Exhibit M – Geologic Hazards Permit

Land Use Planning Division
1600 SE 190th Ave, Ste 116
Portland OR 97233
Ph: 503-988-3043 Fax: 503-988-3389
multco.us/landuse

GEOLOGIC HAZARDS PERMIT (GHP) Form 1:
GEOTECHNICAL RECONNAISSANCE AND STABILITY PRELIMINARY STUDY

Note: Response to each question below must be completed or verified by a Certified Engineering Geologist or Geotechnical Engineer, including a State of Oregon Registration Stamp and Number in the space provided on page four. The GHP Form 1 addresses Multnomah County Code Section 39.5085(C)(3)(c); 38.5515(C)(3)(c), Geologic Hazards Permits.

Site Address: 12424 NW SPRINGVILLE RD, PORTLAND.

Legal Description: R961160130, R961160590, & R961150770.

Property Owner's Name: SCOTT & STACY REED

Firm Preparing Report: RAPID SOIL SOLUTIONS

Address: 3715 SW PLUM ST

City: PORTLAND **State:** OR **Zip:** 97219

Preparer's Name: MIA C MATHEW, PE GE

Phone Number: 503-816-3689

GENERAL PROPERTY INFORMATION

1. a. Maximum Slope on Property: 24% Area in which it is located: NE ALONG FLAT RISE
   Average Slope of Property: 13.5°

   b. Are there any wetlands or streambeds on the property? (Please Circle) Yes (No)
   If yes, please show on topographical survey or sketch.

   c. Volume of soil or earth material disturbed, stored, disposed of or used as fill: 2.44 AC

   d. Total area of proposed ground disturbance:
   _____ (square feet) _____ (acres)

CUT = 9330 CY
FILL = 5220 CY
NET = 4110 CUT REMOVED OFF SITE

Were building plans considered when completing this form? (Please Circle) Yes No
If yes, please note the author and date the plans were prepared.

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2. What is the general topography of the property? Please attach a topographic survey or sketch with pertinent notes.

SEE ATTACHED SHALLOW SLOPE
AREAS ARE NEG INCL

3. Are there any visible signs of instability or other potentially adverse site features (Landslides, slumps, mud flow, creep, ravines, fills, cuts, seeps, springs, ponds, etc.) within the surrounding area for a minimum distance of 100 feet beyond the subject property boundaries? Describe and indicate on attached topographic survey or sketch.

NO

4. Is any earthwork proposed in connection with site development?

(Please Circle) Yes No

If yes, please indicate depth and extent of cuts/fills; describe fill types.

CUT 9330 CY SEE DRIVEWAY GRADING PLAN/MAP
FILL 5220 CY
NET = 4110 REMOVED OFF SITE

5. In your opinion, will the proposed earthwork cause potential stability problems for the subject and/or adjacent properties?

(Please Circle) Yes No

IF YES, EXPRESS PROBABILITY:

(Please Circle) Very Probable Possibly Possible, but remote

If Very Probable or Possibly, please explain.

6. In your opinion, will the proposed development (structures, foundations, parking area, streets, etc.) create potential stability problems for the subject and/or adjacent properties?

(Please Circle) Yes (No)

IF YES, EXPRESS PROBABILITY:

(Please Circle) Very Probable Possibly Possible, but remote

If Very Probable or Possibly, please explain.

7. In your opinion would the subsurface disposal of sewage effluent on the site (i.e., drain fields) have an adverse affect on stability of the site or adjacent area?

(Please Circle) Yes (No)

IF YES, EXPRESS PROBABILITY:

(Please Circle) Very Probable Possibly Possible, but remote

If Very Probable or Possibly, please explain.

8. If answer is Very Probable or Possibly to questions 4 or 5, is it your opinion, on the basis of a visual evaluation, that adequate stability might be achieved by preferred siting of the development, alternative foundation support, earthwork, drainage, etc.?

(Please Circle) Yes No

If yes, please explain. N/A

9. Do you recommend additional geotechnical studies (i.e., mapping, testing pits or borings, stability analysis, etc.) prior to site development?

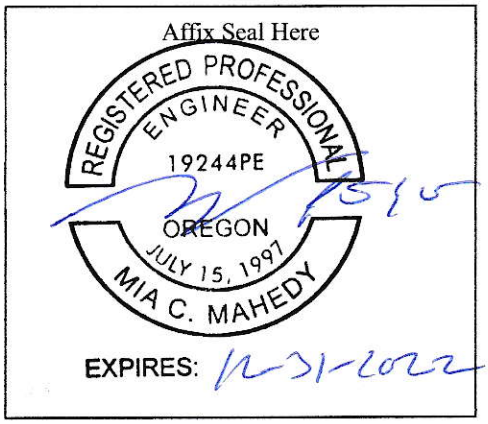
(Please Circle) Yes No

If yes, please explain.

By signing and affixing the required stamp below, the Certifying Engineering Geologist or Geotechnical Engineer certifies that the site is suitable for the proposed development.

Signature _____

Date 9/9/22

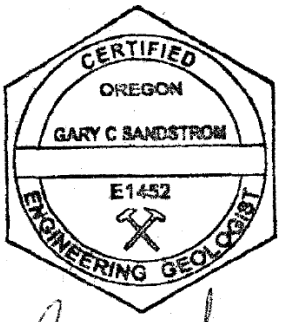


Geotechnical Report &
Landslide Hazard Study

12424 NW Springville Road
Portland, Oregon

Scott Reed
Portland, OR

Updated 30 April 2018
Updated 29 March 2019
Updated 9 August 2022



Gary Sandstrom, EG.

EXPIRES: 12-31-2022

Rapid Soil Solutions LLC
3915 SW Plum St
Portland, OR
503-816-3689

PROJECT AND SITE DESCRIPTIONS

Introduction

Rapid Soil Solutions (RSS) prepared this Landslide Hazard Study and Geotechnical Engineering report. The site is located in unincorporated Multnomah County west of Portland, Oregon. The projects location is shown on Figure 1 in Appendix A. The proposed improvements are shown an early site plan figure 2 which shows the locations of the test pits.

SITE CONDITIONS

Surface Conditions

The project site is the former Burger Dairy Farm located on the south side of Springville Road about a mile west of NW Skyline Boulevard on the west slopes of the Tualatin Mountains below Portland Forest Park, approximately 2 miles southwest of the St. Johns Bridge (see Google Location Map). It is north of Cedar Mill and Bonny Slope, south of Germantown Road and about a mile northwest of Skyline Memorial Gardens. The approximately 84-acre site includes tax lot 02800 in T1N, R1W, Section 16 SE ¼ and tax lot 0600 in T1N, R1W, Section 15 SW ¼ (Oregon Map website and the Portland Maps website). The owner plans to resume operations as a dairy farm after replacing a demolished farmhouse near the northeast corner of lot 2800. The highest elevation on site is approximately 900 feet at the northeast corner of lot 600 and the lowest elevation is approximately 485 feet at the southwest corner of lot 2800. The proposed home site is at an elevation of approximately 570 feet and the culvert a few hundred feet east-southeast of the proposed home site is at approximately 530 feet elevation. Tax lot 2800 is bordered on the south by relatively dense developed residential properties in Washington County. Several houses are located on the north side of Springville Road in the vicinity of the proposed home site. Relatively undeveloped rural properties border the site in other directions (Multnomah County).

