**GEOTECHNICAL REPORT** 

I-80 Overhead Sign and Traffic Signals IDOT Job No P-91-185-09 Will County, IL

**Prepared for:** 

EXP US Services Inc. 205 North Michigan Avenue Suite 3600 Chicago, Illinois 60601

Prepared by:

Geo Services, Inc. 805 Amherst Court Suite 204 Naperville, Illinois 60565 (630) 305-9186

JOB NO. 20012

March 22, 2023 Revised: April 11, 2023 Revised: May 25, 2023 Revised: June 6, 2023





March 22, 2023 Revised: April 11, 2023 Revised: May 25, 2023 Revised: June 6, 2023

EXP US Services Inc. 205 North Michigan Avenue, Suite 3600 Chicago, Illinois 60601-5924

Attn: Mr. Thomas Hough, P.E., Email: Thomas.Hough@exp.com

Job No. 20012

Re: Structure Geotechnical Report I-80 Contract No.: 62R29 IDOT Job Number P-91-185-09 / PTB 194-09 Will County, Illinois

Dear Mr. Hough:

The following report presents the geotechnical analysis and recommendations for the proposed traffic signals at Briggs Street Ramp Intersections and overhead sign structures (OHSS) along I-80 corridor from Rowell Ave to Gougar Rd. A total of eight (8) traffic signals borings (TSB-01 thru TSB-8) and eleven (11) overhead signs borings (OSB-01 thru OSB-11). Copies of these boring logs, along with location plans are included in this report.

If there are any questions regarding the information submitted herein, please do not hesitate to contact us.

Very truly yours,

GEO SERVICES, Inc.

Nawras Alhadab Project Manager

Kt

Andrew J. Ptak, P.E. Principal Engineer



805 Amherst Court, Suite 204 Naperville, IL 60565-3448 Phone (630) 305-9186 www.geoservicesinc.net

enc.

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## **SECTION 01: INTRODUCTION**

This report presents the results of the geotechnical investigation for the proposed overhead sign structure (OHSS) along Interstate 80 (I-80) from Rowell Ave to Gougar Road and traffic signals at the Briggs Street ramp intersections in, Will County IL. The results of associated soil borings completed by Geo Services, Inc., along with general notes in Appendix A, site location map in Appendix B, site plans, and boring location plans found in found in Appendix C, boring found in Appendix D.

Boring locations were selected by GEO and were reviewed and approved by EXP. Boring locations were laid out in the field by GEO personnel at the proposed locations. Elevations were taken using a survey grade GPS and can be seen on the boring logs.

This report includes descriptions of soil and groundwater conditions encountered and recommendations pertaining to the design and construction of the overhead signs and traffic signals as well as, a site location map, boring location diagram and boring logs.

This report includes a description of subsurface conditions, location diagram and boring logs, as well as recommendations pertaining to the design and construction of the new sign and signal structure foundations and general construction considerations for the site.

## **SECTION 02: SUBSURFACE INVESTIGATION PROCEDURES**

The borings were performed during the months of January and February, 2023 with either an ATV-mounted drilling rig or truck-mounted drilling rig. Borings were advanced using hollow stem augers to completion, or using solid flight auger to 10-ft and using rotary methods to completion. Representative soil samples were obtained employing split spoon sampling procedures in accordance with AASHTO Method T-206. Samples obtained in the on I- field were returned to our laboratory for further examination and testing.

Split spoon sampling involves driving a 2.0-inch outside diameter split-barrel sampler into the soil with a 140-pound weight falling freely through a distance of 30-in. Blow counts are recorded at 6-in intervals and the blow counts are shown on the boring logs. The number of blows required to advance the sampler the last 12-in is termed the Standard Penetration Resistance (N). The N value is an indication of the relative density of the soil.

Bedrock coring was performed by the dual tube method using NX size, 5 feet length core barrel seated approximately 2 feet into bedrock for the four (4) overhead signs borings and seven (7) traffic signals borings chosen for rock core sampling. The full length of the boring was cased using 3-inch diameter casing which was seated approximately 6-in into bedrock to prevent cave-in of the boring while coring. Eleven

(11) bedrock cores were obtained in 5 feet runs out of the nineteen (19) borings at various locations along the I-80 corridor.

## SECTION 03: LAB TESTING PROGRAM

The test procedures were performed in accordance with test procedures discussed in the IDOT Geotechnical Manual. All split-spoon samples obtained from the drilling operation were visually classified in the field. Cohesive samples were tested for unconfined compressive strength using an IDOT modified RIMAC test device and/or calibrated penetrometer in the field.

The soil testing program included performing water content, density and either unconfined compression and/or calibrated penetrometer tests on the cohesive samples recovered. Water content tests were performed on the non-cohesive samples recovered. These tests were performed upon representative portions of the samples obtained in the field.

The results of the above testing, along with a visual classification of the material based upon both the Illinois textural classification and the AASHTO Soil Classification System, are indicated on the boring logs.

## SECTION 04: SUBSURFACE AND WATER CONDITIONS

Specific soil conditions encountered in the borings are shown on the boring logs in Appendix D. The following are descriptions for general soil and water table conditions.

#### **Overhead Signs**

The borings associated with Overhead Signs include OSB-01 through OSB-011. Surficial soils consisted of approximately 12" of sand stone topsoil and Asphalt at elevation 649 followed by clay loam and silty clay to approximate elevation 614. Beneath this layer, a layer of crushed stone, sand and gravel was encountered to termination of boring at elevation 596. Bedrock causing termination of borings OSB-02, OSB-03, OSB-04 and OSB-07 at depths ranging from 18 to 21-ft and 37 ft for OSB-07 below existing grade. All rock cores consist of Niagaran series dolomite with large amounts of fracturing.

The surficial topsoil had a moisture content ranging from 1%-19% with an average of 6%. The clay loam and silty clay layer underlying the topsoil at elevation 649.0 to 614 had moisture contents ranging from 3%-33% with an average of 19%, blow counts ranging from 5-50 blows/ft with an average of 18 blows/ft and cohesion ranging from 0.4 tsf to 4.9 tsf with an average of 2.4 tsf.

The crushed stone, sand and gravel layer at elevation 614 to 596 had moisture contents ranging from 6%-27% with an average of 14% and blow counts ranging from 13-68 blows/ft with an average of 39 blows/ft.

Ground water was not encountered during or after drilling above 10 feet. Coloration changes in the samples from brown and gray to gray indicate the long-term ground water table at a depth of 6 to 10 feet from the existing ground surface.

#### Traffic Signals

The borings associated with Traffic Signals include TSB-01 through TSB-08. Surficial soils consisted of approximately 12" of topsoil and Asphalt for all the borings. At elevation 651 a silty clay, crushed stone, clay with sand and gravel found to approximate elevation 640. Beneath this layer, a mix layer of clay loam, silty clay, clay with sandy was encountered to approximate elevation 614. Underline this layer a layer of sand and gravel, fraction rock and sandy clay was encountered to termination of boring at elevation 598. Bedrock causing termination of all borings except TSB-05 at depths ranging from 23 to 28-ft and 35 ft for TSB-08 below existing grade. All bedrock cores consisted of Niagaran series dolomite with large amounts of fracturing.

The surficial topsoil had a moisture content ranging from 1%-29% with an average of 8%. The clay loam, silty clay, clay with sandy layer underlying the topsoil at elevation 640.0 to 614 had moisture contents ranging from 5%-39% with an average of 20%, blow counts ranging from 2-50 blows/ft with an average of 14 blows/ft and cohesion ranging from 0.25 tsf to 4.5 tsf with an average of 1.7 tsf.

The sand and gravel, fraction rock and sandy clay layer at elevation 614 to 598 had moisture contents ranging from 2%-23% with an average of 12% and blow counts ranging from 5-29 blows/ft with an average of 16 blows/ft.

Ground water was encountered during or after drilling above 10 feet on TSB-06 and TSB-08. Coloration changes in the samples from brown and gray to gray indicate the long-term ground water table at a depth of 6 to 10 feet from the existing ground surface.

#### <u>Bedrock</u>

Bedrock cores were recovered from eleven (11) borings. Bedrock appeared to be of similar consistency throughout the borings which is classified as light gray to gray Silurian System, Niagaran Series Dolomite in all eleven (11) core runs. Furthermore, rock core recovery ranged from 24% to 68%, with an average of 57%. Upon further analysis in our laboratory, RQD values varied greatly ranging from 0% to 67% (average RQD of 35%). This a poor rating of RQD, making this weathered rock with numerous weathered jointing.

## SECTION 05: SEISMIC DATA

According to the AASHTO LRFD Bridge Design Specifications 2020, the project site has a horizontal Response Spectral Acceleration Coefficient of 0.040 ( $S_1$ , AASHTO Figure: 3.10.2.1-3) at a period of 1.0 second and 5% critical dampening and 0.104 ( $S_s$ , AASHTO Figure: 3.10.2.1-2) at a period of 0.2 seconds and 5% critical dampening and a Site Class: C according to the soil conditions. The project site is considered to be in a low seismic area. Liquefiable layers and scour are not expected to impact the design of the new sign and traffic signal structures. The following table contains a summary of the seismic data to be used for design:

Description	Туре	Value
Long Term Horizontal Response Spectral Acceleration Coefficient (1.0 second period)	S₁	0.040 g
Short Term Horizontal Response Spectral Acceleration Coefficient (0.2 second period)	Ss	0.104 g
Design seismic value at 1 second	S <sub>D1</sub>	0.068 g
Design seismic value at 0.2 second	S <sub>Ds</sub>	0.125 g
Seismic Performance Zone	-	1
Site Class	-	С

#### Table 1 – Seismic Data

## **SECTION 06: RECOMMENDATIONS**

#### 6.1 Foundation Recommendations

#### **Overhead Signs**

Based on the results of the borings and estimated foundation loading, the soils encountered during the subsurface investigation meet the soil condition requirements per IDOT Standard Sign Foundation details except borings OSB-003,004,006 and OSB-010. District One Soils Unit will complete an analysis and provide dimensions for the drilled shaft foundations based on the soils encountered see Table 2 below, Drilled-in, end-bearing straight-shaft caissons are feasible for support of majority of the new sign structures at appropriate locations. It is anticipated that lateral forces controls, deep foundations are typically used for the sign structures. The selection of foundation type should be determined by economic considerations if either foundation types are feasible for the design of the sign structures.

Structure Number	Station	Truss Type	Boring ID	IDOT Standard Sign Foundation Details Applicable
1C099I080R134.3	783+00	III-C-A	OSB-002	No <sup>1</sup>
1C099I080R134.5	798+00	III-C-A	OSB-003	No <sup>1</sup>
1C099I080L135.0	829+64	III-C-A	OSB-006	No <sup>2</sup>
1C099I080L135.5	843+50	III-C-A	OSB-007	Yes
1S099I080R135.7	854+00	III-A (DMS)	OSB-008/ OSB-009	Yes
1S0991080L136.0	870+00	III-A (DMS)	OSB-010/ OSB-011	No²

#### Table 2- Overhead Sign Summary

<sup>1</sup> Standard foundation depth encountered bedrock. Custom foundation design required.

<sup>2</sup> Low strength soil encountered with the proposed foundation depth. Custom foundation design required

#### Traffic Signals

Based on the results of the borings and estimated foundation loading, the soils encountered during the subsurface investigation meet the soil condition requirements per IDOT Standard Traffic Signal Design Details for the borings at the crossing of Briggs Street and the west-bound ramp. The borings at the crossing of Briggs Street and the east-bound ramps, district One Soils Unit will complete an analysis and provide dimensions for the drilled shaft foundations based on the soils encountered see Table 3 below. The drilled shaft construction should be completed in accordance with Section 516, Drilled Shafts, in the IDOT Standard Specifications for Road and Bridge Construction (adopted January 1, 2022).

