

Dipsea Ranch: Tree Removal Analysis Deficient in MND

<i>Urban Forestry Associates, Inc.</i>	<i>February 7, 2017</i>
SUMMARY	
This report is to accompany the Arborist Map for the project, which contains the full tree inventory.	
Exempt trees to be removed	18
Protected trees to be removed	6
Heritage trees to be removed	1
Total	25

Arborist states 6 Protected & 1 Heritage tree is to be removed.

This is the analysis of tree removal from the MND, page 62, the analysis of native trees to be removed:

The Project would result in the removal of three non-native trees, including a 10" diameter trunk English laurel, 23" diameter trunk red flowering gum, and 24" diameter incense cedar) (Urban Forestry Associates, 2018). The Applicant proposes to construct a small rock retaining wall near a Marin County Code "protected tree" – a multi-trunk coast live oak. Tree protection fencing would be placed to protect this tree. An additional coast live oak would be protected near proposed excavation. In addition, some minor pruning of other trees may be required to accommodate construction of the residences or new vehicle access. Development of individual lots and septic disposal areas may result in tree removal depending on the specific site plan. Development could adversely affect existing trees through root damage from construction activities within the root zone of protected trees and tree mortality could occur. Trimming activities could also damage existing trees if completed during a time of year that could impact growth. The loss of trees could be inconsistent with the local tree ordinance, and the impact would be significant.

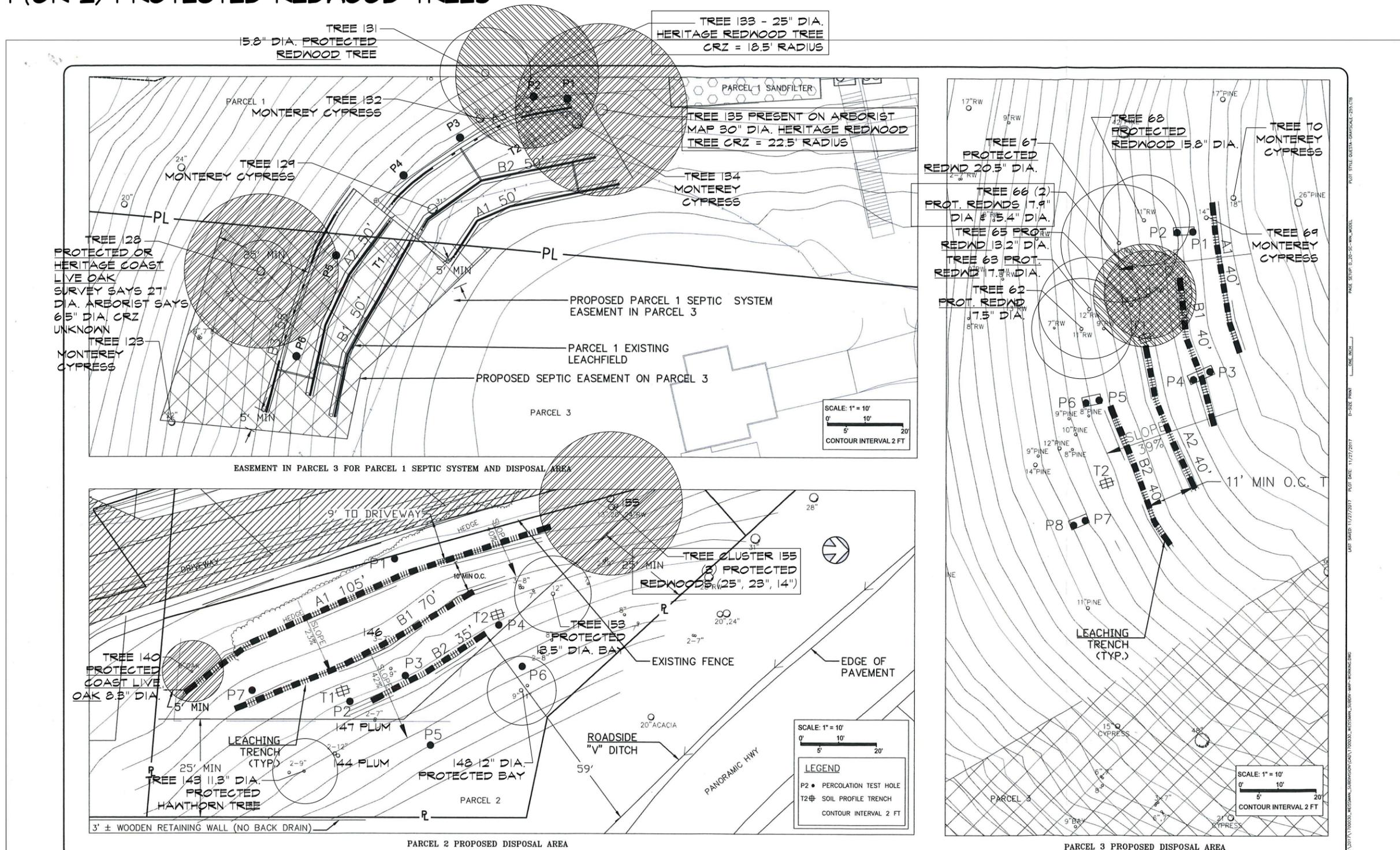
The removal of protected or heritage trees is not acknowledged, and the MND states their removal would be significant.