The project property is currently unoccupied (Google Earth photos show old farm buildings were demolished by June, 2007 and much of lot 600 was logged in early 2006 or late 2005) The proposed multi-story farmhouse will have a daylight basement at the same location as the demolished farm buildings, on a bench near the north margin of tax lot 2800 (see Site Plan). Slopes below the bench to the south are approximately 24%, or about 13.5 degrees, becoming shallower about 200-300 feet down slope. An infiltration swale and/or pond is planned opposite the driveway to the north and east of the house, and barn facilities are planned in a subsequent phase near the southern margin of two lots. Foundation, gutter and interceptor drains will be installed with tight-lined discharge to the infiltration swale/pond east of the proposed house and long-range plans include watering cattle with spring or pond water collected on site.

Bannister Creek (a tributary of Bronson Creek) flows generally southwestward near the eastern margin of tax lot 600 and an un-named tributary of Bronson Creek traverses the site in a southwesterly direction a few hundred feet southeast of the proposed residence location. Two other southwesterly drainages traverse tax lot 600 between these two above-mentioned drainages, making a total of four rather substantial drainages (see LIDAR image figure 3). All drainages on the project site flow into the Bronson Creek.

The owner reports he owns a water rights document to the property that is approximately 100 years old.

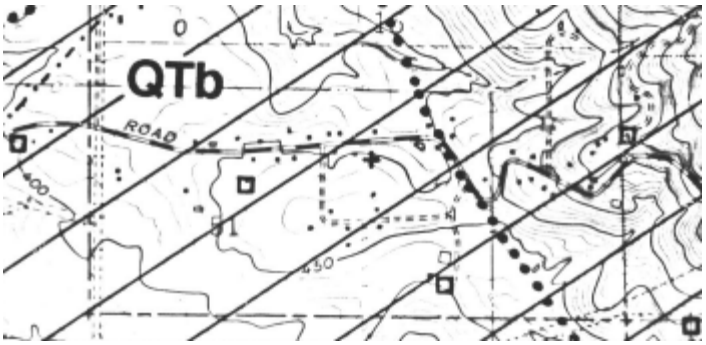
Regional Geology

The slopes underlying the project site are classified in the geologic literature as the mid-Miocene-age Winter Water Member of the Columbia River Basalt Group with a relatively recent, thin surficial layer of loess (Portland Hills Silt - see geologic maps from O-12-02, O-08-06, O-90-02, and B60). A contact with the overlying Sentinel Bluffs Member is mapped generally along Springville Road in the eastern half of lot 600. The Natural Resources Conservation Service soils website classifies underlying soils as derived from loess (Portland Hills Silt).

The Portland West Hills/Tualatin Mountains are a northwest/southeast trending uplands generally bounded by the Portland Hills Fault to the east along the Willamette River and bounded on the west by the Oatfield Fault. Bedrock is generally a series of Miocene-age volcanics (Columbia River basalts) erupted from vents in eastern Washington and flowed generally southwestward down the Columbia River channel into the Pacific Ocean, causing the Columbia River to migrate northward as older channels filled with basalt. The ancestral Cascade volcanoes deposited sedimentary/erosional debris (common alluvial fan deposits including the Troutdale formation) over the basalts. Continued building of the Coast Range and Cascade Mountains caused by sub-duction of the Pacific Plate beneath the North American Plate resulted in compressional down-warping of the Willamette and Tualatin River Valleys and uplift of the Tualatin Mountain block/anticline. Relatively recent (Quaternary) deposits of windblown Portland Hills Silt (loess) and Willamette Silt composed of catastrophic flood sediments (Missoula Flood deposits less than about 15 thousand years old) mantle the older materials in most of the Portland metropolitan area. Occasional recent volcanics (Boring Lavas less than 1.5 million years old) have formed features such as Mt. Scott, Mt. Sylvania, Cornell Mountain, and a small crater approximately 2000 feet southwest of the proposed homesite. Drainages on the west slopes of the Tualatin Mountains are commonly oriented at approximate right angles to the normal faults that formed the mountains (Oatfield, Portland Hills and East Bank Faults)

O-90-02 and O-08-06 map the Oatfield Fault traversing the southwest corner of tax lot 2800 in a northwesterly direction, downthrown to the southwest**.** Much of the surface south and southwest of the Oatfield Fault in the site vicinity is mapped as landslide debris, or massive coalesced debris fans. Three small debris fans are mapped in the creek drainages immediately east and northeast of the proposed house location above the Oatfield Fault. A landslide is mapped near the middle of tax lot 600 several hundred feet southeast of the proposed house location. See figure 3. There are no known mapped landsides on the project site. Soil maps are shown below.

LIDAR imaging of the site vicinity figure 3 shows several bowl-shaped scarps with associated down slope debris channels above the project site.



Qtb – Boring lava's O-90-02

Field Exploration and subsurface conditions
A total of three (3) test pits were excavated with an excavator. The locations of the tets pits are shown on figure 2 in Appendix A. A registered professional engineer observed the excavation and logged the subsurface materials. Boring log detailing materials encountered is in Appendix B. The logs were created using the Unified Soil Classification and Visual Manual Procedure (ASTM-D 2488). Samples were transported to the laboratory for further classification in seal bags. Please see Appendix B for further laboratory results. The soil conditions were stiff to very stiff silty CLAY to a depth of 6feet. Basalt layer was not encountered. Moisture contents were 22.2% to 28.4%. Groundwater was not encountered.

Foundation Design
The building foundations can be installed into the silty CLAY. This depth may be locally variable and should be confirmed by a geotechnical engineer or their representative at the time of construction. Construction of the new house with a basement will mitigate possible soil instability that surrounds the project site.

Continuous wall and isolated spread footings should be at least 16 and 24 inches wide, respectively. The bottom of exterior footings should be at least 16 inches below the lowest adjacent exterior grade. The bottom of interior footings should be at least 12 inches below the base of the floor slab.

Footings placed into the stiff CLAY shall be designed for an allowable bearing capacity of 1,500 *pounds per square foot* (**psf**). If a greater bearing pressure is required then removed 1ft of soils and replace with compacted ¾" minus rock for 3,000sf.

The recommended allowable bearing pressure can be doubled for short-term loads such as those resulting from wind or seismic forces.

Based on our analysis the total post-construction settlement is calculated to be less than 1 inch, with differential settlement of less than 0.5 inch over a 50-foot span for maximum column, perimeter footing loads of less than 100 kips and 6.0 kips per linear foot.

Lateral loads on footings can be resisted by passive earth pressure on the sides of the structures and by friction at the base of the footings. An allowable lateral sliding resistance of 150 *pounds per cubic foot* (**psf/f**) below grade may be used. Adjacent floor

slabs, pavements or the upper 12-inch depth of adjacent, unpaved areas should not be considered when calculating passive resistance.

Fills shall be placed on level benches in thin lifts and compacted to a dry density of at least 92% of its Maximum Dry Density (MDD) as determined by the Modified Proctor Test (ASTM D-1557 if rock is used, if native soil is used 95% of ASTM D698). Compaction testing shall take place every 18in or every 500yds. A minimum of three days prior to the placement of any fill, please supply Engineer with a 30-pound sample (approximately a full 5-gallon bucket) of any soil or base rock to be used as fill (including native and import materials) for testing and approval. Native soil can be used to build the berm around the proposed pond as long as it is within its optimum moisture content.

