NOTES:

1) ALL ELEVATIONS WERE BASED UPON A SET IRON WITH SPIKE AND SHINER SHOWN AS "C-5" WITH AN ASSUMED ELEVATION OF 100.00 FEET.
2) SCALE: 1" = 10', CONTOUR INTERVAL = 1'
3) NO EASEMENTS OF RECORD ARE REFLECTED FROM A PRELIMINARY REPORT PREPARED BY FIDELITY NATIONAL TITLE COMPANY DATED JANUARY 14, 2015 WITH TITLE NUMBER FSMO-0111600191-DD.
4) GENERALLY, THE VERTICAL ACCURACY OF CONTOUR SPOT ELEVATIONS ARE +/- 0.5' OR BETTER.
5) NOT ALL TREES WERE LOCATED, BUT GENERALLY TREES OVER 12" DIAMETER OR CALIPER ARE SHOWN. TREES WITH MULTIPLE TRUNKS ARE SHOWN WITH ONE SYMBOL INDICATING THE LOCATION OF THE CENTER OF THE MULTIPLE TRUNKS.
6) IRON PIPE MONUMENTS OR OTHER MARKER ARE TO BE SET AT THE THREE CORNERS WITHOUT EXISTING MONUMENTS. A RECORD OF SURVEY MAP IS PENDING PREPARATION AND SUBMITTAL.

ALL PROPERTY INFORMATION PROVIDED BY OWNER

GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM BUILDING AT A SLOPE OF NOT LESS THAN 1:20 (5%) FOR A MINIMUM DISTANCE OF 10' MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IMPERVIOUS SURFACES WITHIN 10' OF BUILDING SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM BUILDING. CBC 1803.3

13690 SKYLINE
APN 67-080-090

13684 SKYLINE
APN 67-080-070

RESIDENCE--13704 SKYLINE BLVD
APN 67-080-110

SKYLINE BLVD. & "FIRE ACCESS"
100' WIDE

PROPERTY LINE (TYP.)

10' PROPERTY EASEMENT

30' SET BACK

WIRE FENCE

PROPANE TANK

EDGE OF DRIVE

EDGE OF PAVEMENT

UTILITY VAULT

RUGLOD L.P. OPEN

BENCH MARK
526.66
C-5 HUB

VICINITY MAP

SITE LOCATION

SITE COVERAGE

LOT SIZE	17,772 S.F.
NEW HOUSE	1,726 S.F.
NEW GARAGE	539 S.F.
NEW PORCH	231 S.F.
	2,496 S.F.
2,496 S.F.	
17,772 S.F. = 14% OF LOT COVERAGE	

