WT Group
Engineering • Design • Consulting

April 7, 2021

ADDENDUM NO. 03

Project: **Bridges of Poplar Creek**
Hoffman Estates, IL
WT Project #2002487D

TO: **All Plan Holders**

This addendum shall be included in and become part of the Contract Documents. Changes on the drawings have been bubbled. The above named Project Specifications and Drawings previously issued are hereby modified as follows:

General Clarifications

1. An additional alternate has been added for the prefabricated building manufacturer for the construction of the roof. The bid form has been updated.
2. The concrete contractor bid form has been updated.
3. A soils report has been added. Refer to the soils report for foundation sizing and design.
4. The building width has been changed to 30 feet wide this has been reflected on all plan sheets.
5. The width of the concrete patio has been reduced to match the building width.

Plan Revisions

1. Additional information for the concrete contractor has been added to civil sheet 3.0 for the outdoor fire pits.
2. Minor note changes and clarifications have been added to all plan sheets and have been bubbled.
3. The stone subbase beneath the concrete building slab shall be CA-6 subbase material (IE 6” CA-6 subbase). This has been reflected on the architectural plans.
4. The 2” insulation and vapor barrier beneath the concrete slab shall be provided by the concrete contractor. This is now specified on the architectural plans.
5. The general contractor will be providing the stone subbase material for the tee greens. Refer to manufacturer’s requirements for the stone subbase specifications. The stone sub base material shall be CA-7 (not CA-6). Provide geotextile fabric between the CA-7 material and the subbase. This has been noted on the sheet A141 the Slab Plan.
6. The reinforced concrete general notes on sheet A141 have been revised.
7. The door at Side Elevation 2 has been revised. Refer to sheet A201, A501, and A701. The door is now an automatic sliding door.
8. Roof top, building lighting and Musco lighting have been added. Refer to sheet A201 and the Electrical Engineering Plans.
9. The infared heater locations have been revised and additional notes have been added to sheet M1.1.

10. Additional lighting has been added to sheet E1.1.
11. Additional lighting specifications have been added to sheet E2.3.
12. Additional lighting specifications have been added to sheet E2.4.
13. Additional lighting has been added to sheet SE1.1.
14. Photometric plans have been added to the plan set.

Regards,
The WT Group, LLC

Todd Abrams P.E., CFM
Executive Vice President

Bid Proposal Form – Prefabricated Building Manufacturer Purchase and Install

Base Bid **Bid Price**

Prefabricated Building Manufacturer Scope:

- Structural Foundation System $_____
- Structural Wall and Roof Framing System
- OSB Roof Deck
- All Interior Wall Framing
- All Wall Panel Finishes Interior and Exterior
- Sill Material
- Stone Wainscot
- All Trim Around Window and Door Openings
- Rough Window and Door Openings
- East Exit Door
- Mechanical Room Door
- Coordination with the Building General Contractor and Concrete Installer

Note: The Hoffman Estates Park District will be construction managing the overall project.

Alternate Bid for Alternate Roof Design $_____

Bid Proposal Form – Concrete Contractors

Base Bid	**Bid Price**
Concrete Paving Scope - Scope includes furnishing and installing all concrete pavement including building slab, concrete sidewalks and patios. Scope includes finish grading and compacting of the subgrade material for the installation of the subbase and concrete material. The concrete contractor shall also install all subbase material (IE all CA-6, CA-7, etc.) for all concrete construction. The concrete contractor shall also coordinate utility location penetrations into curbs, foundations, etc. with the utility contractor.	$_____
Alternate # 1 - Install 4" Concrete Patio per the Drawings	$_____

Unit Prices	**Bid Price**
Unit Price #1 – Provide and install new 5" concrete sidewalk per the detail.	$_____/Sq. Ft.
Unit Price #2 – Provide and install 4" Concrete Patio per the detail	$_____/Sq. Ft

SOIL AND MATERIAL CONSULTANTS, INC.