The following page illustrates the planned septic systems with the critical root zone of protected and heritage trees (CRZ based on tree radius x 1.5, per MND) overlaid, showing damage to 8 protected and 2 (or 3) heritage trees, more than described in both reports.

Although the MND states that the septic systems may affect native trees, the proposed locations are not addressed. If the subdivision is approved, and no other suitable sites can be located, the site will be considered to have a hardship and tree removal permits would be demanded by the property owner.

PARCEL ONE SEPTIC SYSTEMS LOCATED WITHIN CRITICAL ROOT ZONE OF:

**2 (OR 3) HERITAGE REDWOOD TREES,
1 (OR 2) PROTECTED REDWOOD TREES**



**PARCEL THREE SEPTIC SYSTEMS LOCATED WITHIN CRITICAL ROOT ZONE OF:
2 PROTECTED REDWOOD TREES**

WEISSMAN SUBDIVISION
PANORAMIC HIGHWAY
MILL VALLEY

QUESTA
ENGINEERING CORP.
Civil Environmental & Water Resources
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



Sht.	Rev.	Date:	By:	Description:	App'd:

Design: PP
Drawn: IW/SY
Checked: PP
App'd: PP

WASTEWATER DISPOSAL AREAS
PARCELS 1, 2 & 3
MARIN CO A.P. 046-161-11

Project 1700030
Scale: AS SHOWN
Date 1/8/2018
Sheet 2 OF 2

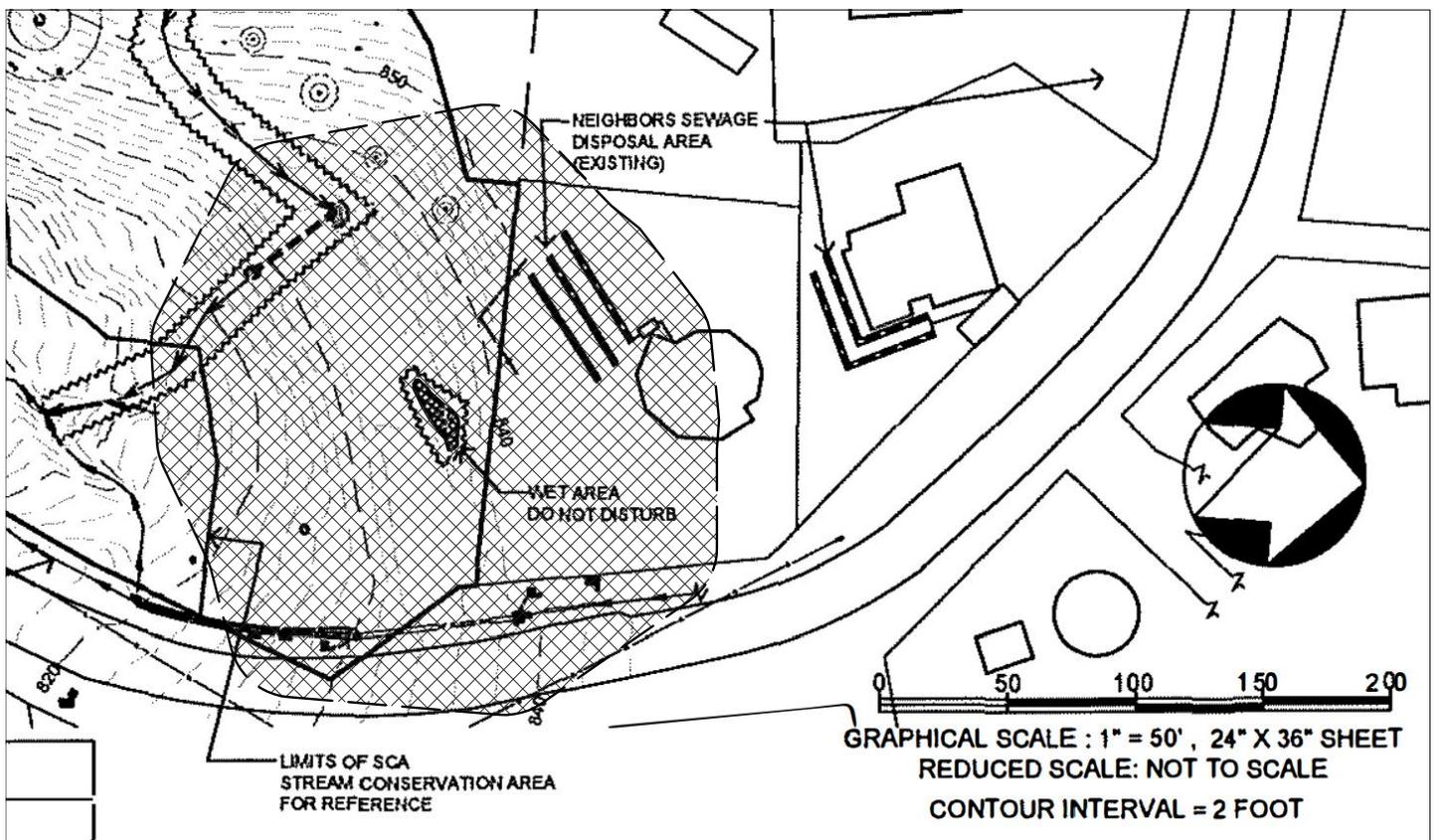
PARCEL TWO SEPTIC SYSTEMS LOCATED WITHIN CRITICAL ROOT ZONE: 3 PROTECTED REDWOOD TREES, 1 PROTECTED LIVE OAK TREE

Dipsea Ranch - MND is deficient in Analysis of Wetland Impacts

The wetland conservation area was not shown on any of the applicant's plans. Below is the on-site drainage plan overlaid with a 100' wetland conservation area overlaid at the proper scale. It is very clear that the on-site drainage is planned to run through the conservation area.

On page 59, the MND states: "on-site drainage systems are set back at least 100' from the wetland and would therefore have no effect on (it)."

This is clearly a mistake. No analysis was performed on the impacts of the site drainage on the wetland.



