

ADDENDUM NO. 1

DATE: January 30, 2018

TO: All Bidders

FROM: Boyce H. Evans, Purchasing Agent *BAE BHO*

SUBJECT: Addendum No. 1 – Fort Dickerson Parking Lot Improvements Project

PROJECT NO.: 17G-G-0640

BIDS TO BE OPENED: February 7, 2018, at 11:00:00 a.m. Eastern Time

This addendum becomes a part of the Contract Document and modifies the original specifications as noted.

Clarification for Contract Award:

The City of Knoxville will review responsive bids and determine if Alternate A will be awarded with the project. Award will be based on the lowest responsive base bid or the lowest responsive combination of base bid with Alternate A; this decision will be that which is most advantageous to the City of Knoxville.

Clarification for Planting Maintenance:

Planting Maintenance will be included as specified in this contract. The maintenance period will run concurrent with the warranty period for the first year and an additional two years if Alternate A is awarded. Project retainage, as well as the Performance and Payment Bonds, will be released upon acceptable completion of the project and a new Performance Bond for the faithful performance of the respective maintenance work is submitted to the City of Knoxville.

Geotechnical Report:

The geotechnical report that was mentioned in the pre-bid meeting is attached to this addendum to provide prospective bidders information to consider with their bid prices for this project.

Project Plans:

The plan sheets have been revised and the updated sheets are posted at the link provided to those who submitted a Bid Document Request form and is titled "Addendum No 1 revised plans.pdf".

Bid Proposal:

The bid proposal has been updated to address changes to the plans. The updated bid proposal is attached to this addendum.

Questions Received:

Question 1: Will the City accept a lump sum bid on the project and allow the low bid contractor to submit the unit prices afterwards.

Answer 1: No. The Information for Bidders states that "All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully completed and executed when submitted".

BID PROPOSAL
CITY OF KNOXVILLE, TENNESSEE

**Fort Dickerson Parking Lot Improvements
Project No. 17G-G-0640**

TO THE PURCHASING AGENT
CITY OF KNOXVILLE, TENNESSEE

_____ hereby propose(s) to furnish all material, labor, and appliances and do all work required to complete the Contract for the Fort Dickerson Parking Lot Improvements Project, Project No. 17G-G-0640, located in the City of Knoxville, Tennessee, in a workmanlike manner and in accordance with the plans of the Department of Engineering and specifications herewith attached.

Bidder further agrees that in case of failure to sign a delivered contract within thirty (30) days, the certified check or bid bond accompanying this bid and the proceeds thereof shall be the property of the City of Knoxville if the City chooses to retain said bid bond or check.

BID SCHEDULE

ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
ESTIMATED ROADWAY QUANTITIES					
1.0	Mobilization	LS	1		
01.56.39	Tree Protection	LS	1		
2.0	Clearing & Grubbing	LS	1		
3.0	Removal of Structures and Obstructions	LS	1		
4.0	Fine Grading (Plan Quantity)	SF	37,453		
4.01.01	Earthwork (Excavation for Planting Areas)	CY	1,728		
4.01.02	Site Preparation (Augusta Avenue)	SF	7,334		
4.01.04	Site Preparation (Plan Quantity) (Parking Lot)	SF	37,658		
5.01.02	Mineral Aggregate Type A Base, Grading D (Parking Lot, Augusta Ave Entrance)	TON	1,000		
5.1	Mixed Stone Aggregate (Augusta Ave Entrance Road, Parking Lot)	TON	345		
9.2	Bituminous Plant Mix, Grading B-M (Parking Lot)	TON	486		
10.0	Asphaltic Concrete Mix, Grading D (Apron at Augusta Avenue)	TON	30		
11.0	Portland Cement Concrete Pavement, Class CP	CY	20		
20.0	18" Pipe Culvert (HDPE)	LF	218		
22.0	Catch Basins, Type 12, 0' - 4' Depth	EACH	3		
25.0	Rip Rap (TDOT Class A-3)	TON	5		

ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
31.0	Erosion and Siltation Control	LS	1		
34.0	Construction Area Traffic Control	LS	1		
39.0	Pavement Markings & Temporary Paint	LS	1		
63.0	ADA Parking Signage	EACH	2		
203.1	Compacted Dirt Path	SF	3,100		
404.01.01	Double Bituminous Surface Treatment (Use with Mixed Stone Aggregate)	SF	18,727		

