

# Application for Preliminary Plat

Municipality of Anchorage  
 Planning Department  
 PO Box 196650  
 Anchorage, AK 99519-6650



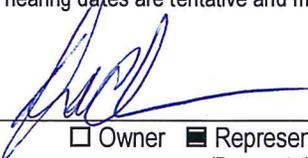
PETITIONER*		PETITIONER REPRESENTATIVE (IF ANY)	
Name (last name first)	James Sears, Southcentral Foundation	Name (last name first)	Dave Hale, R&M Consultants, Inc.
Mailing Address	4501 Diplomacy Drive	Mailing Address	9101 Vanguard Dr.
	Anchorage, AK. 99508		Anchorage, AK. 99507
Contact Phone – Day	907-729-5261	Contact Phone – Day	907-646-9651
	Evening		Evening
Fax		Fax	
E-mail	jsears@southcentralfoundation.com	E-mail	dhale@rmconsult.com

\*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

PROPERTY INFORMATION			
Property Tax # (000-000-00-000): 008-024-09-000; 008-024-06-000; 008-024-05-000			
Site Street Address: 4330 Elmore Road			
Current legal description: (use additional sheet if necessary)			
Tract G5 & G6, Athenian Village Subdivision, Plat No. 83-62 Tract G4-1, Athenian Village Subdivision, Plat No. 2007-114			
Zoning: PLI/B-3	Acreage: 2.56	Underlying Plat #: 83-62 & 2007-114	Grid #: SW 1735
# Lots:	# Tracts: 3	Total # parcels: 3	

PROPOSED SUBDIVISION INFORMATION		
Proposed legal description: (use additional sheet if necessary)		
Tract G5-1, Athenian Village Subdivision		
# Lots: None	# Tracts: 1	Total # parcels: 1

I hereby certify that (I am)/(I have been authorized to act for) owner of the property described above and that I petition to subdivide it in conformance with Title 21 of the Anchorage Municipal Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the subdivision. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff or the Platting Authority for administrative reasons.

Signature   Owner  Representative Date 8/14/19  
(Representatives must provide written proof of authorization)

Print Name Dave Hale

Accepted by: <u>Karrie Greig</u>	Poster & Affidavit: <u>N/A</u>	Fee: <u>\$3,775</u>	Case Number: <u>S12514</u>	Requested Meeting Date: <u>P.O. 10/7/19</u>
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# Application for Right-of-Way and Easement Vacation

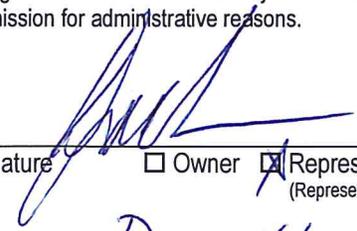
Municipality of Anchorage  
 Planning Department  
 PO Box 196650  
 Anchorage, AK 99519-6650

PETITIONER*		PETITIONER REPRESENTATIVE (if any)	
Name (last name first)	James Sears, SCF	Name (last name first)	Dave Hale, PLS
Mailing Address	4501 Diplomacy Dr.	Mailing Address	9101 Vanguard Dr.
	Anchorage, AK. 99508		Anchorage, AK. 99507
Contact Phone – Day:	(907) 729-5261	Contact Phone – Day:	(907) 646-9651
Evening:		Evening:	
Fax:		Fax:	
E-mail:	jsears@southcentralfoundation.com	E-mail:	dhale@rmconsult.com

\*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

RIGHT-OF-WAY AND/OR INFORMATION		
Benefiting Property Tax # (000-000-00-000): 008-024-09-000; 008-024-06-000; 008-024-05-000		
Site Street Address: 4330 Elmore Road		
Description of right-of-way/easement: (use additional sheet if necessary)		
30' Telephone, Electric, & Sanitary Sewer Easement That straddles a portion of Tract G4, G5, and G6, Athenian Village Subd, Plat 83-62. Request vacation of easement to accommodate new building location. All utilities within current easement will be relocated during construction to a dedicated easement to the north.		
Zoning: PLI, B-3	Acreage: 3,599 Sq.Ft. (0.083 ac.)	Grid #: SW 1735
# Lots:	# Tracts: 3	Total # parcels: 3

I hereby certify that (I am)(I have been authorized to act for) owner of the property described above and that I petition to vacate it in conformance with Title 21 of the Anchorage Municipal, Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the vacation. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff, the Platting Board, or Planning and Zoning Commission for administrative reasons.

Signature   Owner  Representative (Representatives must provide written proof of authorization) Date 8/14/19

Print Name Dave Hale

Accepted by: <u>Karlie Gredig</u>	Poster & Affidavit: <u>N/A</u>	Fee: <u>\$3,775</u>	Case Number: <u>S12514</u>	Requested Meeting Date: <u>P.O. 10/1/19</u>
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COMPREHENSIVE PLAN INFORMATION				
Anchorage 2020 Urban/Rural Services: <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural				
Anchorage 2020 Major Elements – site is within or abuts:				
<input checked="" type="checkbox"/> Major employment center	<input checked="" type="checkbox"/> Redevelopment/mixed use area	<input checked="" type="checkbox"/> Town center		
<input checked="" type="checkbox"/> Neighborhood commercial center	<input type="checkbox"/> Industrial reserve			
<input type="checkbox"/> Transit - supportive development corridor	<input type="checkbox"/> District/area plan area: _____			
Chugiak-Eagle River Land Use Classification:				
<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Parks/open space	<input type="checkbox"/> Public lands/institutions	<input type="checkbox"/> Town center
<input type="checkbox"/> Transportation/community facility	<input type="checkbox"/> Alpine/slope affected	<input type="checkbox"/> Special study area	<input type="checkbox"/> Development reserve	
<input type="checkbox"/> Residential at _____ dwelling units per acre	<input type="checkbox"/> Environmentally sensitive area			
Girdwood- Turnagain Arm Land Use Classification				
<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Parks/open space	<input type="checkbox"/> Public lands/institutions	<input type="checkbox"/> Resort
<input type="checkbox"/> Transportation/community facility	<input type="checkbox"/> Alpine/slope affected	<input type="checkbox"/> Special study area	<input type="checkbox"/> Reserve	
<input type="checkbox"/> Residential at _____ dwelling units per acre	<input type="checkbox"/> Mixed use	<input type="checkbox"/> Rural homestead		