Demolition

Removal of the house to firm and non-yielding sub-grade shall be verified by the engineer. Backfilling to final sub-grade shall be accomplished as noted above for site fills. Please allow for scheduling 24 hours notice for site inspection and 2 days for proctor generation and compaction. Material testing of the backfill material sooner than 48 hours carries additional charge to rush the proctor.

Seismic Design Criteria

The seismic design criteria for this project found herein is based on the Oregon Structural Specialty Code *OSSC 2011*, Section 1615 and from the USGS Earthquake Hazards Program. A summary of seismic design criterion below using a ASCE 7-16 and a lat of 45.5665 and long -122.8062, where null= see section 11.4.8

	Short Period	**1 Second**
Maximum Credible Earthquake Spectral Acceleration	Ss = 0.911g	S1 = 0.417 g
Adjusted Spectral Acceleration	Sms = 1.094	Sm1 = null
Design Spectral Response Acceleration Perimeters	Sds = 0.729	Sd1= null

Retaining Walls

Any unrestrained retaining walls required for the proposed construction should be designed to resist an active pressure of 40 pounds per cubic foot (pcf) Equivalent Fluid Weight (EFW) in supporting soils with retained slopes less than 4:1 (H:V). Also 50pcf is for at rest pressure on restrained walls. An active pressure of 50 pcf EFW should be used for retained slopes with an inclination of 2:1(H:V). Where retained slopes are greater than 4:1, though less than 2:1, the designer should linearly interpolate between 35 and 50 pcf EFW. All retaining walls should also be designed to account for any surcharge loads (e.g. footings, vehicles, etc.) that are applied to the ground surface within a zone extending away from the back of the wall a distance equal to the total height of the wall. Passive earth pressure is 300pcf. All retaining walls shall have drain lines installed. Back filling retaining shall follow compaction requirements found in the foundation section of this report.

If native soils are replaced with a foot of compacted ¾” minus rock then friction coefficients can be increased. See below table.

For embedded building walls, a superimposed seismic lateral force should be calculated based on a dynamic force of $5H^2$ pounds per lineal foot of wall, where H is the height of the wall in feet and applied at 1/3 H from the base of the wall.

Engineering values summary

Bearing capacity soil	1,500psf
Bearing capacity of rock	3,000psf
Friction coefficient soils	0.30
Friction coefficient rock	0.45
Active pressure	40pcf
Passive pressure	300pcf

Slope Stability and other Geological Hazards

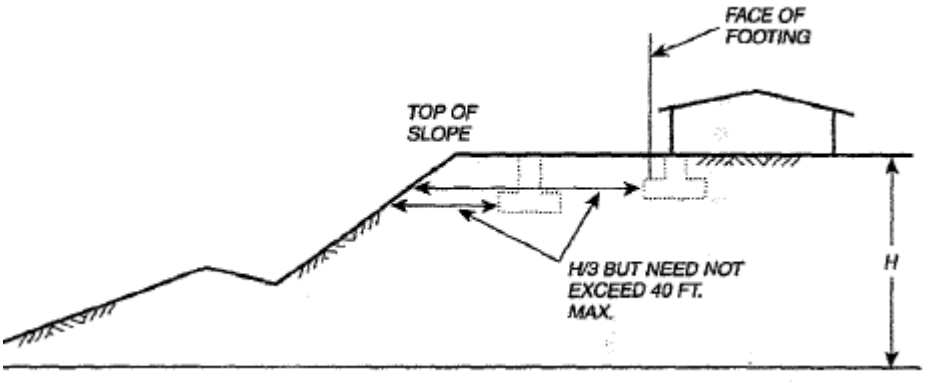
The project area is classified by the City of Portland (Portland Maps Website) as having some steep slopes (>25%) with potential for landslides, and moderate to high seismic risk.

Drainages on the west slopes of the Tualatin Mountains are commonly oriented at right angles to the normal faults – the Oatfield Fault at this location. The project site is on the upthrown side of the Oatfield Fault (which crosses the southwest corner of the site approximately 1400 feet from the homesite) and several southwest trending creeks tend to erode up-gradient to the northeast, creating a constant erosion hazard. SLIDO images show landslide areas just above Springville Road near the northern margin of tax lot 600 (likely the contact between the Sentinel Bluff and Winterwater basalts), but nothing on the project property. The drainage immediately east of the proposed house location has a mapped debris flow at/near the culvert location (O-12-02 and O-08-06) plus other debris flows/landslides up-gradient in that same drainage near Springville Road. During our reconnaissance soils adjacent to the culvert appeared saturated and covered with wetland vegetation. LIDAR imaging of that drainage shows a slight bowl shape east and north of the house location, and the bowl shape was noticeable during the hazard recon. No indications of active instability (such as tension cracks, scarps, springs, ponds, hummocky terrain, wetland vegetation) were observed in the immediate vicinity of the proposed residence. The small basin immediately northeast of the proposed house (site of proposed parking and turnaround space) has relatively high groundwater (a seep was encountered in TP-3 at 3.5 feet). Springs are common in the site vicinity.

A site-specific seismic evaluation of the project site was not part of the scope of work. IMS-15 rates the site vicinity as having a peak horizontal acceleration of 0.8 to 0.9 g, capable of experiencing violent shaking and sustaining considerable damage in specially designed structures; well-designed frame structures thrown out of plumb, great damage in substantial buildings with partial collapse. The potential for earthquake related soil hazards, such as liquefaction, is remote and the site does not have the potential for a seiche to occur.

The NRCS Pacific Northwest Soils website mentions the possible existence of a fragipan layer in the site vicinity. A fragipan layer is a "hardpan" layer found at depth of 20 to 30 inches that can act as an aquitard (inhibiting downward infiltration of water). These layers can result in flooded basements even on hillcrests unless foundations are properly drained. The project site is not located within a 100-year floodplain and is not susceptible to flooding.

Given the slopes surrounding the house site vary from 13 to 24% the house shall follow the typical setback requirement from IBC and OSSC. See below figure 1805.3.1



Temporary cut slopes
There is sufficient room on the project with to cut all planned excavations for the proposed basement at a 2H:1V cut. Backfilling proposed cut slopes shall follow procedure and testing requirements found in the foundation section.

Drainage
Bannister Creek flows generally southwestward near the eastern margin of tax lot 600 and an un-named tributary of Bronson Creek traverses the site in a southwesterly direction a few hundred feet southeast of the proposed residence location. Two other southwesterly drainages traverse tax lot 600 between these two drainages, making a total of four rather substantial drainages (see LIDAR image, figure 3).
According to the property owner drinking water is stored in a spring-fed tank near the north margin of tax lot 600, but this tank was not observed during the site recon. Flowing water was observed in a culvert a couple hundred feet southeast of the proposed house location, in the vicinity of the lowest of three debris flow deposits (the two other mapped debris flows are upstream of the culvert). Springs are common in the site vicinity between the crest of the Tualatin Mountains (Skyline Boulevard) and the western boundary (Oatfield) fault.

Roof downspouts can be directed into proposed pond as well as foundation drains that shall be fitted with a backflow protector if they drained into the proposed pond. Interceptor drains shall be placed around the home site and out flow can be directed to the new pond.

