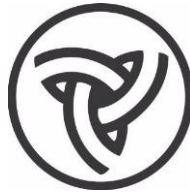


# Roadway Geotechnical Report

I-55 at IL 59 Diverging Diamond Interchange  
IDOT PTB 189-011  
Will County, Illinois

Prepared for



Illinois Department of Transportation (IDOT)  
Contract Number: D-91-368-18

Project Design Engineer Team  
Alfred Benesch & Company

Geotechnical Consultant:  
GSG Consultants, Inc.

November 22, 2021



623 Cooper Court Schaumburg, IL 60173  
Tel: +1630.994.2600 | [www.gsg-consultants.com](http://www.gsg-consultants.com)



623 Cooper Court  
Schaumburg, IL 60173  
Tel.: +1630.994.2600  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

November 22, 2021

Mr. Kurt Naus, P.E., S.E.  
Alfred Benesch & Company  
1230 East Diehl Rd. Suite 109  
Naperville, IL 60563

Roadway Geotechnical Report  
IL 59 at I-55 interchange  
Contract Number: 189-011

---

Dear Mr. Naus:

Attached is a copy of the Roadway Geotechnical Report for the above referenced project. The report provides a description of the site investigation, site conditions and construction recommendations. The site investigation included advancing 110 soil borings to depths ranging from 10 to 25 feet.


Should you have any questions or require additional information, please call us at 312-733-6262.


Sincerely,

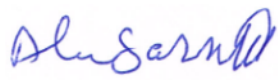
Min Zhang, Ph.D., P.E.  
Project Engineer

Ala E Sassila, Ph.D., P.E.  
Principal

Roadway Geotechnical Report  
I-55 at IL 59 Diverging Diamond Interchange  
IDOT PTB 189-011  
Will County, Illinois

Prepared by:   
Min Zhang, Ph.D., P.E.  
Project Engineer

Reviewed by:   
Dawn Edgell, P.E.  
Senior Project Engineer

Approved by:   
Ala E. Sassila Ph.D., P.E.  
Principal

## Table of Contents

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Project Information.....	1
1.2	Regional Geology.....	3
1.3	Climatic Conditions.....	4
<b>2.0</b>	<b>SITE SUBSURFACE EXPLORATION PROGRAM.....</b>	<b>6</b>
2.1	Subsurface Exploration Program.....	6
2.1	Laboratory Testing Program.....	11
2.2	Subsurface Soil Conditions.....	12
2.3	Groundwater Conditions.....	20
<b>3.0</b>	<b>GEOTECHNICAL ANALYSES.....</b>	<b>22</b>
3.1	Derivation of Soil Parameters for Design.....	22
3.2	Drainage Characteristics.....	25
3.3	Frost Susceptibility.....	25
3.4	Subgrade Support Rating.....	26
3.5	Illinois Bearing Ratio.....	26
3.6	Organic Content.....	26
3.7	Shrinkage Factor.....	26
<b>4.0</b>	<b>EMBANKMENT RECOMMENDATIONS.....</b>	<b>27</b>
4.1	Proposed Embankment.....	27
4.2	Embankment Settlement.....	27
4.3	Embankment Settlement Treatment and Recommendations.....	29
4.4	Slope Stability Analyses and Recommendations.....	30
<b>5.0</b>	<b>ROADWAY RECOMMENDATIONS.....</b>	<b>32</b>
5.1	Subgrade Treatment and Recommendations.....	32
5.2	Drainage Recommendations.....	35
<b>6.0</b>	<b>CONSTRUCTION CONSIDERATIONS.....</b>	<b>36</b>
6.1	Topsoil Removal.....	36
6.2	Embankment and Pavement Subgrade Preparation.....	36
6.3	Site Excavation and Construction Safety.....	37
6.4	Borrow Material and Compaction Requirements.....	37
6.5	Groundwater Management.....	37
<b>7.0</b>	<b>LIMITATIONS.....</b>	<b>39</b>

### Appendices

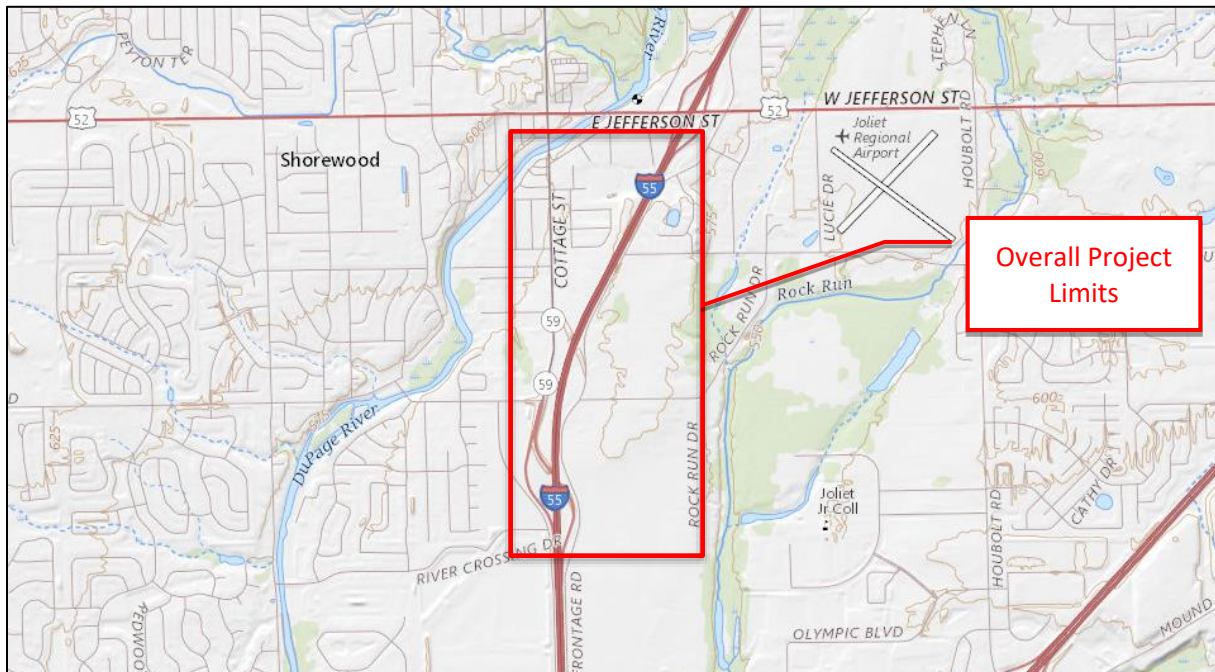
Appendix A	Preliminary Grading Plan
Appendix B	Boring Location Plan and Subsurface Profiles
Appendix C	Soil Boring Logs
Appendix D	Laboratory Test Results
Appendix E	Slope Stability Analyses Exhibits
Appendix F	62H15 Under Cut Plans



Roadway Geotechnical Report  
I-55 at IL 59 Diverging Diamond Interchange  
IDOT PTB 189-011  
Will County, Illinois

## 1.0 INTRODUCTION

GSG Consultants, Inc. (GSG) completed a geotechnical investigation for Phase II design of the proposed full access interchange at I-55 and IL 59 in Will County, Illinois. The future roadway will predominantly be built on new embankments, with the majority of the new alignment embankments graded with side slopes, and four areas will be confined behind retaining walls. The purpose of the investigation was to explore and characterize the subsurface soil and groundwater conditions to determine engineering properties of the subsurface soil and to develop design and construction recommendations for the project. **Exhibit 1** shows the overall project location map.



**Exhibit 1 – Project Location Map –USGS National Map**

### 1.1 Project Information

The general scope of the overall project is the conversion of a partial access interchange to a full access interchange at I-55 and IL 59. This will include the construction a Diverging Diamond Interchange (DDI) and associated auxiliary lanes at the intersection of I-55 and IL 59. Four new ramps are proposed for the new interchange: Ramp A to provide access from I-55 SB to IL 59, Ramp B to provide access from IL 59 to I-55 NB, Ramp C to provide access from I-55 NB to IL-59



and Ramp D to provide access from I-59 to I-55 SB. An auxiliary lane between IL 59 and US 52 along I-55 is also proposed in each direction along the mainline. In proximity to the DDI, the existing I-55 East Frontage Road will be realigned further east.

The project area for the proposed roadway is generalized into 15 areas identified as Areas 1 through 15, based on the proposed embankment heights and locations within the design corridor (**Appendix A**). These areas are identified on the design plans by Benesch and are summarized in **Table 1**.