Location	Station	Boring ID	IDOT Standard Signal Foundation Details Applicable
Briggs St. and WB Ramps	67+97	TSB-001	Yes
Briggs St. and WB Ramps	67+70	TSB-002	Yes
Briggs St. and WB Ramps	66+61	TSB-003	Yes
Briggs St. and WB Ramps	66+28	TSB-004	Yes
Briggs St. and EB Ramps	56+27	TSB-005	No <sup>1</sup>
Briggs St. and EB Ramps	55+52	TSB-006	No <sup>2</sup>
Briggs St. and EB Ramps	54+77	TSB-007	No <sup>1</sup>
Briggs St. and EB Ramps	54+12	TSB-008	No <sup>1'2</sup>

#### Table 3- Traffic Signals Summary

<sup>1</sup> Standard foundation depth encountered granular Material. Custom foundation design required.

<sup>2</sup> Low strength soil encountered with the proposed foundation depth. Custom foundation design required

#### 6.2 Drilled Straight-Shaft Caisson Recommendations

Drilled shafts can be designed for end-bearing resistance and/or side resistance per IDOT Bridge Manual. In addition, due to the materials encountered in the subsurface investigation, drilled shafts can be designed for end-bearing resistance in sand and clay loam fills.

#### 6.3 Drilled Pier Construction Considerations

The drilled pier construction should be completed in accordance with Section 516, Drilled Shafts, in the IDOT Standard Specification for Road and Bridge Construction. It is anticipated that dry construction methods may be feasible for the sign and traffic signal foundations. The temporary casing construction method should be applied where granular material is present within the proposed shaft depth.

## **SECTION 07: GENERAL CONSTRUCTION CONSIDERATIONS**

All excavations that extend greater than 4-ft in depth should be designed in accordance with OSHA regulations with properly sloped or braced sides to prevent excavation instability. Side slopes of 1-1/2H:1V or flatter will be required if sand soils are encountered. Stockpiles of material or equipment should not be placed near the top of excavation slopes.

All soils which become softened or loosened at the base of foundation excavation areas or subgrade areas should be carefully recompacted or removed prior to placement of foundation concrete. No foundation concrete or structural fill should be placed in areas of ponded water or frozen soil.

## SECTION 08: GENERAL QUALIFICATIONS

The analysis and recommendations presented in this report are based upon the data obtained from the soil borings performed at the indicated locations and from any other information discussed in this report. This report does not reflect any variations that may occur between borings or across the site. In addition, the soil samples cannot be relied on to accurately reflect the strata variations that usually exist between sampling locations. The nature and extent of such variations may not become evident until construction. If variations appear evident, it will be necessary to reevaluate the recommendations of the report. In addition, it is recommended that Geo Services, Inc. be retained to perform construction observation and thereby provide a complete professional geotechnical engineering service through the observational method.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No other warranties, either expressed or implied, are intended or made. In the event that any changes in the nature, design or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing by the geotechnical engineer. Also note that Geo Services, Inc. is not responsible for any claims, damages, or liability associated with any other party's interpretation of this report's subsurface data or reuse of the report's subsurface data or engineering analyses without the express written authorization of Geo Services, Inc.

# APPENDIX A GENERAL NOTES

#### **GENERAL NOTES**

#### **CLASSIFICATION**

American Association of State Highway & Transportation Officials (AASHTO) System used for soil classification.

#### Cohesionless Soils

Relative

Density

Loose

Dense Very Dense

Very Loose

#### TERMINOLOGY

Streaks are considered to be paper thick. Lenses are considered to be less than 2 inches thick. Layers are considered to be less than 6 inches thick. Stratum are considered to be greater than 6 inches thick.

#### Cohesive Soils

Medium Dense

<u>Consistency</u> <u>Strength - qu (tst)</u>	
Very Soft         Less than 0.25           Soft         0.25 - 0.5           Medium Stiff         0.5 - 1.0           Stiff         1.0 - 2.0           Very Stiff         2.0 - 4.0           Hard         Over 4.0	

No. of Blows

per foot N

0 to 4

4 to 10

10 to 30

30 to 50

Over 50

#### DRILLING AND SAMPLING SYMBOLS

SS:	Split Spoon 1-3/8" I.D., 2" O.D.
OT.	

- ST: Shelby Tube 2" O.D., except where noted
- AS: Auger Sample
- DB: Diamond Bit NX: BX: AX
- CB: Carboloy Bit NX: BX: AX
- OS: Osterberg Sampler

Standard "N" Penetration: Blows per foot of a 140 lb. hammer falling 30" on a 2" O.D. Split Spoon

#### WATER LEVEL MEASUREMENT SYMBOLS

WL:	Water	WD:	While Drilling
WCI:	Wet Cave In	BCR:	Before Casing Removal
DCI:	Dry Cave In	ACR:	After Casing Removal
WS:	While sampling	AB:	After Boring

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable ground water levels. In impervious soils, the accurate determination of ground water elevations is not possible in even several days observation, and additional evidence on ground water elevations must be sought.

#### HS: Housel Sampler WS: Wash Sample FT: Fish Tail RB: Rock Bit WO: Wash Out

# APPENDIX "

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## APPENDIX #

Plan

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# <u>APPENDIX )</u>

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Page <u>1</u> of <u>1</u> Date 1/9/23

FAI Route 80 from Chicago Street to US Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

DESCRIPTION \_\_\_\_\_

I-80 Phase II

LOGGED BY \_\_\_\_\_\_\_\_\_RT/VH

ROUTE

LOCATION SE 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

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Page <u>1</u> of <u>1</u> Date 1/9/23

FAI Route 80 from Chicago Street to US Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

DESCRIPTION

I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_\_\_

SECTION	

ROUTE

LOCATION <u>SE 1/4, SEC. 14, TWP. T35N</u>, RNG. R10E, 3<sup>rd</sup> PM

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		DRILLING	MET	HOD		Но	llow Stem Auger	_ HAMMER TYPE	CN	ME A	utoma	tic
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	Offset 64.00ft Righ Ground Surface Elev. 643	nt 55 <b>ft</b>	(ft)	(/6'')	(tsf)	(%)	Upon Completion After Hrs	Dry ft - ft	(ft) (	/6")	(tsf)	(%)
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		-										
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				8	3.50	19						
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FAI Route 80 from						D	ate	1/9/23
ROUTE Route 30	DESCRIPTION	80 Phase II			_ LO	GGED	<b>BY</b> _ F	RT/VH
SECTION	LOCATION <u>SE 1/4</u> , SEC. 14	, <b>TWP.</b> T35N, <b>RNG</b>	<b>6.</b> R10	E, 3 <sup>rd</sup>	PM	1	1	
	NG METHOD Rotary Wash		_		R	R	CORE	S T
STRUCT. NO	CORING BARREL TYPE & SIZE	NX Double Swivel-5 ft	D E	C O P		Q	T I M	R E N
BORING NO.     OSB-002       Station     783+32       Offset     64.00ft Right       Ground Surface Flay     643 55	Top of Rock Elev. 623.55 Begin Core Elev. 622.55	ft ft	Р Т Н (ft)	к Е (#)	E R Y (%)	(%)	⊏ (min/ft)	T H (tsf)
Ground Surface Elev. <u>643.55</u> RUN 1 (-21.0' to -26.0') SILURIAN SYSTEM, NIAGARAN SER Light gray & fine grained with horizonta throughout. End Of Boring @ -26.0'. Boring backfil	_ ft RES DOLOMITE Il bedding. Numerous horizontal fractur led with cuttings.	es 617.55		(#) 1	64	47		(13)
			_ <u>-40</u>					

Geo Serv	Aces, Inc.		GEO Job No	20012
805 Amhersh Naperville, M	Court Suite 204	ROCK CORE PHOTO	Page	<u>1</u> of <u>1</u>
FAIRou	ate 80 from		Date	1/9/23
Chicago S ROUTE Rou	Street to US <u>ute 30</u> DESCRIPTION	I-80 Phase II	LOGGED BY	RT/VH
SECTION	- LOCATION	SE 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3 <sup>rd</sup> P	м	
		otary Wash		
STRUCT. NO.	CORING BARR	NX Double EL TYPE & SIZE Swivel-5 ft		
Station	Core Diamete	ar 2 in		
	OSB-002 Top of Rock B	Elev. <u>623.55</u> ft		
Offset 64	<u>783+32</u> Begin Core En 4.00ft Right			
Ground Surface Elev.	v. <u>643.55</u> <b>ft</b>			
	OSB-C Run I Top	202 20012		

GEO	.Joh	No.	20012
	000	110.	20012

Page <u>1</u> of <u>1</u> Date 1/9/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II

LOGGED BY RT/VH

SECTION	
---------	--

Geote

**LOCATION** SE 1/4, **SEC.** 14, **TWP.** T35N, **RNG.** R10E, 3<sup>rd</sup> **PM** 

	COUNTY Will	DRILLING	MET	THOD		Но	llow Stem Auger	HAMMER TYPE	CME Automatic
	STRUCT. NO.	58 ft	D E P T H	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After Hrs.	<u>n/a</u> ft n/a ft Dry ft Dry ft ft - ft	
	15.0" ASPHALT					-			
		647.43		0		2			
	6.0" STONE	646.93		9	4 50	18			
	CLAY LOAM-brown & gray-hard			9	P	10			
							_		
		645 18							
	SILTY CLAY LOAM-brown &	010.10		4					
	gray-very stiff			6	3.50	25			
<i>т</i>			-5	8	P				
3/6/2				-					
G				7					
ЮÖ		044.00		9	3.00	18			
12	CLAY LOAM-grav-very stiff to har	<u>641.68</u> d		11	P.0.00	10			
200		-							
0GS									
Ч Ц				5					
<b>N</b>				7	2.00	19			
12 B			- <u>10</u>	7	P				
9/200				-					
194-				6					
PTB				8	3.50	15			
б З				9	P				
0							-		
ST.				1					
g				6					
Ľ E				7	3.00	16			
N N			- <u>15</u>	14					
Ř				-					
ĕ	becoming brown & grav @ -16.0'			6					
Ш				9	4.50	15	•		
0012				19	P				
20/2		630.68							
TS/2(	Driller observation:			- 0 /0"					
				50/0"					
PR0				-		ΝK			
Ń		628.68	-20						

