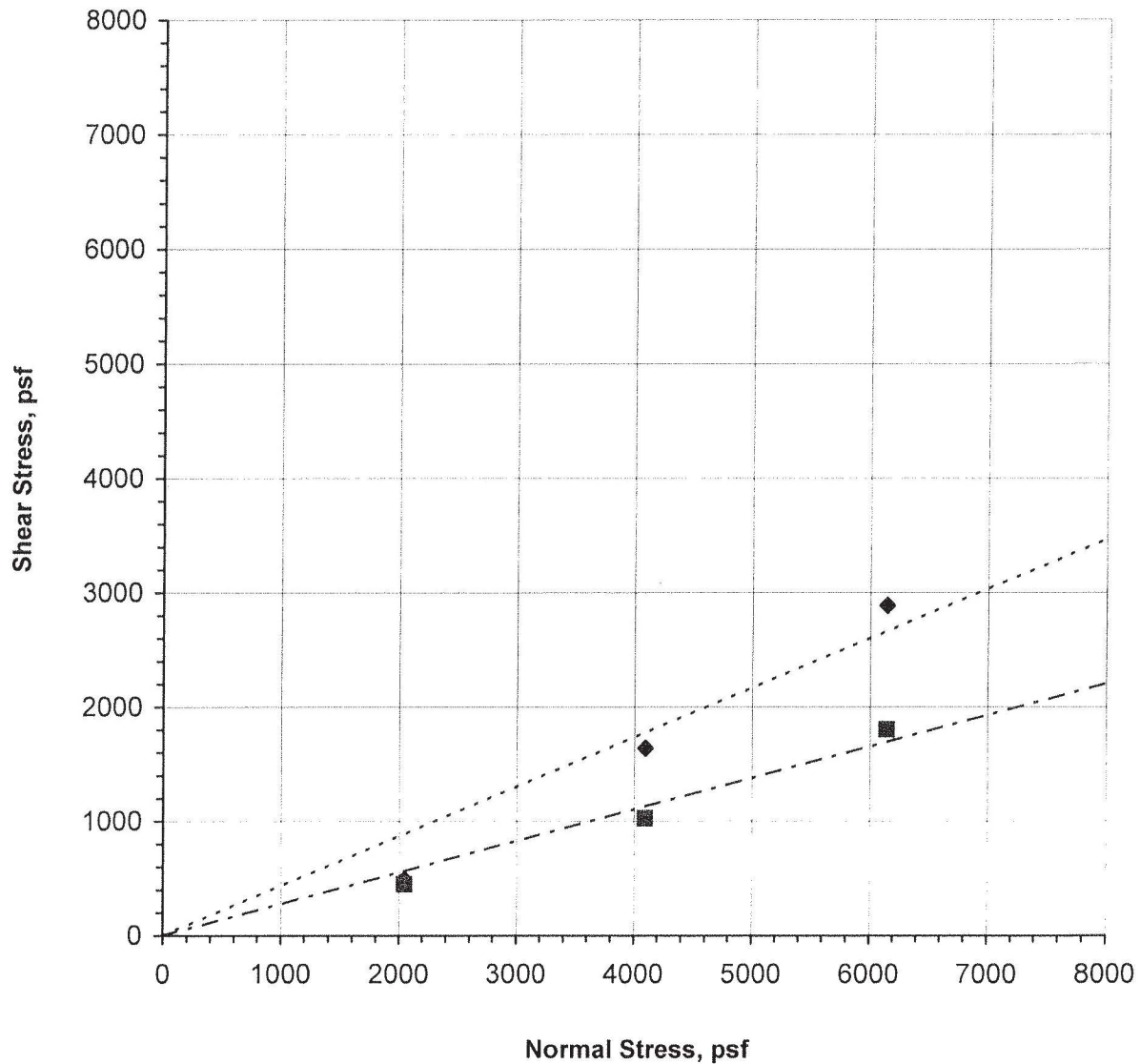
ENGEO
INCORPORATED

HANA JAPAN STEAKHOUSE
Pleasanton, California

Job No.: **5150.100.101**
Sample Number: **B1@13.5**
Date: **4/25/2008**

Figure No.

**Direct Shear Test
ASTM Test Method D3080**



	FRICITION ANGLE	COHESION
Peak	30 degrees	0 psf
Softened	18 degrees	0 psf

Dry Density:	101.3 pcf
Moisture Content:	19 %
USCS Classification:	SC
Shear Type:	CD
Shear Rate:	Slow

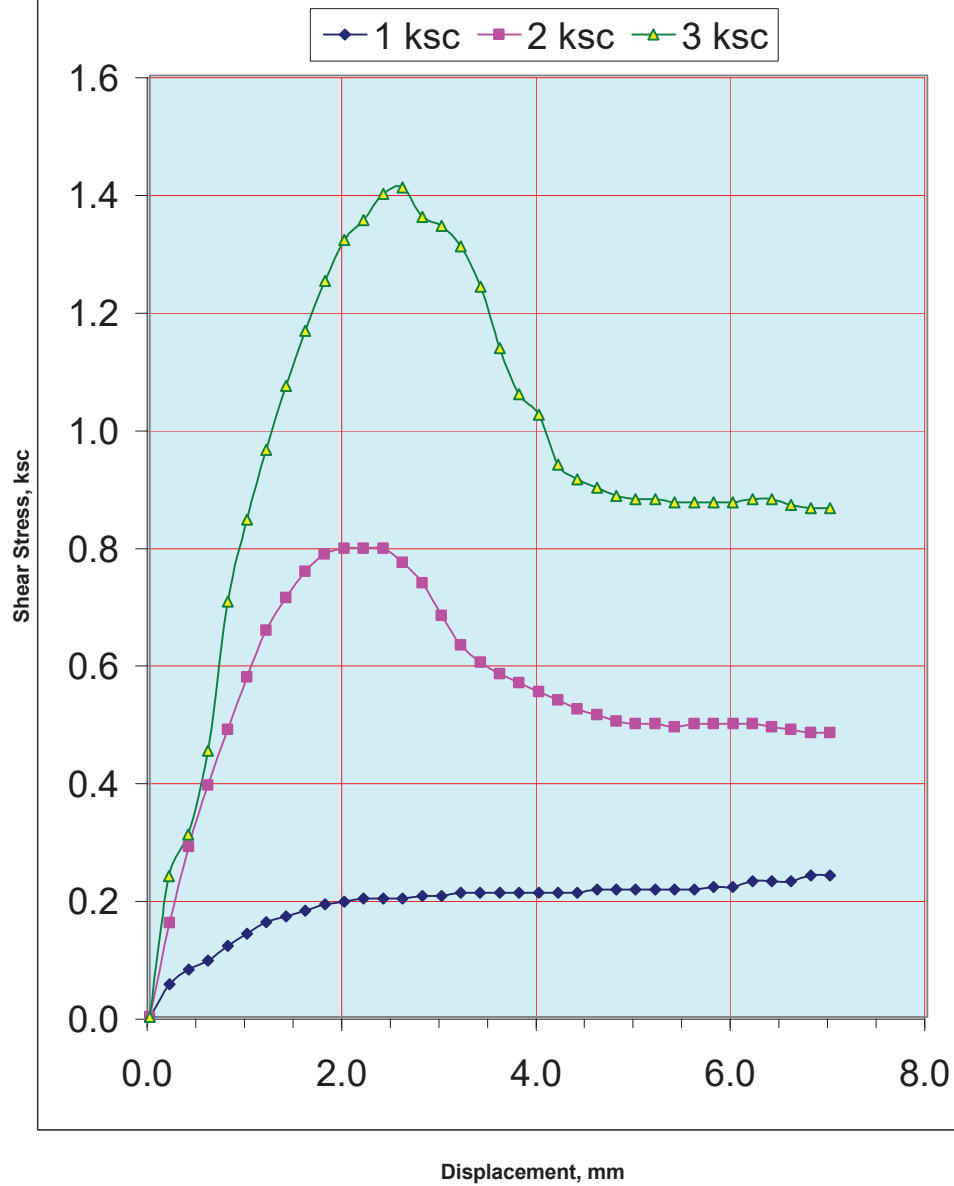
ENGEO
INCORPORATED

HANA JAPAN STEAKHOUSE
Pleasanton, California

Job No.:	5150.100.101
Sample Number:	B4@12
Date:	4/25/2008

Figure
No.

**Direct Shear Test
ASTM Test Method D3080**



6

LOAD, (ksc)	PEAK	SOFTENED
1	0.24 ksc	0.22 ksc
2	0.80 ksc	0.50 ksc
3	1.41 ksc	0.88 ksc

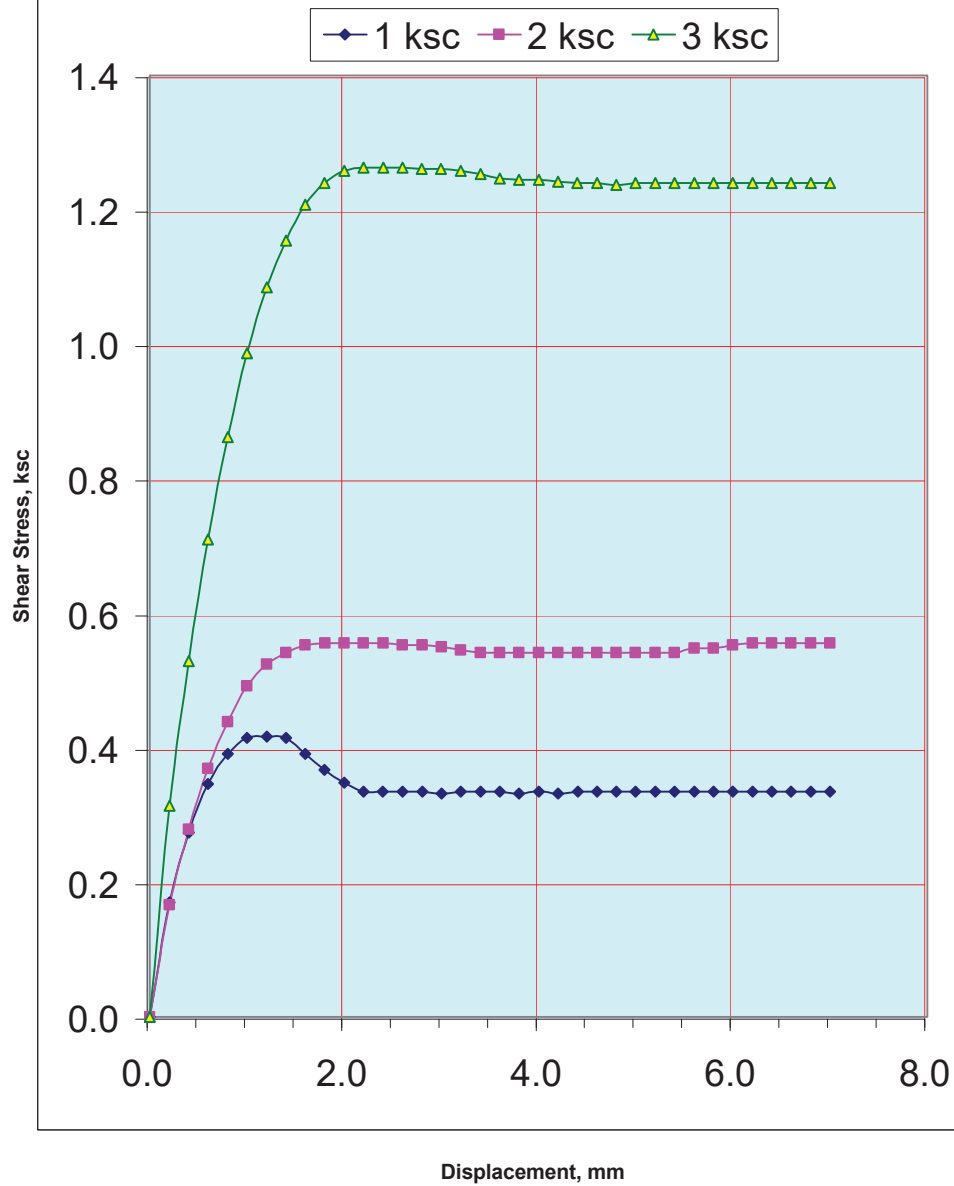
Dry Density:	101.3 pcf
Moisture Content:	19 %
USCS Classification:	SC
Shear Type:	CD
Shear Rate:	Slow

ENGEO
INCORPORATED

HANA JAPAN STEAKHOUSE
Pleasanton, California

Job No.: **5150.100.101**
Sample Number: **B4@12**
Date: **4/25/2008**

**Direct Shear Test
ASTM Test Method D3080**



6	LOAD, (ksc)	PEAK	SOFTENED
	1	0.42 ksc	0.34 ksc
	2	0.56 ksc	0.55 ksc
	3	1.26 ksc	1.24 ksc

Dry Density:	106.3 pcf
Moisture Content:	18.6 %
USCS Classification:	CL
Shear Type:	CD
Shear Rate:	Slow

ENGEO
INCORPORATED

HANA JAPAN STEAKHOUSE
Pleasanton, California

Job No.: **5150.100.101**
Sample Number: **B1@13.5**
Date: **4/25/2008**

EN GEO Incorporated

SULFATE TEST RESULTS

CALTRANS Test Method 417

Project Name: Hana Japan Steakhouse

Project Number: 5150.100.101

Tested By: RC

Date: April 25, 2008

Measurements less than 15 mg/kg are reported as Not Detectable (ND)

Sample Number	Sample Location	Sample Description	Water Soluble Sulfate (SO ₄) in Soil	
			mg/kg	% by Weight
1	B1@18.5	Soil	87	0.009
2	B2@9.5	Soil	117	0.012



STANDARD pH OF SOILS

ASTM D 4972-89

Project name: Hana Japan Steakhouse

Date: 4/25/2008

Project number: 5051.100.101

Tested by: rc

Sample	Description	Location/Source/Date	pH
B1@18.5	Reddish brown sandy silty CLAY to clayey SAND	B1@18.5/4-25-08	7.2
B2@9.5	Olive gray sandy silty CLAY to clayey SAND	B2@9.5/4-25-08	7.6



399 Lindbergh Avenue
Livermore CA 94551
P 925.315.3151
www.bskassociates.com

Sent via email: mstella@cityofpleasantonca.gov

September 6, 2024

BSK Project G23000051

City of Pleasanton
Engineering Department
200 Old Bernal Avenue
Pleasanton, California 94566

ATTN: Mr. Michael Stella, P.E./QSD
Senior Civil Engineer, Land Development

**SUBJECT: Peer Review of Geotechnical and Geologic Hazard Investigations
11991 Dublin Canyon Road (Hana Japan)
Pleasanton, California**

Dear Mr. Stella:

At your request and in accordance with BSK Associates' (BSK) on-call contract with the City of Pleasanton (City) and our proposal¹ dated January 25, 2024, we are pleased to issue our geotechnical and geologic hazards peer review for the proposed project referenced above. The following geotechnically and geologically relevant documents were reviewed for this peer review:

- Report entitled "Fault Exploration, Hana Japan Steakhouse, Pleasanton, California" by ENGEO, Inc. dated March 31, 2008, (Project No. 5150.100.101), which is **hereby referred to as the "Fault Exploration Report,"**
- Report entitled "Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California" by ENGEO, Inc. dated May 2, 2008, (Project No. 5150.100.101), which is **hereby referred to as the "Geotechnical Report,"** and
- Letter entitled "Hana Japan Steakhouse, Pleasanton, Alameda County, California, 2022 CBC Seismic Design Parameters Update" by ENGEO, Inc. dated January 20, 2023 (Latest Revision November 3, 2023) (Project No. 5150.100.101), which is **hereby referred to as the "CBC Update Letter".**

We also referenced the following document during our peer review:

- Project plans entitled "Hana Japan Steak House, 11991 Dublin Canyon Road, Pleasanton, California" by William Wood Architects, dated 4/19/2023, 27 sheets, which is **hereby referred to as the "Project Plans".**
- Letter entitled "Geologic and Geotechnical Peer Review, Yoon/Hana Japan Restaurant, 11991 Dublin

¹ Proposal to Provide Peer Review, 11991 Dublin Canyon Rd (Hana Japan), Pleasanton, California, dated January 25, 2024, BSK Proposal No. P23000051.