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April 6, 2021
File No. 25740

Mr. Todd Abrams, P.E., CFM
WT Group
2675 Pratum Avenue
Hoffman Estates, IL 60192

Re: Geotechnical Investigation
Bridges of Poplar Creek
Driving Range Improvements
Hoffman Estates, Illinois

Dear Mr. Abrams:

The following is our report of findings for the geotechnical investigation completed for the above referenced project in the Village of Hoffman Estates, Illinois.

The investigation was requested to determine current subsurface soil and water conditions at select boring locations. The findings of the field investigation and the results of laboratory testing are intended to assist in the planning, design and construction of proposed site improvements.

PROPOSED IMPROVEMENTS

We understand it is proposed to construct a single-story building supported on shallow depth foundations. The interior is expected to have at-grade slabs supported on prepared subgrade soils. Improvements exterior to the building are expected to include pavement areas, sidewalks and related underground improvements.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 2 borings at the locations requested and as indicated on the enclosed location sketch. The boring locations were established using field taping methods and accuracy. Surface elevations were estimated to the nearest 0.5 ft. using data presented on the topographic survey.

We auger drilled the borings to depths of 15.0 feet below existing surface elevations. Soil samples were obtained using a split barrel sampler advanced utilizing an automatic SPT hammer. Soil profiles were determined in the field and soil samples returned to our laboratory for additional testing including determination of moisture content. Cohesive soils obtained by split barrel sampling were tested further to determine dry unit weight and unconfined compressive strength.

The results of all field determinations and laboratory testing are included in summary with this report.

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the soil conditions encountered at each location. Site surface conditions include vegetation, topsoil and fill soil conditions. Composition of the fill includes the presence of topsoil, silt/clay, and clay/silt mixtures extending to depths of 3.0 feet at these boring locations. The limits of fill placement were not determined within the scope of this investigation. Larger debris may also be present within the fill but was not encountered during the investigation.

Underlying soil conditions include the presence of cohesive soils. These are classified as tough to hard clay/silt mixtures with lesser portions of sand and gravel. Thinner seams of non-cohesive soils were also encountered as indicated. These include medium dense silt/clay/sand and sand mixtures. The non-cohesive granular soils encountered at boring B-2 were in a saturated condition. Cobbles and boulders may be present within the site soils at any elevation, although none were encountered while drilling.

The following table summarizes depth ranges below existing grade, the magnitude of soil strength within these ranges and other information:

Boring	Surface Elevation (feet)	Depth Range Below Existing Surface (feet)	Soil Strength (lbs./sq.ft.)	Recorded Water Levels, W.D./A.D. (feet)
1	803.5	2.5 to 3.5	*3,000	dry/dry
		3.5 to 6.5	4,000	
		6.5 to 12.0	5,000	
2	804.0	1.5 to 3.5	*3,000	10.0/7.0
		3.5 to 12.0	3,000	

* Not recommended for support of foundations. Deeper foundation depths or foundations supported on coarse crushed stone fill may be needed to reduce the magnitude of long-term total and differential settlement.

It is expected that foundations can be supported on undisturbed natural soils located at any elevation within the depth ranges indicated in the above table, except as noted. Above these depth ranges the soils are not considered able to support foundations, even at reduced design bearing values, due to long-term settlement considerations.

SUBSURFACE WATER

The boring logs and the above table indicate the depth at which subsurface water was encountered in the bore holes at the time of the drilling operations and during the period of these readings. It is expected that fluctuations from the water levels recorded will occur over a period of time due to variations in rainfall, temperature, subsurface soil conditions, soil permeability and other factors not evident at the time of the water level measurements.

FOUNDATIONS

Based on the results of this investigation it is our opinion that continuous and isolated footing foundations may be considered for support of building loads. These foundations can be supported on undisturbed natural soils located below all topsoil, unsuitable fill soils, low strength soils and other unsuitable conditions which may be encountered. Soil strength values and the depths at which they are expected to be encountered at these boring locations are indicated in the above table. A net allowable bearing value of 3,000 lbs./sq.ft. is available for design. This value can be used to size foundations for support of structure dead and live loads.

