CITY OF PACIFIC GROVE

1398 PICO AVENUE RESIDENTIAL PROJECT

Public Review Draft INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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AUGUST 2026

ADOPTED BY CITY OF PACIFIC GROVE PLANNING COMMISSION ON: _____

TABLE OF CONTENTS

Initial Study / Environmental Checklist Form 1

Environmental Factors Potentially Affected: 10

Determination: 10

1. Aesthetics 13
2. Agriculture and Forestry Resources 17
3. Air Quality 19
4. Biological Resources 21
5. Cultural Resources 30
6. Energy 34
7. Geology and Soils 35
8. Greenhouse Gas Emissions 39
9. Hazards and Hazardous Materials 41
10. Hydrology and Water Quality 44
11. Land Use and Planning 48
12. Mineral Resources 49
13. Noise 50
14. Population and Housing 52
15. Public Services 53
16. Recreation 55
17. Transportation 56
18. Tribal Cultural Resources 58
19. Utilities and Service Systems 60
20. Wildfire 62
21. Mandatory Findings of Significance 65

Figures

Figure 1 Regional Project Location 3

Figure 2 Proposed Site Plan 4

Figure 3 Project Visual Simulations 5

Figure 4 Visual Simulations 15

Appendices

Appendix A – Biological Assessment

Appendix B – Arborist Report

Appendix C – Archaeological Report (cover page only)

Appendix D – Geotechnical Investigation

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INITIAL STUDY / ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** 1398 Pico Avenue Residential Project (project or proposed project)
2. **Permit Type(s):** Coastal Development Permit (CDP); Architectural Permit (AP)
3. **Lead Agency Name and Address:** City of Pacific Grove, 300 Forest Avenue., Pacific Grove, California 93950
4. **Lead Agency Contact Person and Phone Number:** Joe Sidor, Contract Senior Planner, Pacific Grove Community Development Department - Planning Division, jsidor@cityofpacificgrove.org
5. **Project Location:** 1398 Pico Avenue, Pacific Grove, Monterey County, California; Assessor's Parcel Number (APN): 007-061-019-000 (See **Error! Reference source not found.**)
6. **Project Applicant(s):** Ed & Julie Divita, 117 Pinon Drive, Portola Valley, California 94028
7. **General Plan (GP)/Land Use Plan (LUP) Designations:** Low Density Residential 1 dwelling unit/acre (LDR 1.0)
8. **Zoning:** R-1-B-4
9. **Description of the Project:**

Existing Conditions

The project site is located at 1398 Pico Avenue, west of Asilomar Avenue and east of Sunset Drive in Pacific Grove, California. The project site is within the Asilomar Dunes Environmentally Sensitive Habitat Area (ESHA), the Asilomar Dunes Residential Area, and the coastal zone. The project site contains a 1,966 square foot, single story residence with an attached garage, paved driveway, and stone patios located in the eastern portion of the parcel. The remaining area of the project site consists of undeveloped and disturbed dune scrub habitat.

Proposed Project

The proposed project would include demolition of the existing residence, driveway, and other hardscaped areas, and construction of a 3,155 square foot, single story residence with an attached garage, a 720 square foot courtyard, a 535 square foot flagstone patio area (including a deck and spa), an 842 square foot driveway, and a 750 square foot Outdoor Use Area.

The project would result in a total Primary Coverage Area of 5,252 square feet, and a Residential Development Envelope (Primary Coverage Area plus the Outdoor Use Area) of 6,002 square feet. The proposed residence would occupy approximately the same footprint as the existing residence and would maintain the same height and setback distances. The remaining 29,011 square feet of the 35,013 square foot parcel would be placed under a conservation easement.

Figure 1 shows the regional project location. Figure 2 shows the proposed site plan, and Figure 3 shows a visual simulation of the proposed development.

Figure 1 Regional Project Location



Basemap provided by Esri and its licensors © 2026.
Map created by Rincon Consultants, Inc., 2026.

25-18858 EPS
Fig 1 Regional Location

Project Location

N

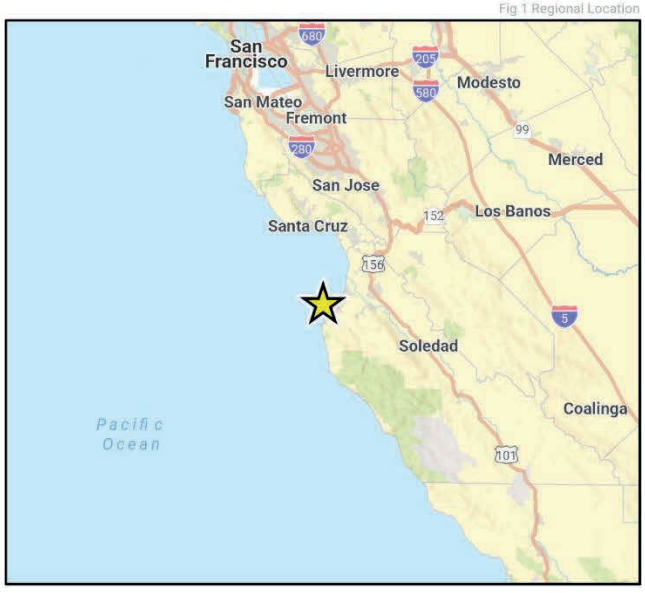
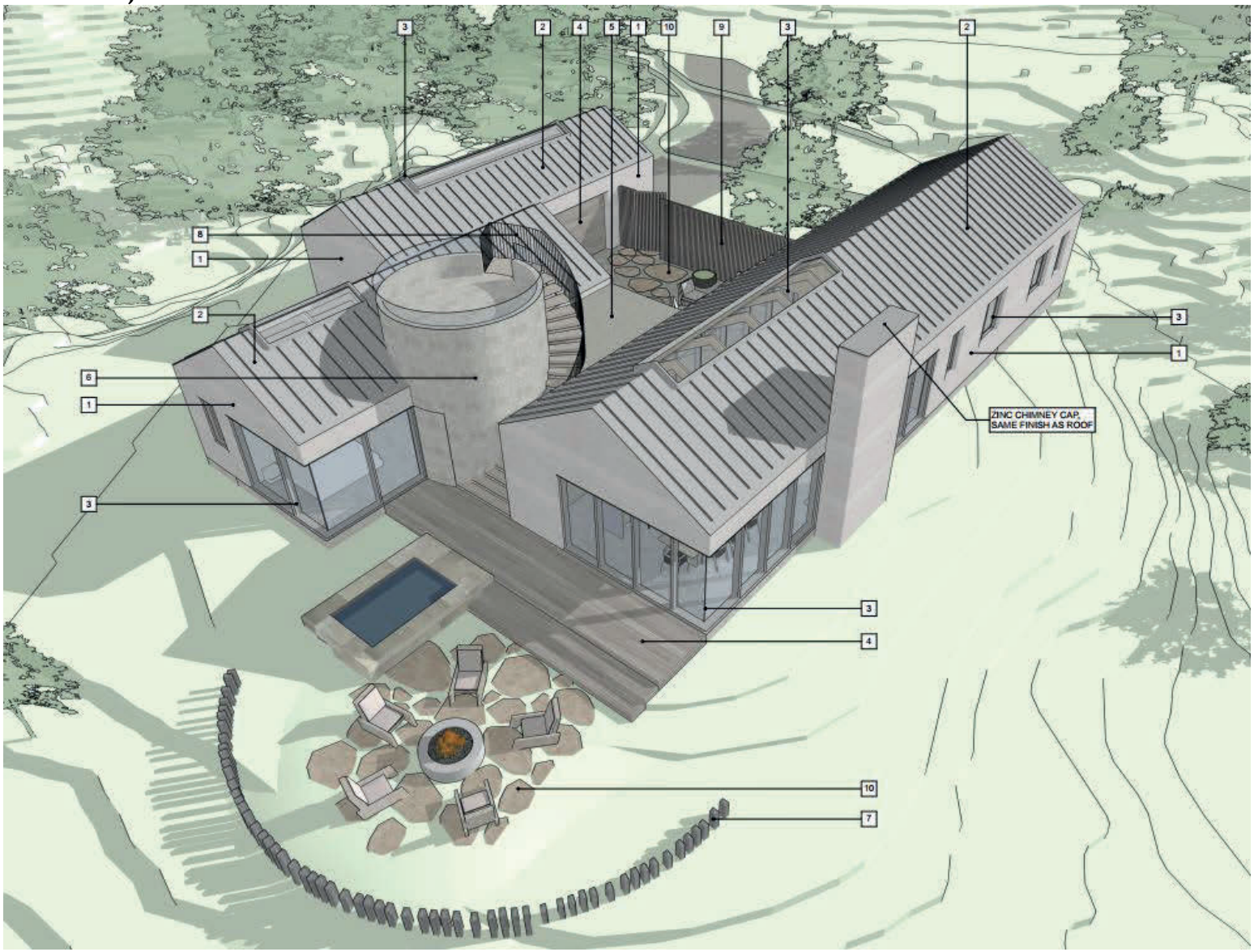


Figure 2 Proposed Site Plan



Source: Ground Studio Landscape Architecture 2025

Figure 3 Project Visual Simulation – Aerial View from North



Source: Ground Studio Landscape Architecture 2025

Project Construction

Construction is anticipated to occur over approximately 12 months. In accordance with the City's Noise Ordinance, construction activity would be limited to the hours of 8:00 a.m. to 6:00 p.m., Monday through Saturday, and 10:00 a.m. to 5:00 p.m. on Sunday.

During construction, the project would use standard construction equipment, such as excavators, backhoes, dump trucks, and compactors. There would be no pile driving or other high impact activity that would result in high levels of noise or vibration. Construction equipment and materials would be staged in disturbed or paved areas with containment measures for fuels or other potentially hazardous materials and away from drainages.

The proposed project includes implementation of the following best management practices (BMPs):

- Standard dust control practices, such as periodic watering, will be implemented as needed during construction.
- All construction equipment will comply with the California Air Resources Board's measures to reduce fuel-consumption, such as imposing limits on idling and requiring older engines and equipment to be retired, replaced, or repowered.
- All diesel-powered equipment will use California ultralow sulfur diesel fuel with a maximum sulfur content of 15 pounds per day by weight to minimize emissions of sulfurous gases.
- Construction equipment will be properly maintained and checked for potential leaks of potentially hazardous fuels (e.g., gas, oil).
- Construction equipment will remain within developed portions of the project sites (e.g., paved roads), and activities set to occur outside these locations would be minor and temporary in nature.
- Water quality protection measures will be implemented during construction.
- A construction traffic management plan will be prepared to address vehicle movement during temporary street closures, whereby emergency access will be retained or clear alternative routes will be available.
- All disturbed areas will be restored to existing conditions. Restoration of the dune habitat includes replacement of vegetation removed with native species.

In addition, the proposed project includes the following conditions of approval:

Biological Resources Conditions of Approval

- A deed restriction or conservation easement of the restored area shall be required designed to limit allowed development, use, and activities in perpetuity to those associated with dune restoration, enhancement and protection, pursuant to LUP Policy BIO-24(d).
- The project applicant will retain a qualified biologist to implement the Dune Restoration Plan that defines procedures and standards for restoration, maintenance, and monitoring of the undeveloped portion of the project site.

- The qualified biologist will review all proposed utility and sewer lines. Underground utilities will be installed in a single corridor that is located in the driveway to the new residence, rather than traversing the undeveloped portion of the project site, if feasible.
- Prior to the start of construction, temporary fencing will be installed to delineate the construction zone and protect trees that are planned to remain within the construction zone. Roots 2 inches or greater in size from the adjacent oak tree will be retained (not cut) during any ground disturbance associated with construction of the residence and installation of any underground utility lines. The house foundation will bridge over any roots 2 inches or greater in size. All activities associated with construction, trenching, storage of materials, and disposal of construction wastes and excavated soil will not impact areas outside of the temporary construction fence. The areas protected by the fence will remain in a trash free condition and not used for material stockpiling, storage or disposal, or vehicle parking. All construction personnel will be prohibited from entering areas protected by the fence.
- Prior to the start of demolition or construction, the project site, as delineated by temporary fencing, will be thoroughly searched for legless lizards. If found, the qualified biologist will relocate the legless lizards to nearby suitable habitat. Prior to the start of construction, the qualified biologist will provide a letter to the Community Development Department verifying temporary fencing has been installed, exotic plants have been removed, and the project site has been searched for legless lizards.
- Prior to the start of construction, a pre-construction meeting will be held between the project applicant, the construction contractor, a Community Development Department representative, and the qualified biologist to review the project permits and all environmental compliance requirements.
- Exotic plants on the project site will be hand-pulled or killed with an appropriate herbicide prior to the start of construction, according to specifications described in the approved Dune Restoration Plan. No exotic plants or non-local native plants will be planted on the property or in the public right-of-way adjacent to Pico Avenue.
- No construction materials, including but not limited to wood, nails, glass, tile, rocks, gravel, paint, cement, joint compound, cleaning solvents or residues from other chemicals, etc., will be disposed of on-site. The construction contractor will be responsible for complying with this requirement and will clean up any spills or contaminated ground to the complete satisfaction of the qualified biologist. All excavation spoils generated by the project will be disposed off-site. If the material consists of native material and is free of any building materials (i.e., gravel, decomposed granite), first priority will be to reuse the material at a suitable location in the Asilomar Dunes, as determined by the qualified biologist. Large tarps or other suitable methods will be used to capture all rock fragments generated from cutting of rocks for building the siding on the house, so they are not allowed to mix into the ground. Sifting of the native soil to remove any rock fragments or other building material will be required, if the soil is not kept free of all foreign materials.

Cultural and Tribal Resources Conditions of Approval

- Archaeological/Tribal Monitoring. The project proponent shall retain a qualified archaeologist meeting the Secretary of the Interior's Standards for prehistoric archaeology and with experience in Central Coast archaeology (qualified archaeologist) to implement all conditions of approval and mitigation measures related to cultural resources. A cultural resource

sensitivity training led by the qualified archaeologist shall be conducted prior to any ground disturbing activities and shall repeat with all new construction personnel involved in ground disturbing activities on site throughout the construction of the proposed project. A qualified archaeological monitor working under the direction of the qualified archaeologist and tribal monitor shall be present to observe all ground disturbing activities, including but not limited to demolition, grading, trenching, augering, and hand excavations. If at any time, potentially significant resources or intact features are discovered, the monitor(s) shall temporarily halt work until the find can be evaluated. Monitors shall periodically inspect the area where cultural resources were discovered to ensure it has not been breached. Upon conclusion of monitoring, the qualified archaeologist shall prepare an archaeological monitoring report to be submitted to the Northwest Information Center.

- Cultural and/or Archaeological Artifact Discoveries. If such artifacts are unexpectedly discovered during ground disturbing activities, work shall be halted until the item(s) can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation will be formulated, with the approval of the lead agency, and implemented prior to recommencement of work.
- Inadvertent Discovery of Human Remains. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC, which will determine and notify an MLD. The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

10. **Surrounding land uses and setting:**

    The project site is in the western portion of Pacific Grove at the southern end of Pico Avenue, between Sunset Drive and Asilomar Avenue. Low-density single family residences border the project site in all directions. The Pacific Ocean is located approximately 700 feet to the west. Lands to the south of the project site have coastal zone land use designations of Open Space Recreational (OS-R) and Open Space Institutional (OS-I) and include Asilomar Dunes Natural Preserve and Asilomar Conference Grounds. In addition, Asilomar State Beach is located approximately 0.5-mile southwest of the project site.

11. **Other public agencies whose approval is required:**

    The project will require approval of a Coastal Development Permit and an Architectural Permit by the City of Pacific Grove Planning Commission. No other planning entitlement approvals or other agency approvals will be required. Project approval would be appealable to the City Council and the California Coastal Commission, as the Asilomar Dunes Residential Area is within the appeal jurisdiction.

12. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    Pursuant to Public Resources Code Section 21080.3.1, the City of Pacific Grove initiated consultation via notification letters to local Native American tribes on January 15, 2026. See Section 18, Tribal Cultural Resources, below for additional information.

    Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review and identify and address potential impacts. Information on specific on-site cultural resources may be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. It should be noted that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below (✓) would be potentially affected by this project, as discussed within the checklist on the following pages.

	Aesthetics		**Greenhouse Gas Emissions**		**Public Services**
	Agriculture & Forestry Resources		**Hazards & Hazardous Materials**		**Recreation**
	Air Quality		**Hydrology & Water Quality**		**Transportation**
✓	**Biological Resources**		**Land Use & Planning**	✓	**Tribal Cultural Resources**
✓	**Cultural Resources**		**Mineral Resources**		**Utilities & Service Systems**
	Energy		**Noise**		**Wildfire**
✓	**Geology & Soils**		**Population & Housing**	✓	**Mandatory Findings of Significance**

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ 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 project proponent. 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" impact 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 or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: Joseph Sidor **Date**: September 3, 2026

CEQA ENVIRONMENTAL CHECKLIST

This checklist identifies the potential physical effects the project could have on the environment. In many cases, background studies performed in connection with the project indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to the California Environmental Quality Act (CEQA), not the National Environmental Policy Act (NEPA), impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to a level of less than significant.

1. AESTHETICS

Except as provided in Public Resources Code Section 21099,

Would the project:

A. Have a substantial adverse effect on a scenic vista?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

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 points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

D. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

Items A and C: Pursuant to Section 15387 of the *CEQA Guidelines,* Pacific Grove is within a contiguous group of cities with a population of 50,000 or more, with an associated densely populated area of 1,000 persons per square mile. The City of Pacific Grove has a population of 15,003 (U.S. Census Bureau, 2024) but is located within an urban cluster in the Monterey Peninsula metropolitan area. The census designated Seaside-Monterey-Pacific Grove, CA Urban Area with a population of 123,495 and an urban density of 2,998.80 persons per square mile(California Open Data Portal/Department of Finance, 2025). Because this project site is located in an urban area as well as within a Scenic View Area in the Pacific Grove Local Coastal Program (LCP), this discussion focuses on the proposed project's potential to conflict with applicable zoning regulations, LUP policies, and other regulations governing scenic quality.

The project site is located in the Asilomar Dunes Residential Area near the Pacific Ocean. Views of the ocean can be seen from nearby public roadways, including Sunset Drive to the west and Pico

Avenue to the east of the project site. The ocean views from Pico Avenue are intermittently obscured by surrounding development, natural topography and landscaping. The project site is located within the coastal zone and is subject to the City's certified LCP, which includes the LUP and Implementation Plan (Chapter 23.90 of the Pacific Grove Municipal Code (PGMC)). According to LUP Policy SCE-4 and Figure 4, Scenic Areas, the project site is located within an area designated as a Scenic View Area and has special scenic significance.

The proposed project involves the demolition of an existing single-family home and driveway, and the construction of a single-family home and new driveway on the same parcel. Due to the project site's designation as a scenic view area, it is subject to the development standards contained in LUP Policy SCE-5. Policy SCE-5 requires special siting and design criteria including height and story limitations, bulk and scale limitations, screening and landscaping requirements, natural materials and color requirements, minimizing lighting that spills into nighttime public views, and avoiding glares from windows and reflective surfaces. The project requires the preparation of landscaping plans utilizing drought tolerant and native plants that protect and enhance scenic resources; minimizing land coverage, grading, and structure height; and maximizing setbacks from adjacent open space areas. Development within scenic areas must avoid blocking or having a significant adverse impact on significant public views, including by situating buildings, access roads, and related development in a manner and configuration that maximizes public viewshed protection. As demonstrated in Figure 4, the proposed project would have similar massing and visibility as the existing single-family home and would be consistent with the applicable scenic resource protection standards intended to preserve visual character of the area in accordance with LUP policy. Consistent with PGMC Section 23.90.180(c)(3), the proposed project would be limited to a primary coverage area of 15 percent of the site, as shown in Figure 2. The proposed residence is single-story, and would be constructed with visually neutral materials, as shown in Figure 3. The exterior materials of the proposed residence would include grey zinc standing-seam roofing and chimney cap, warm white long-format brick siding, grey aluminum doors and window frames with anti-reflective glazing on the south and west elevations. The neutral color palate would be visually compatible with the natural setting compared to the existing residence. Landscape lighting would not be visible from the public right-of-way. The proposed project is consistent with applicable development standards governing height, site coverage, building design, and scenic resource protection. The project is consistent with applicable zoning regulations, LUP policies, and development standards governing scenic quality.. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality, and the impact would be **less than significant**.

Figure 4 Visual Simulations



Source: Ground Studio Landscape Architecture 2025 (Not to scale).

Items B: There are no designated state scenic highways within Pacific Grove as shown on the California Department of Transportation (Caltrans) State Scenic Highway Map (Caltrans 2018). A portion of State Route (SR) 68 within Pacific Grove is listed as eligible for scenic highway designation (Caltrans 2025). Postmile 0.0, located at Asilomar Boulevard and Sinex Ave, is located approximately 2,000 feet to the southeast of the project site and the proposed project would not be visible from the eligible highway. Therefore, there would be **no impact**.

Item D: The project site is in a low-density residential area with low levels of existing lighting. Existing sources of light in the project area include lighting from nearby residences and vehicle headlights on Pico Avenue, and nearby Calle de Los Amigos. The primary sources of glare in the project area are caused by sunlight reflecting off light colored and reflective building materials, exterior finishes of nearby residences, and the metal and glass surfaces from nearby parked vehicles.

The proposed project would introduce new sources of light at the project site via interior and exterior lights of the new residence. The proposed project would introduce new sources of glare from building materials, such as exterior finishes and windows of the new residence and vehicles entering and exiting the project site. These sources of light and glare would be consistent with existing sources of light and glare from nearby residences. The proposed residence would be partially obscured by existing trees and sited in such a way that the intrusion of light and glare onto adjacent properties would be minimal. Furthermore, lighting would be installed in accordance with LUP Policy DES-6, which requires new lighting fixtures to be mounted at low elevations and fully shielded to direct lighting downward and be focused on targeted use areas (City of Pacific Grove 2020). Therefore, this impact would be **less than significant**.

SOURCES

- California Department of Transportation (Caltrans). 2018. California Scenic Highway Program. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways
- California Department of Transportation (Caltrans). 2025. List of eligible and officially designated State Scenic Highways. https://dot.ca.gov/-/media/dot-media/programs/design/documents/scenic_highway_data_oct-2025.xlsx
- California Open Data Portal/Department of Finance. 2025. Urban Area Delineations Map Viewer. https://gis.data.ca.gov/apps/cacensus::california-urban-area-delineations
- Pacific Grove, City of. 2024. Land Use Plan and Implementing Ordinances. https://files.cityofpacificgrove.org/Document_Center/Departments/Community%20Development/Programs%20&%20Projects/Local%20Coastal%20Program/2020%20Certified%20Local%20Coastal%20Program/Land%20Use%20Plan%20as%20amended%20%20(Clean%20-%20Posted%2006-23-2025).pdf
- U.S. Census Bureau. (2024). American Community Survey 5-year estimates data profiles: Pacific Grove city, California (DP05). United States Department of Commerce. https://data.census.gov/

2. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources would have significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional methodology to assess impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

A. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

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))?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

D. Result in the loss of forest land or conversion of forest land to non-forest use?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - E: According to the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program, the project site is located on land identified as Urban and Built-Up Land on the DOC's California Important Farmland Finder (DOC 2022). There are no agricultural or forest resources within or surrounding the project site, nor is the site zoned for agricultural use or timberland production. Therefore, the proposed project would have **no impact** on agriculture or forest resources.

SOURCES

- California Department of Conservation. 2022. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/
- Urban Tree Management. 2025. Arborist Report – Existing Conditions. July 15, 2025. (Appendix B)

3. AIR QUALITY

The federal and State Clean Air Acts mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards and the California Ambient Air Quality Standards for "criteria pollutants" and other pollutants. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

A. Conflict with or obstruct implementation of the applicable air quality plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

C. Expose sensitive receptors to substantial pollutant concentrations?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

D. Result in other emissions (such as those relating to odors) adversely affecting a substantial number of people?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

Item A: The project site is located in the North Central Coast Air Basin (NCCAB) which is under the jurisdiction of the Monterey Bay Air Resources District (MBARD). U.S. EPA and CARB have adopted ambient air quality standards for certain air pollutants. In the MBARD jurisdiction, the two main criteria pollutants of concern are ozone and particulate matter ($PM_{2.5}$ and PM_{10}). The NCCAB is currently designated as nonattainment for the state particulate matter that is 10 microns or less in diameter (PM_{10}) standards and nonattainment-transitional for the state one-hour and eight-hour ozone standards. The NCCAB is designated as attainment for all federal standards and other state standards, including $PM_{2.5}$. MBARD is responsible for enforcing the state and federal air quality standards and regulating stationary sources through the 2012-2015 Air Quality Management Plan (AQMP) for the Monterey Bay Region.

A project would conflict with or obstruct implementation of the 2012-2015 AQMP if either it induced population such that the population of Pacific Grove would exceed the population forecast for the appropriate five-year increment utilized in the 2015 AQMP analyses, or if construction and operational emissions of ozone precursors would exceed MBARD defined significance thresholds. As discussed in more detail in Section 9, *Population and Housing,* the proposed project is not anticipated to induce substantial population growth, as the project involves the demolition and replacement of one single-family residence. The project is not anticipated to require construction workers to be sourced from an area outside of the existing local or regional workforce, requiring unexpected vehicular travel. Additionally, as discussed below under Items B-C, the project would not result in emissions that would exceed MBARD significance thresholds. Therefore, the project would be consistent with the 2012-2015 AQMP because it would not exceed the growth projections that underlie the air pollutant emission forecasts by MBARD (MBARD 2017). Therefore, the project would not conflict or obstruct the implementation of the 2012-2015 AQMP, and the impact would be **less than significant**.

Items B - C: As discussed above in Item A, the NCCAB is currently designated as nonattainment for the state PM_{10} standard and attainment for other applicable state and federal criteria pollutant standards. The MBARD CEQA Guidelines set a construction screening threshold of 2.2 acres of earthmoving per day. If a project results in less than 2.2 acres of earthmoving, the project is assumed to be below the 82 pounds of PM_{10} pollutant per day threshold of significance.

For construction emissions, the project site is approximately 0.8 acre in size and the residential development envelope consisting of approximately 6,000 square feet; therefore, site grading would not exceed MBARD's 2.2-acre screening threshold. Therefore, construction activities would not result in PM_{10} emissions that exceed MBARD thresholds.

Operational emissions for the project would primarily be from vehicle trips and energy usage associated with one single-family household. Vehicle trips and energy usage of one single-family residence would result in a negligible increase of potential pollutant emissions in the NCCAB. Therefore, the proposed project would result in less than significant impacts relating to a cumulatively considerable net increase of a criteria pollutant and exposure of sensitive receptors to substantial pollutant concentrations. This impact would be **less than significant.**

Item D: The proposed project would generate odors from demolition and construction equipment engines and vehicle exhaust. Construction-related odors would be temporary in nature and would not cause substantial odors at the closest sensitive receptors of the adjacent residences. Contractors would be required to comply with the provisions of California Code of Regulations (CCR) Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes to minimize unnecessary fuel consumption, which would limit exhaust fumes. In addition, construction-related odors would be temporary and would cease upon completion of construction. Operation of the proposed project, of a single-family residence, would not be expected to produce significant emissions, including odors. The impact would be **less than significant.**

SOURCES

- Monterey Bay Air Resources District. 2017. 2012-2015 Air Quality Management Plan. https://www.mbard.org/files/6632732f5/2012-2015-AQMP_FINAL.pdf

4. BIOLOGICAL RESOURCES

Would the project:

A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

C. Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

F. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Methodology

The following discussion is based on the Biological Assessment prepared by Regan Biological and Horticultural Consulting dated November 25, 2025. The Biological Assessment is included as Appendix A. On June 9, 2025, the entire property was visually inspected and plant and wildlife species observed on the project site were identified and recorded. One special-status plant species (Monterey pine [*Pinus radiata*], California Rare Plant Ranking [CRPR] 1B.1) and no special-status wildlife species were observed on the project site (Appendix A).

The Biological Assessment also reviewed the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and California Native Plant Society online Inventory of Rare and Endangered Plants of California to obtain information regarding State and federally listed species and other special-status species considered to have potential to occur within the Monterey, California USGS 7.5-minute topographic quadrangle and the surrounding five quadrangles (*Soberanes Point, Mount Carmel, Seaside, Marina,* and *Monterey OE N*).

The project site is within the Asilomar Dunes Residential Area, as identified in the Pacific Grove LCP. The Asilomar Dunes Residential Area is identified as an area of low to extreme biological sensitivity pursuant to the Pacific Grove LCP Land Use Plan (LUP Figure 5, Land Habitat Sensitivity Map).

Item A:

Special-Status Plant Species

Special-status dune plant species documented in the vicinity of the project site include Monterey spineflower (*Chorizanthe pungens var. pungens*, CRPR 1B.2, Federally Threatened), Tidestrom's lupine (*Lupinus tidestromii*, CRPR 1B.1, State and Federally Endangered), Menzies' wallflower (*Erysimum menziesii*, CRPR 1B.1, State and Federally Endangered), Monterey gilia (*Gilia tenuiflora ssp. Arenaria*, CRPR 1B.2, State Threatened and Federally Endangered), beach layia (*Layia carnosa*, CRPR 1B.2, State Endangered and Federally Threatened), seaside bird's-beak (*Cordylanthus rigidus ssp. Littoralis*, CRPR 1B.1, State Endangered), Kellogg's horkelia (*Horkelia cuneata var. sericea*, CRPR 1B.1), Eastwood's goldenbush (*Ericameria fasciculata*), sandmat manzanita (*Arctostaphylos pumila*, CRPR 1B.1), and northern curly-leaved monardella (*Monardella sinuata ssp. Nigrescens*, CRPR 1B.2). Several of these species have documented occurrences within 400 to 800 feet of the project site and are known to occur elsewhere within the Asilomar Dunes complex (Appendix A).

The botanical survey conducted on June 9, 2025, did not identify any special-status dune plant species on the project site. The only special-status plant identified on the site was Monterey pine, which occurs as scattered individuals on the property (Appendix A). The project would not remove or adversely affect the Monterey pines or their protected root zones.

The project site contains suitable habitat for Monterey gilia, Menzies' wallflower, and beach layia, which are small annual dune species that may be difficult to detect outside of their identifiable flowering periods. Based on the timing and results of the June 2025 survey, the Biological Assessment concluded that the presence of these species or others could not be conclusively ruled out within areas that would be disturbed by the project. Construction associated with the proposed project may result in removal or harm to these species, should they be present on-site, which would constitute a potentially significant impact. Implementation of Mitigation Measures BIO-1 through BIO-5 are required to reduce potential impacts to special-status plant species.

Special-Status Wildlife Species

Special-status wildlife species with potential to occur on the project site includes the northern California legless lizard (*Anniella pulchra*), a California Species of Special Concern associated with loose sandy substrates, dune scrub vegetation, and cover objects. Portions of the project site, particularly areas adjacent to the drainage swale and nearby mock-heather stands, provide potentially suitable, although disturbed, habitat for this species (Appendix A). Ground disturbance associated with demolition and construction activities could injure or kill legless lizards if present, which would constitute a potentially significant impact. Implementation of Mitigation Measures BIO-1 and BIO-6 are required to reduce potential impacts to northern California legless lizards.

The CNDDB search also identified burrowing owl (*Athene cunicularia*) and western snowy plover (*Charadrius nivosus nivosus*) as species occurring within the broader region. However, the project site does not contain suitable nesting habitat for either species. No California ground squirrel burrows were observed on-site, eliminating the primary habitat component required by burrowing owls. Likewise, western snowy plovers nest on sparsely vegetated beaches and open coastal strand habitats and are not expected to nest within a developed residential lot surrounded by existing homes. Because suitable habitat for these species is absent and neither species was observed during the biological survey, burrowing owl and western snowy plover are not expected to occur on the project site (Appendix A). No species-specific mitigation for these species is required.

Trees and shrubs on and adjacent to the site provide potential nesting habitat for migratory birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Construction activities could result in disturbance, injury, destruction of an active nest, or nest abandonment if active nests are present, which would be a potentially significant impact. Implementation of Mitigation Measures BIO-1 and BIO-7 are required to reduce potential impacts to nesting birds.

With the following mitigation measures, the proposed project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species. This impact would be **less than significant with mitigation.**

Mitigation Measure BIO-1: Worker Environmental Awareness Program

Prior to the start of construction, all Project construction personnel shall attend an in-person Worker Environmental Awareness Program (WEAP) training, conducted by a City-approved biologist, to assist workers in recognizing biological resources which may occur at the project site. The specifics of this program shall include:

- Identification of special-status species with potential to occur at the project site;
- A description of the regulatory status and general ecological characteristics of special-status species with potential to occur;
- A review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the work area; and
- Information regarding nesting birds.

Project construction personnel shall sign a form provided by the trainer documenting they have attended the WEAP and understand the information presented to them. The Project contractor shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special-status species. When new construction personnel are added to the Project, the contractor shall confirm the new personnel receive the WEAP training before starting work. The

training of personnel can include a video recording and/or the use of written materials rather than in-person training by the City-approved biologist.

Mitigation Measure BIO-2: Special-Status Plant Species Surveys

Prior to issuance of a demolition permit, a City-approved biologist shall complete surveys for special-status plants in undeveloped areas that will be disturbed by construction. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species. All special-status plant species identified on each site shall be mapped onto a site-specific aerial photograph or topographic map. Surveys shall be conducted in accordance with the most current protocols established by CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the City for review and/or approval. If project construction does not occur within three years of the initial special-status plant survey, additional floristic surveys shall be repeated.