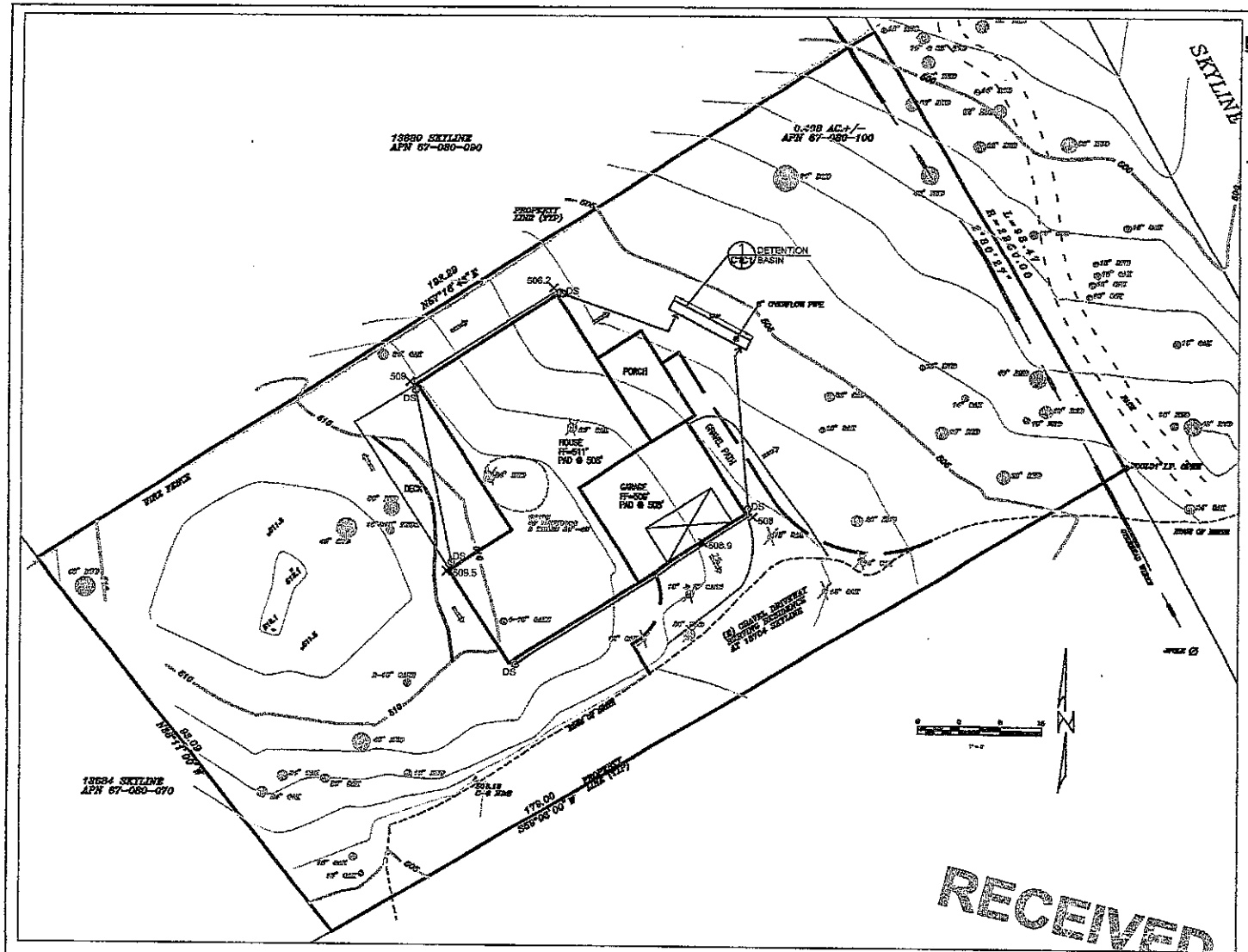
E = ELECTRIC LINE
W = WATER LINE
SETBACK LINE
PROPERTY LINE
TREES TO BE REMOVED

PROPOSED HOUSE
PROPOSED GARAGE
PROPOSED PORCH
PROPSED DRIVEWAY
PROPOSED EASEMENT GRANT FOR USE OF EXISTING DRIVEWAY IN PROCESS OF RECORDING.

SCALE IN FEET
10 0 10 20
1 INCH = 10 FEET

JOB SITE INFORMATION: 13700 SKYLINE BLVD. WOODSIDE, CA APN#: 67-080-100	PAGE TITLE: SITE PLAN	SCALE: 1" = 10'
		DRAWN BY: MF
OWNER: KEVIN CERINI		DATE: 12/14/16
DIABLO VALLEY DRAFTING	Diablo Valley Drafting" Dennis & Mell Foster 425 El Pintado Rd. Suite 100, Danville, CA 94526-1806 Phone: (925) 820-2950 Fax: (925) 838-1099 Email: Diablodrafting@comcast.com or Mfoster@comcast.com.	SHEET: SP

PLN2016-00363



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- 509.2 PROPOSED SPOT ELEVATION
- DS DOWNSPOUT
- DIRECTION OF SURFACE DRAINAGE
- 3" SOLID PLASTIC DRAIN PIPE, SDR 35 @ 1 % MINIMUM SLOPE
- TREE TO BE REMOVED

GENERAL NOTES

1. PLANS PREPARED AT THE REQUEST OF: KEVIN CERINI, OWNER
2. SURVEY AND TOPOGRAPHY BY TURNROSE LAND SURVEYING, SURVEYED IN MARCH, 2016.
3. ELEVATION DATUM ASSUMED.
4. THIS IS NOT A BOUNDARY SURVEY
5. THE PROPOSED GARAGE WILL BE ACCESSED BY AN EXISTING GRAVEL DRIVEWAY TO THE NEIGHBORING PROPERTY. THE EXISTING GRAVEL DRIVEWAY WILL SERVE AS A CONSTRUCTION ENTRANCE, 155 FEET LONG.

GRADING NOTES

CUT VOLUME : 10 CY
FILL VOLUME: 10 CY
TOTAL: 20 CY CUT/FILL

1. ABOVE VOLUMES ARE APPROXIMATE
2. MAXIMUM GRADIENT OF ANY MODIFIED SLOPES SHALL BE 2:1 (H:V).
3. ALL GRADING SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
4. ALL TRENCHES IN PROPOSED LANDSCAPE AREAS SHALL BE BACKFILLED WITH COMPACTED APPROVED GRANULAR MATERIAL TO WITHIN ONE FOOT OF FINISHED GRADE, AND THEN FILLED WITH HAND TAMPED SOILS.

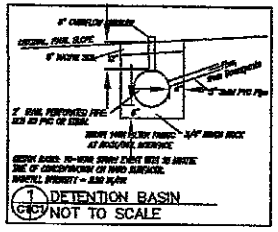
DRAINAGE NOTES

1. DRAINAGE INTENT: IT IS THE INTENT OF THE DRAINAGE SYSTEM TO CONVEY ROOF RUNOFF TO A SAFE LOCATION, AND TO MINIMIZE EXCESSIVE MOISTURE AROUND FOUNDATIONS.
2. ALL ROOF DRAIN LINES SHALL LEAD TO DRY WELLS SHOWN.
3. ALL DRAINAGE PIPES SHALL BE MINIMUM 3" DIAMETER SOLID PIPE, SLOPED AT 1% MINIMUM
4. IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE DRAINAGE SYSTEM. THE DRAINS PIPES AND DRY WELLS SHALL BE CHECKED EVERY FALL AND CLEARED OF DEBRIS.

TRAFFIC CONTROL NOTES

1. CONTRACTOR AND WORKERS SHALL PARK IN DRIVEWAY. NO PARKING ON SKYLINE BLVD.
2. DELIVERY OF SUPPLIES AND CONCRETE SHALL BE MADE ON PROPERTY AND NOT FROM SKYLINE BLVD
3. TRIM TREES, AS NECESSARY, AND PLACE ADDITIONAL GRAVEL ON DRIVEWAY TO ACCOMODATE DELIVERY VEHICLES.

