Gary A. Flowers, PLLC
Geological & Geotechnical Consulting
5205 23rd Avenue W
Everett, WA 98203

June 25, 2018
Project No. 17029

Neoteric Homes, LLC
P.O. Box 329
Seahurst, WA 98062

Attention: Mr. Chad Ohrt

Subject: Geotechnical Assessment Report
10207 21st Ave SW
Seattle, King County, Washington

This report presents the results of our geological/geotechnical evaluation of the above noted parcel located in unincorporated King County just south of the Seattle city limits. It is our understanding that the existing residence on the parcel will remain, the property will be divided into 2 lots and 1 additional single-family home will be constructed on the new lot (Lot 2). See attached survey by Puget Sound Surveying, Inc.

A site survey by PSS, Inc., indicates that the parcel contains a steep slope along the west side of the site. This steep slope is generally natural and extends for some distance north and south of the subject site. Evaluation of the stability of the slope for home siting purposes was the primary focus of this evaluation.

EXISTING CONDITIONS

The subject property consists of approximately 18,336 square feet and is shaped as a rectangle. The parcel measures approximately 169 feet in the east-west direction by 108 feet in the north-south direction. The new building lot (Lot 2) will be created in the northeast portion of the existing parcel and will measure 100 feet in the east-west direction by 50 feet in the north-south direction. Lot 2 will be bounded on the north by existing park land, on the east by 21st Ave SW, on the south by the existing single-family residence on Lot 1 and on the west by the undeveloped portion of Lot 1.

According to the survey provided, the upper, steep portion of the west facing slope, in the area of the planned new building lot, is on the order of 18 tall over a horizontal distance of about 30 to 32 feet and then moderates to a relatively gentle slope with relief on the order of 12 feet over a horizontal distance of about 70 feet.

The parcel, to the east of the steep slope area, is nearly flat for a distance of 25 to 30 feet to a short rockery. Above the rockery the parcel is again nearly flat to the east property line along 21st Ave SW.

Vegetation on the parcel is relatively sparse except on the steep slope area which is heavily vegetated primarily with deciduous trees. There were no visual indications of any flowing or standing water or any ground water emanating on the slope area. No hydrophilic vegetation was observed on the parcel.

The existing residence on Lot 1 is a two story, wood framed structure over a west facing daylight basement that was constructed 70 years ago. The house, at its closest point is only about 5 to 6 feet from the top of the existing steep slope. Visual reconnaissance of the structure did not reveal any outward indications of past settlement or slope movement impacts.

Subsurface Soil and Ground Water Conditions

Exploration Borings

In order to characterize the subsurface soil and shallow ground water conditions on the property 2 exploration borings were drilled on the site on October 3, 2017. The first boring was placed near the top of the slope and extended below the toe of slope elevation. The second boring was placed directly east of the first boring in order to provide data for a detailed section through the hillside. See attached exploration boring logs. The locations of the explorations are shown on the attached Site & Exploration Plan.

The exploration borings were completed by advancing hollow-stem auger with a limited access, track mounted drill rig provided by Geologic Exploration Drilling, Inc. During the drilling process, samples were generally obtained at 2.5 or 5-foot depth intervals. The borings were continuously observed and logged by a licensed engineering geologist from our firm. The exploration logs attached are based on the field logs, drilling action and inspection of the samples secured.

Disturbed but representative samples were obtained by using the Standard Penetration Test (SPT) procedure in accordance with ASTM: D 1586. This test and sampling method consists of driving a standard 2-inch outside diameter split barrel sampler a distance of 18 inches into the soil with a 140-pound hammer free falling a distance of 30 inches. The number of blows for each 6-inch interval is recorded and the number of blows required to drive the sampler the final 12 inches is known as the Standard Penetration Resistance ("N") or blow count. If a total of 50 blows is recorded within one 6-inch interval, the blow count is recorded as 50 blows for the corresponding number of inches of penetration. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistence of fine grained or cohesive soils. These values are plotted on the attached boring logs.