If special-status plants are not found during special-status plant surveys, no further action is required. If federally- and/or state-listed individuals and/or CRPR 1B or 2 plant populations are found during special-status plant surveys, then Mitigation Measure BIO-3 shall be implemented.

Mitigation Measure BIO-3: Special-Status Plant Species Avoidance, Minimization, and Mitigation

If federally-listed and/or state-listed individuals, and/or CRPR 1B or 2 plant populations are found during special-status plant surveys, and would be directly impacted by development, then the project shall be re-designed to avoid impacting listed plant species or CRPR 1B or 2 populations, where feasible and compatible with project design. Rare and listed plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a City-approved biologist based on species location in relation to the construction area and level of disturbance from construction activities, to protect them from harm. Prior to initiation of construction activities, the project proponent shall submit a site plan depicting the location(s) of special-status plants and avoidance buffers to the City for review and verification. If special-status plants can be avoided, no further action is required. If federally- and/or state-listed individuals and/or CRPR 1B or 2 plant populations cannot be avoided, then Mitigation Measure BIO-4 shall be implemented.

Mitigation Measure BIO-4: Habitat Mitigation and Monitoring Plan

If federally- and/or state-listed plants or non-listed special-status plant populations cannot be avoided and will be impacted by development, all impacts shall be mitigated at a minimum ratio of 1:1 for occupied habitat area as a component of habitat restoration or through compensatory mitigation. A habitat mitigation and monitoring plan (HMMP) shall be prepared by a City-approved biologist and submitted by the project proponent to the City for review and verification prior to the issuance of demolition permits. The project proponent shall also obtain all necessary permits from USFWS and/or CDFW and provide proof of take authorization, if required, to the City for verification prior to issuance of any permits for ground disturbing activities. The HMMP shall include a description of the impact and compensatory mitigation sites; mitigation goals and success criteria; implementation, maintenance, and monitoring requirements; responsible parties and schedules; adaptive management and remedial measures; contingency measures; and agency coordination and completion reporting. Within 30 days of completion of monitoring, a final monitoring report shall be submitted to the City for review and verification, documenting compliance with the HMMP and achievement of success criteria.

Mitigation Measure BIO-5: Environmentally Sensitive Habitat Area Protection

Prior to demolition, grading, or construction activities, environmentally sensitive habitat protection fencing shall be installed under the direction of a qualified biologist around the limits of disturbance associated with the project construction footprint and temporary construction work areas. The fencing shall clearly identify environmentally sensitive habitat areas that are off limits to construction personnel and equipment. All construction staging, equipment storage, material stockpiling, vehicle parking, and personnel access shall be restricted to designated disturbance areas. The fencing shall remain in place for the duration of construction activities and shall be regularly inspected and maintained by the project biologist.

Mitigation Measure BIO-6: Northern California Legless Lizard Avoidance and Minimization

A pre-construction clearance survey shall be conducted in undeveloped areas of the project site for Northern California legless lizards by a City-approved biologist within 48 hours prior to the start of construction. The survey shall cover the entire disturbance footprint within suitable habitats with moist loose soil, plus a minimum 50-foot buffer, where permissible. During the pre-construction survey the biologist shall inspect under logs, leaf litter, or other suitable refuge. If Northern California legless lizards are identified, individuals shall be relocated by a biologist to suitable cover with loose soils a minimum of 500 feet from the project site, as accessible. A written report demonstrating compliance with the pre-construction clearance survey requirement, including a description of all individuals identified and relocated during the survey, shall be submitted to the City for review and verification prior to the start of construction.

Mitigation Measure BIO-7: Pre-Construction Nesting Bird Surveys and Avoidance

The construction contractor shall conduct vegetation removal and initial ground disturbance outside the bird and raptor breeding season, which is typically February 1 through September 1 but can vary based on local and annual climatic conditions. If construction begins within the breeding season, then not more than seven days before ground disturbance and/or vegetation removal commences, a bird and raptor preconstruction survey shall be conducted by a City-approved biologist within the disturbance footprint, plus a 300-foot buffer. The survey shall be conducted by a biologist familiar with the identification of bird species known to occur in the Monterey Peninsula area.

The City-approved biologist shall conduct the preconstruction nesting bird and raptor surveys during the time of day when bird species are active and for a sufficient duration to reliably conclude presence/absence of nesting birds and raptors within the 300-foot buffer. The City-approved biologist shall submit a summary of the nesting bird and raptor survey results to the City of Pacific Grove. Survey conclusions shall be reviewed and approved by the City prior to initiation of construction. If no bird nests are observed no further mitigation is required.

If an active nest of species protected by the California Fish and Game Code (Section 3503) or Migratory Bird Treaty Act are found within 300 feet of the disturbance footprint, the City-approved biologist shall flag their locations and map their locations on an aerial photograph of the disturbance footprint at a scale no less than 1"=200' and/or recorded with the use of a Global Positioning System (GPS) unit. If the 300-foot buffer is infeasible, the City-approved biologist may reduce the buffer distance as appropriate, depending upon the species and the proposed work activities. If any active non-raptor bird nests are found, the City-approved biologist shall establish a suitable buffer area (varying from 25 to 300 feet), depending on the species. The construction contractor shall ensure that

no ground disturbance occurs within the buffer until the City-approved biologist confirms that the breeding/nesting is completed and all the young have fledged, and removes the buffer. If work within the buffer is necessary, a City-contracted biological monitor shall monitor the active nest full-time during construction activities within the buffer to ensure project activities are not indirectly impacting protected nesting birds and raptors. If work ceases for more than 30 days, a new nesting bird survey shall be conducted in accordance with this measure.

Item B: The project site is located entirely within the Asilomar Dunes Residential Area, which is designated as an ESHA under the City of Pacific Grove LCP. The parcel lies within the mapped Asilomar Dunes ESHA, and the vegetated portions of the parcel support a disturbed form of Central Dune Scrub, a sensitive natural community recognized by the California Department of Fish and Wildlife and the California Coastal Commission due to its rarity and association with numerous special-status plant and wildlife species. The Biological Assessment identifies the on-site habitat as a highly disturbed form of Central Dune Scrub that is heavily dominated by invasive ice plant (*Carpobrotus* spp.) and other nonnative species. The habitat most closely corresponds to the *Eriophyllum staechadifolium–Erigeron glaucus–Eriogonum latifolium* Herbaceous Alliance, which has a California rarity rank of S3 (Vulnerable) (Appendix A). Although degraded, the habitat remains ESHA and is subject to the protection requirements of the City's LCP.

The project would involve demolition of the existing residence and construction of a new residence, garage, driveway, patio, and associated improvements within the approved Residential Development Envelope. Development would be concentrated within the most disturbed portion of the property, generally corresponding to the location of the existing residence and hardscape improvements. The Biological Assessment concluded that the project site currently contains sparse native vegetation and is dominated by invasive ice plant and other nonnative species associated with past residential disturbance. The proposed improvements would result in approximately 5,251 square feet of permanent disturbance associated with the developed or hardscaped footprint and 750 square feet of new permanent disturbance associated with the outdoor use area footprint. The project would reduce total site coverage by approximately 525 square feet compared to existing conditions and would minimize new disturbance within previously undeveloped dune habitat. An approximately 11,000 square foot area around the residential development envelope would be fenced off prior to the onset of the demolition.

Project construction would result in temporary disturbance of a limited area of degraded Central Dune Scrub habitat within the development envelope. However, the majority of the parcel outside the approved work area would be protected during construction through installation of exclusionary fencing in accordance with Mitigation Measure BIO-5. Construction activities, staging, and equipment access would be restricted to designated disturbance areas, thereby avoiding impacts to adjacent ESHA. In addition, all portions of the parcel outside the Residential Development Envelope would be restored and enhanced as native dune habitat through implementation of a Dune Restoration, Enhancement, and Protection Plan as stipulated by Mitigation Measure BIO-8.

The City of Pacific Grove LCP provides for limited residential development within the Asilomar Dunes Residential Area provided development is located in the least environmentally sensitive portion of the site, impacts to ESHA are minimized, and the remaining portions of the property are restored and permanently protected. The project has been designed to comply with these requirements by locating development within the most disturbed portion of the parcel, reducing overall lot coverage, protecting adjacent habitat during construction, and restoring the remaining dune habitat in perpetuity.

Although temporary impacts to degraded Central Dune Scrub would occur during construction, implementation of Mitigation Measures BIO-1, BIO-5, and BIO-8 would avoid and minimize impacts to sensitive habitat and ensure long-term enhancement of the site's dune scrub resources. Therefore, while the project would temporarily disturb a limited area of degraded Central Dune Scrub habitat, it would not substantially adversely affect riparian habitat or a sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Impacts would be **less than significant with mitigation.**

Mitigation Measure BIO-1: Worker Environmental Awareness Program

Refer to Item A for this mitigation measure.

Mitigation Measure BIO-5: Environmentally Sensitive Habitat Area Protection

Refer to Item A for this mitigation measure.

Mitigation Measure BIO-8: Dune Habitat Restoration

Upon completion of construction, all portions of the project site outside the approved Residential Development Envelope shall be restored in accordance with a City-approved Dune Restoration, Enhancement, and Protection Plan prepared by a qualified restoration ecologist. The plan shall provide for:

- Removal and control of invasive species including ice plant, acacia, kikuyu grass, and other nonnative vegetation.
- Reestablishment of native Central Dune Scrub vegetation using locally appropriate native species.
- Long-term monitoring and adaptive management.
- Performance criteria to evaluate habitat establishment success.

Following completion of the active monitoring period, protected habitat shall be maintained in perpetuity in accordance with Coastal Development Permit requirements and applicable LCP policies.

Item C: No wetlands, riparian habitat, or other aquatic resources were observed within the project site or proposed disturbance area during the biological field assessment.

Although a shallow swale containing dune sedge (*Carex pansa*) occurs northwest of the project site, the Biological Assessment determined that the feature is located offsite and does not exhibit indicators of wetland conditions. The swale also supports upland-associated species, including coyote bush (*Baccharis pilularis*), dune bluegrass (*Poa douglasii*), and mock heather (*Ericameria ericoides*), and is characterized as a non-wetland dune feature typical of the Pacific Grove coastline. The project would not affect this offsite swale or alter its hydrologic function.

The proposed project consists of demolition of an existing single-family residence and construction of a replacement residence and associated improvements within the Residential Development Envelope on a previously developed parcel. Because no wetlands or other jurisdictional aquatic resources occur within the project site, project implementation would not result in direct wetland removal, filling, grading, excavation, or other physical disturbance of protected wetland habitats.

Likewise, the project would not alter surface water flows, groundwater conditions, drainage patterns, or hydrologic processes supporting any state- or federally protected wetlands.

Because no state- or federally protected wetlands occur on the project site and no indirect effects to wetlands or other jurisdictional waters would occur, the project would not have a substantial adverse effect on protected wetlands through direct removal, filling, hydrologic interruption, or other means. Therefore, **no impact** would occur.

Item D: Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and breeding areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.

The project site is developed and generally surrounded by low density residential development. Accordingly, the project would not substantially interfere with movement of resident or migratory fish or wildlife, nor impede the use of wildlife nursery sites. Therefore, impacts on wildlife movement corridors would be **less than significant**.

Item E: The project site is located within the Asilomar Dunes ESHA and coastal zone (City of Pacific Grove 2020). The City's LCP requires coastal development permits for any development within the coastal zone and includes policies intended to protect ESHA and other biological resources. These policies generally require development to be concentrated in the least environmentally sensitive portion of a property, impacts to ESHA to be avoided and minimized, and remaining habitat to be restored or protected as applicable (City of Pacific Grove 2020). The proposed project would be constructed within the most disturbed portion of the project site, generally corresponding to the existing residence and hardscape, reduce overall site coverage; limit new disturbance of Central Dune Scrub; protect avoided habitat during construction; and restore and protect habitat outside the approved development area in accordance with Mitigation Measures BIO-5 and BIO-8. The project would not remove native or protected trees or encroach into protected tree root zones. Therefore, the project would not conflict with local policies or ordinances protecting biological resources, including tree preservation, and impact would be **less than significant with mitigation.**

Item F: The project site is not located in an area under the jurisdiction of a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan (California Department of Fish and Wildlife 2026). Therefore, there would be **no impact**.

SOURCES

- California Department of Fish and Wildlife. 2026. California Natural Community Conservation Plans. https://data-cdfw.opendata.arcgis.com/datasets/CDFW::conservation-plan-boundaries-hcp-and-nccp-ds760/explore?location=36.568194%2C-121.842529%2C12
- Regan Biological and Horticultural Consulting. 2025. Biological Assessment. November 25, 2025. (Appendix A)
- Pacific Grove, City of. 2020. Land Use Plan and Implementing Ordinances. https://files.cityofpacificgrove.org/Document_Center/Departments/Community%20Devel

opment/Programs%20&%20Projects/Local%20Coastal%20Program/2020%20Certified%20Local%20Coastal%20Program/pg-lup-ccc-mods-clean-copy.pdf

- United States Department of Fish and Wildlife. 2026. National Wetlands Inventory Wetlands Mapper. https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

5. CULTURAL RESOURCES

Would the project:

A. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

C. Disturb any human remains, including those interred outside of dedicated cemeteries?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

DISCUSSION

CEQA requires that a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources; a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (*CEQA Guidelines* Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]). PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The impact analysis included in this document is based on the cultural resources thresholds included in the *CEQA Guidelines* Appendix G: Environmental Checklist Form. Threshold A refers to historical resources broadly. To differentiate between archaeological and built environmental resources more clearly, the analysis under Threshold A is limited to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to Section 15064.5 and those that may be considered unique archaeological resources pursuant to Section 21083.2, are considered under Threshold B.

Item A: The existing single family home was reviewed for historical significance at a City of Pacific Grove Historic Resources Committee (HRC) meeting on November 19, 2025. The conclusion in the report made by the Community Development Director was that the property is ineligible as a historical resource as it has undergone significant alterations over time, including the removal of the original siding and brick veneer, as well as not being associated with important persons, events, or architecture. The HRC concurred and recommended a determination of ineligibility for listing on the City's Historic Resource Inventory (City of Pacific Grove Initial Historic Screening Determination, dated May 5, 2026). Although the original home was constructed in 1951, it does not meet the definition of being eligible as a historical resource under *CEQA Guidelines* Section 15064.5. As the project would not result in a substantial adverse change in the significance of a historical resource, there would be **no impact.**

Items B - C: The following discussion is based on the Phase I Archeological Survey Report prepared by EMC Planning Group, dated November 20, 2025, included as Appendix C (cover page only).

A records search of the site was conducted at the Northwest Information Center at Sonoma State University to review known archaeological resources within or adjacent to the project site. The records search determined there are four resources within a 1/8-mile radius of the project site. The four archaeological resources found in the records search are located outside of the project site and are comprised of indigenous habitation sites. Based on the records search, no archaeological resources had been previously recorded within the project site.

A Sacred Lands File (SLF) search was initiated through the Native American Heritage Commission (NAHC). NAHC responded to the SLF search on November 14, 2025, stating that the results of the SLF search were positive. The City of Pacific Grove conducted Native American outreach and consultation efforts with tribes who may have knowledge of cultural resources in the project area, and no known tribal cultural resources were identified. See Section 18, *Tribal Cultural Resources,* for a full analysis of potential impacts to tribal cultural resources.

An archaeological survey was conducted on November 13, 2025. The entire project site was surveyed for surficial indicators of historic-era and pre-contact indigenous archaeological materials. The survey resulted in the identification of a single indigenous archaeological resource within the project site but outside of the proposed development footprint. For the purposes of the current project, the City assumes the resource qualifies as a historical resource under CEQA due to its data potential under Criterion 4 of the California Register of Historical Resources. Additionally, the potential remains for

as-yet unidentified resources to be present. If the recorded archaeological resource were inadvertently disturbed and/or if presently unknown cultural resources were encountered during project-related ground disturbance, a substantial adverse change in the significance of an archaeological resource could occur.

As described in the Project Description, the City would apply the following conditions of approval to avoid and minimize potential impacts to archaeological resources:

- Archaeological/Tribal Monitoring. The project proponent shall retain a qualified archaeologist meeting the Secretary of the Interior's Standards for prehistoric archaeology and with experience in Central Coast archaeology (qualified archaeologist) to implement all conditions of approval and mitigation measures related to cultural resources. A cultural resource sensitivity training led by the qualified archaeologist shall be conducted prior to any ground disturbing activities and shall repeat with all new construction personnel involved in ground disturbing activities on site throughout the construction of the proposed project. A qualified archaeological monitor working under the direction of the qualified archaeologist and tribal monitor shall be present to observe all ground disturbing activities, including but not limited to demolition, grading, trenching, augering, and hand excavations. If at any time, potentially significant resources or intact features are discovered, the monitor(s) shall temporarily halt work until the find can be evaluated. Monitors shall periodically inspect the area where cultural resources were discovered to ensure it has not been breached. Upon conclusion of monitoring, the qualified archaeologist shall prepare an archaeological monitoring report to be submitted to the Northwest Information Center.
- Cultural and/or Archaeological Artifact Discoveries. If such artifacts are unexpectedly discovered during ground disturbing activities, work shall be halted until the item(s) can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation will be formulated, with the approval of the lead agency, and implemented prior to recommencement of work.
- Inadvertent Discovery of Human Remains. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC, which will determine and notify an MLD. The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

These conditions of approval, consistent with the measures recommended in the Archeological Survey Report (Appendix C), require avoidance of a recorded resource, cultural resource training, archaeological monitoring, and stop of work in the event unanticipated archaeological resources are encountered during ground disturbing activities. Mitigation Measure CUL-1 below includes detailed steps necessary to implement the conditions of approval listed above. Impacts would therefore be **less than significant with mitigation incorporated**.

Mitigation Measure CUL-1: Avoidance of Sensitive Archaeological Materials

- The identified archaeological resource area shall be avoided at all times

- The identified archaeological resource shall be established as an Environmentally Sensitive Area (ESA). The qualified archaeologist shall delineate the ESA boundary and temporary fencing around the ESA shall be installed by the project contractor, under observation of the qualified archaeologist, prior to project-related ground disturbance. The ESA fence shall be maintained throughout project construction and removed upon conclusion of project construction. ESA fencing shall include signage indicating "Environmentally Sensitive Area" and shall not specify the presence of an archaeological resource. No project work, including staging, shall occur within the ESA. Ground disturbance (i.e., grading, vegetation removal) within 25 feet of the established ESA shall be limited to hand tools. In the event of a breach of the ESA, the qualified archaeologist shall complete a damage assessment and make recommendations for treatment of the resource, including, if applicable, data recovery.
- Data Recovery Excavations of Identified Archaeological Resources. In the event the archaeological resource ESA is inadvertently disturbed or if significant archaeological deposits are identified during project construction, the qualified archaeologist shall prepare and implement a data recovery plan. The plan shall contain an outline of appropriate methods based on the nature of the identified resource, a detailed research design, and a description of final disposition of collected materials via curation and/or reburial, determined through consultation with consulting tribe(s).

SOURCES

- EMC Planning Group. 2025. Phase I Archeological Survey Report. November 20, 2025. (Appendix C)
- Pacific Grove, City of. 2026. Initial Historic Screening Determination. May 5, 2026.

6. ENERGY

Would the project:

A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

Item A: During project construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. Construction energy consumption would be temporary and would be consistent with that used by other similar projects within the city. Given the small scale of the project, construction energy use would be nominal and short-term. The proposed project would adhere to applicable federal and state regulations requiring fuel-efficient equipment and vehicles and prohibiting wasteful activities, such as California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Therefore, the proposed project would have a less than significant impact on energy use during construction.

Operational energy consumption would be primarily associated with operation of the residence and vehicle trips to and from the residence. The proposed project includes the demolition of a single-family home and the construction of a new single-family home in the same location; therefore, an increase in energy consumption and vehicle trips associated with operation of the residence would not represent an increase in energy consumption and vehicle trips in Pacific Grove, as energy use and vehicle trips would be the same or similar to the existing single-family residence and surrounding residences in Pacific Grove. Therefore, operational impacts regarding wasteful and inefficient energy use would be **less than significant**.

Item B: The proposed project would be required to be designed and constructed in compliance with the California Building Code (CBC), including applicable green building standards and building energy efficiency standards such as CALGreen; CBC, Title 24, Part 11, which requires implementation of energy efficient building materials and appliances into the design of new construction projects. The project would not conflict with other goals and policies set forth in the Pacific Grove General Plan or Climate Action and Adaptation Plan (CAAP) pertaining to renewable energy and energy efficiency. Therefore, the proposed project would not conflict with local energy efficiency plans, and the potential impact would be **less than significant**.

7. GEOLOGY AND SOILS

Would the project:

A) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

(ii) Strong seismic ground shaking?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

(iii) Seismic-related ground failure, including liquefaction?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

(iv) Landslides?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B) Result in substantial soil erosion or the loss of topsoil?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

E) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

F) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

DISCUSSION

The discussion below is based in part on the Geotechnical Investigation prepared for the project by Butano Geotechnical Engineering, Inc., dated November 2025. This report is included as Appendix D.

Item Ai: The project site is not underlain by a known earthquake fault as shown on maps prepared by the California Department of Conservation, and the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. There would be **no impact.**

Item Aii: Ground shaking effects are the result earthquakes. Impacts caused by ground shaking from earthquakes can be widespread. Although a function of earthquake intensity, ground shaking effects can be magnified by the underlying soils and geology, which may amplify shaking at great distances. The Geotechnical Investigation prepared for the project (Appendix D) determined that the hazard of intense seismic shaking is present at the project site, as is the case throughout central California. Nearby faults that could cause ground shaking at the site include the Hatton Canyon fault located approximately 1.4 miles southwest, the Monterey Bay-Tularcitos fault located approximately 2.2 miles northeast of the project site, and the Sylvan Thrust fault located approximately 3.2 miles southeast of the project site. The project site consists of younger dune deposits primarily made up of very loose to medium dense poorly graded sand, with granite encountered at a depth of approximately 26.5 feet below ground surface. Groundwater was encountered at a depth of approximately 20 feet below ground surface. Because the project site is underlain by sand, the Geotechnical Investigation (Appendix D) provides recommendations regarding foundation specifications and soil recompaction to minimize the effects of ground shaking at the project site regarding site preparation, grading, drainage, foundations, retaining walls, and construction practices to minimize the effects of seismic shaking at the project site. The City of Pacific Grove has adopted the 2025 CBC, which contains seismic design requirements applicable to the proposed residence. Section 1803.1.1.3 of the CBC states

that the building department shall approve the soil investigation if it determines that the recommended action is likely to prevent structural damage. Further, as a condition of the building permit, the approved recommended action shall be incorporated in the construction of each dwelling. Therefore, pursuant to PGMC and the CBC, the recommendations included in the Geotechnical Investigation (Appendix D) would be incorporated into the design of the project, and verified by the City prior to issuance of a building permit. Impacts associated with ground shaking would be minimized to the extent feasible and impacts would be **less than significant.**

Items Aiii-Aiv; C - D: Liquefaction and lateral spreading most often occur in loose saturated silts, and saturated, poorly graded, fine-grained sands. The geotechnical investigation determined that the project site is underlain by poorly graded sand and that groundwater was encountered approximately 20 feet below ground surface. A liquefaction analysis conducted for the site concluded that there is a low to moderate potential for deeper liquefaction below approximately 20 feet and recommended mitigation of liquefaction hazards through the use of deep foundations founded into the underlying granite. The report concluded that the potential for lateral spreading is low because of the depth of the potentially liquefiable soils and the site's location relative to adjacent slopes. As discussed above under Item Aii, the recommendations of the Geotechnical Investigation, including installation of helical piers founded into underlying granite and implementation of site-specific grading and foundation recommendations, would be incorporated into project construction. In addition, there is a low potential for earthquake-induced landslides because liquefaction-related lateral spreading was determined to be unlikely and the project would be designed in accordance with CBC requirements. Therefore, the project would not directly or indirectly cause potential adverse effects involving liquefaction, landslides, subsidence, collapse, or expansive soils, and impacts would be **less than significant.**

Item B: Project construction would involve site preparation and demolition, grading, and building. As discussed in the Project Description, the project would include implementation of construction BMPs to avoid and minimize erosion and restoration of the dune habitat includes replacement of vegetation removed with native species. The Geotechnical Investigation (Appendix D) indicates that the site soils consist primarily of poorly graded sand with very low fines content and are susceptible to wind and water erosion, and recommends erosion control for disturbed slopes and implementation of positive drainage away from structures which are required conditions for the project. Further, the proposed project would be required to comply with CBC Chapter 70 standards, which are designed to ensure implementation of appropriate measures during grading and construction to control erosion. Pursuant to PGMC Section 9.30.130(c), the City would incorporate erosion-control BMPs as necessary as conditions of approval in the building permit for the proposed project. Therefore, the project would not result in substantial soil erosion or the loss of topsoil and impacts would be **less than significant.**

Item E: The project would involve connection to the municipal wastewater system. The project would not require the use of septic tanks or alternative wastewater disposal systems. There would be **no impact.**

Item F: There are no known paleontological resources within the project site. However, coastal areas are known to contain paleontological resources, and it is possible that paleontological resources could be encountered during construction, which could result in significant impacts to these resources if they are not evaluated and, if scientifically significant, salvaged by a qualified paleontologist. Implementation of Mitigation Measure GEO-1 would minimize potential impacts to paleontological resources to **less than significant with mitigation**.

Mitigation Measure GEO-1: Unanticipated Fossil Discovery

- Paleontological Worker Environmental Awareness Program. Prior to the start of construction, a Paleontological Principal Investigator, as defined by the Society of Vertebrate Paleontology (2025), or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.
- Unanticipated Discovery of Paleontological Resources. If a potential fossil is discovered during project construction, construction activity within 50 meters of the find shall cease until the discovery is examined by a Paleontological Principal Investigator. If the find is determined to be significant, the Paleontological Principal Investigator shall direct appropriate treatment measures consistent with Society of Vertebrate Paleontology standards. The City of Pacific Grove shall require the inclusion of a standard inadvertent discovery clause in the construction contract for the proposed project to inform contractors of this requirement.

SOURCES

- Butano Geotechnical Engineering, Inc. November 2025. Geotechnical Investigation Design Phase for Proposed Residential Construction 1398 Pico Avenue Pacific Grove, California.(Appendix D)
- Society of Vertebrate Paleontology. 2025. Best Practice Guidelines for Mitigation of Adverse Impacts on Paleontological Resources. https://vertpaleo.org/wp-content/uploads/2025/10/SVP_Mitigation_Paleontology_Best_Practices_First_edition_October_2025.pdf

8. GREENHOUSE GAS EMISSIONS

Would the project:

A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

Items A - B: The City of Pacific Grove has adopted a CAAP, which establishes a framework for reducing communitywide greenhouse gas emissions and increasing resilience to climate change (Pacific Grove 2025). The Association of Monterey Bay Area Governments' (AMBAG) 2050 Metropolitan Transportation Plan/Sustainable Communities Strategy projected growth, land use patterns, transportation investments, and greenhouse gas reduction strategies for the region (AMBAG 2026).

The proposed project involves the demolition and reconstruction of a single-family residence. Temporary construction-related emissions would result from the use of construction equipment. As the proposed project would replace an existing single-family residence with a new single-family residence, it would not increase population in the area and would therefore not increase demand for electricity, heat and other utilities that create GHG during production. The project would comply with California Building Energy Efficiency Standards and CALGreen requirements, which include energy-efficient building features and construction practices.

Additionally, as discussed in Section 17, *Transportation*, the project would not substantially increase vehicle miles traveled compared to existing conditions. Therefore, the proposed project would not result in a substantial increase in operational GHG emissions or conflict with the AMBAG 2050 Metropolitan Transportation Plan/Sustainable Communities Strategy or the City's CAAP. The proposed project's short-term construction emissions would be minimal and long-term operational GHG emissions would be negligible and would not have a significant impact on the environment. Therefore, the proposed project would not result in emissions that would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The potential impacts would be **less than significant**.

SOURCE

- Association of Monterey Bay Area Governments. 2026. 2050 Metropolitan Transportation Plan/Sustainable Communities Strategy. https://ambag.org/plans/2050-metropolitan-transportation-plan-sustainable-communities-strategy

- Pacific Grove. 2025. Climate Action and Adaptation Plan. https://www.cityofpacificgrove.gov/Document_Center/Departments/Public%20Works/Programs%20&%20Initiatives/Environmental%20Programs/Pacific-Grove-CA-2025-Climate-Action-and-Adaptation-Plan.pdf?t=202603311348150

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

D) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

E) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

F) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

G) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

Items A - B: The proposed project would involve the demolition and construction of a single-family residence, which typically would not use or store large quantities of hazardous materials in operation. Potentially hazardous materials such as fuels, lubricants, and solvents would be used during project construction. However, the transport, use, and storage of hazardous materials during project construction would be conducted in accordance with all applicable state and federal laws, including but not limited to the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and CCR Title 22. Therefore, potential impacts would be **less than significant**.

Item C: The project site is located approximately one-mile northwest of Pacific Grove Middle School and Pacific Grove High School. As discussed above, operation of the project would not be expected to create a significant hazard to the public or the environment. Because the project site is not located within 0.25 mile of an existing or proposed school and the project is not expected to create a significant hazard to the public or the environment, it would not emit hazardous emissions or handle hazardous substances within 0.25 mile of a school. There would be **no impact**.

Item D: A search of the State Water Resources Control Board Geotracker database and the California Department of Toxic Substances Control EnviroStor database was conducted in July 2026; neither database shows a hazardous materials release site within 0.25 mile of the project site (California Department of Toxic Substances Control 2026; State Water Resources Control Board 2026). Therefore, the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, the project would not create a significant hazard to the public or the environment. There would be **no impact**.

Item E: The nearest airport to the project site is the Monterey Regional Airport, located approximately five miles to the southeast. The site is not within two miles of a public or public use airport. The project site is located within the Monterey Regional Airport Land Use Compatibility Plan's Airport Influence Area. The Airport Influence Area identified areas where land use compatibility policies shall apply. The project is located within Airport Safety Zone 7, which is one of the outermost safety zones and does not indicate a safety hazard or excessive noise for residents residing in the zone. Airport Safety Zone 7 indicates low risk for aircraft safety hazard and does not restrict residential development in the zone. The proposed project is for the replacement of a single-family home and would not introduce a new use that conflicts with the Airport Land Use Compatibility Plan or introduce airport related hazards; therefore, **no impact** would occur.

Item F: The City of Pacific Grove is a participating municipality in the County of Monterey's Multi-Jurisdictional Hazard Mitigation Plan. The 2022 Multi-Jurisdictional Hazard Mitigation Plan contains hazard mitigation principles and practices for several types of hazards. Construction of the proposed project would not interfere with implementation of the Multi-Jurisdictional Hazard Mitigation Plan. The proposed project would not result in lane closures on nearby roadways. In addition, the proposed project would not result in inadequate emergency access as project plans are subject to review and approval by the Pacific Grove Fire Department during the permit process. The grading and

construction plans would require implementation of fire protection safety features, including emergency access. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. This impact would be **less than significant.**

Item G: The project site is not located within a wildland fire hazard area (California Department of Forestry and Fire Protection [CAL FIRE] 2024). The closest fire hazard area is located approximately 0.4-miles south of the project site (CAL FIRE 2024). As discussed in Section 20, *Wildfire*, the proposed project would not exacerbate fire risk. Project construction activities would be performed in compliance with local building code and fire code standards which would minimize the proposed project's potential fire risk. Therefore, the project would have **a less than significant impact** regarding exposing people or structures to wildland fire hazards.

SOURCES

- California Department of Forestry and Fire Protection (CAL FIRE). 2024. Fire Hazard Severity Zone Map. Accessed July 2026: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones
- State Water Resources Control Board (SWRCB). 2026. Geotracker database. https://geotracker.waterboards.ca.gov/
- Department of Toxic Substances. 2026. EnviroStor database. https://www.envirostor.dtsc.ca.gov/public/
- Monterey, County of. 2022. Monterey County Multi-Jurisdictional Hazard Mitigation Plan. https://www.countyofmonterey.gov/government/departments-a-h/department-of-emergency-management/hazard-mitigation
- Monterey County Airport Land Use Commission. 2019. Monterey Regional Airport Land Use Compatibility Plan. Adopted February 25, 2019. https://www.countyofmonterey.gov/home/showpublisheddocument/143724/639011360322470000

10. HYDROLOGY AND WATER QUALITY

Would the project:

A) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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;

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

iv) impede or redirect flows?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

D) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

E) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Item A: Construction of the proposed project would involve site preparation and grading activities, which have the potential to result in erosion which could degrade water quality. Construction of the proposed project would comply with CBC Chapter 70, which requires implementation of BMPs to minimize polluted runoff and water quality impacts. Pursuant to PGMC Section 23.90.150, the applicant is required to submit a construction plan which identifies erosion control and water quality BMPs that would be implemented to protect water quality. These BMPs include, but are not limited to, maintenance of sediment barriers and silt fences along the perimeter of working areas and good housekeeping measures to minimize leaks and spills. The proposed project would incorporate recommendations included in the Geotechnical Investigation (Appendix D), which includes erosion control for disturbed slopes, implementation of positive drainage away from structures, compaction of engineered fill, and other site preparation measures that would reduce the potential for erosion during and after construction. These requirements would minimize potential for construction of the proposed project to degrade water quality.