UTILITIES

02.51.02	8"HDPE Water Line	LF	300		
02.51.08	Water Service Assembly (1")	EACH	1		
02.51.09	1" Water Service Line	LF	50		
02.53.07	1 1/4" Sanitary Force Main Service Line	LF	300		
905.00.00	2" Sch 40 Conduit at Location Shown on Plan to Lights (Augusta Avenue)	LF	175		
905.00.01	2"Sch 40 Conduit Up Meter Pole (Augusta Avenue)	LF	30		
905.00.02	Pull Boxes, 12"x12" (Augusta Avenue)	EACH	3		
905.00.04	Pad for Service Panel and Timer (Augusta Avenue)	LS	1		
905.00.05	Pad Conduit Stub Outs (Augusta Avenue)	LS	1		
905.00.06	3'x5'x4' Hand Hole (Parking Lot)	EACH	1		
905.00.07	2-2" Sch 40 Conduit from Hand Hole to Transformer Base (Parking Lot)	LF	270		
905.00.08	1-2" Sch 40 Conduit from Service Pad to Lights (Parking Lot)	LF	850		
905.00.09	Concrete Base for Service Panel and Timer (Parking Lot)	LS	1		
905.00.10	HL45 Fiberglass Base for PM Transformer (Parking Lot)	LS	1		
905.00.11	12"x12" Hand Hole at Lights (Parking Lot)	EACH	13		
905.00.12	Concrete Bases for Light Poles (Parking Lot)	EACH	12		
905.00.13	Stub Outs/Stub Ups in Concrete Service Panel (parking Lot)	LS	1		

LANDSCAPING

04.43.00C	Stone Site Wall	LS	1		
04.43.00D	Stone Site Wall	LS	1		
04.43.00E	Stone Site Wall	LS	1		
12.93.00.01	Trash Bins	EACH	3		
12.93.00.02	Recycling Bins	EACH	3		
12.93.00.03	Bike Racks	EACH	11		
32.14.00.01	Stone Curb	LF	1,290		
32.14.00.02	Wheel Stop	EACH	39		
32.15.00.01	Stabilized Stone Screenings	SF	5,460		
32.15.00.02	Commercial Steel Edging with Staking System	LF	145		

ITEM NO.	DESCRIPTION	UNITS	TOTAL QUANTITY	PRICE PER UNIT	TOTAL PRICE PER ITEM
32.15.00.03	Small Aggregate Stone Edging	SF	475		
32.15.00.04	Medium Aggregate Stone Edging	SF	475		
32.15.00.05	Boulders	EACH	124		
32.91.00.01	Planting Soil Mix	CY	1,606		
32.91.00.02	Meadow Soil Mix	CY	574		
32.93.00-01.1	3.5" Caliper B&B Cladrastis kentukea	EACH	18		
32.93.00-01.2	3.5" Caliper B&B Gymnocladus dioica	EACH	16		
32.93.00-01.3	16-18' Height B&B Juniperus virginiana	EACH	16		
32.93.00-01.4	4" Caliper B&B Quercus falcata	EACH	13		
32.93.00-01.5	4" Caliper B&B Quercus macrocarpa	EACH	14		
32.93.00-01.6	4" Caliper B&B Ulmus americana	EACH	9		
32.93.00-02.1	8-10' Height B&B Cercis canadensis	EACH	5		
32.93.00-02.2	10-12' Height B&B Rhus typhina	EACH	14		
32.93.00-02.3	2" Caliper B&B Sassafras albidum	EACH	3		
32.93.00-02.4	8-10' Height B&B Viburnum rufidulum	EACH	15		
32.93.00-02.5	8-10' Height B&B Aesculus glabra	EACH	5		
32.93.00-03.1	5 Gallon Aesculus parviflora	EACH	7		
32.93.00-03.3	5 Gallon Viburnum dentatum	EACH	17		
32.93.00-03.4	5 Gallon Rhus aromatica	EACH	57		
32.93.00-04	Understory Planting (Plugs at 12" O.C.)	EACH	34,235		
32.93.00-05.1	Meadow Mix 1	SF	10,990		
32.93.00-05.2	Meadow Mix 2	SF	6,250		
32.93.00.06	Mulch (Organic, 2")	CY	340		
04.43.00A	Stone Site Wall	LS	1		
04.43.00B	Stone Site Wall	LS	1		
05.50.00	Quarry Lake Sign Wall (Inc Foundation)	LS	1		
32.31.19	Gates	LS	1		
32.96.00.01	Maintenance of Planting Areas (First Year Maintenance)	Year	1		
TOTAL BID				\$	

TOTAL BID (In Words):

ALTERNATE A

32.96.00.01A	Additional Two Years of Maintenance of Planting Areas (Three Years Total)	YEAR	2		
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ALTERNATE A TOTAL BID \$

ALTERNATE A TOTAL BID (In Words):



Soil Auger Borings

Fort Dickerson Parking Lot Improvements Knoxville, Tennessee

December 21, 2017

FSE Project No. 317203

Prepared For: Mr. Shawn E. Fitzpatrick, P.E. – City Of Knoxville



December 21, 2017

Mr. Shawn E. Fitzpatrick, P.E.
City Of Knoxville
Department of Engineering – Civil Division
3131 Morris Avenue
Knoxville, Tennessee 37909