**Table 1 – Roadway Information for Project Areas**

Area	Roadway Area	Approximate Roadway Stations	Approximate Length (ft)	Maximum Embankment height
1	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (NB)	I-55 STA 280+00 to 329+00	6,009	5
2	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (SB)	I-55 STA 293+00 to 329+00	6,009	5
3	US 52 SB Entrance Ramp North limit to I-55 Tie-In for US 52 ramp	Ramp STA 200+00 to 205+61	561	5
4	SB I-55 exit ramp to IL-59: Ramp A	NB Sta. 1000+00 to 1006+00	600	25
		SB STA 900+00 to 917+00	700	25
5	NB IL-59 entrance ramp to NB I-55: Ramp B	NB STA 1101+00 to 1117+00	600	23
		SB STA 1200+00 to 1207+65	700	
6	NB I-55 exit ramp to NB IL-59: Ramp C	NB STA 800+00 to 815+73	1,573	25
		SB STA 704+50 to 708+00	350	
7	NB IL-59 entrance ramp to SB I-55: Ramp D	NB STA 601+55 to 610+64	909	13
		SB STA 402+50 to 420+50	1,800	
8	IL-59 Roadway (NB and SB) North Project Limit for IL-59 to Seil Road (757 ft)	STA 7476+00 to 7483+57	757	10
9	Seil Road to Ramp A/D Intersection: NB IL-59 DDI	STA 8000+00 to 8016+00	1,600	20
10	Seil Road to Ramp A/D Intersection: SB IL-59 DDI	STA 7000+00 to 7013+00	1,300	20



Area	Roadway Area	Approximate Roadway Stations	Approximate Length (ft)	Maximum Embankment height
11	Ramp A/D Intersection IL-59 NB & SB	STA 7013+00 to 7025+00	1,200	25
12	Rock Run Crossing Drive	STA 7025+00 to 7038+00	1,300	20
13	Center Drive (East Frontage Road Realignment and Reconstruction)	STA 6042+50 to 6089+30	4,680	< 5
14	West Frontage Road Widen and Reconstruct	STA 5541+25 to 5544+75	350	< 5
15	Seil Road Roadway Widen and Reconstruct (River Bluff Drive/Sarver Drive to IL-59)	STA 4003+59 to STA 4018+00	1,441	<5

The four ramps and the ramp intersection to Seil Road, I-55 and IL-59 will be constructed on elevated embankments. Ramp A will be supported by retaining wall 009-1003 on the east side. All the remaining new embankments will be sloped at 1:3 or 1:6 (V:H). The widening and reconstruction of Seil Road will include retaining wall 009-1004 on the south side of Seil Road. The northbound auxiliary lanes of I-55 will have retaining wall 009-1002 on the east side of I-55. Three (3) Structural Geotechnical Reports (SGR) and one technical memo for the proposed retaining walls, and one SGR for the proposed bridge and accompanying wrap around MSE wall abutments were prepared under separate cover. This report will provide analyses and recommendations for the sloped embankments and embankments placed behind the retaining walls for the proposed roadway.

## 1.2 Regional Geology

GSG reviewed several published documents to determine the regional geological setting in the area of the site. The site is located in western Will County, near Shorewood, Illinois. The surficial geologic deposits in this area are typically glacial drift deposited during the Wisconsin Glacial Age and river sediments deposited by the Des Plaines River. The subsurface profile in the area of the site consists of deposits of silty clay, sand, silt, and gravel extending to depths of approximately 20 to 60 feet below ground surface, at which point bedrock is generally encountered. Deposits in the area of the site are primarily from the Yorkville Member of the Lemont Formation of the Wedron Group deposited during the Wisconsin Period. The Lemont Formation typically consists of calcareous, gray, fine to coarse textured diamiction units (silty clay to sandy loam) that contain



lenses of gravel, sand, silt, and clay. Underlying the surficial deposits, the bedrock consists of the Silurian System, Niagaran Series, which consist of dolomite that varies from extremely argillaceous, silty and cherty to exceptionally pure.

### 1.3 Climatic Conditions

This section shows a summary of the climate conditions for the project duration, which field work was performed, from October 2019 to May 2020. This data along, with the two prior months to each investigation have been summarized in **Table 2**. The data was obtained from the National Weather Service Forecast Office website for Chicago, Illinois at O’Hare Airport. The data was evaluated to determine any effects of temperature and precipitation on the water table level and soil moisture content that was encountered at the site at the time the borings were performed.

For the months included in the study, the precipitation average rate was higher in most of the months by 1 to 2 inches. The average monthly temperatures were generally higher by a few degrees from August 2019 to May 2020 with exception of August, September 2019, and April 2020. The winter and spring monthly calculated average snowfall were generally lower from December 2019 to March 2020 but higher in the remaining months. The precipitation fluctuated in the negatives and positives for the departure from normal, with a net precipitation of 12 inches higher than the normal values. It is our opinion that the higher than average rainfall that occurred during the field-testing program could have caused fluctuations observed in the water observations in the soil borings performed during this time frame and possibly have higher soil moisture contents than normal at the surface.

**Table 2 – Climate Conditions**

Date (M-Y)	Snowfall (in)		Precipitation (in.)		Temperature (Fº)	
	Total	Departure	Total	Departure	Average	Departure
August – 2019	-	-	3.63	-1.27	72.9	0.5
September – 2019	-	-	7.61	4.40	69.4	4.8
October – 2019	4.6	4.4	6.76	3.61	50.9	-1.6
November – 2019	3.7	2.5	1.87	-1.28	34.8	-5.5
December – 2019	2.0	-6.2	1.55	-0.7	34.0	6.3
January – 2020	7.8	-3.0	2.8	1.07	30.1	6.3
February – 2020	8.8	-0.3	0.77	-1.02	30.2	2.5





Date (M-Y)	Snowfall (in)		Precipitation (in.)		Temperature (F°)	
	Total	Departure	Total	Departure	Average	Departure
March – 2020	3.2	-2.4	3.48	0.98	42.8	4.9
April – 2020	4.7	3.5	3.81	0.43	48.4	-0.5
May – 2020	-	-	9.5	5.8	59.9	0.8



## 2.0 SITE SUBSURFACE EXPLORATION PROGRAM

This section describes the subsurface exploration program and laboratory testing program completed as part of this project. The proposed locations and depths of the soil borings were selected in accordance with IDOT requirements and review with Benesch for available design information at the time of the field activities. The borings were completed in the field based on field conditions and accessibility.

### 2.1 Subsurface Exploration Program

Soil borings were completed between October 22, 2019 through May 6, 2020. The exploration program included advancing 110 standard penetration test (SPT) borings at locations along the proposed alignment. The as-drilled locations of the soil borings are shown on the Soil Boring Location Map and Subsurface Profile (**Appendix B**). **Table 3a through 3n** presents a list of the borings used for the analysis for the proposed road alignments for each of the identified project areas.

**Table 3a - Summary I-55 Mainline Borings**

Direction	Boring ID	Elevation (feet)	I-55 Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
NB	SGB-040	595.5	283+50	59.0	RT	10.0
	SGB-042	595.4	285+42	58.0	RT	10.0
	SGB-044	595.6	287+43	58.7	RT	10.0
	SGB-045	596.0	289+90	57.2	RT	10.0
	SGB-046	596.3	292+98	56.5	RT	10.0
	SGB-048	596.1	296+54	62.2	RT	10.0
	SGB-050	597.3	299+84	58.0	RT	10.0
	SGB-052	598.3	302+96	58.2	RT	10.0
	SGB-056	598.6	308+97	63.0	RT	10.0
	SGB-058	600.4	312+04	60.9	RT	10.0
	SGB-060	601.1	314+98	61.4	RT	10.0
	SGB-063	597.5	320+02	60.8	RT	10.0
	SGB-066	588.7	324+56	62.5	RT	10.0
SGB-069	583.9	329+28	66.0	RT	10.0	
SB	SGB-142	597.4	293+01	54.8	LT	10.0
	SGB-143	597.1	296+00	57.1	LT	10.0
	SGB-144	597.8	299+01	56.7	LT	10.0
	SGB-145	598.8	302+02	56.7	LT	10.0



Direction	Boring ID	Elevation (feet)	I-55 Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
	SGB-146	599.2	304+96	57.3	LT	10.0
	SGB-147	600.4	308+03	55.4	LT	10.0
	SGB-148	601.5	311+00	54.2	LT	10.0
	SGB-150	600.6	316+97	60.6	LT	10.0
	SGB-151	597.5	319+99	61.5	LT	10.0
	SGB-152	592.9	322+99	61.0	LT	10.0
	SGB-153	588.0	325+97	60.8	LT	10.0

**Table 3b – Summary of US 52 SB Entrance Ramp Borings**

Boring ID	Elevation (feet)	Ramp Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-154	584.5	208+76	4.6	RT	10.0
SGB-155	583.1	205+77	5.9	RT	10.0
SGB-157	581.5	203+00	2.6	RT	9.5