Canyon Road, Pleasanton, California” by Cotton, Shires & Associates, Inc, dated May 14, 2008 (Project No. R1120F).

Scope of Services

The objective of our peer review was to provide an independent assessment of the four pertinent documents that the City provided to evaluate whether the ENGEO reports and letter provide adequate and appropriate geotechnical and geological assessment of the site conditions for the proposed project. A certified engineering geologist of BSK also conducted a brief site visit to observe the site conditions. Our review did not include performing any additional subsurface investigation, laboratory testing, or engineering analyses, such as slope stability analysis, as part of our services.

Site Reconnaissance

A California registered Certified Engineering Geologist (CEG) from BSK visited 11991 Dublin Canyon Road in Pleasanton, California (Site) on August 16, 2024 to observe site conditions and look for evidence of pertinent geologic hazards, primarily slope instability and/or faulting. The slope along the southwest edge of the Site has a gradient ranging from about 2H:1V (horizontal to vertical) to 1¼H:1V. The steeper section is part of a small cut slope adjacent to the asphalt-paved driveway. Further upslope and west of the driveway, several leaning trees were observed, however, the existing chain link fence located immediately below the tree line and along this slope appears plumb and in good condition. The existing slope that parallels Dublin Canyon Road ranges from about 5 to 32 feet high with gradients ranging from approximately 1¾H:1V to 1½H:1V. A concrete V-ditch that follows the crest of this slope is filled with soil and vegetation and does not appear to be fully operational. Indications of poor site drainage were also observed along this slope. This includes an erosional gully immediately west and upslope of an underground electrical box and a shallow soil slump approximately 15 feet to the west of the erosional gully.

In general, the Site slopes appear to be experiencing soil creep and minor, shallow soil slumps/erosion likely caused by poor drainage practices. Besides this, no other evidence of slope instability was observed. No evidence of surface faulting or fault-related features were observed at the Site.

Review Comments

The primary geotechnical concerns identified by the Geotechnical Report are the potential for the presence of expansive soils, perched groundwater conditions, potential seismic hazards, including fault rupture and seismically-induced landslide hazards, and excavatability of native rock. In order to address potential fault rupture and seismically induced landslide hazards, the Geotechnical Report recommended a minimum 50-foot building setback zone from the main trace of the Calaveras Fault located along the east edge of the Site and a minimum 25-foot building setback zone from a possible secondary mapped fault trace along the southwest edge of the Site.



During our review of the subject documents, we have identified items that require additional information or clarification. Items requiring additional information or clarification are listed below.

1. CBC Update Letter: The letter characterizes the Site as Site Class D whereas the Geotechnical Report characterizes the Site as Site Class C. Some of the values provided in Table 1 appear to be consistent with a Site Class C, while others are consistent with Site Class D. The discrepancy between Site Class characterizations and their associated seismic design values should be clarified. In addition, consideration should be given to providing an appropriate justification for the Site Class selected.
2. Fault Exploration Report, Conclusions and Recommendations:
 - a. Based on the mapped fault location by Hart (1981) and others, and the lack of existing subsurface information in this area of the Site within the Alquist-Priolo Earthquake Fault Zone (AP Zone) for the Calaveras Fault, we do not consider a setback distance of 25 feet for structures intended for human occupancy to be adequate based on the amount of subsurface uncertainty at the southwest edge of the Site. The consultant should provide reasoning why a smaller setback distance was recommended from a potential fault trace in an area with limited subsurface information.
 - b. Clearer recommendations should be provided for addressing the potential for secondary ground deformations.
 - c. Please define the term “a few inches” when discussing secondary ground deformations. Perhaps provide a range of possible values.
3. Fault Exploration Report, Figure A1 (Trench Logs T-1 through T-3): At approximately Station 0+52 in exploratory trench ET-1, apparent bedding with a strike of N15°W and dip of 65°W was encountered between sandstone, siltstone, and conglomerate. This apparent bedding attitude is not consistent with the apparent bedding documented within the exploratory trenches at the site (majority are striking further west and dipping to the east). Given the strike of the Calaveras Fault at the Site and the inconsistency with local bedding noted in the other exploratory trenches, the consultant should provide a discussion and reasoning as to why this potentially anomalous bedding attitude is not considered potentially fault-related.
4. Geotechnical Report, Section 1 (Introduction): This section of the Geotechnical Report states that finished floor elevations are anticipated to be 385.5 feet above mean sea level (MSL). However, according to Sheets C3 through C5 of the project plans, the finished floor is shown as 382 feet MSL. ENGEO should evaluate whether this is a concern or not given that perched groundwater was encountered as shallow as 379.5 feet MSL according to the Geotechnical Report.
5. Geotechnical Report, Section 3 (Project Description): This section of the Geotechnical Report states that site improvement will include cuts up to 16 feet. However, Sheet C4 of the Project Plans shows greater than 20 feet of cuts along the east edge of the planned building footprint. ENGEO should evaluate whether this is a concern or not.
6. Geotechnical Report, Section 4.3 (Subsurface Conditions): Consideration should be given to presenting the previous boring logs by Hydro-Geo Consulting and Harding Lawson Associates in an Appendix of the Geotechnical Report. The locations of these boring logs are shown on Figure 2 of the Geotechnical Report.



7. Geotechnical Report, Section 4.5 (Laboratory Testing): Corrosivity testing consisted of pH and sulfate testing. It is a standard of practice to include resistivity testing as well. Consideration should be given to conducting resistivity testing after mass grading to help assess corrosion potential of buried metal. Depending on such test results, corrosivity mitigation measures may be needed, such as wrapping utility piping that is sensitive to corrosion.
8. Geotechnical Report, Section 5.1 (Expansive Soil): This section states that thicker colluvium soil was encountered on the eastern portion of the Site. Based on our review of the current explorations at the Site, the western portion of the Site has thicker colluvium soil deposits. ENGEO should evaluate whether this is a concern or not.
9. Geotechnical Report, Section 5.4.1 (Ground Rupture): Please refer to Comment #2.a above regarding the recommended building fault setbacks. Figure 2 may need to be revised accordingly.
10. Geotechnical Report, Section 5.4.3 (2007 CBC Seismic Design Parameters): We understand these parameters have been superseded by the those provided in the CBC Update Letter. However, please refer to Comment #1 above regarding Site Class characterization and seismic design values at the Site.
11. Geotechnical Report, Section 5.5 (Soil Corrosion Potential): Same as Comment #7 above
12. Geotechnical Report, Section 6 (Earthwork Recommendations): General Note: Throughout the Geotechnical Report, when referring to earthwork recommendations, Section 4 is referred to. These references should be updated to refer to the correct subsections in Section 6.
13. Geotechnical Report, Section 6.1 (Expansive Soil Mitigation):
 - a. In the statement that indicates no expansive clay should be placed within the upper 3 feet of building pads, the top of the building pad should be defined such as finished subgrade or bottom of slab.
 - b. This section of the report should state what type of soil material should be used to replace expansive (soil) material that is removed from the upper 3 feet of the building pads. BSK assumes the replacement soil material would consist of a low expansion potential soil having a plasticity index of less than 12 per Section 6.5 of the Geotechnical Report.
14. Geotechnical Report, Section 6.5 (Acceptable Fill): This section states that on-site soil and rock material is suitable as fill material. However, previous sections have indicated that the on-site soil consists of expansive soil and that expansive clay should not be placed within the upper 3 feet of building pads. Consideration should be given to clarifying what on-site soil and rock is acceptable as fill material or clarifying where it can be used. In addition, this section indicated that fill material should have a plasticity index of less than 12. Clarification should be given to whether this refers to on-site soil or imported fill.
15. Geotechnical Report, Section 6.6.2.2 (Structural Areas) Note 2: It appears that the second sentence in this note is incomplete. Please provide clarification if appropriate.
16. Geotechnical Report, Section 6.6.2.2 (Structural Areas): Consideration should be given to eliminating the option to use native clay soils for pipe bedding and backfill where utility trenches cross perimeter building foundations. Consideration should be given to only recommending sand cement slurry for this purpose because it is very difficult to properly compact clayey soils under the pipe haunches.



17. Geotechnical Report, Section 6.8.1 (Surface Drainage) Note 2: Per Section 1804.4 of the 2019 and 2022 CBC, consideration should be given to recommending that the ground adjacent to foundations have minimum gradients of 5% and 2% for a lateral distance of 10 feet for exposed ground and impervious surfaces (such as concrete flatwork), respectively.
18. Geotechnical Report, Section 6.8.2 (Subsurface Drain): The minimum lateral spacing between consecutive parallel rows of subdrain lines/trenches under the building pad should be provided.
19. Geotechnical report, Section 7.1 (Conventional Footings with Slab-on-Grade): This section of the Geotechnical Report should discuss how the footings should be designed in order to mitigate the potential for secondary ground deformations discussed in the Fault Exploration.
20. Geotechnical Report, Section 7.2 (Footing Dimensions and Allowable Bearing Capacity): BSK takes no exception to the minimum footing embedment depths shown in Table 4 of the Geotechnical Report provided that the upper 3 feet of the building pads consist of low expansion potential soil having a plasticity index of less than 12. Otherwise, consideration should be given to extending the minimum footing depth to 24+ inches similar to Section 9.4 (Foundations) of the Geotechnical Report.
21. Geotechnical Report, Section 7.4 (Reinforcement): What is the purpose of recommending that the continuous footings be designed to structurally span (unsupported?) over a clear (lateral?) distance of 5 feet? Perhaps the purpose of this is to address the potential for secondary ground deformations? If so, this should be stated in this section of the Geotechnical Report.
22. Geotechnical Report, Section 7.5 (Foundation Lateral Resistance): Consideration should be given to neglecting the upper 1 foot of subgrade for passive resistance where the subgrade is not protected by asphalt/paving or concrete flatwork.
23. Geotechnical Report, Section 8.1 (Exterior Flatwork): Consideration should be given to recommending placement of a layer of low expansion potential soil having a plasticity index of less than 12 under the exterior flatwork (such layers are typically 6+ inches thick). Previous sections of the Geotechnical Report recommend removing clay soil (expansive soil) from under building pads, but do not mention exterior flatwork. Consideration should also be given to recommending that thickened edges extend at least 2 inches below the low expansion potential soils where adjacent to landscaping in order to reduce the potential for migration of landscaping water into the subgrade for exterior flatwork.
24. Geotechnical Report, Section Slab 8.2.2 (Slab Moisture Vapor Reduction):
 - a. Consideration should be given to specifying the minimum thickness of the vapor retarder membrane. Using a membrane with a minimum thickness of 15 mil is considered current industry standard.
 - b. Consideration should be given to eliminating the last paragraph of this section of the Geotechnical Report. Placing a layer of sand or gravel over the vapor retarder membrane is no longer considered industry standard as it could result in the entrapment of water between the vapor retarder membrane and the slab leading to long-term vapor moisture issues.
25. Geotechnical Report, Section 10.1 (Flexible Pavements): This section of the Geotechnical Report recommends that the upper 18 inches below finished subgrade within flexible pavement areas of the Site have an R-Value of at least 25. Caltrans typically requires that the upper 24 inches of the



pavement subgrade meet a specific R-Value. Therefore, consideration should be given to increasing the depth of the pavement subgrade associated with the minimum recommended R-Value to 24 inches.

26. Geotechnical Report, Section 10.2 (Rigid Pavements): Only 4 inches of aggregate base is recommended below the Portland Cement Concrete (PCC) pavement section. A minimum of 6 inches of aggregate base is typically recommended below PCC pavements. Therefore, consideration should be given to increasing the recommended aggregate base layer thickness.
27. Geotechnical Report, Section 10.4 (Cut-Off Curbs): The cut-off curbs recommended in this section of the Geotechnical report should not be optional. In particular because the surrounding areas are sloped to drain towards this Site. Prolonged exposure of pavement subgrade to excessive moisture can reduce the pavement life by 50 percent or more.
28. Geotechnical Report, Section 12 (Limitations): Reference should be changed to Section 3 for the project description.
29. **General Comment**: **The City should require the project Owner to retain ENGEO (the Geotechnical Engineer-of-Record for this project) to review the geotechnical/earthwork aspects of the project plans and specifications before they are finalized and issued for construction.** The purpose of this review would be to allow ENGEO to confirm that the recommendations presented in the geotechnical report issued for the Site have been properly incorporated into these documents. **The City should also require the project Owner to retain ENGEO during construction of the planned improvements to provide earthwork observation and testing services, including regular visits by a California Certified Engineering Geologist.** We believe this approach is essential to the successful construction of this project.

Limitations

BSK has prepared this peer review letter for the exclusive use of the Client and members of the project design team. Our review has been limited to the review of the document(s) referenced in this letter. The intent of this letter is not to provide engineering recommendations for this project. Our input is provided for the sole purpose of consideration by the City and the design team. We did not perform any additional subsurface exploration, laboratory testing, or engineering analyses as part of our services. Our peer review specifically excludes assessment of environmental characteristics particularly those involving hazardous substances.