100' wetland Conservation Area overlaid on Proposed Drainage Plan

Dipsea Ranch - MND is deficient in Analysis of Unstable Road Use

When the Design Review Board reviewed this project in 2017, it asked for a deed restriction on the fire road so that it would never be used for anything other than fire fighting access in the future. Mr. Weissman refused.

If he retains the right to use this road, then the use of the road should have been included in the initial study. It was not.

The geotechnical report analyzed the existing “fire road and found that the downslope sides are “subject to yielding and instability”.

The existing roads traversing the site were generally created by excavating into the hillside on the upslope sides and by placing fill along the downslope edges. The existing cuts are steeper than permitted by current engineering standards, and typically expose weak colluvial soils and deeply weathered and highly fractured bedrock which have experienced varying degrees of sougning and sliding. The fill banks on the downslope sides of the dirt roads consist of varying thicknesses of relatively poor compacted fills which are not keyed or underdrained, and which are subject to yielding and instability. (Herzog, 2015, p.7)

Yet on page 80 of the Neg Dec, it says ‘The Fire Road grading stabilized a slope composed of landslide debris.’ **This is clearly a mistake and has no factual basis.**

The updated geotech report re-affirms that the road is unstable, and then describes massive amounts of construction that would be required to stabilize the road. See attached.

The Initial Study and MND completely fail to address the use of this road by the applicant. It is very possible that use of this road by any automobile could cause sever environmental damage to both the adjacent wetland and the streams below it by causing more landslides.