Conclusions

RSS went to the site on 4/27/18 to review the site conditions for any changes and found none. The seismic values have been updated as well as providing updated retaining wall information. The recommendations of the original report by RSS are still valid regarding construction.

It is our opinion that the subject site may be suitable for the proposed development if potential hazards are addressed as written in this report. The project site is generally underlain by materials classified in geologic literature as Portland Hills Silt overlying Columbia River Basalt. In Portland's West Hills, shallow landslide failure zones can occur within the Portland Hills Silt, at the top of the residual basaltic soil, or at the contact between basalt bedrock and overlying materials. Deeper global failure in the basalt bedrock along zones of weakness such as volcanic flow top material is also possible. LIDAR imagery shows the site vicinity is prone to relatively shallow landslides, commonly a rotational slump and subsequent downslope debris flow generating a bowl-shaped head scarp tapering downslope into a relatively straight and narrow debris channel and terminating downslope in a hummocky alluvial fan deposit. The watercourse a couple hundred feet southeast of the proposed residence is the kind of landslide feature described above. The headwall scarp of this landslide feature (likely situated in the Winterwater Basalt flow top) is generally above Springville Road north and northeast of the home-site, the bowl northeast of the home-site and the soils adjacent to the culvert east of the home- site are part of the associated channel and debris fan.

Relatively stiff Portland Hills Silt soil was encountered in test pits in the proposed house location at depths of less than four feet, but unsuitable wet/organic/soft soils overlie the competent sub-grade in places. Relatively shallow perennial groundwater should be expected in the basin immediately northeast of the house and possible presence of a fragipan layer could exacerbate drainage issues. Depth to basalt bedrock is unknown. Slopes immediately below the home-site measure approximately 24% or 13.5 degrees. The planned house will have a day light basement which will help mitigate the general weakness of Portland Hills Silt soil. Proper foundation and interceptor drains will help mitigate drainage issues resulting from high groundwater tables.

Head-ward erosion of drainages will continue, therefore steeper site slopes along the creek drainages should be protected with deep-rooted vegetation that will bind the soil and reduce erosion. Slopes immediately adjacent to Springville Road north of the project site are at the highest risk of instability in our opinion, and proposed development of wooded riparian zones, bio-swales and/or infiltration ponds/trenches would help mitigate erosion and also enhance water quality. Shallower slopes set back from the drainages should be suitable for grazing dairy cattle as planned.

This site is located in a geologic setting at relatively high risk for slope instability, and while engineering solutions may mitigate some hazards, the owner must accept some degree of risk. In our opinion the proposed development would not adversely impact the proposed site or adjacent properties if the recommendations of this report are followed.

Construction Observations

Satisfactory pavement and earthwork performance depends on the quality of construction. Sufficient monitoring of the activities of the contractor is a key part of determining that the work is completed in accordance with the construction drawings and specifications. I recommend that a geotechnical engineer observe general excavation, stripping, fill placement, and sub-grades in addition to base. Subsurface conditions observed during construction should be compared with those encountered during the subsurface explorations. Recognition of changed conditions requires experience. Therefore, qualified personnel should visit the site with sufficient frequency to detect whether subsurface conditions changes significantly from those anticipated.

Limitations

This report has been prepared for the exclusive use of the addressee, and their architects and engineers for aiding in the design and construction of the proposed development. It is the addressee's responsibility to provide this report to the appropriate design professionals, building officials, and contractors to ensure correct implementation of the recommendations. The opinions, comments and conclusions presented in this report were based upon information derived from our literature review, field investigation, and laboratory testing. Conditions between, or beyond, our exploratory borings may vary from those encountered. Unanticipated soil conditions and seasonal soil moisture variations are commonly encountered and cannot be fully determined by merely taking soil samples or soil borings. Such variations may result in changes to our recommendations and may require that additional expenditures be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such potential extra costs.

If there is more than 2years time between the submission of this report and the start of work at the site; if conditions have changed due to natural causes or construction operations at, or adjacent to, the site; or, if the basic project scheme is significantly modified from that assumed, it is recommended this report be reviewed to determine the applicability of the conclusions and recommendations.

The work has been conducted in general conformance with the standard of care in the field of geotechnical engineering currently in practice in the Pacific Northwest for projects of this nature and magnitude. No warranty, express or implied, exists on the information presented in this report. By utilizing the design recommendations within this report, the addressee acknowledges and accepts the risks and limitations of development at the site, as outlined within the report.