Our review did not include checking the referenced documents for conformance with State or local government codes. Our professional opinions and conclusions are made in accordance with generally accepted engineering geologic and geotechnical engineering principles and practices that exist currently in the San Francisco Bay Area. No warranties either express or implied, are made as to the professional advice provided under the terms of BSK's agreement with the Client and included in this report. By performing the peer review services described in this letter, BSK does not assume the role of Geotechnical Engineer-of-Record for the project.



Closure

We trust that this review letter addresses your needs at this time. If you have any questions, please call the undersigned at (925) 315-3151.

Respectfully submitted,
BSK Associates



Michael J. Romero, PG, CEG #2788
Senior Geologist



Carrie Foulk, PE, GE #3016
Geotechnical Group Manager



Project No.
5150.100.001

November 11, 2024

Mr. Dan Yoon
Hana Japan Steak House
7298 San Ramon Road
Dublin, CA 94568

Subject: Hana Japan Steak House
11991 Dublin Canyon Road
Pleasanton, California

RESPONSE TO COMMENTS

Dear Mr. Yoon:

We are pleased to provide the following response to comments for the Hana Japan Steak House project in Pleasanton, California. For our use, we were provided with Reference 4, by BSK Associates (BSK), dated September 6, 2024. For completeness of the record, we restate BSK's comments in *italics*, followed by our responses. Our intent is to provide this response to comments, and upon concurrence by BSK, update References 1, 2, and 3 as appropriate, to document the modifications.

Comment 1 CBC Update Letter:

The letter characterizes the Site as Site Class D whereas the Geotechnical Report characterizes the Site as Site Class C. Some of the values provided in Table 1 appear to be consistent with a Site Class C, while others are consistent with Site Class D. The discrepancy between Site Class characterizations and their associated seismic design values should be clarified. In addition, consideration should be given to providing an appropriate justification for the Site Class selected.

ENGEO Response to Comment 1

Our use of F_a of 1.2 and F_v of 1.7 site coefficient values, which correlate to parameters for Site Classes D and C, respectively, was intentional. The 2008 recommendations were based on the 2007 California Building Code (CBC), which was based on the 2005 version of ASCE 7 "Minimum Design Loads for Buildings and Other Structures" (ASCE 7-05). The current parameters are provided in accordance with the 2022 CBC, which is based on the 2016 version of ASCE 7 (ASCE 7-16). A difference between the two versions of ASCE 7 is the encouragement to use Site Class D with a F_a value not less than 1.2 for sites where "the soil properties are not known in sufficient detail to determine the site class," (Sections 11.4.3 and 11.4.4). Since we did not measure a shear wave velocity and we did not explore to a depth of 100 feet in the exploration that supports Reference 2, we judge that applying a Site Class D but with a F_a value of 1.2 to be in alignment with the 2022 CBC. Note, on online seismic design parameter websites, this combination is referred to as "D Default." We will update Reference 3 to better reflect this information.

Comment 2 Fault Exploration Report, Conclusions and Recommendations:

- a. *Based on the mapped fault location by Hart (1981) and others, and the lack of existing subsurface information in this area of the Site within the Alquist-Priolo Earthquake Fault Zone (AP Zone) for the Calaveras Fault, we do not consider a setback distance of 25 feet for structures intended for human occupancy to be adequate based on the amount of subsurface uncertainty at the southwest edge of the Site. The consultant should provide reasoning why a smaller setback distance was recommended from a potential fault trace in an area with limited subsurface information.*
- b. *Clearer recommendations should be provided for addressing the potential for secondary ground deformations.*
- c. *Please define the term “a few inches” when discussing secondary ground deformations. Perhaps provide a range of possible values.*

ENGEO Response to Comment 2

- a. We discuss the previous fault studies in Reference 1, and this includes a discussion that the possible presence of a secondary trace of the Calaveras Fault is based on geomorphic features and not identified by trenching to the north or south. This fault, if present, would constitute a secondary fault splay that diverges from the main trace and is significantly shorter than the main traces of the fault. As such, we opine that a 25-foot setback is appropriate.
- b. We will add a section as an update to Reference 2 (Reference 2 update). Our recommendation will comprise recommendations to use ties between isolated footings or a mat foundation.
- c. We opine that secondary displacement, if any, would be less than 4 inches of offset.

Comment 3 Fault Exploration Report, Figure A1 (Trench Logs T-1 through T-3):

At approximately Station 0+52 in exploratory trench ET-1, apparent bedding with a strike of N15°W and dip of 65°W was encountered between sandstone, siltstone, and conglomerate. This apparent bedding attitude is not consistent with the apparent bedding documented within the exploratory trenches at the site (majority are striking further west and dipping to the east). Given the strike of the Calaveras Fault at the Site and the inconsistency with local bedding noted in the other exploratory trenches, the consultant should provide a discussion and reasoning as to why this potentially anomalous bedding attitude is not considered potentially fault-related.

ENGEO Response to Comment 3

The strike and dip of the apparent bedding at the station identified by BSK is not inconsistent with the variability of strike and dip in localized areas observed in structurally complex areas such as this, as is reflected in the Regional Geologic Map of this area. Furthermore, a fault trace, if present at this location, would have been encountered by the other overlapping trenches performed at the site.

Comment 4 Geotechnical Report, Section 1 (Introduction):

This section of the Geotechnical Report states that finished floor elevations are anticipated to be 385.5 feet above mean sea level (MSL). However, according to Sheets C3 through C5 of the project plans, the finished floor is shown as 382 feet MSL. ENGEO should evaluate whether this is a concern or not given that perched groundwater was encountered as shallow as 379.5 feet MSL according to the Geotechnical Report.

ENGEO Response to Comment 4

This modification between the project at the time of our 2008 report and the current plan is acknowledged. We will update our project description in the Reference 2 update. With proper implementation of the recommended building subdrain (Section 6.8.2) and slab vapor moisture reduction system (Section 8.2.2), we opine that this change is unlikely to impact performance of the building.

Comment 5 Geotechnical Report, Section 3 (Project Description):

This section of the Geotechnical Report states that site improvement will include cuts up to 16 feet. However, Sheet C4 of the Project Plans shows greater than 20 feet of cuts along the east edge of the planned building footprint. ENGEO should evaluate whether this is a concern or not.

ENGEO Response to Comment 5

We will update this description in the Reference 2 update. This change in cut height will not impact site performance.

Comment 6 Geotechnical Report, Section 4.3 (Subsurface Conditions):

Consideration should be given to presenting the previous boring logs by Hydro-Geo Consulting and Harding Lawson Associates in an Appendix of the Geotechnical Report. The locations of these boring logs are shown on Figure 2 of the Geotechnical Report.

ENGEO Response to Comment 6

Unfortunately, we do not have records of these borings in our files anymore. We are unable to include them.

Comment 7 Geotechnical Report, Section 4.5 (Laboratory Testing):

Corrosivity testing consisted of pH and sulfate testing. It is a standard of practice to include resistivity testing as well. Consideration should be given to conducting resistivity testing after mass grading to help assess corrosion potential of buried metal. Depending on such test results, corrosivity mitigation measures may be needed, such as wrapping utility piping that is sensitive to corrosion.

ENGEO Response to Comment 7

This is a good suggestion, and we will incorporate it in the Reference 2 update.

Comment 8 Geotechnical Report, Section 5.1 (Expansive Soil):

This section states that thicker colluvium soil was encountered on the eastern portion of the Site. Based on our review of the current explorations at the Site, the western portion of the Site has thicker colluvium soil deposits. ENGEO should evaluate whether this is a concern or not.

ENGEO Response to Comment 8

We will clean up this section in the Reference 2 update. The finished floor is at or below the approximate depth of bedrock in the building footprint, and PI testing indicates on-site soil has a PI of 25 or less (moderately plastic), so expansive soil should not be a concern.

Comment 9 Geotechnical Report, Section 5.4.1 (Ground Rupture):

Please refer to Comment #2.a above regarding the recommended building fault setbacks. Figure 2 may need to be revised accordingly.

ENGEO Response to Comment 9

Addressed in response to Comment 2.

Comment 10 Geotechnical Report, Section 5.4.3 (2007 CBC Seismic Design Parameters):

We understand these parameters have been superseded by the those provided in the CBC update Letter. However, please refer to Comment #1 above regarding Site Class characterization and seismic design values at the Site.

ENGEO Response to Comment 10

Response to Comment 1 addresses this.

Comment 11 Geotechnical Report, Section 5.5 (Soil Corrosion Potential):

Same as Comment #7 above

ENGEO Response to Comment 11

Please see Response to Comment 7.

Comment 12 Geotechnical Report, Section 6 (Earthwork Recommendations):

General Note: Throughout the Geotechnical Report, when referring to earthwork recommendations, Section 4 is referred to. These references should be updated to refer to the correct subsections in Section 6.

ENGEO Response to Comment 12

We will add a clarifying section in the Reference 2 update.

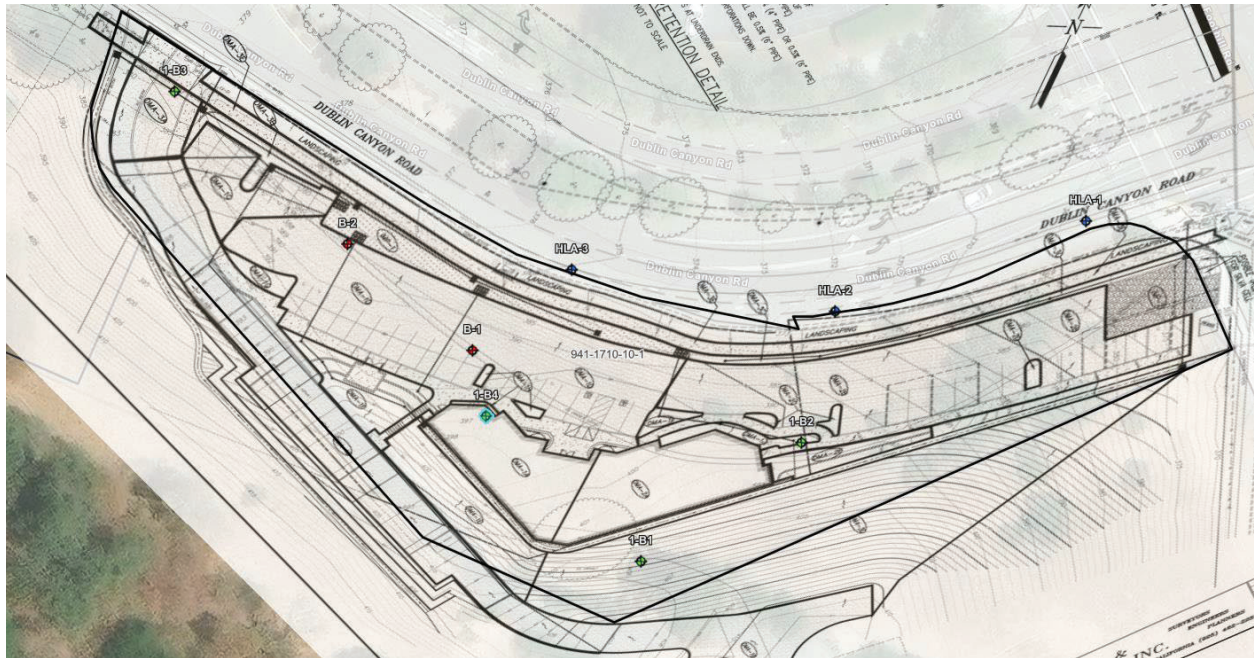
Comment 13 Geotechnical Report, Section 6.1 (Expansive Soil Mitigation):

- a. *In the statement that indicates no expansive clay should be placed within the upper 3 feet of building pads, the top of the building pad should be defined such as finished subgrade or bottom of slab.*
- b. *This section of the report should state what type of soil material should be used to replace expansive (soil) material that is removed from the upper 3 feet of the building pads. BSK assumes the replacement soil material would consist of a low expansion potential soil having a plasticity index of less than 12 per Section 6.5 of the Geotechnical Report.*

ENGEO Response to Comment 13

- a. We will define the term "building pad" in the Reference 2 update.
- b. We will add a comment on recommended fill for building pads. Note, building pads will likely be excavated into sandstone in most areas based on depths to bedrock encountered in explorations in building pads shown in Figure 2 of Reference 2 and elevations shown in Sheets C3 and C4 of "Improvement Plans for Hana Japan" by Alexander & Associates Inc., dated March 19, 2024. We opine that the chance of encountering significant clay in the building pads is low. To be consistent with non-expansive sandstone, we will recommend either processed excavated sandstone or low plasticity import be used to backfill any pockets of clay to be removed from the building pads. Exhibit 1 shows the location of the previous borings, along with the building location and existing and planned grades.

EXHIBIT 1: Site Plan with Previous Borings and Elevations



Comment 14 Geotechnical Report, Section 6.5 (Acceptable Fill):

This section states that on-site soil and rock material is suitable as fill material. However, previous sections have indicated that the on-site soil consists of expansive soil and that expansive clay should not be placed within the upper 3 feet of building pads. Consideration should be given to clarifying what on-site soil and rock is acceptable as fill material or clarifying where it can be used. In addition, this section indicated that fill material should have a plasticity index of less than 12. Clarification should be given to whether this refers to on-site soil or imported fill.

ENGEO Response to Comment 14

We will clarify this in the Reference 2 update. Note that the building pads will be cut pads, so limited if any fill would be placed in the building pads. The clarification will be as per Response to Comment 13.

Comment 15 Geotechnical Report, Section 6.6.2.2 (Structural Areas) Note 2:

It appears that the second sentence in this note is incomplete. Please provide clarification if appropriate.

ENGEO Response to Comment 15

We will address this in the Reference 2 update.

Comment 16 Geotechnical Report, Section 6.6.2.2 (Structural Areas):

Consideration should be given to eliminating the option to use native clay soils for pipe bedding and backfill where utility trenches cross perimeter building foundations. Consideration should be given to only recommending sand cement slurry for this purpose because it is very difficult to properly compact clayey soils under the pipe haunches.

ENGEO Response to Comment 16

We have success with this recommendation; we will leave this portion of the report as is.

Comment 17 Geotechnical Report, Section 6.8.1 (Surface Drainage) Note 2:

Per Section 1804.4 of the 2019 and 2022 CBC, consideration should be given to recommending that the ground adjacent to foundations have minimum gradients of 5% and 2% for a lateral distance of 10 feet for exposed ground and impervious surfaces (such as concrete flatwork), respectively.

ENGEO Response to Comment 17

We will add these recommendations, which are included in the CBC in the Reference 2 update.