ENVIRONMENTAL INFORMATION (All or portion of site affected)				
Wetland Classification:	<input checked="" type="checkbox"/> None	<input type="checkbox"/> "C"	<input type="checkbox"/> "B"	<input type="checkbox"/> "A"
Avalanche Zone:	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Blue Zone	<input type="checkbox"/> Red Zone	
Floodplain:	<input checked="" type="checkbox"/> None	<input type="checkbox"/> 100 year	<input type="checkbox"/> 500 year	
Seismic Zone (Harding/Lawson):	<input type="checkbox"/> "1"	<input checked="" type="checkbox"/> "2"	<input checked="" type="checkbox"/> "3"	<input checked="" type="checkbox"/> "4" <input type="checkbox"/> "5"

RECENT REGULATORY INFORMATION (Events that have occurred in last 5 years for all or portion of site)	
<input checked="" type="checkbox"/> Rezoning - Case Number:	Rezone will be concurrent with platting action.
<input type="checkbox"/> Preliminary Plat <input type="checkbox"/> Final Plat	- Case Number(s):
<input type="checkbox"/> Conditional Use	- Case Number(s):
<input type="checkbox"/> Zoning variance	- Case Number(s):
<input type="checkbox"/> Land Use Enforcement Action for	
<input type="checkbox"/> Building or Land Use Permit for	
<input type="checkbox"/> Wetland permit:	<input type="checkbox"/> Army Corp of Engineers <input type="checkbox"/> Municipality of Anchorage

POTABLE WATER AND WASTE WATER DISPOSAL			
Potable Water provide by:	<input checked="" type="checkbox"/> Public utility	<input type="checkbox"/> Community well	<input type="checkbox"/> Private well
Wastewater disposal method:	<input checked="" type="checkbox"/> Public utility	<input type="checkbox"/> Community system	<input type="checkbox"/> Private on-site

APPLICATION REQUIREMENTS	
1 copy required:	<input checked="" type="checkbox"/> Signed application (original) <input checked="" type="checkbox"/> Watershed sign off form, completed <input checked="" type="checkbox"/> 8½" by 11" reduced copy of plat <input checked="" type="checkbox"/> Certificate to Plat
4 copies required:	<input checked="" type="checkbox"/> Subdivision drainage plan
9 copies required:	<input checked="" type="checkbox"/> Topographic map of platted area on preliminary plat
45 copies required: (35 copies for a short plat)	<input checked="" type="checkbox"/> Signed application (copies) <input checked="" type="checkbox"/> Preliminary plat <input checked="" type="checkbox"/> Summary of community meeting(s) (not required for short plat)
(Additional information may be required)	
Additional required documents unless specifically waived by Platting Officer:	
<input checked="" type="checkbox"/> Soils investigation and analysis reports (4 copies)	Waived by _____

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Southcentral  
Foundation



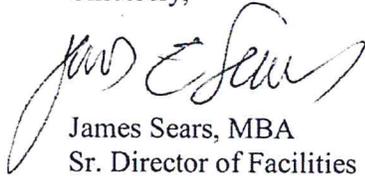
May 23, 2019

RE: Southcentral Foundation 4330 Elmore Property

To Whom It May Concern:

This Letter Authorizes R&M Consultants, Inc. to represent Southcentral Foundation on 4330 Elmore Road properties for Municipal Planning, Permitting and Platting activities. If you have questions or concerns, please contact me at 907-729-5261 or at [jsears@SouthcentralFoundation.com](mailto:jsears@SouthcentralFoundation.com).

Sincerely,



James Sears, MBA  
Sr. Director of Facilities

**WMS WATERCOURSE MAPPING SUMMARY**

Per the requirements for watercourse verification outlined in Project Management and Engineering Operating Policy and Procedure #8 and Planning Department Operating Policy and Procedure #1 (effective June 18, 2007), MOA Watershed Management Services has inspected the following location for the presence or absence of stream channels or other watercourses, as defined in Anchorage Municipal Code (21.35).

- Project Case Number or Subdivision Name: Athenian Village Subd
- Project Location, Tax ID, or Legal Description: Tracts G5 & G6 (Plat 83-62) and Tract G4-1 (Plat 2007-114).
- Project Area (if different from the entire parcel or subdivision): Tudor & Elmore, Anchorage South Central Foundation lots

In accordance with the requirements and methods identified, WMS verifies that this parcel, project area, or application:

X ~~K~~ ~~W~~ **DOES NOT** contain stream channels and/or drainageways, as identified in WMS field or archival mapping information.\*

\_\_\_\_\_ **DOES** contain stream channels and/or drainageways **AND** these are located and identified on submittal documents in general congruence with WMS field and archival mapping information.

*New or additional mapping **IS NOT REQUIRED**.*\*

\_\_\_\_\_ Contains stream channels and/or drainageways **BUT** one or more streams or other watercourses:

- are **NOT** shown on submittal documents, or
- are **NOT** depicted adequately on submittal documents for verification, or
- are **NOT** located or identified on submittal documents in general congruence with WMS field and archival mapping information.

*New or additional mapping **IS REQUIRED** and must be re-submitted for further review and verification.*\*

\_\_\_\_\_ Presence of stream channels and/or drainageways is unknown **AND** field verification is not possible at this time. WMS will verify as soon as conditions and prioritized resources allow.

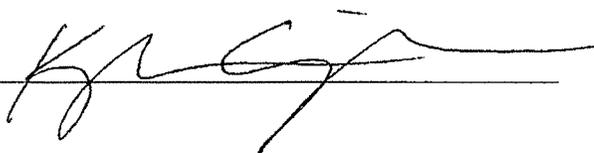
\* *Streams omitted in error by WMS or others remain subject to MOA Code and must be shown in new mapping upon identification of the error.*

**ADDITIONAL INFORMATION:**

- Y  N WMS written drainage recommendations are available.  Preliminary  Final  
 Y  N WMS written field inspection report or map is available.  Preliminary  Final  
 Y  N Field flagging and/or map-grade GPS data is available.