SECTION AND DETAIL CONVENTION



RECEIVED
OCT 05 2016
San Mateo County
Planning and Building Department

Sigma Prime Geosciences, Inc.
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CA 94019
(650) 728-3590
FAX 728-3599

DATE 8-25-16
DRAWN BY: CMK
CHECKED BY: JDS
REV. 2/4/17
REV. 3/1/17
REV. 3/4/17

GRADING AND DRAINAGE PLAN

CERINI PROPERTY
SKYLINE BOULEVARD, WOODSIDE
APN 067-080-100

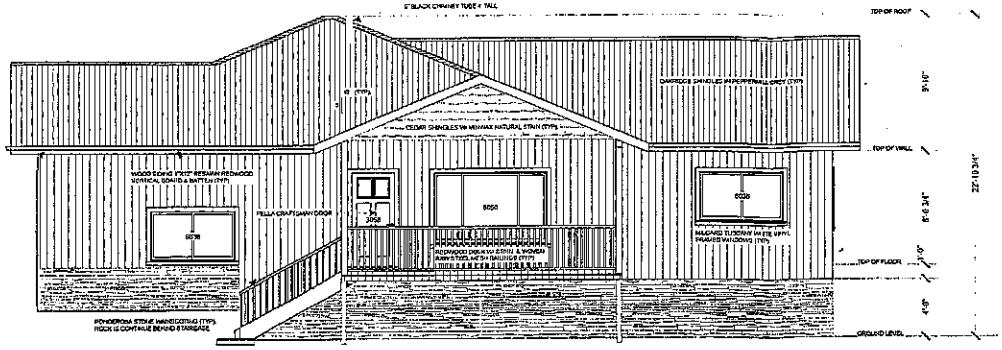
SHEET
C-1

PLN2016-00363

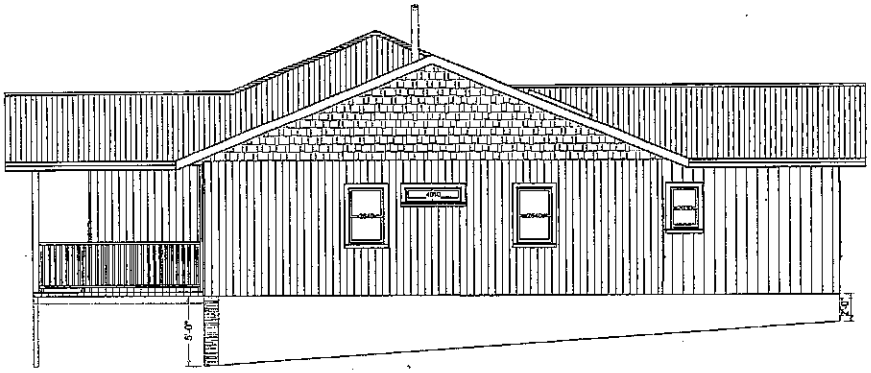
RECEIVED

AUG 25 2016

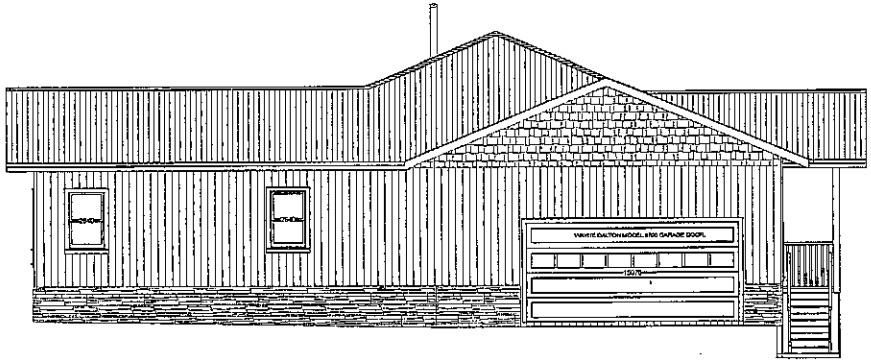
San Mateo County
Planning Division



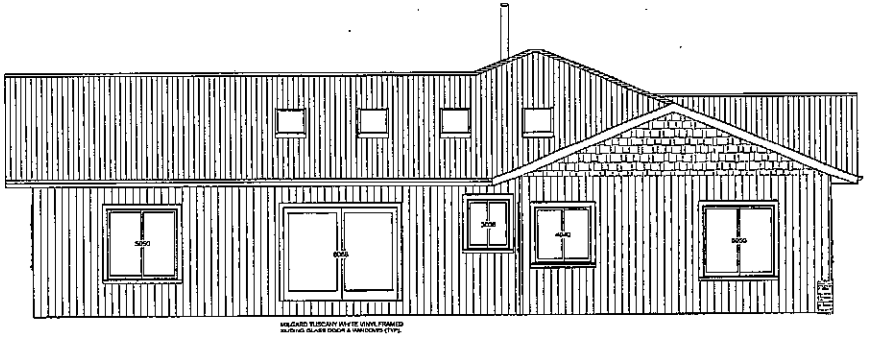
EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION

Diablo Valley Drafting, Dennis & Mimi Forster
455 Ellinwood Way, Pleasant Hill, CA 94523-1604
Phone: (925) 938-2160 Fax: (925) 855-1888
Email: Dforster@sbcglobal.net or Mforster@sbcglobal.net

DIABLO VALLEY DRAFTING

SHEET TITLE: ELEVATIONS

JOB SITE LOCATION:
SKYLINE BLVD.
HALFMOON BAY, CA
APN 048-060-160

SCALE:

DRAWN BY: MF

DATE: 7-25-2016

SHEET: 2

Mr. Kevin Cerini 12-23-16

2551 Hillside Blvd.

Colma, Ca. 94014

Reference: 13700 Skyline Blvd., Woodside, Ca. 94062

Tree Protection Plan and Inventory

The following is an inventory of 10"+DBH trees on site and a tree protection plan for potential construction of a new house on site.