Comment 18 Geotechnical Report, Section 6.8.2 (Subsurface Drain):

The minimum lateral spacing between consecutive parallel rows of subdrain lines/trenches under the building pad should be provided.

ENGEO Response to Comment 18

Our recommendation is for a perimeter drain. We would only add interior drains if groundwater were encountered during construction and the drains would be placed as necessary based on conditions encountered. We will add this construction consideration to the Reference 2 update.

Comment 19 Geotechnical report, Section 7.1 (Conventional Footings with Slab-on-Grade):

This section of the Geotechnical Report should discuss how the footings should be designed in order to mitigate the potential for secondary ground deformations discussed in the Fault Exploration.

ENGEO Response to Comment 19

We will add a section on mitigation in the Reference 2 update that will recommend tying isolated footings together or using a mat foundation.

Comment 20 Geotechnical Report, Section 7.2 (Footing Dimensions and Allowable Bearing Capacity):

BSK takes no exception to the minimum footing embedment depths shown in Table 4 of the Geotechnical Report provided that the upper 3 feet of the building pads consist of low expansion potential soil having a plasticity index of less than 12. Otherwise, consideration should be given to extending the minimum footing depth to 24+ inches similar to Section 9.4 (Foundations) of the Geotechnical Report.

ENGEO Response to Comment 20

Noted. Import in building pads is addressed in Response to Comments 13 and 14.

Comment 21 Geotechnical Report, Section 7.4 (Reinforcement):

What is the purpose of recommending that the continuous footings be designed to structurally span (unsupported?) over a clear (lateral?) distance of 5 feet? Perhaps the purpose of this is to address the potential for secondary ground deformations? If so, this should be stated in this section of the Geotechnical Report.

ENGEO Response to Comment 21

This recommendation is to require a minimum amount of reinforcing steel in the footings to allow for spanning localized subgrade irregularities along the footings.

Comment 22 Geotechnical Report, Section 7.5 (Foundation Lateral Resistance):

Consideration should be given to neglecting the upper 1 foot of subgrade for passive resistance where the subgrade is not protected by asphalt/paving or concrete flatwork.

ENGEO Response to Comment 22

Passive resistance exists as long as the soil continues to exist. It is highly unlikely that a foot of erosion could occur on this site adjacent to a footing. As such, we will leave this portion of the report as is.

Comment 23 Geotechnical Report, Section 8.1 (Exterior Flatwork):

Consideration should be given to recommending placement of a layer of low expansion potential soil having a plasticity index of less than 12 under the exterior flatwork (such layers are typically 6+ inches thick). Previous sections of the Geotechnical Report recommend removing clay soil (expansive soil) from under building pads, but do not mention exterior flatwork. Consideration should also be given to recommending that thickened edges extend at least 2 inches below the low expansion potential soils where adjacent to landscaping in order to reduce the potential for migration of landscaping water into the subgrade for exterior flatwork.

ENGEO Response to Comment 23

These considerations are more stringent than the City of Pleasanton standard details for sidewalks. We will defer to the owner if they wish to implement these considerations for their private development; however, we opine that our recommendation of a 5-inch concrete section with No.3 reinforcing bars at 18-inch centers, each way, is at least similarly robust as the City's 4-inch concrete section on a 3-inch-thick aggregate base section, and is appropriate for the moderately expansive clay encountered in our explorations. As such, we will leave this portion of the report as is.

Comment 24 Geotechnical Report, Section Slab 8.2.2 (Slab Moisture Vapor Reduction):

- a. *Consideration should be given to specifying the minimum thickness of the vapor retarder membrane. Using a membrane with a minimum thickness of 15 mil is considered current industry standard.*
- b. *Consideration should be given to eliminating the last paragraph of this section of the Geotechnical Report. Placing a layer of sand or gravel over the vapor retarder membrane is no longer considered industry standard as it could result in the entrapment of water between the vapor retarder membrane and the slab leading to long-term vapor moisture issues.*

ENGEO Response to Comment 24

- a. We respectfully disagree; the reviewer is not correct about the current industry standards. We recommend conformance with an ASTM standard that identifies minimum strength and permeability. These properties can be achieved with different thicknesses of vapor retarder depending on the material it is made of; for instance, Stego makes a 10-mil vapor retarder out of virgin polyolefin that conforms to ASTM E1745 Class A. Alternatively, a 15-mil-thick vapor retarder can have lesser performance if made of recycled materials.
- b. We are not recommending the placement of a sand layer; we are deferring to the structural engineer if they wish to. How the slab is cured is not a geotechnical engineering item, and as such, we will leave this portion of the report as is.

Comment 25 Geotechnical Report, Section 10.1 (Flexible Pavements):

This section of the Geotechnical Report recommends that the upper 18 inches below finished subgrade within flexible pavement areas of the Site have an R-Value of at least 25. Caltrans typically requires that the upper 24 inches of the pavement subgrade meet a specific R-Value. Therefore, consideration should be given to increasing the depth of the pavement subgrade associated with the minimum recommended R-Value to 24 inches.

ENGEO Response to Comment 25

We opine that Caltrans is not clear as to the minimum depth of R-Value in their design guidance, and since this private drive and parking lot are not a part of the Caltrans highway system, we will leave this portion of the report as is.

Comment 26 Geotechnical Report, Section 10.2 (Rigid Pavements):

Only 4 inches of aggregate base is recommended below the Portland Cement Concrete (PCC) pavement section. A minimum of 6 inches of aggregate base is typically recommended below PCC pavements. Therefore, consideration should be given to increasing the recommended aggregate base layer thickness.

ENGEO Response to Comment 26

Following the PCA design guidelines "Thickness Design for Concrete Highway and Street Pavements," PCC pavements can be designed without aggregate base. We do not concur that 6 inches of aggregate base is a minimum requirement for non-highway applications of PCC pavements. As such, we will leave this portion of the report as is.

Comment 27 Geotechnical Report, Section 10.4 (Cut-Off Curbs):

The cut-off curbs recommended in this section of the Geotechnical report should not be optional. In particular because the surrounding areas are sloped to drain towards this Site. Prolonged exposure of pavement subgrade to excessive moisture can reduce the pavement life by 50 percent or more.

ENGEO Response to Comment 27

To our knowledge, the use of cut-off curbs is not a City of Pleasanton standard for city improvements. As such, we opine that the implementation of this recommendation on private improvements should be the owner's option. As such, we will leave this portion of the report as is.

Comment 28 Geotechnical Report, Section 12 (Limitations):

Reference should be changed to Section 3 for the project description.

ENGEO Response to Comment 28

We will address this in the Reference 2 update.

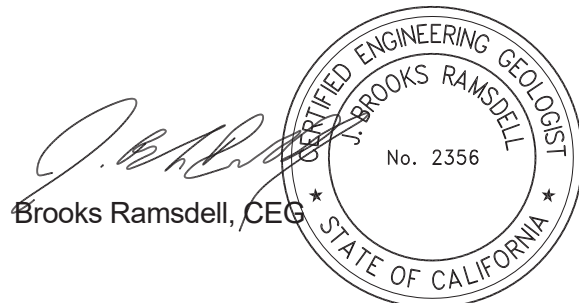
If you have any questions or comments regarding this letter, please contact us and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated


Jeff Fippin, GE

jaf/jbr/dsh/cb



Attachment: Selected References

SELECTED REFERENCES

1. ENGEO. 2008. Fault Exploration, Hana Japan Steakhouse, Pleasanton, California. March 31, 2008. Project No. 5150.100.101.
2. ENGEO. 2008. Geotechnical Report, Hana Japan Steakhouse, Pleasanton, California. May 2, 2008. Project No. 5150.100.101.
3. ENGEO. 2023. 2022 CBC Seismic Design Parameters Update, Hana Japan Steak House. January 23, 2023, Latest Revision November 3, 2023. Project No. 5150.100.001.
4. BSK Associates. 2024. Peer Review of Geotechnical and Geologic Hazard Investigations, 11991 Dublin Canyon Road (Hana Japan), Pleasanton, California. September 6, 2024. BSK Project G23000051.

**FAULT EXPLORATION
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA**

**SUBMITTED
TO
MR. DAN YOON
DUBLIN, CALIFORNIA**

**PREPARED
BY
ENGEO INCORPORATED
PROJECT NO. 5150.100.101
MARCH 31, 2008**

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Project No.
5150.100.101

March 31, 2008

Mr. Dan Yoon
7298 San Ramon Road
Dublin, CA 94568

Subject: Hana Japan Steak House
11991 Dublin Canyon Road
Pleasanton, California

FAULT EXPLORATION

Dear Mr. Yoon:


With your authorization, we have prepared this fault exploration report for the Hana Japan Steak House located in Pleasanton, California.

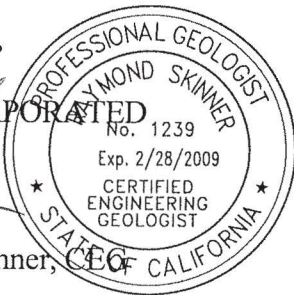
The accompanying report presents the results of our site exploration and our conclusions regarding potential fault hazards. Based on our study, it is our opinion that the currently proposed development is feasible from a geotechnical standpoint provided the recommendations included in this report are incorporated into project planning and design.

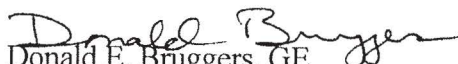
We are pleased to have been of service to you on this project and will be glad to consult further with you and your design team.

Very truly yours,

ENGEO INCORPORATED


Raymond P. Skinner, CEO
rps/jb




Donald E. Bruggers, GE

cc: 4 – Tom Kubo

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INTRODUCTION

Purpose and Scope

The purpose of this exploration has been to characterize geologic conditions at the site and develop conclusions and recommendations regarding potential fault hazards. This exploration included the following scope of services:

- Stereographic aerial photographs of the site were examined to identify geomorphic features related to faulting and other geologic conditions.
- The findings of previous fault explorations at the site and explorations for adjacent sites were reviewed.
- Excavation and logging of three exploratory trenches to assess the presence or absence of active faulting in the area of the proposed structure.
- Preparation of this fault exploration report summarizing our findings, conclusions and recommendations regarding potential fault hazards.

This report was prepared for the exclusive use of you and your design team consultants. In the event that any changes are made in the character, design, or layout of the development, the conclusions and recommendations contained in this report should be reviewed by ENGEO to determine whether modifications to the report are necessary. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without the express written consent of ENGEO Incorporated.

Site Location and Description

The site is located on the west side of Foothill Road and the south side of Dublin Canyon Road in Pleasanton, California, as shown on the Vicinity Map, Figure 1. The property is situated on a north-facing slope that has been partially graded as a cut slope adjacent to Dublin Canyon Road.

The site is currently open space and vegetation consists of open grass land. Existing improvements are limited to an asphalt-paved road that services existing residences upslope of the site and a concrete-lined V-ditch.

Proposed Development

Conceptual development plans indicate that the site will be developed with a restaurant building and associated parking areas. The location of the proposed building and parking areas are shown on the attached Figure 2. The project will include a substantial amount of grading and construction of retaining walls.

Regional Geology

The site is located in the Coast Ranges geomorphic province of California. In this part of the province, bedrock is mapped as Miocene marine sedimentary sandstone by Dibblee (1980) and Graymer (1996). The geologic setting of the site is depicted on the attached Regional Geologic Map, Figure 3.

Regional bedrock structure is mapped by Dibblee (1980) striking to the northwest and dipping at inclinations of about 65 to 75 degrees to the southwest.

Mapped Faulting

The site is located within a State of California Earthquake Fault Zone (CDMG, 1982) for the Calaveras fault, as shown on Figure 4. The State shows two traces of the Calaveras fault crossing the site. The eastern trace is mapped by the State near the toe of the hillside, and roughly parallel to Foothill Road (N25W). The State maps the northern termination of this trace near Dublin Canyon Road. The second fault trace is mapped stepping to the left about 100 feet to the west of the eastern trace.

As shown on Figure 4, Dibblee (1980) Hart (1981), and Crane (1988) map a fault trace roughly parallel to Foothill in a location similar to the mapping by the State of California (1982). Hart (1981) and Crane (1988) also map fault traces trending N45W to N55W as shown on Figure 4. This trend of faulting is roughly parallel to the hillside and to the existing paved driveway that crosses the site.

Previous Studies

Previous fault investigations have been performed at the site by Geotechnical Engineering, Inc. and Hydro-Geo Consultants. The locations of trenches from these previous studies are depicted on the attached Site Plan, Figure 2 and logs from these previous fault explorations are included in Appendix B for reference.

Previous fault exploration on the properties located to the north of the site were performed by Kleinfelder and Associates (1984) and by Terrasearch Inc. (1983). Previous fault exploration has been performed to the south of the site by Burkland and Associates (1973). The locations of these exploratory trenches are depicted on Figure 4. The previous studies were reviewed and pertinent information was used in preparation of this report.

The fault study by Terrasearch, Inc. (1983) was for the hotel building located to the north of the subject site. This study included three exploratory trenches as shown on Figure 4. The trench logs do not include notations that would indicate that a fault was encountered. Based on review of the

trench logs, variable thicknesses of fill were encountered over horizontally stratified soil and alluvium in Trenches T-1, T-2a and T-3. Near the eastern end of Trench T-2a, steeply inclined contacts were logged that may be fault related.

A fault study was performed by Kleinfelder and Associates (1984) on the parcel to the north of the hotel site. Two exploratory trenches were excavated at the approximately locations depicted on Figure 4. No indications of faulting were noted in the trench logs.

The fault study by Burkland, (1973) was performed for the water tank located south of the site. A fault feature was encountered near the east end of Trench 1. This fault features appears to be the main trace of the Calaveras fault. West of the fault, interbedded sandstone, shale and conglomerate were encountered in the trenching and no other indications of fault are noted in the logs.

Four exploratory trenches were excavated at the approximate locations shown on Figure 2 by Geotechnical Engineering, Inc. (1988). Fault features were encountered near the eastern end of Trench 1. These fault features appear to be associated with the main trace of the Calaveras fault. No other fault features were noted in the trench logs.

Subsequent to the trenching by Geotechnical Engineering, Inc., an additional trench was excavated by Hydro-Geo Consultants, Inc. (1990). The approximate location of the trench is shown on Figure 2. The trench log indicates that no features indicative of faulting were encountered.

Aerial Photograph and Geomorphic Interpretation

Aerial photographs taken by Pacific Aerial Surveys in 1957 were examined to evaluate geomorphic features that could be fault related. A prominent vegetation lineation was noted along the toe of the hillside on the western portion of the site where the fault traces have been mapped by Hart (1981) and Crane (1988). This vegetation lineament projects to a topographic bench or notch to the south of

the site. To the south of the site, the hill front forms a linear feature that is parallel to Foothill Road and to the main trace of the Calaveras fault.