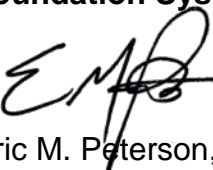
**Subject: Soil Auger Borings
Proposed Underground Utility Lines
Fort Dickerson Parking Lot Improvements
Knoxville, Tennessee
FSE Project No.: 317203**

Dear Mr. Fitzpatrick:

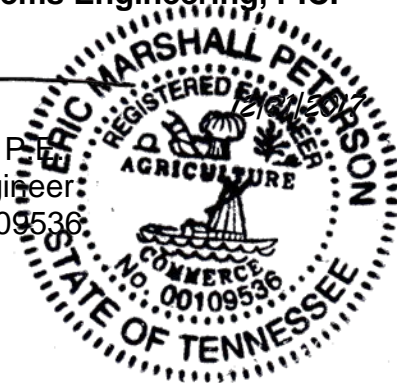
As per your authorization, we have completed drilling of soil auger borings at selected locations along proposed new underground utility lines at the above referenced Fort Dickerson Parking Lot Improvements project. The borings were placed at, and adjacent to, the parking lot on the west side of the Fort Dickerson Quarry Lake.

Please give us a call if you have any questions concerning the results of our borings, or if we may be of further service. It has been a pleasure to be of service on this project.

Sincerely,
Foundation Systems Engineering, P.C.


Eric M. Peterson, P.E.
Geotechnical Engineer
Tennessee No. 109536

JFL/EMP/jf
Enclosures



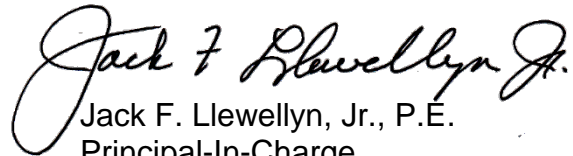

Jack F. Llewellyn, Jr., P.E.
Principal-In-Charge
Tennessee No. 19187

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1.0 EXECUTIVE SUMMARY

The proposed new Fort Dickerson Parking Lot is located on the west side of the Fort Dickerson Quarry Lake. The parking lot is located just east of West Blount Avenue, and is accessed via a gated-entrance at Augusta Avenue. The proposed new underground utility lines will extend from West Blount Avenue into, and adjacent to, the parking lot.

Eleven (11) soil auger borings (AB-1 through AB-11) were used to investigate the depth to top of rock (or other refusal material) along the proposed new utility lines. The following table summarizes boring depths at locations established by stakes placed in the field by City of Knoxville surveyors. The refusal material was not core drilled, and may consist of boulders suspended within the silty clay matrix or bedrock.

Boring Number	Drill Depth, Ft.	Auger Refusal/ Termination
AB-1	25	BT
AB-2	15	BT
AB-3	15	BT
AB-4	13.75	AR
AB-5	3.5	AR
AB-6	2.5	AR
AB-7	1.5	AR
AB-8	2.5	AR
AB-9	15	BT
AB-10	15	BT
AB-11	15	BT

* Station Numbers Are Approximate. AR = Auger Refusal. BT = Boring Terminated

The above summary provides an overview only and should not be used as a separate document or in place of reading the entire report including the appendices. The summary is not a substitute for the following detailed sections of this report. A complete discussion of finding and recommendations are included in the following sections of this report.



2.0 OBJECTIVE OF SUBSURFACE EXPLORATION

The purpose of the auger borings was to determine the depth to auger refusal through our proposed 15-foot drilling depth along the proposed new underground utility lines at Fort Dickerson Park located in Knoxville, Tennessee. Eleven auger borings were placed along the utility line routes at locations established in the field by City of Knoxville surveyors. The borings were drilled to a depth of 15 feet below existing grade, or auger refusal, whichever occurred first.

3.0 SCOPE OF SERVICES

3.1 Field Exploration And Sampling

- Eleven (11) soil auger borings were used to estimate the top of rock (or other refusal material) along the length of the proposed new utility lines. The borings were drilled using a Bobcat T 200 Skid Steer with auger head attachment and solid-stem augers. The borings were drilled to a depth of 15 feet below existing grade, or auger refusal, whichever occurred first. The approximate locations of the borings may be seen on the attached ***Boring Location Plan***.
- The borings were monitored for groundwater at the time of drilling. Upon completion, the borings were backfilled with soil auger cuttings.
- The driller's field notes and refusal/termination depths may be seen on the attached ***Auger Boring Records*** located in the report Appendix. A summary of the boring depths may be seen in Table I of this report.

