Exhibit E

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GMD Engineers
Foundation Engineering

SOIL INVESTIGATION REPORT (Design Phase)

Project Number: GMD 202110

Project: New Single Family Dwelling

For: Peter Yan

APN: 007-682-013-000

Location: 1187 Lookout Rd Pebble Beach, CA 93953

11 West Laurel Dr. Suite #225 Salinas, CA 93906
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GMD Engineers
Foundation Engineering

October 25, 2021

Peter Yan
APN: 007-682-013-000
eMail: peter_syan@yahoo.com

Project #:GMD 202110

SUBJECT: SOIL INVESTIGATION REPORT-Design Phase

Dear Mr. Yan,

In accordance with your authorization, GMD Engineers has completed a soil investigation report Design Phase for your proposed project located at 1187 Lookout Rd Pebble Beach, CA 93953.

This report includes the results of field and laboratory testing and recommendations for foundation design; as well as site development. It is our opinion that this site is suitable for the proposed development from soil engineering standpoint. The recommendations are based upon applicable standards at the time this report was done.

It has been a pleasure to be of service to you on this project. If you have any questions regarding the attached report, please don't hesitate to contact us at (831) 840-4284.

Respectfully Submitted,

GMD Engineers

REGISTERED PROFESSIONAL ENGINEER
GERONIMO MARTIN DALIVA
C-65185
CIVIL ENGINEER
STATE OF CALIFORNIA

ENGINEER LICENSE EXPIRATION: 9-30-21 23

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1 PROJECT DESCRIPTION

1.1 PROPOSED DEVELOPMENT

This report was prepared for the exclusive use of our client, Peter Yan and his consultants for design of this project. We understand that the proposed project will include single family dwelling. In the event of project change such as the locations and scope of work of the proposed structures, or any other site features change from what is shown on the site plan included in this report, GMD Engineers should be notified so that the changes can be reviewed to determine if the recommendations presented in this report are still applicable or whether modifications are necessary.

1.2 SITE DESCRIPTION

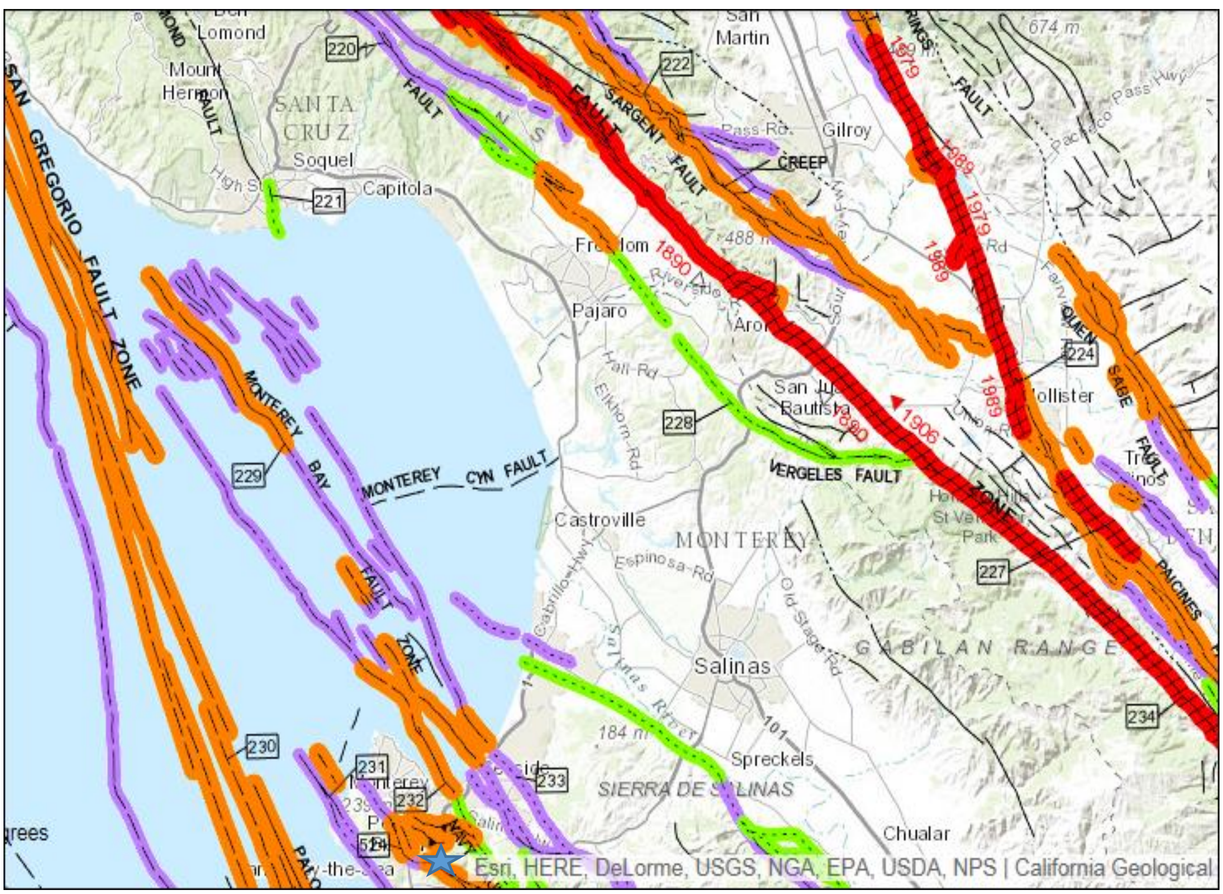
Assessor's Office Location Map

At the time of soil investigation, the 5-sided property which is vacant has a lot area of 0.3521 acre based on TR 659 Lookout Ridge Lot 31. Maximum topographic relief across the site is on the order of approximately 17 feet, generally manifest as a mild slope descending south easterly from the northwest. The site was vegetated with grasses, scrubs and some small trees.

1.3 GEOTECHNICAL SETTING

The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and per the fault map below, no known surface expression of active faults is believed to exist within the site. California Central Coast is seismically active and the planning area can be expected to experience periodic minor earthquakes and possibly a major earthquake on one of the nearby active faults during the life of the proposed project.

Upon review of the Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, Monterey is traversed by: San Andreas Fault, 19 miles from the site. Other faults that may cause very strong and violent ground shaking are: Berwick Canyon (reverse), Chupines (strike-slip), Cypress Point (reverse), Hatton Canyon (reverse), Sylvan thrust (reverse), Tularcitos/Navy/Monterey Bay (strike-slip) & Tularcitos/Navy/Monterey Bay (reverse) and and Vergeles. For each of the active faults, the distance from the planning area and estimated maximum moment magnitude are summarized in following table on regional faults & seismicity:



REGIONAL FAULT NEAR PROJECT SITE

Monterey County also is susceptible to high levels of groundshaking due to the numerous active faults which pass through or border the area. The entire mapped onshore active fault traces lie along the main San Andreas Fault.