Borehole continued with rock

FAI ROOK 00 from One and the true       Page 1 of 1         COULE       DESCRIPTION       180 Phase II       LOGGED BY         ROUTE       Oute 30       DESCRIPTION       180 Phase II       LOGGED BY         SECTION       ICOCATION SE 1/4, SEC. 14, TWP. T35N, RNG.R10E, 3" PM       CORING METHOD       Rotup 30         COUNTY       WIII       CORING BARREL TYPE & SIZE       NX Double       R       R       CORE       T       R         Station       738+04       Core Diameter       2       In       P       E       D       K       T       R       E       CORE       T       R       E       D       K       M       N       N       NX Double       Station       738+04       T       E       Core Diameter       0       M       N       N       NX Double       Station       Cost Rest Rev       0       A       N       N       NX Double       Station       Cost Rest Rev       0       A       N       N       N       NX Double       Station       Cost Rest Rev       0       A       N       N       N       NX Double       Station       Cost Rest Rev       0       A       A       A       A       A       A       A       A	Geotec	eo Services, In	C.					GE	O Job	No	20012
FATOMIC to the Chicago Street to US         Date		805 Amherst Court, Suite 204 Naperville, filinois 60565 (830) 355-2438		ROCK	CORE	LO	G		Ρ	age <u>1</u>	<b>of</b> <u>1</u>
ROUTE         Colleage Junct 1003         DESCRIPTION         Hall Phase II         LOGGED BY         PTVH           SECTION         -         LOCATION SE 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3" PM         -		FAI Route 80 from							D	ate	1/9/23
SECTION	ROUTE _	Route 30	DESCRIPTION	I-8(	) Phase II			_ LO	GGED	<b>BY</b> _ F	RT/VH
COUNTY       Will       CORING METHOD       Retary Wash       R       R       CORE       S         STRUCT. NO.	SECTION		LOCATION S	E 1/4, <b>SEC.</b> 14, <sup>-</sup>	TWP. T35N, RNC	<b>G.</b> R10	E, 3 <sup>rd</sup>	PM			
STRUCT. NO.       ORING BARREL TYPE & SIZE       NX Double       Composition of the second system of the system	COUNTY	Will C	ORING METHOD Rotar	y Wash				R	P	CORE	S T
Station         Core Diameter         2         in         D         0         U         I         E           BORING NO.         OSB-003         Top of Rock Elev.	STRUCT. I	NO.	CORING BARREL T	YPE & SIZE	NX Double Swivel-5 ft		•	C		Ţ	R
BORING NO.         OSE-003 798+04 65.001 Right Ground Surface Elev.         Top of Rock Elev. 628.68 ft         630.68 628.68 ft         ft         P H         R E F         R F         R	Station		Core Diameter	2	_ in	- D E	0	v		M	E N
Origet       Column       H       Y       H       Y       H       H       Y       H       H       Y       H       H       K       H <th< td=""><td>BORING N</td><td>IO. <u>OSB-003</u></td><td>Top of Rock Elev. Begin Core Elev.</td><td><u>630.68</u> 628.68</td><td>ftft</td><td>  P   T</td><td>R E</td><td>E R</td><td>D</td><td>E</td><td>G T</td></th<>	BORING N	IO. <u>OSB-003</u>	Top of Rock Elev. Begin Core Elev.	<u>630.68</u> 628.68	ftft	P   T	R E	E R	D	E	G T
Ground Sunade Filev.	Offset	65.00ft Right				H (ff)	(#)	Y (%)	(%)	(min/ft)	H (tef)
RUN 1 (-20.0° to -25.0°) SILURAN SYSTEM, NACARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Highly fractured with rust some stanning throughout.  End Of Boring @ -25.0°. Boring backfilled with cuttings.  End Of Boring @ -25.0°. Boring backfilled with cuttings.  Subscript Standard Stan	Ground		5π		628.68	3	1	68	0	(1111/210)	168.00
SILURAN SYSTEM, NiAGARAN SERIES DOLOMITE Light gray & fine grained with horizontal bedding. Highly fractured with rust some stanining throughout. End Of Boring @ -25.0'. Boring backfilled with cuttings. End Of Boring @ -25.0'. Boring backfilled with cuttings. Silu I I I I I I I I I I I I I I I I I I I	RUN 1 (-2	0.0' to -25.0')									
stāninīng throughout. 	SILURIÀN	SYSTEM, NIAGARAN & fine grained with horized	SERIES DOLOMITE ontal bedding. Highly fractur	red with rust som	e						
End Of Boring @ -25.0'. Boring backfilled with cuttings.	stanining t	hroughout.									
623.68       -25         End Of Boring @ -25.0°. Boring backfilled with cuttings.       -											
End Of Boring @ -25.0'. Boring backfilled with cuttings.					623.69	3 25					
	End Of Bo	ring @ -25.0'. Boring ba	ckfilled with cuttings.		020.00						
						-30					
						_					
						- <u>35</u>					

Ge	o Services, Inc.	_		<b>GEO Job No</b> . <u>20012</u>
Geolechin	Ros Amherst Court Suite 204 Naperville, Hinois 60565	D		<b>•••••••••••••••••••••••••••••••••••••</b>
	FAI Route 80 from			Date
ROUTE	Chicago Street to US Route 30	DESCRIPTION	I-80 Phase II	LOGGED BY
SECTION _	-	LOCATION _SE	E 1/4, SEC. 14, TWP. T35N, RNG. F	R10E, 3 <sup>rd</sup> <b>PM</b>
COUNTY	Will COR	<b>NG METHOD</b> Rotary	Wash	
STRUCT NO			NX Double	
Station _	<b>.</b>		2 in	
BORING NO	0. OSB-003	Top of Rock Elev.	<u>630.68</u> ft 628.68 ft	
Offset	65.00ft Right	- -		
Ground Su	rface Elev. 648.68	ft		
		OSB-00- RUNIT -2 TOP	3 20012	

GEO.J	ob N	lo.	20012
GLO J		i <b>u</b> .	20012

Page <u>1</u> of <u>1</u> Date 1/10/23

FAI Route 80 from
Chicago Street to US
Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2848

\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_\_\_

SECTION	

Geote

LOCATION \_SE 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

(		DRILLING M	/ETI	HOD		Ho	llow Stem Auger	HAMMER TYPE	CME Automatic
:	STRUCT. NO.	<u>ht</u> 7.74 <b>ft</b> (	D E P T H	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After - Hrs.	<u>n/a</u> ft n/a ft Dry ft Dry ft - ft	
[	15.0" ASPHALT								
	6.0" STONE CLAY LOAM-brown-very stiff to hard	<u>646.49</u> 645.99		12 5 6	4.50 P	1 17			
		_	_	11					
53		_	-5	5 7	4.50 P	22			
G.GPJ 3/0/		_	_	5					
		_	_	6 11	4.00 P	20			
	becoming gray @ -8.5'	_	_	6	3.00	18			
		_	-10	9	P.00	10			
PIB 194-9	SILTY CLAY-gray-stiff to very st	<u>636.74</u> iff		4	1.50	22			
10 KI 30,		_		8	Р				
CAGU ST.		_	_	4	2.00	25			
FROM CH		_	-15	8	Р				
EXP, 1-80	CLAY LOAM-brown-very stiff	631.74	+	5	2.50	16			
	Driller observation: Fractured/Weathered rock.			7	Р				
	Borehole continued with rock coring.	_	-20						

Geotec	eo Services, I	<b>NC.</b>					GE	O Job	No2	20012
000100	805 Amherst Court, Suite 204 Naperville, Illinoit, 66665 (630) 355-2438		ROCK	CORE	LO	G		P	age <u>1</u>	<b>of</b> <u>1</u>
	FAI Route 80 from	י וס				-		D	<b>ate</b> _ 1	/10/23
ROUTE _	Route 30	DESCRIPTION	I-80	) Phase II			_ LO	GGED	BY _ F	RT/VH
SECTION		LOCATION SE	1/4, <b>SEC.</b> 14, <sup>-</sup>	TWP. T35N, RNG	<b>i.</b> R10	E, 3 <sup>rd</sup>	PM			
COUNTY	Will	CORING METHOD Rotary	Wash				R	D	CORE	S T
STRUCT.	NO.	CORING BARREL TY	PE & SIZE	NX Double Swivel-10 ft		-	C		т	R
Station		Core Diameter	2	in	- D E	0	V V	Q	M	E N
<b>BORING N</b>	<b>O</b> SB-004	Top of Rock Elev.	629.74	ft	P T	R F	E	D	E	G T
Station Offset	799+60 66.00ft Righ	Begin Core Elev.	029.74	_π	Ĥ	-	Ŷ	•		Ĥ
Ground S	Surface Elev. 647	. <u>74</u> ft			(ft)	(#)	(%)	(%)	(min/ft)	(tsf)
RUN 1 (-18 SILURIAN	8.0' to -23.0') SYSTEM, NIAGARAI	N SERIES DOLOMITE		629.74		1	56	67		365.00
Light gray	& fine grained with ho	rizontal bedding. Numerous hor	izontal fractures	S						
anoughou					-20					
End Of Bo	ring @ -23.0'. Boring	backfilled with cuttings.		624.74						
					<u>-25</u>					
					-30					
					_					
					-35					
					_					
					_					

Geo	Services, Inc.			GE	EO Job No	20012
805 805	Amhersi Court, Suite 204 Japenville, filinois 69565 (630) 345-2478	R		ΡΗΟΤΟ	Page	<u>1</u> of <u>1</u>
	FAI Route 80 from	•			Date	1/10/23
C ROUTE	hicago Street to US Route 30	DESCRIPTION	I-80 Phase II	LC	OGGED BY	RT/VH
SECTION	-	LOCATION SE	<u>= 1/4, <b>SEC.</b> 14, <b>TWP.</b> T35N, <b>F</b></u>	NG. R10E, 3 <sup>rd</sup> PM		
	Will CORI	NG METHOD Rotary	Wash			
STRUCT NO			NX Double Swivel-10 ft			
Station		Core Diameter	2 in			
BORING NO	OSB-004 799+60	Top of Rock Elev. Begin Core Elev.	629.74 ft 629.74 ft			
Offset Ground Surfa	66.00ft Right ace Elev. 647.74	ft				
		OSB-004 RUN I - I TPP	20012			

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Page <u>1</u> of <u>1</u> Date 1/17/23

FAI Route 80 from Chicago Street to US Route 30

Geo Services, Inc. Beotechnical Environmental & Civil Engineering 805 Amherist Court, Suite 204 Naperville, Juncis 60565

(630) 355-2838

ROUTE

DESCRIPTION \_\_\_\_\_ I-80 Phase II

LOGGED BY RT/VH

SECTION \_\_\_\_\_ - LOCATION \_SE 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

	COUNTY	Will	ORILLING	6 ME	THOD		Hol	low Stem Auger H	HAMMER TYPE	(	CME A	utoma	tic
	STRUCT. Station BORING Station Offset Ground	NO NO 828+08 63.00ft Left Surface Elev. 638.3	  3 ft	D E P T H	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev Stream Bed Elev Groundwater Elev.: First Encounter Upon Completion After - Hrs.	<u>n/a</u> ft <u>n/a</u> ft <u>Dry</u> ft <u>Dry</u> ft ft	D E P T H	B L O ¥ S (∕6")	U C S Qu (tsf)	×0 − × − (%)
	15.0" AS	PHALT						SILTY CLAY-gray-mediu	m stiff to				
	CLAY LC stiff	OAM-black & gray-very	637.08		7 9 7	3.00 P	3 23	very stiff (continued)			6 8 11	3.00 P	19
~	CLAY LC	AM-brown & gray-hard	634.83		7 16 15	4.50 P	13				6 6 9	1.50 P	24
20012_LOG.GPJ 4/5/2:					4 10 17	4.50 P	14				5 6 7	0.50 P	16
12 BORING LOGS/	SANDY (	CLAY-brown & gray-loos	629.83 e	-10	3 3 3		33	CLAY LOAM-gray-stiff	609.83		5 6 11	1.00 P	15
T 30, PTB 194-9\200					1 2 5		23		605.83				
M CHICAGO ST. TO R	SILTY SA dense	AND-brown-medium	624.83	-15	4 4 7		26	SILTY SAND-gray-mediu	ım dense	-35	9 10 13		13
20012 EXP, I-80 FROI	CLAY wit dense	h Sand-gray-medium	622.33		6 6 5		21						
Z:\PROJECTS\2020\	SILTY CL very stiff	_AY-gray-medium stiff to	<u>619.83</u>	-20	6 8 14	2.50 P	20	SAND-gray-medium dens End Of Boring @ -40.0'. I backfilled with cuttings.	600.33 se Boring 598.33	-40	11 11 18		22

GEO	.loh	No	20012
GEO	200	NO.	20012

Page <u>1</u> of <u>1</u> Date 1/12/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