Boring B-1, located near the top of slope area, encountered approximately 8 feet of material that was very difficult to drill and did not provide any samples to evaluate. Beginning at approximately 8 feet below existing grade there was a material change and the drilling became smoother. Samples from a depth of 10 feet to the bottom of the boring at a depth of 36.5 feet, indicated medium dense to dense, gravelly sand over silty sand with trace gravel.

Boring B-2, located on the flat bench on the eastern portion of the site, encountered medium dense to very dense, silty sand to gravelly sand with silt to fine sand with trace silt. Refusal was encountered 3 times at a depth of 9 feet. Each time the drill was moved 1 to 2 feet and the boring re-drilled. On the 4th attempt the drill was able to penetrate through the obstructing material.

Exploration Pits

It was not possible to identify the soil type in the upper 10 feet of either of the borings as no samples were obtained and the drilling was very difficult. After discussions with the client it was determined that additional subsurface exploration would be conducted with a mini-excavator in order to further attempt to identify the surficial soils on the site, especially those near the top of slope which could have an impact on long term slope stability.

A total of 5 exploration pits were excavated on the site on October 23, 2017 with a client provided excavator. The pits encountered significant quantities of fill soils that had been placed over the top of the original slope. The fill was on the order of 6 feet thick in exploration pits EP-1 and EP-5, which were placed near boring B-1. Some of the fill contained significant quantities of debris such as old tires, broken concrete, glass and metal intermixed with loose, dry silty sand with gravel.

Exploration pits EP-2 and EP-3 were placed away from the slope near the west side of the short rockery wall in the center of the parcel. These exploration pits encountered about 3.5 feet of fill materials.

Exploration pit EP-4 was placed near the north end of the parcel and relatively in line with EP-2 and EP-3 but did not contain any fill soils

Mappings and Other Nearby Explorations

The published map of the area, the *Geologic Map of Seattle by Troost, Booth, Wisher and Shimel, 2005*, indicates that the site is located in an area underlain by Vashon age lodgement till (Qvt) with ice contact deposits (Qvi) located at the toe of the slope. Lodgement till generally consists of a nonhomogeneous mixture of sand and gravel in a silt/clay matrix. This material was deposited at the base of, and subsequently overrun by, the advancing glacial ice sheet on the order of 10 to 12,000 years ago. Consolidation by several thousands of feet of glacial ice has resulted in a material that is typically dense to very dense, relatively impermeable and, in the absence of ground water, generally stable in relatively steep slope conditions.

Our findings are in general conformance with the published geology map of the area.

Hydrology

Ground water was not observed within any of the explorations for this study except boring EP-2 where the soils became saturated at a depth of 24 feet below existing grade or an elevation of approximately 466 feet. No ground water was observed emanating anywhere on the subject slope and no hydrophilic vegetation was observed. There was no evidence of erosion anywhere on the parcel.

Seismic Hazards

Based on the Geology Map of Seattle by K. Troost, et al., 2005, the project site is located outside of the southern edge of the Seattle Fault Zone. The Seattle Fault Zone is an approximate 5 five wide east-west trending structure with multiple splays which is interpreted to lie within a zone that extends from west Seattle (and points west), through the south central portion of Seattle, Bellevue, Newport Hills, and into the foothills east of Issaquah. The Seattle Fault Zone and other fault systems in the region are currently being studied by the U. S. Geological Survey (USGS), and have been determined to be active and capable of producing large earthquakes. Much is still to be learned about these fault systems but it is generally hypothesized that their recurrence interval is several thousand years. Due to the suspected long recurrence interval the potential for surficial ground rupture is considered to be low during the expected life of the proposed structure.

Due to the presence of medium dense to dense, glacially consolidated sediments within the core of the slope, it is our opinion that the potential risk of damage by deep seated seismically induced landsliding of native soils is low but for shallow slides within the fill materials is at least moderate to moderately high.