The City of Pacific Grove is a city in Monterey County, California. Monterey County is traversed by a number of both 'active" and 'potentially active" faults most of which are relatively minor hazards for the purposes of the site development.

Most of the earthquakes originated from movement along the San Andreas Fault system, which runs through the southeastern portion of the county for approximately 30 miles. These faults include but are not limited to the San Andreas, Reliz, Chupines, Tularcitos, Berwick, Navy, Sylvan, Hatton, and Vergeles. Although, fault rupture through the site, is not anticipated.

The **San Andreas Fault (Type A)** is situated north-east of the subject is approximately 39 miles away. Fault in the next 30 years. Some scientist calls such magnitude of earthquake, the next "Big One".

The two largest historically recent earthquakes on the San Andreas to affect the area were the moment magnitude (M_w) 7.9 San Francisco earthquake of April 1906 and the M_w 6.9 Loma Prieta earthquake of October 1989. The San Francisco earthquake caused severe seismic shaking and structural damage to many buildings in the Monterey Bay area.

The site is likely to be shaken by earthquakes of approximately 8.0 (similar to the “San Francisco earthquake of 1906, with an average recurrence between 138 to 188 years along North coast segment of San Andreas Fault. Also, earthquakes of magnitude 6 to 7 are likely along the faults within the San Mateo are.

Major historical earthquakes in the region is seen below:

MAJOR HISTORICAL EARTHQUAKES IN THE REGION

YEAR	EPICENTER	RICHTER MAGNITUDE AT EPICENTER
1901	Parkfield	6.4
1906	San Francisco	8.3
1922	Parkfield	6.3
6.6	Parkfield	6.0
1966	Parkfield	6.6
1983	Coalinga	6.5
1984	Morgan Hill	6.1
1989	Loma Prieta	7.1
2003	San Simeon	6.5
2004	Parkfield	6.0
2019	Ridgecrest	7.1

Source: U.S. Geological Survey 2019

The Modified Mercalli Intensity (MMI) Scale provides a useful qualitative assessment of earthquake intensity. The MMI Scale is shown in the table below.

Modified Mercalli Intensity (MMI) Scale

Mercalli Intensity	Equivalent Richter Magnitude	Witness Observations
I	1.0 to 2.0	Felt by very few people; barely noticeable.
II	2.0 to 3.0	Felt by a few people, especially on upper.
III	3.0 to 4.0	Noticeable indoors, especially on upper floors, but may not be recognized as an earthquake.
IV	4.0	Felt by many indoors, few outdoors. May feel like heavy truck passing by.
V	4.0 to 5.0	Felt by almost everyone, some people awakened. Small objects moved trees and poles may shake.
VI	5.0 to 6.0	Felt by everyone. Difficult to stand. Some

		heavy furniture moved, some plaster falls. Chimneys may be slightly damaged.
VII	6.0	Slight to moderate damage in well built, ordinary structures. Considerable damage to poorly built structures. Some walls may fall.
VIII	6.0 to 7.0	Little damage in specially built structures. Considerable damage to ordinary buildings, severe damage to poorly built structures. Some walls collapse.
IX	7.0	Considerable damage to specially built structures, buildings shifted off foundations. Ground cracked noticeably. Wholesale destruction. Landslides.
X	7.0 to 8.0	Most masonry and frame structures and their foundations destroyed. Ground badly cracked. Landslides. Wholesale destruction.
XI	8.0	Total damage. Few, if any, structures standing. Bridges destroyed. Cracks in ground. Waves seen on ground.
XII	8.0 or greater	Total damage. Waves seen on ground. Objects thrown up into air.

Source: Abridged from
The Severity of an Earthquake, USGS General Interest Publication.

1.3 GEOTECHNICAL & GEOLOGICAL SEISMIC HAZARDS

The San Andreas Fault is one of the most famous and because of its proximity to large population centers in California, it one of the most dangerous earthquake-generating faults on Earth. Potential seismic hazards resulting from a nearby moderate to major earthquake may include primary lurching, ground shaking, ground rupture, liquefaction, lateral spreading, and earthquake-induced densification and landsliding. These potential hazards are discussed below. Risks from seiches, tsunamis, and inundation due to embankment failure are considered medium at the site based on the elevated topographic setting and the absence of large reservoirs in the vicinity.

LURCHING. Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form. The potential for the formation of these cracks is considered greater in poorly consolidated colluvial and alluvial deposits or at the contact of surface materials with bedrock. There is no history of lurching at the project site.

GROUND SHAKING. An earthquake of moderate to high magnitude generated within the project area could cause considerable ground shaking at the site, similar to that which has occurred in the past. This hazard is not unique to this project and affects all properties in the Central Coast Area. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the latest California Building Code (CBC) requirements as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The prescribed lateral forces are generally considered to be substantially smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

GROUND RUPTURE.

The site is not within a State of California Earthquake Fault Hazard Zone and no active faults that cross the site.

LIQUEFACTION. Soil liquefaction is a phenomenon under which saturated, cohesionless, loose sands experience a temporary loss of shear strength when subjected to the cyclic shear stresses caused by earthquake ground shaking. The liquefaction susceptibility is low.

LATERAL SPREADING. Lateral spreading is a failure within weaker soil material that causes the soil mass to move towards a free face or down a gentle slope. Also, erosion hazard rating is moderate.

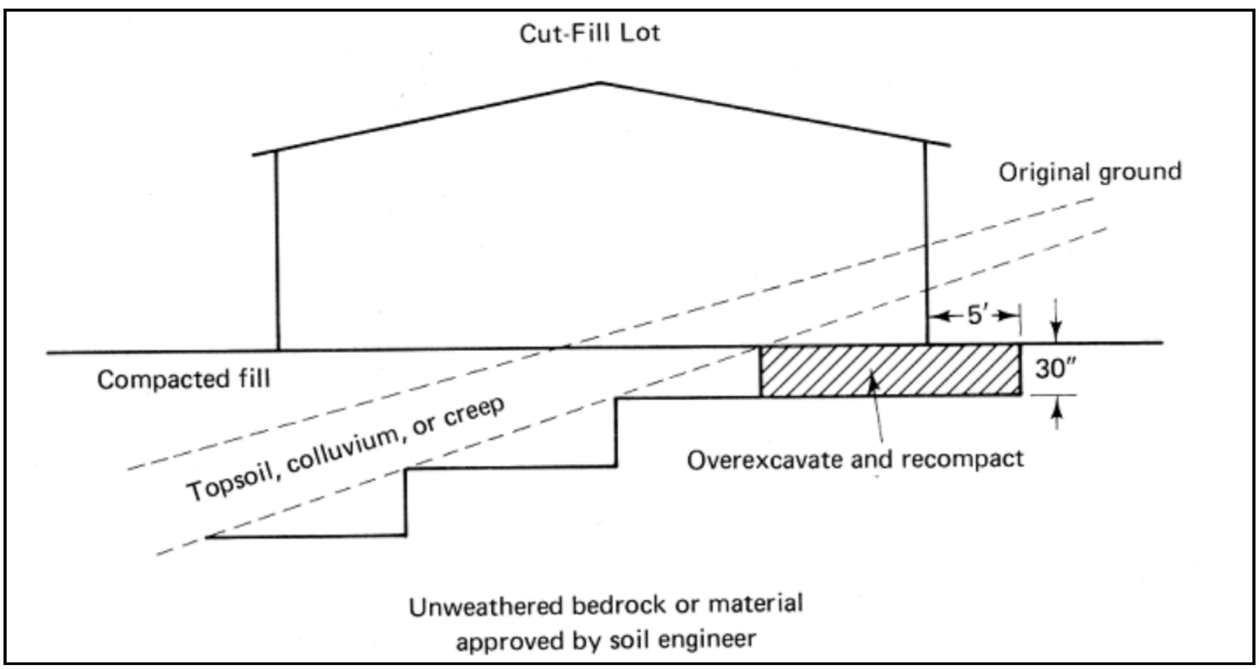
SEISMICALLY INDUCED DENSIFICATION. Densification of loose to medium dense sand above and below the groundwater level during earthquake shaking could cause settlement. There is no need to provide densification for soil improvement