DESCRIPTION I-80 Phase II LOGGED BY RT/VH

SECTION	
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Geote

LOCATION \_SE 1/4, SEC. 13, TWP. T35N, RNG. R10E

	COUNTY	Will D	RILLING	MET	THOD		Ho	llow Stem Auger	HAMMER TYPE	(	CME A	utoma	tic
	STRUCT. NO Station BORING NO Station	OSB-006 829+62		D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev Stream Bed Elev Groundwater Elev.: First Encounter Unon Completion	<u>n/a</u> ft <u>n/a</u> ft <u>Dry</u> ft	D E P T H	B L O W S	U C S Qu	M O I S T
	Ground Surface	e Elev. 639.90	ft	(ft)	(/6'')	(tsf)	(%)	After Hrs	<u> </u>	(ft)	(/6")	(tsf)	(%)
	15.0" ASPHALT		638.65		4		5	SAND-gray-loose to me (continued)	edium dense 618.90		4		
	SILTY CLAY-gra	y-very stiff			7 12	2.75 P	14				12 21	1.00 P	28
-	CLAY LOAM-bro	own & gray-stiff to	636.40		11	3.00 P	15	SAND-gray-medium de	616.40 nse		12 16		22
-OG.GPJ 3/6/23				5 	4	1.50	22			25 	10 12 11		9
0GS\20012_1			631.40		5	Р					5		
012 BORING I	SAND-brown-loc	ose		-10	3 4 4		20			-30	9 10 7		23
30, PTB 194-9\20	SILTY CLAY-gra	y-medium stiff	628.90		3	1.00	27						
CAGO ST. TO RT					3	0.50	28	SILT-gray-dense	606.40		19		27
FROM CHIC				- <u>15</u>	6	P	20			-35	21		
20/20012 EXP, I-80 I	SAND-gray-loose	e to medium dense	<u>623.90</u>		8 8 6		23						
Z:\PROJECTS\20				-20	4 4 4		19	SAND & GRAVEL-gray End Of Boring @ -40.0 backfilled with cuttings.	601.40 /-dense '. Boring 599.90	-40	14 20 19		14

GFO	.Job	No.	20012
	500	110.	20012

Page <u>1</u> of <u>1</u> Date 1/12/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_\_\_

SECTION	

Geote

LOCATION \_SE 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will D	RILLING	MET	HOD		Ho	llow Stem Auger H	IAMMER T	YPE _	(	CME A	utoma	tic
STRUCT. NO.           Station           BORING NO.         OSB-007           Station         843+46           Offset         65.00ft Left		D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev Stream Bed Elev Groundwater Elev.: First Encounter Upon Completion	n/a n/a Dry Dry	ft ft ft	D E P T H	B L O W S	U C S Qu	M O I S T
Ground Surface Elev. 646.58	8 <b>ft</b>	(ft)	(/6")	(tsf)	(%)	After Hrs.	-	ft	(ft)	(/6")	(tsf)	(%)
15.0" ASPHALT						CLAY LOAM-gray-medium	n stiff to					
	645.33		6		1	very suir ( <i>continued)</i>						
CRUSHED STONE-medium dens	е		8		5				_	4	0.75	15
			12							8	P	10
	643.08		_						_			
CLAY LOAM-brown & gray-very stiff to hard			5	1 50	17					4	1 50	21
			6	P					25	8	P.1.50	21
57/0		J							-23			
										_		
			6	2.25	24				_	5	1 25	22
			9	2.23 P	24					7	P	22
			-						_	-		
								618.08				
			4			SILTY CLAY-gray-stiff				3	1 50	17
	000 50		5							4	1.50 P	17
	030.58	-10							-30		•	
20												
<u> </u>			8						_			
			10		28							
SILTY LOAM-gray-medium dense	634.08		10						_			
								613.08				
			7	0 -0		CLAY LOAM-gray-very stif	f			7		
	aa : = -		8 12	3.50 P	23			o / / = -	_	50/4"		NR
CLAY LOAM-grav-medium stiff to	631.58	<u>-15</u>	10					611.58	- <u>35</u>			
very stiff												
			6			Drillers Observation: Possi	ble Top					
			9	1.25	21	OI BEOLOCK		609.58				
		_	10			coring.	JUK		_			
			5	-								
			6	0.75	21				_			
		-20	8	P					-40			

Geotech	eo Services, Inc	ring				GE	O Job	No2	20012
000000	805 Amherst Court, Suile 204 Naperville, Winois 69565 (630) 355-238	RO	CK CORE	LO	G		P	age <u>1</u>	<b>of</b> <u>1</u>
	FAI Route 80 from						D	<b>ate</b> _ 1	/12/23
ROUTE	Route 30	DESCRIPTION	I-80 Phase II			_ LO	GGED	<b>BY</b> _ F	RT/VH
SECTION		LOCATION SE 1/4, S	EC. 13, TWP. T35N, RNG	<b>6.</b> R10	E, 3 <sup>rd</sup>	PM			
COUNTY	Will CO	RING METHOD Rotary Wash				R E	R	CORE	S T
STRUCT. N Station	IO	CORING BARREL TYPE & S	IZE NX Double Swivel-10 ft 2 in	DE	C O	C O V	Q	T I M	R E N
BORING NO	<b>O.</b> OSB-007 843+46	Top of Rock Elev.       6         Begin Core Elev.       60	10.58 ft 09.58 ft	Р Т Н	R E	E R Y		E	G Т н
Offset Ground S	65.00ft Left aurface Elev. 646.58	ft		(ft)	(#)	(%)	(%)	(min/ft)	(tsf)
RUN 1 (-37 SILURIAN Light gray & throughout	ring @ -42.0'. Boring back	ERIES DOLOMITE htal bedding. Numerous horizontal	609.58 fractures 604.58		1	67	15		611.00

Geo Se	rvices, Inc.			GE	O Job No	20012
805 Amhe Naperv	arsi Court, Suite 204 ille, Illinois 60565 201255 2005	RC		ρμητη	Page	<u>1</u> of <u>1</u>
FAIL	Route 80 from				Date _	1/12/23
Chica ROUTE	go Street to US Route 30	DESCRIPTION	I-80 Phase II	LO	GGED BY	RT/VH
SECTION	-	LOCATION _SE 1	/4, SEC. 13, TWP. T35N, F	NG. R10E, 3 <sup>rd</sup> PM		
COUNTY		NG METHOD Rotary W	ash			
STRUCT. NO.		CORING BARREL TYPI	E & SIZE NX Double Swivel-10 ft			
Station		Core Diameter _	<u>2</u> in			
BORING NO.	OSB-007	Top of Rock Elev Begin Core Elev	<u>610.58</u> ft 609.58 ft			
Offset	65.00ft Left	Begin Core Liev	<u> </u>			
Ground Surface E	<b>lev.</b> 646.58	ft				
		OSB-007 RUNIII-	200	12		

GEO Job No. 20012

<b>SUI</b>	BO	DIN			C
JUIL	. ВО	KIN	IJ	LU	Ŀ

Page <u>1</u> of <u>1</u> Date 2/25/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2888

PTB 194-9/20012 BORING LOGS/20012\_LOG.GPJ 3/6/23

(PROJECTS)2020/20012 EXP, I-80 FROM CHICAGO ST. TO RT 30,

\_\_\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_

- LOCATION , SEC. , TWP. , RNG. SECTION COUNTY \_\_\_\_\_ Will \_\_\_\_ DRILLING METHOD \_\_\_\_\_ Hollow Stem Auger \_\_\_\_\_ HAMMER TYPE \_\_\_\_ CME Automatic\_ D В U Μ Surface Water Elev. D В U Μ STRUCT. NO. n/a **ft** Ε L С 0 Ε L С Ο Stream Bed Elev. Station n/a **ft** S Ρ S Ρ Ο L 0 L т BORING NO. OSB-008 W S т W S Groundwater Elev.: н S т т 
 Station
 853+95

 Offset
 31.00ft Right
 Qu н S Qu First Encounter Upon Completion \_\_\_\_\_n/a\_\_ft (ft) (%) (ft) (/6") (%) (/6") (tsf) (tsf) Ground Surface Elev. 649.76 ft After \_\_\_ Hrs. \_\_\_\_ ft 12.0" ASPHALT CLAY LOAM-brown & gray-medium stiff to very stiff 1 648.76 (continued) 12.0" STONE 10 4 16 1.10 21 8 6 647.76 CLAY with Gravel-brown & 4 8 В gray-hard 646.26 CLAY LOAM-brown & 5 5 gray-medium stiff to very stiff 8 2.20 24 0.40 12 7 11 В 9 В -5 4 5 6 1.20 26 7 0.70 13 8 В 8 В Δ 6 2.10 7 21 7 0.40 13 9 В 10 В -10 -30 becoming gray @ -11.0' 7 2.80 19 11 14 В 616.26 9 CRUSHED LIMESTONE-gray-very 6 dense 1.80 19 50/5" 8 11 В 10 -35 5 7 1.30 21 8 В 5 50/2" 6 0.90 21 End Of Boring @ -40.0'. Boring 10 backfilled with cuttings.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)

609.76

-40

8

В

GFO	.Job	No.	20012
GLU	300	NU.	20012

Page <u>1</u> of <u>1</u> Date 1/11/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