**Table 3c - Summary of Ramp A Borings**

Direction	Boring ID	Elevation (feet)	Ramp Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
NB	SGB-125	614.1	1005+52	11.5	LT	25.0
	SGB-169	592.2	1005+14	64.7	RT	20.5
SB	SGB-170	596.1	916+24	73.0	LT	21.5
	SGB-127	619.1	916+72	10.2	RT	25.0
	SGB-128	594.1	914+45	20.2	LT	15.0
	SGB-133	595.0	910+74	13.6	LT	15.0
	SGB-134	594.0	908+80	8.3	LT	10.0
	SGB-137	590.1	906+28	19.2	LT	10.0
	SGB-139	593.3	904+50	6.3	LT	15.0
	SGB-140	596.6	902+47	16.1	LT	15.0

**Table 3d - Summary of Ramp B Borings**

Direction	Boring ID	Elevation (feet)	Ramp Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
NB	SGB-025	586.6	1106+75	21.9	LT	15.0
	SGB-163	587.4	1107+97	77.2	RT	15.0



Direction	Boring ID	Elevation (feet)	Ramp Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
	SGB-026	588.3	1109+50	28.2	LT	14.5
	SGB-029	591.0	1112+98	11.1	LT	19.0
	SGB-031	593.4	1115+08	15.5	LT	15.0
	SGB-032	594.9	1117+18	11.2	LT	15.0
	SGB-039	593.7	1124+99	3.8	RT	15.0
SB	SGB-164	588.9	1205+45	52.4	LT	16.5
	SGB-176*	589.8	1204+13	73.0	RT	20.0

\*this boring is also used for Ramp B NB.

**Table 3e - Summary of Ramp C Borings**

Direction	Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
NB	SGB-161	588.8	802+01	14.2	RT	21.0
	SGB-072	586.2	806+84	24.2	RT	15.0
	SGB-076	592.80	810+74	41.0	RT	15.0
	SGB-078	597.1	812+25	46.3	RT	15.0
	SGB-082	586.0	813+36	17.7	LT	20.0
	SGB-165	588.7	815+14	7.0	LT	19.5
	SGB-166	587.9	813+29	65.4	LT	21.5
	SGB-159	599.4	812+96	57.6	RT	25.0
SB	SGB-078*	597.1	706+70	28.7	LT	15.0
	SGB-160	591.9	707+01	51.4	RT	20.0

\*boring also used for NB

**Table 3f - Summary of Ramp D Borings**

Direction	Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
NB	SGB-175	595.4	604+14	34.0	LT	23.0
	SGB-094	595.9	605+00	5.1	RT	15.0
	SGB-103	594.5	607+09	7.1	RT	15.0
	SGB-102	593.7	609+05	8.4	RT	15.0
SB	SGB-168	590.2	417+11	31.6	RT	20.0
	SGB-099	592.5	414+63	12.6	RT	15.0



	Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
	SGB-104	593.0	411+59	6.8	LT	15.0
	SGB-105	592.6	409+62	7.0	RT	15.0
	SGB-107	593.0	406+40	6.7	LT	15.0
	SGB-110	603.2	400+54	18.1	LT	20.0

**Table 3g - Summary of Borings for IL-59 (NB and SB): North Project Limit for IL-59 to Seil Road**

Boring ID	Elevation (feet)	IL-59 Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-123	603.2	7479+53	48.8	LT	10.0
SGB-172	592.3	7482+81	46.4	LT	25.0

**Table 3h Summary of Borings for IL-59 DDI NB: Seil Road to Ramp A/D Intersection**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-116	611.5	8001+65	26.9	LT	15.0
SGB-113	607.0	8007+39	49.2	LT	15.0
SGB-112	595.8	8009+41	64.4	LT	15.0
SGB-171	595.1	8009+74	50.4	RT	23.5
SGB-093	595.3	8011+89	9.2	LT	15.0
SGB-092	595.1	8013+45	29.4	LT	15.0
SGB-090	594.7	8015+32	16.9	LT	15.0
SGB-167	594.1	8015+74	36.7	LT	21.5
SGB-087	590.3	8020+40	11.9	LT	15.0
SGB-158	587.0	8023+64	20.0	LT	22.0

**Table 3i - Summary of Borings for IL-59 DDI SB: Seil Road to Ramp A/D Intersection**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-093	595.3	7013+23	36.8	RT	15.0
SGB-096	599.0	7011+05	14.6	RT	15.0
SGB-097	593.6	7009+47	13.6	RT	15.0
SGB-098	592.8	7007+43	15.4	RT	15.0
SGB-110	603.2	7003+36	19.7	RT	20.0



**Table 3j - Summary of Borings for IL-59 DDI SB at Ramp A/D Intersection**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-083	605.7	7023+90	6.4	RT	15.0
SGB-085	609.9	7022+91	3.6	RT	15.0
SGB-088	616.7	7020+53	6.3	RT	15.0

**Table 3k - Summary of Proposed Rock Run Crossings Drive Borings**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-162	583.4	7038+03	3.4	LT	18.5
SGB-016	583.2	7035+00	21.6	LT	10.0
SGB-018	584.2	7032+00	19.1	LT	10.0
SGB-021	584.2	7030+37	12.9	RT	10.0
SGB-023	584.9	7027+49	14.1	RT	15.0
SGB-177	584.0	7028+79	73.8	RT	19.0

**Table 3l - Summary of Center Drive Borings**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-005	585.9	6057+00	0.0	CL	20.0
SGB-162	583.4	6058+57	2.0	LT	18.5
SGB-006	582.5	6060+00	0.0	CL	18.5
SGB-007	583.7	6063+00	0.0	CL	10.0
SGB-008	583.3	6066+00	0.0	CL	18.0
SGB-009	584.6	6069+00	0.0	CL	10.0
SGB-010	585.8	6072+00	0.0	CL	15.5
SGB-011	587.6	6075+00	0.0	CL	10.0
SGB-012	589.9	6078+00	0.0	CL	15.5
SGB-013	592.6	6081+00	0.0	CL	10.0
SGB-014	595.5	6084+00	0.0	CL	10.0
SGB-015	595.2	6086+99	0.0	CL	10.0



**Table 3m - Summary of Borings for West Frontage Road Widen and Reconstruct**

Boring ID	Elevation (feet)	West Frontage Road Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-122	591.0	5544+03	38.1	RT	10.0
SGB-174	591.7	5542+14	26.5	RT	21.0

**Table 3n - Summary of Borings for Seil Road Widen and Reconstruct**

Boring ID	Elevation (feet)	Station	Offset Distance (feet)	Offset Direction	Depth of Boring (feet)
SGB-117	605.5	4017+45	41.3	LT	10.0
SGB-118	597.9	4015+03	35.1	LT	10.0
SGB-119	592.5	4012+30	31.1	LT	10.0
SGB-120	592.5	4009+91	27.3	LT	10.0
SGB-121	591.4	4007+29	21.7	LT	10.0
SGB-173	591.1	4011+05	35.4	RT	21.0

The soil borings were drilled using truck and ATV mounted Diedrich D-50 drill rig using 3¼-inch I.D. hollow stem augers and an automatic hammer. Soil sampling was performed according to AASHTO T 206, "Penetration Test and Split Barrel Sampling of Soils." Soil samples were obtained at 2.5-foot intervals to the boring termination depths. Water level measurements were made in each boring when evidence of free groundwater was detected on the drill rods or in the samples. The boreholes were also checked for free water immediately after auger removal, and before filling the open boreholes with soil cuttings.

GSG's field representative inspected, visually classified and logged the soil samples during the subsurface exploration activities and performed unconfined compressive strength tests on cohesive soil samples using a calibrated Rimac compression tester and a calibrated hand penetrometer in accordance with IDOT procedures and requirements. Representative soil samples collected from each sample interval, were placed in jars and were returned to the laboratory for further testing and evaluation.

## 2.1 Laboratory Testing Program

All samples were inspected in the laboratory to verify the field classifications. A laboratory testing program was undertaken to characterize and determine engineering properties of the



subsurface soils encountered in the project area. The following laboratory tests were performed on representative soil samples:

- Moisture content ASTM D2216/AASHTO T-265
- Atterberg Limits ASTM D 4318/AASHTO T-89/AASHTO T-90
- Dry Unit Weight ASTM D7263
- Grain Size Analysis ASTM C136/AASHTO T-27
- Organic ASTM D7348/AASHTO T-267

The laboratory tests were performed in accordance with test procedures outlined in the IDOT Geotechnical Manual (2020), and per ASTM and AASHTO requirements. Based on the laboratory test results, the soils encountered were classified according to the AASHTO and the Illinois Division of Highways (IDH) classification systems. The results of the laboratory testing program are included in the **Appendix D Laboratory Test Results** and are also shown along with the field test results in **Appendix C Soil Boring Logs**.