Field Exploration

Our field exploration included excavating and logging three exploratory trenches totaling approximately 226 lineal feet. The trenches were excavated using a tractor-mounted backhoe on February 28 and March 1, 2001, and ranged from about 6 to 14 feet deep. The trenches were shored to permit safe entry and were logged by Mr. Raymond Skinner, an Engineering Geologist from ENGEO. The trench locations are shown on Figure 2 and logs of the trenches are presented in Appendix A. The trenches were located by tape measuring distances from the driveway and fences shown on the topographic base map.

On March 1, 2001, Mr. Dale Marcum and Mr. Ted Sayer from Cotton, Shires & Associates (Geotechnical Reviewer for the city of Pleasanton) were on-site and examined conditions exposed in Trenches T-1, T-2, and T-3. The trenches were backfilled on March 2, 2001, with nominal compactive effort. Trenches within the development area that are not completely removed by design cuts will require overexcavation and recompaction during site grading. Conditions encountered in our exploratory trenches are summarized below.

Trench T-1

From Stations 0+00 to 1+20, interbedded siltstone, sandstone, and conglomerate were encountered. Bedrock structure was observed striking N10E to N25W and dipping 60 to 75 degrees to the east. Colluvial soil deposits thickened abruptly at about Station 1+20, and at Station 1+25 were greater than 14 feet thick. Due to groundwater seepage and caving trench walls, the trench was terminated at about Station 1+32. No shearing or other features indicative of faulting were observed.

Trench T-2

Colluvial soils ranging from about 8 to 9 feet thick were encountered over sandstone bedrock. Bedding laminations in the sandstone were oriented N30W 20E. No shearing or other features indicative of faulting were observed.

Trench T-3

From Stations 0+00 to 0+15, colluvium ranging from about 11 to 12 feet thick was encountered, overlying sandstone that was similar in appearance to the sandstone encountered in Trench T-2. Toward the northeast, the thickness of the colluvial deposits decreased and from about Stations 0+45 to 0+52, the colluvium had been removed by a cut slope associated with Dublin Canyon Road. From Stations 0+15 to 0+52, interbedded siltstone and conglomerate were exposed. Bedrock structure was mapped striking N40W to N55W and dipping 20 to 40 degrees to the northeast. No shearing or other features indicative of faulting were observed.

Based on the findings of this exploration in conjunction with the findings of previous exploration at the site, the attached Geologic Cross Sections A-A' and B-B' (Figure 5) were prepared showing our interpretation of geologic conditions at the site. The cross sections also illustrate the overlap of the exploratory trenches relative to the planned building footprint.

CONCLUSIONS AND RECOMMENDATIONS

The site is located within a State of California Earthquake Fault Zone (1982). As discussed above, the main trace of the Calaveras fault has been located near Foothill Road and no indications of faulting were encountered in exploratory trenches on the west side of the main trace. To reduce the potential for adverse impacts to the planned building from fault rupture, recommendations for setbacks are provided below.

We recommend that all structures intended for human occupancy be setback at least 50 feet from the fault features encountered in the Geotechnical Engineering Inc. Trench 1. This setback zone is depicted on Figure 2.

Given the previous fault mapping by Hart (1991) and Crane (1988) and the geomorphic features in the vicinity, it is possible that a fault may exist to the southwest of the trenching that has been completed at the site. To account for the possibility that a fault may exist under the existing driveway or to the southwest of the existing driveway, we recommend that all structures intended for human occupancy be setback at least 25 feet northeast of the existing driveway.

As shown on Figure 2, the currently planned building location appears to be in conformance with the setback recommendations provided in this report. Based on the findings of this report, the potential for fault rupture in the area of the currently proposed structure appears to be low. We should be given the opportunity to review any changes to the building layout. In addition, we recommend that the fault set-back lines be clearly identified on the grading and improvement plans.

During a major seismic event that causes ground rupture on a primary fault zone such as the Calaveras fault zone, secondary ground deformations can occur in the region adjacent to the primary fault zone. The extent and magnitude of this zone of secondary deformation are difficult to estimate but most secondary deformations have been observed to take place on shear zones or other faults that

are located near the primary fault zone. Since no secondary faults or zones of fault related shearing were encountered in our exploratory trenching the likelihood of significant secondary ground deformation from active faulting appears to be low. Secondary ground deformations at the proposed building location are therefore expected to be relatively small, probably less than a few inches, and can be mitigated with appropriate foundation design and construction.

Additional Geotechnical Exploration

A geotechnical exploration should be performed for the project to address geotechnical engineering issues such as site preparation, grading, retaining walls, foundation design, and other improvements.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report is issued with the understanding that it is the responsibility of the owner to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, and designers for the project so that the necessary steps can be taken by the contractors and subcontractors to carry out such recommendations in the field. The conclusions and recommendations contained in this report are solely professional opinions.

The professional staff of ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. There are risks of earth movement and property damages inherent in land development. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our work.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's work. This document must not be subject to unauthorized reuse, that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEO's work. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include on-site construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

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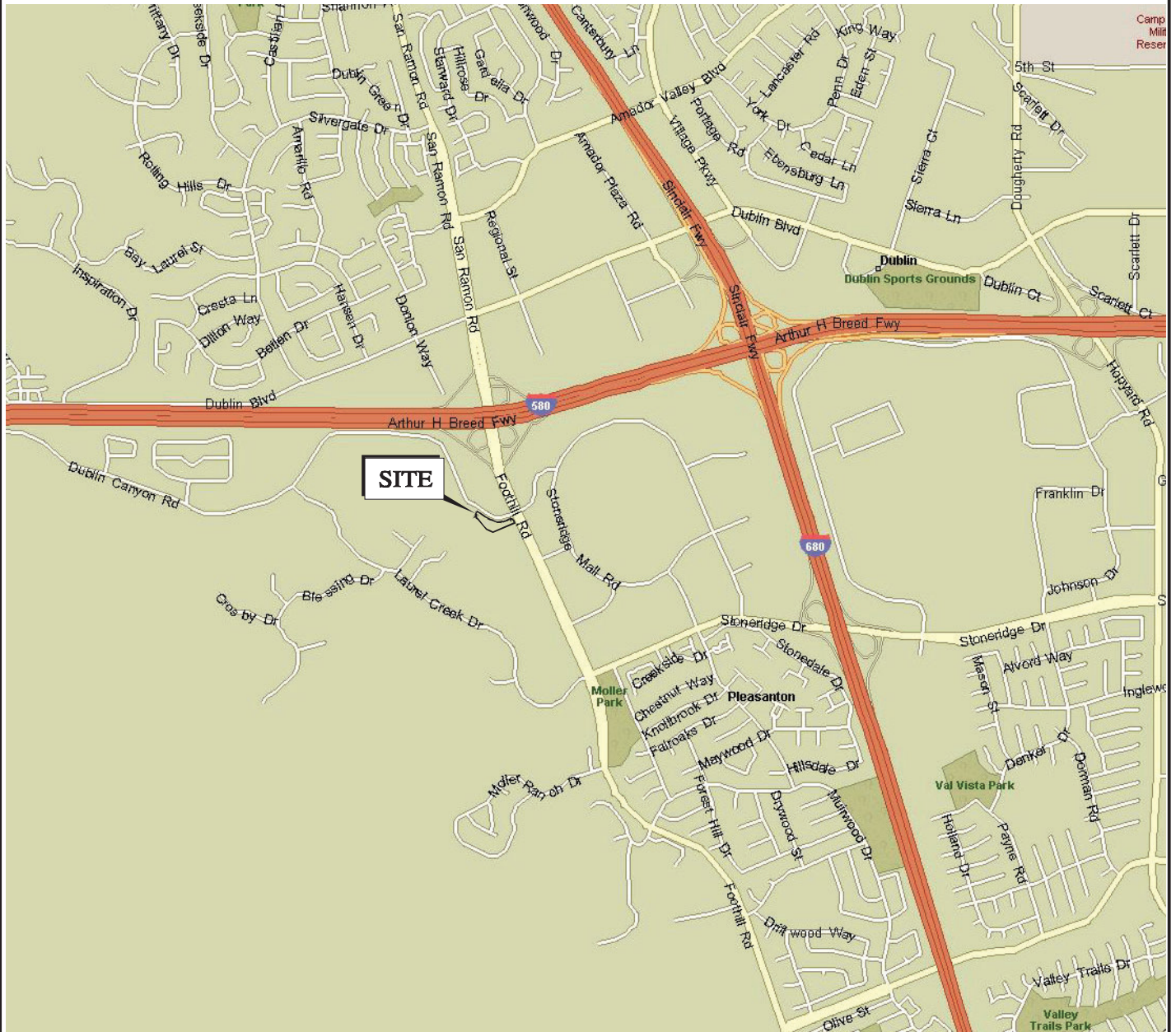
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Figure 4	Compilation of Fault Mapping
Figure 5	Cross Section A-A' and B-B'

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BASE MAP SOURCE: MS STREETS AND TRIPS



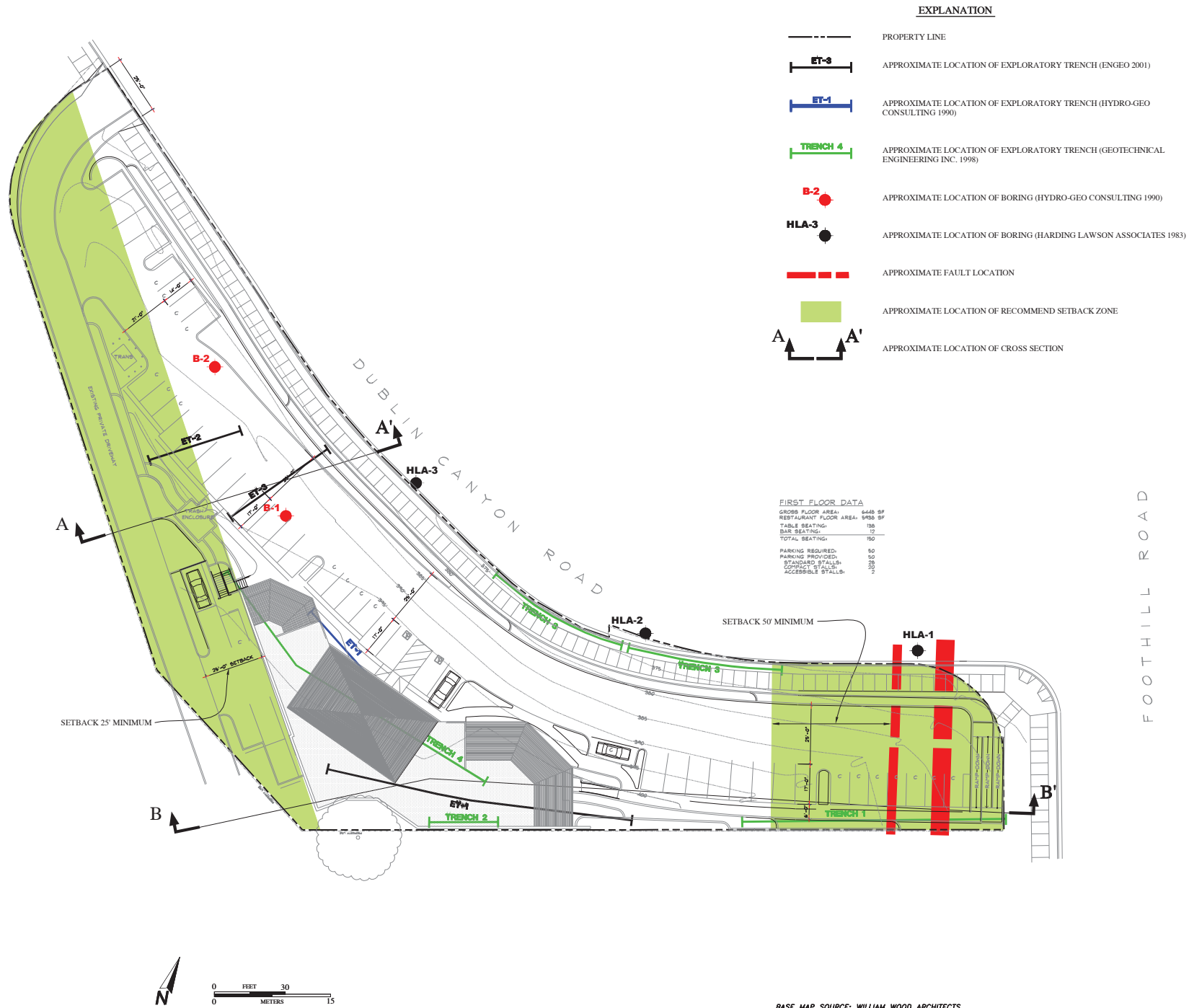
VICINITY MAP
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PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101
DATE: MARCH 2008
DRAWN BY: SRP