4.0 SITE LOCATION AND CONDITIONS

The proposed new Fort Dickerson Parking Lot is located on the west side of the Fort Dickerson Quarry Lake. The parking lot is located just east of West Blount Avenue (approximately 850 feet south of the intersection of West Blount Avenue and Redwine Street), and is accessed via a gated-entrance at Augusta Avenue. The proposed new underground utility lines will extend from West Blount Avenue into and adjacent to the parking lot.



The old abandoned quarry is known as *City Quarry* and was operated by Vulcan Materials Company. The area is underlain by the Chapman Ridge sandstone unit. Sandstone was quarried and crushed for aggregate. The Chapman Ridge Sandstone unit consists mostly of fine to medium grained, calcareous sandstone.

5.0 SUBSURFACE STRATIFICATION

Eleven (11) soil auger borings (AB-1 through AB-11) were used to investigate the depth to top of rock (or other refusal material) along the proposed new utility lines. The borings were placed utilizing a Bobcat T-200 Skid Steer Loader equipped with an auger head attachment. Four-inch diameter solid augers were drilled to a depth of 15 feet below existing grade, or auger refusal, whichever occurred first. Upon completion the bore holes were checked for presence of groundwater and then backfilled with soil auger cuttings.

The following Table I summarizes boring depths along the proposed new utility lines. The borings were placed at stakes established in the field by City of Knoxville surveyors. Drilling depths indicated to be less than 15 feet represent the depth to auger refusal. Drill depths indicated to be 15 feet or greater are the depth at which the auger boring was terminated. The refusal material was not core drilled, and may consist of boulders suspended within the silty clay matrix or bedrock.

5.1 Table I – Auger Boring Data Summary

Boring Number	Drill Depth, Ft.	Auger Refusal/ Termination
AB-1	25	BT
AB-2	15	BT
AB-3	15	BT
AB-4	13.75	AR
AB-5	3.5	AR
AB-6	2.5	AR
AB-7	1.5	AR
AB-8	2.5	AR
AB-9	15	BT
AB-10	15	BT
AB-11	15	BT

* Station Numbers Are Approximate. AR = Auger Refusal. BT = Boring Terminated



5.2 Ground Water

By definition, ground water is the continuous body of subsurface water that fills the soil, rock voids and fissures and is free to move under the influence of gravity. The water table or phreatic surface is the level of zero (atmospheric) pressure in a continuous body of ground water. The ground water level is not a static level surface as the term *water table* implies. Instead, it is the sloping surface of a moving stream of water in the voids and fissures.

There was no groundwater encountered in the auger borings at the time of drilling. For reasons of safety, the bore holes were backfilled as soon as augers were removed from the ground. The borings were backfilled with soil auger cuttings.

A deeper bedrock aquifer exists at some depth into the bedrock below the ground surface. This deeper aquifer is well below the level of our boring.

5.3 Geology

Published geologic mapping indicates that the site is underlain by the Chapman Ridge Sandstone. The Chapman Ridge Sandstone is a member of the Chickamauga Group and is of middle Ordovician age. The Chapman Ridge Sandstone occupies the stratigraphic interval between the Ottosee Shale above and the Holston Limestone below.

The Chapman Ridge Sandstone is described as follows: *Sandstone, calcareous and calcarenite, fossiliferous, cross-bedded, dark greenish gray to reddish brown, with some shale interbeds and beds of marble.* The formation is estimated to be up to 900 feet in thickness. The formation strikes from northeast to southwest and dips to the southeast at 10 to 12 degrees. Reported compressive strength values vary from 15,000 psi to 30,000 psi. The formation weathers to an irregular top of rock, with near vertical solution cavities. The formation has medium-bedded to blocky excavation characteristics. The Calcareous sandstone is a good source of aggregates; however, the sandstone is hard on crushing equipment. Similar abrasion from both fill gravel to boulders, as well as undisturbed bedrock, should be expected on boring and excavation equipment.

6.0 REPORT LIMITATIONS

This report has been prepared for the **exclusive** use of the City of Knoxville. This report has been prepared in accordance with generally accepted engineering practice for specific application to this project. **The report was prepared for use only in engineering design and development of plans and technical specifications.** No warranty, expressed or implied, is made. Foundation Systems Engineering, P.C is not responsible for any claims, damages, or liability associated with any other party's interpretation of this report's data or reuse of this report's data or engineering analysis without our express written authorization.

The nature and extent of variations beyond the boring locations may not become evident until the time of utility line construction. Given the non-homogenous nature of the in-place fill, alluvial and residual soils encountered, contractors and others are cautioned against extrapolation between borings to estimate subsurface conditions.