All exterior building foundations should extend at least 42.0 inches below exposed surface elevations to provide adequate protection against uplift due to freezing of the supporting soils. Foundations for unprotected improvements should extend at least 48.0 inches below exposed surface elevations. We recommend providing adequate reinforcing steel in foundation walls and piers to minimize the effects of long-term differential settlement.

Weak soil conditions may be discovered locally at design foundation elevations and may require extending the foundation to a deeper elevation. Alternately, removal of the weak soil followed by replacement with properly compacted coarse crushed granular fill (CA01) may be feasible. When removal is approved by the Soil Engineer, the removal of the weak soil should also extend beyond the face of footings and/or piers to a distance at least equal to the depth of fill that will be present beneath the footings and/or piers. A capping layer of finer crushed granular fill (CA06) can be utilized to establish a working surface.

Foundations can be constructed at shallower depths than those indicated in the above table by preparation of the building pad in advance of foundation excavation. This can be accomplished during site grading by the full-depth removal of unsuitable and low strength soils followed by replacement with properly compacted structural fill. Removal should be accomplished over the entire building pad as needed to provide the supplemental benefit of adequate support of interior slabs. Variations in the depth of removal can be anticipated due to naturally changing soil conditions. The removal should extend beyond the face of perimeter footings to a distance at least equal to the depth of fill that will be present beneath the perimeter footings. Preparation of supporting soils should be in accordance with our recommendations for Subgrade Soil Preparation.

FLOOR SLABS

Floor slabs planned for support on the existing soil conditions are expected to undergo some degree of long-term settlement as the soils consolidate under loading and as they shrink due to desiccation. Slabs may be considered for support on suitable natural soils or on properly placed and compacted fill soils. This is feasible when the soils supporting the slabs are prepared in accordance with the recommendations for Subgrade Soil Preparation. These include the removal of topsoil as well as removal or aeration of underlying high moisture content soils.

DEWATERING

Excavations may require dewatering due to subsurface water seepage and/or surface precipitation. This water can likely be removed to depths of several feet by standard sump and pump operations. Soils exposed at foundation, slab or undercut elevations should not be permitted to become saturated. Loss of bearing strength and stability may occur, requiring additional soil excavation.

Fill soils, cohesive soils and others can be unstable when saturated. These soils tend to cave or run when submerged or disturbed. The stability of exposed embankments is minimal to non-existent as confining soil pressures are removed. Proper drainage within excavations is necessary at all times, particularly when excavations extend below anticipated water levels and below saturated soils.

The contractor should be made responsible for designing and constructing stable temporary excavations. Also, the contractor should shore, slope, bench or restrain the sides of the excavations as required to maintain stability of both the excavation sides and bottom. In no case, should the slope, slope heights, or excavation depth exceed those in the local, state, and federal safety regulations.

SUBGRADE SOIL PREPARATION

Subgrade soil preparation should be accomplished where needed within the building area prior to excavation for foundations. The procedure in all areas of subgrade supported improvements should include the removal of unsuitable surface conditions including vegetation, topsoil, unsuitable fill soils, significant debris, weak or unstable soils, and other deleterious conditions which may be encountered. Above grade areas should be cut to design subgrade elevations. Exposed subgrade soils should be leveled, compacted and proof-rolled in the presence of the Soil Engineer.

Proof-rolling may reveal areas of unstable soil conditions. Discing and aeration of high moisture content soils can be effective to depths of up to 1.0 foot, depending upon the equipment utilized. Removal of unstable soils may be necessary if high moisture content conditions extend to depths greater than the effective depth of discing. If the depth of undercut appears to be significant, it may be economical to limit the depth of undercut to that needed to establish adequate support of slabs and remediate weak soil conditions at foundation elevations at the time of foundation construction.

Soft or unstable soil conditions in pavement areas can often be bridged by use of an effective depth of crushed granular material. The placement of the crushed granular bridging material, possibly in conjunction with the use of an appropriate geotextile fabric, should only proceed after review of the proof-roll conditions by the Soil Engineer. Long-term settlement of pavement surfaces may occur locally as the bridged soils desiccate.