\_\_\_\_ DESCRIPTION \_\_\_\_\_\_ I-80 Phase II \_\_\_\_\_\_ LOGGED BY \_\_\_\_\_\_ RT/VH

SECTION

Geote

- LOCATION \_SE 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

STRUCT. NO.         D         B         U         C         N         Surface Water Elev.         n/a         t         D         B         U         C         N           BORINO NO.         0584-03         0         5         6         000         7         1         Stration         Dry.         ft         W         S         S         Ground/vater Elev.:         m/a         ft         H         S         Qu         T         Ground/vater Elev.:         ft         Ground/vater Elev.:         ft         Ground/vater Elev.:         ft         Ground/vater Ele			ME	THOD		Ho	llow Stem Auger		(	<u>CME A</u>	utomat	tic
15.0° ASPHALT         4         1         CLAY LOAM-brown & gray-hard         4           SILTY CLAY with Gravel-brown-hard         7         1         6         1.00         13           becoming brown & gray @ -5.0°         646.02         4         P         6         1.25         1           CLAY LOAM-brown & gray-hard         2         -         6         1.25         14           CLAY LOAM-brown & gray-hard         -         4         P         -         6         1.25         14           -         -         -         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -         -         6         -         -		STRUCT. NO Station BORING NO. OSB-009 Station Station Offset Ground Surface Elev. 651.02 ft	D E P T H	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After - Hrs.	<u>n/a</u> ft <u>n/a</u> ft <u>Dry</u> ft <u>Dry</u> ft - ft	D E P T H	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)
B49.77         7         4.50         19           SILTY CLAY with Gravel-brown-hard         7         4.50         19           7         P         -<		15.0" ASPHALT					CLAY LOAM-brown &	grav-hard	L			
Edd         7         7         7         4         6           Gravel-brown-hard         5         4.50         19         6         1.00         13           P         -         4         -         -         6         1.25         14           -         4         -         -         4         - <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1</td><td>(continued)</td><td>5 5</td><td></td><td></td><td></td><td></td></t<>						1	(continued)	5 5				
SLT V CLAY With Gravel-brown-hard       5       4.50       19         - <td></td> <td>649.77</td> <td></td> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4</td> <td></td> <td></td>		649.77		7						4		
A       7       P       8       P         -       4       0.50       21       -       6       1.25       14         -       2       1.75       24       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       7       0.75       13       0       P       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -       6       -       -		SILTY CLAY WITH Gravel-brown-bard		5	4.50	19				6	1.00	13
becoming brown & gray @ -5.0' GLAY LOAM-brown & gray-hard -2 1.75 24 -2 1.75 24 -2 1.75 24 -2 1.75 24 -2 1.75 24 -4 P -2 1.75 24 -4 P -2 1.75 24 -4 P -2 1.75 24 -4 P -2 1.75 24 -10 11 P -2 -10 11 P -2 -15 13 P -2 -15 15 15 -2 -15 1				7	Р					8	Р	
becoming brown & gray @ -5.0'         646.02         -5         4         P           CLAY LOAM-brown & gray-hard         -         -         -         -         -         6         1.25         14           -         -         2         1.75         24         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         -         6         -         -         6         -         -         0         P         -         -         6         -         -         6         -         -         0         P         -         -         6         -         -         0         10         P         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         6         -         -         <												
becoming brown & gray @ -5.0'         646.02         -         4         0.50         21           -         4         0.50         21         -         6         1.25         14           -<												
becoming brown & gray @ -5.0'       646.02       -5       4       P       -       -       6       1.25       14         CLAY LOAM-brown & gray-hard       -       2       1.75       24       P       -       -       6       10       P       -       -       6       12       2       -       12       -       5       -       11       P       -       -       -       14       11       P       -       -       5       -       -       5				4						5		
Decoming brown & gray @ -5.0       646.02       -5       4       P         2       -				4	0.50	21				6	1.25	14
CLAY LOAM-brown & gray-hard      2       1.75       24      6      6        4       P      4       P      6      6      6        4       P      6      6      6      6      6        6       2.25       22      6	23	becoming brown & gray @ -5.0 646.02	-5	4	Р				-25		<u>Р</u>	
-       2       -       -       6       -       -       7       0.75       13         -       4       P       -       -       10       P       -       -       10       P       -       -       10       P       -       -       10       P       -       -       -       10       P       -       -       -       10       P       -       <	3/6/:	CLAY LOAM-brown & gray-hard		_								
-       -       -       -       -       -       -       -       -       -       7       0.75       13         -       4       P       -       -       -       -       -       -       10       P         -       4       P       -	GРJ			2						6		
4       P       -       -       10       P         -4       -       -       -       10       P         -4       -       -       -       -       -       -         -6       2.25       22       -       -       8       0.75       14         -10       11       P       -       -       8       0.75       14         -10       11       P       -       -       -       8       0.75       14         -10       11       P       -	Ö			2	1.75	24			-	7	0.75	13
	12_L			4	P					10	P	
A         B         0.75         14         D <thd< th=""> <thd< th=""> <thd< th=""> <th< td=""><td>\200</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td></th<></thd<></thd<></thd<>	\200								-			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	OGS			-								
becoming gray @ -13.5'         6         2.25         22         8         0.75         14           -10         11         P         621.02         .30         12         P           -10         11         P         621.02         .30         12         P           -10         11         P         621.02         .30         12         P           -10         11         P         -         12         -         -         -         -         -         -         -         -         -	Ъ			4					-	7		
-10       11       P       621.02       -30       12       P         -10       11       P       CLAYEY SAND & GRAVEL-gray-very dense       -1	ORIN			6	2.25	22				8	0.75	14
000000000000000000000000000000000000	12 B		-10	11	Р			621.02	-30	12	Р	
becoming gray @ -13.5' 	94-9\200			-			CLAYEY SAND & GRAVEL-gray-very der	nse				
An off becoming gray @ -13.5'       -       8       3.25       24         -       11       P       -       -       -         -       -       -       -       -       -         -       -       -       -       -       -       -         -<	TB 1			5								
becoming gray @ -13.5' 	Ъ О́			8	3.25	24						
becoming gray @ -13.5'  - 7  - 8 3.50 22  - 15 13 P  5  - 7 2.00 20  - 9 P  5 - 7 2.00 20  - 9 P 5 5 5 5	RT 3			11	Р							
becoming gray @ -13.5'  - 7 - 8 3.50 22 5 7 2.00 20 - 9 P	6											
0110      15       13       P      15       12        15       13       P      35      35      35        15      15       12      35      35      35        15	AGO ST	becoming gray @ -13.5'		7						50/5"		
-15       13       P       -35       -35         -5       -       -       -       -       -         7       2.00       20       -       -       -         9       P       -       -       -       -       -         -5       -       -       -       -       -       -       -         -       9       P       - </td <td>ΗC</td> <td></td> <td></td> <td>8</td> <td>3.50</td> <td>22</td> <td></td> <td></td> <td></td> <td>   </td> <td></td> <td>12</td>	ΗC			8	3.50	22						12
-       -	N		- <u>15</u>	13	Р				- <u>35</u>			
001       5       -	FRO			_								
AT 2.00       20         9       P         -       9         -       5         -       5         -       5         -       8         -       20         8       1.75         -       612.52         -       50/1"         -       9         backfilled with cuttings.       611.02         -40       -40	I-80			5								
9       P	ΞXΡ,			7	2 00	20			_			
0       1       -	0121			9	P.00	20						
-     -     -     612.52     -     -     612.52     -     -     50/1"       -     5     -     SILT wit Gravel-gray-very dense     50/1"     50/1"     9       -     -     8     1.75     15     End Of Boring @ -40.0'. Boring     9       -     -     20     8     P     backfilled with cuttings.     611.02     -40	0/20				· ·							
5         SILT wit Gravel-gray-very dense         50/1"           8         1.75         15         End Of Boring @ -40.0'. Boring backfilled with cuttings.         9	\$\202			1				612 52				
8         1.75         15         End Of Boring @ -40.0'. Boring         9           -20         8         P         backfilled with cuttings.         611.02         -40         9	ECTS			5			SILT wit Gravel-gray-ve	ery dense	·	50/1"		
-20 8 P backfilled with cuttings. 611.02 -40	SOLE			8	1.75	15	End Of Boring @ -40.0	)'. Boring				9
	Z:/PI		-20	8	P		backfilled with cuttings.	611.02	-40			

GEO Job No. 20012

Date

05 Amherst Court, Suite 2 Naperville, Illinois 60565 (630) 355-2888

## SOIL BORING LOG

SAND & GRAVEL-gray-medium

CRUSHED GRAVEL-gray-very

End Of Boring @ -40.0'. Boring

backfilled with cuttings.

Page <u>1</u> of <u>1</u>

2/24/23

13

16

NR

FAI Route 80 from
Chicago Street to US

ROUTE	Route 3	0	DES	SCRI	PTION			I-80 Phase II	L	OGG	ED BY	Т	Z
SECTION _		-		L	.OCAT	10N _	, SEC.	, TWP. , RNG.					
COUNTY _	Will	DR	ILLING	MET	HOD		Hol	llow Stem Auger	HAMMER TYPE	(	CME A	utoma	tic
STRUCT. No Station BORING NC	<b>D.</b>	-010		D E P T	B L O W	U C S	M O I S	Surface Water Elev. Stream Bed Elev. Groundwater Elev.:	<u>n/a</u> ft n/aft	D E P T	B L O W	U C S	M O I S
Station Offset Ground Su	869- 29.00ft Irface Elev.	+94 t Right 646.98	ft	H (ft)	S (/6")	Qu (tsf)	т (%)	First Encounter Upon Completion After Hrs.		H (ft)	S (/6'')	Qu (tsf)	т (%)
12.0" ASPH	ALT		0.45.00				2	CLAY LOAM-gray-so (continued)	ft to very stiff				
12.0" CRUS	HED STONE		645.98		24		2				4		
CLAY LOAN	/l with Gravel-b	rown &	644.98		4 5		17				5 7	0.90 B	22
gray-hard	Л-brown & gray	-very	643.48		7						5		
stiff to hard				-5	12 15	4.90 B	17			-25	5 6	0.50 B	22
					7						5		
					, 10 12	3.10 B	23				4	0.25 P	14

dense

dense

6

10

12

7

9

11

8

8

10

5

7

9

5

7

8

-20

-10

635.98

633.48

4.00

В

2.60

В

1.80

В

0.50

Ρ

0.25

Ρ

20

21

20

22

25

# TO RT 30, PTB 194-9/20012 BORING LOGS/20012\_LOG.GPJ 3/6/23 becoming gray @ -8.5' SILTY CLAY LOAM-brown-very stiff Z:\PROJECTS\2020\20012 EXP, I-80 FROM CHICAGO ST. CLAY LOAM-gray-soft to very stiff

606.98 -40 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger

50/0'

618.48

613.98

8

12

15

50/2'

-35

30

GFO	.Job	No.	20012
	505	110.	20012

Page <u>1</u> of <u>1</u> Date 1/11/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2818

\_\_\_\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_ RT/QZ

SECTION	

Geote

LOCATION SE 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

C	OUNTY	Will	DF	RILLING	MET	HOD		Ho	llow Stem Auger	HAMMER	TYPE	(	CME A	utoma	tic
S'	TRUCT. NO				D E P	B L O	U C S	M O I	Surface Water Elev	n/a n/a	_ ft _ ft	D E P	B L O	U C S	M 0   0
B	ORING NO Station	OSE 870	3-011 )+00		н	S	Qu	5 T	Groundwater Elev.: First Encounter	Dry	_ ft	н	S	Qu	ъ Т
Ì	Ground Surface	Elev	648.09	ft	(ft)	(/6")	(tsf)	(%)	After Hrs	Diy	_ft	(ft)	(/6'')	(tsf)	(%)
1	5.0" ASPHALT							2	CLAY LOAM-brown & g	gray-stiff to		_			
				646.84		8		2					4		
6.	0" STONE			646.34	. —	6	4.50	13				_	6	1.50	22
S	ILIY CLAY with	) rd				7	Р						8	Р	
	Tavel-DIOWII-IIa	IU		645 09											
С	LAY LOAM-bro	wn & gra	y-stiff to	0 10.00											
ha	ard					6							5		
						9	4.50	21					6	1.50	22
_					-5	16	Р					-25	8	Р	
2/0/5															
2											622.09				
פ						8			CLAY with Gravel-gray-	stiff			6		
						15	4.50	19					6	1.50	13
2100						22	Р					_	8		
						~					619.59				
D Z						9	4 50		CLAY LOAM-gray-stiff				8	4.05	10
ž						12	4.50	23				_	0	1.25	13
210					- <u>10</u>	17	Р					-30	9	Р	
9/20												_			
194-						6									
8						10	3 50	22							
20, 1						16	D.50	22							
r l						10	•					_			
-											014 50				
						7			SAND & GRAVEL-grav	-verv dense	014.09	·	8		
CAG						13	4.00	21					50/2"		6
					15	17	Р					35			-
S S S					-15							- <u>-</u> 55			
50															
<u>-</u>						6									
Ľ						10	4.00	23							
100						12	P								
SIZL					_										
يا الآ	ecoming gray @	0 -18.5'				5							6		
S 2					_	5	1.50	21	End Of Boring @ -40.0	'. Boring			7		17
					-20	6	P		packfilled with cuttings.		608.09	-40	50/2"		

	20012
GEO JOD NO.	20012

Page <u>1</u> of <u>1</u> Date 1/18/23

-

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

SECTION

ROUTE

LOCATION SW 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

		RILLING	MEI	HOD		Ho	llow Stem Auger		TYPE	(	JME A	utoma	tic
	STRUCT. NO		D E P T H	B L O W S	U C S Qu (tsf)	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion	n/a n/a Dry Dry	_ ft _ ft _ ft _ ft	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T
Г		<u> </u>	(14)	,	(,	(/0)	CLAXIOAM grov stiff	to vony stiff	_ 11	(14)	,	(10.)	(/0)
	STONE					1	(continued)						
		c20.00		5		4	(				8		
ł	CLAY I OAM-brown & grav-hard	639.20		5	4 50	21					q	2 00	19
	oerti eortin biowin a glay hara			7	P	21					17	P.00	10
				,					617 70				
		637 20					SAND & GRAVEL-brow	wn-verv	017.70				
ł	CLAYEY SILT-brown &	037.20		3			dense		616 70		44		
	gray-medium dense			4	0.50	23	Drillers Observation: Po	ossible Top	010.70		50/3"		11
			-5	6	Р		of Bedrock @ -24.0'			-25			
3/23										-20			
٦ 3(									614 70				
9 D				4			Borehole continued wit	th rock	01110				
Š				5		19	coring.						
12				8									
S/20													
ő		632.20											
ğ	CLAY-brown-stiff			4									
<b>B</b>				5	2.00	20							
12 B			-10	5	Р					-30			
200													
94-9		629.70											
E I	SANDY CLAY			13									
о О	LOAM-brown-mealum dense			11		14							
RT3				14									
입													
ST.		627.20		_									
BG	CLAY LOAW-gray-sull to very sull			5	1.00	10							
윍				Q	1.00 D	10							
ĕ			- <u>15</u>	0	1					- <u>35</u>			
ЯË													
8				1									
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012.				11	P								
0/20				· · ·	· ·								
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CTS				6									
Щ О				7	2.50	20							
R			-20	13	P					_40			
NL			-20	-			1			-40			