## 2.2 Subsurface Soil Conditions

The subsurface soil conditions were evaluated based on the results of both the site investigation and laboratory results. Detailed descriptions of the subsurface soils, as well as the surface elevations, are provided in the Soil Boring Logs. The soil boring logs provide specific conditions encountered at each boring location, including soil descriptions, stratifications, penetration resistance, elevations, location of the samples, water levels (when encountered), and laboratory test data. Variations in the general subsurface soil profile were noted during the drilling activities. The stratifications shown on the boring logs represent the conditions only at the actual boring locations and represent the approximate boundary between subsurface materials; however, the actual transition may be gradual.

### **A. Area 1 – IL-59 Interchange to US 52 – I-55 Roadway Auxiliary Lanes (SB)**

Borings SGB-142, SGB-143, SGB-144, SGB-145, SGB-146, SGB-147, SGB-148, SGB-150, SGB-151, SGB-152, and SGB-153 were drilled through the grass off the existing shoulder of I-55 SB for the proposed widening of I-55. The surface elevations of the borings were between 581.5 and 601.5 feet. The borings each initially noted 6 inches of topsoil. Beneath the surficial layers, silty clay fill soils were encountered to elevations between 572.0 and 598.0 feet. Borings SGB-154, SGB-155, and SGB-157, which were drilled on the northern end of the proposed reconstruction, terminated





in the fill soils. The remaining borings encountered on average 5 feet of existing fill before transitioning to native soils.

Beneath the existing fill soils, medium stiff to hard brown and gray silty clay soils were encountered to the boring termination depths. Silty loam and sandy loam layers were encountered within the brown and gray silty clay soils in SGB-145 and SGB-153.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 0.83 and 5.41 tsf, with most values greater than 1.67 tsf. The cohesionless soils in borings SGB-145 and SGB-153 had SPT N values between of 5 and 44 blows per foot (bpf).

**B. Area 2 - IL-59 Interchange to US 52 – I-55 Roadway Auxiliary Lanes (NB)**

Borings SGB-040, SGB-042, SGB-044, SGB-045, SGB-046, SGB-048, SGB-050, SGB-052, SGB-056, SGB-058, SGB-060, SGB-063, SGB-066, and SGB-069 were drilled through the grass off the existing shoulder of I-55 NB for the proposed widening of I-55. The surface elevations of the borings were between 583.9 and 600.4 feet. The borings initially noted 3 to 9 inches of topsoil. Beneath the surficial layers, silty clay fill soils were encountered to elevations between 578.7 and 594.4 feet. The fill soils were encountered to a depth of 8 feet below grade in boring SGB-069 and to the termination depth in SGB-066. The remaining borings encountered on average 5 feet of existing fill.

Stiff to very stiff black and gray silty clay was noted immediately beneath the fill soils in SGB-045 and SGB-069. In the remaining borings, stiff to hard brown and gray silty clay soils were encountered beneath the fill soils to the boring termination depths. Sand seams were noted within the brown and silty clay soils in SGB-040 and SGB-052.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.25 and 9.37 tsf, with most values ranging between than 1.25 and 6.66 tsf. The cohesionless soils in borings SGB-040 and SGB-052 had SPT N values between of 12 and 15 blows per foot (bpf).

**C. Area 3 – US 52 SB Entrance Ramp – North Limit to I-55 Tie-in for US 52 Ramp**

Borings SGB-154, SGB-155, and SGB-157 were drilled through the grass off the existing shoulder of I-55 SB for the proposed north limit to I-55 tie-in for US 52. The surface elevations of the borings were between 581.5 and 584.5 feet. The borings initially encountered 6 inches of topsoil. Beneath the topsoil, silty clay existing fill soils were encountered to the boring termination



depths. Cobbles were noted within the existing fill soils in borings SGB-155 and SGB-157 at depths of 4 and 6.5 feet, respectively. The fill silty clay had unconfined compressive strengths ranging between 0.4 and 5.6 tsf with most of values between 1.0 and 4.0 tsf and had moisture contents between 12 and 27% percent with most values more than 20 percent.

**D. Area 4 – SB I-55 Exit Ramp to IL-59 (Ramp A)**

Borings SGB-125, SGB-127, SGB-128, SGB-133, SGB-134, SGB-137, SGB-139, SGB-140, SGB-169, and SGB-170 were drilled in the vicinity of proposed Ramp A. Borings SGB-125 and SGB-127 were drilled through the existing pavement on the existing IL-55 NB to IL-59 NB bridge approach. The surface elevations of these borings were 614.1 and 619.1 feet, respectively, and initially encountered 6 inches of asphalt. The remaining borings were drilled in the grass infield off the shoulder of I-55 SB. The surface elevations of these borings were between 590.1 and 596.6 feet, and initially encountered 4 to 10 inches of topsoil. Beneath the surficial layers, the borings encountered silty clay fill soils to elevations between 583.1 and 594.1 feet. Borings SGB-125 and SGB-127 terminated in the fill soils.

The borings then typically encountered stiff to hard brown and gray silty clay to elevations between 578.3 to 584 feet. Borings SGB-133 and SGB-139 terminated within the brown and gray silty clay soils. Underlying these soils, the borings encountered very stiff to hard gray silty clay and silty clay loam to termination depths in borings SGB-128, SGB-134, SGB-137, SGB-140, and SGB-170. Beneath the gray silty clay soils in SGB-169, dense gray sand with limestone fragments was encountered to the boring termination depth.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.04 and 6.66 tsf, with most values ranging between 2.08 and 6.66 tsf. The gray silty clay and silty clay loam soils had unconfined compressive strengths ranging from 2.71 to 5.21 tsf. The gray sand with limestone fragments had SPT N values ranging from 34 to 39 blows per foot (bpf).

**E. Area 5 – NB IL-59 Entrance Ramp to NB I-55 (Ramp B)**

Borings SGB-025, SGB-026, SGB-029, SGB-031, SGB-032, SGB-039, SGB-163, SGB-164, and SGB-176 were drilled in the vicinity of proposed Ramp B. SGB-039 was drilled through the grass off the shoulder of I-55 NB. The remaining borings were drilled in the farm fields east of existing SE Frontage Road. The surface elevations of the borings were between 586.6 and 595.0 feet, and initially encountered 3 to 12 inches of topsoil. Beneath the topsoil in boring SGB-039, silty clay fill soils were encountered to a depth of 6.5 feet below grade (approx. elevation 587.2 feet).



Beneath the existing fill soils in SGB-039 and the topsoil in the remaining borings, soft to hard brown and gray silty clay soils were encountered to elevations between 572.5 to 584 feet. Borings SGB-133 and SGB-139 terminated within the brown and gray silty clay soils. Sand seams were noted within the brown and gray silty clay soils in borings SGB-025 and SGB-164. The borings then encountered very stiff to hard gray silty clay, silty clay loam, and clay loam to elevations between 570.8 and 580 feet. Borings SGB-025, SGB-031, SGB-032, and SGB-039 were terminated within these soils. Highly weathered limestone was then encountered to the termination depth in borings SGB-26, SGB-29, SGB-163, SGB-164, and SGB-176.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 0.42 and 7.5 tsf, with most values greater than between 1.0 tsf. The gray silty clay, silty clay loam, and clay loam soils had unconfined compressive strengths ranging from 1.25 to 5.5 tsf. The brown and gray sand SPT N values ranging from 3 to 5 blows per foot (bpf).

**F. Area 6 – NB I-55 Exit Ramp to NB IL-59 (Ramp C)**

Borings SGB-072, SGB-076, SGB-078, SGB-082, SGB-159, SGB-160, SGB-161, SGB-165, and SGB-166 were drilled through the pavement on the existing IL-55 NB to IL-59 NB bridge approach. The surface elevations of these borings were between 597.1 and 600.9 feet, and initially encountered 6 inches of asphalt over 4 to 6 inches of aggregate base course. SGB-072 and SGB-161 were drilled off the shoulder of I-55 NB. The surface elevations of these borings were 586.2 and 588.8 feet, respectively. Boring SGB-072 encountered 7 inches of asphalt over 6 inches of aggregate base course; SGB-161 encountered 6 inches of topsoil over 6 inches of crushed gravel. The remaining borings were drilled through the grass infield adjacent to I-55 NB and SE Frontage Road. The surface elevations of the borings were between 586.0 and 592.8 feet, and initially encountered 4 to 8 inches of topsoil. Beneath the surficial layers, the borings encountered silty clay fill soils to elevations between 579.7 and 588.4 feet. Boring SGB-078 was terminated in the fill soils.