APPENDICIES

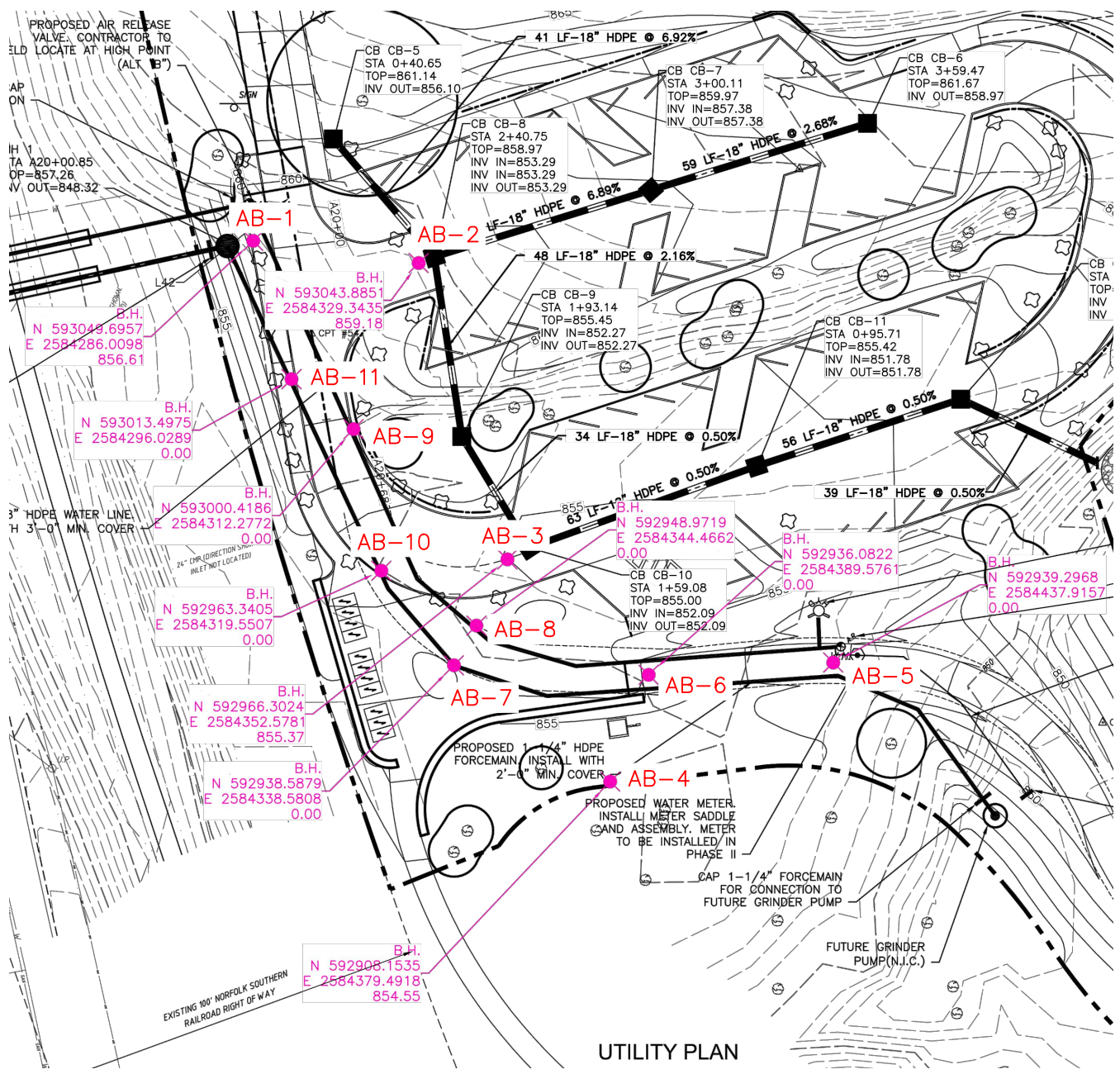
- I. Boring Location Plan & Auger Boring Records
- II. ASFE



APPENDIX I

Boring Location Plan & Auger Boring Records






FSE | GEOTECHNICAL ENGINEERING & CONSULTING

FOUNDATION SYSTEMS ENGINEERING, P.C.
 2203 ATCHLEY STREET | KNOXVILLE, TN. 37920
 Phone: 865.577.3361 | www.fsepc.com

**BORING LOCATION PLAN
 FORT DICKERSON PARKING LOT IMPROVEMENTS
 KNOXVILLE, TENNESSEE**

FOR: CITY OF KNOXVILLE		
DRAWN BY: EMP	NOTES: LOCATIONS ARE APPROXIMATE. ADAPTED FROM V&M DRAWING PROVIDED	
SCALE: NONE	DATE: 12/21/17	FSE #: 317203