Pollutants associated with operation of the proposed project could include household garbage and household products, such as fertilizers. Pursuant to PGMC Chapter 9.16, the proposed project would be required to subscribe to the City's solid waste collection services which would limit potential runoff that could occur from leaking garbage and discarded household items. PGMC Section 9.30.090 prohibits discharges into a watercourse that could contribute to a violation of water quality standards unless permitted by a National Pollutant Discharge Elimination System Permit or approved by the City's Public Works Department. With adherence to existing state and City regulations, the proposed project would not violate water quality standards, waste discharge requirements, or degrade water quality. Therefore, the project would result in a **less than significant impact**.

Item B: The project site is approximately 35,013 square feet, of which approximately 5,775 square feet is currently covered with impervious surfaces associated with the existing residence, garage, driveway, and ancillary features. The proposed project would include approximately 5,252 square feet of site coverage associated with the proposed residence and garage, courtyard, outdoor patio, driveway, walks, and pavers. The proposed project would also include a 750 square-foot outdoor use area within a maximum 6,002 square-foot residential development envelope. This comprises a 525 square-foot reduction in impervious surfaces which would provide additional permeable areas for groundwater recharge. No potable drinking water or landscape irrigation wells are proposed as part of the project, and no direct additions or withdrawals of water to the underlying aquifer are proposed. The proposed project receives water services from the California American Water (CalAm) Company

which is regulated by the Monterey Peninsula Water Management District and by PGMC Chapter 11.68. CalAm supplies groundwater from the Upper and Lower Carmel Valley Aquifers and the Seaside Groundwater Basin (CalAm 2021). As discussed in Section 19, *Utilities and Service Systems*, given that the project consists of one single-family residence, the anticipated amount of water needed for the residence is expected to be within the City's entitlement. Furthermore, groundwater allocated to the proposed project would be under the management of CalAm, the Monterey Peninsula Water Management District, and the PGMC which ensure groundwater is allocated sustainably. Accordingly, the proposed project would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge more than the existing residence on the parcel. Impacts to groundwater would be **less than significant.**

Items Ci - iv: The project site is located approximately 0.13 mile east of the Pacific Ocean. The nearest river to the project site is Seal Rock Creek, located approximately three miles south of the project site. The proposed project would not alter the course of any stream or river; however, the proposed project would alter existing drainage flows on the project site, as the project would alter impervious surfaces on the project site.

As previously discussed, the proposed project would implement erosion and sedimentation BMPs to reduce erosion, including those recommended in the project-specific geotechnical investigation. The proposed project would result in a reduction of impervious surfaces associated with the replacement residence and associated site improvements. These alterations could change on-site drainage patterns; however, the project would be required to comply with PGMC Section 23.90.150, which requires preparation of a post-development runoff plan that identifies stormwater conveyances and structural BMPs designed to manage runoff from the site. Therefore, the proposed project would not substantially alter the existing drainage pattern of the project site such that substantial erosion, flooding, or runoff would occur. Impacts would be **less than significant.**

Item D: The project site is not located within a flood hazard area as delineated by the Federal Emergency Management Agency (2025). There are no lakes in proximity to the project site which could result in seiche. The project site is not within a tsunami hazard area defined by the DOC (DOC 2022). Since flooding hazards are limited, the project would not risk the release of pollutants due to project inundation, nor impede or redirect flood flows. Therefore, the project would result in **less than significant impacts** regarding flood hazards.

Item E: The project site is not underlain by a designated groundwater basin and is not within an area subject to a water quality control plan or sustainable groundwater management plan (California Department of Water Resources 2026). Therefore, the project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. There would be **no impact.**

SOURCES

- California American Water Company (CalAm). 2021. Urban Water Management Plan. June 2021.https://wuedata.water.ca.gov/getfile?filename=/public%2Fuwmp_attachments%2F3596173942%2FFinal_Monterey_UWMP_compiled.pdf
- Federal Emergency Management Agency (FEMA). 2025. National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd

- California Department of Conservation (DOC). 2022. Tsunami Hazard Area Map. Accessed July 2026: https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/
- Pacific Grove, City of. 2020. Land Use Plan and Implementing Ordinances. https://files.cityofpacificgrove.org/Document_Center/Departments/Community%20Development/Programs%20&%20Projects/Local%20Coastal%20Program/2020%20Certified%20Local%20Coastal%20Program/pg-lup-ccc-mods-clean-copy.pdf
- California Department of Water Resources. 2026. GSA Map Viewer. https://sgma.water.ca.gov/webgis/index.jsp?jsonfile=https%3a%2f%2fsgma.water.ca.gov%2fportal%2fresources%2fjs%2fmapconfigs%2fGsaMaster.js

11. LAND USE AND PLANNING

Would the project:

A. Physically divide an established community?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Item A: The proposed project would involve the construction of a single-family residence on an existing parcel zoned for low density residential development and surrounded by similar residential development. The project would not physically divide an established community, and **no impact** would occur.

Item B: The project site is located in the Asilomar Dunes Planning Area. The project site is in the R-1-B-4 zone for low density residential development and is designated as Low Density Residential 1.0 dwelling unit/acre within the coastal zone. The project would be subject to both the City of Pacific Grove 2025 General Plan Land Use Element and the 2020 LCP. The proposed single-family residential use is consistent with the site's Low Density Residential General Plan designation and R-1-B-4 zoning designation. The proposed project complies with the development standards applicable to the R-1-B-4 district. Where standards set forth in the LCP and standards in R-1-B-4 zoning district are in conflict, the standards in the LCP shall prevail. As discussed in Section 1, Aesthetics, the project is located within an LCP designated Scenic View Area and is consistent with the applicable scenic resource protection policies. The project as proposed is consistent with the site's General Plan land use designation, LUP policies, zoning designation and applicable development standards, and would not require amendments to any applicable plans or regulations, or conflict with any policies with the purpose of avoiding or mitigating an environmental effect.. Therefore, the project would result in **no impact** to the environment in terms of conflicts with applicable land use plans and policies.

SOURCES

- Pacific Grove, City of. 2025. General Plan. *Land Use Element.* https://files.cityofpacificgrove.org/17.%20%20Draft%20Pacific%20Grove%20Land%20Use%20Element%20-%20Clean.pdf?t=202512111334160&t=202512111334160
- Pacific Grove, City of. 2020. Local Coastal Program. https://www.cityofpacificgrove.gov/our_city/departments/community_development/programs___projects/local_coastal_program.php#outer-270

12. MINERAL RESOURCES

Would the project:

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B. Result in the loss or availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - B: According to the Pacific Grove General Plan Natural Resources Element, the Pacific Grove area is classified as "MRZ-3", the designation given to areas containing mineral deposits for which the significance cannot be evaluated from available data (City of Pacific Grove 1994). General Plan Section 6.3.2 states that the City is nearly built out, precluding any mineral extraction. Moreover, no mineral resources have been identified within the project site and no active mineral resource extraction operations would be affected by the project. Therefore, the project would have **no impact** on mineral resources.

SOURCES

- Pacific Grove, City of. 1994. General Plan. *Natural Resources Element.* https://www.cityofpacificgrove.org/living/community-development/planning/general-plan

13. NOISE

Would the project result in:

A) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

B) Generation of excessive groundbourne vibration or groundbourne noise levels?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

C) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - B: Construction of the proposed project would generate temporary noise in the vicinity of the site. However, construction would be temporary and would cease upon completion. As described in Section 9, *Hazards and Hazardous Materials*, construction activities would be subject to the City's Noise Ordinance, (Chapter 11.96 of the PGMC), which limits construction activity to the hours of 8:00 a.m. to 6:00 p.m. Monday through Saturday, and 10:00 a.m. to 5:00 p.m. on Sunday. Therefore, construction would be limited to daytime hours when residences are less noise sensitive. Construction would not require pile driving or other high impact activity that would result in high levels of vibration. Project construction would generate a temporary increase in groundborne vibration levels during the grading phases of project construction. However, it is not anticipated that localized vibration would exceed the threshold for human perceptibility or the threshold for structural damage due to vibration, as construction-related vibration would attenuate in the distance between construction activities and nearby residences. In addition, vibration would be temporary and limited to the duration of the construction period. Operation of the single-family residence would not generate substantial new noise such that the ambient noise level in the project area would increase. The proposed residence would generate noise similar to the existing residences in the project area. Therefore, the impact related to increased noise and vibration would be **less than significant**.

Item C: The nearest airport is the Monterey Regional Airport which is located approximately five miles to the southeast of the project site. The project site is located within the Airport Influence Area, or Airport Safety Zone 7. Airport Safety Zone 7 indicates low risk for aircraft safety hazards, is one of the outermost safety zones, and does not indicate a safety hazard or excessive noise for residents

residing in the zone. The proposed project is not located within a noise contour zone as designated by the Monterey Regional Airport Land Use Compatibility Plan that would preclude residential development (Monterey County Airport Land Use Commission 2019). As the project site is not within two miles of a public or public use airport or within an airport land use plan and the project would not expose people residing or working in the project area to excessive noise levels, there would be **no impact**.

SOURCES

- Monterey County Airport Land Use Commission. 2019. Monterey Regional Airport Land Use Compatibility Plan. Adopted February 25, 2019. https://www.countyofmonterey.gov/home/showpublisheddocument/143724/639011360322470000

14. POPULATION AND HOUSING

Would the project:

A) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - B: The proposed project would involve the demolition and replacement of one single-family residence within an existing residential neighborhood. As the project is replacing an existing single-family home, there would be no expected net population increase from Pacific Grove's current population. Additionally, the proposed project would not include the extension of roads or other infrastructure which would result in substantial unplanned growth. The project would not displace existing housing nor displace people or housing. Therefore, there would be **no impact**.

SOURCES

- California Department of Finance. 2023. E-1 Cities, Counties, and the State Population and Housing Estimates with Annual Percent Change. https://dof.ca.gov/forecasting/demographics/estimates/
- United States Census Bureau. 2022. QuickFacts. Pacific Grove city, California. https://www.census.gov/quickfacts/pacificgrovecitycalifornia

15. 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:

A) Fire protection?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B) Police protection?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

C) Schools?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

D) Parks?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

E) Other public facilities?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - E: The project site is served by the City of Pacific Grove Fire Department, City of Pacific Grove Police Department, and the Pacific Grove Unified School District. The proposed project would involve the demolition and replacement of one single-family residence within an existing residential neighborhood. As the project is replacing an existing single-family home, the project would not create substantial new demand for public services (e.g., fire, police, schools, parks, libraries, hospitals, community centers) that would result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. The project would have no measurable effect on existing public services in that the project would not result in an increase in demand and would not require expansion of services to serve the project. Given that

the project would not substantially increase population, the project would maintain applicable service ratios for fire and police protection services. In addition, the project applicant would be required to pay Pacific Grove Unified School District development fees. Because the project would not substantially reduce the provision of public services within the city and would be required to pay applicable development impact fees, the project would not require the provision of new or altered governmental facilities. Therefore, the project would have **no impact** to fire and police protection, schools, parks, or other public facilities.

16. RECREATION

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Items A - B: Because the project would not substantially increase population, as described in greater detail in Section 14, *Population and Housing*, the project would not result in an increase in demand or use of existing recreational facilities that would result in substantial physical deterioration of existing facilities or require the construction or expansion of recreation facilities in the vicinity of the project. No parks, trail easements, or other recreational facilities would be impacted by the proposed project. There would be **no impact** to recreational facilities.

17. TRANSPORTATION

Would the project:

A) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

C) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

D) Result in inadequate emergency access?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Item A: Regional and local plans and policies addressing the circulation system include the Monterey County Active Transportation Plan, the Pacific Grove General Plan Transportation Element, and the AMBAG Metropolitan Transportation Plan/Sustainable Communities Strategy. Regional access to the project site during construction and operation would be provided by Asilomar and Pico Avenues. Direct access to the project site during construction and operation would be provided by the existing driveway that connects to Pico Avenue. The nearest bus stop is located at the intersection of Pico Avenue and Asilomar Avenue, approximately 0.12 mile from the project site. There are no sidewalks or designated bicycle lanes along Pico Avenue or Asilomar Avenue.

Construction traffic would be temporary and limited to the duration of the construction schedule. During the construction period, worker parking would be provided on Pico Avenue or within the project site. After construction is complete, the project would not generate substantial amounts of traffic because the project consists of the continued operation of one single-family residence. As the project would not disrupt transit service, impair the use of bicycle or pedestrian facilities, substantially increase the existing population, or result in a substantial increase in vehicle trips, the project would not conflict with any program, plan, ordinance, or policy addressing the circulation system—including transit, roadway, bicycle, and pedestrian facilities. There would be **no impact**.

Item B: *CEQA Guidelines* Section 15064.3(b)(1) applies to land use projects and describes criteria for analyzing transportation impacts, stating, "Vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact." The Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research) Technical Advisory on Evaluating Transportation Impacts in CEQA (2018) provides a screening threshold of 110 trips per day to presume a less than significant impact related to VMT. The Institute of Transportation Engineers Trip Generation Manual provides a projected trip generation rate of approximately one daily trip per single family residence (Institute of Transportation Engineers 2021). As there is an existing single-family residence on the property that will be replaced with a new single-family residence, there would be no change in daily trips from the project site. Therefore, there would be **no impact** related to VMT.

Items C - D: The project does not include modifications or additions to the local roadway network, and no geometric design features or incompatible land uses would be introduced to the project site. The proposed residential driveway would still connect to Pico Avenue and would provide the required minimum turnaround radius for emergency access, as determined by CCR Title 14, Division 1.5, Chapter 7, Articles 1-5. Furthermore, all project plans would be reviewed by the Pacific Grove Fire Department to ensure that sufficient emergency access is provided. There would be **no impact** related to transportation hazards or emergency access.

SOURCES

- Institute of Transportation Engineers. 2021. Trip Generation Manual. 11th Edition. *Common Trip Generation Rates (PM Peak Hour).* October 1, 2021.

18. TRIBAL CULTURAL RESOURCES

A) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

DISCUSSION

Tribal cultural resources are defined in PRC 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either:

- Included or determined to be eligible for the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1

AB 52 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). AB 52 further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

AB 52 establishes a formal project consultation process for California Native American tribes and lead agencies regarding tribal cultural resources, referred to as government-to-government consultation. Per PRC Section 21080.3.1(b), the AB 52 consultation process must begin prior to release of a negative declaration, mitigated negative declaration, or environmental impact report. Native American tribes to be included in the formal consultation process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. AB 52 provides dedicated timeframes for inquiries and responses regarding consultation and information sharing. AB 52 also provides for confidential information sharing between the governments involved for a meaningful consultation process.

The following discussion includes a summary of outreach efforts by the City of Pacific Grove and consultation undertaken pursuant to AB 52.

Items Ai and Aii: As stated under Section 5, *Cultural Resources,* an SLF search conducted by the NAHC was positive. The City of Pacific Grove conducted Native American outreach and consultation pursuant to AB 52.

In accordance with PRC Section 21080.3.1, City of Pacific Grove staff sent notification letters (sent via e-mail) to local Native American tribes on January 15, 2026. In response to notification letters, tribal representatives requested access to archaeological reports/surveys, inclusion of cultural sensitivity training mitigation and resource recovery programs, and tribal monitoring.

Consultation was requested by representatives of Esselen Tribe of Monterey County on February 13, 2026. On May 6, 2026, staff initiated consultation and provided the Archeological Survey Report and an overview of the project conditions and measures. Esselen Tribe of Monterey County representatives did not engage in consultation and no meetings were held. No tribal cultural resources were identified and consultation concluded on June 8, 2026, pursuant to PRC section 21082.3(d)(2).

Although no tribal cultural resources were identified as a result of the AB 52 consultation, the NAHC SLF search was positive, one indigenous archaeological resource was recorded on the project site, and there is potential for inadvertent discovery of resources of tribal origin. As described in the Project Description, the City would apply conditions of approval and mitigation measures as described in the COAs and CUL-1 to avoid, minimize, and mitigate potential impacts to tribal cultural resources. These conditions of approval, listed in the Project Description and Section 5, Cultural Resources, require cultural resource training, archaeological and tribal monitoring, and stop-work in the event archaeological and/or tribal cultural resources are encountered during ground disturbing activities. Steps to comply with these conditions of approval are further detailed in Mitigation Measure CUL-1. Furthermore, pursuant to Land Use Plan Policy CRS-2, monitoring would be required during ground-disturbing activities. Therefore, potential impacts to tribal cultural resources would be **less than significant with mitigation**.

SOURCES

- Pacific Grove, City of. 2020. Land Use Plan and Implementing Ordinances. https://www.cityofpacificgrove.gov/Document_Center/Departments/Community%20Development/Programs%20&%20Projects/Local%20Coastal%20Program/2020%20Certified%20Local%20Coastal%20Program/Land%20Use%20Plan%20as%20amended%20%20(Clean%20-%20Posted%2006-23-2025).pdf
- EMC Planning Group. 2025. Phase I Archeological Survey Report, 1398 Pico Road, Pacific Grove, Monterey County, prepared by Vanessa Potter, MA, RPA of EMC Planning Group Inc., (Appendix C)

19. UTILITIES AND SERVICE SYSTEMS

Would the project:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

B. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

E. Comply with federal, state, and local statutes and regulations related to solid waste?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

DISCUSSION

Item A: The project site is currently connected to the City of Pacific Grove municipal sewer system. The proposed project would demolish an existing single-family residence and construct a new single-family residence with associated utility connections, stormwater drainage, and site improvements. The project includes reconnection to the existing municipal sewer services. The contractor would locate and assess sanitary sewer point of connection and reuse or replace if necessary. However, the project would not generate an increase in wastewater that would exceed the capacity of existing or committed demand, nor require the construction or expansion of new water or wastewater treatment facilities.

Stormwater would be managed through on-site drainage improvements and would not require construction of a new off-site storm drain system or expansion of municipal storm drain facilities. The project's electrical, gas, and telecommunication utilities would also connect to existing infrastructure, and any new distribution lines would be placed underground. There would be **no impact.**

Item B: The City of Pacific Grove receives water services from CalAm. Potable water is regulated by both the Monterey Peninsula Water Management District (MPWMD) and by PGMC Chapter 11.68. The project consists of the demolition and one-to-one replacement of a single-family residence. As proposed and per the submitted MPWMD Residential Water Release Form and Water Permit Application, the water fixture unit count would increase from 17.6 to 29.9. The anticipated amount of water needed for the residence is within the City's remaining Local Water Project entitlement, and the additional water unit credits required for the project would be purchased from the City of Pacific Grove. This impact would be **less than significant.**

Item C: The project site is currently connected to the City of Pacific Grove municipal sewer system. The proposed project would demolish an existing single-family residence and construct a new single-family residence with associated utility connections, stormwater drainage, and site improvements. The project includes reconnection to the existing municipal sewer services. The contractor would locate and assess sanitary sewer point of connection and reuse or replace if necessary. However, the project would not generate an increase in wastewater that would exceed the capacity of existing or committed demand, nor require the construction or expansion of new water or wastewater treatment facilities. The project would result in **less than significant** to the utilities or service systems mentioned.

Items D - E: The proposed project would demolish an existing single-family residence and construct a new single-family residence. The single-family residence is not expected to result in an increase in solid waste, and construction would comply with all statutes and regulations related to solid waste. There would be **no impact.**

SOURCES

- Pacific Grove, City of. 2026. Water Utilities. https://www.cityofpacificgrove.gov/our_city/departments/public_works/utility_services/water/water_utilities.php

20. WILDFIRE

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

Would the project:

A. Substantially impair an adopted emergency response plan or emergency evacuation plan?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
				X

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?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			X	

DISCUSSION

The project site is not located in a High or Very High Fire Hazard Severity Zone and is within a Local Responsibility Area as designated by CAL FIRE (CAL FIRE 2024). The closest Fire Hazard Severity Zone is Moderate and is located approximately 0.4-mile south of the project site in an area designated as a State Responsibility Area (CAL FIRE 2024).

Item A: The Pacific Grove Emergency Operations Plan (EOP) contains local response and recovery protocols for several types of natural, technical, and human-caused emergencies that may occur in the city (Pacific Grove 2025). The Pacific Grove EOP functions in coordination with the Monterey County EOP. The Monterey County EOP establishes the countywide framework for emergency management, interagency coordination, resource mobilization, and evacuation planning in the area. The nearest evacuation route to the project site identified in the Evacuation and Transportation Annex

to the Monterey County EOP is 17-Mile Drive (County of Monterey 2020). Construction limits would be delineated by temporary protective fencing, and construction activities would be restricted to the designated construction area. During construction, equipment may be staged within paved roads adjacent to the project site. A construction management plan is required as a condition of approval and would be submitted with the building plans. The construction management plan would be prepared to address traffic and vehicle movement if temporary street closures are required, which would retain emergency access or identify available alternative routes. The project plans do not identify any permanent roadway modifications or closures. The existing residential use of the site will remain unchanged and the project would not modify the surrounding roadway network or the Pacific Grove Fire Department's ability to implement the EOP. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be **less than significant**.

Item B: The project could expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to the vegetated landscape in which the project site is located if a fire were to occur. During construction, the project would involve the use of construction equipment which may produce sparks that could ignite on-site vegetation. The project would be required to comply with regulations related to construction equipment and fire suppressants, including but not limited to California Public Resources Code Section 4442, which requires spark arrestors on potentially-spark inducing equipment. Therefore, the project would not exacerbate existing wildfire risk and would not substantially increase the risk of exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. This impact would be **less than significant.**

Item C: The project would not involve installation of new roads, fuel breaks, or emergency water sources. The project would involve the construction of new utility connections, including power, natural gas, water, and wastewater connections. The proposed single-family residence would connect to existing utilities and would not substantially increase existing fire risk associated with new infrastructure. Therefore, **no impact** would occur.

Item D: As discussed in Section 7, *Geology and Soils*, compliance with geotechnical recommendations would reduce the risk of landslides to a less than significant level. Additionally, as discussed in Section 10*, Hydrology and Water Quality*, the project would not result in substantial changes to stormwater runoff and drainage patterns. As indicated by the project site's location as not within a High or Very High Fire Hazard Severity Zone, the risk of wildfire at the project site is low. Therefore, the project would not 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. This impact would be **less than significant.**

SOURCES

- California Department of Forestry and Fire Protection (CAL FIRE). 2025. Fire Hazard Severity Zone Map. Accessed July 2026: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones
- Pacific Grove, City of. 2025. Pacific Grove Emergency Operations Plan. https://files.cityofpacificgrove.org/Document_Center/Departments/Fire%20&%20Emergency%20Preparedness/Emergency%20Preparedness/Pacific%20Grove%20EOP%20-%2011.2025.pdf?t=202511192135530&t=202511192135530

- Monterey, County of. 2020. Monterey County Emergency Operations Plan. https://www.countyofmonterey.gov/home/showpublisheddocument/114295/637961619301000000
- Monterey, County of. 2022. Monterey County Emergency Operations Plan Evacuation and Transportation Annex. https://www.countyofmonterey.gov/home/showpublisheddocument/114301/637961624584000000

21. MANDATORY FINDINGS OF SIGNIFICANCE

A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

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)?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

C. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

IMPACT	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		X		

Item A: As discussed throughout this Initial Study and as mitigated, the project would not result in a significant impact on the environment in any of the following ways: degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. These impacts would be **less than significant with mitigation incorporated.**

Item B: As discussed throughout this Initial Study, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. With implementation of required mitigation, the project would not result in substantial long-term environmental impacts and, therefore, would not contribute to cumulative environmental changes that may occur due to planned and pending development. This impact would be **less than significant with mitigation incorporated.**

Item C: Effects on human beings are generally associated with impacts related to issue areas such as air quality, geology and soils, hazards and hazardous materials, noise, transportation, and wildfire. As discussed in this Initial Study, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation in each of these resource areas. Therefore, the project would not cause substantial adverse effects on human beings, either directly or indirectly. These impacts would be l**ess than significant with mitigation incorporated.**

Appendix A

Biological Assessment

City of Pacific Grove - Planning Division
City Hall
300 Forest Ave. 2nd Floor
Pacific Grove, CA 93950

November 25, 2025

RE: Divita Residence 1398 Pico Avenue

Ed and Julie Divita have proposed to demolish their single-family residence at 1398 Pico Avenue in Pacific Grove and build a new residence within generally the same footprint of the existing structure**.** The proposed project includes the demolition of an existing 1,638 sq. ft. three-bedroom, three-bath single-family residence located in the Asilomar Dunes residential neighborhood, just east of Sunset Drive. The existing exterior patio and driveway will be replaced to comply with allowable primary coverage and outdoor use area requirements.

The scope of work includes the construction of a new 3,143 sq. ft. single-story single-family residence with a second-story roof deck and a one-vehicle garage. The project includes hardscape of a new driveway, courtyard and patio totaling 2107.7 square feet for a total site coverage of 5250.68 square feet.

The new building footprint will replace the location of the existing structure within the lot and will fully comply with the standards of the Residential Development Envelope, totaling 6,000.68 sq. ft. (comprised of 5,250.68 sq. ft. of primary coverage and 750 square feet of unimproved outdoor use area).

Summary

I surveyed the Divita property on June 9, 2025, walking the entire perimeter and then in diagonals through the middle of the property, taking photos and noting plant species throughout. I looked specifically for rare, threatened and endangered species of plants known to occur in dune scrub habitat on the Monterey Peninsula including Sandmat manzanita (*Arctostaphylos pumila*), Seaside birds beak (*Cordylanthus rigidus* ssp. *littoralis*), Monterey sand gilia (*Gilia tenuiflora* ssp. *arenaria*), Monterey spine flower (*Chorizanthe pungens* var. *pungens*, Eastwoods Golden bush (*Ericameria fasciculata*), Kellogg's Horkelia (*Horkelia cuneata* var. *sericea*), northern curly-leaved Monardella (*Monardella sinuata* ssp. *nigrescens*), virgate eriastrum (*Eriastrum virgatum*), large-flowered leptosiphon (*Leptosiphon grandiflorus*), Monterey paintbrush (*Castilleja latifolia*), Coastal dunes milkvetch (*Astragalus tener* var. *titi*), Ocean bluff milkvetch (*Astragalus nuttallii* var. *nuttallii*), Menzies wallflower (*Erysimum menziesii*), Tidestrom's Lupine (*Lupinus tidestromii*), twisted horsehair lichen (*Sulcaria spiralifera*), and beach layia (*Layia carnosa*).The survey date was an appropriate time to find flowering or fruiting/seed capsule development of most of the special status (Rare, Threatened or Endangered) plants documented in the area by the California Rare Plant Inventory and the California Natural Diversity Database.(See Flowering times in California Rare Plant inventory spread sheet appendix) Aside from the Monterey Pine, a California Native Plant Society Rare Plant rank (CRPR) List 1B.1 species, *no* Rare, threatened or endangered species of plant or animal was found on the property.

The property is in the neighborhood north of Asilomar conference center entirely within the Environmentally Sensitive (ESHA) Asilomar dunes complex. The Asilomar Dunes Residential Area, bounded by Lighthouse Avenue, Asilomar Avenue, and Asilomar State Beach and Conference Grounds, is entirely within these sand dunes that support rare and endangered biological resources. Therefore, the entire area is designated as an Environmentally Sensitive Habitat Area and a Sensitive Coastal Resource Area for purposes of appeal per Public Resources Code §30603. So, while none of the rare, threatened or endangered dune species beyond Monterey Pine were found on the lot, any new impacts beyond existing development on site will negatively impact Central Dune scrub habitat (ESHA) on the property.

The dune area, which was annexed by the City of Pacific Grove in 1980, was previously subdivided into residential parcels. This project will require a Coastal development permit under the City of Pacific Grove Local Coastal plan. The project has the potential to impact biological resources in the Central Dune scrub plant community on the property. This report is intended to satisfy Section 2.3.5.1a of the Pacific Grove Coastal Land Use Plan, which requires the preparation of a Botanical Survey Report for projects that may affect environmentally sensitive Asilomar Dunes.

Special Status species

Before visiting the site, I conducted an inquiry of the California Natural Diversity Database system (CNDDB) and the California Native Plant Society Rare Plant rank database for the Monterey Quadrangle and surrounding quadrangles of the USGS to determine what special status species of plants and animals as well as Plant communities (or Habitat types) had been documented within the quadrangle. This information combined with my previous experience in the nearby area of Pacific Grove at privately owned parcels, the PG Municipal Golf course and the Asilomar State Park provided my framework for determining what to look for and what to expect on this property. This section of Pacific Grove coastline hosts a significant number of special status plant and animal species. The Divita residence is in a developed neighborhood on the inland side of the Asilomar dune complex, within 800 feet of the Coastline in an area of disturbed Dune scrub vegetation a short distance west of the historical edge of Monterey Pine woodland.

The CNDDB query returned a list for the Monterey quadrangle* of 89 special status elements (Rare, Threatened or Endangered) consisting of 35 animals (including insects), 49 Plant species and 5 plant communities. Many of the plants and animals on these lists are uniquely associated with the Dune and Beach habitats along the Ocean shores of Pacific Grove. Many others are strictly inland species or aquatic species that were not even considered as potentially present on the Divita property. Complete spread sheets and CNDDB maps of all elements including indication of whether habitat for each species or plant community is present on the property, and whether they were observed during my survey, are included as appendices to this report. (*As requested, a broader list covering additional quadrangles north, south and east of the Monterey quadrangle is included for reference only. The unique isolated setting of the Monterey peninsula in the farthest west portion of Monterey County and the geological and hydrological features that formed the Asilomar dune complex have resulted in a unique plant community with a restricted, specific species “inventory” unlike any other and it shares very few species *not* indigenous to coastal dune habitat.

Plants

This site is within 800 feet of known populations of Menzies wallflower (*Erysimum menziesii* ssp. *menziesii*), Tidestrom's lupine (*Lupinus tidestromii*), Beach Layia (*Layia carnosa*) and Monterey spineflower (*Chorizanthe pungens* variety *pungens*) There are also documented and personally observed occurrences of Monterey spineflower, sand gilia and dune layia within 400 feet. Two special status species were observed on site (Though more were expected) including Monterey Pine (CNPS Rare plant rank 1B.1) which reaches its range extreme at the eastern edge of the dynamic dune system, and Monterey Cypress whose excepted natural range only extends to the southern extreme of the Asilomar Dunes complex at the Cypress Golf club about 4 miles to the Southwest. Monterey Cypresses on site *are not* considered to be part of the natural current native population. No other Rare, Threatened or Endangered species were observed on the project site. The timing of the survey was adequate for determining presence or absence of special status plant species. No further botanical surveys are recommended.

Animals

No rare, threatened or endangered species of animal was observed on the Divita property during my survey. One animal species that could *potentially* occur on site but would not have been observable during my survey is the northern California legless lizard. (Anniella pulchra - California Species of Special Concern) The preferred habitat of Anniella pulchra is sandy or loose loamy moist substrates that allow for burrowing and shedding (Thomson 2016, ECCC HCP/NCCP2006a, Stebbins 2003). Elevated moisture levels are further attractive to the lizards as well. A swale on the north side of the property appears to convey rain runoff from Pico Avenue NW to a low spot in the Dune about 350 feet NW of the road. This could provide suitable moist sand conditions for at least part of the year but does not appear to be in the impact zone of the project.

Presence and abundance of this cryptic species are both difficult to assess. Lizard population densities have been reported associated with certain plant species that provide leaf litter and strong root structures attracting preferred prey and offering cover. Bush lupines (*Lupinus arboreus*), mock heather (*Ericameria ericoides*), and Coast Live Oak (*Quercus agrifolia*) are among the most common indicators for this species of Anniella (Kuhnz 2005, Miller 1944). There are several mock heather plants on the neighboring properties adjacent to the south side of the driveway and the swale near the north edge of the Divita property but no Bush Lupines or Oak trees.

The legless lizard is an animal that spends most of its time underground in loose sandy soil but will come out at night and forage for small insects and arthropods near the base of plants such as the mock heather and bush lupine. As morning comes, they will head back under ground or under boards, logs, rocks or other items that will protect them from drying wind and sun. It is possible that these legless lizards *could* be occupying parts of the Divita property and should be taken into consideration in the area north of the existing house where refuge could be found in the swale between the Divita residence and the northern neighbor and along the southern (SW) side of the existing driveway near the property line where a healthy stand of Ericameria ericoides exists on the adjacent neighboring property. Preliminary measures to assess the potential for the presence of Northern California legless lizards could be initiated before the demolition of the house, to confirm or rule out the potential for impacts to the species.

These measures may include placing cover boards (half sheets of plywood laid on the ground at night) on the north side of the house near the existing foundation and the south side of the driveway overnight for several nights to see if legless lizards can be "drawn out" to take cover under the boards. Within 96 hours of the onset of Project-related activities, a qualified biologist with the appropriate handling permits shall conduct a coverboard survey to determine presence of northern California legless lizard. The qualified biologist will set up the coverboards in the afternoon of day one and subsequently return the following morning 3 days in a row to carefully lift the boards and observe and document what is underneath each; or monitoring of the demolition work involving any displacement of sand, and translocation of "found" lizards by a qualified biologist. Either measure would require a Department of Fish and Wildlife approved Biologist and preparation of a relocation plan. If a northern California legless lizard is found, the qualified biologist shall contact CDFW, and the species shall be passively ushered out of harm's way to an area that is unaffected by the Project. If the Project requires northern California legless lizards to be removed, disturbed, or otherwise handled, the qualified biologist shall obtain all appropriate permits and prepare a northern California legless lizard plan of proper handling and passive relocation protocols. The list (or plan) of protocols shall be implemented during Project construction and activities/biological construction monitoring.