Due to the density of the underlying sediments, and the lack of an adverse ground water table, it is our opinion that the risk of liquefaction is low.

For structural design purposes the subject property would be defined as Site Class D.

Existing Slope Stability

The sediments that comprise the slope, other than the fill soils that were previously placed over the top of the slope, have been glacially consolidated and were found to be in a medium dense or better condition. In the absence of water these soils are considered to be stable with a factor of safety in excess of 1.5 for static and 1.2 for pseudostatic or seismic conditions. The existing house has not suffered any adverse reactions to being located within 5 to 6 feet from the top of the native slope (no fill on this area of the slope) and no slope failures have been recorded following any past earthquake events. These are strong indications of good slope stability under both static and seismic loading conditions. No indications of ground water were observed on the site, on the slopes surrounding the site, or within a reasonable distance below the parcel.

The fill materials that were placed over and atop the slope in the area of the planned new construction cannot be considered stable although there is no visual indication of past movement of these materials. Under certain weather and seismic conditions these materials could become unstable and experience some movement. However, the slope will not be disturbed by the planned new development and the installation of drilled piers as recommended and removal of storm water from the slope area, will provide a positive impact on the stability of the fill materials.

CONCLUSIONS AND RECOMMENDATIONS

Our exploration indicates that, from a geotechnical standpoint, the subject site is suitable for the proposed development provided the recommendations contained herein and during the plan preparation and review process are properly followed. Bearing soils are shallow on the east side of the property but due to unsuitable fill are deep on the west side of the property adjacent to the steep slope. It is our understanding that the new home is proposed to be located 15 feet from the top of the slope. This will require a deepened foundation system along the western portion of the residence. Due to the presence of loose, debris laden fill atop and over the native steep slope in this area it is our opinion that drilled-in, reinforced concrete piers are the best option for foundation support. The piers will not only provide excellent bearing for the house foundation, but their presence will also increase the stability of the fill slope to help mitigate any potential future slope movement in this area. Small diameter pipe piles were also considered for deep foundation support, but their presence does not provide any increased stability of the fill slope nor any passive resistance to lateral movement. Building construction on the eastern portion of the structure, away from the slope, may follow standard construction practices with shallow spread footing foundations. However, wherever fill materials are encountered the foundation must fully extend through the fill and bear on the underlying medium dene or better native soils.

Site Grading

Prior to any clearing or excavation on the site, erosion and surface water control should be established around the perimeter of the site to satisfy King County requirements. All existing vegetation, root masses and any other deleterious materials should be removed if they are located below planned building areas.

In our opinion, stable construction slopes should be the responsibility of the contractor and should be determined during construction. We are unaware at this time of any significant cuts that are planned for the home construction. If any significant cuts are planned they should be made such that there is no adverse impact to adjacent property unless a temporary construction easement is obtained from the property owner.

For estimating purposes, we anticipate that temporary, unsupported cut slopes in the medium dense sediments should not exceed a maximum slope of 1H:1V (Horizontal: Vertical). A small vertical cut of 2-4 feet at the base of the excavation should stand vertical on a temporary basis. These estimated slope angles are for areas where there is no ground water seepage and surface water is not allowed to flow over the slope. Where ground or surface water is present the slope angles may

need to be reduced. Excavation into the loose, debris laden fill should not exceed a maximum slope of 1. 5H:1V. As is typical with earthwork operations, some sloughing and raveling may occur and cut slopes may have to be adjusted in the field. WISHA/OSHA regulations should be followed at all times.

Structural fill to establish desired grades should be placed and compacted according to the recommendations presented in this section. Structural fill is defined as non-organic soil, acceptable to the geotechnical engineer or engineering geologist, placed in maximum 8-inch loose lifts with each lift being compacted to a dense and nonyielding condition. Prior to placing any structural fill the exposed soils must first be compacted to a dense, nonyielding condition and approved for structural fill placement. In the case of roadway and utility trench filling within a city or county right-of-way, the backfill should be placed and compacted in accordance with municipal standards.