SEISMICALLY INDUCED LANDSLIDING. As for all of the County of Monterey area, the risk of instability is greater during major earthquakes than during other time periods. Landslide susceptibility is low.

At the time of soil investigation, there are no existing landslides, active or inactive, present on, or adjacent to the project site. There are no geologic formations, or other earth materials located on or adjacent to the site that are known to be susceptible to landslides.

In general, future graded slopes should be constructed in conformance with our recommendations in an effort to minimize the risks associated with seismically induced erosion.

Below is typical mitigation for a Cut-and-Fill:



(From: Special Publication 117a)

The typical mitigation for a Cut-and-Fill lot is to construct a gradual "stepped" transition between bedrock and fill, over-excavating unstable soils and re-compacting *suitable fill beneath the footprint (Stewart and others, 2001).* *(From: Special Publication 117a)*

The typical mitigation for a Cut-and-Fill lot is to construct a gradual "stepped" transition between bedrock and fill, over-excavating unstable soils and re-compacting suitable fill beneath the footprint.

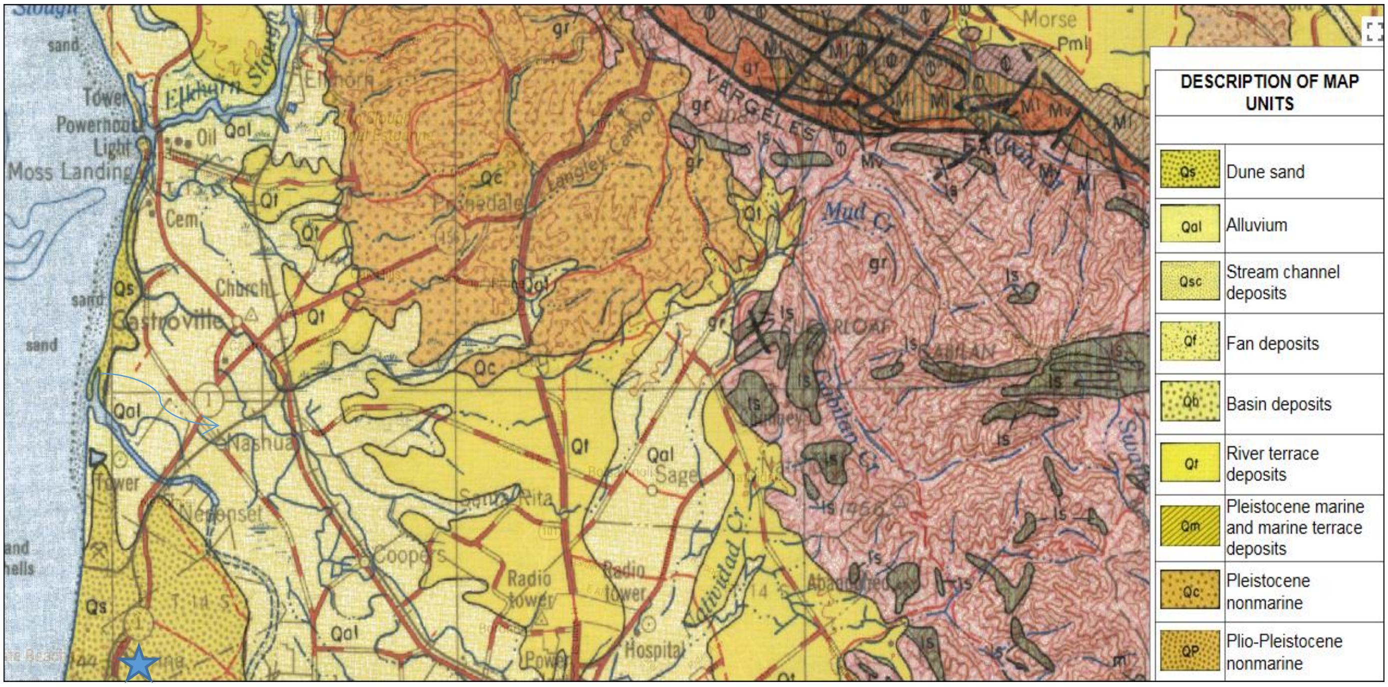
RECOMMENDED MITIGATION. The standard practice for stabilizing settlement failures at cut-fill transitions is to over-excavate during construction and grade the bedrock surface in multiple steps to provide a gradual slope transition. Fill should be compacted to a minimum of 90 percent of the maximum density as per ASTM D1557. Scarification provides a bond between the fill material and the underlying native rock. The overall grading goal is to minimize the difference in bearing capacity across the cut-fill boundary.

Although the California Building Code may be adequate for homogeneous engineered fill, the suggested geometry does not adequately consider bedding plane weaknesses, weathering, hydrostatic pressures or shear strength of the material.

1. Establish erosion-resistant vegetation on the slope face;
2. Maintain irrigation systems so they do not introduce excess water into the fill;
3. Ensure that sub-drains are kept open and control pore pressures at the base;
4. Keep surface drains in working order and discharging to acceptable outflows;
5. Control surface drainage, especially on building pads.

SOIL FLOWS. Soil flows/slips are generic terms for shallow disrupted slides composed of loose combinations of soil, surficial deposits, rock fragments, weathered rock and vegetation. The principal failure mechanism in this type of flow is fluidization of the. Although, there is no history of soil flows in the project location.