Inspection Certified By:

Date:



5/22/19



Mayor  
Ethan Berkowitz

# Anchorage Water & Wastewater Utility



Board Chair  
Aaron D. Dotson

## AWWU REQUIRED INFORMATION FOR PRE-PLATTING

- Project Case Number or Subdivision Name: Athenian Village S12514
- Project Location, Tax ID, or Legal Description: 008-024-05, 008-024-06, 008-024-09
- Is this parcel located within AWWU's certificated service area? -----  /  N
- Is a water key box located on each parcel? -----  Y /  N
  - Does this service meet DCPM Standard? -----  /  N
- Is sewer stubbed to each parcel? -----  Y /  N
  - Does this service meet DCPM Standard? -----  /  N
- Are there any water or sewer connections that require removal? -----  /  N
- Are there any additional easements needed? -----  Y /  N
- Have any Private System plans been submitted for review? -----  Y /  N
- Are any of the lots subject to extended connection or other agreements? -----  Y /  N
- Does this platting action consolidate a previously connected (on-property) parcel with an unassessed parcel? -----  /  N

If the parcel or subdivision is within an assessment area, please populate the table below with the relevant information (as balances may change year to year, this table represents a point in time as specified in the column "Year").

	Levied	Assessment Balance	Year
Water Lateral	<input checked="" type="checkbox"/> / <input type="checkbox"/> N		
Water Transmission	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N		
Sewer Lateral	<input checked="" type="checkbox"/> / <input type="checkbox"/> N		
Sewer Trunk	<input checked="" type="checkbox"/> / <input type="checkbox"/> N		

- Comments:  
Service on existing Tract G4-1 will require disconnection. Elimination of the Sanitary Sewer main to eliminate the easement can be handled with Private System drawings along with the water.

Verified By (AWWU):

  
\_\_\_\_\_

Date:

8/19/19  
\_\_\_\_\_

Anchorage Water & Wastewater Utility  Clearly

3000 Arctic Boulevard • Anchorage, Alaska 99503  
Phone 907-564-2774 • Fax 907-562-0824 • [www.awwu.biz](http://www.awwu.biz)



August 12, 2019

R&M No. 2731.01



R&M CONSULTANTS, INC.

9101 Vanguard Drive  
Anchorage, Alaska 99507

Phone: 907.522.1707  
Fax: 907.522.3403

Municipality of Anchorage  
Planning Department  
4700 Elmore Road  
Anchorage, AK. 99507

RE: Preliminary Plat for Proposed Tracts G5 & G6 (Plat 83-62) and Tract G4-1 (Plat 2007-114), Athenian Village Subdivision

Dear Sir or Madam:

The attached preliminary plat affects the following existing legal descriptions:

Tracts G5 and G6, Athenian Village Subdivision, Plat No. 83-62

Tract G4-1, Athenian Village Subdivision, Plat No. 2007-114

All three tracts are owned by the Southcentral Foundation (SCF). The intention of this platting effort is to replat the three tracts into a single large tract and vacate the 20' Telephone, Electric and Sanitary Sewer Easement shown running north-south within the properties.

The purpose of the replat is because the SCF would like to demolish the existing building shown within existing Tract G5, and build a new facility that sits near the north edge of the proposed new tract and straddles the lot line abutting Tracts G4-1 and Tract 6.

Tracts G5 and G6 are zoned PLI, however Tract G4-1 is zoned B-3. There is a re-zone request being reviewed concurrently with the platting action to change the zoning of Tract G4-1 into PLI.

During construction of the new building, all utilities that fall within the proposed 20' easement vacation will be relocated to fall within existing easements that run along the north boundary.

There is also a proposed access easement that is being facilitated between SCF and UAA that will potentially allow access to the new tract via E. 43<sup>rd</sup> Place.

Thank you for considering this plat request. Please forward any questions or comments to Dave Hale, R&M Consultants, at 646-9651.

Sincerely,

A handwritten signature in blue ink, appearing to read 'David C. Hale', written over a white rectangular area.

David C. Hale, PLS

R&M Consultants, Inc.







## *Memorandum*

**To:** Ed Zernia

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**From:** Bob Pintner, P.E.

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**Subject:** Preliminary Geotechnical Recommendations  
SCF - 4330 Elmore Road, Anchorage, Alaska

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**Date:** May 7, 2019

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**Project #:** 2731.01

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R&M has completed a preliminary geotechnical investigation for the proposed new building at 4330 Elmore Road, Anchorage, Alaska. It is understood that a multi-story building with below grade parking is planned.

This geotechnical investigation is intended to be preliminary in nature. Additional design level geotechnical investigation will be necessary once the alternative site layout has been selected.

Two boreholes were drilled on April 17, 2019. Approximate borehole locations are shown on the attached Drawing 1. The borehole logs are included as Drawings 2-4, General Notes, and Explanation of Selected Symbols are shown on Drawing 5 and 6, respectively. Test holes were drilled using a Geoprobe 7620 DT drill rig owned and operated by Discovery Drilling, Inc. The borings were advanced using a continuous flight, 8-inch hollow-stem auger. Samples were obtained using a 1.4-inch I.D. (2.0-inch O.D.) sampler and a 140-pound automatic hammer (Standard Penetration Test). The penetration resistance, defined as the number of blows required to drive the sampler the last 12 inches of an 18-inch interval, gives an indication of the in-place relative density for unfrozen cohesionless soils. Blow counts per six-inch interval are presented on the boring logs.

**Soil Conditions:** Three general soil units were observed at the site: 1) a surficial fine-grained soil; 2) an alluvial gravel and sand deposit, and; 3) a fine-grained marine glacial deposit.

*Surficial Fine-Grained Soil (overburden):* A layer of organic debris and fine-grained soil was encountered in both test holes. This layer was 2.0 to 2.5 feet thick, and consisted of a few inches of organic debris grading to silty sand, containing roots and scattered organic debris.

*Alluvial Gravel and Sand:* This soil unit was encountered underlying the surficial soils. The unit extended to 23 feet in RM19-02, and extended below the bottom of RM19-01 (12'). The material consisted of well to poorly graded gravel with sand, with a few layers of poorly graded sand, and well graded sand with gravel and silt. The presence of cobbles and boulders is expected based on observations of drill rig reaction, and sampler refusal. The material was interpreted to be medium dense to very dense.