The lot is heavily wooded with Sequoia sempervirens and Lithocarpus densiflorus as the primary species. One Arbutus menziesii was inventoried.

The tree protection plan is based on:

"Trees and Development", Matheny and Clark, 1998

"Tree Technical Manual", City of Palo Alto, Dave Doktor.2001

"Tree Preservation Guidelines, Town of Atherton, 2004

The TPZ's, tree protection zones, should be based on 1'/diameter inch at DBH. Fences should be installed at appropriate radii of trees to remain before any site preparation is done. 6' fences on posts in the ground is recommended with as necessary 2X4's wrapped with orange snow fencing to minimize tractor blight, trauma wounds, on trees within trafficked areas that do not have TPZ fencing.

The TPZ's are NOT to be storage, parking, or dumping areas.

All construction effluents should be captured and disposed off site as dictated by San Mateo County.

Selective removal of dead trees or trees within the building footprint is then appropriate.

The remaining trees should be evaluated for structural deficiencies and appropriate pruning or selective removal considered. For example, Redwood #9 has a candelabra top prompted by a broken top or topping cut. This prompted a substandard structure and hazard potential. This particular tree is distal from the building site and can be addressed at a later date.

A certified arborist should inspect site:

- after TPZ's are established.

- after selective removal process is completed.

-after primary grading.

-hand digging the first 2' is recommended to expose any roots 1.5" or greater in diameter within the TPZ's. Arborist should inspect the 1.5"+ roots before excision. Excision will be done with clean cuts and tree wound dressing applied.

-after foundation excavation.

-after foundation forming and concrete pour.

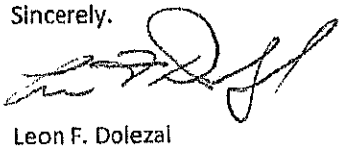
-septic system and drainage system with retention basin all require inspection and hand digging in top 2'.

-after finish grading and before driveway preparation.

-after driveway installation.

-before and after landscape design/installation.

Sincerely.



Leon F. Dolezal

International Society of Arboriculture

Registration #2175

Certification #WE-1721A

Contractors State License #663569

Dept of Pesticide Regulation #100889

Woodside Business License #DOL0001

Calif. Landscape Contractors Assn #1152

Mr. Kevin Cerini

12-23-16

2551 Hillside Blvd.

Colma, CA. 94014

Reference: 13700 Skyline Blvd, Woodside, Ca. 94062

Tree Inventory, 10"+DBH trees on site.

Tree #	Specie	DBH	Condition	Recommendation
1	Sequoia sempervirens(SS)	30"	normal	rough prune (1"+ deadwood removal)
2	SS	40"	normal	rough prune (RP)
3	SS	40"	normal	RP
4	SS	32"	normal	RP
5	SS	15"	normal	RP
6	SS	32"	normal	RP
7	Lithocarpus densiflorus (LD)	14"	normal	RP
8	SS	30"	normal	RP
9	SS	60"	normal	check top structure, RP
10	SS	26"	normal	RP
11	LD	12"	normal	Remove(C&K) building footprint
12	LD	22"	normal	C&K, building footprint
13	LD	14"	dead	C&K,dead
14	Arbutas menziesii	12"	dead/dying	C&K, dead/dying
15	LD	12"	stump	---
16	LD	18"	bifurcated	C&K, building footprint

Tree #	Specie	DBH	Condition	Recommendation
17	SS	26"	stump	---
18	LD	22"	normal	C&K, building footprint
19	LD	12"	normal	C&K,building footprint
20	SS	24"	normal	C&K, building footprint
21	LD	24"	normal	RP
22	LD	16"	normal	C&K, building footprint
23	LD	16"	normal	C&K, building footprint
24	LD	16"	normal	C&K, building footprint
25	LD	16"	normal	C&K, building footprint
26	SS	36"	normal	RP
27	SS	10"	normal	RP
28	SS	18"	normal	RP
29	SS	48"	normal	RP
30	LD	16"	bifurcated	RP
31	LD	16"	normal	RP
32	SS	18"	normal	RP
33	SS	42"	normal	RP
34	LD	12"	normal	RP
35	LD	18"	normal	RP
36	LD	20"	normal	RP
37	LD	24"	dead	C&K
38	LD	24"	normal	RP
39	SS	48"	normal	RP

NOTE:

The rough prune recommendation is based on county specs and standards in the county park system.

This is elective and a risk management concept.

NOTE:

The Tanoaks are notoriously prone to SOD, Sudden Oak Death. Consideration to should be given to SOD prevention protocols as per State of California, Oak Mortality Task Force, recommendations.

Sincerely,

Leon F. Dolezal

International Society of Arboriculture

Registration #2175

Certification #WE-1721A

Contractors State License #663569

Dept. of Pesticide Regulation #100889

Woodside Business License #DOL0001

Calif. Landscape Contractors Assn. #1152

DOLEZAL
TREE
SURGERY
INC.

LEON F. DOLEZAL 1590 Cordilleras Rd.
366-5986 Redwood City, Calif. 94062
License #663569 • Certification #WC-1721

12-12-17

Mr. Kevin Cerini
2551 Hillside Blvd.
Colma, CA. 94014

Reference: 13700 Skyline Blvd., Woodside,Ca. 94062

Mr. Cerini,

The attached Tree Protection Plan and Inventory states the recommended inspection protoclols for a certified arborist to assist in tree protection for a project like yours.

The referenced publilications and inspections are explicit.

Any work to be done within a TPZm requires consultation with a certified arborist first.

Any excavation within a TPZ, is to be done manually for the first 2' and have a certified arborist inspect for potential roots.