GEOLOGICAL MAP



REGIONAL GEOLOGY MAP NEAR PROJECT SITE

Site Geology:

General geologic features pertaining to the project site were evaluated by reference to Geologic Data Map No. 2 of the California Geological Survey (2010). Based on the publication, the project site and its vicinity is generally underlain by the following Quaternary geologic units:

Q - Pleistocene to Holocene alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated.
Qoa - Older Pleistocene to Holocene alluvium, lake, playa, and terrace deposits.

Legend:
Q - Alluvium, lake, playa, and terrace deposits.
Qoa - Older alluvium, lake, playa, and terrace deposits.
Source:
California Geological Survey (2010), Geologic Map of California, Geologic Data Map No. 2, Compilation and Interpretation by Jennings (1977).

2.0 INVESTIGATION AND TESTING

2.1 SUBSURFACE GEOTECHNICAL EXPLORATION

Based on our site and boring log investigation and exploration, the site soil properties indicate that the sub-surface on the site are relatively consistent, however, there are variations in color, moisture content, and density across the site.

The subsurface exploration portion of the investigation consisted of one (2) drill rig borings that were conducted under our observation on 3/5/2021.

We observed drilling of one boring and logged the subsurface conditions eastern portion of the property. Boring location is shown on Site Plan, Appendix. We retained a portable drill rig and crew to advance the boring using 4-inch diameter solid flight auger methods.

Boring 1 was advanced to a depth of 20 feet below existing grade. Boring were backfilled with drill cuttings. We obtained soil at 5, 10 & 15\, respectively; using standard penetration tests and a 2" O.D. split spoon SPT sampler. The blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The sampler was driven 18 inches and the number of blows were recorded for each 6 inches of penetration. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 1 foot of penetration; the blow counts have not been converted using any correction factors. When sampler driving was difficult, penetration was recorded only as inches penetrated for 50 hammer blows.

Soil samples were obtained at selected intervals in the soil test borings. All samples were identified according to project number, boring number and depth, encased in polyethylene plastic wrapping to protect against moisture loss, and transported to the laboratory in special containers.

The soil samples were labeled, photographed, wrapped up in transparent membrane and stored in 5-gal plastic containers according to their depth.

The following tests had been performed: moisture test (ASTM D2937-04) and D2216-05; a grain size distribution test (ASTM D 422-63 (2002) & plasticity index test (ASTM D 4318-05).

We used the field log to develop the report logs in Appendix A. The log depicts subsurface conditions at the exploration locations for the date of exploration; however, subsurface conditions may vary with time.

2.2 EXPANSIVE NATURE OF THE SOIL

The surface soils are low to medium expansive characteristics.

1. Moisture condition soil to at least 4 percentage points over the optimum moisture content.
2. Wet with clean water the excavated foundation 24 hours before pouring of concrete

2.3 LIQUEFACTION POTENTIAL

There is a no mapped liquefaction at the site.

3.0 SUBSURFACE CONDITIONS

3.1 STRATIGRAPHY

The following soil types were encountered in the soil test borings performed at the site:

Boring 1 encountered trace of grass roots up to 1-3 feet. Below the existing surface, 3-10 feet of dark brown clayey Sand, dense, then cemented sand with clay is found at 10 feet and continued below 15 ft.

Our laboratory testing indicates that this soil exhibits low to moderate shrink/swell potential with variations in moisture content.

Expansive soil can cause distress to foundations, floor slabs, pavements, sidewalks, and other improvements, which are sensitive to soil movements. We define expansive soil as any soil with a plasticity index greater than 15; soils with a plasticity index of less than 15 can be considered non-expansive.

Detailed description of the type of soil layers encountered during drilling is given in the borehole logs (Appendix B). The lines designating the interface between soil strata on the boring logs represent approximate boundaries; transition between materials may be gradual.

4.0 GROUNDWATER

Groundwater was found not found during drilling. However, groundwater levels may fluctuate with seasonal climatic variations and changes in the land use. Low permeability soils will require several days or longer for groundwater to enter and stabilize in the test borings.

5.0 RECOMMENDATIONS

The recommendations presented in the following sections of this report are based on the information available regarding the proposed construction, the results obtained from our soil test borings and laboratory tests, and our experience with similar projects. Because the test borings represent a very small statistical sampling of subsurface conditions, it is possible that conditions may be encountered during construction that are substantially different from those indicated by the soil test borings. In these instances, adjustments to design and construction may be necessary.

Seismic Design Parameters, 2019 CBC

Please refer to Appendix C

Expected Total and Differential Settlement.

The recommendations given in this report are such that settlements are negligible and as such are of little concern. The expected total settlement is expected to be ¼ inch and the expected differential settlement is less than ½ of that value.

Site Preparation

Concrete pavement, building rubble, concrete foundations and any other debris noted at or below the existing ground surface should be removed as part of the site preparation for the proposed construction area.

Excavations

There is no major grading. Temporary construction slopes should be designed and excavated in strict compliance with the rules and regulations of Occupational Safety and Health Administration (OSHA), 29 CFR, Part 1926. This document was prepared to better insure the safety of workers entering trenches or excavations, and requires that all excavations conform to the new OSHA guidelines.

The side walk of trenches constructed in these materials will be prone to sudden collapse (for trenches deeper than 2 feet) unless they are properly shored and braced or laid back at an appropriate angle. Project designers should make a clear note of this fact in the project specifications and on the project plans and should draw attention to contractor and particularly the underground contractor, to the property shore and brace or lay back the sides walls of trenches.

All work should comply with the State of California Construction Safety Orders for “Excavations, Trenches, and Earthworks”.

For the purpose of this section of the report, utility pipes, free draining sand should be used as bedding. Sand bedding should be compacted to at least 90% relative compaction based on ASTM Test Procedure D 1557-00, or to the degree of compaction specified by the utility designer.

The contractor is solely responsible for protecting excavations by shoring, sloping, benching or other means as required to maintain stability of both the excavation sides and bottom. GMD Engineers does not assume any responsibility for construction site safety or the activities of the contractor.

For this site, the overburden soil encountered in our exploratory borings consisted of mostly fat clay. We anticipate that OSHA will classify these materials as type B. OSHA recommends a maximum slope inclination of 1H: 1V for type B soils. Excavation requirements will vary depending on the actual soil conditions in some areas. Temporary construction slopes should be closely observed for signs of mass movement, such as tension cracks near the crest, bulging at the toe of the slope, etc.

Structural Fill

We do not anticipate structural fill in this project. If it is needed, we recommend that structural fill and backfill be compacted in accordance with the criteria standard engineering practice. A qualified field representative should periodically observe fill placement operations and perform field density tests at various locations throughout each lift, including trench backfill, to indicate if the specified compaction is being achieved.