Site Observations

I visited the site on June 9, 2025. The 2024-2025 rain year did not see many long-term substantial rainstorms and the conditions were drier than typical and much of the vegetation was senescing. The Divita property is highly disturbed and invaded Dune scrub habitat dominated by nonnative species that have been introduced into California for soil stabilization and ornamental horticultural purposes and have since naturalized with several becoming aggressively invasive and difficult to eradicate. Of the thirty-five (35) species identified on the property, eighteen (18) are not native to the state or continent and nineteenth species is native to Monterey County but not to this site. Dominant on the entire property is the *Carpobrotus edulis*, commonly referred to as Ice plant though more accurately called hottentot fig. This species and its close cousin (which frequently hybridizes with it) *Carpobrotus chilensis* is one of the most invasive plants in California and has spread along most of the Coast from Central California to Baja. It is given the highest rating by the California Invasive Plant Council (Cal-IPC) for severe ecological impacts. Native to South Africa and introduced as an ornamental plant, *Carpobrotus edulis* now inhabits coastal scrub, grasslands, chaparral, bluffs, dunes and beaches where it creates dense mats that increase soil organic matter over time, allowing new non-native species to invade. Carpobrotus edulis propagates by seed and vegetatively. Even small stem fragments can regenerate into a new plant, making control difficult. The abundance of this plant on site is the primary reason for the lack of native species diversity, and it will be the primary target for eradication in the restoration plan.

Other invasive species with broad coverage on the property include the *Acacia*, Rattlesnake grass (*Briza maxima)*, Ripgut brome grass (*Bromus diandrus), Pride of Madeira (Echium candicans), red-stem filaree (Erodium cicutarium),* Bur-clover *(Medicago polymorpha),* slender-leaved iceplant *(Mesembryanthemum nodiflorum),* Bermuda buttercup *(Oxalis pes-caprae),* and Kikuyu grass (*Pennisetum clandestinum)* all of which are on the Cal-IPC inventory of invasive weeds. These species will also be targets for eradication in the process of implementing the restoration plan for the property. The two annual grass species. Rattlesnake grass and ripgut brome are prolific seeders that will need appropriately timed removal efforts over multiple years to eliminate from the site.

Some native species do remain on the property and where found should be protected from weed eradication methods and construction impacts as much as possible. In the front (street side) of the property are several large Coyote bush (*Baccharis pilularis* ssp. *pilularis*) plants, and the gray leaved dune sagewort (*Artemisia pycnocephala*), Rattlesnake weed (*Daucus pusillus*), several mature Mock heather plants (*Ericameria ericoides*) a small stand of Monterey Cypress and a few Monterey Pines. In the back yard there is a greater diversity of native species, though still very few individual species based on what is typical in the nearby Dunes. Small patches of the dune sagewort are accompanied occasionally by Western bracken fern (*Pteridium aquilinum* var. *pubescens*), Dune sedge (*Carex pansa*), and Dune bluegrass (*Poa douglasii*) and the Coyote bush. Plants typically much more abundant in the dunes are found as individuals sporadically throughout the yard including Beach evening primrose (Camissoniopsis cheiranthifolia), wooly lotus (*Acmispon heermanii* var. *orbicularis*), Seaside daisy (*Erigeron glaucus*) and California Poppy (*Eschscholzia californica*). A few isolated Monterey Pines and Monterey Cypress in the middle of the westerly sloping yard are struggling or dead. The healthiest vegetation in the back side of the lot is along a low swale extending to the NW corner of the property where a stand of the nonnative acacia acts as a visual screen and a patch of dense Dune sedge and Coyote bush mixes with a thick cover of hottentot fig.

No animals were observed on the site, though the trails of black tailed deer (*Odocoileus hemionus*) are obvious in several locations and the tailings of Botta's pocket gopher (*Thomomys bottae*) burrows were evident throughout.

The Dune scrub plant community in the Asilomar Dune complex is considered ESHA and impacts upon it by development are considered significant. The condition of the dune scrub plant community on the Divita property is poor, dominated by a single nonnative species and lacking in vigor and native diversity. The demolition of the existing single-family dwelling at 1398 Pico Avenue and subsequent rebuilding of a larger single-family dwelling and associated hardscape will have minor impacts on highly degraded dune scrub habitat.

Recommended mitigation, minimization, or avoidance measures to compensate for potential impacts to significant biological resources.

The project as designed has minimal impact to biological resources on site and no alternative designs would be significantly better. However, to further minimize any impacts, the following measures are recommended:

1.Pre-demolition or pre-construction worker education training session with the General contractor and subcontractors that will be working on site. At least 5 days prior to initial groundbreaking or demolition activities, the project Biologist will prepare a handout and conduct a worker training session with all individuals that will be involved in the demolition and construction on site. The training will cover the Central Dune Scrub habitat and the unique plant and animal species including the northern California legless lizard and the State and Federal listed plant species that could potentially occur on site and the measures that will be taken to avoid impacts to the plant community and species.

2. Protection of disturbed Central Dune scrub habitat during demolition and construction. In coordination with the General contractor the Project Biologist will establish the specific location for the installation of an exclusionary protective fence around the outside of the maximum area required

for successful demolition and removal of the existing house and construction of the new house and hardscape. The exclusionary fence will be required to remain in place at this agreed upon location throughout the entirety of the demolition and construction process.

3. Pre-demolition or pre-groundbreaking Northern California Legless survey. As described in the Animals section on Page 3, within 96 hours of the onset of Project-related activities, a qualified biologist with the appropriate handling permits shall conduct a coverboard survey to determine presence of northern California legless lizards. If after 3 days no legless lizards have been detected, the project will continue without further survey requirements. If any legless lizards are detected during the coverboard surveys the biologist will determine if the lizard can be safely passively "ushered" off the site or whether a physical capture and removal and further, more invasive survey will be required for the area where the lizard was found. If it is determined that physical handling and removal is required, the biologist will inform the local CDFW field office and submit a northern California legless lizard plan of proper handling and passive relocation protocols. The list (or plan) of protocols shall be implemented during Project demolition and construction and construction monitoring activities,

4. Pre- demolition Bird nesting survey (If demolition commences between Feb 15 and August 1). Demolition activities have the potential to disturb ground nesting and tree nesting bird species that may utilize the Cypress trees and Acacia shrubs along the NE property line of the Divita property. Several State, National and International laws prohibit interference with the nesting or rearing behavior of native birds (permanent resident or migratory) Chief among them is the Migratory Bird Treaty Act (MBTA) which establishes special protection for migratory birds by regulating hunting or trade in migratory birds. The MBTA prohibits anyone from taking, possessing, buying, selling, or bartering for any migratory birds listed in 50 CFR 10, including feathers or other part, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The definition of "take" includes any disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young). To avoid this potential take, the commencement of demolition or groundbreaking activity on the project should occur after August 15 and before February 15. If project scheduling cannot fit inside this period and project activities must begin during the average nesting season of February 16 to August 14, a qualified biologist will first conduct a nesting and rearing survey of the property and within 100 feet of the project impact area. (This would include trees and shrubs on adjacent properties north and south of the Divita property. If any active nest construction or occupied nest or rearing activity is found the biologist will report the results to the City of Pacific Grove and determine whether the nest can be protected by excluding activity from that part of the project site or by stopping all project activity until the fledglings have left the nest. The Biologist will work with the Contractor to establish the restrictions and determine when they will be lifted.

5. Eradication of invasive nonnative species from remainder of the lot and restoration to self-sustaining Central dune scrub habitat. The City of Pacific Grove local Coastal Plan requires property owners that receive Coastal development permits in the Asilomar Dunes complex to restore native Dune habitat on the undeveloped remainder of their property.

(Policy BIO-24(d))

As a condition of coastal development permit approval, all other areas of the lot outside of the Residential Development Envelope shall be restored/enhanced and maintained in a natural dune condition within which the only allowed development, use, and activities are those associated with dune restoration/enhancement and protection. All dune restoration, enhancement, and protection areas shall be covered by both a dune restoration, enhancement and protection plan prepared by a qualified dune restoration professional, as well as a deed restriction or other similar legal restriction adhering to the property (i.e., a conservation easement, etc.) designed to limit allowed development, use, and activities in perpetuity to those associated with dune restoration, enhancement and protection.

This report will be used as the basis for the development of said Dune restoration, enhancement and protection plan which will cover the Dune habitat surrounding the existing house and extending west to the NW and SW corners of the property. A particularly good example of a restored dune scrub habitat is adjacent to the South side of the Davita property. They have managed to eradicate the worst of the weeds and enhanced the conditions for the common dune shrub species to thrive. The restoration of the Divita property will try to mimic this restoration and likely be a welcome addition to this exemplary effort.

If these minimization and avoidance measures are followed, the net effect will be a less than significant impact to existing biological resources on the Divita property and a net gain in coverage and quality of Central Dune scrub habitat on the property and the neighborhood.

Pat Regan

Plant List – Observed during June site assessment

*Acacia melanoxylon**	Blackwood Acacia
Acmispon heermanii var. orbicularis	Wooly lotus
*Aloe species**	Aloe
*Amaryllis belladonna**	Naked ladies
Artemisia pycnocephala	Beach sagewort
Baccharis pilularis ssp. pilularis	Coyote bush
*Briza maxima**	Rattlesnake grass
*Bromus diandrus**	Ripgut brome
Camissoniopsis cheiranthifolia	Dune evening primrose
Carex pansa	Dune sedge
*Carpobrotus edulis**	Ice plant
*Conicosia pugioniformis**	conicosia
Conyza canadensis	Horse weed
Corethrogyne filaginifolia	California sand aster
*Cotyledon orbiculata**	Round leaved navelwort
Daucus pusillis	Rattlesnake weed
*Echium candicans**	Pride of madeira
Ericameria ericoides	Mock heather
Erigeron glaucus	Seaside daisy
*Erodium cicutarium**	Red-stem filaree
Eschscholzia californica	Coastal California poppy

*Euphorbia peplus**	Petty spurge
Gnaphalium californicum	California cudweed
Hesperocyparis macrocarpa+	Monterey Cypress
*Medicago polymorpha**	Bur-clover
*Melilotusa albus**	White sweet clover
*Mesembryanthemum nodiflorum**	Slender leaved iceplant
*Oxalis corniculata**	Creeping wood sorrel
*Oxalis pes-caprae**	Bermuda buttercup
*Pennisetum clandestinum**	Kikuyu grass
Pinus radiata	Monterey Pine
Poa douglasii	Dune bluegrass
Pteridium aquilinum var. pubescens	Western bracken fern
*Senecio vulgaris**	Common groundsel
Spergularia marina	Dune sand spurry
** = not native to California*	
+ = native to California but not to this location	



Figure 1: View looking West from Pico Avenue at SE corner of Divita property. Note contrast of Ice Plant and Acacia on right (Divita) side and open sand and Dune plants on left (neighbors' side)

Figure 2: View looking NW from Pico Ave. at NE corner of Divita property. Coyote bush and mock heather in foreground.





Figure 3: View looking SW into back side of existing house with proposed footprint change on ground in green. All Ice plant groundcover.

Figure 4: View looking south through front side of existing house and driveway/motor court. Ice plant and Pride of Madeira.





Figure 5: View looking South SW along backside of existing house. All ice plant groundcover.

Figure 6: View looking west to back side of Divita property. Ice plant, Acacia with some native species in foreground.





Figure 7: View looking west from near western property line. Coyote bush and dune sagewort mixed with nonnative ice plant and ripgut brome.

Figure 8: View looking west through lower SW corner of property. Ice plant and kikuyu grass contrast with restored lot on left side of photo.





Figure 9: View looking east along southern property line. Ice plant on left and middle on Divita property, neighboring property on far right is clear of ice plant.

Figure 10: View looking west SW through backyard of existing house with Ice plant groundcover.



Monterey Quadrangle - BIOS export CNDDB Animal results Divita property Pacific Grove

Scientific_Name	Common_Name	Federal Status	State Status	CDFW Status	potential on site?	observed on site?
Amphibians						
Ambystoma californiense	California tiger salamander	Threatened	Threatened	WL	no	no
Batrachoseps luciae	Santa Lucia slender salamander	None	None	-	no	no
Rana boylii	foothill yellow-legged frog	None	Endangered	SSC	no	no
Rana draytonii	California red-legged frog	Threatened	None	SSC	no	no
Taricha torosa	Coast Range newt	None	None	SSC	no	no
Birds						
Ardea herodias	great blue heron	None	None	-	no	no
Athene cunicularia	burrowing owl	None	None	SSC	low	no
Charadrius nivosus nivosus	western snowy plover	Threatened	None	SSC	low	no
Coturnicops noveboracensis	yellow rail	None	None	SSC	no	no
Cypseloides niger	black swift	None	None	SSC	no	no
Laterallus jamaicensis coturniculus	California black rail	None	Threatened	FP	no	no
Passerculus sandwichensis alaudinus	Bryant's savannah sparrow	None	None	SSC	no	no
Pelecanus occidentalis californicus	California brown pelican	Delisted	Delisted	FP	no	no
Ptychoramphus aleuticus	Cassin's auklet	None	None	SSC	no	no
Rallus obsoletus obsoletus	California Ridgway's rail	Endangered	Endangered	FP	no	no
Setophaga petechia	yellow warbler	None	None	SSC	no	no
Fish						
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	Threatened	None	-	no	no
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast D	Threatened	None	-	no	no
Insects						
Bombus caliginosus	obscure bumble bee	None	None	-	no	no
Bombus occidentalis	western bumble bee	None	Candidate	-	no	no
Coelus globosus	globose dune beetle	None	None	-	marginal	no
Danaus plexippus pop. 1	monarch - California overwintering populat	None	None	-	no	no
Euphilotes enoptes smithi	Smith's blue butterfly	Endangered	None	-	no	no
Mammals						
Enhydra lutris nereis	southern sea otter	Threatened	None	FP	no	no
Eumetopias jubatus	Steller (=northern) sea-lion	Delisted	None	-	no	no

Lasiurus cinereus	hoary bat	None	None	-	no	no
Myotis yumanensis	Yuma myotis	None	None	-	no	no
Neotoma macrotis luciana	Monterey dusky-footed woodrat	None	None	SSC	no	no
Sorex ornatus salarius	Monterey shrew	None	None	SSC	no	no
Sorex vagrans paludivagus	Monterey vagrant shrew	None	None	-	no	no
Mollusks						
Haliotis cracherodii	black abalone	Endangered	None	-	no	no
Haliotis kamtschatkana	pinto abalone	None	None	-	no	no
Reptiles						
Anniella pulchra	Northern California legless lizard	None	None	SSC	marginal	no
Emys marmorata	western pond turtle	None	None	SSC	no	no
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	low	no
Thamnophis hammondii	two-striped gartersnake	None	None	SSC	no	no
Plant communities						
Central Dune Scrub	Central Dune Scrub	None	None	-	yes	yes
Central Maritime Chaparral	Central Maritime Chaparral	None	None	-	no	no
Monterey Cypress Forest	Monterey Cypress Forest	None	None	-	no	no
Monterey Pine Forest	Monterey Pine Forest	None	None	-	marginal	no
Monterey Pygmy Cypress Forest	Monterey Pygmy Cypress Forest	None	None	-	no	no
Northern Bishop Pine Forest	Northern Bishop Pine Forest	None	None	-	no	no

WL = watch List
SSC =Species of Special Concern
FP = Fully protected species

Divita Residence CRPR plant list red text species could occur on property								
ScientificName	CommonName	CRPR	CESA	FESA	Bloom	Habitat	Elev.	Elev
					period		low ft	high ft.
Arctostaphylos pumila	sandmat manzanita	1B.2	None	None	Feb-May	Chaparral (maritime), Cismontane woodland, Closed-cone coniferous forest, Coastal dunes, Coastal scrub	10	675
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	4.3	None	None	Jan-Nov	Coastal bluff scrub, Coastal dunes	10	395
Astragalus tener var. titi	coastal dunes milk-vetch	1B.1	CE	FE	Mar-May	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic)	5	165
Castilleja latifolia	Monterey Coast paintbrush	4.3	None	None	Feb-Sep	Cismontane woodland (openings), Closed-cone coniferous forest, Coastal dunes, Coastal scrub	0	605
Chorizanthe pungens var. pungens	Monterey spineflower	1B.2	None	FT	Apr-Jun(Jul-Aug)	Chaparral (maritime), Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland	10	1475
Cordylanthus rigidus ssp. littoralis	seaside bird's-beak	1B.1	CE	None	Apr-Oct	Chaparral (maritime), Cismontane woodland, Closed-cone coniferous forest, Coastal dunes, Coastal scrub	0	1690
Eriastrum virgatum	virgate eriastrum	4.3	None	None	May-Jul	Chaparral, Coastal bluff scrub, Coastal dunes, Coastal scrub	150	2295
Ericameria fasciculata	Eastwood's goldenbush	1B.1	None	None	Jul-Oct	Chaparral (maritime), Closed-cone coniferous forest, Coastal dunes, Coastal scrub	100	900
Erysimum menziesii	Menzies' wallflower	1B.1	CE	FE	Mar-Sep	Coastal dunes	0	115
Gilia tenuiflora ssp. arenaria	Monterey gilia	1B.2	CT	FE	Apr-Jun	Chaparral (maritime), Cismontane woodland, Coastal dunes, Coastal scrub	0	150
Horkelia cuneata var. sericea	Kellogg's horkelia	1B.1	None	None	Apr-Sep	Chaparral (maritime), Closed-cone coniferous forest, Coastal dunes, Coastal scrub	35	655
Layia carnosa	beach layia	1B.1	CE	FT	Mar-Jul	Coastal dunes, Coastal scrub (sandy)	0	195
Leptosiphon grandiflorus	large-flowered leptosiphon	4.2	None	None	Apr-Aug	Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Valley and foothill grassland	15	4005
Lupinus tidestromii	Tidestrom's lupine	1B.1	CE	FE	Apr-Jun	Coastal dunes	0	330
Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	1B.2	None	None	(Apr)May-Jul(Aug-Sep)	Chaparral (SCR Co.), Coastal dunes, Coastal scrub, Lower montane coniferous forest (SCR Co., ponderosa pine sandhills)	0	985
ScientificName	CommonName	CRPR	CESA	FESA	Bloom	Habitat	Elev.	Elev

					period		low ft	high ft.
Sulcaria spiralifera	twisted horsehair lichen	1B.2	None	None		Coastal dunes (SLO Co.), North Coast coniferous forest (immediate coast)	0	295
Allium hickmanii	Hickman's onion	1B.2	None	None	Mar-May	Chaparral (maritime), Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Valley and foothill grassland	15	655
Aphyllon robbinsii	Robbins' broomrape	1B.1	None	None	Apr-Jul	Coastal bluff scrub	0	330
Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita	1B.2	None	None	Jan-Jun	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal scrub	150	1760
Arctostaphylos montereyensis	Toro manzanita	1B.2	None	None	Feb-Mar	Chaparral (maritime), Cismontane woodland, Coastal scrub	100	2395
Arctostaphylos pajaroensis	Pajaro manzanita	1B.1	None	None	Dec-Mar	Chaparral (sandy)	100	2495
Castilleja ambigua var. insalutata	pink Johnny-nip	1B.1	None	None	May-Aug	Coastal prairie, Coastal scrub	0	330
Ceanothus rigidus	Monterey ceanothus	4.2	None	None	Feb-Apr(Jun)	Chaparral, Closed-cone coniferous forest, Coastal scrub	10	1805
Chorizanthe douglasii	Douglas' spineflower	4.3	None	None	Apr-Jul	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	180	5250
Clarkia jolonensis	Jolon clarkia	1B.2	None	None	Apr-Jun	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	65	2165
Clarkia lewisii	Lewis' clarkia	4.3	None	None	(Feb)May-Jul	Broadleafed upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal scrub	100	3920
Collinsia multicolor	San Francisco collinsia	1B.2	None	None	(Feb)Mar-May	Closed-cone coniferous forest, Coastal scrub	100	900
Cryptantha rattanii	Rattan's cryptantha	4.3	None	None	Apr-Jul	Cismontane woodland, Riparian woodland, Valley and foothill grassland	805	3000
Delphinium hutchinsoniae	Hutchinson's larkspur	1B.2	None	None	Mar-Jun	Broadleafed upland forest, Chaparral, Coastal prairie, Coastal scrub	0	1400
ScientificName	CommonName	CRPR	CESA	FESA	Bloom	Habitat	Elev.	Elev
					period		low ft	high ft.

Fritillaria agrestis	stinkbells	4.2	None	None	Mar-Jun	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland	35	5100
Fritillaria liliacea	fragrant fritillary	1B.2	None	None	Feb-Apr	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland	10	1345
Gilia tenuiflora ssp. amplifaucalis	trumpet-throated gilia	4.3	None	None	Mar-Apr	Cismontane woodland, Valley and foothill grassland	1280	2955
Hesperocyparis goveniana	Gowen cypress	1B.2	None	FT		Chaparral (maritime), Closed-cone coniferous forest	100	985
Hesperocyparis macrocarpa	Monterey cypress	1B.2	None	None		Closed-cone coniferous forest	35	100
Hosackia gracilis	harlequin lotus	4.2	None	None	Mar-Jul	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland	0	2295
Iris longipetala	coast iris	4.2	None	None	Mar-May(Jun)	Coastal prairie, Lower montane coniferous forest, Meadows and seeps	0	1970
Leptosiphon latisectus	broad-lobed leptosiphon	4.3	None	None	Apr-Jun	Broadleafed upland forest, Cismontane woodland	560	4920
Lessingia tenuis	spring lessingia	4.3	None	None	May-Jul	Chaparral, Cismontane woodland, Lower montane coniferous forest	985	7055
Lomatium parvifolium	small-leaved lomatium	4.2	None	None	Jan-Jun	Chaparral, Closed-cone coniferous forest, Coastal scrub, Riparian woodland	65	2295
Malacothamnus involucratus	Carmel Valley bushmallow	1B.2	None	None	Apr-Oct	Chaparral, Cismontane woodland, Coastal scrub	100	3610
Microseris paludosa	marsh microseris	1B.2	None	None	Apr-Jun(Jul)	Cismontane woodland, Closed-cone coniferous forest, Coastal scrub, Valley and foothill grassland	15	1165
Monolopia gracilens	woodland woollythreads	1B.2	None	None	(Feb)Mar-Jul	Broadleafed upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland	330	3935
ScientificName	CommonName	CRPR	CESA	FESA	Bloom	Habitat	Elev.	Elev
					period		low ft	high ft.

Ophioglossum californicum	California adder's-tongue	4.2	None	None	Jan-Jun(Dec)	Chaparral, Valley and foothill grassland, Vernal pools (margins)	195	1725
Pinus radiata	Monterey pine	1B.1	None	None		Cismontane woodland, Closed-cone coniferous forest	80	605
Piperia michaelii	Michael's rein orchid	4.2	None	None	Apr-Aug	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal scrub, Lower montane coniferous forest	10	3000
Piperia yadonii	Yadon's rein orchid	1B.1	None	FE	(Feb)May-Aug	Chaparral (maritime), Closed-cone coniferous forest, Coastal bluff scrub	35	1675
Potentilla hickmanii	Hickman's cinquefoil	1B.1	CE	FE	Apr-Aug	Closed-cone coniferous forest, Coastal bluff scrub, Marshes and swamps (freshwater), Meadows and seeps (vernally mesic)	35	490
Ramalina thrausta	angel's hair lichen	2B.1	None	None		North Coast coniferous forest	300	1410
Rosa pinetorum	pine rose	1B.2	None	None	May-Jul	Cismontane woodland, Closed-cone coniferous forest	5	3100
Sidalcea malachroides	maple-leaved checkerbloom	4.2	None	None	(Mar)Apr-Aug	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland	0	2395
Trifolium hydrophilum	saline clover	1B.2	None	None	Apr-Jun	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools	0	985
Trifolium polyodon	Pacific Grove clover	1B.1	CR	None	Apr-Jun(Jul)	Closed-cone coniferous forest, Coastal prairie, Meadows and seeps, Valley and foothill grassland	15	1395
Trifolium trichocalyx	Monterey clover	1B.1	CE	FE	Apr-Jun	Closed-cone coniferous forest (burned areas, openings, sandy)	100	1000

California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

In cooperation with:
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Prepared for: REGAN BIOLOGICAL & HORTICULTURAL CONSULTING

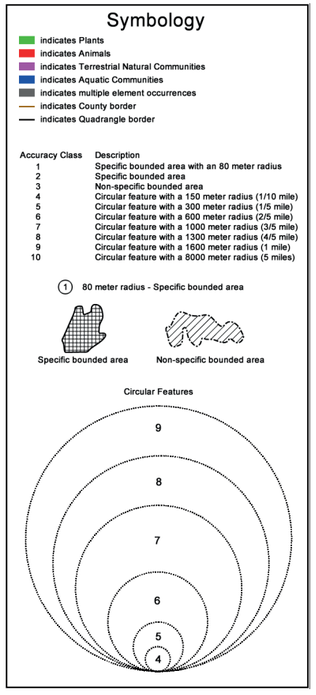
Total Number of Element Occurrences shown on this map: 87

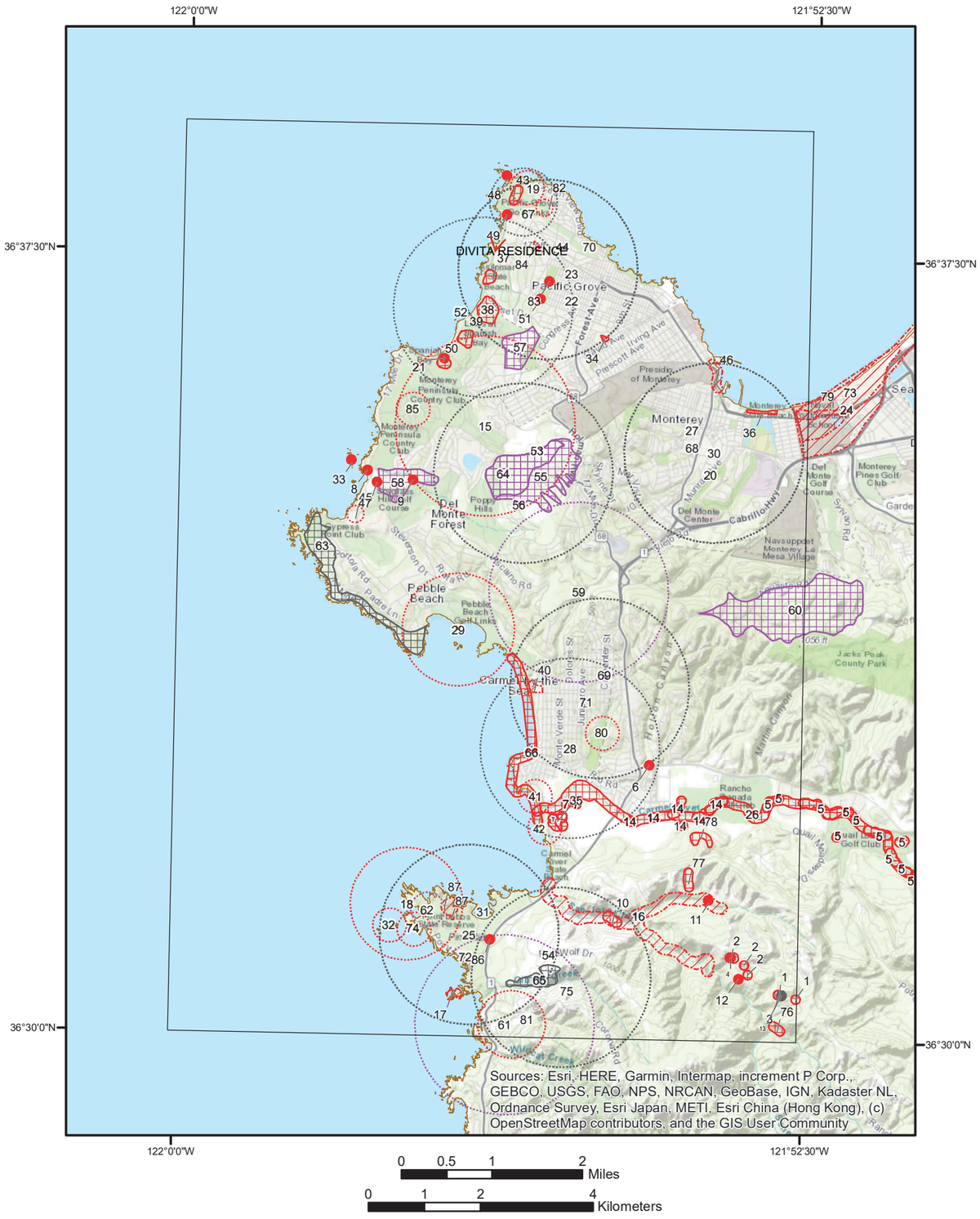
See separate table for reference to EO features.

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California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

Prepared for: REGAN BIOLOGICAL & HORTICULTURAL CONSULTING

Ref	ElmCode	Occ #	Accuracy	Scientific Name
1	AAAAA01181	682	2	Ambystoma californiense pop. 1
2	AAAAA01181	683	2	Ambystoma californiense pop. 1
3	AAAAF02032	69	1	Taricha torosa
4	AAAAF02032	70	1	Taricha torosa
5	AAABH01022	68	2	Rana draytonii
6	AAABH01022	205	1	Rana draytonii
7	AAABH01022	472	2	Rana draytonii
8	AAABH01022	599	1	Rana draytonii
9	AAABH01022	600	1	Rana draytonii
10	AAABH01022	647	2	Rana draytonii
11	AAABH01022	763	1	Rana draytonii
12	AAABH01022	764	1	Rana draytonii
13	AAABH01022	765	1	Rana draytonii
14	AAABH01022	1107	2	Rana draytonii
15	AAABH01050	2374	9	Rana boylii
16	AAABH01050	2378	3	Rana boylii
17	ABNFC01021	9	3	Pelecanus occidentalis californicus
18	ABNFC01021	12	7	Pelecanus occidentalis californicus
19	ABNME01010	25	5	Coturnicops noveboracensis
20	ABNME01010	26	9	Coturnicops noveboracensis
21	ABNME03041	319	1	Laterallus jamaicensis coturniculus
22	ABNME03041	343	9	Laterallus jamaicensis coturniculus
23	ABNNB03031	8	9	Charadrius nivosus nivosus
24	ABNSB10010	574	3	Athene cunicularia
25	ABNUA01010	16	9	Cypseloides niger
26	AFCHA0209H	24	2	Oncorhynchus mykiss irideus pop. 9
27	AMABA01105	4	9	Sorex ornatus salarius
28	AMABA01105	5	9	Sorex ornatus salarius
29	AMABA01105	6	7	Sorex ornatus salarius
30	AMACC05030	75	9	Lasiurus cinereus
31	AMACC05030	76	9	Lasiurus cinereus
32	AMAJC03010	17	5	Eumetopias jubatus
33	AMAJC03010	18	1	Eumetopias jubatus
34	ARAAD02030	1014	2	Emys marmorata
35	ARAAD02030	1108	2	Emys marmorata
36	ARACC01020	39	2	Anniella pulchra
37	ARACC01020	40	2	Anniella pulchra
38	ARACC01020	41	2	Anniella pulchra
39	ARACC01020	42	2	Anniella pulchra
40	ARACC01020	43	3	Anniella pulchra
41	ARACC01020	44	5	Anniella pulchra
42	ARACC01020	45	5	Anniella pulchra
43	ARACC01020	46	2	Anniella pulchra
44	ARACC01020	47	9	Anniella pulchra
45	ARACC01020	48	4	Anniella pulchra
46	ARACC01020	49	3	Anniella pulchra
47	ARACC01020	50	1	Anniella pulchra
48	ARACC01020	141	1	Anniella pulchra
49	ARACC01020	142	1	Anniella pulchra
50	ARACC01020	143	2	Anniella pulchra
51	ARACC01020	375	1	Anniella pulchra
52	CTT21320CA	16	9	Central Dune Scrub
53	CTT37C20CA	7	9	Central Maritime Chaparral
54	CTT37C20CA	8	9	Central Maritime Chaparral
55	CTT83121CA	1	2	Northern Bishop Pine Forest
56	CTT83130CA	1	9	Monterey Pine Forest
57	CTT83130CA	2	2	Monterey Pine Forest
58	CTT83130CA	3	2	Monterey Pine Forest
59	CTT83130CA	4	9	Monterey Pine Forest
60	CTT83130CA	5	2	Monterey Pine Forest
61	CTT83130CA	6	9	Monterey Pine Forest
62	CTT83150CA	1	5	Monterey Cypress Forest
63	CTT83150CA	2	2	Monterey Cypress Forest
64	CTT83162CA	1	2	Monterey Pygmy Cypress Forest
65	CTT83162CA	2	2	Monterey Pygmy Cypress Forest
66	IICOL4A010	10	2	Coelus globosus
67	IIHYM24250	271	6	Bombus occidentalis
68	IIHYM24250	272	9	Bombus occidentalis
69	IIHYM24250	273	9	Bombus occidentalis
70	IIHYM24380	147	9	Bombus caliginosus
71	IIHYM24380	148	9	Bombus caliginosus
72	IIHYM24380	150	9	Bombus caliginosus
73	IILEPG2026	5	3	Euphilotes enoptes smithi
74	IILEPG2026	18	5	Euphilotes enoptes smithi
75	IILEPG2026	19	9	Euphilotes enoptes smithi

California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

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Ref	ElmCode	Occ #	Accuracy	Scientific Name
76	IILEPG2026	55	2	Euphilotes enoptes smithi
77	IILEPG2026	56	2	Euphilotes enoptes smithi
78	IILEPG2026	57	2	Euphilotes enoptes smithi
79	IILEPP2012	82	3	Danaus plexippus pop. 1
80	IILEPP2012	83	5	Danaus plexippus pop. 1
81	IILEPP2012	85	6	Danaus plexippus pop. 1
82	IILEPP2012	86	4	Danaus plexippus pop. 1
83	IILEPP2012	89	1	Danaus plexippus pop. 1
84	IILEPP2012	90	3	Danaus plexippus pop. 1
85	IILEPP2012	92	5	Danaus plexippus pop. 1
86	IILEPP2012	141	1	Danaus plexippus pop. 1
87	IILEPP2012	248	3	Danaus plexippus pop. 1

California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

Prepared for: REGAN BIOLOGICAL & HORTICULTURAL CONSULTING

Total Number of Plant Occurrences shown on this map: 139

See separate table for reference to plant EO features.