Geo Services, Inc.	na				GE	O Job	No	20012
805 Antherst Court, Suite 204 Naperville, Winous 66665 (680) 355-2438	ROC	K CORE	LO	G		Ρ	age <u>1</u>	<b>of</b> <u>1</u>
FAI Route 80 from				-		D	ate 1	/18/23
ROUTE Route 30	DESCRIPTION	I-80 Phase II			_ LO	GGED	BY F	RT/QZ
SECTION	LOCATION SW 1/4, SEC	. 13, <b>TWP.</b> T35N, <b>RN</b>	<b>G.</b> R10	0E, 3'	<sup>rd</sup> PM			
	RING METHOD Rotary Wash				R	Б	CORE	S T
STRUCT. NO	CORING BARREL TYPE & SIZE Core Diameter 2 Top of Rock Elev. 616.7 Begin Core Elev. 614.7	NX Double Swivel-10 ft in 70 ft 70 ft	D E P T H (ft)	C O R E (#)	COVERY (%)	Q D	T I M E (min/ft)	R E N G T H (tsf)
RUN 1 (-26.0' to -31.0') SILURIAN SYSTEM, NIAGARAN SE Light gray & fine grained with horizon throughout.	RIES DOLOMITE tal bedding. Numerous horizontal frac	614.70		1	60	0		480.00

Geo Services, Inc.	na		GEO Job No. 2001	2
805 Amherst Court Suite 204 Naperville Winols 66665 (680) 355-2438	R	OCK CORE PH	HOTO Page <u>1</u> of	_1
FAI Route 80 from	-		Date 1/18/2	23
ROUTE Route 30	DESCRIPTION	I-80 Phase II	LOGGED BY	Z
SECTION		<i>N</i> 1/4, <b>SEC.</b> 13, <b>TWP.</b> T35N, <b>RNG</b>	. R10E, 3 <sup>rd</sup> <b>PM</b>	
	RING METHOD Rotary	Wash		
STRUCT. NO.	_ CORING BARREL T	YPE & SIZE Swivel-10 ft		
Station	Core Diameter	$\frac{2}{616.70}$ in		
BORING NO.         TSB-001           Station         67+97	Begin Core Elev.	<u>614.70</u> ft		
Offset 27.10ft Left	- <u>-</u>			
	TSB-oc Ruini:22 Top	20012		

	20012
GEO JOD NO.	20012

Page <u>1</u> of <u>1</u> Date 1/18/23

FAI Route 80 from Chicago Street to US Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2848

-

LOGGED BY RT/QZ I-80 Phase II

SECTION \_\_\_\_\_

ROUTE

LOCATION SW 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will	DRILLING	MET	HOD		Ho	llow Stem Auger		TYPE	(	CME A	utoma	tic
STRUCT. NO.           Station           BORING NO.         TSB-002           Station         67+70           Offset         49.60ft Right	[	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev Stream Bed Elev Groundwater Elev.: First Encounter Upon Completion	n/a n/a Dry Dry	_ ft _ ft _ ft	D E P T H	B L O W S	U C S Qu	M O I S T
Ground Surface Elev. 641.	24 ft	(ft)	(/6")	(tsf)	(%)	After Hrs	-	ft	(ft)	(/6'')	(tsf)	(%)
2.0" ASPHALT, 6.0" CONCRET	E 640.57					CLAY LOAM-gray-very	stiff					
CLAY LOAM-brown & black-very	/		1		4	(continued)		620.24		Б		
suπ			4	3.50	24	CLAT-glay-solt				7	0.25	24
	-		7	P						13	P	
	-							618.24				
CLAY-brown-very stiff	637.74		4 5	4.50	17	Drillers Observation: Po of Boulders @ -23.0'. Drilled @ -23.0' to -26.0	ossible Top 0' to confirm.					
	-	-5	7	Р					-25			
	-		9			Borehole continued wit	h rock	615.24				
		_	6	2.50	20	coring.						
	-		9	Р								
	-		0									
	-		8 Q	3.00	18							
		-10	19	P.000					-30			
	-	-10										
	630.24		•									
SILTY CLAY-brown-very stiff			9		21							
	-		9		21							
	627.74											
CLAY LOAM-gray-very stiff	-		4	2.00	17							
		15	8	2.00 P	17				25			
	-	-15	_						-30			
	-	_	_									
		_	6 8	3.00	10				_			
	-		13	P.00	19							
									_			
	-											
	-		5	2.00	10							
			10	2.00 P	19				40			
i [		-20		<b>'</b>					-40			

Geo	Services, Inc.	ina					GE	O Job	No	20012
8057 Na	Amherst Court, Suite 204 aperville, Hinols 66565 (630) 355-2438		ROCK	CORE I	_0	G		P	age <u>1</u>	<b>of</b> <u>1</u>
F	Al Route 80 from							D	<b>ate</b> _ 1	/18/23
	Route 30	DESCRIPTION	I-80	) Phase II			_ LO	GGED	BY F	RT/QZ
SECTION	-	LOCATION SW	1/4, <b>SEC.</b> 13, 1	TWP. T35N, RNC	<b>G.</b> R1(	DE, 3'	d PM	1		
COUNTY	Will CO	RING METHOD Rotary W	/ash				R	R	CORE	S T
STRUCT. NO.		CORING BARREL TYP	E & SIZE	NX Double Swivel-10 ft		<b>^</b>	C		Т	R
Station		Core Diameter	2	in	E	0	V		м	N
BORING NO.	TSB-002	Top of Rock Elev Begin Core Elev	<u>618.24</u> 615.24	_ft ft	P   T	R E	E R	D	E	G T
Offset	49.60ft Right				H	<b>/</b> 45	Y	(0/)	(mains / <b>f</b> t)	H
Ground Surface	<b>ce Elev.</b> <u>641.24</u> o -31.0')	ft		615.24	(11)	(#)	(%) 60	(%)	(minvit)	(191)
SILURIAN SYS	TEM, NIAGARAN SE	RIES DOLOMITE tal bedding, Numerous horiz	ontal fractures	5				-		
throughout.	- g			-	_					
					_					
					-30					
End Of Poring	@ 21.0' Paring back	filled with outtings		610.24						
	@ -31.0. Bonng back	nied with cuttings.								
					-35					
					_					
					-40					
					_					
					-45					
					_					

Geo S	ervices, Inc.			GEO	Job No. 20012
805 Amr Naper	normeline Sciwi Engineening hersi Courte Suite 204 pulle, Hinoit 60565 330) 35-2438/	R		ΡΗΟΤΟ	Page <u>1</u> of <u>1</u>
FAI	Route 80 from				Date 1/18/23
Chica ROUTE	ago Street to US <u>Route 30</u> DE		I-80 Phase II	LOGO	GED BYRT/QZ
SECTION	-	LOCATION _SW		I, <b>RNG.</b> R10E, 3 <sup>rd</sup> <b>PM</b>	
COUNTY	Will CORING	METHOD Rotary V	Vash		
STRUCT. NO		CORING BARREL TY	PE & SIZE NX Doubl Swivel-10	e <u>ft</u>	
BORING NO Station Offset Ground Surface	TSB-002 67+70 49.60ft Right Flow 641.24 ft	Core Diameter Top of Rock Elev. Begin Core Elev.	618.24 ft 615.24 ft		
		73B-C RUNIT 2 779P	202 20 6-310 <sup>2</sup>		

GFO	.Job	No.	20012
	500	110.	20012

Page <u>1</u> of <u>1</u> Date 1/20/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-28.88

\_\_\_\_ DESCRIPTION \_\_\_\_\_\_ I-80 Phase II \_\_\_\_\_\_ LOGGED BY \_\_\_\_\_\_ RT/QZ \_\_\_\_\_

SECTION

Geote

- LOCATION SW 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will	DRILLING MI	ethod		Ho	llow Stem Auger HAN	MMER TYPE		CME A	utoma	tic
STRUCT. NO		B E D O	U C S	M O I	Surface Water Elev	<u>n/a</u> ft n/a ft	D E P T	B L O W	U C S	M O I s
BORING NO. ISB-00 Station 66+61	<u>3</u>   I	I S	Qu	T	Groundwater Elev.: First Encounter	Drv <b>ft</b>	H	S	Qu	T
Offset 26.90ft L	eft				Upon Completion	Dry ft				
Ground Surface Elev. 64	<u>42.94</u> ft (ff	t) (/6")	(tsf)	(%)	After Hrs	ft	(ft)	(/6'')	(tsf)	(%)
8.0" ASPHALT	642.28			5	CLAY LOAM-gray-medium si verv stiff (continued)	tiff to		-		
GRAVEL with		12		5				6		
Aspirali-black-medium dense	-	5		4				9	3.50	19
	640.44	7						15	Р	
SAND & GRAVEL with										
Clay-brown-loose	-					619.44	<u> </u>	-		
		2		1/	SILTY CLAY-gray-sum			6	1 50	22
	-	5 5				617 0/		11	P	
6/23		-5			SILTY LOAM-gray-very dens	e 017.3-	-23			
<u>م</u>								]		
00.00	-	5		0.1		616.44	<u> </u>	50/5"		07
<u>57</u>		4		21	of Boulders @ -26.5'	Гор		-		27
2007	634.04				Borehole continued with rock	(				
g CLAY-brown-stiff	054.94				coring.			1		
L C L		5								
		5	1.00	20			_			
1212		<sub>10</sub> 5	P				<u>-30</u>	-		
026-	-							-		
40 1		4						-		
	-	5	1.00	17				1		
		6	Р				_			
								-		
CLAYLOAM-grav-verv stiff	629.44							-		
		5	2.50	21				-		
	- -1	15 9	Р				-35	1		
								]		
CLAX with Croval arou reading	626.94							-		
		0 	1 00	18				-		
012		5	P					-		
202	-	-						1		
	624.44							]		
CLAY LOAM-gray-medium sti	ff to	4	0.50	10				-		
	-	5	0.50	18				-		
Ń	-2	20 5	۲ <u>۲</u>				-40			

Geo Servit	ces, Inc.					GE	O Job	No2	20012
805 Amherst Cou Naperville, filin (830) 355	n, Suite 204 ob 66565 2438/	ROCK	CORE I	0	G		P	age <u>1</u>	<b>of</b> <u>1</u>
FAIRoute	80 from				•		D	<b>ate</b> _ 1	/20/23
Chicago St ROUTE Rout	e 30 DESCRIPTION	I-8	0 Phase II			_ LO	GGED	BY _ F	<u>≀T/QZ</u>
SECTION	- LOCAT	ION _SW 1/4, SEC. 13	, <b>TWP.</b> T35N, <b>RNC</b>	<b>G.</b> R1(	)E, 3 <sup>r</sup>	d PM			
	CORING METHOD	Rotary Wash				R	Б	CORE	S
STRUCT. NO.	CORING BA           SB-003         Core Dian           56+61         Top of Ro           .90ft Left         Begin Con           642.94         ft	ARREL TYPE & SIZE	NX Double Swivel-10 ft fn ft ft	D E P T H (ft)	C O R E (#)	C O V E R Y (%)	Q D (%)	T I E (min/ft)	R E N G T H (tsf)
SILURIAN SYSTEM, NI Light gray & fine grained throughout.	AGARAN SERIES DOLOMITI I with horizontal bedding. Num	E erous horizontal fracture	25 610.44						