Appendix

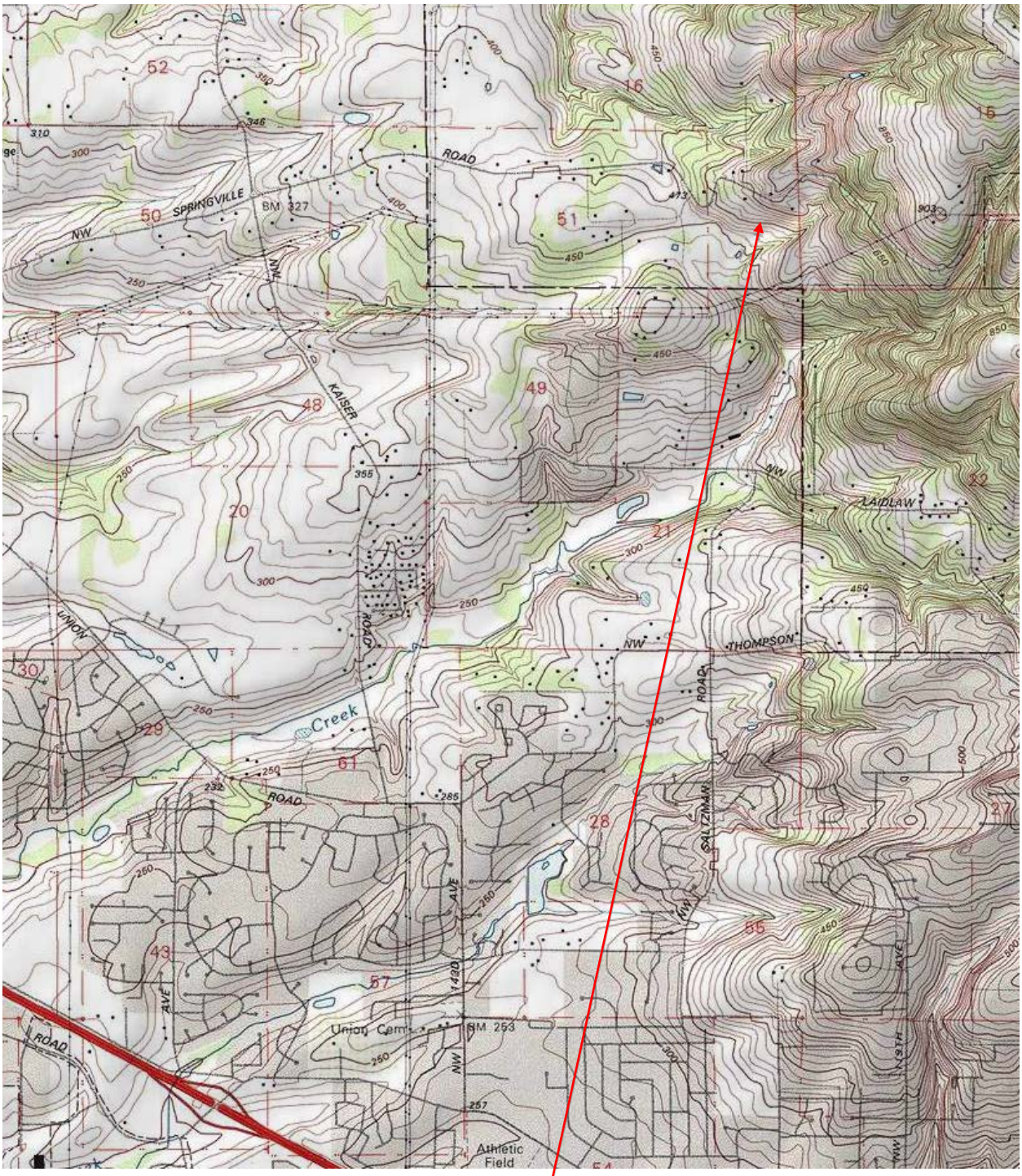


Figure 1- site location

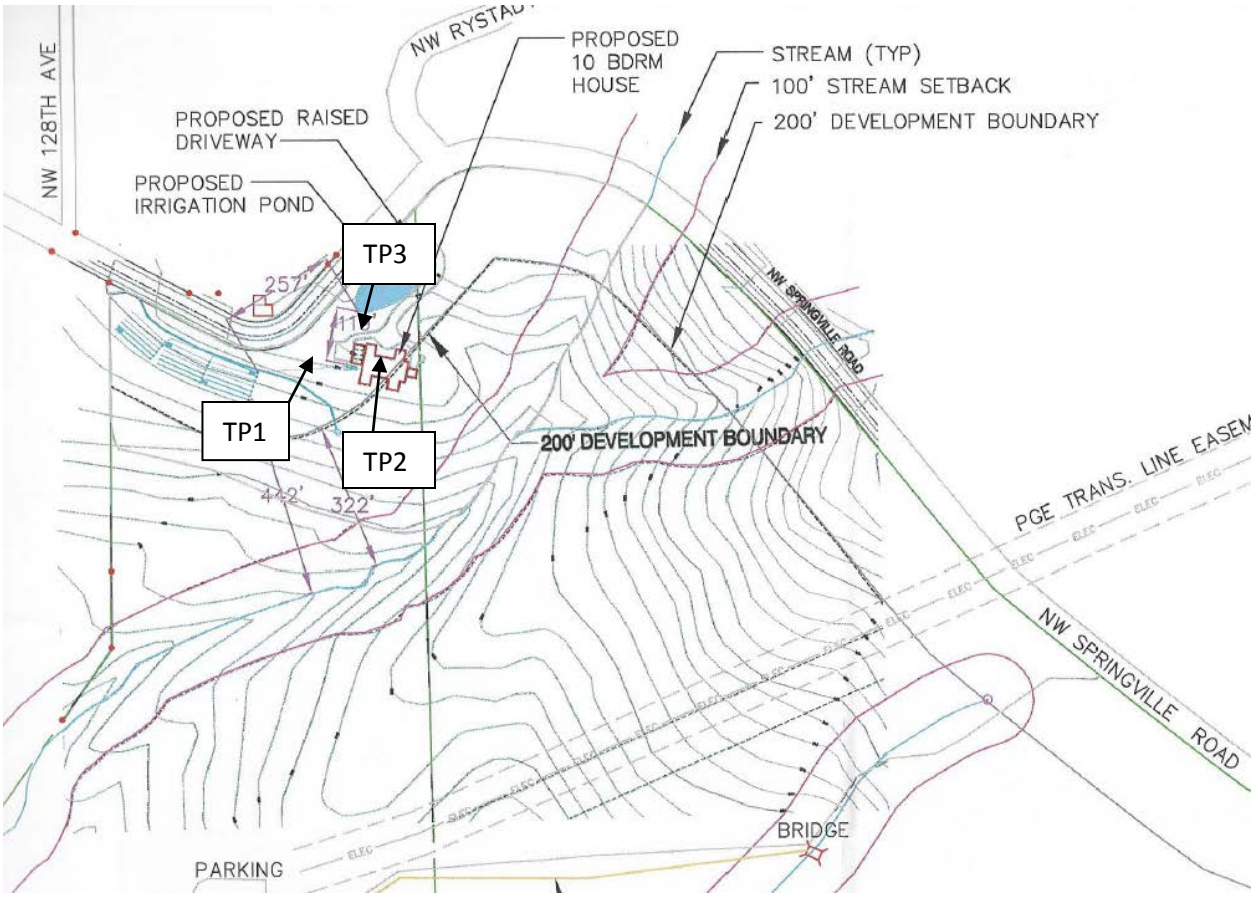
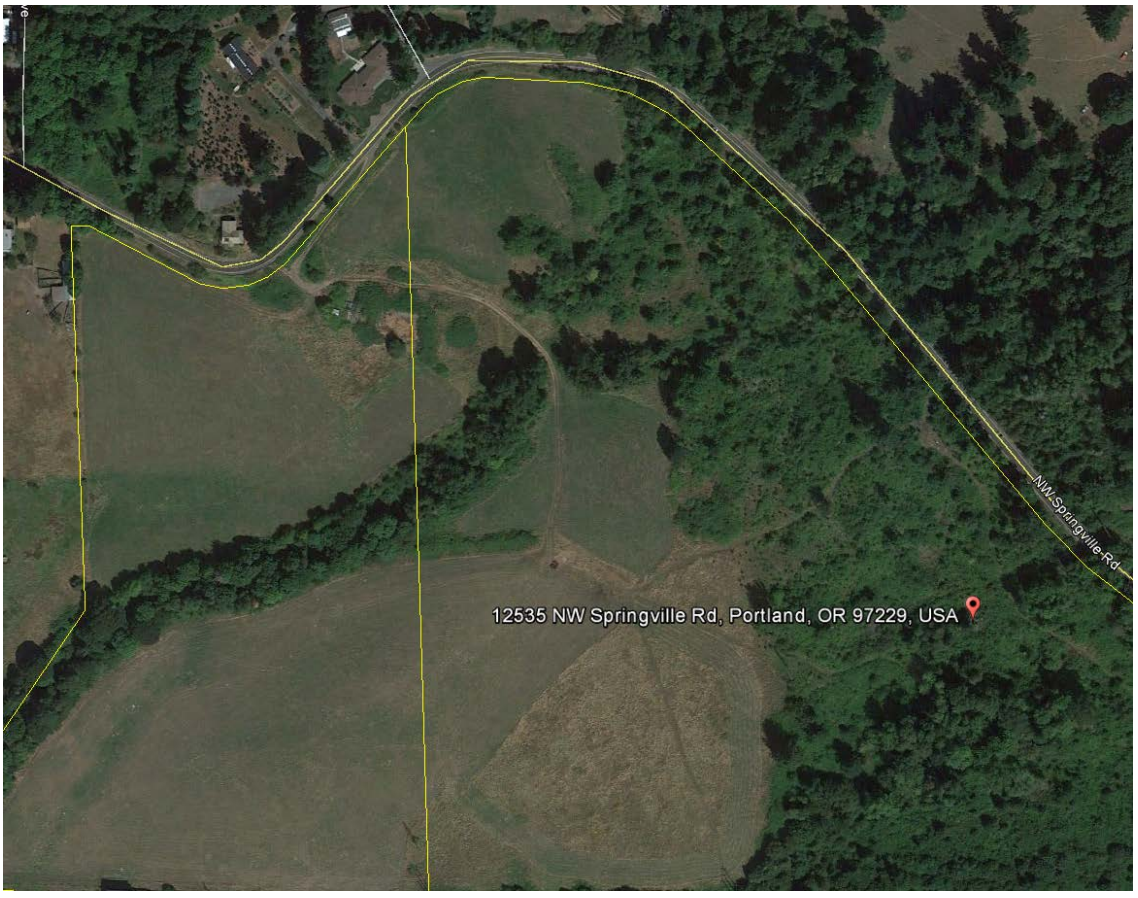