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Symbology

- indicates Plants
- indicates Animals
- indicates Terrestrial Natural Communities
- indicates Aquatic Communities
- indicates multiple element occurrences
- indicates County border
- indicates Quadrangle border

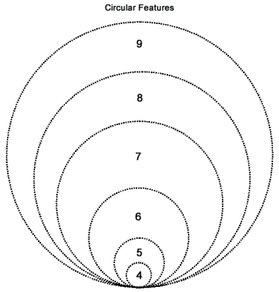
Accuracy Class	Description
1	Specific bounded area with an 80 meter radius
2	Specific bounded area
3	Non-specific bounded area
4	Circular feature with a 150 meter radius (1/10 mile)
5	Circular feature with a 300 meter radius (1/5 mile)
6	Circular feature with a 600 meter radius (2/5 mile)
7	Circular feature with a 1000 meter radius (3/5 mile)
8	Circular feature with a 1300 meter radius (4/5 mile)
9	Circular feature with a 1600 meter radius (1 mile)
10	Circular feature with a 8000 meter radius (5 miles)

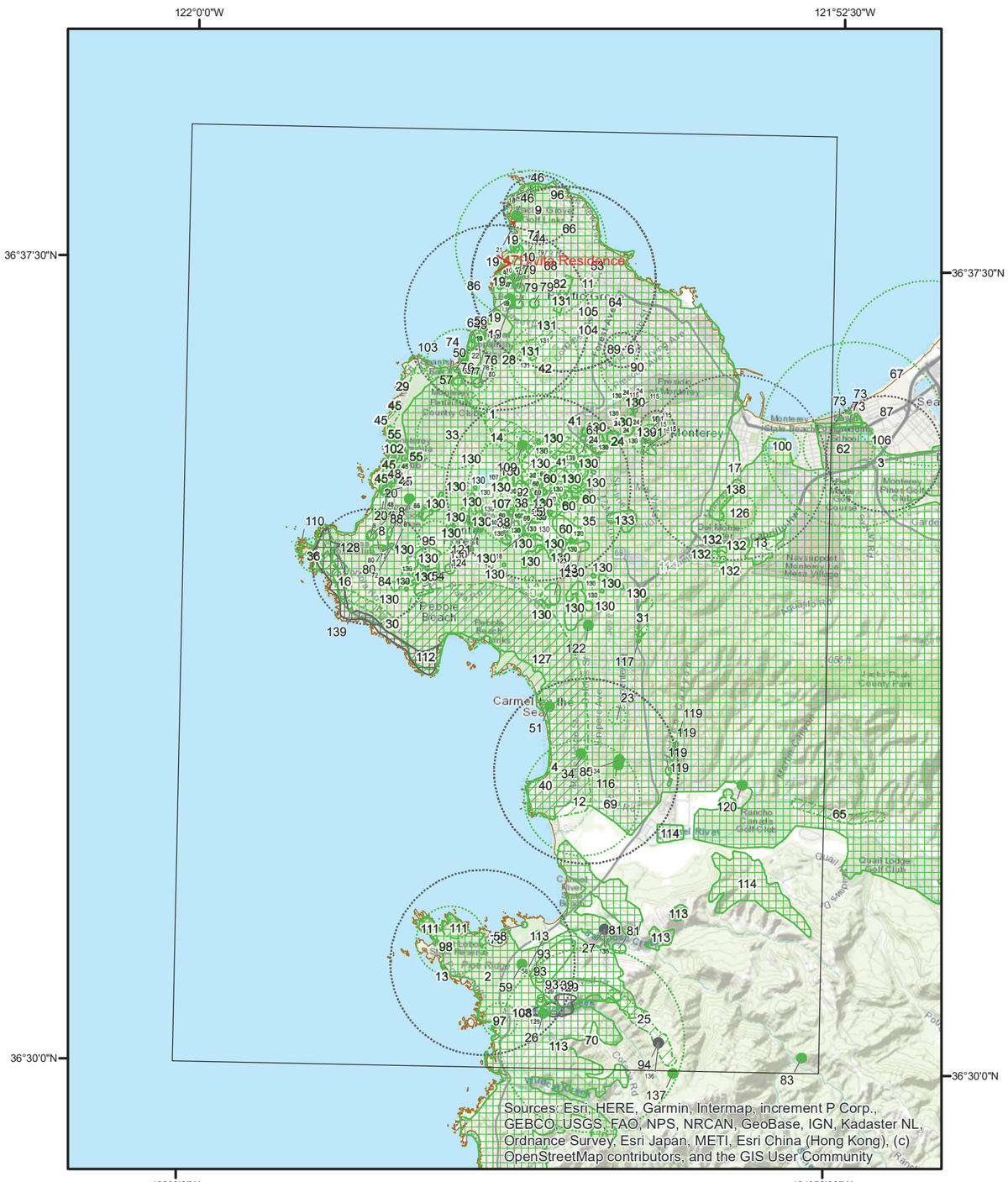
1 80 meter radius - Specific bounded area

Specific bounded area

Non-specific bounded area

Circular Features





California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

Prepared for: REGAN BIOLOGICAL & HORTICULTURAL CONSULTING

Ref	ElmCode	Occ #	Accuracy	Scientific Name
1	NLLEC3S340	1	3	Ramalina thrausta
2	NLT0042560	4	9	Sulcaria spiralifera
3	PDAST3L080	5	7	Ericameria fasciculata
4	PDAST3L080	8	9	Ericameria fasciculata
5	PDAST3L080	9	2	Ericameria fasciculata
6	PDAST3L080	10	5	Ericameria fasciculata
7	PDAST5N010	2	2	Layia carnosa
8	PDAST5N010	3	2	Layia carnosa
9	PDAST5N010	4	6	Layia carnosa
10	PDAST5N010	5	2	Layia carnosa
11	PDAST6E0D0	3	9	Microseris paludosa
12	PDAST6E0D0	4	7	Microseris paludosa
13	PDAST6E0D0	5	9	Microseris paludosa
14	PDAST6E0D0	21	9	Microseris paludosa
15	PDAST6E0D0	24	5	Microseris paludosa
16	PDAST6E0D0	33	7	Microseris paludosa
17	PDAST6G010	6	9	Monolopia gracilens
18	PDBRA160R0	1	2	Erysimum menziesii
19	PDBRA160R0	4	2	Erysimum menziesii
20	PDBRA160R0	5	2	Erysimum menziesii
21	PDBRA160R0	6	1	Erysimum menziesii
22	PDBRA160R0	8	5	Erysimum menziesii
23	PDERI040J1	2	4	Arctostaphylos hookeri ssp. hookeri
24	PDERI040J1	3	2	Arctostaphylos hookeri ssp. hookeri
25	PDERI040J1	10	3	Arctostaphylos hookeri ssp. hookeri
26	PDERI040J1	14	1	Arctostaphylos hookeri ssp. hookeri
27	PDERI040J1	15	1	Arctostaphylos hookeri ssp. hookeri
28	PDERI040J1	16	3	Arctostaphylos hookeri ssp. hookeri
29	PDERI040J1	17	3	Arctostaphylos hookeri ssp. hookeri
30	PDERI040J1	18	3	Arctostaphylos hookeri ssp. hookeri
31	PDERI040J1	22	3	Arctostaphylos hookeri ssp. hookeri
32	PDERI040J1	23	6	Arctostaphylos hookeri ssp. hookeri
33	PDERI040J1	27	6	Arctostaphylos hookeri ssp. hookeri
34	PDERI040R0	25	1	Arctostaphylos montereyensis
35	PDERI04100	27	9	Arctostaphylos pajaroensis
36	PDERI04180	8	5	Arctostaphylos pumila
37	PDERI04180	9	1	Arctostaphylos pumila
38	PDERI04180	10	2	Arctostaphylos pumila
39	PDERI04180	11	2	Arctostaphylos pumila
40	PDERI04180	12	9	Arctostaphylos pumila
41	PDERI04180	13	3	Arctostaphylos pumila
42	PDERI04180	14	6	Arctostaphylos pumila
43	PDERI04180	16	2	Arctostaphylos pumila
44	PDERI04180	20	4	Arctostaphylos pumila
45	PDFAB0F8R2	11	2	Astragalus tener var. titi
46	PDFAB2B3Y0	1	2	Lupinus tidestromii
47	PDFAB2B3Y0	2	2	Lupinus tidestromii
48	PDFAB2B3Y0	3	2	Lupinus tidestromii
49	PDFAB2B3Y0	5	2	Lupinus tidestromii
50	PDFAB2B3Y0	6	2	Lupinus tidestromii
51	PDFAB2B3Y0	8	1	Lupinus tidestromii
52	PDFAB2B3Y0	11	5	Lupinus tidestromii
53	PDFAB400R5	20	9	Trifolium hydrophilum
54	PDFAB402H0	1	2	Trifolium polyodon
55	PDFAB402H0	3	2	Trifolium polyodon
56	PDFAB402H0	8	1	Trifolium polyodon
57	PDFAB402H0	9	1	Trifolium polyodon
58	PDFAB402H0	10	2	Trifolium polyodon
59	PDFAB402H0	12	1	Trifolium polyodon
60	PDFAB402J0	1	2	Trifolium trichocalyx
61	PDFAB402J0	5	4	Trifolium trichocalyx
62	PDLAM18162	3	6	Monardella sinuata ssp. nigrescens
63	PDLAM18162	4	9	Monardella sinuata ssp. nigrescens
64	PDMAL0Q0B1	20	9	Malacothamnus palmeri var. involucratus
65	PDMAL0Q0B1	30	3	Malacothamnus palmeri var. involucratus
66	PDMAL110E0	3	9	Sidalcea malachroides
67	PDONA050L0	11	9	Clarkia jolonensis
68	PDONA050L0	13	9	Clarkia jolonensis
69	PDONA050L0	15	9	Clarkia jolonensis
70	PDONA050L0	16	9	Clarkia jolonensis
71	PDPGN040M2	4	8	Chorizanthe pungens var. pungens
72	PDPGN040M2	5	2	Chorizanthe pungens var. pungens
73	PDPGN040M2	8	2	Chorizanthe pungens var. pungens
74	PDPGN040M2	44	6	Chorizanthe pungens var. pungens
75	PDPGN040M2	45	9	Chorizanthe pungens var. pungens

California Natural Diversity Database

USGS Quadrangle: MONTEREY - 36121E8

Prepared for: REGAN BIOLOGICAL & HORTICULTURAL CONSULTIN

Ref	ElmCode	Occ #	Accuracy	Scientific Name
76	PDPLM041P2	1	2	Gilia tenuiflora ssp. arenaria
77	PDPLM041P2	6	1	Gilia tenuiflora ssp. arenaria
78	PDPLM041P2	11	5	Gilia tenuiflora ssp. arenaria
79	PDPLM041P2	32	2	Gilia tenuiflora ssp. arenaria
80	PDPLM041P2	35	2	Gilia tenuiflora ssp. arenaria
81	PDRAN0B0V0	8	2	Delphinium hutchinsoniae
82	PDRAN0B0V0	9	9	Delphinium hutchinsoniae
83	PDRAN0B0V0	25	1	Delphinium hutchinsoniae
84	PDRAN0B0V0	31	7	Delphinium hutchinsoniae
85	PDROS0W043	7	9	Horkelia cuneata var. sericea
86	PDROS0W043	8	9	Horkelia cuneata var. sericea
87	PDROS0W043	9	9	Horkelia cuneata var. sericea
88	PDROS1B370	2	1	Potentilla hickmanii
89	PDROS1B370	4	5	Potentilla hickmanii
90	PDROS1J0W0	1	6	Rosa pinetorum
91	PDROS1J0W0	2	4	Rosa pinetorum
92	PDROS1J0W0	3	7	Rosa pinetorum
93	PDROS1J0W0	4	2	Rosa pinetorum
94	PDROS1J0W0	8	1	Rosa pinetorum
95	PDROS1J0W0	15	5	Rosa pinetorum
96	PDROS1J0W0	16	6	Rosa pinetorum
97	PDSCR0D403	5	5	Castilleja ambigua var. insalutata
98	PDSCR0D403	6	6	Castilleja ambigua var. insalutata
99	PDSCR0D403	7	3	Castilleja ambigua var. insalutata
100	PDSCR0D403	8	5	Castilleja ambigua var. insalutata
101	PDSCR0D403	9	5	Castilleja ambigua var. insalutata
102	PDSCR0D403	10	3	Castilleja ambigua var. insalutata
103	PDSCR0D403	11	4	Castilleja ambigua var. insalutata
104	PDSCR0D403	12	9	Castilleja ambigua var. insalutata
105	PDSCR0H0B0	1	9	Collinsia multicolor
106	PDSCR0J0P2	5	7	Cordylanthus rigidus ssp. littoralis
107	PGCUP04031	1	2	Hesperocyparis goveniana
108	PGCUP04031	2	2	Hesperocyparis goveniana
109	PGCUP04031	3	1	Hesperocyparis goveniana
110	PGCUP04031	4	4	Hesperocyparis goveniana
111	PGCUP04060	1	3	Hesperocyparis macrocarpa
112	PGCUP04060	2	2	Hesperocyparis macrocarpa
113	PGPIN040V0	3	2	Pinus radiata
114	PGPIN040V0	4	2	Pinus radiata
115	PMLIL02140	1	2	Allium hickmanii
116	PMLIL02140	5	1	Allium hickmanii
117	PMLIL02140	6	2	Allium hickmanii
118	PMLIL02140	9	2	Allium hickmanii
119	PMLIL02140	13	2	Allium hickmanii
120	PMLIL02140	14	1	Allium hickmanii
121	PMLIL02140	17	2	Allium hickmanii
122	PMLIL02140	19	1	Allium hickmanii
123	PMLIL02140	20	1	Allium hickmanii
124	PMLIL02140	21	1	Allium hickmanii
125	PMLIL02140	22	2	Allium hickmanii
126	PMLIL02140	30	5	Allium hickmanii
127	PMLIL0V0C0	5	3	Fritillaria liliacea
128	PMORC1X070	1	3	Piperia yadonii
129	PMORC1X070	2	2	Piperia yadonii
130	PMORC1X070	3	2	Piperia yadonii
131	PMORC1X070	4	2	Piperia yadonii
132	PMORC1X070	8	2	Piperia yadonii
133	PMORC1X070	19	2	Piperia yadonii
134	PMORC1X070	24	1	Piperia yadonii
135	PMORC1X070	25	1	Piperia yadonii
136	PMORC1X070	27	1	Piperia yadonii
137	PMORC1X070	28	1	Piperia yadonii
138	PMORC1X070	34	2	Piperia yadonii
139	PMORC1X070	39	2	Piperia yadonii

Bios 6 9-Quad inventory around Monterey Quad							
Scientific_Name	Common_Name	Federal	State	CDFW	CRPR	Quad_Name	
Amphibians		Status	Status	Status	status		
Ambystoma californiense pop. 1	California tiger salamander - central	Threatened	Threatened	WL	-	SEASIDE	
Ambystoma californiense pop. 1	California tiger salamander - central	Threatened	Threatened	WL	-	MONTEREY	
Ambystoma californiense pop. 1	California tiger salamander - central	Threatened	Threatened	WL	-	MARINA	
Batrachoseps luciae	Santa Lucia slender	None	None	-	-	MONTEREY	
Batrachoseps luciae	Santa Lucia slender	None	None	-	-	SEASIDE	
Batrachoseps luciae	Santa Lucia slender	None	None	-	-	SOBERANES POINT	
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	Endangered	Endangered	-	-	SOBERANES POINT	
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	Endangered	Endangered	-	-	MT. CARMEL	
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	Endangered	Endangered	-	-	SEASIDE	
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	Endangered	Endangered	-	-	MONTEREY	
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	MONTEREY	
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	MARINA	
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	SEASIDE	
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	MT. CARMEL	
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	SOBERANES POINT	
Taricha torosa	Coast Range newt	None	None	SSC	-	MT. CARMEL	
Taricha torosa	Coast Range newt	None	None	SSC	-	SEASIDE	
Taricha torosa	Coast Range newt	None	None	SSC	-	MONTEREY	
Birds							
Accipiter striatus	sharp-shinned hawk	None	None	WL	-	SEASIDE	
Accipiter striatus	sharp-shinned hawk	None	None	WL	-	MT. CARMEL	
Agelaius tricolor	tricolored blackbird	None	Threatened	SSC	-	MT. CARMEL	
Agelaius tricolor	tricolored blackbird	None	Threatened	SSC	-	SEASIDE	

Agelaius tricolor	tricolored blackbird	None	Threatened	SSC	-	MARINA	
Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-	MARINA	
Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-	MONTEREY	
Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-	SEASIDE	
Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-	MT. CARMEL	
Anarhynchus montanus	mountain plover	None	None	SSC	-	MARINA	
Anarhynchus nivosus nivosus	western snowy plover	Threatened	None	SSC	-	MARINA	
Anarhynchus nivosus nivosus	western snowy plover	Threatened	None	SSC	-	MONTEREY	
Anarhynchus nivosus nivosus	western snowy plover	Threatened	None	SSC	-	SEASIDE	
Antigone canadensis canadensis	lesser sandhill crane	None	None	SSC	-	MARINA	
Aquila chrysaetos	golden eagle	None	None	FP | WL	-	MT. CARMEL	
Ardea herodias	great blue heron	None	None	-	-	MONTEREY	
Asio flammeus	short-eared owl	None	None	SSC	-	MARINA	
Astur cooperii	Coopers hawk	None	None	WL	-	MT. CARMEL	
Astur cooperii	Coopers hawk	None	None	WL	-	SEASIDE	
Athene cunicularia	burrowing owl	None	Candidate En	SSC	-	MARINA	
Athene cunicularia	burrowing owl	None	Candidate En	SSC	-	MONTEREY	
Athene cunicularia	burrowing owl	None	Candidate En	SSC	-	SEASIDE	
Athene cunicularia	burrowing owl	None	Candidate En	SSC	-	MT. CARMEL	
Botaurus lentiginosus	American bittern	None	None	-	-	MARINA	
Branta bernicla	brant	None	None	SSC	-	MARINA	
Buteo regalis	ferruginous hawk	None	None	WL	-	MARINA	
Buteo swainsoni	Swainsons hawk	None	Threatened	-	-	MARINA	
Circus hudsonius	northern harrier	None	None	SSC	-	MARINA	
Circus hudsonius	northern harrier	None	None	SSC	-	SEASIDE	
Circus hudsonius	northern harrier	None	None	SSC	-	MT. CARMEL	
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	-	-	MARINA	
Contopus cooperi	olive-sided flycatcher	None	None	SSC	-	SEASIDE	
Contopus cooperi	olive-sided flycatcher	None	None	SSC	-	MONTEREY	
Coturnicops noveboracensis	yellow rail	None	None	SSC	-	MONTEREY	
Cypseloides niger	black swift	None	None	SSC	-	MONTEREY	

Elanus leucurus	white-tailed kite	None	None	FP	-	MT. CARMEL	
Elanus leucurus	white-tailed kite	None	None	FP	-	SEASIDE	
Elanus leucurus	white-tailed kite	None	None	FP	-	MARINA	
Elanus leucurus	white-tailed kite	None	None	FP	-	MONTEREY	
Eremophila alpestris actia	California horned lark	None	None	WL	-	MARINA	
Falco columbarius	merlin	None	None	WL	-	MARINA	
Falco columbarius	merlin	None	None	WL	-	MONTEREY	
Falco columbarius	merlin	None	None	WL	-	SEASIDE	
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	-	-	SEASIDE	
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	-	-	MT. CARMEL	
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	FP	-	MARINA	
Hydrobates homochroa	ashy storm-petrel	None	None	SSC	-	SOBERANES POINT	
Hydroprogne caspia	Caspian tern	None	None	-	-	MARINA	
Lanius ludovicianus	loggerhead shrike	None	None	SSC	-	MARINA	
Lanius ludovicianus	loggerhead shrike	None	None	SSC	-	SEASIDE	
Laterallus jamaicensis coturniculus	California black rail	None	Threatened	FP	-	MONTEREY	
Numenius americanus	long-billed curlew	None	None	WL	-	SEASIDE	
Nycticorax nycticorax	black-crowned night heron	None	None	-	-	SEASIDE	
Pandion haliaetus	osprey	None	None	WL	-	MONTEREY	
Passerculus sandwichensis alaudinus	Bryants savannah sparrow	None	None	SSC	-	MONTEREY	
Passerculus sandwichensis alaudinus	Bryants savannah sparrow	None	None	SSC	-	MARINA	
Pelecanus occidentalis californicus	California brown pelican	Delisted	Delisted	-	-	MARINA	
Pelecanus occidentalis californicus	California brown pelican	Delisted	Delisted	-	-	MONTEREY	
Pelecanus occidentalis californicus	California brown pelican	Delisted	Delisted	-	-	SOBERANES POINT	

Ptychoramphus aleuticus	Cassins auklet	None	None	SSC	-	MARINA	
Ptychoramphus aleuticus	Cassins auklet	None	None	SSC	-	MONTEREY	
Ptychoramphus aleuticus	Cassins auklet	None	None	SSC	-	SEASIDE	
Rallus obsoletus obsoletus	California Ridgways rail	Endangered	Endangered	FP	-	MONTEREY	
Riparia riparia	bank swallow	None	Threatened	-	-	MARINA	
Setophaga petechia	yellow warbler	None	None	SSC	-	MONTEREY	
Setophaga petechia	yellow warbler	None	None	SSC	-	MARINA	
Spinus lawrencei	Lawrences goldfinch	None	None	-	-	MARINA	
Sternula antillarum browni	California least tern	Endangered	Endangered	FP	-	MARINA	
Strix occidentalis occidentalis	California Spotted Owl	Proposed Endangered; Proposed Threatened	None	SSC	-	MT. CARMEL	
Strix occidentalis occidentalis	California Spotted Owl	Proposed Endangered; Proposed Threatened	None	SSC	-	SEASIDE	
Crustaceans							
Linderiella occidentalis	California linderiella	None	None	-	-	SEASIDE	
Linderiella occidentalis	California linderiella	None	None	-	-	MARINA	
Fish							
Eucyclogobius newberryi	tidewater goby	Endangered	None	SSC	-	MARINA	
Lavinia exilicauda harengus	Monterey hitch	None	None	SSC	-	MARINA	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Threatened	None	SSC	-	MARINA	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Threatened	None	SSC	-	MONTEREY	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Threatened	None	SSC	-	SEASIDE	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Threatened	None	SSC	-	MT. CARMEL	
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Threatened	None	SSC	-	SOBERANES POINT	

Insects							
Bombus caliginosus	obscure bumble bee	None	None	-	-	MONTEREY	
Bombus caliginosus	obscure bumble bee	None	None	-	-	MARINA	
Bombus occidentalis	western bumble bee	None	Candidate Endangered	-	-	MARINA	
Bombus occidentalis	western bumble bee	None	Candidate Endangered	-	-	MONTEREY	
Coelus globosus	globose dune beetle	None	None	-	-	MONTEREY	
Coelus globosus	globose dune beetle	None	None	-	-	SEASIDE	
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Proposed Threatened	None	-	-	SEASIDE	
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Proposed Threatened	None	-	-	SOBERANES POINT	
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Proposed Threatened	None	-	-	MONTEREY	
Euphilotes enoptes smithi	Smiths blue butterfly	Endangered	None	-	-	MONTEREY	
Euphilotes enoptes smithi	Smiths blue butterfly	Endangered	None	-	-	SOBERANES POINT	
Euphilotes enoptes smithi	Smiths blue butterfly	Endangered	None	-	-	MT. CARMEL	
Euphilotes enoptes smithi	Smiths blue butterfly	Endangered	None	-	-	SEASIDE	
Euphilotes enoptes smithi	Smiths blue butterfly	Endangered	None	-	-	MARINA	
Mammals							
Antrozous pallidus	pallid bat	None	None	SSC	-	MT. CARMEL	
Callorhinus ursinus	northern fur-seal	None	None	-	-	MARINA	
Corynorhinus townsendii	Townsends big-eared bat	None	None	SSC	-	SOBERANES POINT	
Dipodomys heermanni goldmani	Salinas kangaroo rat	None	None	-	-	MARINA	
Dipodomys heermanni goldmani	Salinas kangaroo rat	None	None	-	-	MONTEREY	
Dipodomys heermanni goldmani	Salinas kangaroo rat	None	None	-	-	SEASIDE	
Dipodomys heermanni goldmani	Salinas kangaroo rat	None	None	-	-	SOBERANES POINT	

Dipodomys venustus sanctiluciae	Santa Lucia Mountain kangaroo rat	None	None	-	-	SEASIDE	
Enhydra lutris nereis	southern sea otter	Threatened	None	FP	-	SEASIDE	
Enhydra lutris nereis	southern sea otter	Threatened	None	FP	-	SOBERANES POINT	
Enhydra lutris nereis	southern sea otter	Threatened	None	FP	-	MONTEREY	
Enhydra lutris nereis	southern sea otter	Threatened	None	FP	-	MARINA	
Eumetopias jubatus	Steller sea lion	Delisted	None	-	-	MONTEREY	
Eumetopias jubatus	Steller sea lion	Delisted	None	-	-	SOBERANES POINT	
Lasionycteris noctivagans	silver-haired bat	None	None	-	-	MT. CARMEL	
Lasiurus cinereus	hoary bat	None	None	-	-	MT. CARMEL	
Lasiurus cinereus	hoary bat	None	None	-	-	MONTEREY	
Microtus californicus halophilus	Monterey vole	None	None	-	-	SEASIDE	
Microtus californicus halophilus	Monterey vole	None	None	-	-	MARINA	
Myotis ciliolabrum	western small-footed myotis	None	None	-	-	MT. CARMEL	
Myotis thysanodes	fringed myotis	None	None	-	-	MT. CARMEL	
Myotis volans	long-legged myotis	None	None	-	-	MT. CARMEL	
Myotis yumanensis	Yuma myotis	None	None	-	-	MT. CARMEL	
Myotis yumanensis	Yuma myotis	None	None	-	-	MONTEREY	
Neotoma macrotis luciana	Monterey dusky-footed woodrat	None	None	SSC	-	MARINA	
Neotoma macrotis luciana	Monterey dusky-footed woodrat	None	None	SSC	-	MONTEREY	
Neotoma macrotis luciana	Monterey dusky-footed woodrat	None	None	SSC	-	SEASIDE	
Reithrodontomys megalotis distichlis	Salinas harvest mouse	None	None	-	-	SEASIDE	
Reithrodontomys megalotis distichlis	Salinas harvest mouse	None	None	-	-	MARINA	
Sorex ornatus salarius	Monterey shrew	None	None	SSC	-	SEASIDE	

Sorex ornatus salarius	Monterey shrew	None	None	SSC	-	MONTEREY	
Sorex ornatus salarius	Monterey shrew	None	None	SSC	-	MARINA	
Sorex vagrans paludivagus	Monterey vagrant shrew	None	None	-	-	MARINA	
Sorex vagrans paludivagus	Monterey vagrant shrew	None	None	-	-	MONTEREY	
Sorex vagrans paludivagus	Monterey vagrant shrew	None	None	-	-	SEASIDE	
Taxidea taxus	American badger	None	None	SSC	-	MONTEREY	
Taxidea taxus	American badger	None	None	SSC	-	MT. CARMEL	
Taxidea taxus	American badger	None	None	SSC	-	SEASIDE	
Taxidea taxus	American badger	None	None	SSC	-	MARINA	
Mollusks							
Haliotis cracherodii	black abalone	Endangered	None	-	-	MONTEREY	
Haliotis cracherodii	black abalone	Endangered	None	-	-	SOBERANES POINT	
Haliotis kamtschatkana	pinto abalone	None	None	-	-	MONTEREY	
Reptiles							
Actinemys marmorata	northwestern pond turtle	Proposed Threatened	None	SSC	-	SEASIDE	
Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC	-	SEASIDE	
Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC	-	MT. CARMEL	
Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC	-	MONTEREY	
Actinemys pallida	southwestern pond turtle	Proposed Threatened	None	SSC	-	MARINA	
Anniella pulchra	Northern California legless lizard	None	None	SSC	-	MONTEREY	
Anniella pulchra	Northern California legless lizard	None	None	SSC	-	SEASIDE	
Anniella pulchra	Northern California legless lizard	None	None	SSC	-	MARINA	
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	-	MT. CARMEL	
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	-	SEASIDE	

Phrynosoma blainvillii	coast horned lizard	None	None	SSC	-	MONTEREY	
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	-	MARINA	
Thamnophis hammondii	two-striped gartersnake	None	None	SSC	-	MONTEREY	
Thamnophis hammondii	two-striped gartersnake	None	None	SSC	-	MT. CARMEL	
Plant Community							
Central Dune Scrub	Central Dune Scrub	None	None	-	-	MARINA	
Central Dune Scrub	Central Dune Scrub	None	None	-	-	MONTEREY	
Central Maritime Chaparral	Central Maritime Chaparral	None	None	-	-	MONTEREY	
Central Maritime Chaparral	Central Maritime Chaparral	None	None	-	-	SEASIDE	
Central Maritime Chaparral	Central Maritime Chaparral	None	None	-	-	SOBERANES POINT	
Central Maritime Chaparral	Central Maritime Chaparral	None	None	-	-	MARINA	
Monterey Cypress Forest	Monterey Cypress Forest	None	None	-	-	MONTEREY	
Monterey Pine Forest	Monterey Pine Forest	None	None	-	-	MONTEREY	
Monterey Pine Forest	Monterey Pine Forest	None	None	-	-	SOBERANES POINT	
Monterey Pine Forest	Monterey Pine Forest	None	None	-	-	SEASIDE	
Monterey Pygmy Cypress Forest	Monterey Pygmy Cypress Forest	None	None	-	-	MONTEREY	
Northern Bishop Pine Forest	Northern Bishop Pine Forest	None	None	-	-	MONTEREY	
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	None	None	-	-	MARINA	
Valley Needlegrass Grassland	Valley Needlegrass Grassland	None	None	-	-	SEASIDE	
Plants - Bryophytes							
	Tortula californica	None	None	-		SOBERANES POINT	
Plants - Lichens							
Ramalina thrausta	angels hair lichen	None	None	-	2B.1	MONTEREY	
Sulcaria spiralifera	twisted horsehair lichen	None	None	-	1B.2	MONTEREY	
Plants - Vascular							

Agrostis lacuna-vernalis	vernal pool bent grass	None	None	-	1B.1	MARINA	
Allium hickmanii	Hickmans onion	None	None	-	1B.2	MONTEREY	
Allium hickmanii	Hickmans onion	None	None	-	1B.2	SEASIDE	
Allium hickmanii	Hickmans onion	None	None	-	1B.2	MARINA	
Aphyllon robbinsii	Robbins broomrape	None	None	-	1B.1	MONTEREY	
Aphyllon robbinsii	Robbins broomrape	None	None	-	1B.1	SOBERANES POINT	
Arctostaphylos edmundsii	Little Sur manzanita	None	None	-	1B.2	SOBERANES POINT	
Arctostaphylos hookeri ssp. hookeri	Hookers manzanita	None	None	-	1B.2	SOBERANES POINT	
Arctostaphylos hookeri ssp. hookeri	Hookers manzanita	None	None	-	1B.2	SEASIDE	
Arctostaphylos hookeri ssp. hookeri	Hookers manzanita	None	None	-	1B.2	MONTEREY	
Arctostaphylos hookeri ssp. hookeri	Hookers manzanita	None	None	-	1B.2	MARINA	
Arctostaphylos montereyensis	Toro manzanita	None	None	-	1B.2	MARINA	
Arctostaphylos montereyensis	Toro manzanita	None	None	-	1B.2	MONTEREY	
Arctostaphylos montereyensis	Toro manzanita	None	None	-	1B.2	SEASIDE	
Arctostaphylos pajaroensis	Pajaro manzanita	None	None	-	1B.1	SEASIDE	
Arctostaphylos pajaroensis	Pajaro manzanita	None	None	-	1B.1	MONTEREY	
Arctostaphylos pajaroensis	Pajaro manzanita	None	None	-	1B.1	MARINA	
Arctostaphylos pumila	sandmat manzanita	None	None	-	1B.2	MARINA	
Arctostaphylos pumila	sandmat manzanita	None	None	-	1B.2	MONTEREY	
Arctostaphylos pumila	sandmat manzanita	None	None	-	1B.2	SEASIDE	
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	None	None	-	4.3	SOBERANES POINT	
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	None	None	-	4.3	MONTEREY	
Astragalus nuttallii var. nuttallii	ocean bluff milk-vetch	None	None	-	4.3	MARINA	
Astragalus tener var. titi	coastal dunes milk-vetch	Endangered	Endangered	-	1B.1	MONTEREY	
Calandrinia breweri	Brewers calandrinia	None	None	-	4.2	MT. CARMEL	
Calandrinia breweri	Brewers calandrinia	None	None	-	4.2	SEASIDE	
Calochortus uniflorus	pink star-tulip	None	None	-	4.2	MARINA	
Castilleja ambigua var. insalutata	pink Johnny-nip	None	None	-	1B.1	MONTEREY	