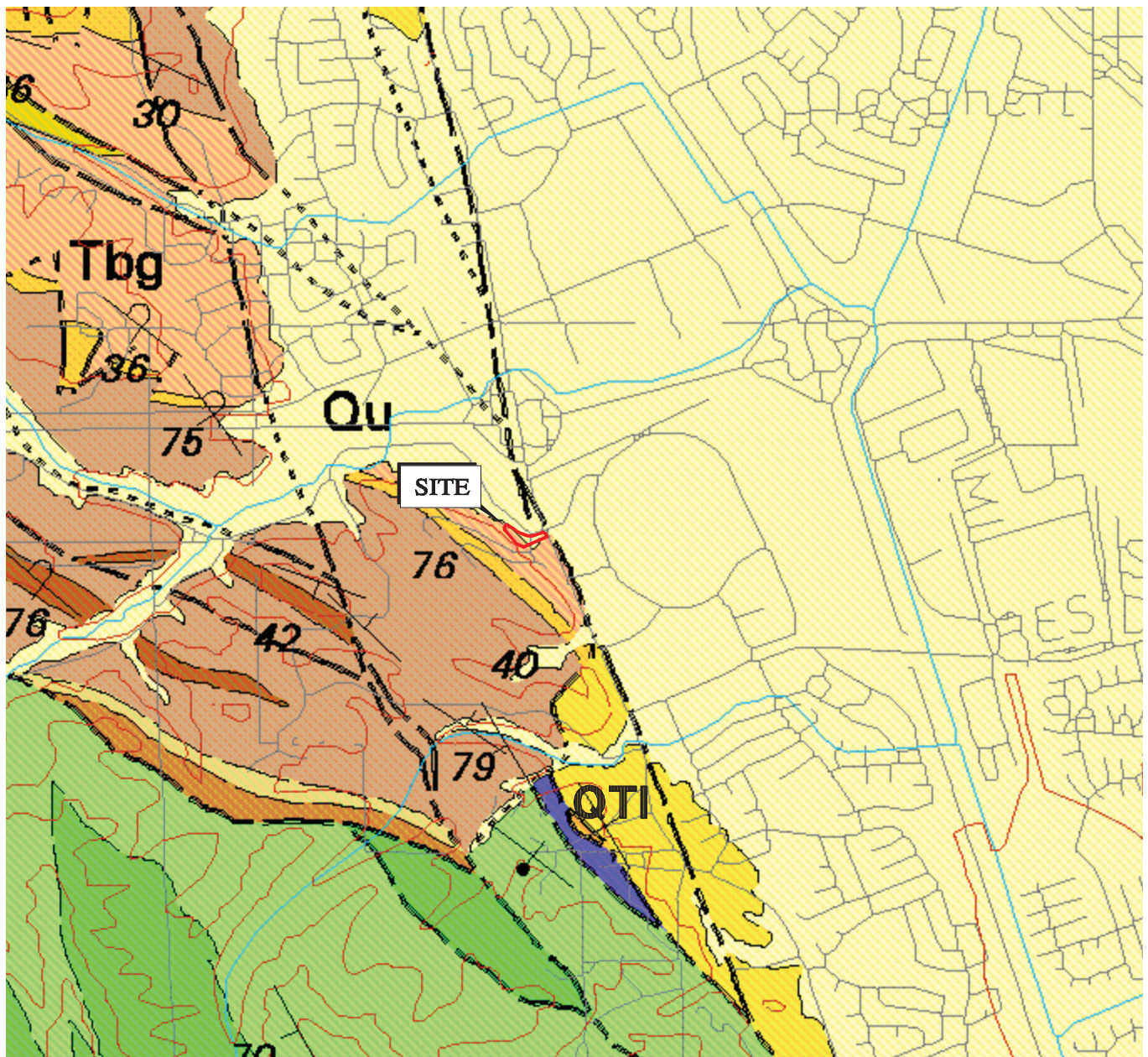
CHECKED BY: JB

FIGURE NO.
1

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EXPLANATION

Qu UNDIVIDED SURFICIAL DEPOSITS

QTI LIVERMORE GRAVELS

Tbg BRIONES FORMATION

--- FAULT-DASHED WHERE APPROXIMATELY LOCATED,
- - - SHORT DASHED WHERE INFERRED, DOTTED WHERE
CONCEALED, QUERIED WHERE LOCATION IS UNCERTAIN
STRIKE-SLIP MOVEMENT

30 / STRIKE AND DIP OF BEDDING



0 FEET 2000
0 METERS 1000

BASE MAP SOURCE: GRAYMER, 1996

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGIONAL GEOLOGIC MAP
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101

DATE: MARCH 2008

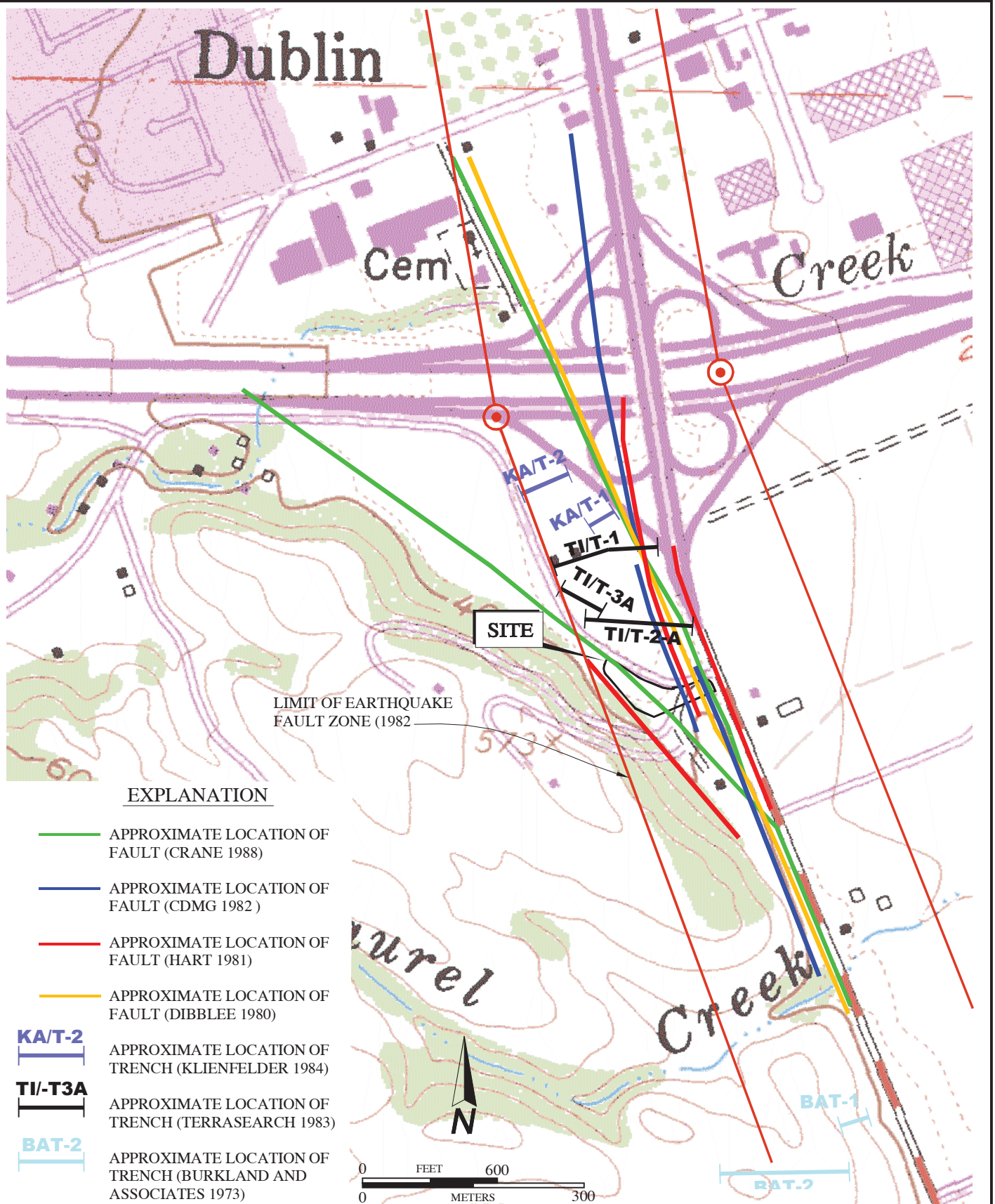
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CHECKED BY: JB

FIGURE NO.

3

ORIGINAL FIGURE PRINTED IN COLOR



BASE MAP SOURCE: U.S.G.S.

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

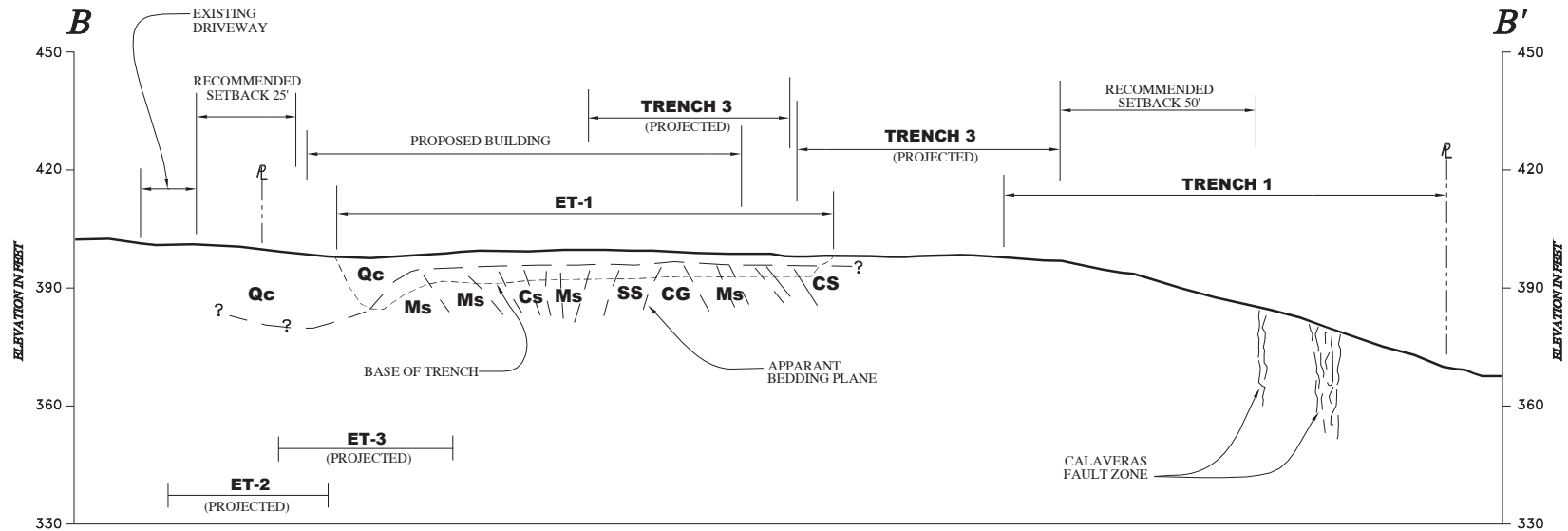
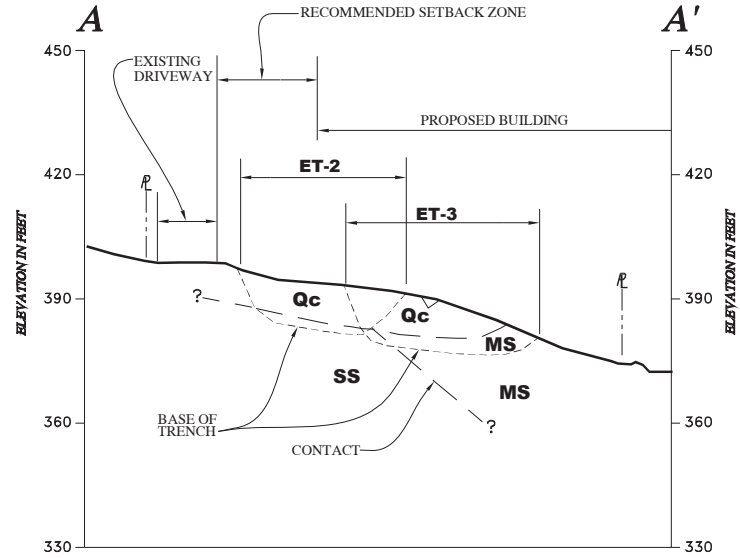
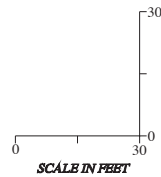
COMPILATION OF FAULT MAPPING
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

PROJECT NO.: 5150.100.101
DATE: MARCH 2008
DRAWN BY: SRP CHECKED BY: JB

FIGURE NO.
4

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EXPLANATION	
Qc	COLLUVIUM
CS	CLAYSTONE
MS	SILTSTONE
SS	SANDSTONE
CG	CONGLOMERATE
ET-3	APPROXIMATE LOCATION OF TRENCH (ENGEO 2001)
TRENCH 3	APPROXIMATE LOCATION OF TRENCH (GEOTECHNICAL ENGINEERING INC. 1998)



CROSS SECTION A-A' AND B-B'
HANA JAPAN STEAK HOUSE
PLEASANTON, CALIFORNIA

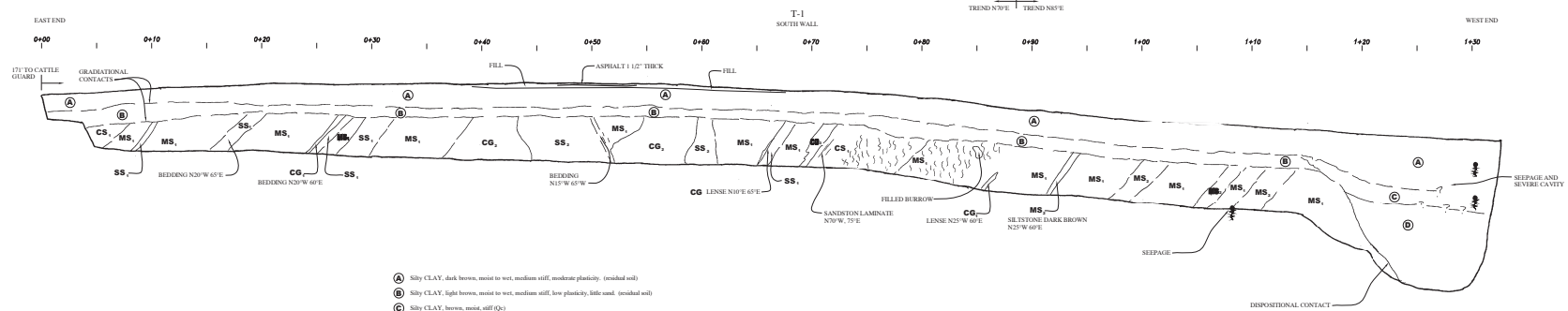
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DATE:	MARCH 2008
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CHECKED BY:	JB

FIGURE NO.
5

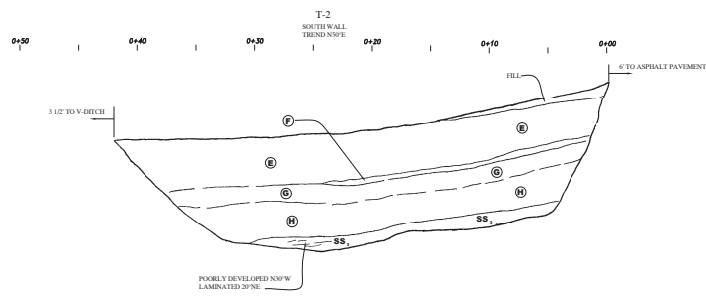
APPENDIX A

(ENGEO, 2001)

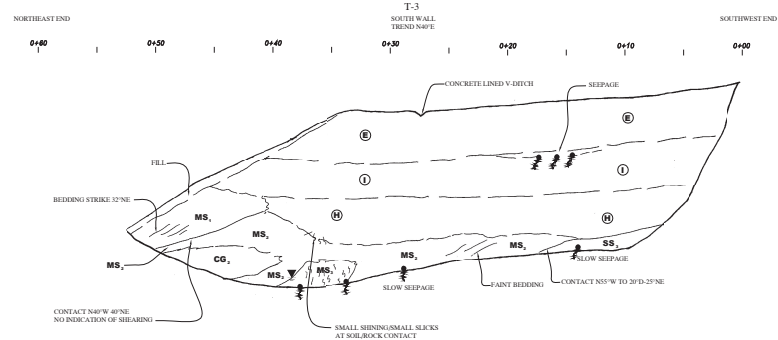
Trench Logs T-1 through T-3



- (A) Silty CLAY, dark brown, moist to wet, medium stiff, moderate plasticity. (modest soil)
- (B) Silty CLAY, light brown, moist to wet, medium stiff, low plasticity, fine sand. (modest soil)
- (C) Silty CLAY, brown, moist, stiff (Qc)
- (D) Sandy CLAY, mottled dark brown and red-brown, moist, very stiff to hard (Qc)
- CS, CLAYSTONE, light gray and red-brown, friable, poorly indurated.
- MS, SILTSTONE, light gray-brown, friable to weak, highly fractured, thickly bedded, light carbonate coating in fractures.
- SS, SANDSTONE, red-brown and light gray, friable to weak, finely bedded, silty.
- CG, CONGLOMERATE, red-brown, friable, gravel up to 1/2 inch diameter, silty clay matrix.
- CG, CONGLOMERATE, gray-brown and red-brown, friable, poorly indurated, gravel up to 1 inch diameter, silty clay matrix, abundant carbonate veins, angular gravel.
- SS, SANDSTONE, light gray, weak, highly fractured, thickly bedded, carbonate filling in fractures, silty.
- MS, SILTSTONE, dark gray-brown, friable, thickly bedded, highly fractured.