Structural fill can be placed on soils prepared to the satisfaction of the Soil Engineer. The fill should be placed in lifts not to exceed 8.0 inches when uncompacted. Each lift should exceed minimum compaction requirements prior to placement of the next lift. We recommend a

minimum of 95% compaction based on the modified Proctor test, ASTM D-1557, be achieved within building areas. A minimum of 90% compaction should be achieved beneath exterior improvements such as pavements and sidewalks. Compaction requirements also apply to backfill placement around foundations and within trench excavations located below subgrade supported improvements.

The onsite non-organic soils are generally suitable for reuse as fill. Offsite sources may also be used provided they are approved in advance by the Soil Engineer. Aeration may be necessary to reduce soil moisture content prior to compaction. Soil borrowed from near the surface where seasonal fluctuations in soil moisture content occur may require particular attention. The moisture content of fill soils should be within approximately 3.0% of optimum moisture content as determined by the modified Proctor test for the soils to meet or exceed minimum compaction requirements.

CONCLUSION

The information within this report is intended to provide initial information concerning subsurface soil and water conditions on the site. Variations in subsurface conditions are expected to be present between boring locations due to naturally changing and filled soil conditions.

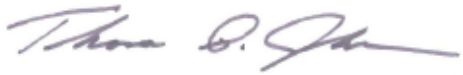
Our understanding of the proposed improvements is based on limited information available to us at the writing of this report. The findings of the investigation and the recommendations presented are not considered applicable to significant changes in the scope of the improvements or applicable to alternate site uses. We recommend that proposed foundation, pavement and grading plans be reviewed by our office to determine if additional considerations are necessary to address anticipated subsurface conditions.

The soils exposed in soil undercut areas should be evaluated for suitability prior to placement of structural fill, as previously indicated in this report. Soils and aggregates placed as structural fill should be tested as the work progresses to verify that minimum compaction requirements have been met. We recommend that soil conditions encountered at foundation elevations be tested to verify the presence of design soil strength prior to concrete placement.

If you have any questions concerning the findings or recommendations presented in this report, please let me know.