Castilleja ambigua var. insalutata	pink Johnny-nip	None	None	-	1B.1	MARINA	
Castilleja latifolia	Monterey Coast paintbrush	None	None	-	4.3	MARINA	
Castilleja latifolia	Monterey Coast paintbrush	None	None	-	4.3	MONTEREY	
Castilleja latifolia	Monterey Coast paintbrush	None	None	-	4.3	SEASIDE	
Castilleja latifolia	Monterey Coast paintbrush	None	None	-	4.3	SOBERANES POINT	
Ceanothus gloriosus var. gloriosus	Point Reyes ceanothus	None	None	-	4.3	SEASIDE	
Ceanothus rigidus	Monterey ceanothus	None	None	-	4.2	MONTEREY	
Ceanothus rigidus	Monterey ceanothus	None	None	-	4.2	MT. CARMEL	
Ceanothus rigidus	Monterey ceanothus	None	None	-	4.2	SOBERANES POINT	
Ceanothus rigidus	Monterey ceanothus	None	None	-	4.2	SEASIDE	
Ceanothus rigidus	Monterey ceanothus	None	None	-	4.2	MARINA	
Centromadia parryi ssp. congdonii	Congdons tarplant	None	None	-	1B.1	SEASIDE	
Chorizanthe douglasii	Douglas spineflower	None	None	-	4.3	MONTEREY	
Chorizanthe douglasii	Douglas spineflower	None	None	-	4.3	SOBERANES POINT	
Chorizanthe douglasii	Douglas spineflower	None	None	-	4.3	MT. CARMEL	
Chorizanthe douglasii	Douglas spineflower	None	None	-	4.3	SEASIDE	
Chorizanthe douglasii	Douglas spineflower	None	None	-	4.3	MARINA	
Chorizanthe minutiflora	Fort Ord spineflower	None	None	-	1B.2	MARINA	
Chorizanthe minutiflora	Fort Ord spineflower	None	None	-	1B.2	SEASIDE	
Chorizanthe pungens var. pungens	Monterey spineflower	Threatened	None	-	1B.2	SEASIDE	
Chorizanthe pungens var. pungens	Monterey spineflower	Threatened	None	-	1B.2	MONTEREY	
Chorizanthe pungens var. pungens	Monterey spineflower	Threatened	None	-	1B.2	MARINA	
Clarkia jolonensis	Jolon clarkia	None	None	-	1B.2	SEASIDE	

Clarkia jolonensis	Jolon clarkia	None	None	-	1B.2	SOBERANES POINT	
Clarkia jolonensis	Jolon clarkia	None	None	-	1B.2	MONTEREY	
Clarkia lewisii	Lewis clarkia	None	None	-	4.3	MONTEREY	
Clarkia lewisii	Lewis clarkia	None	None	-	4.3	SOBERANES POINT	
Clarkia lewisii	Lewis clarkia	None	None	-	4.3	MT. CARMEL	
Clarkia lewisii	Lewis clarkia	None	None	-	4.3	SEASIDE	
Clarkia lewisii	Lewis clarkia	None	None	-	4.3	MARINA	
Collinsia multicolor	San Francisco collinsia	None	None	-	1B.2	SEASIDE	
Collinsia multicolor	San Francisco collinsia	None	None	-	1B.2	MONTEREY	
Cordylanthus rigidus ssp. littoralis	seaside birds-beak	None	Endangered	-	1B.1	SOBERANES POINT	
Cordylanthus rigidus ssp. littoralis	seaside birds-beak	None	Endangered	-	1B.1	SEASIDE	
Cordylanthus rigidus ssp. littoralis	seaside birds-beak	None	Endangered	-	1B.1	MONTEREY	
Cordylanthus rigidus ssp. littoralis	seaside birds-beak	None	Endangered	-	1B.1	MARINA	
Corethrogyne leucophylla	branching beach aster	None	None	-	3.2	MARINA	
Cryptantha rattanii	Rattans cryptantha	None	None	-	4.3	SEASIDE	
Cryptantha rattanii	Rattans cryptantha	None	None	-	4.3	MONTEREY	
Delphinium californicum ssp. interius	Hospital Canyon larkspur	None	None	-	1B.2	SEASIDE	
Delphinium hutchinsoniae	Hutchinsons larkspur	None	None	-	1B.2	SOBERANES POINT	
Delphinium hutchinsoniae	Hutchinsons larkspur	None	None	-	1B.2	MT. CARMEL	
Delphinium hutchinsoniae	Hutchinsons larkspur	None	None	-	1B.2	MONTEREY	
Eriastrum tracyi	Tracys eriastrum	None	Rare	-	3.2	SEASIDE	
Eriastrum virgatum	virgate eriastrum	None	None	-	4.3	SEASIDE	
Eriastrum virgatum	virgate eriastrum	None	None	-	4.3	MONTEREY	
Eriastrum virgatum	virgate eriastrum	None	None	-	4.3	MARINA	
Ericameria fasciculata	Eastwoods goldenbush	None	None	-	1B.1	MARINA	
Ericameria fasciculata	Eastwoods goldenbush	None	None	-	1B.1	SEASIDE	
Ericameria fasciculata	Eastwoods goldenbush	None	None	-	1B.1	MT. CARMEL	
Ericameria fasciculata	Eastwoods goldenbush	None	None	-	1B.1	MONTEREY	

Eriogonum elegans	elegant wild buckwheat	None	None	-	4.3	SEASIDE	
Eriogonum nortonii	Pinnacles buckwheat	None	None	-	1B.3	SOBERANES POINT	
Eryngium montereyense	Fort Ord button-celery	None	None	-	1B.1	MARINA	
Eryngium montereyense	Fort Ord button-celery	None	None	-	1B.1	SEASIDE	
Erysimum ammophilum	sand-loving wallflower	None	None	-	1B.2	SOBERANES POINT	
Erysimum ammophilum	sand-loving wallflower	None	None	-	1B.2	SEASIDE	
Erysimum ammophilum	sand-loving wallflower	None	None	-	1B.2	MARINA	
Erysimum menziesii	Menzies wallflower	Endangered	Endangered	-	1B.1	MARINA	
Erysimum menziesii	Menzies wallflower	Endangered	Endangered	-	1B.1	MONTEREY	
Fritillaria agrestis	stinkbells	None	None	-	4.2	MONTEREY	
Fritillaria liliacea	fragrant fritillary	None	None	-	1B.2	MONTEREY	
Gilia tenuiflora ssp. amplifaucalis	trumpet-throated gilia	None	None	-	4.3	MONTEREY	
Gilia tenuiflora ssp. arenaria	Monterey gilia	Endangered	Threatened	-	1B.2	MONTEREY	
Gilia tenuiflora ssp. arenaria	Monterey gilia	Endangered	Threatened	-	1B.2	SEASIDE	
Gilia tenuiflora ssp. arenaria	Monterey gilia	Endangered	Threatened	-	1B.2	MARINA	
Hesperocyparis goveniana	Gowen cypress	Threatened	None	-	1B.2	MONTEREY	
Hesperocyparis macrocarpa	Monterey cypress	None	None	-	1B.2	MONTEREY	
Horkelia cuneata var. sericea	Kelloggs horkelia	None	None	-	1B.1	MARINA	
Horkelia cuneata var. sericea	Kelloggs horkelia	None	None	-	1B.1	MONTEREY	
Horkelia cuneata var. sericea	Kelloggs horkelia	None	None	-	1B.1	SEASIDE	
Horkelia marinensis	Point Reyes horkelia	None	None	-	1B.2	MARINA	
Hosackia gracilis	harlequin lotus	None	None	-	4.2	MONTEREY	
Hosackia gracilis	harlequin lotus	None	None	-	4.2	SOBERANES POINT	
Iris longipetala	coast iris	None	None	-	4.2	MONTEREY	
Lasthenia conjugens	Contra Costa goldfields	Endangered	None	-	1B.1	SEASIDE	
Lasthenia conjugens	Contra Costa goldfields	Endangered	None	-	1B.1	MARINA	
Layia carnosa	beach layia	Threatened	Endangered	-	1B.1	MONTEREY	
Leptosiphon grandiflorus	large-flowered leptosiphon	None	None	-	4.2	MARINA	
Leptosiphon grandiflorus	large-flowered leptosiphon	None	None	-	4.2	SEASIDE	

Leptosiphon grandiflorus	large-flowered leptosiphon	None	None	-	4.2	SOBERANES POINT	
Leptosiphon grandiflorus	large-flowered leptosiphon	None	None	-	4.2	MONTEREY	
Leptosiphon latisectus	broad-lobed leptosiphon	None	None	-	4.3	MONTEREY	
Lessingia tenuis	spring lessingia	None	None	-	4.3	MONTEREY	
Lessingia tenuis	spring lessingia	None	None	-	4.3	SEASIDE	
Lessingia tenuis	spring lessingia	None	None	-	4.3	MARINA	
Lomatium parvifolium	small-leaved lomatium	None	None	-	4.2	SEASIDE	
Lomatium parvifolium	small-leaved lomatium	None	None	-	4.2	SOBERANES POINT	
Lomatium parvifolium	small-leaved lomatium	None	None	-	4.2	MT. CARMEL	
Lomatium parvifolium	small-leaved lomatium	None	None	-	4.2	MONTEREY	
Lomatium parvifolium	small-leaved lomatium	None	None	-	4.2	MARINA	
Lupinus albifrons var. abramsii	Abrams lupine	None	None	-	3.2	MT. CARMEL	
Lupinus tidestromii	Tidestroms lupine	Endangered	Endangered	-	1B.1	MONTEREY	
Malacothamnus involucratus	Carmel Valley bushmallow	None	None	-	1B.2	MONTEREY	
Malacothamnus involucratus	Carmel Valley bushmallow	None	None	-	1B.2	SEASIDE	
Malacothamnus involucratus	Carmel Valley bushmallow	None	None	-	1B.2	MT. CARMEL	
Malacothrix saxatilis var. arachnoidea	Carmel Valley malacothrix	None	None	-	1B.2	SEASIDE	
Malacothrix saxatilis var. arachnoidea	Carmel Valley malacothrix	None	None	-	1B.2	MT. CARMEL	
Microseris paludosa	marsh microseris	None	None	-	1B.2	SEASIDE	
Microseris paludosa	marsh microseris	None	None	-	1B.2	MONTEREY	
Microseris paludosa	marsh microseris	None	None	-	1B.2	MARINA	
Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	None	None	-	1B.2	MONTEREY	
Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	None	None	-	1B.2	SEASIDE	

Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	None	None	-	1B.2	MARINA	
Monolopia gracilens	woodland woollythreads	None	None	-	1B.2	MONTEREY	
Ophioglossum californicum	California adders-tongue	None	None	-	4.2	SEASIDE	
Ophioglossum californicum	California adders-tongue	None	None	-	4.2	MONTEREY	
Perideridia gairdneri ssp. gairdneri	California Gairdners yampah	None	None	-	4.2	MT. CARMEL	
Pinus radiata	Monterey pine	None	None	-	1B.1	MONTEREY	
Pinus radiata	Monterey pine	None	None	-	1B.1	SEASIDE	
Pinus radiata	Monterey pine	None	None	-	1B.1	SOBERANES POINT	
Piperia michaelii	Michaels rein orchid	None	None	-	4.2	MONTEREY	
Piperia michaelii	Michaels rein orchid	None	None	-	4.2	SEASIDE	
Piperia michaelii	Michaels rein orchid	None	None	-	4.2	SOBERANES POINT	
Piperia michaelii	Michaels rein orchid	None	None	-	4.2	MARINA	
Piperia yadonii	Yadons rein orchid	Endangered	None	-	1B.1	MARINA	
Piperia yadonii	Yadons rein orchid	Endangered	None	-	1B.1	MT. CARMEL	
Piperia yadonii	Yadons rein orchid	Endangered	None	-	1B.1	SOBERANES POINT	
Piperia yadonii	Yadons rein orchid	Endangered	None	-	1B.1	SEASIDE	
Piperia yadonii	Yadons rein orchid	Endangered	None	-	1B.1	MONTEREY	
Plagiobothrys chorisianus var. hickmanii	Hickmans popcornflower	None	None	-	4.2	SEASIDE	
Plagiobothrys uncinatus	hooked popcornflower	None	None	-	1B.2	MT. CARMEL	
Potentilla hickmanii	Hickmans cinquefoil	Endangered	Endangered	-	1B.1	MONTEREY	
Ranunculus lobbii	Lobbs aquatic buttercup	None	None	-	4.2	MARINA	
Rosa pinetorum	pine rose	None	None	-	1B.2	MONTEREY	
Rosa pinetorum	pine rose	None	None	-	1B.2	SEASIDE	
Rosa pinetorum	pine rose	None	None	-	1B.2	SOBERANES POINT	
Sidalcea malachroides	maple-leaved checkerbloom	None	None	-	4.2	MT. CARMEL	
Sidalcea malachroides	maple-leaved checkerbloom	None	None	-	4.2	SOBERANES POINT	

Sidalcea malachroides	maple-leaved checkerbloom	None	None	-	4.2	MONTEREY	
Stebbinsoseris decipiens	Santa Cruz microseris	None	None	-	1B.2	SEASIDE	
Trifolium buckwestiorum	Santa Cruz clover	None	None	-	1B.1	SEASIDE	
Trifolium buckwestiorum	Santa Cruz clover	None	None	-	1B.1	MARINA	
Trifolium hydrophilum	saline clover	None	None	-	1B.2	MONTEREY	
Trifolium polyodon	Pacific Grove clover	None	Rare	-	1B.1	MONTEREY	
Trifolium polyodon	Pacific Grove clover	None	Rare	-	1B.1	SEASIDE	
Trifolium polyodon	Pacific Grove clover	None	Rare	-	1B.1	MT. CARMEL	
Trifolium trichocalyx	Monterey clover	Endangered	Endangered	-	1B.1	MONTEREY	

Appendix B

Arborist Report

urbantreemanagement

Arborist Report-Existing conditions

1398 Pico Ave,
Pacific Grove, CA 93950



Inspection Date:
July 15, 2025

Prepared by: Chris Stewart
Project Arborists: Chris Stewart
certified arborist: WE-13682A
TRAQ Certified

Submission Date: July 15, 2025

TABLE OF CONTENTS

ASSIGNMENT……1

LIMITS OF THE ASSIGNMENT……1

SUMMARY……1

SURVEY METHODS……2

TREE RATINGS TABLE……3

TREE DISPOSITION CATEGORIES……3

LOCAL REGULATIONS……3-4

SURVEY AREA OBSERVATIONS AND DISCUSSION……4

TREE HEALTH……4

TREE STRUCTURE……4-5

RECOMMENDED REMOVALS……5

SITE IMAGES……5-6

RISK TO TREES BY CONSTRUCTION……7

TREE PROTECTION PLAN……7-8

APPENDIX A – ASSUMPTIONS AND LIMITING CONDITIONS……9

APPENDIX B – ARBORIST DISCLOSURE STATEMENT……10

APPENDIX C – DISCLAIMER AND CERTIFICATION OF PERFORMANCE……11

APPENDIX D – TREE DATA TABLE……12-13

APPENDIX E – TOPOGRAPHIC SURVEY WITH TREE NUMBERS MAP……14

Assignment

It was our assignment to physically inspect all trees based on the topographical map provided by the design team. We were to map, tag, and compile data for each tree, and write an inventory/survey report documenting our observations on the site's existing conditions.

Limits of the Assignment

One tree included in this report was located on the neighboring property. The diameter at breast height (DBH) included for this tree is in Appendix D – Tree Survey Data and there were no obstructions so I was able to measure the tree. The assessments of these trees included in this report are based solely on my visual observations from the ground during the site inspection.

Summary

This survey provides a numbered map and complete and detailed information for each tree surveyed. The complete list of trees and all relevant information, including their health and structure ratings, their "protected/significant" status, a map, and recommendations for their care can be found in the Appendix D – Tree Data Table, that accompanies this report.

There are 13 trees included in this report with 11 of the trees protected under the City of Pacific Grove's tree protection ordinance. During our survey, none of the trees were rated "A" condition, 2 trees were rated "B" condition, 9 trees were rated "C" condition, and two of the trees were rated "D" condition.
A - Retain, condition warrants long-term preservation.
B - Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.
C- May be preservable but is not worthy of extensive effort or design accommodation.
D – Recommend removal due to existing condition and/or structure.

There are proposed site improvements to this property, but no plans were available for review during the initial tree survey.

Survey Methods

The trunks of the trees were measured using an arborist's diameter tape at 54" above natural grade. In cases where the main trunk divides below 54", the trunk is measured just below the lowest limb. The canopy height and spread are estimated using visual references only.

The condition of each tree is assessed by visual observation only from a standing position without climbing or using aerial equipment. No invasive equipment is used. Consequently, it is possible that individual tree(s) may have internal (or underground) health problems or structural defects, which are not detectable by visual inspection. In cases where it is thought further investigation is warranted, a "full tree risk assessment" is recommended. This assessment may be inclusive of drilling or using sonar equipment to detect internal decay and include climbing or the use of aerial equipment to assess higher portions of the tree.

All the trees surveyed were examined and then rated based on their individual health and structure according to the following "Tree Ratings Table." For example, a tree may be rated "good" under the health column for excellent/vigorous appearance and growth, while the same tree may be rated "fair/poor" in the structure column if structural mitigation is needed.

The health of an individual tree is rated based on leaf color and size, canopy density, new shoot growth, and the absence or presence of pests or disease.

Individual tree structure is rated based on the growth pattern of the tree (including whether it is leaning); the presence or absence of poor limb attachments (such as co-dominant leaders); the length and weight of limbs; and the extent and location of apparent decay. For each tree, a structural rating of "fair" or above indicates that the structure can be maintained with routine pruning such as removing dead branches and reducing end weight as the tree grows. A "fair/poor" rating indicates that the tree has significant structural weaknesses and corrective action is warranted. The notes section for that tree will then recommend a strategy/technique to improve the structure or mitigate structural stresses. A "poor" structural rating indicates that the tree or portions of the tree are likely to fail and that there is little that can constructively be done about the problem other than removal of the tree or large portions of the tree. Very large trees that are rated "fair/poor" for structure AND that are near structures or in an area frequently traveled by cars or people, receive an additional **CONSIDER REMOVAL" notation under recommendations. This is included because structural mitigation techniques do not guarantee against structural failure, especially in very large trees. Property owners may or may not choose to remove this type of tree but should be aware that if a very large tree experiences a major structural failure, the danger to nearby people or property is significant.

Tree Ratings Table

Rating	Health	Structure
Good	excellent/vigorous	flawless
Fair/good	no significant health concerns	very stable
Fair	showing initial or temporary disease, pests, or lack of vitality. measures should be taken to improve health and appearance.	routine maintenance needed such as pruning or end weight reduction as tree grows
Fair/poor	in decline, significant health issues	significant structural weakness(es), mitigation needed, mitigation may or may not preserve the tree
Poor	dead or near dead	hazard

Tree Disposition Categories

Each tree onsite has been categorized for its suitability for preservation relative to its existing condition. Factors such as tree health, condition, age, planting location, species, and structure are all considered to determine if each tree is suitable for preservation. Each tree in the survey (Tree Data Table) has been assigned one of the following categories:

A - Retain, condition warrants long-term preservation.
B - Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.
C- May be preservable but is not worthy of extensive effort or design accommodation.
D – Recommend removal due to existing condition and/or structure.

If trees with poor structure or less than ideal conditions are retained, they may require further assessments, monitoring, access restrictions, maintenance, or eventual removal. More thorough conversations about impacts and specific preservation plans can be reported as the project evolves.

Local Regulations Governing Trees

Four categories of Trees are protected as specified below:
(1) California Native Trees most prevalent in Pacific Grove, six inches or greater in trunk diameter measured at 54 inches above natural grade, shall be classified as a protected category; this includes all Monterey Cypress, Coast live oak, California incense cedar, Coast redwood, Monterey pine, Gray pine, Torrey pine, and Doug fir.

(2) In addition to subsection (1) of this section, all other Trees on private or public property, regardless of species, 12 inches or greater in trunk diameter, measured at 54 inches above native grade.
(3) All Trees in or within 100 yards of designated Monarch sanctuaries. For the purposes of this title, the following sites are designated as Monarch sanctuaries, serving as official Pacific Grove Monarch butterfly over-wintering sites: (A) Monarch Grove Sanctuary. That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and -034, extended from Grove Acre easterly to Ridge Road. (B) George Washington Park Site. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose.
(4) Designated Trees. All Trees that are otherwise Protected and will be impacted as a result of Development, both proposed for Pruning or Removal and where the Development will impact the Tree Protection Zone of the Tree that requires protection during construction, and all Trees otherwise identified – during Development or otherwise – for special protection by the property owner. Trees that are proposed to be Removed as part of a Development project shall be processed as part of the community Development permit application and approval process, and replaced in accordance with this chapter, and the Urban Forestry Standards.

Survey Area Observations and Discussion

The property surveyed is located at 1398 Pico Ave in Pacific Grove, CA approximately 300 yards from the Pacific Ocean. The property is flat with no elevation change and there were 2 distinct tree species identified in this report. There was 1 trees on the neighboring property and two of the trees are recommended for removal due to health and structural concerns.

Tree Health on this Property

The health of the trees in the surveyed received ratings ranging from "poor" to "fair/good." The property would benefit from a regular tree maintenance program. Individual issues and recommendations for each tree are listed under the "Notes" in Appendix-D Tree Survey Data.

Tree Structure on this Property

The tree structure in the surveyed area ranged from "poor" to "fair." "Fair/poor" ratings are most commonly due to the incidence of decay, and presence of codominant leaders and branching habits resulting from a lack of developmental structure pruning at a young age.

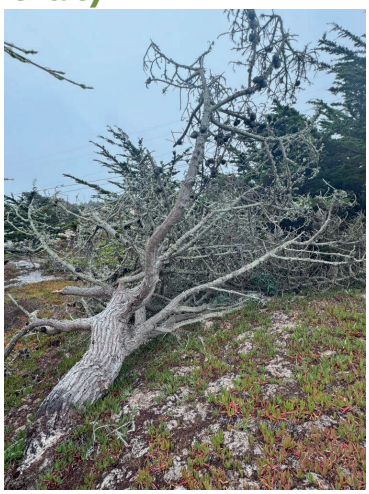
Ideally, trees are pruned for structure when young and are properly maintained to reduce end-weight and correct structural weaknesses as they grow. This practice prevents the growth of codominant leaders, epicormic sprouts, and excessively long, lateral branches that are prone to breakage. As mentioned above, the property would benefit from a pruning maintenance

routine to help correct the structure of the trees, reduce dead and diseased wood accumulation, and prevent future limb or codominant leader failures.

Recommended Removals Based on Health/ Structure/Species

Two of the trees we recommended for removal. Monterey pine (Pinus radiata) tree #188 is of protected size but has fallen over and is 100% dead. Monterey cypress (*Hesperocyparis macrocarpa*) tree #189 is not protected and is also 100% dead with no live foliage.

Site Images (Removals)



Tree #188



Tree #189

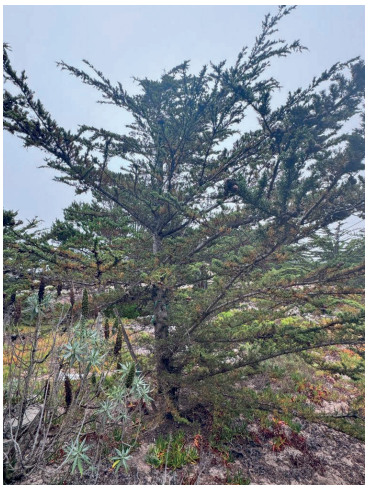
Site Images



Tree #180



Tree #181



Tree #182



Tree #183



Tree #184



Tree #185



Tree #186



Tree #187



Tree #190



Tree #191



Tree #192

Risks to Trees by Construction

Besides the above-mentioned health and structure-related issues, the trees at this site could be at risk of damage by construction or construction procedures that are common to most construction sites. These procedures may include the dumping or the stockpiling of materials over root systems; the trenching across the root zones for utilities or for landscape irrigation; or the routing of construction traffic across the root system resulting in soil compaction and root dieback. It is therefore essential that Tree Protection Fencing be used as per the Architect's drawings and Project Arborist's recommendations. In constructing underground utilities, it is essential that the location of trenches be done outside the drip lines of trees except were approved by the Arborist.

Tree Protection Plan

Protective fencing is required to be provided during the construction period to protect trees to be preserved. This fencing must protect a sufficient portion of the root zone to be effective. Fencing is recommended to be located eight-to-ten times (8x-10x) the DBH in all directions from the tree. DBH for each tree is shown in Appendix D – Tree Data Table. In my experience, the protective fencing must:

a. Consist of chain link fencing and have a minimum height of 6'.
b. Be mounted on steel posts driven approximately 2' into the soil.
c. Fencing posts must be located a maximum of 10' on center.
d. Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
e. Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved be a Certified Arborist.
f. Tree Protection Signage shall be mounted to all individual tree protection fences.

Based on the existing development and the condition and location of trees present on site, the following is recommended:

1. The Project Arborist is Chris Stewart (408) 313-1937. The Project Arborist(s) should supervise any excavation activities within the tree protection zones of these trees.
2. Any roots exposed during construction activities that are larger than 2" in diameter should not be cut or damaged until the Project Arborist has an opportunity to assess the impact that removing these roots could have on the trees.
3. The area under the driplines of trees should be thoroughly irrigated to a soil depth of 18" every 2 weeks for water-loving species such as redwoods and every 4 weeks for drought tolerant species such as oaks during the dry months.
4. Mulch should cover all bare soil within the tree protection fencing. This material must be 6"-8" in depth after spreading, which must be done by hand. Coarse wood chips are preferred because they are organic and degrade naturally over time.

5. Loose soil and mulch must not be allowed to slide down slope to cover the root zones or the root collars of protected trees.
6. There must be no grading, trenching, or surface scraping inside the driplines of protected trees, unless specifically approved by a Certified Arborist. For trenching, this means:
    a. Trenches for any underground utilities (gas, electricity, water, phone, TV cable, etc.) must be located outside the driplines of protected trees, unless approved by a Certified Arborist. Alternative methods of installation may be suggested.
    b. Landscape irrigation trenches must be located a minimum distance of 10x the trunk diameter from the trunks of protected trees unless otherwise noted and approved by the Arborist.
7. Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.
8. Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
9. Landscape materials (cobbles, decorative bark, stones, fencing, etc.) must not be installed directly in contact with the bark of trees because of the risk of serious disease infection.
10. Landscape irrigation systems must be designed to avoid water striking the trunks of trees, especially Oak trees.
11. Any pruning must be done by a Company with an Arborist Certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
12. Any plants that are planted inside the driplines of oak trees must be of a species that are compatible with the environmental and cultural requirements of oak trees. Plants compatible with California native oaks can be found in The California Oak Foundation's 1991 publication "Compatible Plants Under & Around Oaks." This publication details plants compatible with California native oaks and is currently available online at: http://californiaoaks.org/wpcontent/uploads/2016/04/CompatiblePlantsUnderAroundOaks.pdf

Appendix A – Assumptions and Limiting Conditions

1. Any legal description provided to this arborist is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as to the quality of any title.
2. This arborist can neither guarantee nor be responsible for accuracy of information provided by others.
3. This arborist shall not be required to give testimony or to attend court by reason of the information provided by this arborist unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire report.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of this arborist.
6. This report and the values expressed herein represent the opinion of this arborist, and this arborist's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches, diagrams, graphs, photos, etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. This arborist cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. This arborist cannot take responsibility for any root defects which could only have been discovered by such an inspection.

Appendix B – Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Appendix C - Disclaimer and Certification of Performance

Urban Tree Management locates our Tree Inventory Numbers in *approximate* locations, for visual reference only. Field verification of tree locations and tree numbers is required before *any* actions are taken. Trunk diameters, locations, and species are not necessarily accurate on topographic maps. Urban Tree Management, Inc. does not create topographic survey maps and cannot be held liable for information therein.

I certify that the information contained in this report is correct to the best of my knowledge and that this report was prepared in good faith. Please call me if you have questions or if I can be of further assistance.

Respectfully,



Chris Stewart
WC ISA Certified Arborist WE-13682A
TRAQ Certified

Appendix D - TREE SURVEY DATA

Address: 1398 Pico Ave Pacific Grove, CA 93950

Inspection Date: 7/15/2025

Ratings for health and structure are given separately for each tree according to the table below. IE, a tree may be rated "Good" under the health column For excellent, vigorous appearance and growth, while the same tree may be rated "Fair, Poor" in the structure column if structural mitigation is needed.

KEY	Health	Structure
Good	excellent, vigorous	flawless
Fair - Good	no significant health concerns	very stable
Fair	declining; measures should be taken to improve health and appearance	routine maintenance needed
Fair - Poor	in decline: significant health issues	mitigation needed, it may or may not preserve this tree
Poor	dead or near dead	hazard

TAG NO.	COMMON NAME	DIAMETER AT BREAST HEIGHT"	H'/W'	HEALTH	STRUCTURE	PROTECTED (X)	TREE DISPOSITION	NOTES, RECOMMENDATIONS
180	Monterey cypress	7.0	10'/20'	f	fp	x	C	EWR, DWR, SP, RCE, multiple leaders at base
181	Monterey cypress	8.0	16'/20'	f	f	x	C	EWR, DWR, SP, RCE
182	Monterey cypress	8.5	20'/20'	f	f	x	C	EWR, DWR, SP, RCE
183	Monterey cypress	3.4	10'/8'	fp	f		C	EWR, DWR, SP, RCE, consider removal
184	Monterey cypress	8.0	20'/16'	f	f	x	C	EWR, DWR, SP, RCE
185	Monterey cypress	22.0	25'/30'	fg	fp	x	B	EWR, DWR, SP, RCE, 3 leaders at base, DBH measured below leader branching
186	Monterey cypress	14.0	15'/20'	f	fp	x	C	EWR, DWR, SP, RCE, CD at 4', DBH measured below leader branching
187	Monterey cypress	17.0	28'/30'	fg	f	x	B	EWR, DWR, SP, RCE, DBH measured below leader branching
188	Monterey pine	20.0	20'/30'	p	p	x	D	RR, this tree is dead and has fallen over
189	Monterey cypress	5.5	5'/10'	p	p		D	RR, tree is dead
190	Monterey pine	6.8/6	14'/20'	f	fp	x	C	EWR, DWR, SP, RCE, CD from base
191	Monterey cypress	10.5	16'/20'	f	f	x	C	EWR, DWR, SP, RCE
192	Monterey pine	22.0	22'/20'	f	fp	x	C	EWR, DWR, SP, RCE, multiple leaders at base, DBH measured below leader branching, neighbor's tree

A = Retain, condition warrants long-term preservation		0
B = Preservable, tree is a benefit and may be worthy of extensive effort or design accommodation.		2
C = May be preservable but is not worthy of extensive effort or design accommodation.		9
D= Recommend removal due to existing condition and/or structure		2
TOTAL TREES		13
PROTECTED TOTAL	11	

KEY TO ACRONYMS

DWR - Dead Wood Removal pruning recommended.
EWR - End Weight Reduction: pruning to remove weight from limb ends, thus reducing the potential for limb failure(s).
RCE - Root Collar Excavation: excavating a small area around a tree that is currently buried by soil or refuse above buttress roots, usually done with a hand shovel.
SP - Structural pruning - removal of selected non-dominant leaders in order to balance the tree.
CD - Codominant Leader, two leaders with a narrow angle of attachement and prone to failure.
LCR-Live Crown Ratio.
RR - Recommend Tree Removal based upon Health or Structure of tree.
Prop - Steel prop in concrete footing recommended to help support a tree/limb.
Cable - Recommend a steel cable(s) be installed to help support a weakly attached limb(s).

Appendix D - TREE SURVEY DATA

TAG NO.	COMMON NAME	DIAMETER AT BREAST HEIGHT"	H'/W'	HEALTH	STRUCTURE	PROTECTED (X)	TREE DISPOSITION	NOTES, RECOMMENDATIONS

TREE ORDINANCE

Four categories of Trees are protected as specified below:
(1) California Native Trees most prevalent in Pacific Grove, six inches or greater in trunk diameter measured at 54 inches above natural grade, shall be classified as a protected category; this includes all Monterey Cypress, Coast live oak, California incense cedar, Coast redwood, Monterey pine, Gray pine, Torrey pine, and Doug fir. (2) In addition to subsection (1) of this section, all other Trees on private or public property, regardless of species, 12 inches or greater in trunk diameter, measured at 54 inches above native grade. (3) All Trees in or within 100 yards of designated Monarch sanctuaries. For the purposes of this title, the following sites are designated as Monarch sanctuaries, serving as official Pacific Grove Monarch butterfly over-wintering sites: (A) Monarch Grove Sanctuary. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose. (4) Designated Trees. All Trees that are otherwise Protected and will be impacted as a result of Development, both proposed for Pruning or Removal and where the Development will impact the Tree Protection Zone of the Tree that requires protection during construction, and all Trees otherwise identified – during Development or otherwise – for special protection by the property owner. Trees that are proposed to be Removed as part of a Development project shall be processed as part of the community Development permit application a approval process, and replaced in accordance with this chapter, and the Urban Forestry Standards.