Figure 2- site plan and aerial with testing locations



12535 NW Springville Rd Vicinity

SLIDO-2

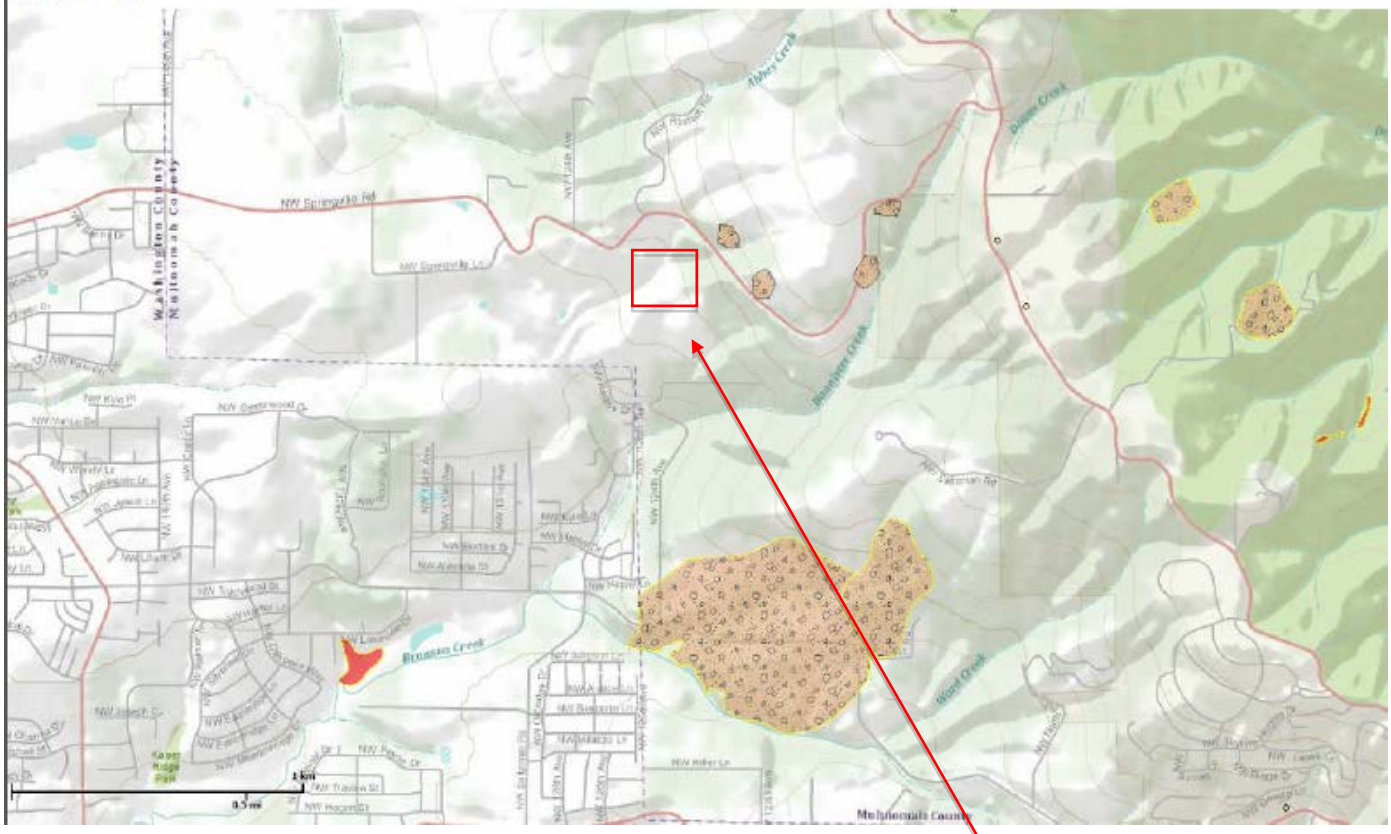
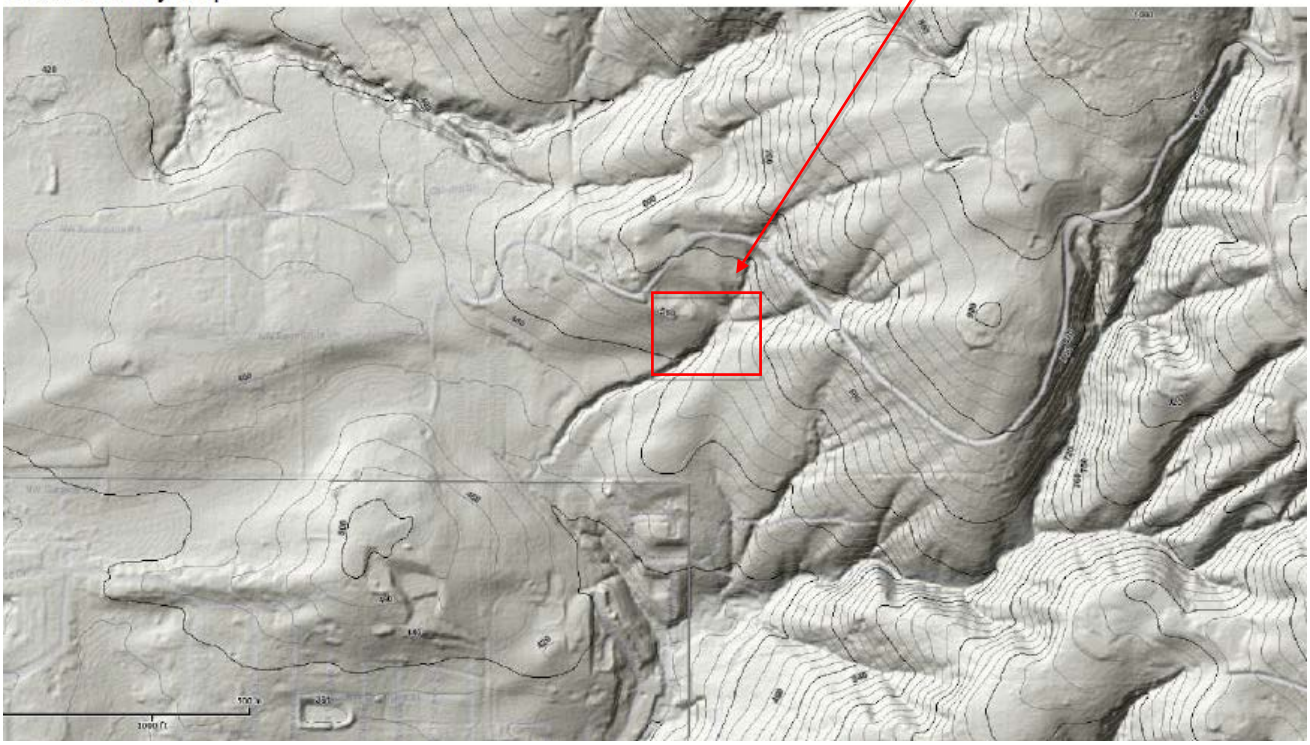