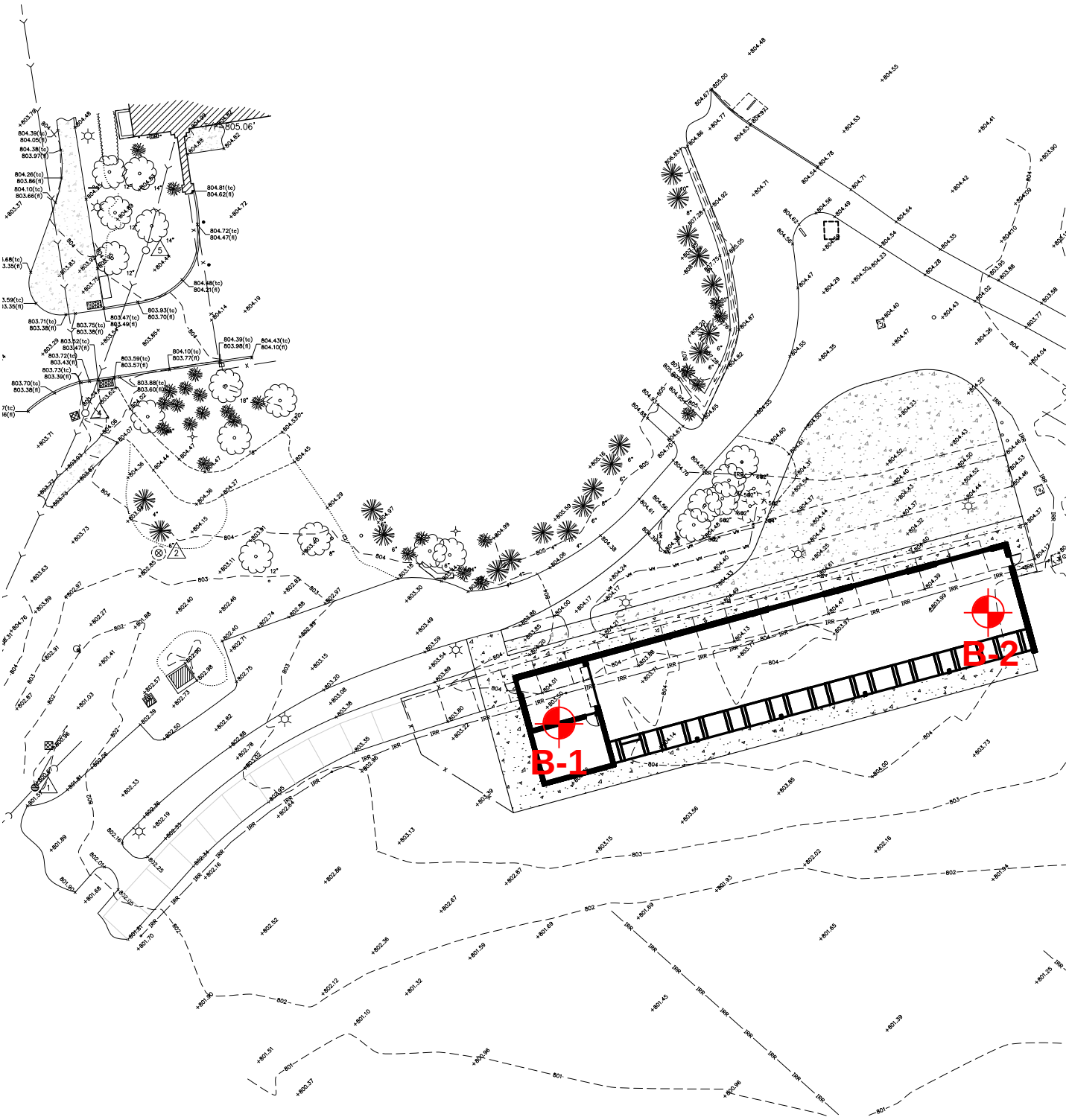
Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.



Thomas P. Johnson, P.E.
President

TPJ:ek
Enc.



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SMC	SOIL AND MATERIAL CONSULTANTS, INC.	LOCATION SKETCH
Client:	WT GROUP	
Project:	BRIDGES OF POPLAR CREEK DRIVING RANGE IMPROVEMENTS	
Location:	HOFFMAN ESTATES, ILLINOIS	
File No. 25740	Date: 4-5-21	Scale: 1” ≈ 40’

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG 1

Logged By: CS **Page:** 1 of 1

Client: WT Group

File No. 25740 **Date Drilled:** 4/5/21

Reference: Bridges of Poplar Creek
Driving Range Improvements
Hoffman Estates, Illinois