*Marine Glacial Silt and Clay:* This fine-grained soil unit underlies the alluvial material. The material consisted of sandy silt, silt with sand, sandy silty clay, and silty clay with sand. It was interpreted to be stiff to very stiff.

**Groundwater Conditions:** Groundwater was encountered in both test holes. In RM19-01 the groundwater level after completion of drilling was about 7.2 feet below the ground surface (bgs), and in RM19-02 water was at 8.8 feet bgs. Some seasonal fluctuation should be expected. The groundwater was encountered in

Memo to: Ed Zernia  
From: Bob Pintner, P.E.  
Date: 5/7/2019  
Page 2

the alluvial materials which have a high permeability. Excavations below groundwater are expected to fill with water rapidly. Dewatering will be necessary in excavations below about 7 to 8 feet.

### **Geotechnical Recommendations**

Our preliminary geotechnical design recommendations regarding excavation requirements, site drainage, foundation design, and other construction related elements are presented in the following paragraphs. These recommendations are based on our understanding of the subsurface data obtained from the test borings, and of the proposed construction of the proposed new building. It is emphasized that our understanding of the planned facility is limited to only general information regarding design of structure and multiple alternatives for building location and site layout. Because the project design is still at an early stage, our recommendations are necessarily somewhat broad. Additional design level geotechnical investigation will be necessary to develop final geotechnical recommendations for the project.

**Earthwork Materials:** For the purpose of this project, the earthwork materials for filling and backfilling should conform to the Municipality of Anchorage specifications for Classified Fill or Backfill. The specific gradation (Type II, IIA, etc.) recommended below structures and pavements are specified in the corresponding sections below. Materials excavated on-site may be used as fill or backfill if it meets the above criteria, is stockpiled separately, and is kept free of organics, other debris, and excess moisture.

**Excavations:** All excavation (e.g. for foundation, utility trenches, etc.) slopes should conform to Federal and State standards as a function of the depth, exposed soil type, moisture/groundwater condition, time left open, and adjacent surface loads, foundations or traffic. The site soils generally classify as Type C (29 CFR Parts 1926.650 - 652). Excavated cuts may not be stable at slopes steeper than about 1.5 (H) to 1 (V), especially when exposed to groundwater seepage, or surface water flows.

Groundwater should be expected in trenches and excavations extended deeper than about 7 to 8 feet bgs as may need to be excavated for building construction or utilities. Excavations which encounter groundwater will be unstable and the need for dewatering (and shields in trenches) should be expected. Use of sump pits and pumping procedures within some of the excavations should be anticipated. Surface water should also be controlled by grading the surface to drain away from excavations.

**Foundations:** Based on our preliminary geotechnical investigation, the use of conventional shallow foundations and slab-on-grade floors is suitable at this site. For foundations bearing in soil that is normally maintained above freezing, the base of perimeter footings should be buried at least 42 inches below final exterior grade, with interior footings buried at least 12 inches below adjoining finish grade. Footings should be a minimum of 16 inches in width. It is recommended that at least two inches of board insulation be placed on the exterior surface of perimeter foundation walls below grade (to top of footing) and on the interior surface of perimeter foundation walls for the portion that extends above grade. The insulation should be non-water absorbing, and approved for exterior and below ground use, considering subjection to a wet, cyclic freeze-thaw environment. Due to the high likelihood of groundwater seepage at the footing elevations, all exterior footings should be provided with perimeter foundation drains.

**Earthwork for Foundations and Slabs:** All building and retaining wall foundations should bear on undisturbed alluvial gravel/sand soils, or Type II fill over a prepared, stable subgrade. As a minimum, all fine-grained surficial soils should be completely removed and wasted from below the base of all footings. Further, the minimum excavation depth should continue as needed to completely remove any peat, organic soils, frozen soil, or debris if encountered. After excavation, the entire subgrade should be inspected and compacted to at least 95 percent of maximum laboratory unit weight (ASTM D 1557). Materials that cannot be re-compacted (e.g. too wet, very poorly-graded or contain a high fines content) should be over-excavated and replaced with classified backfill.

**Allowable Bearing Pressures:** Footings bearing on alluvial gravel and sand: The net allowable bearing pressure of shallow strip and spread footings with a minimum embedment of one foot and minimum width of 16 inches, bearing on a minimum of 3 feet of undisturbed alluvial gravel and sand, or compacted Type II material is 3,000 psf. The allowable capacity may be increased to 4,000 psf for footings with a minimum embedment of 1.5 feet, and a minimum width of 1.5 feet. The allowable pressures may be increased by one-third for seismic and wind loads. The allowable bearing pressure values include a factor of safety of 3.0.

**Resistance to Lateral Loads:** For resistance to lateral loads, the ultimate passive equivalent fluid pressure of 400 pcf may be used if the foundation or wall can move laterally at least 2 percent of the buried depth. One-half of the ultimate passive pressure may be used if only 0.5 percent movement can be tolerated. If even less movement is tolerable, the at-rest pressure of 60 pcf should be used. The coefficient of friction between the soil and concrete may be taken as 0.45. When combining friction and passive resistance, reduce the passive resistance by 50 percent. The values for passive resistance and friction do not include a factor of safety.

**Concrete Floor Slabs:** It is understood that the lower parking level of the facility will be constructed below grade. It is recommended that the depth below grade be limited to about 6 to 7 feet (referencing existing ground surface elevation at Test Boring RM19-02). This would place the floor about 2 feet above the highest observed groundwater elevation. The groundwater elevation is likely to fluctuate seasonally, and from year to year, depending on precipitation. It is possible that the groundwater could temporarily rise above the proposed floor elevation. At a minimum, a perimeter drain should be constructed around the lower level of the structure. Consideration should be given to waterproofing the walls and slabs.

Conventional slab-on-grade floors can be supported on the undisturbed native soils, or compacted fill material. We recommend that the slabs be underlain by a capillary break material, consisting of at least four inches of clean, free draining sand and gravel or crushed rock containing less than 3 percent fines passing the No. 200.

**Retaining and Basement Walls:** The following table summarizes the resultant lateral forces, locations and pressure distribution for design of earth retaining structures. The tabulated “retaining wall” parameters apply when the top of the structure is unrestrained and free to rotate away from the resultant “active” force on the order of 0.002H. The tabulated “basement wall” parameters apply when the top and base of the wall are restrained from moving.