Beyond 2' in depth, the arborist is to be appraised of any roots over 1.5" in diamteter that may be exposed, before they are excised.

In this forested environment, I expect to find roots within 2' of the surface and may find roots deeper.

THE TREES DO NOT READ THE BOOK. Subsequently, the inspection protoclols.

The septic system as drawn, is minimally impactive on remaining trees, with the exception of #9, the Candelabra Tree. This tree should be removed because of structural deficiencies, multi top.

With this tree removed, the leach lines and dispoersion basin can be installed with minimal impact on remaining trees.

Sincerely,

Leon F. Dolezal
International Socieу of Arbroiculture
Certification #WE-1721A

Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

CERINI PROPERTY
13700 SKYLINE BOULVARD
WOODSIDE, CALIFORNIA

PREPARED FOR:
CHARLES CERINI
550 OAK PARK WAY
REDWOOD CITY, CALIFORNIA 94062

PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019

JANUARY, 2017

Sigma Prime Geosciences, Inc.
Effective Solutions

January 11, 2017

Charles Cerini
550 Oak Park Way
Redwood City, CA 94062

Re: Geotechnical Report for Proposed Home: Cerini Residence, 13700 Skyline Boulevard, Woodside, California.
Sigma Prime Geosciences Job No. 16-131

Dear Mr. Cerini:

As per your request, we have performed a geotechnical study for the proposed home at 13700 Skyline Boulevard, Woodside, California. The accompanying report summarizes the results of our field study and engineering analyses, and presents geotechnical recommendations for the planned work.

Thank you for the opportunity to work with you on this project. If you have any questions concerning our study, please call.

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.

332 Princeton Avenue, Half Moon Bay, CA 94019 (650) 728-3590 fax 728-3593

GEOTECHNICAL STUDY
CERINI RESIDENCE
13700 SKYLINE BOULEVARD
WOODSIDE, CALIFORNIA

PREPARED FOR:
CHARLES CERINI
550 OAK PARK WAY
REDWOOD CITY, CA 94062

PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019

JANUARY 11, 2017

TABLE OF CONTENTS

1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed home at 13700 Skyline Boulevard, Woodside, California, at the location shown in Figure 1. The purpose of this study was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

1.1 PROJECT DESCRIPTION

We understand that you plan to build a single family residence. It will be a single-story dwelling of about 1735 square feet. Structural loads will be very light.

1.2 SCOPE OF WORK

The scope of work for this study was presented in our proposal dated April 21, 2016. In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Geologic site reconnaissance and 1 soil boring;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed structure.

2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on May 20, 2016. The subsurface study consisting of drilling 1 soil boring to a depth of 7 feet. The boring location is shown in Figure 2. The boring log is attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the site was undeveloped. The lot surrounding the proposed building site is vegetated with numerous redwood and tanoak trees, shrubs, and ivy. The lot slopes gently to the east.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb et al (1998), the site vicinity is primarily underlain by sandstone units of the middle and lower Eocene age Whiskey Hill formation. The sandstone is described as coarse grained and arkosic.

2.4 SITE SUBSURFACE CONDITIONS

Based on the soil boring, the subsurface conditions at the site consist of 1 to 2 feet of leaf litter overlying weak but very dense sandstone. The leaf litter is highly decomposed, with small amounts of clayey material. Scattered sandstone outcrops occur locally at the ground surface and in road cuts. The sandstone is highly weathered in the upper few feet, becoming less weather and stronger at a depth of about 4 feet.

2.5 GROUNDWATER

No groundwater was encountered at the time of soil sampling. Groundwater levels are not expected to have an impact on the construction.

2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Andreas fault, located about 4 km to the east. Other faults most likely to produce significant seismic ground motions include the San Gregorio, Hayward, Rodgers Creek, and Calaveras faults. Selected historical earthquakes in the area with an estimated magnitude greater than 6-1/4, are presented in Table 1 below.

TABLE 1
HISTORICAL EARTHQUAKES

Date	Magnitude	Fault	Locale
June 10, 1836	6.5[1]	San Andreas	San Juan Bautista
June 1838	7.0[2]	San Andreas	Peninsula
October 8, 1865	6.3[2]	San Andreas	Santa Cruz Mountains
October 21, 1868	7.0[2]	Hayward	Berkeley Hills, San Leandro
April 18, 1906	7.9[3]	San Andreas	Golden Gate
July 1, 1911	6.6[4]	Calaveras	Diablo Range, East of San Jose
October 17, 1989	7.1[5]	San Andreas	Loma Prieta, Santa Cruz Mountains

(1) Borchardt & Toppozada (1996)
(2) Toppozada et al (1981)
(3) Petersen (1996)
(4) Toppozada (1984)
(5) USGS (1989)

2.7 2016 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2016 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition C (soft rock) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

Table 2
CBC SEISMIC DESIGN PARAMETERS

S_S	S_1	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}
2.215	1.057	1.0	1.3	2.215	1.374	1.477	0.916

Because the S_1 value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values of S_S and S_1 in the table above were obtained from a USGS software program which provides the values based on the latitude and longitude of the site, and the Site Class Definition. The latitude (37.4404) and longitude (-122.3243) were accurately obtained from Google Earth™. These same values can be obtained directly from maps in the CBC, however the scale of the map makes it impractical to achieve satisfactory accuracy. The map in the CBC was derived from the same work that led to the USGS software. The remaining parameters were also obtained by the same USGS program.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

It is our opinion that, from a geotechnical viewpoint, the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. Detailed recommendations are presented in the following sections of this report.