Figure 3- Hazards

Project site

12535 NW Springville Road

LIDAR Vicinity Map



503.443.3799

7409 SW Tech Center Dr, #145
Tigard, OR 97223
phn: 503-443-3799
fax: 503-620-2748

RAPID SOIL SOLUTIONS
3915 SW PLUM STREET
PORTLAND, OR 97219-6018

PROJECT: RSS 2014 LAB SERVICES
LOCATION: NW SPRINGVILLE ROAD
SAMPLE SOURCE: SEE BELOW

JOB NO: 14-4790
WORK ORDER NO: N/A
DATE SAMPLED: 1/23/14

MECHANICAL SIEVE ANALYSIS
GROUP SYMBOL, USCS (ASTM D-2487)

				Silt or	SAND								GRAVEL									COBBLES	
				Clay	Fine			Medium			Coarse		Fine				Coarse						
Location & Depth	USCS	LL	PI	#200	#100	#50	#40	#30	#16	#10	#8	#4	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	6"	Lab #
#1 @ 4'																							7165
#2 @ 3.5'		31	11																				7165
#3 @ 3.5'																							7165

PERCENT PASSING BY WEIGHT

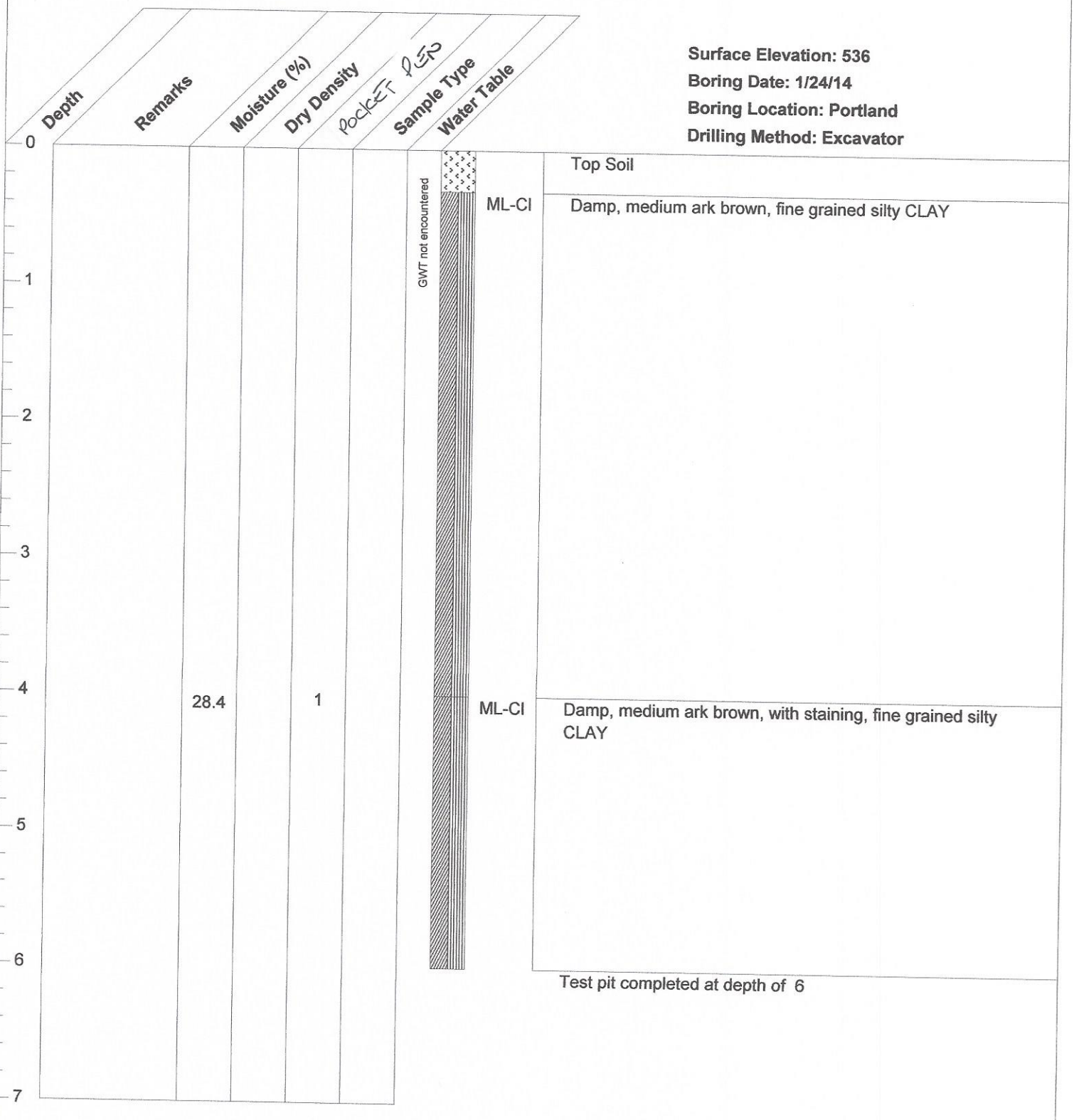
BORING		MC%
#1 @ 4'		28.4
#2 @ 3.5'		22.1
#3 @ 3.5'		27.4

DISTRIBUTED

JAN 27 2014

REVIEWED BY

TP#1



Surface Elevation: 536
Boring Date: 1/24/14
Boring Location: Portland
Drilling Method: Excavator