	Resultant Lateral Force (lb/ln.ft)	Pressure Distribution	Resultant Above Base
Active Forces	$PA = PS + PE + Pq$		
Retaining Wall			
Static	$PS = 15H^2$	Triangle	H/3
Seismic	$PE = 17H^2$	Rectangle	H/2
Surcharge	$Pq = 0.26qH$	Rectangle	H/2
Basement Wall			
Static	$PS = 28H^2$	Triangle	H/3
Seismic	$PE = 20H^2$	Rectangle	H/2
Surcharge	$Pq = 0.41qH$	Rectangle	H/2
Passive Forces	$PP = 200H^2$	Triangle	H/3

These parameters are based on the assumption of walls being designed and constructed per the following conditions:

- H is the height (ft) of the wall measured from the ground surface to the base (behind the wall for active forces and in front of the wall for passive forces). The coefficient q is the surcharge (psf) load on the ground surface above the wall. The “passive forces” only apply to the retaining walls.
- The tabulated resultant forces assume: 1) The wall excavations are backfilled with cohesionless, well draining, non-frost susceptible materials conforming to MOA Type II material, 2) the backfill is level behind and in front of the wall, 3) the back face of the walls are vertical (no pitch), and neglect friction between the wall and backfill.
- The resultant “active forces” for seismic conditions assume an effective ground motion of 85 percent of the “peak ground acceleration” (used PGA = 0.40g). And;
- The external stability of all retaining walls should exhibit a minimum safety factor against sliding of at least 1.5 under static loading, and 1.1 under seismic loading. In order to fully mobilize the passive resistance, the wall footing must move laterally about two percent of the height that the passive pressure will be applied. One-half of the maximum passive resistance may be developed if the footing can move about 0.5 percent of its height. If this amount of horizontal movement cannot be tolerated, a reduced lateral resistance equal to the at-rest earth pressure condition should be used.

**Seismic Ground Motions.** The seismic design parameters shown below address the geotechnical aspects of designing foundations on this site relative to the International Building Code (IBC) (ICC, 2012)<sup>1</sup>.

**Seismic Design Parameters**

Site Parameters	Reference	Value
Class	Table 1613.5.2	D
S <sub>s</sub>	Figures 1613.5 (11) &(12)	1.25
S <sub>1</sub>		0.55
F <sub>a</sub>	Tables 1613.5.3 (1) & (2)	1.0
F <sub>v</sub>		1.5

**CLOSURE**

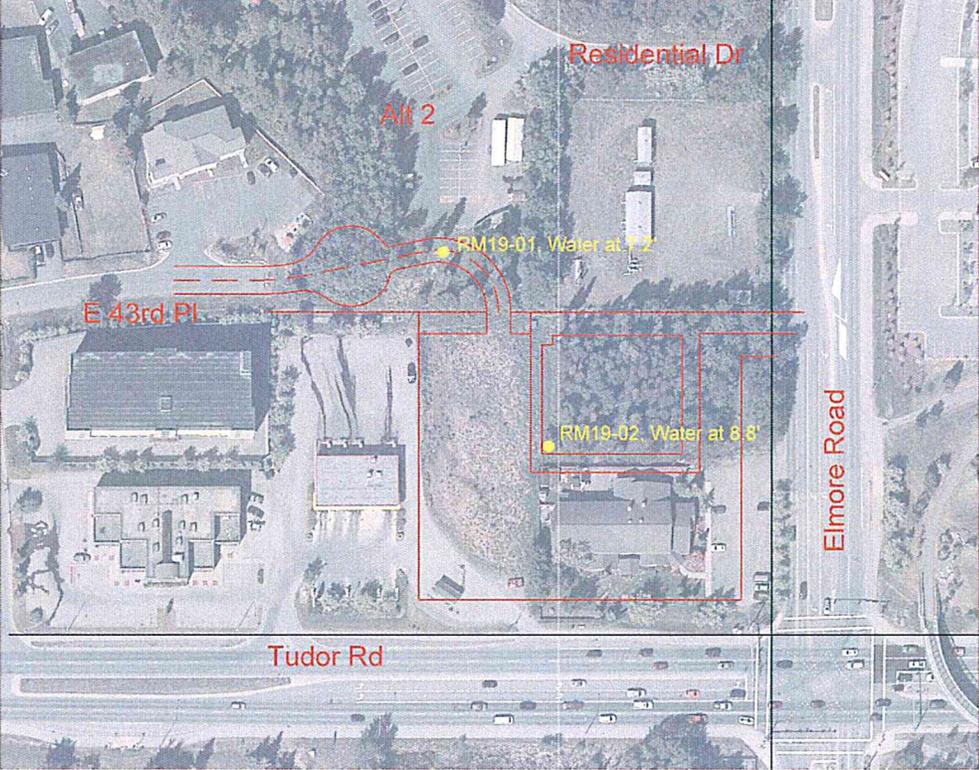
It is emphasized that the information provided in this memorandum is preliminary in nature and additional design level geotechnical investigations should be performed to support design and construction of the project.

R&M Consultants, Inc. performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of study described within.