Because subsurface conditions may vary from those encountered at the location of our borings, and to observe that our recommendations are properly implemented, we recommend that we be retained to 1) Review the project plans and structural calculations for conformance with our report recommendations and 2) Observe and test the earthwork and foundation installation phases of construction.

3.2 GEOLOGIC HAZARDS

We reviewed the potential for geologic hazards to impact the site, considering the geologic setting, and the soils encountered during our investigation. The results of our review are presented below:

- Fault Rupture - The site is not located in an Alquist-Priolo Earthquake Fault Zone where fault rupture is considered likely (California Division of Mines and Geology, 1976). Therefore, active faults are not believed to exist beneath the site, and the potential for fault rupture to occur at the site is considered low, in our opinion.

- Ground Shaking - The site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30 to 50 year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards.

- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the favorable condition of the underlying shallow rock, the likelihood of significant damage to the structure from differential compaction is nil.

- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground

settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. The soils at the site are leaf litter over shallow. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is nil.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including, topsoil, roots, vegetation, designated utility lines, etc., should be cleared from building areas. The actual stripping depth required will depend on site usage prior to construction, and should be established by the Contractor during construction. Topsoil may be stockpiled separately for later use in landscaping areas.

3.3.2 Surface Drainage

The finish grades should be designed to drain surface water away from foundations areas, to suitable discharge points. Slopes of at least 5 percent within 10 feet (as space permits) of the structures are recommended. Ponding of water should not be allowed adjacent to the structure. We recommend that all downspouts be connected to buried solid pipes that convey water to a safe location away from the house.

3.4 FOUNDATIONS

We recommend that the foundation be designed as conventional continuous spread footings, bearing in the sandstone. Footings should have a minimum width of 12 inches, and extend at least 6 inches into the sandstone.

Footings should be designed for allowable bearing pressures of 3,000 pounds per square foot for dead plus live loads, with a one-third increase allowed for total loads including wind or seismic forces.

All footings located adjacent to utility lines or other footings should bear below a 1:1 plane extended upward from the bottom edge of the utility trench or footing. All continuous footings should be reinforced with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. Our representative should observe the footing excavations prior to placing reinforcing steel to see that they are founded in suitable materials and have been properly cleaned.

3.4.1 Lateral Loads

A passive pressure equivalent to that provided by a fluid weighing 300 pcf and a friction factor of 0.3 may be used to resist lateral forces and sliding against spread footing foundations. These values include a safety factor of 1.5 and may be used in combination without reduction. Passive pressures should be disregarded for the uppermost 12 inches of foundation depth, measured below the lowest adjacent finished grade, unless confined by concrete slabs or pavements. However, the pressure distribution may be computed from the ground surface.

3.5 CONSTRUCTION OBSERVATIONS AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.

4. LIMITATIONS

This report has been prepared for the exclusive use of the property owners for specific application in developing geotechnical design criteria for the currently planned construction located at 13700 Skyline Boulevard in Woodside, California. We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our study; the currently planned improvements; review of previous reports relevant to the site conditions; and laboratory results. In addition, it should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during a study of this type. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.

5. REFERENCES

Borchardt, G. and Toppozada, T.R., 1996, Relocation of the "1836 Hayward Fault Earthquake" to the San Andreas Fault, Abstracts, American Geophysical Union Fall Meeting, December, San Francisco.

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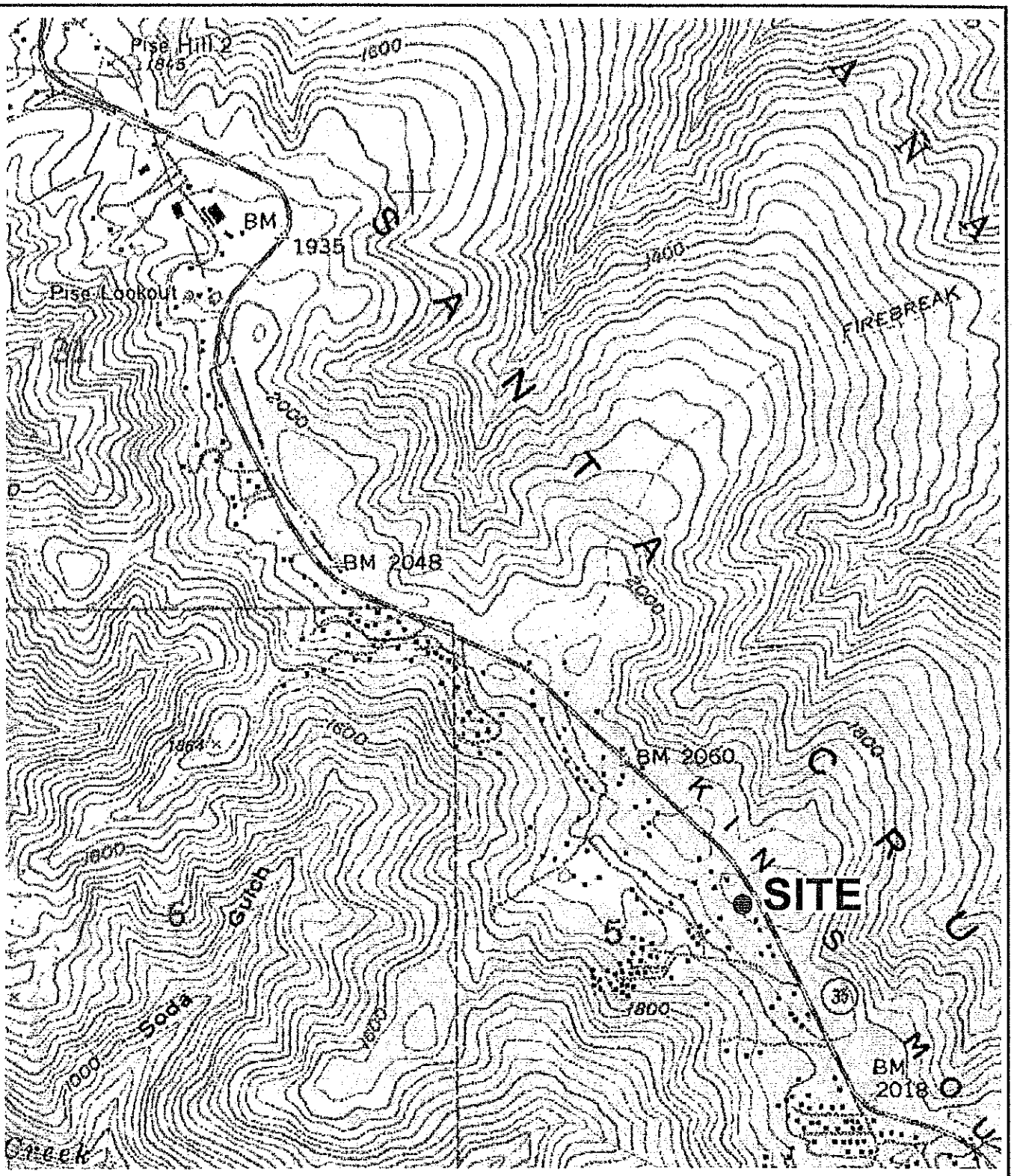