Top Soil

Damp, medium ark brown, fine grained silty CLAY

Damp, medium ark brown, with staining, fine grained silty CLAY

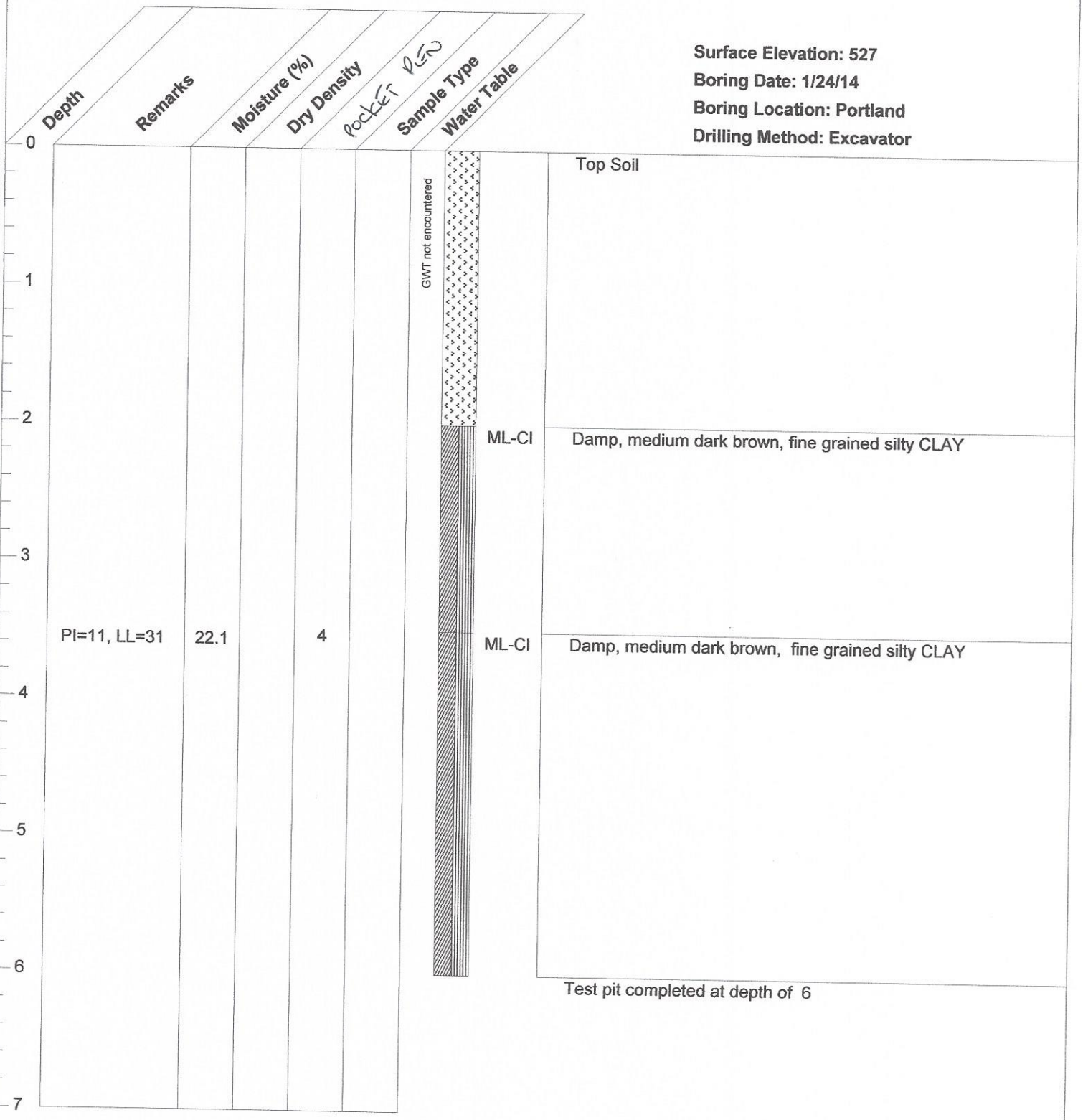
Test pit completed at depth of 6

SuperLog CivilTech Software, USA www.civiltech.com File: D:\Users\Mia\Desktop\MIA WORK\2014\Reports\Geotech\TP 1.log Date: 1/29/2014

LOG OF BORING

Rapid Soil Solutions	**NW Springville Road** **Project No. Reed Residence**	**Plate 1**

TP#2



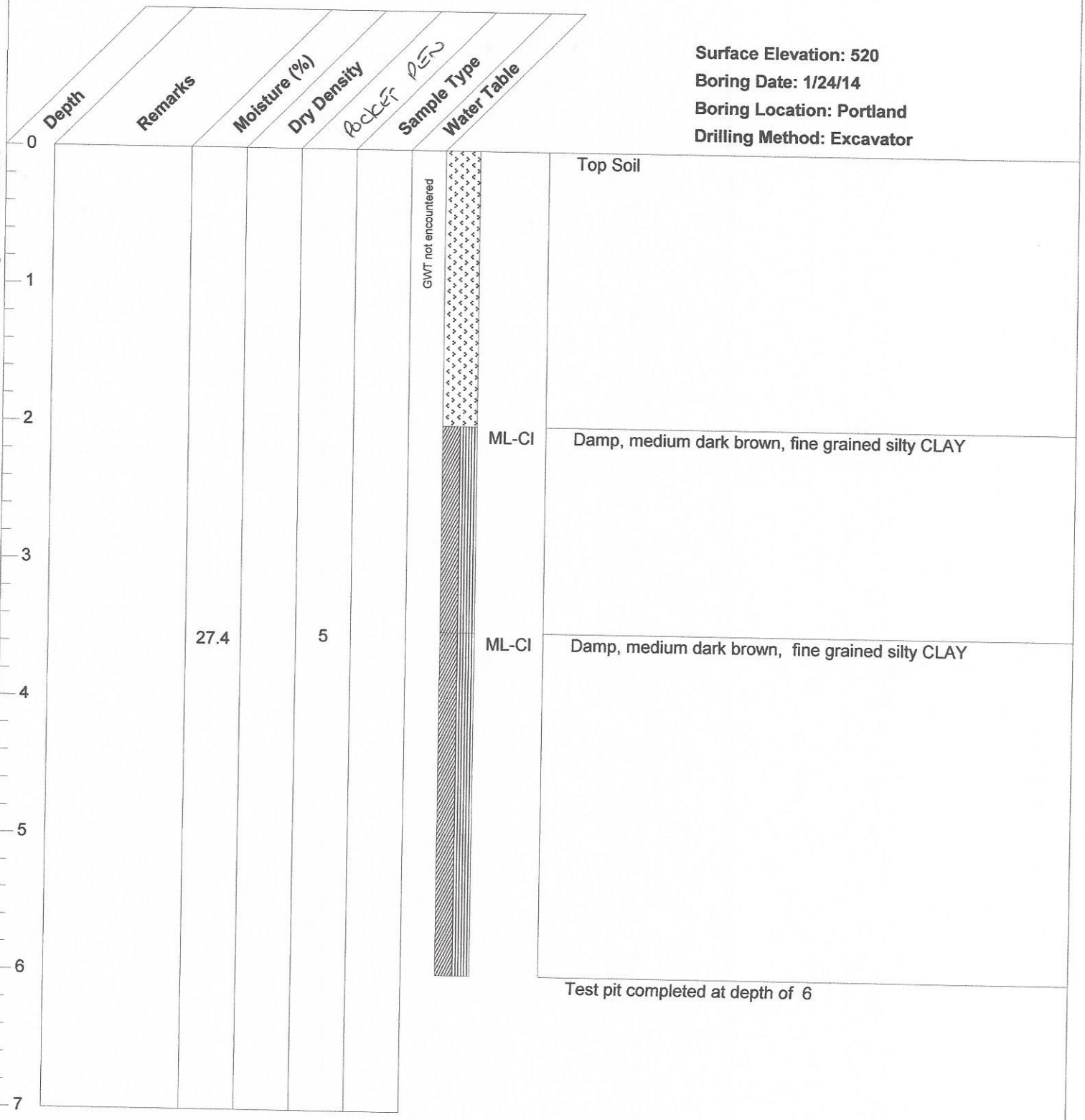
Surface Elevation: 527
Boring Date: 1/24/14
Boring Location: Portland
Drilling Method: Excavator

SuperLog CivilTech Software, USA www.civiltech.com File: D:\Users\Mia\Desktop\MIA WORK\2014\Reports\Geotech\NW Springville road\TP 2.log Date: 1/29/2014

LOG OF BORING

Rapid Soil Solutions	**NW Springville Road** **Project No. Reed Residence**	**Plate 1**

TP#3



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LOG OF BORING

Rapid Soil Solutions	**NW Springville Road** **Project No. Reed Residence**	**Plate 1**