Llewellyn and Associates, Inc. dba Construction Materials Laboratory

2204 Atchley Street
Knoxville, Tennessee 37920

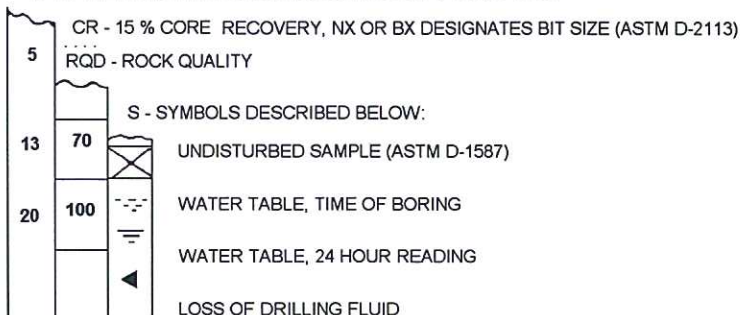
P.O. Box 9449
(615)573-6031 - 573-6122

Branch
P.O. Box 5186 - E.K.S.
Johnson City, Tennessee 37603
(615) 926-0762 - 926-3860

AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (24")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0						
	2.0	FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL. CALCAREOUS SANDSTONE COBBLES TO BOULDERS.					
	25.0	BORING TERMINATED AT 25.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BOREHOLE COLLAPSED AFTER REMOVING AUGERS.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)



BORING NUMBER: AB-1

DATE DRILLED: 12/18/17

LAB. NO.: 317203

PAGE 1 OF 1

FORT DICKERSON PARKING LOT
IMPROVEMENTS
2900 WEST BLOUNT AVENUE

Llewellyn and Associates, Inc. dba Construction Materials Laboratory

2204 Atchley Street
Knoxville, Tennessee 37920

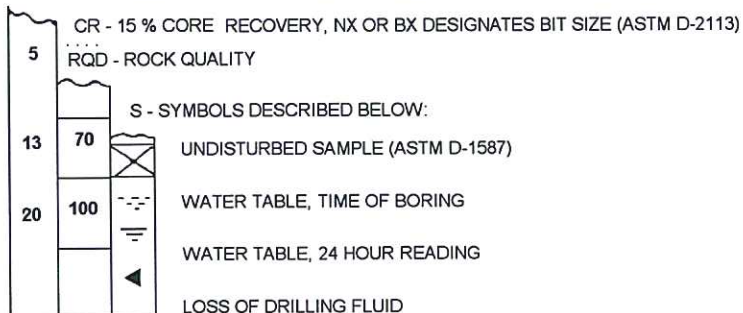
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P.O. Box 5186 - E.K.S.
Johnson City, Tennessee 37603
(615) 926-0762 - 926-3860

AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	BROWN, SILTY CLAY.					
	5.0	TOPSOIL, ORGANIC MATERIAL. (CHARRED WOOD)					
	10.0	BLACK, BROWN AND REDDISH BROWN, SILTY CLAY.					
	15.0	BORING TERMINATED AT 15.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					
							BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)



BORING NUMBER: AB-2
DATE DRILLED: 12/18/17
LAB. NO.: 317203

PAGE 1 OF 1

FORT DICKERSON PARKING LOT
IMPROVEMENTS
2900 WEST BLOUNT AVENUE

Llewellyn and Associates, Inc. dba
Construction Materials Laboratory

2204 Atchley Street
 Knoxville, Tennessee 37920

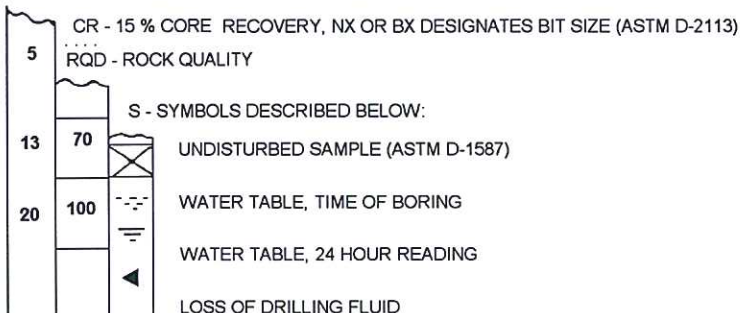
P.O. Box 9449
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 Johnson City, Tennessee 37603
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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	BROWN, SILTY CLAY AND FINE TO COARSE CALCAREOUS SANDSTONE GRAVEL.					
	5.0	BROWN AND REDDISH BROWN, SILTY CLAY. (POSSIBLE VOID)					
	8.0	BROWN AND REDDISH BROWN SILTY CLAY.					
	15.0	BORING TERMINATED AT 15.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)



BORING NUMBER: AB-3

DATE DRILLED: 12/18/17

LAB. NO.: 317203

PAGE 1 OF 1

**FORT DICKERSON PARKING LOT
 IMPROVEMENTS
 2900 WEST BLOUNT AVENUE**

Llewellyn and Associates, Inc. dba
Construction Materials Laboratory

2204 Atchley Street
 Knoxville, Tennessee 37920

P.O. Box 9449
 (615)573-6031 - 573-6122

Branch
 P.O. Box 5186 - E.K.S.
 Johnson City, Tennessee 37603
 (615) 926-0762 - 926-3860

AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	TOPSOIL. (2")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	0.17	RED AND REDDISH BROWN SILTY CLAY.					
	13.75	AUGER REFUSAL AT 13.75 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

CR - 15 % CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)

RQD - ROCK QUALITY

S - SYMBOLS DESCRIBED BELOW:

70  UNDISTURBED SAMPLE (ASTM D-1587)

100  WATER TABLE, TIME OF BORING

 WATER TABLE, 24 HOUR READING

 LOSS OF DRILLING FLUID

BORING NUMBER: AB-4

DATE DRILLED: 12/18/17

LAB. NO.: 317203

PAGE 1 OF 1

**FORT DICKERSON PARKING LOT
 IMPROVEMENTS
 2900 WEST BLOUNT AVENUE**

Llewellyn and Associates, Inc. dba
Construction Materials Laboratory

2204 Atchley Street
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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	TOPSOIL. (2")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	0.17	BROWN, SILTY CLAY MIXED WITH TOPSOIL.					
	1.0	BROWN AND REDDISH BROWN, SILTY CLAY MIXED WITH CHERT.					
	3.5	AUGER REFUSAL AT 3.5 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

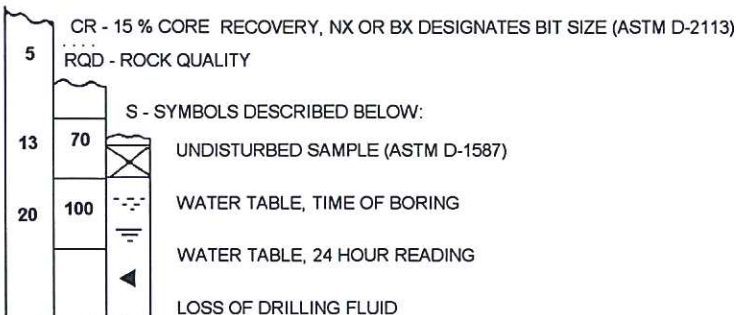
N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

BORING NUMBER: AB-5

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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**FORT DICKERSON PARKING LOT
 IMPROVEMENTS
 2900 WEST BLOUNT AVENUE**

Llewellyn and Associates, Inc. dba
Construction Materials Laboratory

2204 Atchley Street
 Knoxville, Tennessee 37920

P.O. Box 9449
 (615)573-6031 - 573-6122

Branch
 P.O. Box 5186 - E.K.S.
 Johnson City, Tennessee 37603
 (615) 926-0762 - 926-3860

AUGER BORING RECORD

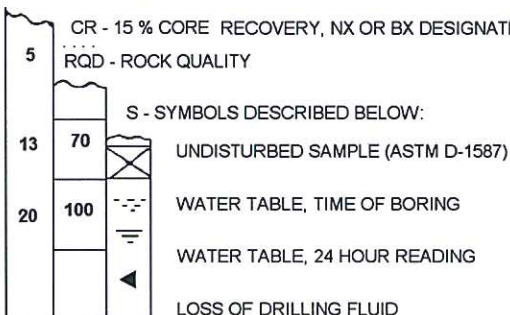
ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	TOPSOIL. (2")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	0.17	RED AND REDDISH BROWN, SILTY CLAY MIXED WITH CHERT.					
	2.5	AUGER REFUSAL AT 2.5 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

CR - 15 % CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)

RQD - ROCK QUALITY

S - SYMBOLS DESCRIBED BELOW:



BORING NUMBER: AB-6

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	TOPSOIL AND FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL TO COBBLE. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL, COBBLE MIXED WITH BROWN, SILTY CLAY.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.
	1.5	AUGER REFUSAL AT 1.5 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

5	CR - 15% CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)
13	RQD - ROCK QUALITY
20	S - SYMBOLS DESCRIBED BELOW:
	70  UNDISTURBED SAMPLE (ASTM D-1587)
	100  WATER TABLE, TIME OF BORING
	 WATER TABLE, 24 HOUR READING
	 LOSS OF DRILLING FLUID

BORING NUMBER: AB-7

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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**FORT DICKERSON PARKING LOT
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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	BROWN, SILTY CLAY WITH FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL.					
	5.0	BROWN AND REDDISH BROWN, SILTY CLAY MIXED WITH FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL.					
	15.0	BORING TERMINATED AT 15.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

CR - 15 % CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)

RQD - ROCK QUALITY

S - SYMBOLS DESCRIBED BELOW:

70  UNDISTURBED SAMPLE (ASTM D-1587)

100  WATER TABLE, TIME OF BORING

 WATER TABLE, 24 HOUR READING

 LOSS OF DRILLING FLUID

BORING NUMBER: AB-9

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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FORT DICKERSON PARKING LOT
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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL TO COBBLE MIXED WITH BROWN, SILTY CLAY.					
	5.0	BROWN AND REDDISH BROWN, SILTY CLAY.					
	15.0	BORING TERMINATED AT 15.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.