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Figure	1
Date:	1/11/17
Job No.:	16-131

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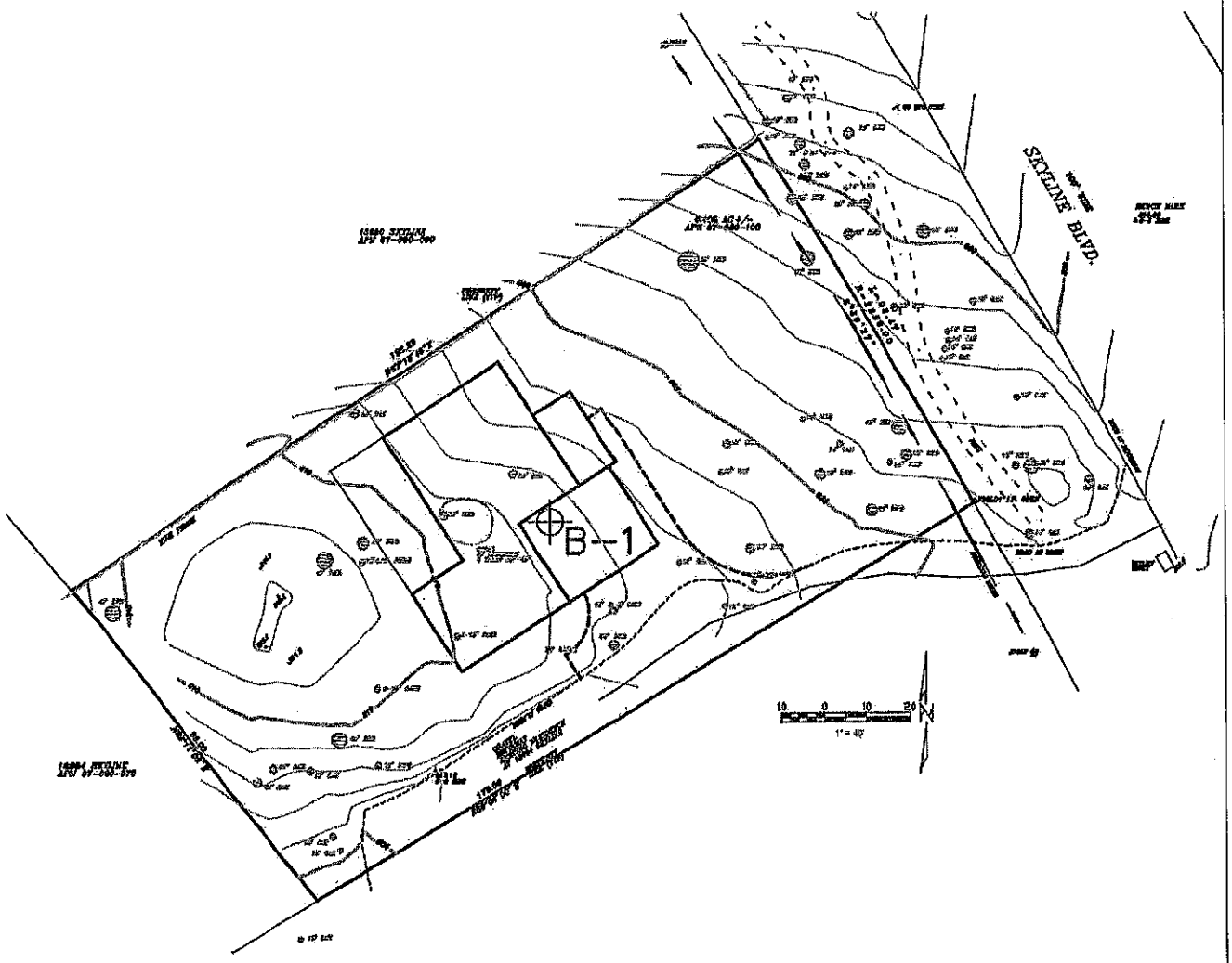
Location Map

Cerini Property, 13700 Skyline Blvd., Woodside



1"=40'

Explanation

B--1
Soil Boring Drilled 5-20-16

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Figure	2
Date:	1/11/17
Job No.:	16-131

Site Map
Cerini Property, 13700 Skyline Blvd. Woodside

APPENDIX A

SUBSURFACE STUDY

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the study. The samples were taken to the laboratory where they were carefully observed and classified in accordance with the Unified Soil Classification System. The logs of our borings, as well as a summary of the soil classification system, are attached.