- (B) Clayey SILT, dark gray-brown, moist to wet, stiff, low plasticity, porous. (Qc)
- (P) Silty SAND, gray-brown, moist to wet, dense. (Qc)
- (C) Silty CLAY, brown, moist, very stiff, moderate plasticity, trace sand. (Qc)
- (D) Sandy SILT, mottled brown and red-brown, moist, very stiff to hard, slightly cemented. (Qc)
- SS, SANDSTONE, red-brown and light gray, friable, poorly indurated, thickly bedded.



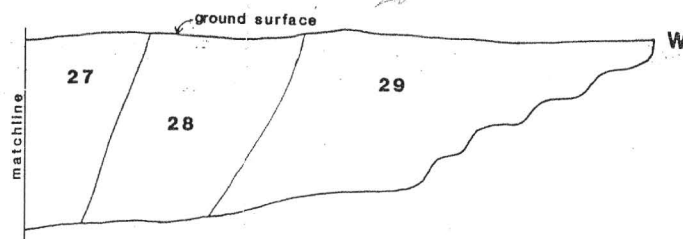
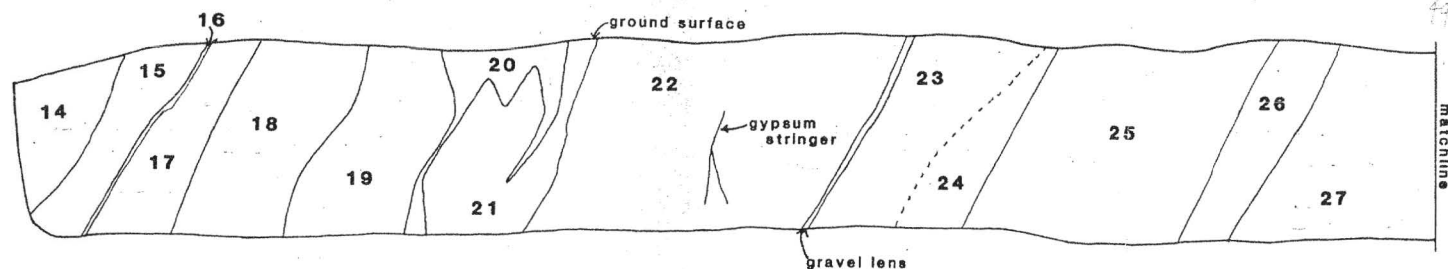
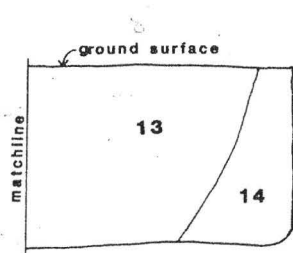
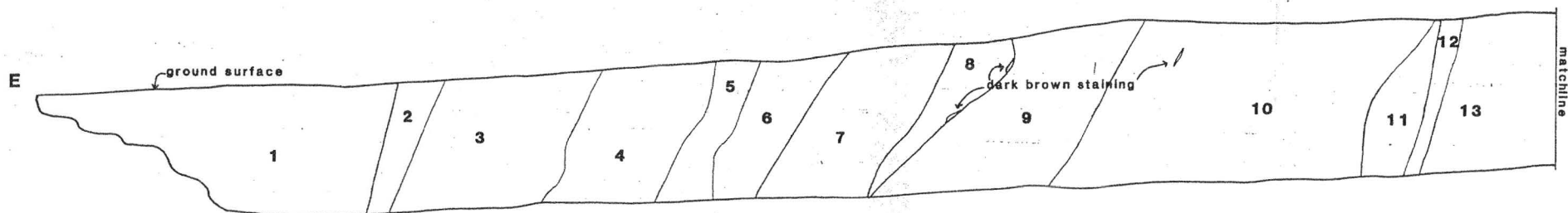
- (B) Clayey SILT, dark gray-brown, moist to wet, stiff, low plasticity, porous. (Qc)
- (D) Sandy SILT, mottled brown and red-brown, moist, very stiff to hard, slightly cemented. (Qc)
- (I) Sandy CLAY, mottled dark brown and red-brown, moist, very stiff to hard.
- MS, SILTSTONE, dark gray-brown, friable to weak, highly fractured, thickly bedded, light carbonate coating in fractures.
- MS, SILTSTONE, dark gray-brown, friable, thickly bedded, highly fractured.
- MS, SILTSTONE, light gray, friable, highly fractured, abundant carbonate nodules, clayey.
- CG, CONGLOMERATE, gray-brown and red-brown, friable, poorly indurated, gravel up to 1 inch diameter, silty clay matrix, abundant carbonate veins, angular gravel.
- SS, SANDSTONE, red-brown and light gray, friable, poorly indurated, thickly bedded.

NOTES: UPPER 3' NOT LOGGED IN DETAIL.

APPENDIX B

(OTHER CONSULTANTS)

Trench Logs



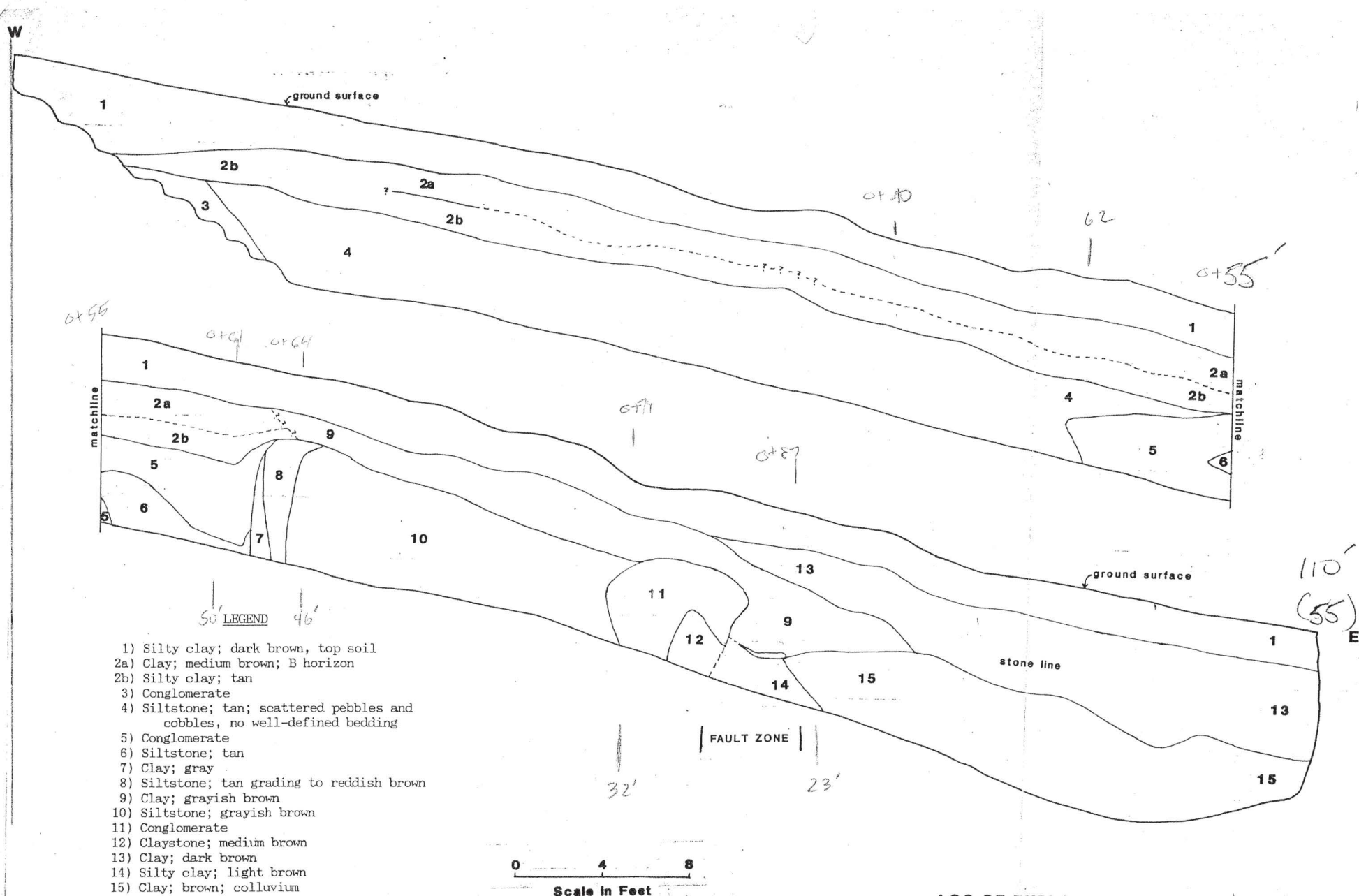
LEGEND

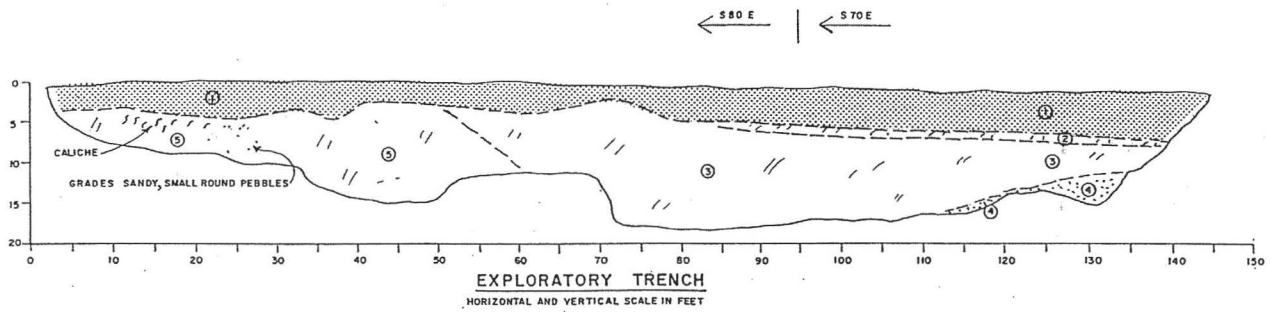
- | | |
|---|---|
| 1) Sandstone; gray, weathered | 16) Claystone; light gray |
| 2) Pebble conglomerate; sandy matrix | 17) Siltstone; gray |
| 3) Pebble conglomerate; silty matrix | 18) Conglomerate; yellowish brown |
| 4) Sandstone; tan, fine grained; grading to siltstone; dark gray | 19) Conglomerate; gray, weathering to reddish brown |
| 5) Sandstone; light brown, fine grained | 20) Siltstone; gray |
| 6) Sandy siltstone; light gray | 21) Conglomerate; gray, weathering to reddish brown |
| 7) Sandy siltstone; light brownish gray | 22) Siltstone; gray, some weathering |
| 8) Pebble conglomerate; some cobbles up to 2" | 23) Siltstone; gray |
| 9) Siltstone; gray, weathering to tan | 24) Conglomerate |
| 10) Pebble conglomerate; tan, more abundant cobbles to west | 25) Siltstone; gray |
| 11) Siltstone, medium gray | 26) Conglomerate; reddish brown, sandy matrix, cobbles up to 1-1/2" |
| 12) Conglomerate; brown | 27) Siltstone; gray |
| 13) Siltstone; grayish tan, moderately fractured with joint spacing of 1" to 3" | 28) Conglomerate; gray weathering to br |
| 14) Claystone; gray | 29) Claystone; gray |
| 15) Sandstone; light brown, fine grained | |

0 4 8
Scale in Feet

LOG OF EXPLORATORY TRENCH 3

PLATE 6





EXPLANATION

1. Dark grayish brown (10YR3/2) sandy to silty clay with occasional rock fragment, roots and organic material; dry
2. Dark gray (10YR3/1) sandy clay, ground caving along contact; wet.
3. Reddish brown (5YR3/2) sandy to silty clay with some sandstone, shale and chert fragments; stiff; wet.
4. Light olive (2.5Y5/6) sandstone; fractured; friable; wet.
5. Olive (5Y5/2) claystone with some round gravel; expansive; damp.

The trench was excavated with a backhoe using a 24-inch bucket, on May 30, 1990.

No free water was encountered in the trench.

PLATE

Appendix D

GHG Emission Compliance Checklist

GHG EMISSION COMPLIANCE CHECKLIST

The City of Pleasanton has adopted the Climate Action Plan (CAP) 2.0 that establishes 2030 and 2045 greenhouse gas (GHG) emissions targets. The CAP 2.0 includes specific strategies and actions to reduce emissions to 4.11 MTCO₂e per capita by 2030 (70 percent below 1990 levels) and provide substantial progress towards carbon neutrality by 2045. This is consistent with and exceeds California's goal of reducing GHG emissions to 40 percent below 1990 levels (per Senate Bill 32) by 2030 and neutrality (per Executive Order B-55-18) by 2045.

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15183.5, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if it complies a previously adopted plan. The CAP 2.0 is considered a "qualified" GHG reduction strategy and provides CEQA streamlining for future development that are subject to discretionary review and trigger environmental review pursuant to the CEQA. The purpose of the following GHG Emission Compliance Checklist (herein referred to as "Checklist") is to assist with determining CAP 2.0 consistency for a future development project or plan (herein referred to as the "Project").