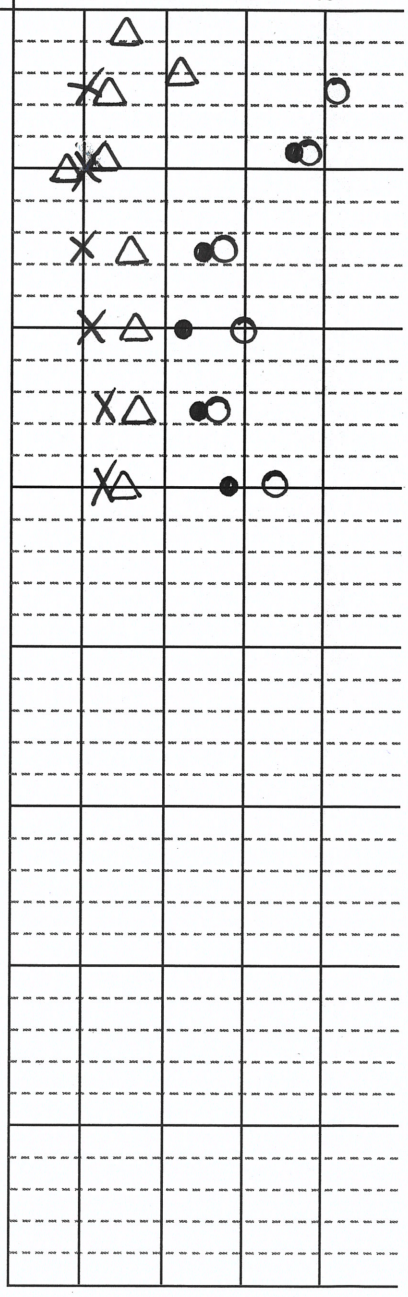
Comments: D-25

Equipment: ☐CME 45B ☐CME 55 ☐Hand Auger ☒Other

depth, ft.	CLASSIFICATION Elevation 803.5' Existing Surface	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		15.4		
	(b) see below		20.9		
	(c) see below	10	13.0	122.7	4.1
	Brown-gray clay,some silt,trace sand & gravel,damp,very tough		13.2	121.8	3.9
5	Brown-gray silt,some clay & sand,trace gravel,damp,medium dense	11	8.6		
	Gray clay,some silt,trace sand & gravel, damp,very tough	10	16.1	116.6	2.8
10		11	16.0	114.0	3.0
		13	15.9	113.8	2.7
15		13	15.1	116.2	3.4
	End of Boring				
	(a) Dark brown-black fine sand,trace silt & roots,damp (topsoil) - Fill				
20	(b) Black-dark brown-brown silt,some clay,trace sand & gravel,damp,loose Fill				
	(c) Brown clay,some silt,trace sand & gravel,damp,hard - Fill				
25					
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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SOIL BORING LOG 2

Logged By: CS **Page:** 1 of 1

Client: WT Group

File No. 25740 **Date Drilled:** 4/5/21

Reference: Bridges of Poplar Creek
Driving Range Improvements
Hoffman Estates, Illinois