STANDARD STRUCTURAL FILL PLACEMENT GUIDELINES

Areas of Fill Placement	Compaction Recommendation (ASTM D1557-Standard Proctor)	Moisture Content (Percent of Optimum)

Granular cushion beneath Floor Slab and over Footings	90%	As necessary to obtain density
Structural fill supporting Footings	90%	-1 to +3 percent
Structural fill placed within 5 feet beyond the perimeter of the building pad	90%	-1 to +3 percent
Grade-raise fill placed within 1 foot of the base of the pavement	90%	-1 to +3 percent
Structural fill placed below the base of the Pavement Soil Sub grade	90%	-1 to +3 percent
Utility Trenches - Within building and pavement areas	90%	-1 to +3 percent
Beneath Landscaped/Grass Areas	88%	As necessary to obtain Density

During construction, we recommend that fill materials placed in the building area have a liquid limit of less than 45, and a plasticity index of less than 25. Whenever possible, highly plastic silt (MH) or clay (CH) fill soils should not be placed within the upper 4 feet of the final ground elevation. Soils which have a liquid limit greater than 45 and a plasticity index greater than 25 will typically require removal or blending with less plastic materials to result in lower Atterberg limits.

The soil horizons were categorized as per the Unified Soils Classification System (USCS) with additional notes regarding any soft, moist, or unsuitable soils. The presence and depth of subsurface water was estimated during excavation and measured after completion of each boring. The soil descriptions and classifications contained within the boring logs (Appendix B) were determined by visual observation of a Soils Engineer unless a laboratory number denotes the soil.

Graded Slopes

There is no major cut (which is approximately less than 100 cubic yards) is anticipated.

FOUNDATION

Resistance to Lateral Loads

Lateral loads applied to foundations can be resisted by a combination of lateral bearing and base adhesion.

If the deflection resulting from the strain necessary to develop the passive pressure is within structural tolerance, the passive pressure and frictional resistance can be used in combination. Otherwise, additional passive pressure values could be provided based on tolerable deflection. The allowable values already incorporate a factor of safety and, as such, would be compared directly to the driving loads. If analytical approaches require the input of a ratio of available resisting forces and driving loads greater than unity, the ultimate values would be used.

REINFORCED CONCRETE CONSTRUCTION

Based on the results of the soil test borings, laboratory testing and our engineering evaluation, it is our opinion that the subsurface conditions are suitable for supporting the proposed structure using continuous wall footings and pad footings using the following:

- Soil bearing capacity of 2,000 psf
- All concrete in contact with soil should have a 3 inches clearance.
- All concrete should have unit weight of 150 pcf, a steel yield stress of 60,000 psi and a concrete compressive strength of 2,500 psi.
- All bearing wall footings should be embedded at least 18 inches below the lowest adjacent gradient and a minimum of 12” wide.
- Footings should a minimum of 18” below undisturbed natural grade, unless deeper footings are required to satisfy structural requirements.
- All bearing wall-footing for a raised floor construction shall have a minimum of two (2) rebars near the bottom of footing.
-

SLAB ON GRADE

Slabs-on-grade should be supported on compacted subgrade as described in this report. The slab subgrade, to a depth of 12 inches, should have moisture content above optimum immediately prior to pouring the slab or placing a vapor retarding membrane and re-compacted to a minimum of 90 percent density based on to ASTM 1557.

Slab concrete should have good density, a low water/cement ratio, and proper curing to promote a low porosity. It is recommended the water/cement ratio not exceed 0.45 to minimize vapor transfer.

All slabs on grade should have a minimum thickness of 5 full inches reinforced with #4 at 18 inches each way reinforcing bars or as directed by the Project Structural Engineer or Building Architect/Designer.

Waterproof membrane should be placed between the granular layer and the floor slab in order to reduce the moisture condensation under the floor coverings.

All concrete slabs should be underlain by a minimum of 4-inch-thick capillary break of ¾ inch clean crushed rock. It is recommended neither Class II base rock nor sand be employed as the capillary break material.

It is recommended that the slab subgrade be covered by vapor retarding membrane, 10 mil vapor barrier. Consideration could be given to extending the vapor retarding membrane around the footings to provide a more complete vapor barrier. The subgrade surface should be smooth and care should be exercised to avoid tearing, ripping, or otherwise puncturing the vapor retarding membrane. If the vapor retarding membrane becomes torn or disturbed, it should be removed and replaced or properly patched. It is recommended consideration be given to placing concrete directly on the vapor retarding membrane.

If desired by designers, the vapor retarding membrane could be covered with approximately 1 to 2 inches of saturated surface dry (SSD), relatively clean sand to protect it during construction. Concrete should not be placed if sand overlying the vapor barrier has been allowed to attain a moisture content greater than about 5% (due to precipitation or excessive moistening). Excessive water beneath interior floor slabs could result in future significant vapor transmission through the slab, adversely affecting moisture-sensitive floor coverings and the indoor environment.

RAISED FLOOR FOUNDATION

Wall footing should be embedded to a minimum of 18" below the lowest adjacent grade and a minimum of 18 wide with 2 #5 top and bottom.

Stem wall should have a minimum thickness of 8 inches with one (1) rebar near top of stem wall and (one) 1 rebar near bottom.

Pad footing should be embedded to a minimum of 18" below the lowest adjacent grade and a minimum of 20 wide with 3 #5 each way.

Drainage and Groundwater Considerations

The site should be graded to provide positive drainage to reduce storm water infiltration. Surface drainage should be planned to prevent ponding and to promote drainage of surface water away from the structure foundations, edges of pavements and sidewalks, toward suitable collection and discharge facilities. A minimum gradient of one percent for asphalt areas should be maintained. A five percent gradient should be maintained for landscaped areas immediately adjacent (within 10 feet) to the structure. In general, water should not be allowed to collect near the surface of the footing of the structures during or after construction. If water were allowed to accumulate next to the foundation, it would provide an available source of free water to the expansive soil underlying the foundation. Similarly, surface water drainage patterns or swales must not be altered so that runoff is allowed to collect next to the foundation.

Jobsite Safety

Neither the professional activities of GMD Engineers and sub consultants at a construction/project site, shall relieve the General Contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordination the work in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. GMD Engineers and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The General Contractor shall be solely responsible for jobsite safety.

6.0 LIMITATIONS

Changed in the project design will render our recommendation invalid unless our staff reviews such changes and our specific recommendations are modified accordingly.

Our recommendations have been in accordance with the principles and practices generally employed by the soils engineering profession and engineering geology; and as such, this acknowledgement is in lieu of all other warranties, express or implied.

This report is being issued with the understanding that it is the responsibility of the Owner, or his representative, to ensure that the information and recommendations contained within our report are called to the attention of the Project Architect/ Engineers and incorporated into the plans, and that the necessary steps are being taken to ensure that the Contractors and Sub Contractors carry out such recommendations in the field.

Unanticipated soil and bedrock conditions are commonly encountered and cannot be fully evaluated by surface geologic investigations or exploratory borings, and frequently require that additional expenditures be made to attain proper development. Some contingency fund should be allotted to accommodate these possible extra costs.