The on-site soils consist primarily of fine to medium silty sand. These sediments will generally be suitable for use as structural fill when placed near optimum moisture content. The contractor must use care during site preparation and excavation operations so that the underlying soils are not softened. If disturbance occurs, the softened/disturbed soils should be removed down to competent soil prior to backfilling or re-compacted to a dense and unyielding condition.

Foundation Recommendations

The eastern portion of the new residence should be supported on continuous bearing wall and column footings that extend a minimum depth of 18 inches below final grade and bear on undisturbed or recompacted natural glacially consolidated soils that underlie the site. No footing should be placed atop any existing fill soils. We recommend an allowable soil bearing value of 2500 psf be used in the design of these footings, including both dead and live loads. An increase of one-third may be used for short-term wind or seismic loading.

Total settlement of footings placed as detailed herein should be less than ½ inch in a 20-foot span with differential settlement less than ¼ inch between comparably loaded footings. However, foundations placed on soil that is not at least medium dense may result in increased settlement. All foundation excavations should be inspected by a representative of this firm, prior to concrete placement, to verify that the design bearing capacity of the soils has been attained and that construction conforms to the recommendations contained in this report.

Lateral loads can be resisted by friction between the foundations, slabs and the supporting soils, and/or by passive earth pressure acting on the buried portions of the foundations. We recommend a passive equivalent fluid pressure of 200 pcf for foundations that are backfilled with compacted structural fill. We also recommend a coefficient of friction of 0.40 between the concrete members and the soil may be used. These values are allowable and include a factor of safety of at least 1.5.

The footings along the west side of the residence should be supported on a deepened foundation system. We recommend using suitably designed and reinforced drilled concrete piers and

constructing a grade beam footing to connect the piers together. The concrete pier supported portion of the foundation must wrap around or return at each end and at each bearing wall for a distance of 1 pier.

For design purposes we recommend that all of the concrete piers be a minimum of 16 feet long as measured from the bottom of the building excavation and be embedded a minimum of 10 feet into bearing soils.

For 12, 16 or 18-inch diameters piers, with a minimum 10 feet of embedment into bearing soils, each pier will be capable of supporting loads of 15, 20 and 25 tons, respectively. Lateral capacity should be calculated using 10 pcf lateral resistance over 1 pile diameter on the upper 8 feet and a passive value of 250 pcf over 1.5 pile diameters to the bottom of the pile, assuming a fixed head condition and a maximum ¼ inch of deflection at the ground surface.

We further recommend that the structural engineer take special precaution to adequately tie the pile supported foundation well back into the spread footing portion of the foundation. This will not only better lock the separate foundation types together but will also aid significantly in obtaining the required lateral load resistance.

The concrete piers must be a minimum of 16 feet long. However, the actual total length of each pier will be determined and adjusted in the field based on encountered conditions during installation and could be longer than estimated above. Since completion of the pier takes place below ground, the judgment and experience of the geotechnical engineer or his field representative must be used as a basis for determining the required penetration and acceptability of each pier. Consequently, use of the presented capacities in the design requires that a qualified geotechnical engineer or engineering geologist from our firm, who will interpret and collect the installation data and examine the contractor's operations, inspect all piers. We would determine the required lengths of the piles and keep records of pertinent installation data. A final summary report would then be distributed following completion of pier installation.

Anticipated settlement of footings supported concrete piers designed and installed as presented herein, should be on the order of ½ inch or less with differential settlements of approximately one-half that amount between comparably loaded footings.

Retaining Walls

We are unaware of any retaining wall required for the project at this time. However, the following general recommendations should be used if any walls are planned in the future.

Cast in place concrete retaining walls and basement walls should be designed for an active pressure of 35 pcf (triangular distribution) with level, free draining backfill. Where backslopes steeper than 3H:1V are located within 10 feet of the wall the active pressure should be increased to 50 pcf. A surcharge of 8H (rectangular distribution) should be added for potential seismic loading. Passive

resistance to lateral movement will be as discussed in the foundation recommendations section of this report.