Common Name	*Latin Name*
Monterey cypress	*Hesperocyparis macrocarpa*
Monterey pine	*Pinus radiata*

Disclaimer: Urban Tree Management locates our Tree Inventory Numbers in *approximate* locations, for visual reference only. Field verification of tree locations and tree numbers is required before *any* actions are taken. Trunk diameters, locations, and species are not necessarily accurate on topographic maps. Urban Tree Management, Inc. does not create topographic survey maps and cannot be held liable for information therein.



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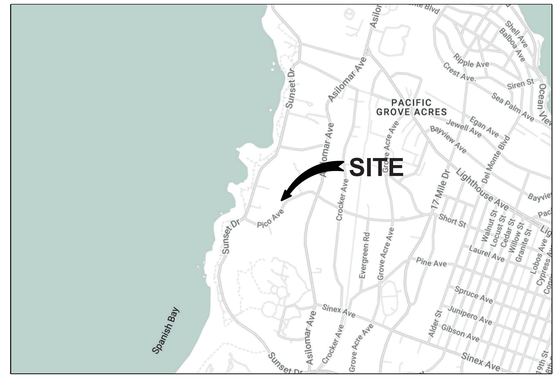
Know what's below. Call before you dig.

ABBREVIATIONS

AC	ASPHALT CONCRETE
DS	DOWNSPOUT
ELEC	ELECTRIC
EL	ELEVATION
FF	FINISHED FLOOR
GFF	GARAGE FINISHED FLOOR
JP	JOINT UTILITY POLE
SD	STORM DRAIN
SS	SANITARY SEWER
TYP	TYPICAL

LEGEND

- 100 — GROUND CONTOUR
- SUBJECT PROPERTY LINE
- PROPERTY LINE
- BM — BENCHMARK
- F3P LS0000 — SET/FOUND IRON PIPE, TAGGED AS NOTED
- + 928.30 — SPOT GRADE
- 12" OAK — TREE
- 3' DIA. OAK CLUSTER 6 TRUNKS 6"–10" DIA. — TREE CLUSTER
- STUMP
- TREE DRIP LINE
- FENCE
- AREA OF 30% OR GREATER SLOPE
- OH — OVERHEAD UTILITY LINE(S)
- UP — UTILITY POLE SHOWING ARMS AND GUY WIRE
- G — GAS LINE
- SD — STORM DRAIN LINE
- SDMH RIM XXX.XX X"I: X"O: — STORM DRAIN MANHOLE
- DS — DOWNSPOUT
- SSMH RIM XXX.XX X"I: X"O: — SANITARY SEWER MANHOLE
- HB — HOSE BIB
- UTILITY VAULT

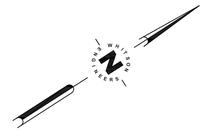


VICINITY MAP

SCALE: N.T.S.

TOPOGRAPHIC MAP NOTES:

1. THIS MAP REPRESENTS A TOPOGRAPHIC SURVEY PERFORMED BY WHITSON ENGINEERS ON FEBRUARY 27 & 28, 2025. BACKGROUND ORTHORECTIFIED AERIAL IMAGERY DISPLAYED HEREON IS BASED ON AERIAL PHOTOGRAPHY ACQUIRED WITH A SMALL UNMANNED AIRCRAFT ON FEBRUARY 27, 2025
2. THIS MAP PORTRAYS THE SITE AT THE TIME OF THE SURVEY AND DOES NOT SHOW SOILS OR GEOLOGIC INFORMATION, UNDERGROUND CONDITIONS, EASEMENTS, ZONING OR REGULATORY INFORMATION OR ANY OTHER ITEMS NOT SPECIFICALLY REQUESTED BY THE CLIENT.
3. BOUNDARY LOCATIONS SHOWN HEREON WERE DETERMINED WITH THE BENEFIT OF A FIELD SURVEY SUPPLEMENTED BY RECORD DATA. ALL BOUNDARY SHOWN IS FROM RECORD DATA. THIS TOPOGRAPHIC MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY. AS A TITLE REPORT WAS NOT PROVIDED, THERE MAY BE EASEMENTS OR OTHER RIGHTS, RECORDED OR UNRECORDED, AFFECTING THE SUBJECT PROPERTY, WHICH ARE NOT SHOWN HEREON.
4. DISTANCES AND DIMENSIONS SHOWN ARE EXPRESSED IN FEET AND DECIMALS THEREOF, UNLESS OTHERWISE NOTED.
5. BENCHMARK: SET MAG NAIL & WASHER AT EDGE OF PAVEMENT (AS SHOWN). ELEVATION: 507.88 (ASSUMED)
6. LOCATION OF UNDERGROUND UTILITIES WAS NOT WITHIN THE SCOPE OF THIS SURVEY. WITH THE EXCEPTION OF OBSERVED FACILITIES, UNDERGROUND UTILITIES ARE NOT SHOWN. UNDERGROUND PIPE SIZES, WHERE SHOWN, ARE BASED ON VISUAL OBSERVATION FROM THE SURFACE AND ARE APPROXIMATE.
7. THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES MUST BE VERIFIED BY POSITIVE LOCATION (POTHOLING) BY THE CONSTRUCTION CONTRACTOR PRIOR TO EXCAVATION OR ANY CONSTRUCTION WHICH MAY BE AFFECTED BY THE LOCATION OR ELEVATION OF THE UTILITY.
8. DIAMETERS OF TREES ARE SHOWN IN INCHES MEASURED AT 2 FEET ABOVE GRADE. TREES SMALLER THAN 3" WERE NOT NECESSARILY LOCATED AS PART OF THIS SURVEY. TREES THAT FORK BELOW BREAST HEIGHT ARE MEASURED AT THE NARROWEST POINT BETWEEN THE FORK AND THE GROUND. FOR MULTI-TRUNK TREES THAT SPLIT AT GROUND LEVEL OR BELOW, AND ARE BELIEVED TO BE ONE ROOT SYSTEM, THE DIAMETER OF THE TREE CLUSTER IS MEASURED AT GROUND LEVEL.



16 0 16 32

SCALE: 1/16" = 1'-0"

Civil Engineering
Land Surveying
4 Harris Court
Monterey, California
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whitsonengineers.com

Whitson ENGINEERS

LICENSED LAND SURVEYOR
RICHARD P. WEBER
No. 8002
STATE OF CALIFORNIA

SUBMITTAL / REVISION

Divita Res. - 1398 Pico Ave.

Pacific Grove, California

Topographic Survey

APN 007-061-019

SCALE:	1/16" = 1'
DRAWN:	AWS
JOB No.:	4788.00
SHEET	1 OF 1

NOT FOR CONSTRUCTION

Appendix C

Archaeological Report (cover page only)

Phase I Archaeological Survey Report

1398 Pico Road, Pacific Grove

Monterey County

November 20, 2025







Prepared by

EMC Planning Group

PHASE I ARCHAEOLOGICAL SURVEY REPORT

1398 Pico Road, Pacific Grove

Monterey County

PREPARED FOR

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November 20, 2025

This document was produced on recycled paper.

Appendix D

Geotechnical Investigation

GEOTECHNICAL INVESTIGATION
DESIGN PHASE

FOR
PROPOSED RESIDENTIAL CONSTRUCTION
1398 PICO AVENUE
PACIFIC GROVE, CALIFORNIA

PREPARED FOR
ED AND JULIE DIVITA
PROJECT NO. 25-209-M

PREPARED BY

BUTANO GEOTECHNICAL ENGINEERING, INC.
NOVEMBER 2025

BUTANO GEOTECHNICAL ENGINEERING, INC.
404 WESTRIDGE DRIVE, WATSONVILLE, CA, CALIFORNIA 95019
PHONE: 831.724.2612
WWW.BUTANOGEOTECH.COM

November 24, 2025
Project No. 25-209-M

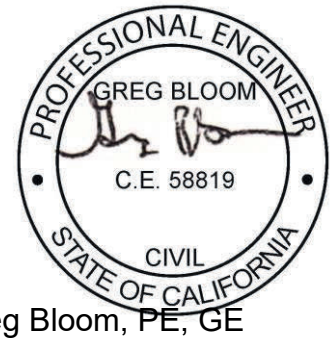
Ed and Julie Divita
1398 Pico Avenue
Pacific Grove, CA 93950

SUBJECT: **GEOTECHNICAL INVESTIGATION - DESIGN PHASE**
Proposed Residential Construction
1398 Pico Avenue
Pacific Grove, California

In accordance with your authorization, we have completed a geotechnical investigation for the subject project. This report summarizes the findings, conclusions, and recommendations from our field exploration and engineering analysis. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

BUTANO GEOTECHNICAL ENGINEERING, INC.



Greg Bloom, PE, GE
Principal Engineer

Appendices:
1. Appendix A Figures and Standard Details
2. Appendix B Field Exploration Program
3. Appendix C Laboratory Program

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation for the proposed residential development at 1398 Pico Avenue in Pacific Grove, California.

The purpose of our investigation is to provide preliminary geotechnical design parameters and recommendations for the proposed construction. Conclusions and recommendations related to site grading, drainage, slab-on-grades, retaining walls and foundations are presented herein.

This work includes site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report. The scope of services for this investigation is outlined in our agreement dated August 7, 2025.

The recommendations contained in this report are subject to the limitations presented in Section 8.0 of this report. The Association of Engineering Firms Practicing the Geosciences has produced a pamphlet for your information titled *Important Information About Your Geotechnical Report*. This pamphlet has been included with the copies of your report.

2.0 PROJECT DESCRIPTION

The project consists of demolishing the existing residence and constructing a new single-family residence.

3.0 FIELD EXPLORATION AND LABORATORY TESTING PROGRAMS

Our field exploration program included drilling, logging, and interval sampling of two borings on October 7 and November 18, 2025. The borings were advanced to depths ranging from 13 ½ to 21 ½ feet from the existing surface using 6-inch diameter solid stem augers on a tractor mounted drill rig. Details of the field exploration program, including the Boring Logs and the Key to the Logs, are presented in Appendix B, Figures B-3 through B-5.

Representative samples obtained during the field investigation were taken to the laboratory for testing. Laboratory tests were used to determine physical and engineering properties of the in-situ soils. Details of the laboratory testing program are presented in Appendix C. Test results are presented on the Boring Logs and in Appendix C.

4.0 SITE DESCRIPTION

4.1 Location

The project site is located west of highway 1 in Pacific Grove, California. The site location is shown on the Site Location Plan, Appendix B, Figure B-1.

4.2 Surface Conditions

The parcel is approximately 35,500 square feet in size, pie shaped and slopes to the west at gradients between 5 and 30 percent.

The site is improved with a single-family residence, driveway and associated improvements on the eastern portion of the property. The majority of the parcel is vegetated with low lying groundcover.

The improvements will be located in approximately the same location as the existing residence.

4.3 Subsurface Conditions

The parcel is geologically mapped as being underlain by younger dune deposits (Qyd). Our geotechnical exploration generally agrees with the geologic mapping of the area.

The borings were drilled in the area of the proposed improvements.

The borings encountered very loose to medium dense poorly graded sand to a depth of 26 ½ feet. Granite was encountered from a depth of 26 ½ to auger refusal at a depth of 28 ½ feet.

Groundwater was encountered during our exploration at a depth of 20 feet.

Complete soil profiles are presented in the Boring Logs, Appendix B, Figures B-4 and B-5. The boring locations are shown on the Boring Site Plan, Figure B-2.

5.0 GEOTECHNICAL HAZARDS

5.1 General

In our opinion the geotechnical hazards that could potentially affect the proposed project are:

- Intense seismic shaking
- Collateral seismic hazards
- Liquefaction and Lateral Spreading

5.1.1 Intense Seismic Shaking

The hazard of intense seismic shaking is present throughout central California. Intense seismic shaking may occur at the site during the design lifetime of the proposed structure from an earthquake along one of the regions many faults. Generally, the intensity of shaking will increase the closer the site is to the epicenter of an earthquake, however, seismic shaking is a complex phenomenon and may be modified by local topography and soil conditions. The transmission of earthquake vibrations from the ground into the structure may cause structural damage.

The City of Pacific Grove has adopted the seismic provisions set forth in the 2022 California Building Code to address seismic shaking. The seismic provisions in the 2022 CBC are minimum load requirements for the seismic design for the proposed structure. The provisions set forth in the 2022 CBC will not prevent structural and nonstructural damage from direct fault ground surface rupture, coseismic ground cracking, liquefaction and lateral spreading, seismically induced differential compaction, seismically induced landsliding, or seismically induced inundation.

Table 1 has been constructed based on the 2022 CBC requirements as adopted from the ASCE 7-16 provisions for the seismic design of proposed structure built in the liquefiable areas. The Site Class has been determined based on our field investigation and laboratory testing. The soil underlying the site is a Type S_F (potentially liquefiable) soil. But, the proposed structure has a short period. Based on the exception in section 20.3.1 of the ASCE 7-16 it is appropriate to analyze the site as being underlain by Type S_D (stiff soil) with respect to ground shaking. Specific analysis, recommendations, and discussion with respect to liquefaction are provided in section 5.1.3, the discussion and Appendix D.

Table 1. Seismic Design Parameters

S_S	S_1	Site Class	F_a	F_v	S_{DS}	S_{D1}	F_{PGA}	PGA_M	Risk Category	Seismic Design Category
1.342	0.502	D	1	Null*	0.895	Null*	1.1	0.644	II	Null*

Design Coordinates – (Lat: 36.6246221, Lng: -121.937724)

*Site specific analysis required for site class D and building structures having a period within the velocity domain of the design response spectrum (T_s <T<=T_L).

5.1.2 Collateral Seismic Hazards

In addition to intense seismic shaking, other seismic hazards that may have an adverse affect to the site and/or the structure are: fault ground surface rupture, coseismic ground cracking, seismically induced liquefaction and lateral spreading, seismically induced differential compaction, seismically induced landsliding, and seismically induced inundation (tsunami and seiche). It is our opinion that the potential for collateral seismic hazards to affect the site and to damage the proposed structure is low except for liquefaction. There is a low to moderate potential for deeper liquefaction (below 20 feet) at the site.

5.1.3 Liquefaction

Liquefaction is a mechanism of ground failure resulting from increased pore pressures during undrained cyclical shearing of saturated cohesionless soils. The excess pore water pressure causes the effective stress and shear resistance to drop, producing a liquefied soil state. In general terms, when loose, saturated, coarse-grained soils (cohesionless soils) are subjected to earthquake shaking (cyclical shearing) the water pressure (pore pressure) increases. If the water cannot escape fast enough (undrained) stress is transferred from the soil skeleton to the pore water, reducing the grain to grain contact (effective stress). This reduces the soil strength (shear resistance) and if the reduction is great enough the soil deforms and is said to liquefy. Ultimately, sands and non-plastic silts consolidate when subjected to repeated liquefaction.

Liquefaction susceptibility mapping for the City of Watsonville shows the alluvium deposits underlying the project site to have a “high potential for liquefaction”.

The site was analyzed for liquefaction potential utilizing the data in the most recent publications of the NCEER Workshop and SP 117 implementations. The analysis was performed for existing grade elevations using a peak ground acceleration of 0.644g and a magnitude 7.9 earthquake.

The associated hazards related to liquefaction are:

- Loss of bearing capacity.
- Lateral spreading.
- Ground settlement.
- Surface manifestations of underlying liquefaction.

A liquefaction analysis was conducted on boring B1. The lowest estimated factor of safety against liquefaction using the NCEER method was 0.24. Due to the low factor of safety the site should be mitigated for the hazards of liquefaction.

Loss of Bearing Capacity

Liquefaction can cause loss of bearing capacity in otherwise stable strata located above the liquefied zone. The loss of bearing capacity has historically resulted in large translational and rotational failures. There are no recognized analytical methods to evaluate the loss of bearing capacity at this time. The liquefiable zone is moderate (approximately 7 feet thick) and 20 feet below existing grade. It is anticipated that the probability for loss of bearing capacity to occur at the site is low.

Lateral Spreading

Lateral spreading occurs when a liquefied soil mass fails toward an open slope face or fails on an inclined plane. The site is located within a dune environment with the ocean several hundred feet away. Given the depth of liquefaction the potential for lateral spreading is low.

Ground Settlement

The liquefied soil profile may settle as the result of a seismic event. This occurs as the soil grains are shaken into a slightly denser arrangement. Because sites rarely have homogeneous soil profiles this often results in differential settlement, also known as differential compaction. The probability of ground settlement to occur at the site due to a seismic event is high.

Settlements were calculated based on cyclic stress ratio and fines adjusted blow counts. The total settlement calculated was 2.1 inches. Differential settlement at the site is anticipated to be approximately 1 inch.

Surface Manifestations of Underlying Liquefaction

Boils and ground fissures may occur through the top non-liquefiable soil from liquefaction of the underlying soil layers. Evaluation of the potential for surface manifestations was conducted using a 20 feet thick non-liquefiable surface layer and a 7 feet thick liquefiable layer. Based on our calculations the potential for surface manifestations to occur at the site low.

6.0 DISCUSSIONS AND CONCLUSIONS

The soil within the foundation zone consists of non-plastic poorly graded sand with very low potential for expansion. The material has a very low percentage of fines making it susceptible to wind and water erosion.

The site has the potential for differential settlement during a seismic event. The site can be mitigated with a deep foundation founded into the underlying granite.

7.0 RECOMMENDATIONS

7.1 General

Based on the results of our field investigation and engineering analysis it is our opinion that from the geotechnical standpoint, the subject site will be suitable for the construction of the residential development.

7.2 Site Grading

7.2.1 Site Clearing

The site should be cleared of non-engineered fill, remaining root masses, loose soil, organics, and debris within the project limits.

7.2.2 Preparation of On-Site Soils

Areas to receive fill (subgrade) should be scarified, cleared of organics, moisture conditioned to within 2 percent over optimum moisture, and compacted to a minimum of 90 percent relative compaction. The compacted subgrade should extend 2 feet laterally of any proposed improvements.

All fill should be compacted to a minimum of 90 percent relative compaction based on the optimum moisture and density in accordance with ASTM D1557. See Paved Areas for additional requirements.

Engineered fill should be well mixed and homogenous, moisture conditioned to 0 to 2 percent over optimum moisture, placed in relatively thin lifts, and compacted using heavy vibratory equipment.

Site Grading-General

The on-site soil may be re-used as engineered fill. Non-structural slab-on-grades should be underlain by a minimum of 36 inches of engineered fill unless they are fully supported by helical anchors founded into the underlying granite.

Imported fill material should be approved by a representative of Butano Geotechnical Engineering, Inc. prior to importing.

Imported fill should be primarily granular with **no material greater than 2½ inches in diameter** and no more than 20 percent of the material passing the #200 sieve. The fines fraction of fill should not consist of expansive material. The Geotechnical Engineer should be notified not less than 5 working days in advance of placing any fill or base course material proposed for import. Each proposed source of import material should be sampled, tested, and approved by the Geotechnical Engineer prior to delivery of any soils imported for use on the site.

Any surface or subsurface obstruction, or questionable material encountered during grading, should be brought immediately to the attention of the Geotechnical Engineer for proper processing as required.

7.2.3 Cut and Fill Slopes

Permanent cut and fill slopes should be graded no steeper than 3:1 (H:V). Fill slopes should be keyed and benched into the hillside on slopes greater than 15 percent. **A typical keying and benching detail is shown on Figure A-4.**

Disturbed slopes should be erosion controlled. This is critical as the soil is subject to wind and water erosion.

7.2.4 Excavating Conditions

The on-site soil may be excavated with conventional equipment.

7.2.5 Surface Drainage

Positive drainage should be maintained away from the structures at a minimum gradient of 3 percent for 10 feet. If this is not feasible swales may be constructed to control drainage. Collected drainage should be released at approved locations as indicated by the project civil engineer or designer into level spreaders. No uncontrolled water should be allowed to flow over the slopes.

7.2.6 Utility Trenches

Utility trenches should be backfilled based on the City of Pacific Grove standard details. At a minimum this should consist of 4 inches of bedding sand below the utility and 8 inches of bedding sand above the utility.

Backfill of all exterior and interior trenches should be placed in thin lifts not to exceed 8 inches and mechanically compacted to achieve a relative compaction of not less than 95 percent in paved areas and 90 percent in other areas per ASTM D1557. Care should be taken not to damage utility lines.

The on-site native soils may be utilized for trench backfill above the bedding sand. If sand or granular material is used for trench backfill, a 3 feet concrete plug should be placed in each trench where it passes under the exterior footings.

Utility trenches that are parallel to the sides of a building should be placed so that they do not extend below a line sloping down and away at an inclination of 2:1 (V:H) from the bottom outside edge of all footings.

Trenches should be capped with 1 1/2 feet of relatively impermeable material. Import material must be approved by the Geotechnical Engineer prior to its use.

Trenches must be shored as required by the local regulatory agency, the State of California Division of Industrial Safety Construction Safety Orders, and Federal OSHA requirements.

Utility lines should be designed with flexible connections to mitigate up to 1 inch of differential settlement.

Paved Areas

The paved areas should be prepared as above and the upper 8 inches of subgrade and all aggregate baserock in paved areas should be compacted to a minimum of **95 percent** relative compaction. The subgrade compaction should extend a minimum of 2 feet laterally of all paved areas.

7.3 Foundations

7.3.1 Helical Piers

General

The proposed improvements may be supported by helical anchors founded into the underlying granite.

Helical piers may be used to support the proposed structure.

Helix anchors may be used to support vertical loads. Battered and/or concrete reinforced helix anchors may be used to support lateral loads.

The minimum recommended embedment depth for the helix plate (on a multi plated helix anchor) is 28 feet below the base of the grade beam into the underlying hard granite.

An allowable bearing/pull-out capacity of 25,000 psf may be used to determine the number and size of the helix plates that will be needed for each anchor to achieve the required minimum service load. The total allowable bearing/pull-out capacity of each anchor is calculated by summing up the bearing/pull-out capacity of each helix plate on the anchor.

Round helical shafts should be used for liquefiable soils. The structural engineer must analyze for buckling over the unbraced length of soil liquefaction (20 to 26 ½ feet).

These capacities do not include the weight of the shaft. Allowable capacities may be increased by one-third for short term loading. The minimum recommended helix depth to diameter ratio is 5. Individual helix plates attached to a multi-plate anchor should be spaced no closer than 3 diameters. Anchors should be placed no closer than 5 diameters center-to-center, with the diameter of the largest helix plate being used to determine the spacing.

Rotational resistance encountered by an anchor when being screwed into the soil defined as installation torque. The monitoring of installation torque during installation is recommended. Installation torque should not exceed the anchor rating. Installation torque has been empirically related to pull-out capacity. A minimum bearing/pull-out capacity to installation torque ratio of

10 is generally recommended, and this ratio is subject to verification in the field.

Installation tolerances should be within 2±% with regards to plumbness and to within 2± inches in location. We recommend that all helix anchors be protected with galvanized coating. In general, installation procedures should be per the manufacturer's specifications.

All anchor installation must be observed and approved by the Geotechnical Engineer. Any anchors installed without the full knowledge and continuous observation of Butano Geotechnical Engineering, Inc. will render the recommendations of this report invalid.

7.3.2 Concrete Slabs-on-Grade

General

We recommend that non-structural concrete slabs-on-grade be founded on a minimum of 36-inches of engineered fill per section 7.2.2. Non-fully supported slab-on-grades should be structurally detached from the foundation.

As an option, slab-on-grades may be fully supported by helical piers embedded into the underlying granite per section 7.3.1.

The subgrade should be proof-rolled just prior to construction to provide a firm, relatively unyielding surface, especially if the surface has been loosened by the passage of construction traffic.

Capillary Break and Vapor Barrier

The following paragraph outlines the minimum capillary break and vapor barrier that shall be utilized for interior slab-on-grades, or slab-on-grades where moisture sensitive floor coverings are anticipated.

The vapor barrier shall consist of a waterproof membrane (Stegowrap 15 Mil or equivalent) placed directly below the floor slab and in direct contact with the concrete. Sheet overlap for the vapor barrier shall be a minimum of 6 inches. A 4-inch minimum layer of ¾ inch drainrock shall be placed below the waterproof membrane to act as a capillary break. Care must be taken to not rip the vapor barrier. A 6-inch layer of compacted Class II Baserock

may be employed to prevent rips or tears in the vapor barrier if desired, and to keep the subgrade from becoming saturated prior to pouring concrete.

If the manufacturer's recommendations or the project requirements for the capillary break and vapor barrier are more stringent than the minimums outlined above, the designer should follow those recommendations and requirements. Recommendations by the manufacturer may include but is not limited to specifications for; concrete mix design, puncture resistance of vapor barrier, permeance of vapor barrier, soil flatness, capillary break section, structural section, and testing recommendations.

7.3.3 Settlements

Total and differential settlements beneath the new foundation elements are expected to be within tolerable limits for foundations founded on helical piers founded into the underlying granite. Vertical movements are not expected to exceed 1 inch. Differential movements are expected to be within the normal range (½ inch) for the anticipated loads.

7.4 Retaining Structures

Proposed retaining structures should be supported by helical anchors per section 7.3.1. Any proposed walls may be designed using the following earth pressures.

7.4.1 Lateral Earth Pressures

The lateral earth pressures presented in Table 2 are recommended for the design of retaining structures with a gravel blanket and backfill soil consisting of engineered fill.

Table 2A. Lateral Earth Pressures (engineered fill)

Soil Profile	Soil Pressure (psf/ft)	
	Active	At-rest
Level	36 ½	46 ½
2:1	56	76

Pressure due to any surcharge loads from adjacent footings, traffic, etc., should be analyzed separately. Pressures due to these loadings can be supplied upon receipt of the appropriate plans and loads. Refer to Appendix A, Figure A-1.

An earthquake load (ultimate) may be considered for retaining walls as follows:

For unrestrained walls over 6 feet, as measured from the base of the footing, a seismic load of $10H^2$ may be applied at a height of 0.6H from the base of the wall.

No evaluation of seismic earth pressure is needed for restrained walls under 12 feet in height, as measured from the base of the footing, provided a minimum static factor of safety of 1.5 is achieved. For rigidly restrained walls over 12 feet a seismic load of $15H^2$ should be added to the active earth pressure and applied at a height of 0.3H from the base of the wall. The greater of the seismic loading and at rest loading conditions should be used for design. The recommendations for restrained retaining walls are based on the SEAOC 2010 Conventions Proceedings: *Seismic Earth Pressures on Deep Building Basements*, Lew, Sitar.

A factor of safety of 1.1 is considered appropriate with respect to earthquake loading.

7.4.2 Backfill

Backfill should be placed under engineering control. Backfill should be compacted per Subsection 7.2.2; however, precautions should be taken to ensure that heavy compaction equipment is not used immediately adjacent to walls, so as to prevent undue pressures against, and movement of the walls. Refer to Appendix A, Figure A-2.

The granular backfill should be capped with at least 12 inches of relatively impermeable material.

7.4.3 Backfill Drainage

Retaining structures must be fully drained. Backdrains should consist of 4-inch diameter Schedule 40, PVC pipe or equivalent, embedded in 3/8 inch

to 3/4 inch, clean crushed gravel, enveloped in **Mirafi 180N** or approved equivalent. The drain should be a minimum of 12 inches in thickness and should extend to within 12 inches from the surface. The pipe should be 4± inches above the trench bottom; a gradient of 2± percent being provided to the pipe and trench bottom; discharging into suitably protected outlets. As an option weep slits consisting ½ inch thick galvanized steel spacers should be placed between the lagging. Weep holes may also be used if a concrete cantilevered wall is constructed. See Appendix A, Figure A-2 for the standard detail for the backdrain.

Perforations in backdrains are recommended as follows: 3/8 inch diameter, in 2 rows at the ends of a 120 degree arc, at 3 inch centers in each row, staggered between rows, placed downward.

Backdrains should be approved by the Geotechnical Engineer after placement of bedding and pipe and prior to the placement of clean crushed gravel.

An unobstructed outlet should be provided at the lower end of each segment of backdrain. The outlet should consist of an unperforated pipe of the same diameter, connected to the perforated pipe and extended to a protected outlet at a lower elevation on a continuous gradient of at least 1 percent.

7.5 Plan Review

The recommendations presented in this report are based on preliminary design information for the proposed project and on the findings of our geotechnical investigation. When completed, the Grading Plans, Foundation Plans and design loads should be reviewed by Butano Geotechnical Engineering, Inc. prior to submitting the plans and contract bidding. Additional field exploration and laboratory testing may be required upon review of the final project design plans.

7.6 Observation and Testing

Field observation and testing should be provided by a representative of Butano Geotechnical Engineering, Inc. to enable them to form an opinion regarding the adequacy of the site preparation, the adequacy of fill materials, and the extent to which the earthwork is performed in accordance with the geotechnical conditions present, the requirements of the regulating agencies, the project specifications, and the recommendations presented in this report.

Butano Geotechnical Engineering, Inc. should be notified **at least 5 working days** prior to any site clearing or other earthwork operations on the subject project in order to observe the stripping and disposal of unsuitable materials and to ensure coordination with the grading contractor. During this period, a preconstruction meeting should be held on the site to discuss project specifications, observation and testing requirements and responsibilities, and scheduling.

8.0 LIMITATIONS

The recommendations contained in this report are based on our field explorations, laboratory testing, and our understanding of the proposed construction. The subsurface data used in the preparation of this report was obtained from the borings drilled during our field investigation. Variation in soil, geologic, and groundwater conditions can vary significantly between sample locations. As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the Project Geotechnical Engineer, and revised recommendations be provided as required. In addition, if the scope of the proposed construction changes from the described in this report, our firm should also be notified.

Our investigation was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.

This report is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Engineer for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The use of information contained in this report for bidding purposes should be done at the Contractor’s option and risk.

This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.

The findings of this report are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they are due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from

legislation or the broadening of knowledge. Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The scope of our services mutually agreed upon did not include any environmental assessment or study for the presence of hazardous to toxic materials in the soil, surface water, or air, on or below or around the site. Butano Geotechnical Engineering, Inc. is not a mold prevention consultant; none of our services performed in connection with the proposed project are for the purpose of mold prevention. Proper implementation of the recommendations conveyed in our reports will not itself be sufficient to prevent mold from growing in or on the structures involved.

REFERENCES

ASTM International (2015). *Annual Book of ASTM Standards, Section Four, Construction*. Volume 4.08, Soil and Rock (I): D 430 - D 5611.

ASTM International (2016). *Annual Book of ASTM Standards, Section Four, Construction*. Volume 4.09, Soil and Rock (II): D 5714 - Latest.

California Building Code (2022).

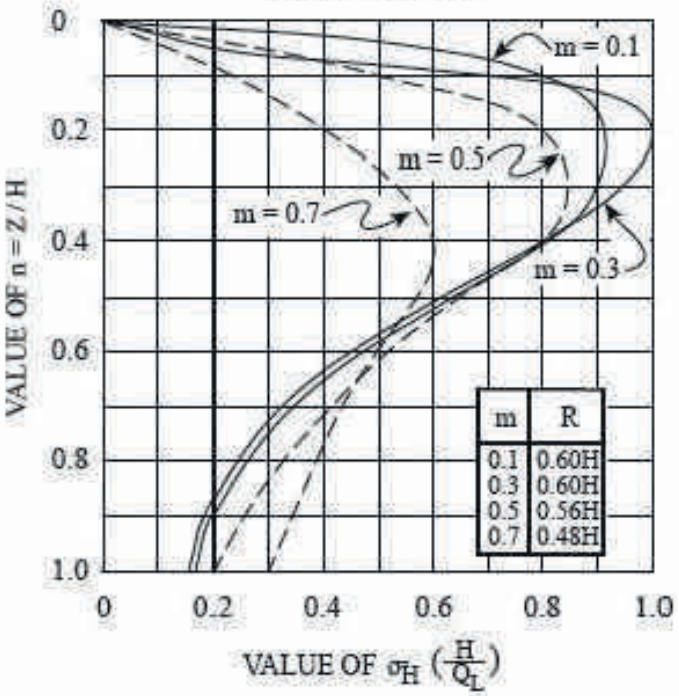
Johnson, S.Y., Dartnell, P., Hartwell, S.R., Cochrane, G.R., Golden, N.E., Watt,… and Maier, K.L., 2016, California State Waters Map Series—offshore of Monterey, California, U.S. Geological Survey, Open-File Report OF-2016-1110, 1:24,000.