We recommend the following:

1. We should be retained to provide observations and testing during removal of unsuitable soils, placement of select fill, preparation of subgrade, and construction observation of footing excavations.
2. We should be contacted with any questions that arise regarding application of our recommendations during construction, or if any soil conditions different from those described

APPENDIX A

Unified Soil Classification System

Log of Test Boring

UNIFIED SOIL CLASSIFICATION SYSTEM – ASTM D2488 (Modified)

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN #200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN #4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel–sand mixtures, little or no fines
			GP	Poorly graded gravels or gravels–sand mixtures, little or no fines
		GRAVELS (MORE THAN 12% 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 COARSE FRACTION IS SMALLER THAN #4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS (MORE THAN 12% 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 MATERIAL IS SMALLER THAN #200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 35%		ML	Inorganic silts and very fine clayey sand silt sands, with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly, sand, silty or lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS LIQUID LIMIT IS BETWEEN 35% AND 50%		MI	Inorganic silts, clayey silts and silty fine sands of intermediate plasticity
			CI	Inorganic clays, gravelly/sandy clays and silty clays of intermediate plasticity.
			OI	Organic clays and silty clays of intermediate plasticity.
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Organic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic clays
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils

BORING LOG EXPLANATION

LOGGED BY ______ DATE DRILLED _________ BORING DIAMETER _______ BORING NO. _____

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	SPT "N" Value	Plasticity Index	Dry Density, p.c.f.	Moisture % of Dry Wt.	MISC. LAB RESULTS
1			← Ground water elevation						
2	1–1		← Soil Sample Number						
3	L		← Soil Sample Size/Type L = 3" Outside Diameter M = 2.5" Outside Diameter T = 2" Outside Diameter ST= Shelby Tube BAG = Bag Sample						
4									
5									

NOTE: All blows/foot are normalized to 2" outside diameter sampler size.

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT
VERY LOOSE	0–4
LOOSE	4–10
MEDIUM DENSE	10–30
DENSE	30–50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	BLOWS/FOOT
VERY SOFT	0–2
SOFT	2–4
FIRM	4–8
STIFF	8–16
VERY STIFF	16–32
HARD	OVER 32

Geri Martin Daliva Engineers
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Boring Log Explanation

Figure No.1

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BORING LOG

Project:	Project Number:	Client:	Boring No.
Single Family Dwelling	202110	Peter Yan	B-1
Address, City, State		Drilling Contractor:	Drill Rig Type:
1187 Lookout Rd Pebble Beach, CA 93953		CA Geotech	B-24
Logged By:	Date Started:	Bit Type:	
TIM	05 March 2021	4-wing (solid head) carbide-tipped	
Drill Crew:	Date Completed:	Hammer Type:	Diameter:
-	05 March 2021		4.0"
USA Ticket Number:	Backfilled:	Hammer Weight:	Hammer Drop:
XXX	Yes	130 lbs	0.762-m
	Groundwater Depth:	Elevation:	Total Depth of Boring:
	not encountered		15 ft

Depth (feet)	Sample Type	Sample Number	Blow Counts (blows/foot)	Graphic Log	Lithology **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors **Rock Description:** modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	Dry Density (pcf)	Moisture Content (%)	Field Penetrometer (tsf)
0					Silty sand (SM) with trace of clay, dark brown, some grass roots, dense, dry			
5	SPT	1-a	14			118	6	2.2
					Clayey SAND (SC), reddish brown to reddish brown, with trace of small gravels 1/2" max diameter, dense, dry		6.5	2.8
10	SPT	1-b	24					
					Clayey SAND (SC), then cemented sand stating 12 ft, gray-brown, very hard, damp,			
	SPT	1-C	38				9	3.6
20					CONSISTENT Groundwater not encountered at 15 feet during drilling.			

Standard Penetration Split Spoon Sampler (SPT)
California Sampler
Shelby Tube
CPP Sampler
Stabillized Ground water
Groundwater At time of Drilling
Bulk/ Bag Sample

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BORING LOG

Project:	Project Number:	Client:	Boring No.
Single Family Dwelling	202110	Peter Yan	B-2
Address, City, State		**Drilling Contractor:**	**Drill Rig Type:**
1187 Lookout Rd Pebble Beach, CA 93953		CA Geotech	B-24
Logged By:	**Date – Started:**	**Bit Type:**	
TIM	05 March 2021	4-wing (solid head) carbide-tipped	
Drill Crew:	**Date – Completed:**	**Hammer Type:**	**Diameter:**
-	05 March 2021		4.0"
USA Ticket Number:	**Backfilled:**	**Hammer Weight:**	**Hammer Drop:**
XXX	Yes	130 lbs	0.762-m
	Groundwater Depth:	**Elevation:**	**Total Depth of Boring:**
	not encountered		15 ft

Lithology

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors

Rock Description: modifier color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.