Retaining walls taller than 3 feet must be lined with a minimum of 12 inches of washed rock to within 1 foot of finish grade or with an engineered drain mat such as Inca Drain or Mira Drain. The drainage layer must hydraulically connect into the footing drain for the wall footing. Additional surcharges such as traffic, other structures, or heavy equipment must be added to these design values.

Site Drainage

All perimeter foundation walls and retaining walls should be provided with a drain at the footing level. Drains should consist of rigid, perforated, PVC pipe surrounded by washed drain rock and covered with geotextile filter fabric. The pipes should be installed with the perforations on the bottom quadrant of the pipe and the level of the perforations in the pipe should be set approximately at the bottom of the footing and the drains should be constructed with sufficient gradient to allow gravity discharge away from the footings.

Roof and other impermeable surface runoff should not discharge into the footing drain system, but should be collected and handled by a separate, rigid, tightline drain that discharges into an approved storm water conveyance system. No storm water should be allowed to flow over the top of the slope or onto the slope.

Infiltration of storm water is not recommended for this site. If infiltration must be considered in order to meet code requirements, it should only be placed on the eastern portion of the site, as far from the top of slope as possible.

If detention is a project requirement we recommend that HDPE pipe be used for the detention facility in order to minimize the potential for leakage. In planning, exterior grades within 10 feet of the structure should be sloped downward away from the structure at a minimum 2 percent gradient.

Erosion Protection

The soils that will be exposed on the site have a moderate to high erosion potential under both concentrated and sheet flow regimes. Therefore the contractor must take all necessary precaution to prevent storm water from impacting these soils during the construction process. Best management practices would include properly installed and maintained silt fencing along the lower portions of the site, keeping soil stockpiles covered, mulching exposed ground that is not to be worked for several days, avoiding earthwork during inclement weather and rocking the construction entrance.

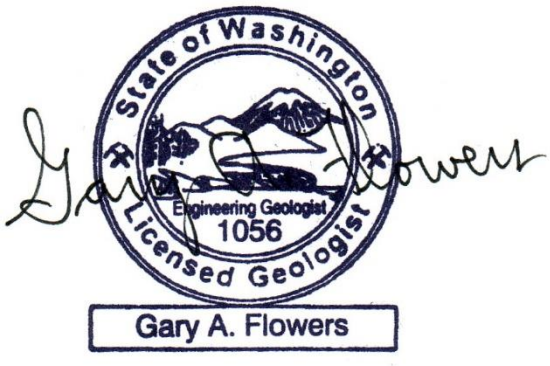
SUMMARY

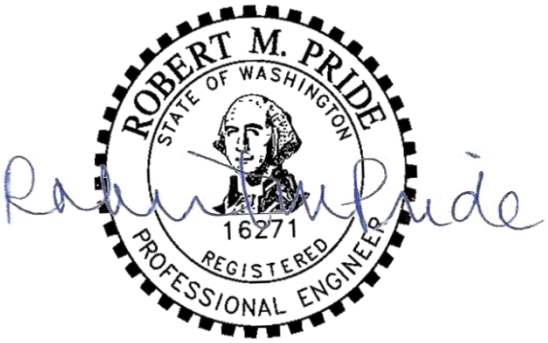
Based on our site reconnaissance, literature research and subsurface explorations the site appears to be suitable for the proposed development provided the recommendations provided herein are properly implemented. As described herein, the steep slope area of the site where the new construction is proposed has had a significant quantity of unsuitable fill soils placed in the past to extend the yard area further to the west. A well designed, deep foundation system is therefore required on the western portion of the planned new residence.

Once development details are completed we recommend that we be retained to review those portions of the plans and specifications that pertain to grading, drainage, foundations and erosion control installations to determine that they are consistent with the recommendations of this report. Construction monitoring and consultation services should also be provided to verify that subsurface conditions are as expected. Should conditions be revealed during construction that differs from the anticipated subsurface profile, we will evaluate those conditions and provide alternative recommendations where appropriate.