Geo Services, Inc.	-		<b>GEO Job No</b> . <u>20012</u>
805 Amherst Court, Suite 204 Naperville, filingis 60565 (430) 355,2478	R	OCK CORE PH	<b>OTO</b> Page <u>1</u> of <u>1</u>
FAI Route 80 from	•		Date <u>1/20/23</u>
Chicago Street to US ROUTE Route 30	DESCRIPTION	I-80 Phase II	LOGGED BY
SECTION	LOCATION S	<i>N</i> 1/4, <b>SEC.</b> 13, <b>TWP.</b> T35N, <b>RNG.</b> I	R10E, 3 <sup>rd</sup> <b>PM</b>
	ING METHOD _ Rotary	Wash	
STRUCT NO		NX Double	
Station		2 in	
BORING NO. TSB-003	Top of Rock Elev.	<u>616.44</u> <b>ft</b>	
Station         66+61           Offset         26.90ft Left	Begin Core Elev.	<u> </u>	
Ground Surface Elev. 642.94	ft		
	73B-003 RUNI 27 TOP	20012	

GFO	.Job	No.	20012
	500	110.	20012

Page <u>1</u> of <u>1</u> Date 1/20/23

FAI Route 80 from Chicago Street to US Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2848

DESCRIPTION
-------------

I-80 Phase II

LOGGED BY RT/QZ

0000		
- <b>SEU</b>	111 711	

ROUTE

LOCATION \_SW 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

		DRILLIN	g me	THOD		Ho	llow Stem Auger	HAMMER	IYPE .	(	CME A	utoma	tic
	STRUCT. NO.           Station           BORING NO.         TSB-           Station         66+           Official         00.500	-00428	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev Stream Bed Elev Groundwater Elev.: First Encounter	n/a n/a Dry	_ ft _ ft _ ft	D E P T H	B L O W S	U C S Qu	M O I S T
	Ground Surface Elev.	<u>644.53</u> <b>ft</b>	(ft)	(/6'')	(tsf)	(%)	After Hrs	Dry -	_π _ft	(ft)	(/6'')	(tsf)	(%)
	10.0" ASPHALT CLAY LOAM-brown & gray stiff	643.70 -very	<u>)                                    </u>	23		1	CLAY LOAM-gray-medi stiff <i>(continued)</i> SILTY CLAY-gray-stiff	um stiff to	623.53		31		
				6	2.50 P	22					24 9	1.50 P	20
_	CLAY LOAM with Gravel-brown-medium stiff	641.0	 3 	3	1.00 P	29			040 50		5 7 9	1.50 P	24
3/0/23		000 5	_ <u>-5</u>		•				619.53	-25	5	•	
0012_LOG.GPJ	CLAY LOAM-brown-mediu very stiff	m stiff to	<u> </u>	5 5 4	0.50 P	21	Drillers Observation: Ro encountered @ -26.0' Borehole continued with coring	ck n rock					
				4	2.50	19							
194-9/20012 E	CLAY I OAM with Gravel-o	<u>633.5</u>	<u>-10</u> 	8	Р					<u>-30</u>			
IO KI 30, PIE	to very stiff			6 9	1.50 P	17							
I CHICAGO ST.				5 7 10	2.50 P	16				-35			
XP, 1-80 FROM	CLAY LOAM-gray-medium stiff	629.03 stiff to	<u> </u>	4	4 50	10							
				6	P	19							
			-20	3 4 4	0.50 P	14				-40			

Geo Services	, Inc.			GE	O Job	No. <u>2</u>	20012
805 AmhershCourt Suite Napelville, Illinois 6056 (630) 355-2938	204 65	ROCK CORE	LOG	5	P	age <u>1</u>	<b>of</b> <u>1</u>
FAI Route 80 fr	rom				D	<b>ate</b> _ 1	/20/23
ROUTE Route 30	DESCRIPTION	I-80 Phase II		LO	GGED	<b>BY</b> F	₹T/QZ
SECTION	LOCATION _SW	/ 1/4, <b>SEC.</b> 13, <b>TWP.</b> T35N, <b>R</b>	<b>NG.</b> R10E	, 3 <sup>rd</sup> <b>PM</b>			
COUNTY Will	<b>CORING METHOD</b> Rotary	Wash		R	Б	CORE	S
STRUCT. NO Station BORING NOTSB-00 Station66+28 Offset29.50ft B	CORING BARREL TY Core Diameter Top of Rock Elev. Begin Core Elev.	NX Double           Swivel-10 ft           2         in           618.53         ft           617.53         ft	— D C E C P F T E H	C C C C C C C C C C C C C C C C C C C	Q D	T I M E	R E N G T H
Ground Surface Elev6	644.53 <b>ft</b>		(ft) (#	¥) (%)	(%)	(min/ft)	(tsf)
RUN 1 (-27.0' to -32.0') SILURIAN SYSTEM, NIAGAF Light gray & fine grained with throughout.	RAN SERIES DOLOMITE horizontal bedding. Numerous hori	izontal fractures		1 24	0		355.00

Geo Services, Inc.	a		GEO Job No.	20012
805 Amherst Court Suite 204 Naperviller filingis 69565 (650) 355-2458/	R	OCK CORE P	PHOTO Page	<u>1</u> of <u>1</u>
FAI Route 80 from			Date	1/20/23
Chicago Street to US ROUTE Route 30	DESCRIPTION	I-80 Phase II	LOGGED BY	RT/QZ
SECTION	LOCATION _SV	V 1/4, SEC. 13, TWP. T35N, R	NG. R10E, 3 <sup>rd</sup> PM	
	ING METHOD Rotary	Wash		
STRUCT. NO.		/PE & SIZE NX Double Swivel-10 ft	_	
	Core Diameter	<u>2</u> in 618 53 ff		
BORING NO.         TSB-004           Station         66+28           Offset         29.50ft Right           Cround Surface Flag         644.52	Begin Core Elev.	<u>617.53</u> ft		
	TSB-C RUNI: 27 TOP	0 <sup>14</sup> 2 <i>a</i> i2 -32'		

GEO Job No. 20012

Page <u>1</u> of <u>1</u> Date 2/23/23

	FAI Route 80 from
	Chicago Street to US
ROUTE	Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2888

194-9\20012 BORING LOGS\20012\_LOG.GPJ 3/7/23

PTB 1

TO RT 30,

ST.

(PROJECTS)2020/20012 EXP, I-80 FROM CHICAGO

\_\_\_\_ DESCRIPTION \_\_\_\_\_ I-80 Phase II \_\_\_\_\_ LOGGED BY \_\_\_\_\_ DJ

- LOCATION \_, SEC. , TWP. , RNG. SECTION COUNTY Will DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic D В U Μ D В U Μ Surface Water Elev. STRUCT. NO. n/a **ft** Ε L С 0 Е L С Ο Stream Bed Elev. Station n/a **ft** S Ρ S Ρ Ο L 0 L т BORING NO. TSB-005 W S т W S Groundwater Elev.: н S т т Qu н S Qu 6<u>35.4</u> **ft** ⊻ First Encounter Upon Completion \_\_\_\_\_n/a\_\_ft (%) (ft) (/6") (%) (ft) (/6") (tsf) (tsf) Ground Surface Elev. 651.37 ft After \_\_\_ Hrs. \_\_\_\_\_ ft 10.0" ASPHALT CLAY LOAM-gray-medium stiff to stiff (continued) 650.53 3 CLAY LOAM with Gravel-black-very 4 3 stiff 4 2.50 19 0.90 26 5 9 Ρ 8 В 647.87 SAND & GRAVEL-brown-medium 7 1 dense to very dense 13 0.25 27 6 1 12 1 Р -25 625.37 SANDY CLAY LOAM-brown & 14 1 gray-very loose to medium dense 50/4' 4 1 28 1 642.87 SANDY CLAY LOAM with 5 7 Gravel-brown-medium dense 17 7 9 27 12 5 -10 -30 640.37 SAND & GRAVEL-brown-dense 13 18 5 13 637.87 617.87 SANDY CLAY 5 CLAY LOAM-gray-soft to stiff 4 LOAM-brown-medium dense to 5 0.25 16 2 26 dense Ρ 19 1 5 8 10 12 632.87 CLAY LOAM-gray-medium stiff to 5 4 stiff 8 2.50 15 End Of Boring @ -40.0'. Boring 6 0.90 23 backfilled with cuttings. 10 Ρ В 6 611.37 -40

GFO	.Job	No.	20012
	500	110.	20012

Geotechnical, 805 N ROUTE	Envloymental & Cu Amherst Court, Suite (630) 355-2838 FAI Route & Chicago Stre Route 3	80 from to US 30	_ DES	SCRI	PTION	10N	SW 1	I-80 Phase II		LC	)GGI	Page Date ED BY	<u>1</u> 2/1	of <u>1</u> <u>4/23</u> )J
	Will	DR	ILLING	• Me1			Ho	llow Stem Auger			(	CME A	utoma	tic
STRUCT. N Station BORING No Station Offset Ground S	IO D 55 94.00 urface Flay	3-006 5+52 ft Right 631 63		D E P T H	B L O W S	U C S Qu (tsf)	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion	n/a n/a 624.6 n/a	ft ft ft ft ft ft	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T (%)
12.0" TOP:	SOIL-black						05	SANDY LOAM-gray-me	edium dense				. ,	
	Y-brown & ara	v-stiff	630.63		2		25					5		
	th brown a gra	y Sun			3	1.50 P	22	-				6 8		13
SANDY CL	AY-brown & gr	ray-loose	<u>628.13</u>	 	1		30	FRACTURED ROCK-g	gray-medium	608.13		23 14 15		11
				5 	1			SILTY LOAM with Frac	tured	605.63	25	9		
				<b>▼</b>	1		26	Rock-gray-medium der	ISE			13 14		10
CLAY LOA	M-gray-soft		623.13		2	0.25 P	27	SAND & GRAVEL-gray dense	y-medium	603.13		7 9 16		10
				<u>-10</u>	2						-30			
CLAY with	Sand-gray-stiff		<u>619.63</u>		2 3 3		25	Drillers Observation: Po Bedrock @ -31.5' Drilled 1' into bedrock to	ossible o confirm	600.13 599.13				

Inc.

618.13

614.63

2

3

3

3 6

5

17 14

15 -20

0.50

Ρ

0.50

Ρ

25

18

12

CLAY LOAM-gray-medium stiff

SANDY LOAM-gray-medium dense

**Geo Services** 

Z/PROJECTS/2020/20012 EXP, 1-80 FROM CHICAGO ST. TO RT 30, PTB 194-9/20012 BORING LOGS/20012 LOG.GPJ 3/6/23 -40 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger

(-31.5'-32.5')

coring.