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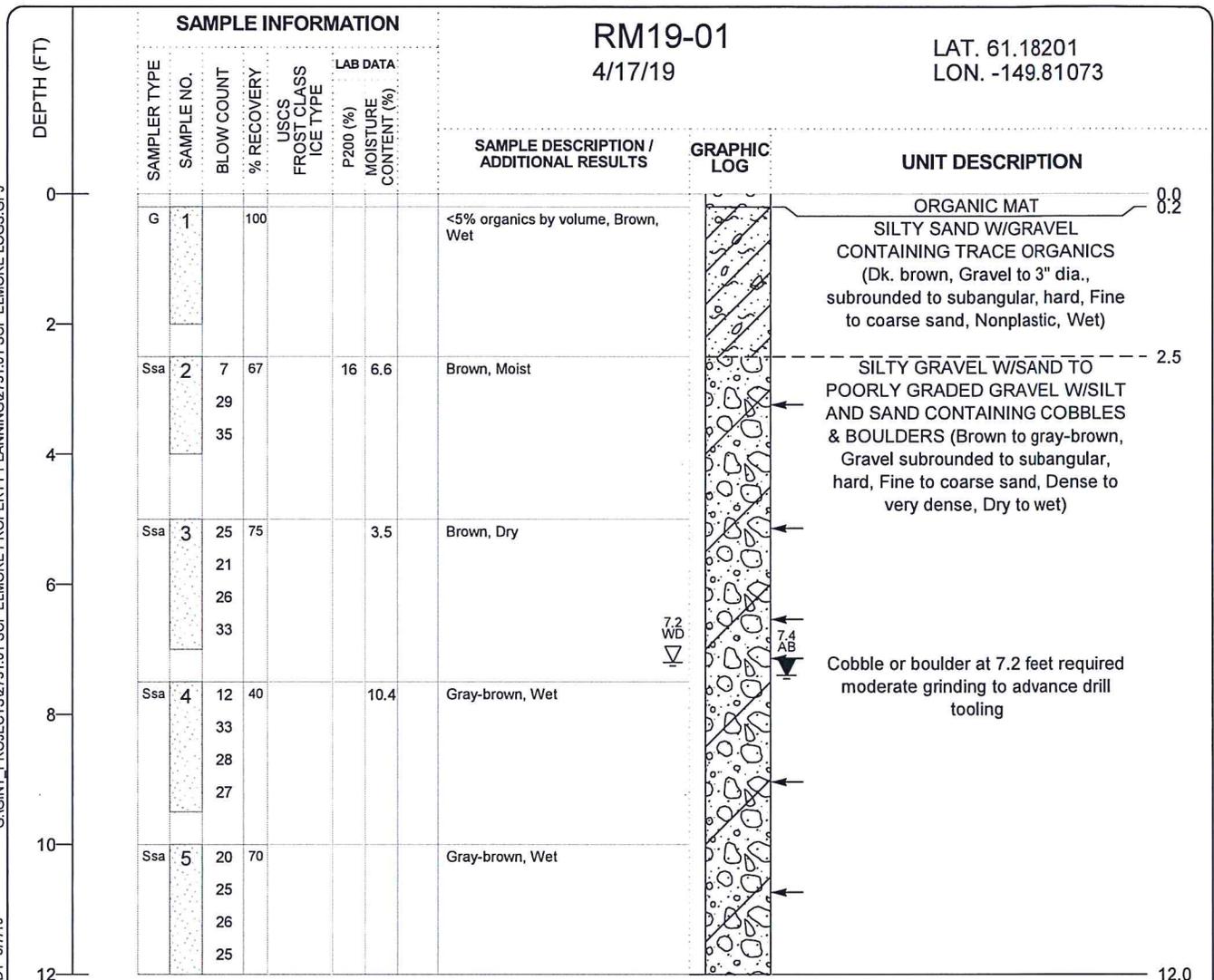
<sup>1</sup> International Code Council, Inc. (ICC, 2012), “International Building Code” (IBC), 2012.

Memo to: Ed Zernia  
From: Bob Pintner, P.E.  
Date: 5/7/2019  
Page 5



Drawing 1 – Borehole Location Map

NEW RM LOG 2731.01 SCF ELMORE LOGS.GPJ RM\_DATATEMPLATE\_UPDATE.GDT 5/7/19 G:\GINT\_PROJECTS\2731.01 SCF ELMORE PROPERTY PLANNING\2731.01 SCF ELMORE LOGS.GPJ



\*Estimated classification

Coordinates are presented referencing WGS84, recoded using a recreational grade GPS unit.

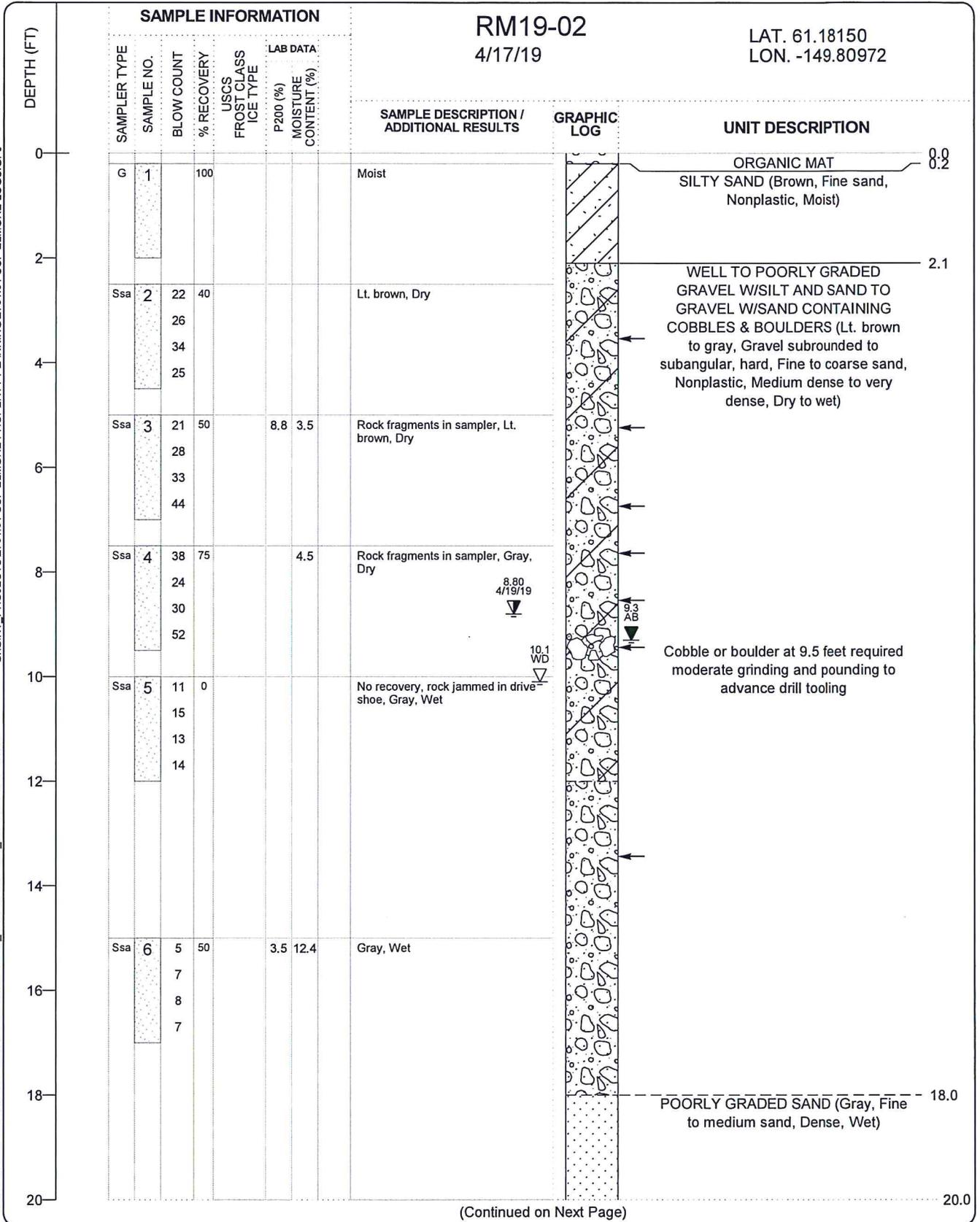
DWN:	A.T.B.
CKD:	R.M.P.
DATE:	MAY '19
SCALE:	SHOWN