N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

CR - 15 % CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)

RQD - ROCK QUALITY

S - SYMBOLS DESCRIBED BELOW:

70  UNDISTURBED SAMPLE (ASTM D-1587)

100  WATER TABLE, TIME OF BORING

 WATER TABLE, 24 HOUR READING

 LOSS OF DRILLING FLUID

BORING NUMBER: AB-10

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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AUGER BORING RECORD

ELEV.	DEPTH	DESCRIPTION	DEPTH	N	CR --- RQD	S	REMARKS
	0.0	CRUSHED LIMESTONE GRAVEL. (12")					SOIL DESCRIPTION FROM DRILLER'S FIELD LOGS.
	1.0	FINE TO COARSE, CALCAREOUS SANDSTONE GRAVEL TO COBBLE MIXED WITH BROWN AND REDDISH BROWN, SILTY CLAY.					
	15.0	BORING TERMINATED AT 15.0 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.					BORING BACKFILLED WITH SOIL AUGER CUTTINGS AT TIME OF COMPLETION.

N - IS THE PENETRATION IN BLOWS PER FOOT (ASTM D-1586)

CR - 15 % CORE RECOVERY, NX OR BX DESIGNATES BIT SIZE (ASTM D-2113)

RQD - ROCK QUALITY

S - SYMBOLS DESCRIBED BELOW:

70  UNDISTURBED SAMPLE (ASTM D-1587)

100  WATER TABLE, TIME OF BORING

 WATER TABLE, 24 HOUR READING

 LOSS OF DRILLING FLUID

BORING NUMBER: AB-11

DATE DRILLED: 12/18/17

LAB. NO.: 317203

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**FORT DICKERSON PARKING LOT
 IMPROVEMENTS
 2900 WEST BLOUNT AVENUE**

APPENDIX II

ASFE



Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.



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TO OPEN ON 2/7/18 AT 11:00A.M. (EASTERN TIME)

NAME OF ATTENDEES	COMPANY NAME	ADDRESS	PHONE	EMAIL ADDRESS
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SHAWN FITZPATRICK	Coh	3131 Morris Ave KNOXVILLE TN 37909	865 215 6131	SFITZPAT@KNOXVILLE.TN.GOV
ROBIN LOUISE TIPTON	Coh	" " "	865 215-6109	RTIPTON@KNOXVILLETN.GOV
Robert Coqains	DCSI	6020 INDUSTRIAL HEIGHTS DR KNOXVILLE, TN	523-9730	Robert@DCSIGC.COM
Tyler Fest + Chris Duncan	Hickory Construction	124 Kent Place Alcoa, TN 37701	865-983-7856	tfest@hickoryconstruction.com
Pete Gerlach	Coh	3131 MORRIS AVE KNOXVILLE, TN	804-3105	pgerlach@knoxville.tn.gov
HEIDI JONES	THE FRANKLINGROUP.LLC	3748 GOOSE NECK DRIVE KNOX 37920	865805491	heidijones@thefranklingroupllc.com

TO OPEN ON 2/7/18 AT 11:00A.M. (EASTERN TIME)

NAME OF ATTENDEES	COMPANY NAME	ADDRESS	PHONE	EMAIL ADDRESS
Grey Reed	Adams and Sons, Inc	PO Box 5467 Sevierville, TN 37864	865-216-6418	greed@bellsouth.net
Brian Smith	Doracop Asphalt	P.O Box 53426 Knoxville, TN. 37950	865-524-3365	BrianSmith@DoracopAsphalt.com
Mike Lail	ROGERS GROUP, INC.	601 Maryville Pike Knoxville, TN. 37920	865.293.3071	MIKE.LAIL@ROGERSGROUPINC.COM
Casey Carr	SOUTHERN CONSTRUCTORS	1150 MARYVILLE PIKE KNOXVILLE, TN. 37920		CCarr@southernconstructorsinc.com
Robin Tipton	COK	3131 Morris Ave Knoxville TN	865-215-6105	r_tipton@knoxvilletn.gov
Justin Hare	SANDERS PACE ARCHITECTURE	513 W Jackson Ave #102 37902		jhare@SANDERSPACE.com
PRETHMAN PACE	SANDERS PACE	514 W JACKSON AVE	065 329 0316	hpace@SANDERSPACE.com

Boyle H. Evans
 Boyle H. Evans
 Purchasing Agent
 City of Knoxville
 (1/24/18)