APPENDIX A

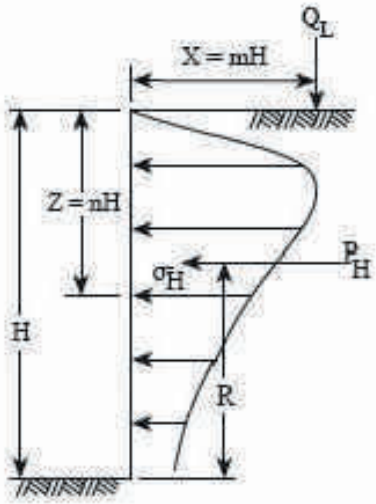
FIGURES AND STANDARD DETAILS

Surcharge Pressure Diagram	Figure A-1
Typical Retaining Wall Backdrain Detail	Figure A-2
Passive Resistance Diagram	Figure A-3
Key and Bench Detail	Figure A-4

LINE LOAD



m	R
0.1	0.60H
0.3	0.60H
0.5	0.56H
0.7	0.48H



FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{0.20\,n}{(0.16+n^2)^2}$$

$$P_H = 0.55\,Q_L$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{1.28\,m^2 n}{(m^2+n^2)^2}$$

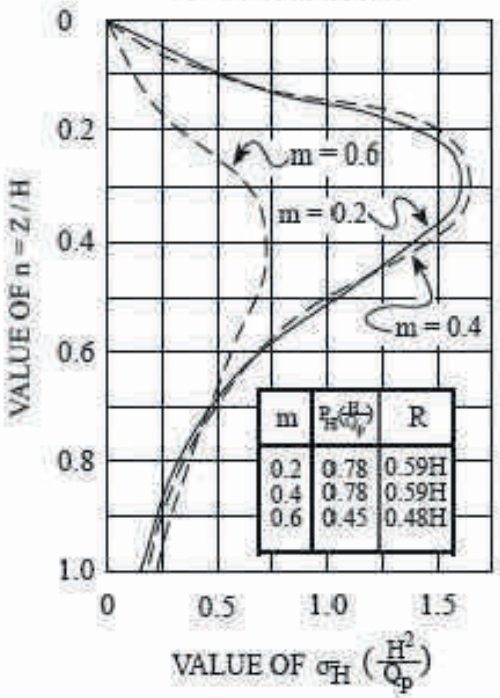
RESULTANT $P_H = \frac{0.64\,Q_L}{(m^2+1)}$

PRESSURES FROM LINE LOAD Q_L

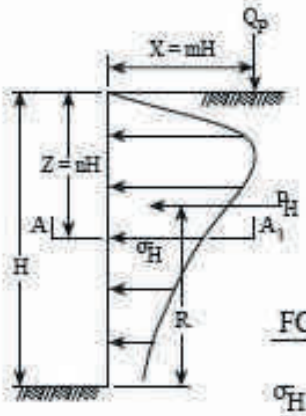
(BOISSINESQ EQUATION MODIFIED BY EXPERMENT)

REFERENCE: Design Manual
NAVFAC DM-7.02
Figure 11
Page 7.2-74

POINT LOAD



m	$\frac{P_H}{Q_p}\left(\frac{H^2}{Q_p}\right)$	R
0.2	0.78	0.59H
0.4	0.78	0.59H
0.6	0.45	0.48H



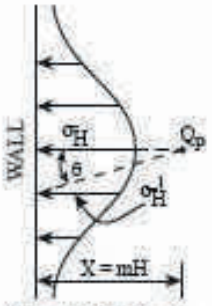
FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H^2}{Q_p}\right) = \frac{0.28\,n^2}{(0.16+n^2)^3}$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H^2}{Q_p}\right) = \frac{1.77\,m^2 n^2}{(m^2+n^2)^3}$$

$$\sigma_H^1 = \sigma_H \cos^2(1.1\,\theta)$$

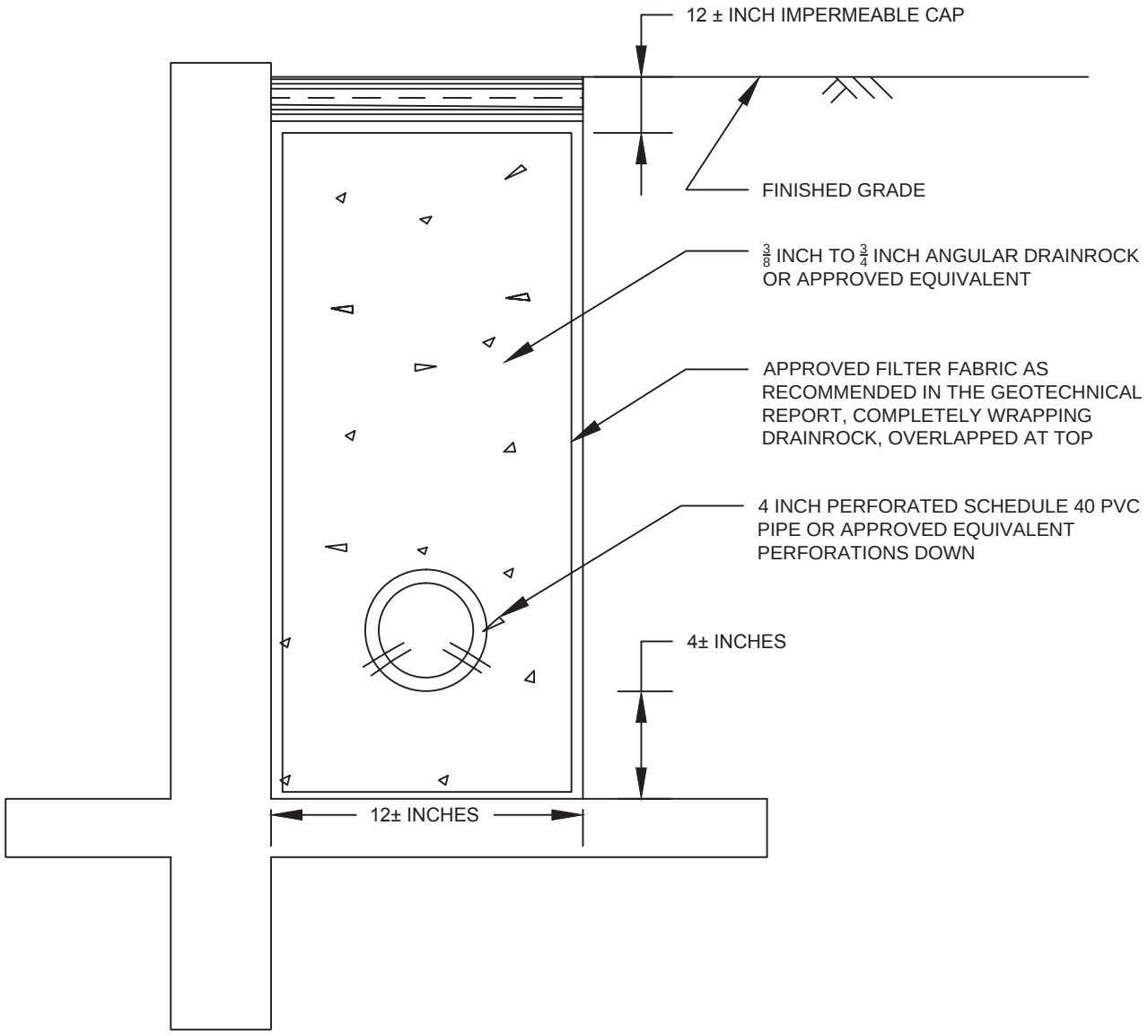


SECTION A-A_1

PRESSURES FROM POINT LOAD Q_P

(BOISSINESQ EQUATION MODIFIED BY EXPERMENT)

BUTANO GEOTECHNICAL ENGINEERING, INC.	**SURCHARGE PRESSURE DIAGRAM**	FIGURE A-1

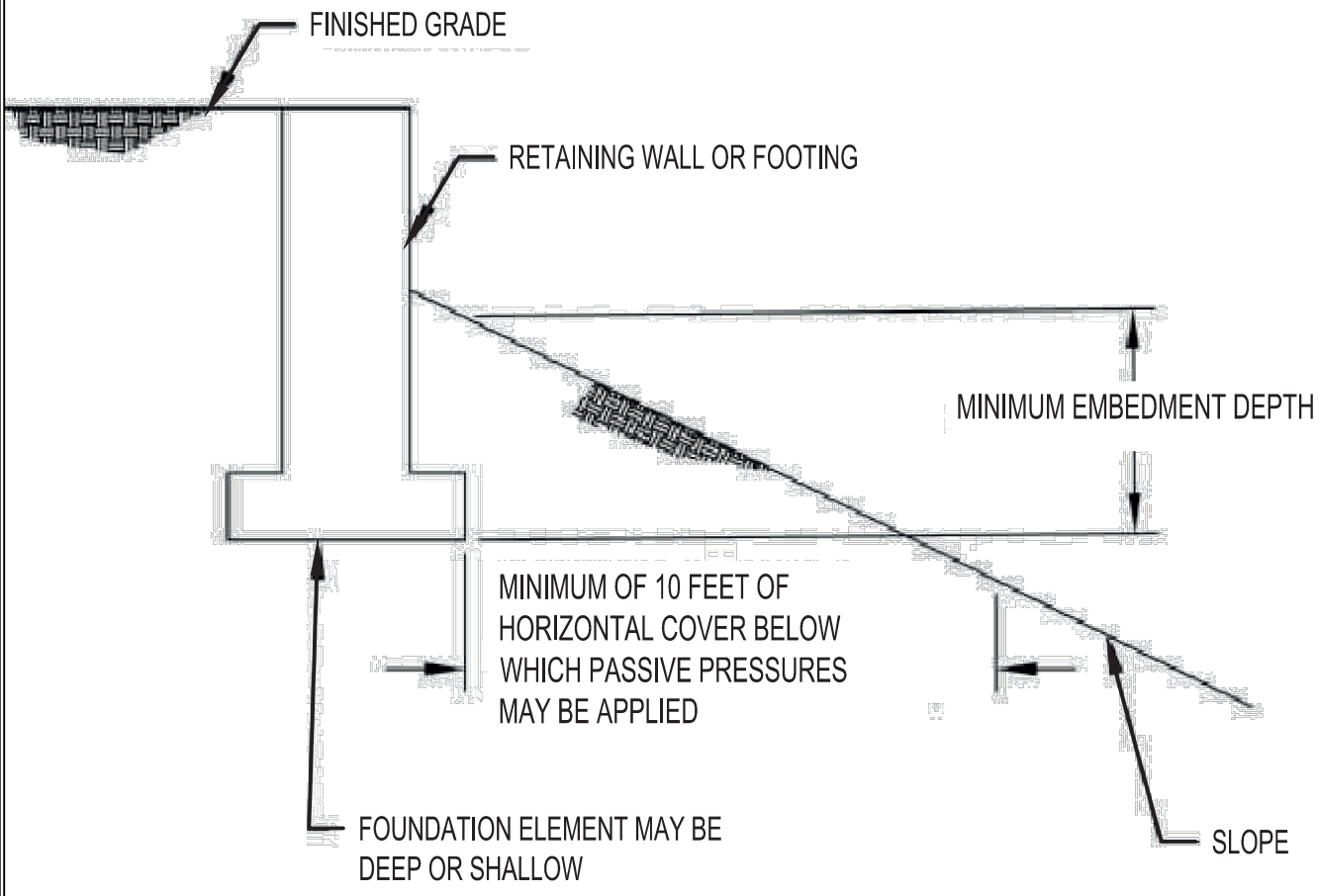


NOTES:

1. DRAWING IS NOT TO SCALE.
2. 2±% GRADIENT TO PIPE AND TRENCH BOTTOM CONNECTED TO A CLOSED CONDUIT THAT DISCHARGES TO AN APPROVED LOCATION.

N.T.S.

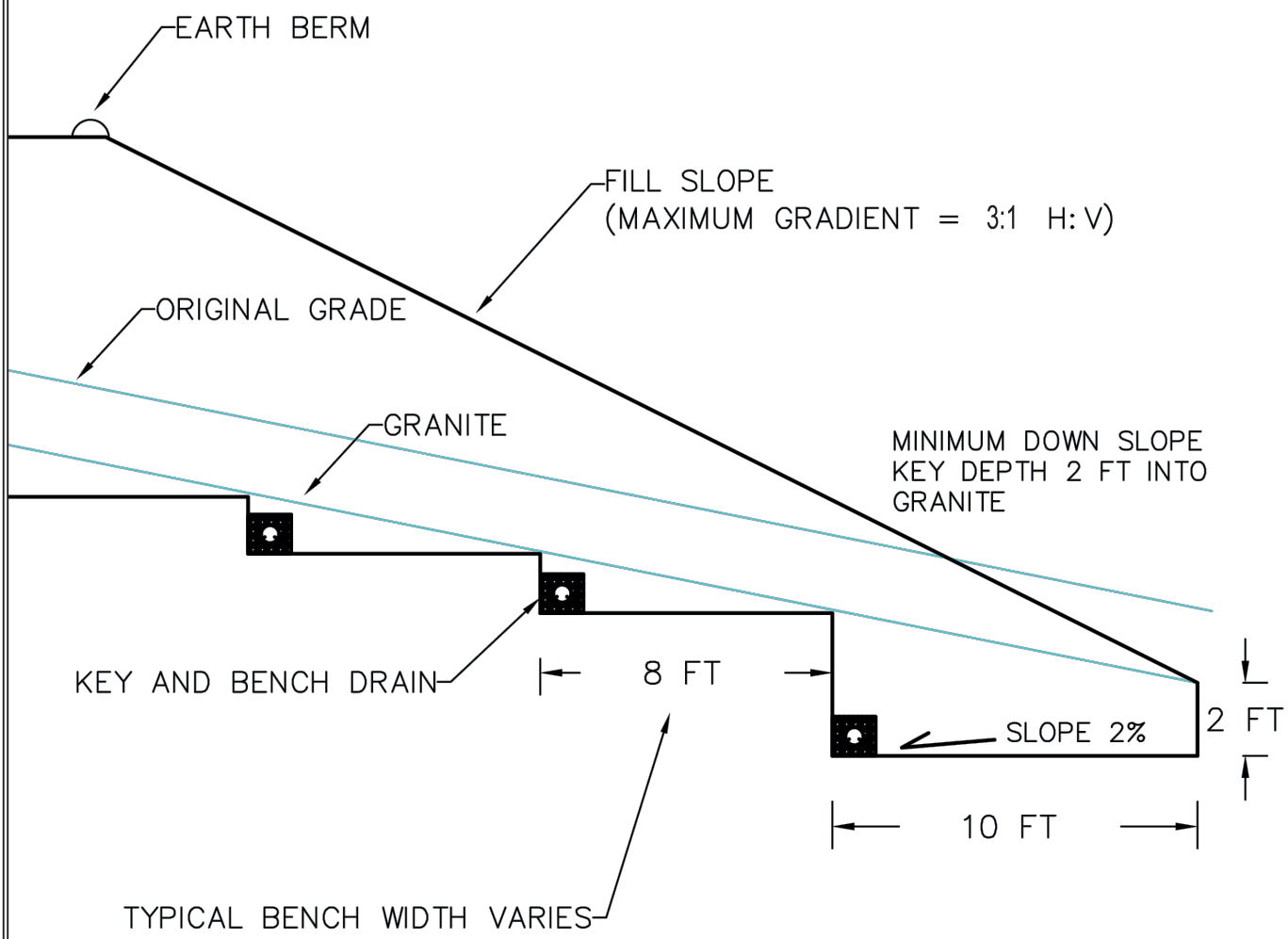
BUTANO GEOTECHNICAL ENGINEERING, INC.	**TYPICAL RETAINING WALL BACKDRAIN DETAIL**	FIGURE A-2



NOTES:

1. DRAWING IS NOT TO SCALE
2. MINIMUM COVER REQUIREMENTS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER IN THE FIELD

BUTANO GEOTECHNICAL ENGINEERING, INC.	**PASSIVE RESISTANCE DIAGRAM**	FIGURE A-3



NOTES

1. DRAWING IS NOT TO SCALE
2. FILLS SITUATED ON SLOPES STEEPER THAN 5:1 (H:V) SHOULD BE KEYED AND BENCHED.
3. FILL MATERIAL SHOULD BE PLACED PER THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT
4. LOCATIONS SHALL BE DETERMINED BY IN THE FIELD BY THE GEOTECHNICAL ENGINEER
5. DRAINS SHOULD BE PLACED AT THE BACK OF KEYS AND BENCHES AS DEEMED NECESSARY BY THE GEOTECHNICAL ENGINEER.
6. DRAIN TO CONSIST OF 4–INCH DIAMETER PERFORATED PIPE SURROUNDED BY $\frac{3}{4}$–INCH DRAIN ROCK WRAPPED IN FILTER FABRIC OR CLASS II PERMEABLE GRAVEL. SLOPE PIPE AT MINIMUM OF 2% TO SUITABLE OUTLET

BUTANO GEOTECHNICAL ENGINEERING, INC.	**KEYING AND BENCHING TYPICAL**	FIGURE A-4

APPENDIX B

FIELD EXPLORATION PROGRAM

Field Exploration Procedures	Page B-1
Site Location Plan	Figure B-1
Boring Site Plan	Figure B-2
Key to the Logs	Figure B-3
Logs of the Borings	Figures B-4 and B-5

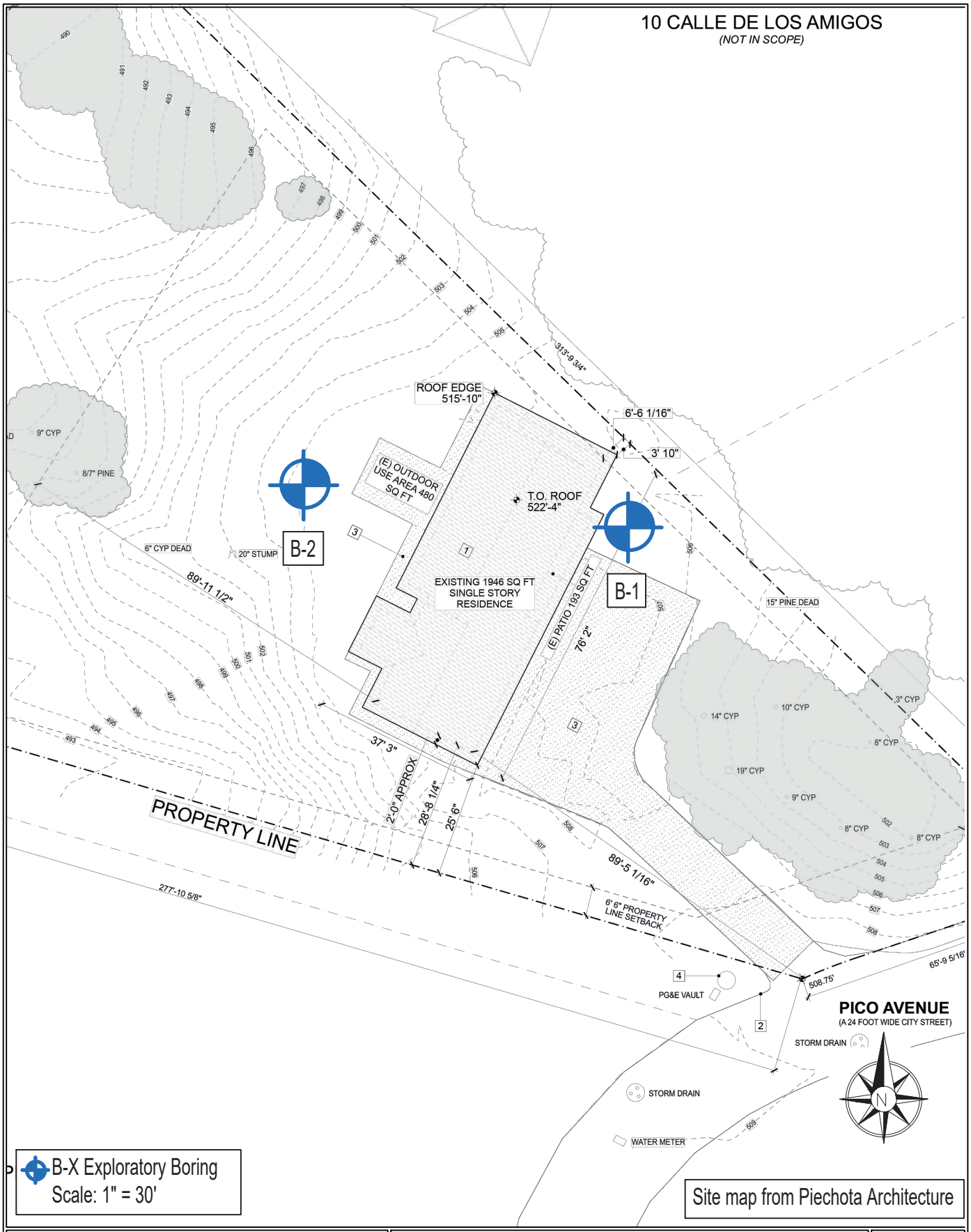
FIELD EXPLORATION PROCEDURES

Subsurface conditions were explored by advancing two borings below the existing grade. The borings were advanced using a six-inch solid stem auger on a tractor mounted drill rig. The Key to The Logs and the Logs of the Borings are included in Appendix B, Figures B-3 through B-5. The approximate locations of the borings are shown on the Boring Site Plan, Figure B-2. The borings were located in the field by tape measurements from known landmarks. Their locations as shown are therefore within the accuracy of such measurement.

The soils encountered in the borings were continuously logged in the field by a representative of Butano Geotechnical Engineering, Inc. Bulk and relatively undisturbed soil samples for identification and laboratory testing were obtained in the field. These soils were classified based on field observations and laboratory tests. The classifications are in accordance with the Unified Soil Classification System (USCS: Figure B-3).



BUTANO	**SITE LOCATION PLAN**	FIGURE
GEOTECHNICAL ENGINEERING, INC.	1398 Pico Avenue	B-1



BUTANO	**BORING SITE PLAN**	FIGURE
GEOTECHNICAL ENGINEERING, INC.	1398 Pico Avenue	B-2

KEY TO LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of the material is larger than the No. 200 sieve	GRAVELS More than half of the coarse fraction is larger than the No. 4 sieve	CLEAN GRAVELS (Less than 5% fines)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines
	SANDS More than half of the coarse fraction is smaller than the No. 4 sieve	CLEAN SANDS (Less than 5% fines)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands, gravelly sands, little or no fines
		SAND WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines
			SC	Clayey sands, sand-clay mixtures, plastic fines
FINE GRAINED SOILS More than half of the material is smaller than the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50		ML	Inorganic silts and very fine sands, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50		MH	Inorganic silts, micaceous or diatomacaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils

GRAIN SIZE LIMITS

SILT AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

No. 200 — No. 40 — No. 10 — No. 4 — 3/4 in. — 3 in. — 12 in.

US STANDARD SIEVE SIZE

RELATIVE DENSITY	
SAND AND GRAVEL	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY	
SILT AND CLAY	BLOWS/FT*
VERY SOFT	0 - 2
SOFT	2 - 4
FIRM	4 - 8
STIFF	8 - 16
VERY STIFF	16 - 32
HARD	OVER 32

MOISTURE CONDITION	
CLAY	DRY
	MOIST
	SATURATED
SAND	DRY
	DAMP
	WET
	SATURATED

* Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D.) split spoon (ASTM D-1586).

LOG OF EXPLORATORY BORING

Project No.:	25-209-M	Boring:	B1
Project:	1398 Pico Avenue	Location:	See figure B2
		Elevation:	
Date:	October 7, 2025	Method of Drilling:	6-inch diameter solid stem augers
Logged By:	GB		tractor mounted drill rig

2" Ring Sample | 2.5" Ring Sample | Terzaghi Split Spoon Sample | Bulk Sample

Perched Water Table | Static Water Table | Water Encountered During Drilling

Change in Soil Classification | Gradation or Minor Change in Classification

Depth (ft.)	Soil Type	Undisturbed	Bulk	Description	Blows / Foot	N_{60}	Dry Density (pcf)	Moisture Content (%)	Expansion Index	Particle Size (% fines)	Unconfined - q_u (psf)	Atterberg Limits L.L.	Atterberg Limits P.I.
	SP			Yellow brown Poorly Graded SAND, very loose, dry	2	1		3.3		3			
5				(attempted to sample at 4 and 8 feet, but hole collapsed)									
10				(drilled to 12 feet and was able to keep hole open to sample) loose, dry	9	7		2.8					
15													
20													
25													
	Kgd			Granite encountered at a depth of 26 1/2 feet.									
30				Boring terminated at a depth of 28 1/2 feet. Groundwater encountered at a depth of 21 feet The boring was drilled to a depth of 28 1/2 feet, but it collapsed back to a depth of 4 feet.									
35													

LOG OF EXPLORATORY BORING

Project No.:	25-209-M	Boring:	B2
Project:	1398 Pico Avenue	Location:	See figure B2
		Elevation:	
Date:	10/7/2025 and 11/18/25	Method of Drilling:	6-inch diameter solid stem augers
Logged By:	GB		tractor mounted drill rig

2" Ring Sample | 2.5" Ring Sample | Terzaghi Split Spoon Sample | Bulk Sample

Perched Water Table | Static Water Table | Water Encountered During Drilling

Change in Soil Classification | Gradation or Minor Change in Classification

Depth (ft.)	Soil Type	Undisturbed	Bulk	Description	Blows / Foot	N_{60}	Dry Density (pcf)	Moisture Content (%)	Expansion Index	Particle Size (% fines)	Unconfined - q_u (psf)	Atterberg Limits L.L.	Atterberg Limits P.I.
	SP			Yellow brown Poorly Graded SAND, very loose, dry	4	3		3.1					
5				loose	6	4		7.3					
					14	11		13.0					
10				medium dense, damp									
					11	8		4.4		2			
15													
					20	16		10.2					
20				▽									
					12	9		19.3					
25				Drilled to a depth of 24 feet, hole collapsed to 4 feet. Groundwater was encountered at a depth of 21 feet.									
30													
35													

APPENDIX C

LABORATORY TESTING PROGRAM

Laboratory Testing Procedures	Page C-1
Particle Size Analyses	Figures C-1 and C-2

LABORATORY TESTING PROCEDURES

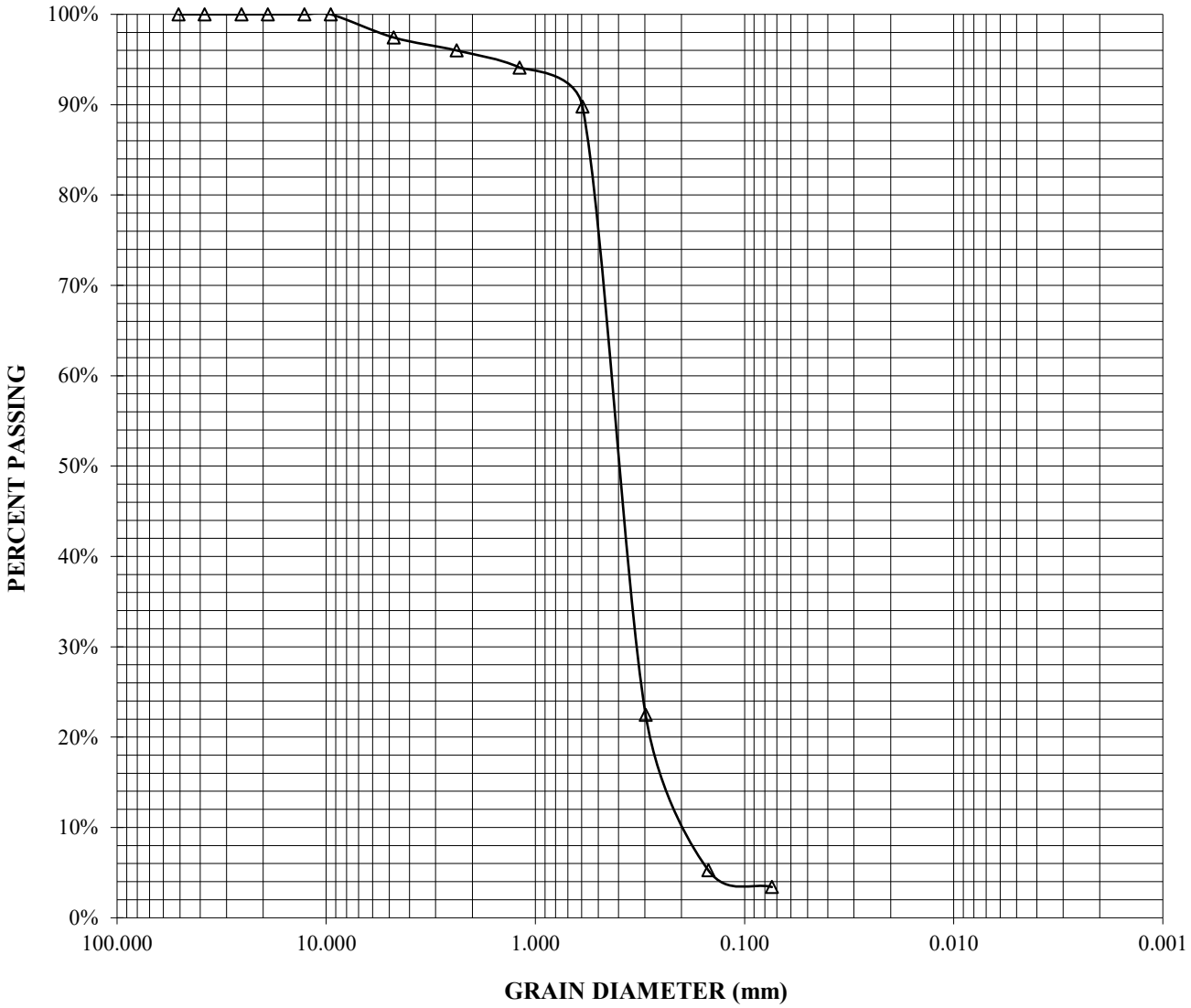
Classification

Soils were classified according to the Unified Soil Classification System in accordance with ASTM D 2487 and D 2488. Moisture content and density determinations were made for representative samples in accordance with ASTM D 2216. Results of moisture density determinations, together with classifications, are shown on the Boring Logs, Figures B-4 and B-5.

Particle Size Analysis

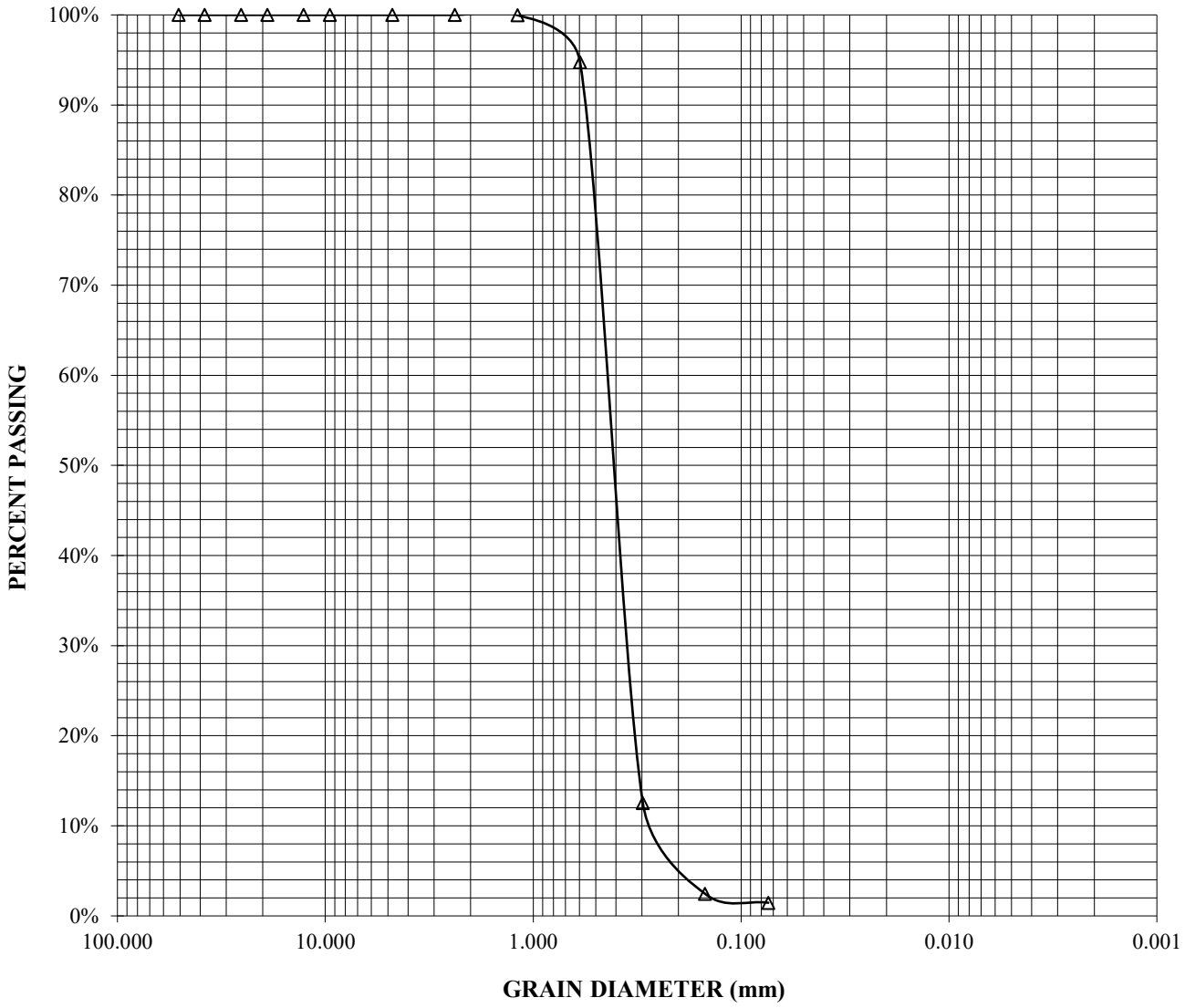
Two sieves were performed on representative samples in accordance with ASTM C 117/136. The grain size distribution from the results of the particle size analyses are shown in Figures C-1 and C-2.

BORING:	B1-1	PERCENT	PERCENT
DEPTH (ft):	1.0	PASSING No. 4	PASSING No. 200
SOIL TYPE (USCS):	SP	97.4%	3.4%



BUTANO	**GRAIN SIZE DISTRIBUTION**	FIGURE
GEOTECHNICAL ENGINEERING, INC.	1398 Pico Avenue	C-1

BORING:	B2-4	PERCENT	PERCENT
DEPTH (ft):	12.0	PASSING No. 4	PASSING No. 200
SOIL TYPE (USCS):	SP	100.0%	1.5%



BUTANO	**GRAIN SIZE DISTRIBUTION**	FIGURE
GEOTECHNICAL ENGINEERING, INC.	1398 Pico Avenue	C-2

Important Information about Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

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