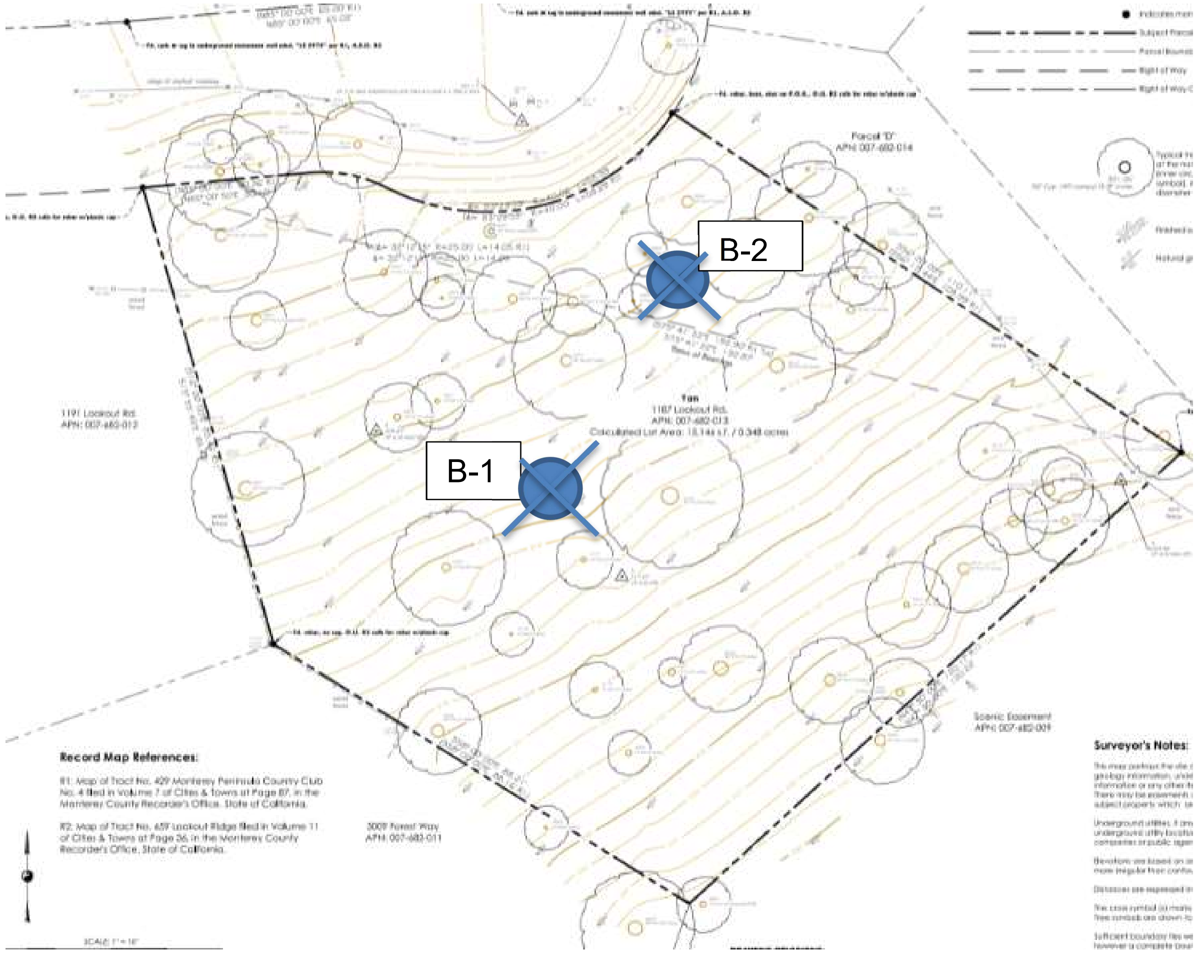
Depth (feet)	Sample Type	Sample Number	Blow Counts (blows/foot)	Graphic Log	Lithology	Dry Density (pcf)	Moisture Content (%)	Field Penetrometer (tsf)
0					Silty SAND (SM) with trace of clay, dark brown, some grass roots, dense to very dense, dry			
5	SPT	1-a	14			116	6.5	2.5
					Clayey SAND (SC), reddish brown to dark brown, with trace of small gravels 1/2" max diameter, dry, very dense		8	2.8
10	SPT	1-b	22		Clayey SAND (SC), gray-brown, very dense, damp, with some fine-grained gravels.			
	SPT	1-C	30				9.5	3.6
20					CONSISTENT Groundwater not encountered at 18 feet during drilling.			

Standard Penetration Split Spoon Sampler (SPT)
California Sampler
Shelby Tube
CPP Sampler
Stabillized Ground water
Groundwater At time of Drilling
Bulk/ Bag Sample

APPENDIX "B"

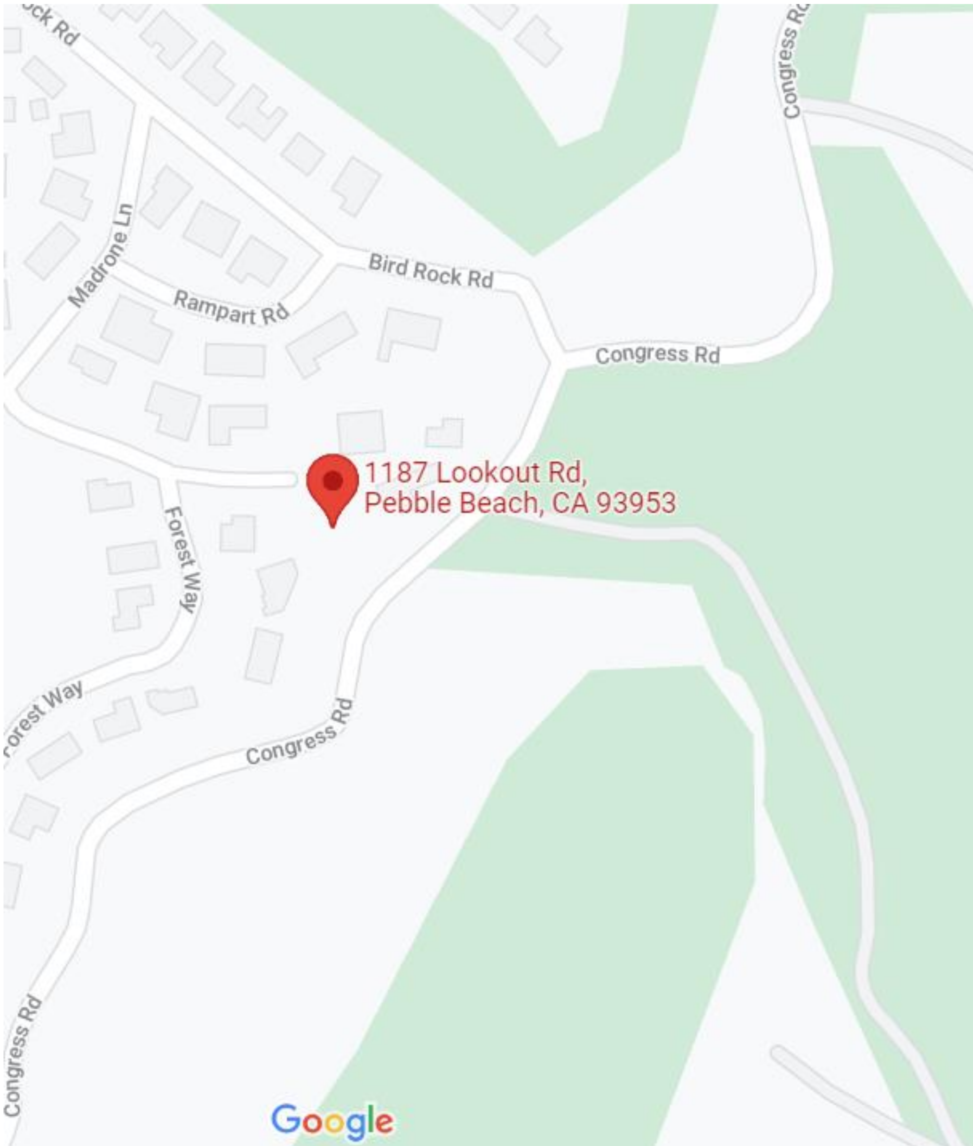
Location of Boring

Location Plan



APPROXIMATE BORING LOCATION

1187 Lookout Rd Pebble Beach, CA 93953



SITE MAP

1187 Lookout Rd Pebble Beach, CA 93953

APPENDIX "C"