SCF ELMORE PROPERTY PLANNING
ANCHORAGE, ALASKA
LOG OF TEST BORING
RM19-01

FB:	NA
GRID:	1735
PROJ.NO:	2731.01
DWG.NO:	2

NEW RM LOG 2731.01 SCF ELMORE LOGS.GPJ RM\_DATATEMPLATE\_UPDATE.GDT 5/7/19 G:\GINT\_PROJECTS\2731.01 SCF ELMORE PROPERTY PLANNING\2731.01 SCF ELMORE LOGS.GPJ



(Continued on Next Page)

DWN:	A.T.B.
CKD:	R.M.P.
DATE:	MAY '19
SCALE:	SHOWN



SCF ELMORE PROPERTY PLANNING  
ANCHORAGE, ALASKA  
LOG OF TEST BORING  
RM19-02

FB:	NA
GRID:	1735
PROJ.NO:	2731.01
DWG.NO:	3

NEW RM LOG 2731.01 SCF ELMORE LOGS.GPJ RM\_DATATEMPLATE\_UPDATE.GDT 5/7/19 G:\GINT\_PROJECTS\2731.01 SCF ELMORE PROPERTY PLANNING\2731.01 SCF ELMORE LOGS.GPJ

## RM19-02 (CONTINUED)

DEPTH (FT)	SAMPLE INFORMATION						SAMPLE DESCRIPTION / ADDITIONAL RESULTS	GRAPHIC LOG	UNIT DESCRIPTION
	SAMPLER TYPE	SAMPLE NO.	BLOW COUNT	% RECOVERY	USCS FROST CLASS ICE TYPE	LAB DATA			
					P200 (%)	MOISTURE CONTENT (%)			
20	Ssa	7	9	67		22.4	1.5 feet of heave which was able to be cleared, Gray, Wet	20.0	
22			15						
			18						
24								23.0	
26	Ssa	8	16	30			1/8 inch thread was able to be rolled, Gray, Wet		
			16						
			12						
			10						
28								28.0	
30	Ssa	9	24	65		21.2	Gray, Wet		
			16						
			16						
			13						
32									
34								34.0	
36	Ssa	10	9	75			Gray, Wet		
			11						
			30						
			27						
								37.0	

\*Estimated classification

Coordinates are presented referencing WGS84, recoded using a recreational grade GPS unit.

1-inch diameter PVC standpipe was installed to 35 feet below ground surface and screened from 7 to 17 feet.

DWN:	A.T.B.
CKD:	R.M.P.
DATE:	MAY '19
SCALE:	SHOWN



SCF ELMORE PROPERTY PLANNING
ANCHORAGE, ALASKA
LOG OF TEST BORING
<b>RM19-02</b>

FB:	NA
GRID:	1735
PROJ.NO:	2731.01
DWG.NO:	4

## SOILS CONSISTENCY AND SYMBOLS

**CLASSIFICATION:** Identification and classification of the soil is accomplished in accordance with the ASTM version of the Unified Soil Classification System. When laboratory testing data on material passing the 75-mm sieve is available Standard D 2487 (Classification of Soils for Engineering Purposes) is used and when laboratory data is not available D 2488 (Visual-Manual Procedure) is used. This classification system identifies three major soil divisions: coarse-grained soils, fine-grained soils, and highly organic soils. These three divisions are further subdivided into a total of 15 basic soils groups. Based on the results of visual observations and prescribed laboratory tests, a soil is catalogued according to the basic soil groups, assigned a group symbol(s) and name, and thereby classified. Flow charts contained in the two standards can be used to assign the appropriate group symbol(s) and name.

**SOIL DENSITY/CONSISTENCY - CRITERIA:** Soil density/consistency as defined below and determined by normal field and laboratory methods applies only to non-frozen material. For these materials, the influence of such factors as soil structure, i.e. fissure systems shrinkage cracks, slickensides, etc., must be taken into consideration in making any correlation with the consistency values listed below. In permafrost zones, the consistency and strength of frozen soil may vary significantly and inexplicably with ice content, thermal regime and soil type.

### COARSE GRAINED (DOT&PF 2007)

<u>Relative Density</u>	<u>N * (blows/FT.)</u>
Very loose	0 - 4
Loose	5 - 10
Medium dense	11 - 30
Dense	31 - 50
Very dense	>50

### FINE GRAINED (ASTM D2488)

<u>Consistency</u>	<u>Thumbnail Test</u>
Very soft	Thumb > 1 in.
Soft	Thumb = 1 in.
Firm	Thumb = 1/4 in.
Hard	Thumbnail indents
Very hard	Thumbnail will not indent

\* Standard Penetration "N": Blows per 12 inches of a 140-pound manual hammer (lifted with rope & cathead) falling 30 inches on a 2-inch O.D. split-spoon sampler except where noted. Blow counts presented on test boring logs are direct field values (i.e. they have not been corrected to account for hammer efficiency, borehole diameter, sampling method, or rod length)

### KEY TO TEST RESULTS

DD - Dry Density	PP - Pocket Penetrometer
LL - Liquid Limit	P200 - % Passing No. 200 Screen
MC - Moisture Content	P.02 - % Passing 0.02 mm
Org - Organic Content	P.005 - % Passing 0.005 mm
PI - Plastic Index	P.002 - % Passing 0.002 mm
PL - Plastic Limit	