HERZOG
GEOTECHNICAL
CONSULTING ENGINEERS

RECEIVED

JUN 12 2018

COUNTY OF MARIN
COMMUNITY DEVELOPMENT AGENCY
PLANNING DIVISION

May 1, 2018
Project Number 2147-02-15

Mr. Dan Weissman
455 Panoramic Highway
Mill Valley, California 94941

RE: Report Update
Preliminary Geotechnical Investigation
455 Panoramic Highway (AP# 46-161-11 & 46-221-07)
Mill Valley, California

Dear Mr. Weissman:

This presents our update of the *Preliminary Geotechnical Investigation* report in connection with the proposed residential development at 455 Panoramic Highway in Mill Valley, California. We previously performed a preliminary geotechnical investigation for a proposed thirteen lot residential development at the site, and summarized the results in our report dated November 3, 2015. The project has since been revised to three parcels, which the existing residence on one of the parcels. The project is shown on the *Tentative Map* by Malott Architects dated January 15, 2018. Our work is being provided in accordance with the terms and conditions outlined in our professional services agreement dated October 2, 2015.

GEOTECHNICAL REPORT UPDATE

We conclude that the preliminary conclusions and recommendations presented in our November 3, 2015 report are applicable to the proposed project with the following modifications:

Exploration Plan/Geologic Map

An updated *Exploration Plan/Geologic Map* for the project is attached.

Seismic Design Criteria

The following updated seismic design criteria were developed in accordance with the *California Building Code* (2016) and *ASCE 7-10* (July 2013 errata):

FILE

Site Class	C
Site Coefficient F_a	1.0
Site Coefficient F_v	1.3
0.2 sec Spectral Acceleration S_s	1.65
1.0 sec Spectral Acceleration S_1	0.76
0.2 sec Max Spectral Response S_{Ms}	1.65
1.0 sec Max Spectral Response S_{M1}	0.99
0.2 sec Design Spectral Response S_{Ds}	1.10
1.0 sec Design Spectral Response S_{D1}	0.66
Design Category	E

Driveway Fill Banks

Proposed fill banks steeper than 2:1 (horizontal:vertical) should be reinforced with geogrid to mitigate sloughing and instability. For planning purposes, reinforcing should be assumed to be required every 1 vertical foot and to consist of Tensar BX1200 biaxial geogrid, or an approved equivalent. The geogrid reinforcement should extend at least 4-1/2 feet back from the face of the bank. The first lift of primary geogrid reinforcement should be located 1 foot above the base of the fill. Fills should be placed on benches excavated into bedrock located below a 1:1 plane projected up from the base of existing cut banks. Overexcavation and fill placement should be performed in accordance with the recommendations presented in our November 3, 2015 report, and geogrid installation should conform to the manufacturer's specifications. The actual geogrid layout and specifications should be verified during construction based on strength testing of the proposed fill material.

SUPPLEMENTAL SERVICES

Prior to design of improvements at the site, Herzog Geotechnical should perform a design-level geotechnical investigation with additional subsurface exploration to evaluate subsurface conditions and to develop appropriate geotechnical recommendations for design and construction. In addition, we should be retained to review the project plans and specifications to evaluate if they are consistent with our recommendations, and to provide observation and testing during geotechnical-related construction. We cannot comment on the adequacy of items we are not notified to observe and test.

LIMITATIONS

Our services consist of professional opinions and conclusions developed in accordance with generally-accepted geotechnical engineering principles and practices. We provide no other

warranty, either expressed or implied. Our conclusions and recommendations are based on the information provided us regarding the proposed construction, the results of our field exploration and laboratory testing programs, and professional judgment. Verification of our conclusions and recommendations is subject to our review of the project plans and specifications, and our observation of construction.

Our work was limited to the proposed improvements, and did not address the existing residence. Our work did not include an environmental assessment or an investigation of the presence or absence of hazardous, toxic or corrosive materials in the soil, surface water, ground water or air, on or below, or around the site, nor did it include an evaluation or investigation of the presence or absence of wetlands. Our work also did not include an evaluation of any potential mold hazard at the site.

We appreciate the opportunity to be of service to you. If you have any questions, please call us at (415) 388-8355.