Results of Laboratory Soil Testing

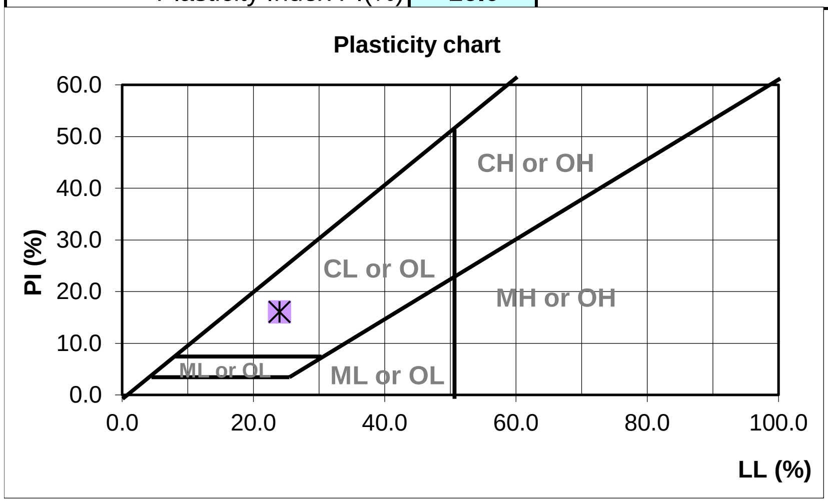
SOIL CLASSIFICATION ACCORDING ASTM

I. GRAIN SIZE PROPERTIES

Percent, gravel:	**3%**	0% – 67%
Percent, sand:	**34%**	
Percent, passing No 200:	**33%**	0% – 100%
		Gravel & Sand / Silt & Clay
Coefficient of uniformity Cu:		
Coefficient of curvature Cc:		

II. PLASTICITY OF FINES (PASSING SIEVE No.40)

Liquidity Limit LL (%)	**24.0**	☐ Organic with LLdry/LL<0.75
Plasticity Index PI(%)	**16.0**	



CLASSIFICATION RESULTS

Group symbol:

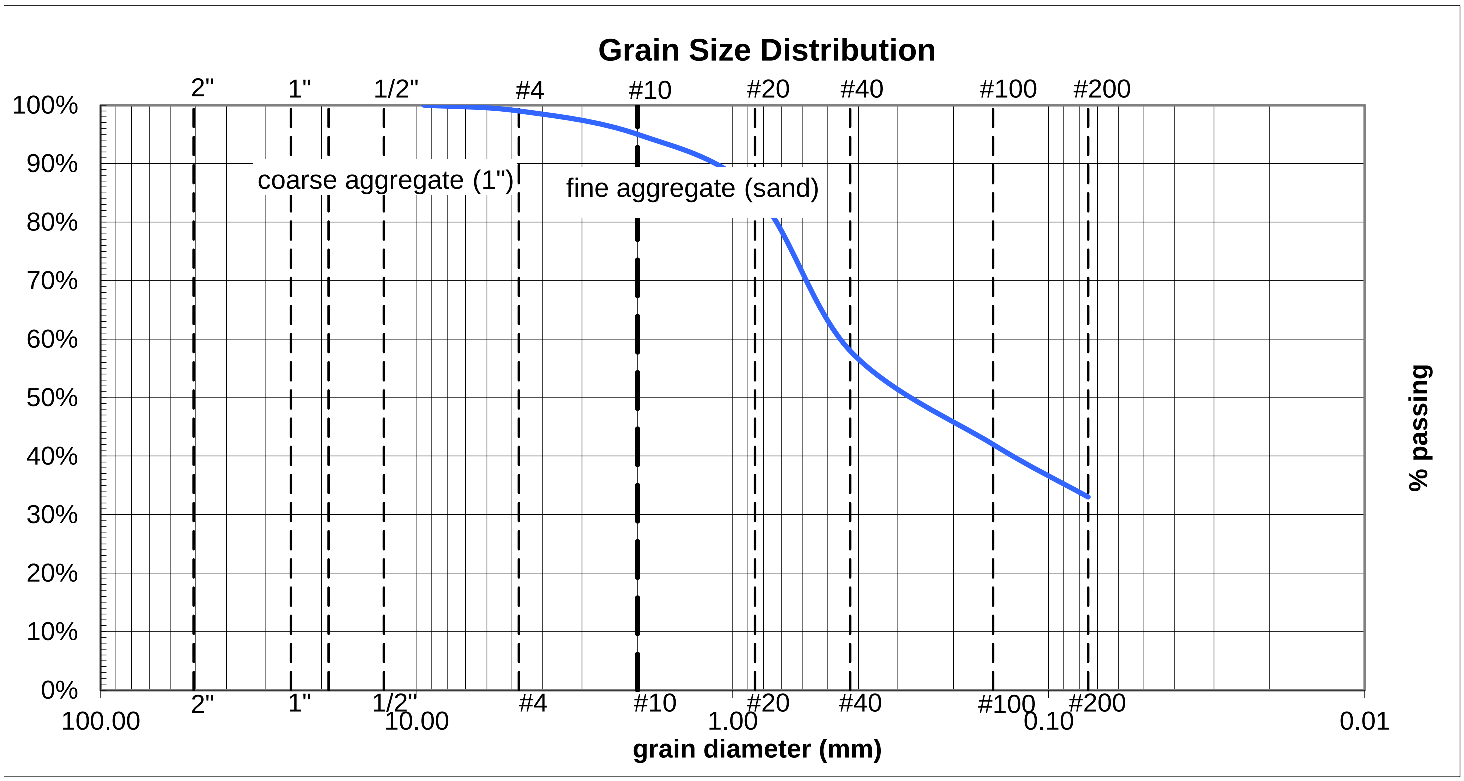
SC

English designation as:

Clayey Sand

(It may be necessary to click on a random cell after changing input data in order to refresh the results)

GMD ENGINEERS SOIL & FOUNDATION ENGINEERING 11 WEST LAUREL DRIVE SUITE 225 SALINAS CA 93906 **(831) 840-4284** gmdalivaengineers@gmail.com	BORING #2 @ 6 FT 1187 Lookout Rd Pebble Beach,	Project #: GMD 202110 DATE: 3/05/2020 PLATE NO: B-2



Project # GMD202110
DATE: 03/05/2020
PLATE NO: A3

BORING 1 @ 5-6 FT

1187 Lookout Rd
Pebble Beach, CA
93953

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1187 Lookout Rd Pebble Beach, CA 93953

1187 Lookout Rd, Pebble Beach, CA 93953, USA

Latitude, Longitude: 36.592395, -121.939187

Date	1/15/2022, 12:31:14 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	1.291	MCE_R ground motion. (for 0.2 second period)
S_1	0.487	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.55	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.033	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.566	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.679	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	1.291	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.416	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.705	Factored deterministic acceleration value. (0.2 second)
S1RT	0.487	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.532	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.615	Factored deterministic acceleration value. (1.0 second)
PGAd	0.707	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.912	Mapped value of the risk coefficient at short periods

Type	Value	Description
C_{R1}	0.915	Mapped value of the risk coefficient at a period of 1 s

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