\* (DRAWING 1 NEW SOIL CONSISTENCY&CLASS (NON-DOT&PF) 5/7/19 02:05 PM

DWN:	B.M.M.
CKD:	A.T.B.
DATE:	GENERAL
SCALE:	NONE



### GENERAL NOTES

FB:	N/A
GRID:	N/A
PROJ.NO:	GENERAL
DWG.NO:	5

## STANDARD SYMBOLS

SYMBOL	NAME	PARTICLE SIZE	SYMBOL	NAME
	CLAY	< 0.002mm, Plastic		ORGANICS
	SILT	0.002mm, - #200		ICE
	SAND	#200, - #4		ICE W/SOIL INCLUSIONS
	GRAVEL	#4, - 3"		ICE LENSE IN SOIL
	COBBLES & BOULDERS	3" - 12" & > 12"		ICE CRYSTALS IN CLAY

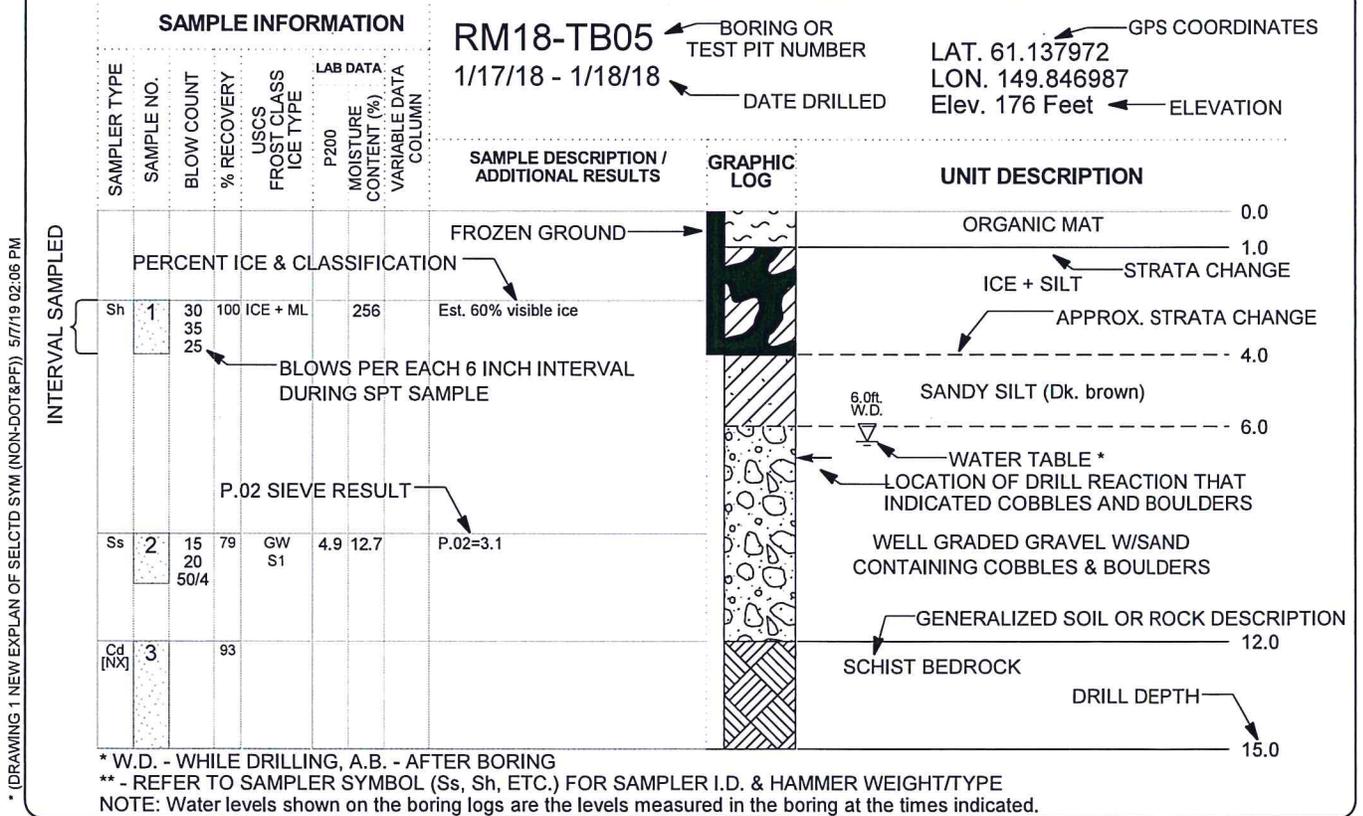
(The symbols shown above are frequently used in combinations, e. g. SILTY GRAVEL W/SAND)

## SAMPLER TYPE SYMBOLS

A Auger Sample	MC 1.5 In. I.D. Macro-core	Ss 1.4 In. Split Spoon w/140 lb. Manual Hammer
C Cuttings Sample	MC7 3.0 In. I.D. Macro-core	Ssa 1.4 In. Split Spoon w/140 lb. Auto Hammer
Cd Double Tube Core Barrel	Sh 2.5 In. Split Spoon w/340 lb. Manual Hammer	Tm Modified Shelby Tube
Cs Single Tube or Auger Core	Sha 2.5 In. Split Spoon w/340 lb. Auto Hammer	Ts 3.0 In. Shelby Tube
Ct Triple Tube Core Barrel	Sl 2.5 In. Split Spoon w/140 lb. Hammer	[XX] Sampler ID (Rock Core - NX, NQ, etc.)
G Grab Sample		

NOTE: Sampler types are either noted above the boring log or adjacent to it at the respective depth. An individual log may not utilize all of the items listed.

## TYPICAL BORING AND TEST PIT LOG



DWN:	B.M.M.
CKD:	A.T.B.
DATE:	GENERAL
SCALE:	NONE



### EXPLANATION OF SELECTED SYMBOLS

FB:	N/A
GRID:	N/A
PROJ.NO:	GENERAL
DWG.NO:	6

\* DRAWING 1 NEW EXPLAN OF SELCTD SYM (NON+DOT&PEF) 5/7/19 02:06 PM

# S12514