Several tests were performed in the field during drilling. The standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. The standard penetration resistance is the number of blows required to drive a standard split spoon sampler the last 12 inches, and is recorded on the boring logs at the appropriate depth. Use of the standard split spoon sampler defines a Standard Penetration Test (SPT), and yields an SPT-equivalent blow count. A modified California (Mod-Cal) sampler and a 2" outside-diameter sampler were also used, which result in blow counts that are higher than an SPT-equivalent blow count, due to the other sampler's larger diameters. For analyses, it is normal practice to reduce the blow counts from the larger samplers to correspond to an SPT-equivalent blow count. The blow counts from the larger diameter samplers are uncorrected on the logs. The results of these field tests are also presented on the boring logs.

The boring logs and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and groundwater levels at other locations may differ from conditions at the locations where sampling was conducted. The passage of time may also result in changes in the subsurface conditions.

Project Name	Project Number
Cerini	16-131

Location: Center of House Site

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Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Cont. sampling	4"	7'	1.7'	5.3'	--	--

Boring No.	B-1
Page	1 of 1
Date(s)	5/20/16

Drilling Company: Access Soil Drilling

Logged By: C. Kissick

Type of Drill Rig: N/A(Cont. Sampling)

Type of Sampler(s): MC, 2.5", SPT

Hammer Weight and Fall: 140 lb, 30"

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0' - 1.7': Leaf litter		CL	2 3 5 8	1	MC	
	1.7' - 7': Sandstone: yellowish brown; extremely weak; highly weathered.			8 13 12 14	2	2.5"	
5				12 11 13 16	3	SPT	
				26 37	3	SPT	
	Bottom at 7'; no groundwater.						
10							
15							
20							

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL
			Cu < 4 AND/OR 1 > Cc > 3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN SANDS < 5% FINES	Cu > 6 AND 1 < Cc < 3	SW	WELL-GRADED SAND
			Cu < 6 AND/OR 1 > Cc > 3	SP	POORLY-GRADED SAND
		SANDS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS > 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT < 50	INORGANIC	PI > 7 AND PLOTS > "A" LINE	CL	LOW-PLASTICITY CLAY
			PI > 4 AND PLOTS < "A" LINE	ML	LOW-PLASTICITY SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT > 50	INORGANIC	PI PLOTS > "A" LINE	CH	HIGH-PLASTICITY CLAY
			PI PLOTS < "A" LINE	MH	HIGH-PLASTICITY SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK COLOR, ORGANIC ODOR		PT	PEAT

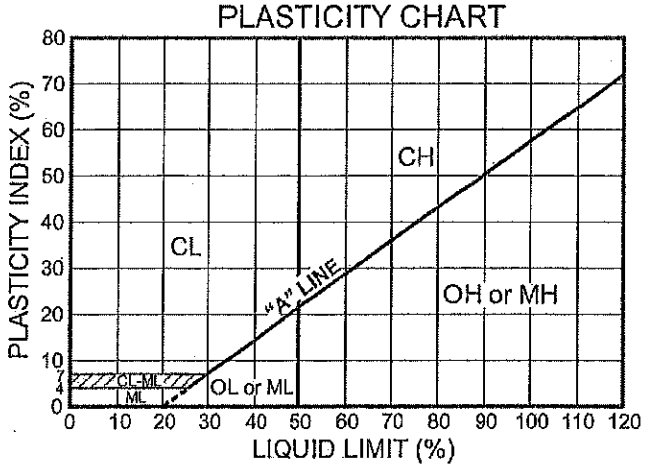
NOTE: $Cu=D_{60}/D_{10}$

$Cc=(D_{30})^2/(D_{10}+D_{60})$

BLOW COUNT

THE NUMBER OF BLOWS OF THE HAMMER REQUIRED TO DRIVE THE SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE. THE NOTATION 50/4 INDICATES 4 INCHES OF PENETRATION ACHIEVED IN 50 BLOWS.

PLASTICITY CHART



SAMPLE TYPES

B	BULK SAMPLE
ST	PUSHED SHELBY TUBE
SPT	STANDARD PENETRATION
MC	MODIFIED CALIFORNIA
P	PITCHER SAMPLE
C	ROCK CORE

ADDITIONAL TESTS

CA - CHEMICAL ANALYSIS
CN - CONSOLIDATION
CP - COMPACTION
DS - DIRECT SHEAR
PM - PERMEABILITY
PP - POCKET PENETROMETER
Cor. - CORROSIVITY
SA - GRAIN SIZE ANALYSIS
(20%) - (PERCENT PASSING #200 SIEVE
SW - SWELL TEST
TC - CYCLIC TRIAXIAL
TU - CONSOLIDATED UNDRAINED TRIAXIAL
TV - TORVANE SHEAR
UC - UNCONFINED COMPRESSION
WA - WASH ANALYSIS
▽ - WATER LEVEL AT TIME OF DRILLING AND DATE MEASURED
▼ - LATER WATER LEVEL AND DATE MEASURED

LEGEND TO SOIL DESCRIPTIONS

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FIGURE A-1