Beneath the existing fill soils, stiff to hard brown and gray silty clay and silty clay loam soils were encountered to elevations between 570.8 to 585.9 feet. Sand seams were noted within the brown and gray silty clay soils in borings SGB-072, SGB-076, SGB-160, and SGB-161. The borings then encountered very stiff to hard gray silty clay and silty clay loam to elevations between 566.0 and 576.9 feet. A layer of gray silt with limestone fragments was encountered in borings SGB-82, SGB-165, and SGB-166. Borings SGB-025, SGB-031, SGB-032, and SGB-039 were terminated within the silty clay. Highly weathered limestone was then encountered to the termination depth



in borings SGB-158 and SGB-160. The remaining borings were terminated within the silty clay, sand, gravel, and silt soils.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.04 and 5.48 tsf. The gray silty clay and silty clay loam had unconfined compressive strengths ranging from 1.46 to 5.0 tsf. The cohesionless soils (sand, gravel, and silt) SPT N values ranging from 5 to 54 blows per foot (bpf).

**G. Area 7 – NB IL-59 Entrance Ramp to SB I-55 (Ramp D)**

Borings SGB-094, SGB-099, SGB-102, SGB-103, SGB-104, SGB-105, SGB-107, SGB-110, SGB-168, and SGB-175 were drilled in the vicinity of proposed Ramp D. Boring SGB-110 was drilled through the existing shoulder pavement of IL-59 SB. The remaining borings were drilled through the farm fields west of existing IL-59, as well as the grass infield west of I-55 SB. The surface elevations of the borings were between 590.2 and 603.2 feet. Boring SGB-110 initially noted 10 inches of asphalt over 5 inches of aggregate base course. The remaining boring noted 5 to 6 inches of topsoil. Beneath the surficial layers, silty clay fill soils were encountered to elevations between 583.2 and 591.0 feet. SGB-110 terminated in the fill soils.

Beneath the existing fill soils, soft to hard brown and gray silty clay soils were encountered to elevations between 579.2 to 585.2 feet. Sand seams were noted within the brown and gray silty clay soils in borings SGB-105 and SGB-168. The borings then encountered medium stiff to hard gray silty clay, which generally extended to the boring termination depths. Very dense gray gravel with limestone fragments was noted below the gray silty clay in boring SGB-175.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 0.42 and 7.5 tsf, with most values greater than 1.0 tsf. The gray silty clay had unconfined compressive strengths ranging from 0.83 to 4.58 tsf, with most values greater than 1.0 tsf. The brown sandy loam and sand in borings SGB-105 and SGB-168 had SPT N values between 3 to 16 blows per foot (bpf). The gray gravel in borings SGB-175 had a SPT N value of 56 blows per foot (bpf).

**H. Area 8 – IL-59 Roadway (NB and SB) – North Project Limit for IL-59 to Seil Road**

Borings SGB-123 and SGB-172 were drilled near the north project limit for the proposed IL-59 to Seil Road. The borings were drilled off the shoulder of existing IL-59 SB. The surface elevations of the borings were 592.3 and 603.2 feet, respectively. The borings initially encountered 6 inches of topsoil.



Silty clay fill soils were encountered beneath the topsoil to the boring termination depth in SGB-123. Beneath the topsoil in SGB-172, sand and gravel fill was encountered to a depth of 3.5 feet below grade, followed by very stiff brown and gray silty clay to 11 feet below grade, then very stiff to hard gray silty clay and silty clay loam to the boring termination depth.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 2.08 and 2.29 tsf. The gray silty clay and silty clay loam had unconfined compressive strengths ranging from 2.08 to 6.0 tsf.

**I. Area 9 – IL-59 DDI NB: Seil Road to Ramp A/D Intersection:**

Borings SGB-087, SGB-090, SGB-092, SGB-093, SGB-112, SGB-113, SGB-116, SGB-167, and SGB-171 were drilled in the vicinity of proposed IL-59 DDI NB. Boring SGB-113 was drilled through the pavement of existing IL-59. The remaining borings were drilled in the grass infields surrounding the existing I-55 and IL-59 interchange. The surface elevations of the borings were between 590.3 and 611.5 feet. Boring SGB-113 initially encountered 6 inches of asphalt over 8 inches of aggregate base course. The remaining borings encountered 3 to 12 inches of topsoil.

Beneath the surficial layers, silty clay fill soils were noted to elevations between 584.3 and 596.5 feet. Borings SGB-113 and SGB-116 terminated within these soils. Cobbles and limestone fragments were noted throughout the fill soils in SGB-113. Beneath the fill soils, stiff to hard brown and gray silty clay soils were encountered to elevations between 579.7 to 586.3 feet. Borings SGB-090 and SGB-092 terminated within these soils. Sand and gravel seams were noted within the brown and gray silty clay soils in borings SGB-090 and SGB-167. Beneath these soils, stiff to hard gray silty clay soils were generally encountered to the boring termination depths. Silty sand and gravel seams were penetrated within the gray silty clay soils in borings SGB-087 and SGB-171. Boring SGB-167 was terminated upon reaching auger refusal in highly weathered limestone.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.25 and 5.27 tsf. The gray silty clay soils had unconfined compressive strengths ranging from 1.5 to 5.41 tsf. The cohesionless deposits had SPT N values between 19 and 30 blows per foot (bpf).



**J. Area 10 – SB IL-59 DDI: Seil Road to Ramp A/D Intersection (Sta 7000+00 to 7013+00)**

Borings SGB-093, SGB-096, SGB-097, SGB-098, and SGB-110 were drilled in the vicinity of proposed IL-59 DDI SB. The surface elevations of the borings were between 592.8 and 603.2 feet. Boring SGB-110 was drilled through the existing shoulder pavement on IL-59, and initially encountered 10 inches of asphalt over 5 inches of aggregate base course. The remaining borings were drilled through the grass infield surrounding existing IL-59 and encountered 3 to 6 inches of topsoil.

Beneath the surficial layers, silty clay fill soils were encountered to elevations between 583.2 and 590.4 feet. Boring SGB-110 terminated within the fill soils. Stiff to hard brown and gray silty clay soils were then encountered to elevations between 581.6 and 588.0 feet. Stiff to hard gray silty clay soils were then encountered to the boring termination depths. Very loose gray sand was noted within these soils in boring SGB-096.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 3.75 and 6.25 tsf. The gray silty clay had unconfined compressive strengths ranging from 1.87 to 4.17 tsf. The gray sand had SPT N value of 3 blows per foot (bpf).

**K. Area 11 – SB IL-59 DDI: Seil Road to Ramp A/D Intersection (Sta 7013+00 to 7025+00)**

Borings SGB-083, SGB-085, and SGB-088 were drilled in the vicinity of proposed IL-59 DDI SB. The surface elevations of the borings were between 605.7 and 616.7 feet. The borings were drilled through the existing pavement on the existing IL-55 NB to IL-59 NB bridge south approach (SN 099-4642), and initially noted 6 inches of topsoil over 6 inches of aggregate base course. Beneath the surficial layers, silty clay fill soils were encountered to the boring termination depths. Sand fill was encountered between depths of 1 to 3.5 feet below grade in boring SGB-083.

**L. Area 12 – Rock Run Crossings Drive**

Borings SGB-016, SGB-018, SGB-021, SGB-023, and SGB-177 were drilled in the vicinity of proposed Rock Run Drive. The borings were drilled through the farm fields east of existing SE Frontage Road. The surface elevations of the borings were between 583.2 and 584 feet. The borings initially noted 3 to 6 inches of topsoil.

Beneath the surficial layers, very loose to loose, brown and gray sand was noted in borings SGB-018, SGB-023, and SGB-177. Interbedded within these soils, soft to stiff brown and gray silty clay soils were noted in borings SGB-016, SGB-021, and SGB-023. The brown and gray sand and silty



clay soils extended to elevations between 575.7 and 578.9 feet. Beneath these soils, stiff to very stiff silty clay soils were encountered to the boring termination depths. SGB-016 noted medium dense sandy clay loam at its boring termination depth.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 0.21 and 1.5 tsf. The gray silty clay had unconfined compressive strengths ranging from 1.04 to 3.75 tsf. The brown and gray sand had SPT N values between 2 to 7 blows per foot (bpf).

**M. Area 13 – Center Drive (East Frontage Road Realignment and Reconstruction)**

Borings SGB-005, SGB-006, SGB-007, SGB-008, SGB-009, SGB-010, SGB-011, SGB-012, SGB-013, SGB-014, SGB-015, SGB-162 were drilled in the vicinity of proposed Center Drive. The borings were drilled through the farm fields east of existing SE Frontage Road. The surface elevations of the borings were between 582.5 and 595.5 feet. The borings initially noted 3 to 8 inches of topsoil. Beneath the topsoil in boring SGB-015, silty clay fill soils were encountered to a depth of 6 feet below grade (approx. elevation 595.2 feet).