Our findings and recommendations provided in this report were prepared in accordance with generally accepted principles of engineering geology and geotechnical engineering as practiced in the Puget Sound area at the time this report was submitted. We make no other warranty, either express or implied.

Respectfully submitted,





Gary A. Flowers, P.G., P.E.G.
Engineering Geologist

Robert M. Pride, P.E.
Geotechnical Engineer

Attachments: Exploration Pit Logs
Exploration Boring Logs
Site & Exploration Plan

EXPLORATION PIT LOGS
10207 21St AVE SW
SEATTLE, KING COUNTY, WASHINGTON

EP-1 Surface elevation approximately 482.5 feet.

Depth (ft)	Description
0.0 – 2.0	Loose, dry, brown, silty, fine to medium SAND (Fill)
2.0 – 6.0	Loose to medium dense, dry to damp, brown, silty, fine to medium SAND with occasional gravel and cobbles and construction debris (concrete, wood, stump, metal brick, automobile tire) [Fill]
6. – 7.0	Medium dense to dense, damp, gray, silty, fine to medium SAND with gravel
	T.D. @ 7.0 feet, 10-3-17. Caving in fill soils. No ground water.

EP- 2 Surface elevation approximately 483.5 feet.

Depth (ft)	Description
0.0 – 3.5	Loose to medium dense, dry, brown, silty fine to medium SAND with occasional gravel and debris (Fill)
3.5 – 4.5	Medium dense to dense, damp, gray, silty, fine to medium SAND with gravel
	T.D. @ 4.5 feet, 10-3-17. Caving in fill soils. No ground water.

EP- 3 Surface elevation approximately 483.5 feet.

Depth (ft)	Description
0.0 – 3.5	Loose to medium dense, dry, brown, silty fine to medium SAND with occasional gravel and debris (Fill)
3.5 – 4.5	Medium dense to dense, damp, gray, silty, fine to medium SAND with gravel
	T.D. @ 4.5 feet, 10-3-17. Caving in fill soils. No ground water.

EP- 4 Surface elevation approximately 484 feet.

Depth (ft)	Description
0.0 – 0.8	Loose, dry, brown, silty fine to medium SAND with occasional gravel and debris (Fill)
0.8 – 3.0	Medium dense to dense, dry, gray, silty, fine to medium SAND with gravel

EP-5 Surface elevation approximately 482.5 feet.

0.0 – 2.0	Loose, dry, brown, silty, fine to medium SAND (Fill)
2.0 – 6.0	Loose to medium dense, dry to damp, brown, silty, fine to medium SAND with occasional gravel and cobbles and construction debris (Fill)
6. – 7.0	Medium dense to dense, damp, gray, silty, fine to medium SAND with gravel

T.D. @ 7.0 feet, 10-3-17. Caving in fill soils. No ground water.

FINIS

Gary A. Flowers, PLLC 5205 23rd Ave W Everett, WA 98203	LOG OF BORING B-1 (Page 1 of 2)

Client: Neoteric Homes, LLC Project Address: 10207 21st Avenue SW, Seattle, WA	Date Started	: 10-3-2017	Drilling Co.	: Geologic Drill
	Date Completed	: 10-3-2017	Driller Name	: Jeremy Coleman
	Hole Diameter	: 6" OD, 2 1/2" ID	Start Time	:
	Drilling Method	: H.S.A. Mini Track	End Time	:
Surface Elevation = 482.5 feet	Sampling Method	: Split Spoon	Logged By	: Walt Bicket