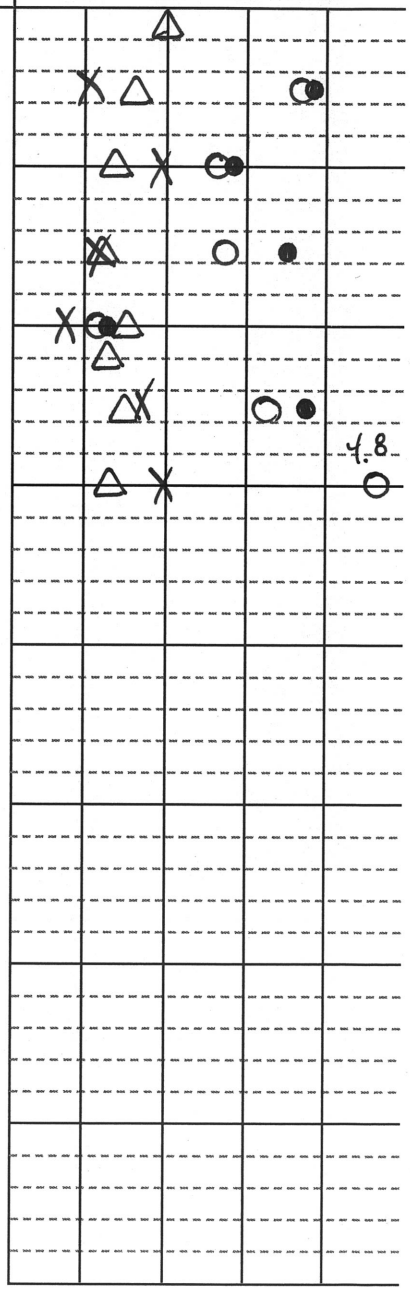
Comments: D-25

Equipment: ☐CME 45B ☐CME 55 ☐Hand Auger ☒Other

depth, ft.	CLASSIFICATION Elevation 804.0' Existing Surface	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		20.3		
	Brown clay,some silt,trace sand & gravel damp,very tough - Fill	11	15.5	114.2	3.7
5	Brown clay,some silt,trace sand & gravel damp,very tough	19	14.0	127.9	2.6
	Gray clay & silt,trace sand & gravel, damp,very tough ▽	11	10.8	128.1	2.8
10	Gray clay & silt,trace sand & gravel, damp,tough ▽ (b) see below	7	15.2 11.5	118.2	1.1
	Gray clay,some silt,trace sand & gravel, damp,very tough to hard	17	15.2	127.0	3.2
15		19	14.2	140.0	4.8
	End of Boring				
	(a) Dark brown-black fine sand,trace silt & roots,damp (topsoil) - Fill				
20	(b) Gray fine-medium sand,some coarse sand,trace gravel,saturated				
25					
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40



Water encountered at 10.0 feet during drilling operations (W.D.)
Water recorded at 7.0 feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

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GENERAL NOTES

SAMPLE CLASSIFICATION

Soil sample classification is based on the Unified Soil Classification System, the Standard Practice for Description and Identification Soils (Visual-Manual Procedure), ASTM D-2488, the Standard Test Method for Classification of Soils for Engineering Purposes, ASTM D-2487 (when applicable), and the modifiers noted below.

CONSISTENCY OF COHESIVE SOILS

Term	Qu-tons.sq.ft.	N (unreliable)
Very soft	0.00 – 0.25	0 – 2
Soft	0.26 – 0.49	3 – 4
Stiff	0.50 – 0.99	5 – 8
Tough	1.00 – 1.99	9 –15
Very Tough	2.00 – 3.99	16 – 30
Hard	4.00 – 7.99	30 +
Very Hard	8.00 +	

RELATIVE DENSITY OF GRANULAR SOILS

Term	N – blows/foot
Very Loose	0 – 4
Loose	5 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 +

IDENTIFICATION AND TERMINOLOGY

Term	Size Range
Boulder	over 8 in.
Cobble	3 in. to 8 in.
Gravel - coarse	1 in. to 3 in.
- medium	3/8 in. to 1 in.
- fine	#4 sieve to 3/8 in.
Sand - coarse	#10 sieve to #4 sieve
- medium	#40 sieve to #10 sieve
- fine	#200 sieve to #40 sieve
Silt	0.002 mm to #200 sieve
Clay	smaller than 0.002mm

Modifying Term	Percent by Weight
Trace	1 – 10
Little	11 – 20
Some	21 – 35
And	36 – 50

Moisture Content

Dry
Damp
Very Damp
Saturated

DRILLING, SAMPLING & SOIL PROPERY SYMBOLS

- CF - Continuous Flight Auger
- HS - Hollow Stem Auger
- HA - Hand Auger
- RD - Rotary Drilling
- AX - Rock Core, 1-3/16 in. diameter
- BX - Rock Core, 1-5/8 in. diameter
- NX - Rock Core, 2-1/8 in. diameter
- S - Sample Number
- T - Type of Sample
- J - Jar
- AS - Auger Sample
- SS - Split Spoon (2 in. O.D. with 1-3/8 in. I.D.)
- ST - Shelby Tube (2 in. O.D. w/ith1-7/8 in. I. D.)
- R - Recovery Length, in.
- B - Blows/6 in. interval, Standard Penetration Test (SPT)
- N - Blows/foot to drive 2 in. O.D. split-spoon sampler with 140 lb. hammer falling 30 in., (STP)
- Pen. - Pocket Penetrometer readings, tons/sq.ft.
- W - Water Content, % dry weight
- Uw - Dry Unit Weight of soil, lbs./cu.ft.
- Qu - Unconfined Compressive Strength, tons/sq.ft.
- Str - % Strain at Qu.
- WL - Water Level
- WD - While Drilling
- AD - After Drilling
- DCI - Dry Cave-in.
- WCI - Wet Cave-in.
- LL - Liquid Limit, %
- PL - Plastic Limit, %
- PI - Plasticity Index (LL-PL)
- LI - Liquidity Index [(W-PL)/PI]