Sincerely,
HERZOG GEOTECHNICAL

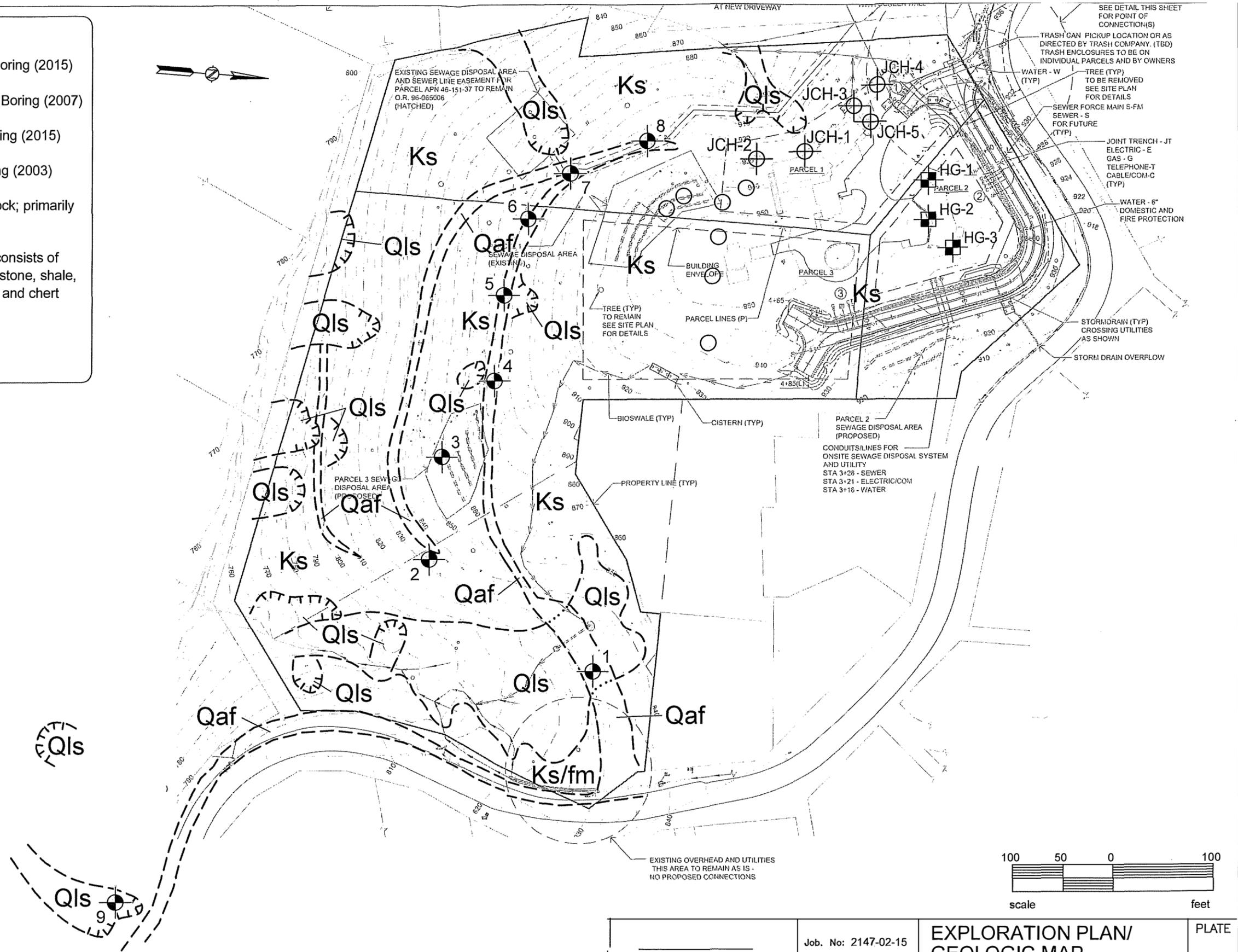
Craig Herzog, G.E. #2383
Principal Engineer



Attachments: *Exploration Plan/Geologic Map* (Plate 1)

LEGEND

-  Recent Herzog Geotechnical Boring (2015)
-  HG-1 Previous Herzog Geotechnical Boring (2007)
-  JCH-1 John C. Hom & Associates Boring (2015)
-  Salem Howes Associates Boring (2003)
- Ks** Cretaceous Sedimentary Bedrock; primarily sandstone and shale
- fm** Franciscan Melange; typically consists of heterogeneous mixture of sandstone, shale, metavolcanic rock, serpentinite and chert
- Qls** Landslide Deposits
- Qaf** Artificial Fill



Reference: Utility Plan by Ziegler Civil Engineering, dated 1/15/18.

HERZOG
GEOTECHNICAL
 CONSULTING ENGINEERS

Job. No: 2147-02-15
 Appr: 
 Drwn: LPDD
 Date: OCT 2015

**EXPLORATION PLAN/
 GEOLOGIC MAP**
 455 Panoramic Highway
 Mill Valley, California

PLATE
1