Depth in Feet	Sample	USCS	GRAPHIC	Formation	Water Level	DESCRIPTION	Blow Count (N)	Blow Count (N) Graph (0 20 40 60 80)	REMARKS
0						Brown silty sand in cuttings			Full recovery unless noted otherwise
		SM		Fill		Drill jumps at 2ft (gravel/concrete rubble)			
5	1					No recovery, sampler bouncing on gravels/concrete rubble	50		SPT=50 for 5"
		SM				Drills easier from 5-10ft (less gravel?)			
		SM							
10	2					Dense, damp, grey-brown, gravelly SAND with silt	40		
		SP-SM				Drills smoother 10-15ft			Pulled auger out of hole and removed soil stuck in bit
15	3					Medium dense, damp, brown, uniform silty fine SAND with seams of medium to coarse grained sand, moist	18		
		SW		Glacial Drift					
20	4					Medium dense, dry to damp, brown slightly silty to medium silty sand with trace gravel	27		
25	5	SM				Becomes dense and grey-brown in color	33		
30									

Gary A. Flowers, PLLC
5205 23rd Ave W
Everett, WA 98203

LOG OF BORING B-1

Client: Neoteric Homes, LLC
Project Address:
10207 21st Avenue SW, Seattle, WA

Surface Elevation = 482.5 feet

Date Started	: 10-3-2017	Drilling Co.	: Geologic Drill
Date Completed	: 10-3-2017	Driller Name	: Jeremy Coleman
Hole Diameter	: 6" OD, 2 1/2" ID	Start Time	:
Drilling Method	: H.S.A. Mini Track	End Time	:
Sampling Method	: Split Spoon	Logged By	: Walt Bicket

Depth in Feet	Sample	USCS	GRAPHIC	Formation	Water Level	DESCRIPTION	Blow Count (N)	Blow Count (N) Graph (0 20 40 60 80)	REMARKS
30	6	SM		Glacial Drift		Same, trace gravel with rounded pebbles up to 1/2 inch	49		
35	7						35		
						Total Depth = 36.5ft No groundwater observed			
40									
45									
50									
55									
60									