The CAP 2.0 includes actions that are both mandatory and voluntary actions, both contained in this Checklist. While mandatory actions that are required, voluntary actions are encouraged. Funding may be available for certain efforts as noted in the Checklist. Projects that are consistent with the CAP 2.0, as determined using this Checklist, may rely on the programmatic CAP 2.0 Initial Study-Negative Declaration GHG emissions analysis for the respective project- and cumulative-level GHG emissions impacts analysis. Inconsistency with any of the applicable mandatory actions in this Checklist would make a Project inconsistent with the overall Checklist. **Projects that are identified as inconsistent with the CAP 2.0 through the use of this Checklist must prepare a project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions compared to the [City's approved GHG thresholds](#). Said projects must still incorporate CAP 2.0 actions in this Checklist to the extent feasible.**

This Checklist may be periodically updated to incorporate new GHG reduction techniques, to comply with later amendments to the CAP, or to reflect changes in other sustainability-focused local, State, or federal laws, regulations, ordinances, and programs.

Checklist Applicability

The Checklist includes a column with the applicable regulation, project type, requirements, Project compliance, and explanation. The **Project Type** column of the Checklist indicates regulation applicability based on project type. Project types include:

- Renovations and additions
- New construction (which includes any new buildings irrespective of existing development on a lot as well as any development on a vacant lot)
- A development plan/planning document

- Covered Projects which includes:
 1. Construction of any City-Sponsored project
 2. Construction of any new commercial/industrial building
 3. Construction of any new residential unit(s) or mixed-use project
 4. Renovation/Additions of any commercial or City-sponsored project that adds 20,000 gross square-feet or greater (but not including a renovation to a project that consists solely of interior improvements to existing buildings)
 5. Additions to any residential project that are 2,000 gross square-feet or greater
 6. Addition to any residential project of any size if it has been less than five years from the date of certificate of occupancy for original structure.
- All projects (which includes all the above listed project types)

It is possible for a project to fit multiple project types and all applicable regulations must be met.

All Project applicants should complete the **Compliance** column for each regulation (i.e., indicate yes, no, or N/A). The **Explanation** column should note the plan sheets where the action is shown in plan set, if applicable. It should also provide an explanation if it will not be achieved.

Submittal Requirements

This Checklist is required to accompany discretionary applications submittals as detailed in submittal requirement handouts. The Checklist is designed to assist the applicant in identifying the minimum CAP 2.0 and other applicable climate-focused requirements specific to a Project. However, it may be necessary to supplement the completed Checklist with supporting materials, calculations, or certifications to demonstrate compliance with CAP 2.0 and other requirements. If the minimum CAP 2.0 and other applicable climate-focused requirements are not already clearly committed to as part of the Project, the mandatory actions will be included as respective project conditions of approval.

Please note, cumulative GHG emissions associated with construction from a land use development project are generally orders of magnitude lower than the operational emissions from a project because construction emissions are generally short in duration compared to the project's overall lifetime, and thus can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail large quantities of cut and fill that could result in construction related GHG emissions that may be considered significant. Thus, the City retains the discretion on a project-by-project basis to consider whether a project's construction-related GHG emissions could be cumulatively considerable and require more detailed quantitative CEQA GHG emissions analysis and respective mitigation. The City also retains discretion to require additional analysis of GHG emissions on a case-by-case basis and require additional climate mitigations.

Regulation	Project Type	Requirements	Compliance	Required Explanation
Land Use				
Green Building Standards				
CALGreen Code	New Construction and Additions	3. Green Building. Will the Project comply with the latest version of mandatory measures in the CALGreen Code (non-residential and residential)? The CALGreen checklist is required at Building Permit submittal.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	The project will comply with the non-residential CALGreen checklist
Municipal Code	Covered Projects ¹	4. Green Building. Will the Project comply with the Pleasanton Municipal Code Chapter 17.50 including achieving LEED certification or achieving a “green home” rating with Build It Green as detailed in 17.50?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Not a residential project
CAP 2.0 (P11)	New Construction	5. LEED Neighborhood. If the project is neighborhood scale, does it incorporate elements of LEED ND ? Provide the LEED ND checklist indicating which elements of Smart Location & Linkage, Neighborhood Pattern & Design, Green Infrastructure & Building, and Innovation & Design Process are achieved.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Project is not neighborhood scale.

¹ Covered Projects include: 1) Construction of any City-Sponsored project; 2) Construction of any new commercial/industrial building; 3) Construction of any new residential unit(s) or mixed use project; 4) Renovation/Additions of any commercial or City-sponsored project that adds 20,000 gross square-feet or greater (but not including a renovation to a project that consists solely of interior improvements to existing buildings); 5) Additions to any residential project that is 2,000 gross square-feet or greater; and 6) Addition to any residential project of any size, if it has been less than five years from the date of certificate of occupancy for original structure.

Energy

Energy Efficiency

CAP 2.0 (S2)	Additions and Renovations	6. Energy Efficiency Upgrades. Will the Project install energy efficient window upgrades, LED lighting, and other efficiency upgrades. Rebates and financing may be available. <i>Voluntary</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Energy efficient window upgrades and LED lighting will be used on this project.
-----------------	---------------------------	--	--	---

Renewable Energy

CAP 2.0 (P4)	Covered Projects	7. Solar. Will the Project include installation of a solar PV system at time of new construction that meets the power needs of the new building? Indicate the plan sheet(s) where solar information is provided.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Solar information will be provided in the electrical drawings for building permit
CAP 2.0 (P4)	Covered Projects	8. Energy Storage System. When solar is being installed, will the Project include a battery storage back-up system? Indicate the plan sheet(s) where battery storage information is provided.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Not required
CAP 2.0 (P4)	All Projects	9. Water Heater. If a new water heater is being installed, will the Project include installation of a solar water heater? <i>Voluntary</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Not required

Building Electrification

CALGreen Code	New Construction	10. All-Electric. Will the Project be all-electric (i.e., does not include any new gas infrastructure), including lighting, heating, cooking, and water heating? ²	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	gas cooking appliances required for this restaurant
CAP 2.0 (P2)	Additions and Renovations	11. All-Electric Existing Buildings. Will the Project upgrade existing residential and commercial buildings to be all-electric (e.g., air source heat pumps, heat pump water heaters, electric dryers, and induction stoves)? Rebates may be available. <i>Voluntary</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	N/A Not required.
CAP 2.0 (S1)	All Projects	12. Refrigerant Management. If new heating, ventilation, and air conditioning (HVAC) systems are being installed, does the project incorporate the lowest global warming potential (GWP) refrigerants for HVAC systems? <i>Voluntary</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Not required.

² The Building Code includes limited exceptions including to commercial kitchens with a business-related need to cook with combustion equipment; industrial processes for labs, research, or educational related needs; and/or if the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards.

Vehicle Electrification

CALGreen Code	New Construction	<p>13. EV Charging. Will the Project install electric vehicle charging infrastructure as follows:</p> <ul style="list-style-type: none"> <u>SFR</u>: Two Level 2 EV Ready³ spaces per unit <u>ADU</u>: One Level 1 EV Ready space per unit (where parking is provided). <u>Multi-family</u>: 15-percent of dwelling units shall provide one Level 2 EVCS⁴ space, and 85-percent of dwelling units shall provide one Level 2 EV Ready⁵. <u>Offices</u>: 20-percent of required parking spaces shall be Level 2 EVCS, and 30-percent shall be Level 2 EV Capable⁶. <u>Hotels</u>: 5-percent of required parking spaces shall be Level 2 EVCS, 25-percent shall be Level 2 EV Ready, and 10-percent shall be Level 2 Capable. <u>All other non-residential</u>: 10-percent of parking spaces shall be Level 2 EVCS, and 10-percent shall be Level 2 EV Capable. <p>Indicate the plan sheet(s) where EV Charging information is provided.</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>10 percent of parking will be EV charging stations.</p> <hr/> <p>See sheet A1 for EV charging parking spaces</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
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³ EV Ready includes: Installation of raceway, adequate panel capacity, dedicated branch circuit, circuit breaker, and electrical components (e.g., 240-volt outlet). Level 2 must be capable of 8.3 kVa (208/240 volt, 40 amp), Low Level 2 must be capable of 4.1 kVa (208/240 volt, 20 amp), and Level 1 must a minimum of 2.2 kVa (110/120 volt, 20-amp).

⁴ EVCS includes: Installation of raceway, adequate panel capacity, dedicated branch circuit, circuit breaker, and electrical components (e.g., 240-volt outlet). and vehicle supply equipment.

⁵ Five Level 2 and/or Level 1 spaces can be substituted for each direct current fast charging (DCFC) station provided (i.e., a DCFC is a minimum of 48 kVA- 480 volt, 100-amp).

⁶ EV Capable includes: Conduit installed and adequate panel capacity installed to accommodate future installation of a dedicated circuit and charging station.

Transportation

Alternative Transportation

CAP 2.0 (P10) and Municipal Code (17.26)	New Construction (Commercial and Multifamily)	<p>14. Transit Connections. Will the project provide transit incentives as follows:</p> <ul style="list-style-type: none"> <u>Multi-family</u>: Comply with Municipal Code Chapter 17.26. <i>Mandatory</i> <u>Non-residential</u>: If not proximate to transit stops, connect to transit via shuttle service, bike share, or other provided amenity to increase transit ridership. <i>Voluntary</i> 	<p>Yes <input type="checkbox"/></p> <p>No <input checked="" type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>The proposed project is located in close proximity to existing transit stops.</p>
Municipal Code (18.88)	All Projects (Commercial and Multi- family)	<p>15. Alternative Vehicle Parking. Will the Project comply with Pleasanton Municipal Code Chapter 18.88 related to parking spaces designed to accommodate carpool, vanpool, and car-share vehicles? Indicate the plan sheet(s) where alternative vehicle parking information is provided.</p>	<p>Yes <input type="checkbox"/></p> <p>No <input checked="" type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>no alternative vehicle parking is proposed</p>

Active Transportation

CAP 2.0 (P8)	New Construction (Commercial and Multi- family)	<p>18. Bicycle Amenities. Will the Project include bicycle parking and/or protected bicycle storage as follows:</p> <ul style="list-style-type: none"> <u>Multi-family</u>: One short term bicycle parking space for every 3 units (minimum of two spaces); and one long-term space (e.g., lockers, shared/locked cages, etc.) for every 3 units. <u>Non-residential</u>: Two short term bicycle parking spaces (e.g., bicycle racks) for each 9,000 square-feet of gross floor area (minimum of two spaces); and one long-term bicycle parking space (i.e., bicycle locker, enclosed storage, or racks within building) for each 9,000 square-feet of gross floor area 	<p>Yes <input type="checkbox"/></p> <p>No <input checked="" type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>No bicycle parking is proposed.</p>
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		<p>Additionally, for <u>offices</u>- will the Project include showers and changing areas as follows:</p> <ul style="list-style-type: none"> One shower facility for projects between 10,000 and 24,999 square-feet, two shower facilities for projects between 25,000 and 124,999, and four shower facilities for projects over 125,000 square feet. One dressing area per shower facility <p>Indicate the plan sheet(s) where bicycle amenities information is provided.</p>	N/A	
Waste				
<i>Materials Recycling & Composting</i>				
Municipal Code (9.21)	New Construction and Additions/ Alterations ⁷	<p>19. Landfill Diversion. Will the Project comply with Municipal Code Chapter 9.21 and achieve recycling or reuse of at least 90 percent of Portland cement concrete and asphalt concrete and at least 75 percent of the remaining construction and demolition debris, or the percentage established by the compliance official for a project pursuant to an exemption, of the total construction and demolition debris?</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>Waste management compliance will be applied to this project</p>
Pleasanton CAP 2.0 (Strategy MC-1) and Municipal Code (9.20)	New Construction	<p>20. Waste Requirements. Will the Project provide adequate recycling, compost, and landfill containers to meet SB 1383 and comply with Municipal Code Chapter 9.20? Indicate the plan sheet(s) where waste container information is provided.</p>	<p>Yes <input checked="" type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p>	<p>Waste container information will be provided in the construction drawings that will be submitted for permit.</p>

⁷ All residential additions that create an increase in conditioned area, non-residential additions greater than 1,000 square-feet, demolition with a total value of \$25,000 or greater, and/or non-residential alternations/renovations with a total value of \$125,000 or greater.

Green Materials

CAP 2.0 (S6)	All Projects	21. Embodied Carbon. Will the Project include low carbon building materials (e.g., recycled concrete and metals) as part of construction? <i>Voluntary</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	_____ Not required. _____ _____ _____
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Water

Water Use Efficiency

CAP 2.0 (P15)	All Projects	22. Water Conservation. Will the Project incorporate water-efficiency measures, including efficient water fixtures and climate adapted plantings? Rebates may be available. <i>Voluntary</i>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Water efficient plumbing fixtures will be used in this project. _____ _____
Municipal Code (17.14) and State WELO	All Projects	23. Water Efficient Landscape. If the project includes new landscape areas of greater than 500 square-feet or rehabilitated landscape areas of greater than 2,500 square-feet, will the Project comply with Municipal Code Chapter 17.14 and implement the City's Water Efficient Landscape Ordinance (WELO)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	All WELO documentation will be provided with Construction drawings submitted for permit. _____

Water Recycling

CAP 2.0 (S8)	All Projects	24. Green Stormwater Infrastructure. Will the Project incorporate green roofs, rainwater catchment, permeable pavement, bioretention areas, and/or other green stormwater infrastructure? <i>Voluntary</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	_____ Not required. _____ _____ _____
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SF Bay Region Requirements	All Projects	25. Stormwater Management. For projects creating and/or replacing more than 2,500 square-feet of impervious surface, will the Project incorporate on-site stormwater management consistent with the NPDES permit and City stormwater management requirements?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	See civil drawings for stormwater management.
Overall Sustainability				
Urban Forest				
CAP 2.0 (P13)	All Projects	26. Tree Planting. If planting is proposed, will the Project include climate-adapted plantings? If trees are removed, will the Project include replacement climate-adapted trees? Indicate the plan sheet(s) where tree information is provided.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	See landscape plans for new climate-adapted trees.
Wildfire Prevention				
CAP 2.0 (S9)	All Projects	27. Wildfire Prevention and Preparation. Will the Project incorporate a wildfire-defensible space , fire hardening retrofits , and commit to fire prevention through site maintenance (e.g., regularly cleaning out rain gutters) and preparation? <i>Voluntary</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Not required.