Beneath the existing fill soils in SGB-015 and the topsoil in the remaining borings, very loose to dense brown sand and sandy clay loam soils were encountered to elevations between 566.4 and 586.5 feet. Boring SGB-07 was terminated within these soils. Silty clay seams were noted within the cohesionless soils in borings SGB-05, SGB-07, SGB-08, SGB-09, SGB-13, SGB-14, and SGB-15. Medium stiff to hard gray silty clay and silty clay loam soils were then encountered and extended to the boring termination depths in borings SGB-05, SGB-08, SGB-09, SGB-010, SGB-011, SGB-013, SGB-014, and SGB-015. Beneath the gray silty clay soils, highly weathered limestone was noted in borings SGB-06, SGB-012, and SGB-162, and were terminated upon reaching auger refusal.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 0.5 and 7.29 tsf, with most values greater than 1.0 tsf. The gray silty clay had unconfined compressive strengths ranging from 0.83 to 5.83 tsf, with most values greater than 1.0 tsf. The brown sand and sandy clay loam had SPT N values between 2 to 28 blows per foot (bpf).

**N. Area 14 – West Frontage Road Widen and Reconstruction**

Borings SGB-122 and SGB-174 were drilled in the vicinity of proposed reconstructed West Frontage Road. The borings were drilled though the grass off the shoulder of existing SW Frontage Road. The surface elevations of the borings were 591.0 and 591.7 feet, respectively.



The borings initially noted 6 inches of topsoil. Beneath the topsoil, silty clay fill soils were encountered to elevations of 585.7 and 587.5 feet, followed by very stiff to hard brown and gray silty clay to the termination depth in SGB-122 and to an elevation of 575.7 feet in SGB-174. Stiff to very stiff gray silty clay was then encountered to the boring termination depth in SGB-174.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.46 and 5.83 tsf. The gray silty clay had unconfined compressive strengths ranging from 1.87 to 2.71 tsf.

#### **O. Area 15 – Seil Road Widen and Reconstruction**

Borings SGB-117, SGB-118, SGB-119, SGB-120, SGB-121, and SGB-173 were drilled in the vicinity of proposed reconstructed Seil Road. The borings were drilled through the grass off the shoulder of existing Seil Road. The surface elevations of the borings were between 591.4 and 605.5 feet. The borings initially noted 3 to 8 inches of topsoil. Beneath the topsoil, the borings encountered silty clay fill soils to elevations between 582.5 to 595.5 feet. Borings SGB-117, SGB-118, and SGB-119 terminated within the fill soils.

Beneath the fill soils, stiff to hard brown and gray silty clay soils were encountered to elevations between 580.1 and 582.5 feet. Borings SGB-120 and SGB-121 terminated within these soils. Stiff to very stiff gray silty clay loam was then encountered to the termination depth in SGB-173.

The brown and gray silty clay soils had unconfined compressive strengths ranging between 1.67 and 5.83 tsf. The gray silty clay had unconfined compressive strengths ranging from 1.87 to 3.96 tsf.

### **2.3 Groundwater Conditions**

Water levels were checked in each boring to determine the general groundwater conditions present at the site and were measured while drilling and after each boring was completed. No delayed groundwater readings were obtained as the borings were backfilled immediately upon completion. Long-term ground water levels were estimated based on the color change from brown to gray.

Water level readings were made in the boreholes at times and under conditions shown on the boring logs and stated in the text of this report. However, it should be noted that fluctuations in





groundwater level may occur due to variations in rainfall, other climatic conditions, or other factors not evident at the time measurements were made and reported herein.

A summary of the groundwater level readings during drilling and estimated long-term groundwater levels are shown in **Table 4**. In general, it should be noted that groundwater level may fluctuate based on seasonal precipitation, evaporation, surface run-off and other factors.

**Table 4 – Groundwater Observations**

Area	Roadway Area	Groundwater During Drilling (ft)	Estimated Long-term Groundwater (ft)
1	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (NB)	586 - 592	576 - 592
2	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (SB)	584 - 591	NA
3	US 52 SB Entrance Ramp North limit to I-55 Tie-In for US 52 ramp	573	NA
4	SB I-55 exit ramp to IL-59: Ramp A	574 - 585	579 - 584
5	NB IL-59 entrance ramp to NB I-55: Ramp B	571 - 582	578 - 584
6	NB I-55 exit ramp to NB IL-59: Ramp C	574 - 578	575 - 586
7	NB IL-59 entrance ramp to SB I-55: Ramp D	574 - 587	579 - 585
8	IL-59 Roadway (NB and SB) North Project Limit for IL-59 to Seil Road (757 ft)	NA	581
9	Seil Road to Ramp A/D Intersection: NB IL-59 DDI	581 - 585	582 - 586
10	Seil Road to Ramp A/D Intersection: SB IL-59 DDI	581 - 591	582 - 588
11	Ramp A/D Intersection IL-59 NB & SB	NA	NA
12	Rock Run Crossing Drive	571 - 578	576 - 579
13	Center Drive (East Frontage Road Realignment and Reconstruction)	575 - 581	567 - 587
14	West Frontage Road Widen and Reconstruct	~576	~586
15	Seil Road Roadway Widen and Reconstruct (River Bluff Drive/Sarver Drive to IL-59)	~580	~571



### 3.0 GEOTECHNICAL ANALYSES

---

This section provides GSG's geotechnical analysis and recommendations for the design of the proposed roadway improvements based on the results of the field exploration and laboratory testing. Subsurface conditions in unexplored locations may vary from those encountered at the boring locations. If the alignment or proposed grades change, we request that you contact GSG to re-evaluate our recommendations.

#### 3.1 Derivation of Soil Parameters for Design

GSG determined the geotechnical parameters to be used for the project design based on the results of field and laboratory test data on individual boring logs as well as our experience. Unit weights, friction angles and shear strength parameters were estimated using standard penetration test (SPT) results for the fill and cohesionless soils and in-situ and laboratory test results for cohesive soils. The SPT values were corrected for hammer efficiency and overburden pressure. The hammer efficiency correction factor considers the use of a safety hammer/rope/cat-head system, generally estimated to be 60% efficient. Thus, correlations should be based upon what is currently termed as  $N_{60}$  data. The efficiencies of the automatic hammer used for this exploration were estimated to be approximately 88% for the truck mounted Diedrich D-50 and 98% for the ATV mounted Diedrich D-50, based on previous efficiency testing of the drill rigs. The correction for hammer efficiency is a direct ratio of relative efficiencies as follows:

$$N_{60} = N_{\text{Field}} * (88/60): \text{Diedrich D-50 Truck Mount}$$

$$N_{60} = N_{\text{Field}} * (98/60): \text{CME-55 ATV Mount}$$

\* Where the  $N_{\text{Field}}$  value is the blow counts recorded during the subsurface investigation.

Based on the field investigation data collected, generalized soil parameters for the soils in the project areas with slope heights anticipated of more than 15 feet are presented in **Tables 5a** through **5e** for use in embankment design.



**Table 5a – Soil Parameter Table – Ramp C NB, STA 814 (SGB-159, 165, 166 and 82 & 82A)**

Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
	New Engineered Clay Fill	120	1,000	0	100	26
	New Engineered Granular Fill	125	0	30	0	30
0-18 (600-582)	Fill Brown, Gray and Black Silty Clay	23	2,100	0	210	25
18-25 (582-575)	Brown and Gray Stiff to Very Stiff Silty Clay	136	3,200	0	320	28
25-29 (575-571)	Gray Stiff Silty Clay	136	1,700	0	170	28
29-32 (571-568)	Gray Medium Dense to Extremely Dense Silt	135	0	37	0	37

**Table 5b – Soil Parameter Table – Ramp B SB, STA 1204 & Ramp B NB, STA 1107+50 (SGB-25, 26, 163 164, and 176)**

Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
	New Engineered Clay Fill	120	1,000	0	100	26
	New Engineered Granular Fill	125	0	30	0	30
0-10 (589-579)	Brown, Gray and Black Stiff to Hard Silty Clay	133	2,500	0	250	28
10-18 (579-571)	Gray Stiff to Hard Silty Clay	133	2,600	0	260	28

**Table 5c – Soil Parameter Table – Ramp A NB, STA 1005 (SGB125 and, 168 169)**

Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
	New Engineered Clay Fill	120	1,000	0	100	26
	New Engineered Granular Fill	125	0	30	0	30
0-5 (593-588)	Fill Brown and Gray Silty Clay	137	1,700	0	170	25



Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
5-13 (588-580)	Brown and Gray Stiff to Hard Silty Clay	132	3,800	0	380	28
13-18 (580-575)	Gray Very Stiff to Hard Silty Clay	139	4,100	0	410	28
18-21 (575-572)	Gray Dense Sand	137	0	37	0	37

**Table 5d – Soil Parameter Table – IL 59 NB, STA 8000 and IL 59 SB, STA 7002, intersection with Seil Road (SGB-110 &116, TSP-01&02)**

Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
	New Engineered Clay Fill	120	1,000	0	100	26
	New Engineered Granular Fill	125	0	30	0	30
0-28 (610-582)	Fill Brown and Gray Silty Clay	134	2,700	0	270	25
28-32 (582-578)	Brown and Gray Stiff to Hard Silty Clay	132	3,800	0	380	28
32-41 (578-569)	Gray Very Stiff Silty Clay	134	2,900	0	290	28

**Table 5e – Soil Parameter Table – IL 59 SB, STA 6998, intersection with Seil Road (SGB-117, 123 & 172, RWB-14)**

Elevation (feet)	Soil Description	In situ Moist Unit Weight $\gamma$ (pcf)	Undrained		Drained	
			Cohesion c (psf)	Friction Angle $\phi$ (Degrees)	Cohesion c (psf)	Friction Angle $\phi$ (Degrees)
	New Engineered Clay Fill	120	1,000	0	100	26
	New Engineered Granular Fill	125	0	30	0	30
0-10 (600-590)	Fill Brown and Gray Silty Clay	129	900	0	90	25
10-15 (590-585)	Brown and Gray Very Stiff to Hard Silty Clay	135	3,000	0	300	28
15-33 (585-567)	Gray Very Stiff to Hard Silty Clay	138	3,800	0	380	28



### 3.2 Drainage Characteristics

The drainage characteristics of the site were evaluated per the IDOT Geotechnical Manual, Section 6.3.4.1, based on the subgrade soil type and moisture condition, depth of water table, project topography, the proposed profile grade line, and depth and grade of drainage ditches along the roadway.

The majority of the proposed roadway improvements will be predominantly supported on new engineered fill. Fill soils that are cohesive (A-6) or granular in nature and having a fill height greater than 3 feet are classified as Good drainage material; therefore, a Good classification should be used for the subgrade soils for the areas of elevated embankment.

The following road sections may be supported on new engineered fill thicknesses of less than 3 feet. **Table 6** summarizes the drainage classification for these sections based on the subgrade soil characteristics.

**Table 6 - Summary of Drainage Classification**

Road Section	Subgrade soil description	Drainage Characteristics
Rock Run Crossing Drive	Sand/Silty Clay	Fair to Poor
Center Drive	Sandy Clay Loam	Fair
West Frontage Road Widen and Reconstruct	Silty Clay Fill	Fair to Poor
Seil Road Roadway Widen and Reconstruct	Silty Clay Fill	Fair to Poor

### 3.3 Frost Susceptibility

The frost susceptibility of the subgrade soils was evaluated per Section 6.3.2.2.3 of the IDOT Geotechnical Manual. The maximum anticipated frost penetration depth below pavement in northern Illinois for extreme weather conditions is 45 to 60 inches. The frost susceptibility was evaluated for the soils encountered that would be within the proposed roadway subgrade. The new sloped embankment and inner core of the embankment fill will likely be cohesive in nature and will have a Frost Class of F3 (high frost susceptibility). However, the proposed roadway will be built on embankment which will be elevated more than 5 feet and will have a proper drainage system is to be designed. Based on the proposed drainage conditions for the site and relatively deeper long-term groundwater level than the capillary rise section below subgrade, frost heave is not a concern.



### **3.4 Subgrade Support Rating**

The subgrade support rating (SSR) was determined based on the physical properties of in-situ soils present beneath the proposed pavement section. The SSR includes three categories (poor, fair, and granular), and are used to determine the depth of soil treatment to provide a stable working platform that is required to prevent excessive rutting, and moisture related problems during construction activities. Granular soils have the highest rating and provide a stable working platform that may require less than a 12-inch thick improved subgrade layer, while poor subgrade may require more than 12 inches to provide stable subgrade during construction activities. The new inner core of the embankment fill will likely be cohesive in nature and will have a Subgrade Support Rating (SSR) rating of Poor. It is recommended that a Subgrade Support Rating of **Poor** be used for roadway of this project.

### **3.5 Illinois Bearing Ratio**

The Illinois Bearing Ratio (IBR) is a measure of the support provided by the roadbed soils for the new pavement. Portions of the inner core embankment fill and sloped embankment fill will likely consist of cohesive soils, therefore it is recommended to use an IBR value of 2, based on typical IBR values for Illinois soils-Table 5.5.16-1 of the IDOT Geotechnical Manual, for the roadway pavement design and correlate to the subgrade resilient modulus based on the AASHTO recommended pavement design formula for fine grained soils ( $M_r = 1,500 \times \text{IBR}$ ).

### **3.6 Organic Content**

As the new roadway is to be elevated, soils within the proposed subgrade zone are anticipated to be supported on new fill. None of the existing subgrade soils noted significant organic material at the surface. Based on IDOT Geotechnical Manual, soils with an organic content in excess of 10 percent are considered unsuitable to remain below proposed pavement areas.

### **3.7 Shrinkage Factor**

Based on IDOT and FHWA references, a shrinkage factor of 15% may be used for newly placed cohesive soils. For dry sand, a shrinkage factor of 10% may be used.



## 4.0 EMBANKMENT RECOMMENDATIONS

---

This section provides GSG's geotechnical recommendations for the design of the proposed improvements based on the results of the field exploration, laboratory testing, and geotechnical analysis. As part of the project plans, new embankments will be constructed that will require new fill heights of up to 25 feet. Generally, the largest fill heights of the project will be located near the proposed bridge SN 046-0999. The design recommendations for these areas of the mainline are discussed in **Section 5.0 - Roadway Recommendations**.

For the design and construction of the new embankment, the existing subgrade soils were evaluated for potential settlement due to the anticipated loading. The proposed embankment was also analyzed for overall global stability. Design and construction recommendations for the proposed embankment are in the following sections.

### 4.1 Proposed Embankment

GSG understands that new engineered fill will be used to construct the new embankment for most of the proposed road alignment as listed in **Table 1**. The anticipated maximum heights of the new engineered fill are listed in **Table 1** for each road alignment section. The majority of the roadway embankment will be supported on sloped embankments, while isolated areas will be retained with retaining walls as previously noted. The recommendations for the retaining wall sections are included in separate reports.

### 4.2 Embankment Settlement

Based on the variable heights, shapes, and soil conditions across the length of the mainline embankment, the analysis was broken into several sections to evaluate the anticipated amount of primary settlement and time frames.

Each analysis section was selected based on the overall height of the embankment, the anticipated loading and influence zone of the embankment due to the variable shapes, or the soil conditions encountered in the soil borings along each section of the mainline. For each of the project areas, the maximum estimated primary settlements within the native cohesive soils were calculated as shown in **Table 7**.



**Table 7 – Estimated Settlement Summary**

Area	Roadway Area	Approximate Roadway Stations	Maximum Embankment Height	Primary Settlement (inches)
1	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (NB)	I-55 STA 280+00 to 329+00	5	< 1.0
2	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (SB)	I-55 STA 293+00 to 329+00	5	< 1.0
3	US 52 SB Entrance Ramp North limit to I-55 Tie-In for US 52 ramp	I-55 STA 200+00 to 205+61	5	< 1.0
4	SB I-55 exit ramp to IL-59: Ramp A	NB STA 1000+00 to 1006+00	25	2.5
		SB STA 900+00 to 917+00		
5	NB IL-59 entrance ramp to NB I-55: Ramp B	NB STA 1101+00 to 1117+00	23	2.5
		SB STA 1200+00 to 1207+65		
6	NB I-55 exit ramp to NB IL-59: Ramp C	NB STA 800+00 to 815+73	25	2.5
		SB STA 704+50 to 708+00		
7	NB IL-59 entrance ramp to SB I-55: Ramp D	NB STA 601+55 to 610+64	13	2.0
		SB STA 402+50 to 420+50		
8	IL-59 Roadway (NB and SB) North Project Limit for IL-59 to Seil Road (757 ft)	STA 7476+00 to 7483+57	10	2.0
9	Seil Road to Ramp A/D Intersection: NB IL-59 DDI	STA 8000+00 to 8016+00	20	2.0
10	Seil Road to Ramp A/D Intersection: SB IL-59 DDI	STA 7000+00 to 7013+00	20	2.8
11	Ramp A/D Intersection IL-59 NB & SB	STA 7013+00 to 7025+00	25	3.0
12	Rock Run Crossing Drive	STA 7025+00 to 7038+00	20	2.5
13	Center Drive (East Frontage Road Realignment and Reconstruction)	STA 6042+50 to 6089+30	< 5	< 1.0
14	West Frontage Road Widen and Reconstruct	STA 5541+25 to 5544+75	< 5	< 1.0
15	Seil Road Roadway Widen and reconstruct (River Bluff Drive/Sarver Drive to IL-59)	STA 4003+59 to 4018+00	<5	< 1.0





### **4.3 Embankment Settlement Treatment and Recommendations**

Due to the anticipated large magnitude of total settlement, special design recommendations should be considered. This should mitigate the impact to the proposed roadway alignment caused by settlement.