Gary A. Flowers, PLLC
5205 23rd Ave W
Everett, WA 98203

LOG OF BORING B-2

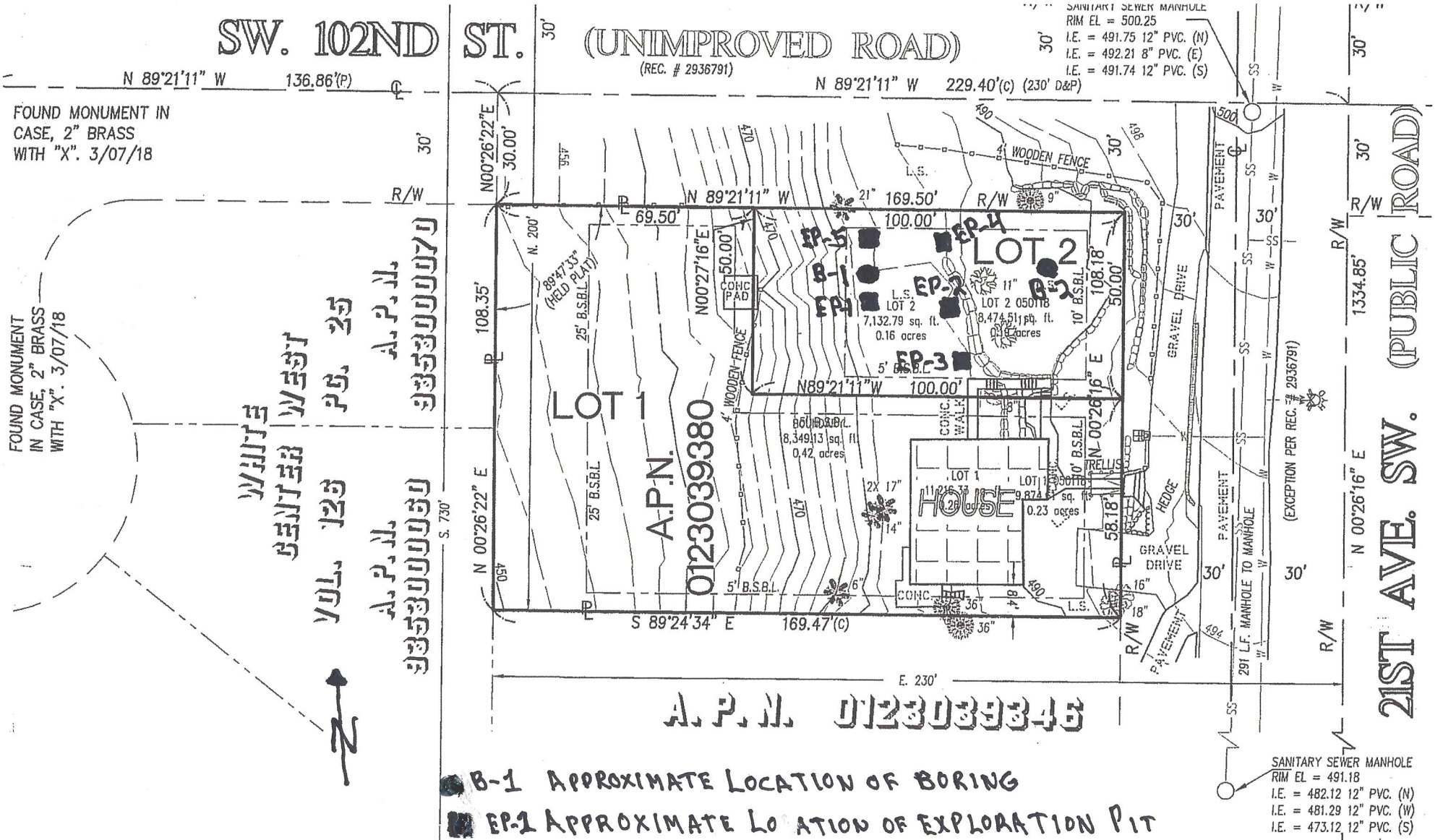
Client: Neoteric Homes, LLC
Project Address:
10207 21st Avenue SW, Seattle, WA

Surface Elevation = 490 feet

Date Started	: 10-3-2017	Drilling Co.	: Geologic Drill
Date Completed	: 10-3-2017	Driller Name	: Jeremy Coleman
Hole Diameter	: 6" OD, 2 1/2" ID	Start Time	:
Drilling Method	: H.S.A. Mini Track	End Time	:
Sampling Method	: Split Spoon	Logged By	: Walt Bicket

Depth in Feet	Sample	USCS	GRAPHIC	Formation	Water Level	DESCRIPTION	Blow Count (N)	Blow Count (N) Graph (0 20 40 60 80)	REMARKS
0						Rough drilling 0-2ft			
		SM				Easier Drilling 2-5ft			Full recovery unless noted otherwise
5	1	SM				Medium dense, dry, brown fine silty SAND	19		
						Drills rough 7-10ft (gravels)			
	2					Very dense, damp	50		SPT=50 for 4"
10		SP-SM		Glacial Drift		Drill refusal at 9 feet. Moved rig 4 times, 3 attempts refusal on gravels at 9 feet. Advanced hole on 4th attempt			
						Rounded gravels in cuttings at 13ft Drilling below 13ft had less gravel			
15	3					Very dense, damp, brown, gravelly SAND with silt, sub-rounded pebbles	83		SPT=17-33-50 for 5"
		SP-SM				Drills smoother 17-20ft - scattered gravels in zones			
20	4					Dense, moist, grey-brown, uniform fine SAND, trace silt, vague bedding	29		
		SM			▼				
25	5					Becomes saturated	39		
						Total Depth = 26.5 feet Groundwater at 24 feet			
30									

Site and Exploration Plan



● B-1 Approximate Location of Boring

■ EP-1 Approximate Location of Exploration Pit

Gary A. Flowers, PLLC

Project No. 17029

Neoteric Homes, LLC

10207 21st Ave SW

Seattle, King County, WA