Borehole continued with rock

\_\_\_\_\_

Geotech	o Services, Inc.	ng					GE	O Job	No2	0012
000000	805 Amherst Court, Suite 204 Naperville, Hinols 60565 (030) 355-2338	.9	ROCK	CORE I		G		Ρ	age <u>1</u>	<b>of</b> <u>1</u>
	FAI Route 80 from			••••		•		D	ate _ 2	/14/23
ROUTE	Chicago Street to US Route 30	DESCRIPTION	I-80	) Phase II			_ LO	GGED	BY	DJ
SECTION		LOCATION _SV	V 1/4, <b>SEC.</b> 13,	TWP. T35N, RNG	<b>G.</b> R1(	0E, 3'	d PM			
	Will COF	RING METHOD Rotary	Wash				R	P	CORE	S T
STRUCT. N	0.	CORING BARREL TY	PE & SIZE	NX Double Swivel-10 ft		•	C		Ţ	R
Station _		Core Diameter	2	in	E	0	V	Q	M	E N
BORING NO	<b>D.</b> <u>TSB-006</u>	Top of Rock Elev.	<u>599.13</u>	ftft	P   T	R E	E R	D	E	G T
Station _ Offset	<u>55+52</u> 94.00ft Right			_ "	H		Y			Н
Ground S	urface Elev. 631.63	_ ft		500.12	(ft)	(#)	(%)	(%)	(min/ft)	(tsf)
SILURIAN	SYSTEM, NIAGARAN SE		rizontal fraatura	000.10		1	02	15		554.00
throughout.		ai bedding. Numerous noi		5						
					-35					
				594.13						
End Of Bor	ing @ -37.5'. Boring backf	illed with cuttings.								
					-40					
					45					
					-45					
					-50					

Geo Services, Inc.	-		GEO Job No
805 Amherst Court, Suite 204 Naperville, Winols 6665	D		$\mathbf{OTO} \qquad \mathbf{Page} \ \underline{1} \ \mathbf{of} \ \underline{1}$
EAL Route 80 from	n		Date 2/14/23
Chicago Street to US	DESCRIPTION	L80 Phase II	LOGGED BY DJ
SECTION		// 1/4, SEC. 13, TWP. 135N, RNG. 1	<u>(10E, 3</u> <b>PM</b>
	ING METHOD Rotary	Wash	
STRUCT. NO.	CORING BARREL T	VAL Double YPE & SIZE Swivel-10 ft	
Station	Core Diameter	in	
BORING NO. TSB-006	Top of Rock Elev.	<u>599.13</u> ft	
Station 55+52	Begin Core Elev.	<u> </u>	
Ground Surface Elev. 631.63	- ft		
	TSB- RUMI - 3 TOP	006 20012	

GEO	Job	No.	20012
OL O	000	110.	20012

Page <u>1</u> of <u>1</u> Date 2/6/23

FAI Route 80 from Chicago Street to US ROUTE \_\_\_\_\_ Route 30

Geo Services, Inc. eotechnical, Environmental & Civil Engineering 805 Amherst Court, Swife 204 Naperville, Illinois 50565 (630) 355-2848

I-80 Phase II LOGGED BY DJ

SECTION	_

Geote

LOCATION \_SW 1/4, SEC. 13, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

	Will	DRILLING	MET	THOD		Ho	llow Stem Auger	HAMMER	TYPE	(	CME A	utoma	tic
STRUCT. NO Station BORING NO Station Offset Ground Surface	TSB-007 54+77 80.00ft Left	21 <b>ft</b>	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion	n/a n/a Dry Dry	_ ft _ ft _ ft _ ft	D E P T H	В L O W S	U C S Qu (tsf)	M O I S T (%)
12.0" TOPSOIL	-black	<u>.51</u> n	( )	( - )		()	SAND & GRAVEL-gra	av-loose to	_ n	( 7	(-)	( )	(/
		627 31				39	medium dense (contin	nued)					
CLAY LOAM-br	own & gray-very	02.101		3							12		
stiff				4	3.50	18					7		2
				6	P					_	5		
		004.04											
SANDY CLAY-	prown & grav-ver	<u>624.81</u> V	·	1							7		
loose to medium	n dense	5		1		27					3		18
			-5	3						-25	4		
				11					602.31		4		
				0		28	Gravel-gray-loose				4		15
				Ũ					600 81		6		
							Drillers Observation: P	ossible	600.31				
							Bedrock @ -28.0'	to confirm					
				4			(-28.0'-30.0')	to commit					
				6 7		14	Weathered rock from	-28.0'-29.0'					
			-10	'			Borehole continued w	ith rock		-30			
2 2 2							coring.						
2				2									
				5		15							
Ž				3									
2													
				3									
				2		14							
			- <u>15</u>	3						- <u>35</u>			
SAND & GRAV	Fl -aray-loose to	612.31		4									
medium dense				3		9				_			
				2									
			_										
				10		5							
			20	9		5				40			
			-20	_		I				-40			

Geotech	o Services, Inc.	na					GE	O Job	No2	20012
	805 Amherst Court, Suile 204 Naperville, Hinois 60565 (630) 355-2438		ROCK	CORE	LO	G		P	age <u>1</u>	<b>of</b> <u>1</u>
	FAI Route 80 from					•		D	ate	2/6/23
ROUTE	Chicago Street to US Route 30	DESCRIPTION	I-80	) Phase II			_ LO	GGED	вү	DJ
SECTION	_	LOCATION S	W 1/4, <b>SEC.</b> 13,	TWP. T35N, RN	<b>G</b> . R10	DE, 3'	d PM			
COUNTY _	Will COF	RING METHOD Rotary	y Wash				R	_	CORE	S
STRUCT. N	0.	CORING BARREL T	YPE & SIZE	NX Double Swivel-10 ft			E C	к	т	R
Station _		Core Diameter	2	_ in	- D E	0	v	Q	M	E N
BORING NO	<b>D.</b> <u>TSB-007</u> 54+77	Top of Rock Elev. Begin Core Elev.	<u> </u>	ftft	P   T	R E	E R	D	E	G T
Offset	80.00ft Left	e			H (ff)	(#)	Y (%)	(%)	(min/ft)	H (tsf)
RUN 1 (-30	.0' to -35.0')	_ 1(			(,	1	60	23	(	597.00
SILURIAN S Light gray 8	SYSTEM, NIAGARAN SE fine grained with horizon	RIES DOLOMITE tal bedding. Numerous ho	orizontal fractures	S						
throughout.										
				503 3	1 _35					
End Of Bor	ing @ -35.0'. Boring backf	filled with cuttings.		000.0						
					-40					
					_					
					<u>-45</u>					
					_					

Geo Services, Inc.	a		GEO Job No
805 Amherst Court, Suile 204 Naperville, Hinois 60565 (630) 355-2438	R	OCK CORF PH	
FAI Route 80 from	•		Date 2/6/23
Chicago Street to US ROUTE Route 30	DESCRIPTION	I-80 Phase II	LOGGED BY DJ
SECTION	LOCATION S	N 1/4, SEC. 13, TWP. T35N, RNG.	R10E, 3 <sup>rd</sup> <b>PM</b>
	ING METHOD Rotary	Wash	
STRUCT. NO	_ CORING BARREL T	NX Double YPE & SIZE	
Station	Core Diameter	2 in	
BORING NO. TSB-007	Top of Rock Elev.	<u>598.31</u> ft 598.31 ft	
Station         54+77           Offset         80.00ft Left			
Ground Surface Elev. 628.31	ft		
	Т58-007. Ruw 1: За Тор	20012	

GFO	.Job	No.	20012
	505	110.	20012

FAI Route 80	) from									Date	2/1	0/
ROUTE Chicago Stree	t to US 0 <b>DE</b>	SCRI	PTION			I-80 Phase II		LC	OGGE	D BY	C	<u>)</u>
SECTION	-	เ		10N _	SW 1/	4, <b>SEC.</b> 13, <b>TWP.</b> T35N	I, <b>RNG.</b> R10E, 3	3 <sup>rd</sup> <b>PM</b>				
	DRILLING	G MET	rhod		Ho	llow Stem Auger	_ HAMMER T	YPE	C	CME A	utoma	tic
STRUCT. NO	008	D E P T	B L O W	U C S	M O I S	Surface Water Elev. Stream Bed Elev.	n/a	ft ft	D E P T	B L O W	U C S	
Station 54+	12	Ĥ	S	Qu	T	First Encounter	624.9	ft 🔻	Ĥ	S	Qu	
Offset 85.00ft Ground Surface Elev.	Right 631.93 <b>ft</b>	(ft)	(/6'')	(tsf)	(%)	Upon Completion After Hrs.	n/a	ft ft	(ft)	(/6'')	(tsf)	(
12.0" TOPSOIL-black	630.03				30	CLAY LOAM-gray-me stiff (continued)	edium stiff to					
CLAY LOAM-black-stiff	030.90	,	2							3		
			4 5	2.00 P	28					4 5	1.25 P	
CLAY LOAM-brown & gray	628.43 -stiff	 }	3					607.93		7		
		-5	4 4	1.50 P	28	FRACTURED ROCK dense	-gray-medium		-25	13 14		
CLAYEY SAND &	625.93	3	2							19		
GRAVEL-brown-loose		▼_	2		21	-				12		

	628.43					
CLAY LOAM-brown & gray-stiff			3			
	·		4	1.50	28	FRACTURED ROCK-gray-mediun
		-5	4	P		dense
	625.93					
CLAYEY SAND &			2			
GRAVEL-brown-loose		▼	2		21	
			2			
			_			
			2			
			2		20	
		-10	3			
			-			
			5			
			4		22	
			5			
CLAX I OAM gray medium stiff to	618.43	·	2			Drillers Observation: Possible
stiff			2	0.50	18	Bedrock @ -33.5'
			3	P.00		Drilled 1' into bedrock to confirm
		- <u>15</u>	0	1		(-35.0'-36.0')
						Weathered Rock from -33.5'-35.0'
			3			Borehole continued with rock
			3	2 00	12	coring.
			6	P		
		_	~			
			2			
			3	0.50	19	
		-20	4	P		

Inc.

**Geo Services** 

Z/PROJECTS/2020/20012 EXP, 1-80 FROM CHICAGO ST. TO RT 30, PTB 194-9/20012 BORING LOGS/20012 LOG.GPJ 3/6/23

nical, Environmental & Civil Env 805 Amherst Court, Suite 204 Naperville, Illinois 50565 (630) 355-2888

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)

#### Page <u>1</u> of <u>1</u>

2/10/23 DJ

ED BY	D.

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S

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(%)

19

9

9

6

13

12

28 12

12 -30

5/5"

-<u>35</u>

-40

598.43

596.93

Geo Ser							GE	O Job	No2	0012
805 Antherst Napetville, (630) 3	Court Suile 204   ling]= 60565 355-24-38/	R			_0	G		Р	age <u>1</u>	<b>of</b> <u>1</u>
FAIRo	ute 80 from							D	ate	/10/23
Chicago ROUTER	Street to US oute 30 DESC		I-80 F	Phase II			_ LO	GGED	BY	DJ
SECTION	-	_ LOCATION _SW 1	/4, <b>SEC.</b> 13, <b>T</b>	<b>NP.</b> T35N, <b>RNG</b>	<b>6.</b> R1(	)E, 3"	<sup>i</sup> PM			
		ETHOD Rotary Wa	ash		_		R	Б	CORE	S
COUNTY W STRUCT. NO. Station State Elevent State	III       CORING MI         CORING MI       CORING MI         TSB-008       0         54+12       1         15.00ft Right       ft         V.       631.93       ft         0')       NIAGARAN SERIES D         NiAGARAN SERIES D       edd         .0'. Boring backfilled with	ETHOD Rotary Wa	ash <b>&amp; SIZE</b>	NX Double Swivel-10 ft in ft ft 590.93	D E P T H (ft) 	C O R E (#) 1	R E C O V E R Y (%) 48	R .Q .D (%) 47	CORE T M E (min/ft)	S T R E N G T H (tsf) 552.00
					-55					

Geo Services	, Inc.		GEO Job No
Geotecnnical, Epwinonmethans of 805 Amherst Court, Suit Naperville, Hinois 666	e 204 65		<b>∩T∩</b> Page <u>1</u> of <u>1</u>
630) 355-2438 FAI Route 80 1	rom		Date 2/10/23
Chicago Street	to US DESCRIPTION	I-80 Phase II	LOGGED BY D.I
		/ 1/4 SEC 13 TWD T35N PNG E	210E 3 <sup>rd</sup> <b>DM</b>
	<b>CORING METHOD</b> Rotary	Wash	
STRUCT. NO.	CORING BARREL TY	PE & SIZE Swivel-10 ft	
Station	Core Diameter	<u>2</u> in	
BORING NO. TSB-0 Station 54+1	08Top of Rock Elev.2Begin Core Elev.	<u> </u>	
Offset 85.00ft F	Right		
Ground Surface Elev.	631.93 <b>ft</b>		
	TSB-O Ruvi Top	08 20012	