#### **4.3.1 Staged Construction**

Due to the large magnitude of fill heights that are being proposed for the roadway construction, segments of the project could utilize controlled rate of loading or staged construction. With staged construction, a portion of the embankment is constructed to allow for soil consolidation and pore water pressure dissipation which would increase soil strength prior to completion of the full embankment/fill construction. For the initial construction, allowing the partially constructed embankment to remain in place for varying amounts of time, prior to the final stage construction will result in different amounts of settlement after construction. The longer the initial stage construction remains in place as a surcharge over the underlying soils, the less settlement is anticipated to occur post construction.

Proper instrumentation, as outlined in IDOT Geotechnical Manual (2020) in *Section 6.4.4.6- Instrumentation and Control of Embankment Construction*, will be required to monitor the state of stress in the soil during the loading period, to ensure that loading does not proceed so rapidly as to cause a shear failure.

For the initial staged construction, time frames of 3 months to 6 months were considered, in order to evaluate the potential impact on post-construction settlement of the embankments. The time frames for stage construction activities should be evaluated with the overall construction schedule to determine the potential impact to the schedule, in addition to the potential cost impacts of delayed construction.

#### **4.3.2 Maintenance**

A maintenance program will likely be necessary throughout the construction stage to account for movement of the new embankments. This will require additional quantities of fill materials to be placed during construction, which should be accounted for when estimating earthwork quantities. The site improvement alternative selected will determine how long and how much maintenance may be necessary.



#### **4.4 Slope Stability Analyses and Recommendations**

Slope stability analyses were performed in areas where sloped embankments are proposed. For the proposed improvements, the maximum fill height will be in excess of 15 feet between multiple station limits with side slopes at 1:3 or 1:6 (V:H). For those areas of the mainline project that will include retaining walls, analyses of these areas were completed within the individual SGRs for those structures.

Slide 2018 is a comprehensive slope stability analysis software used to evaluate the proposed sloped embankments for the project based on the limit equilibrium method. The proposed sloped embankments were analyzed based on the preliminary grading (**Appendix A**) and the soils encountered while drilling. Circular failure analyses were evaluated using the simplified Bishops analyses methods for the proposed slope geometry. The analyses were performed using the soil parameters in **Tables 5a through 5e** and assuming that the recommended undercuts and site remediation as discussed in this report are completed. Based on the proposed geometry and the soil borings, global stability analyses were performed. The analyses are summarized in **Table 8**.



**Table 8 - Slope Stability Results**

ID	Station	Embankment Height (ft)	Side Slope (V:H)	Analysis Type	Factor of Safety	Minimum Factor of Safety
Exhibit 1	Ramp C NB, STA 814+00	23.0	1:3	Circular – Short Term	4.0	1.5
Exhibit 2				Circular – Long Term	2.1	1.5
Exhibit 3	Ramp B SB, Station 1204+00	20.0	1:3	Circular – Short Term	5.4	1.5
Exhibit 4				Circular – Long Term	2.2	1.5
Exhibit 5	Ramp B NB, STA 1107+50	25.0	1:3	Circular – Short Term	4.5	1.5
Exhibit 6				Circular – Long Term	2.1	1.5
Exhibit 7	Ramp A NB, STA 1005+00	25.0	1:3	Circular – Short Term	3.7	1.5
Exhibit 8				Circular – Long Term	2.1	1.5
Exhibit 9	IL 59 NB, STA 8000+00	23.0	1:3	Circular – Short Term	6.0	1.5
Exhibit 10				Circular – Long Term	2.5	1.5
Exhibit 11	IL 59 SB, STA 7002+00	24.0	1:3	Circular – Short Term	5.9	1.5
Exhibit 12				Circular – Long Term	2.5	1.5
Exhibit 13	IL 59 SB, STA 6998+00	23.0	1:3	Circular – Short Term	5.5	1.5
Exhibit 14				Circular – Long Term	2.0	1.5

Based on the analyses performed, the proposed slopes meet the minimum factor of safety of 1.5. Copies of the Slope Stability Analysis exhibits are included in **Appendix E**.



## **5.0 ROADWAY RECOMMENDATIONS**

---

This section provides GSG's geotechnical recommendations for the design of the proposed roadway improvements based on the results of the field exploration, laboratory testing, and geotechnical analysis.

### **5.1 Subgrade Treatment and Recommendations**

Granular fill encountered at some borings, exhibiting high moisture content and low SPT blow counts, should be dried and recompacted. Anticipated recompact areas should be verified in the field during construction.

The cohesive materials encountered at the surface exhibiting unconfined compressive strengths less than 1.0 tsf and/or moisture contents over 30% should also be removed during construction. Anticipated undercut depths and the lateral limits along the roadway are summarized in **Table 9**. Based on recommended undercut areas, Benesch prepared the undercut plans as shown in **Appendix F**. The undercut area numbers defined in the plan are listed in **Table 9**.



**Table 9 – Proposed Subgrade Undercut Areas**

Area (as Table 1)	Roadway Area	Approximate Roadway Stations Need undercut	Undercut Area # in Appendix F	Soil Borings	Soil Description	Estimated Remedial Undercut	
						Removal to Elevation (feet)	Approximate Depth from Grade (ft)
1	IL-59 Interchange to US 52 I-55 Roadway auxiliary lanes (NB)	I-55 STA 282+40 - 284+60	9	SGB-40	Silty Clay Fill, $Qu < 1.5$ & $W > 27\%$	590	5.5
		I-55 STA 301+40 – 305+90	11	SGB-52	Silty Clay Fill, $Qu \leq 1.0$ & $W \geq 30\%$	593	5.0
		I-55 STA 310+50 - 313+50	12	SGB-58	Silty Clay Fill, $Qu \leq 1.0$ & $W \geq 30\%$	595	5.0
3	US 52 SB Entrance Ramp North limit to I-55 Tie-In for US 52 ramp	Ramp STA 203+00 - 204+30	13	SGB-157	Silty Clay Fill, $Qu < 1.0$	578	3.0
4	SB I-55 exit ramp to IL-59: Ramp A	NB Ramp A STA 1004+00 to 1006+00	6	SGB-169	Silty Clay Fill, $Qu < 1.0$	587	5.0
		SB Ramp A STA 907+50 – 909+70	7	SGB-134	Silty Clay Fill, $W > 30\%$	591	3.0
5	NB IL-59 entrance ramp to NB I-55: Ramp B	NB STA 1108+70 -1111+20	3	SGB-26	Silty Clay Fill, $Qu \leq 1.0$ & $W > 27\%$	585	3.0
		SB STA 1114+00 – 1116+10	4	SGB-31	Silty Clay Fill, $Qu \leq 1.0$	590	3.0
6	NB I-55 exit ramp to NB IL-59: Ramp C	NB STA 812+70 – 814+20	1	SGB-82	Silty Clay Fill, $Qu < 1.0$	581	6.0
		SB STA 706+50 - 707+50	2	SGB-160	Silty Clay Fill, $Qu < 1.5$ & $W \geq 27\%$	588	4.0
7	NB IL-59 entrance ramp to SB I-55: Ramp D	NB STA 606+00 - 608+00	15	SGB-103	Silty Clay Fill, $Qu < 1.5$ & $W > 27\%$	592	2.5
		SB STA 408+00 - 410+60	16	SGB-105	Silty Clay Fill, $Qu \leq 1.0$	590	2.5
		SB STA 415+80 - 417+10	14	SGB-168	Silty Clay Fill, $Qu < 1.0$	585	5.0
9	Seil Road to Ramp A/D Intersection: NB IL-59 DDI	STA 8001+60 - 8004+50	8	SGB-116	Silty Clay Fill, $Qu < 1.0$	609	2.5
10	Seil Road to Ramp A/D Intersection: SB IL-59 DDI	STA 7010+20 – 7012+80	5	SGB-96	Silty Clay Fill, $Qu < 1.0$	594	5.0
13	Center Drive (East Frontage Road Realignment and Reconstruction)	STA 6064+50 - 6067+50	17	SGB-08	Silty Clay Fill, $Qu < 1.0$	580	4.0

I-55 at IL 59 Diverging Diamond Interchange  
 Will County, Illinois  
 IDOT PTB 189-011

Area (as Table 1)	Roadway Area	Approximate Roadway Stations Need undercut	Undercut Area # in Appendix F	Soil Borings	Soil Description	Estimated Remedial Undercut	
						Removal to Elevation (feet)	Approximate Depth from Grade (ft)
15	Seil Road Roadway Widen and Reconstruct (River Bluff Drive/Sarver Drive to IL-59)	STA 4016+20 - 4018+00	10	SGB-117	Silty Clay Fill, Qu<1.0	601	5.0

Notes:

- (1) The undercut should be extended to the whole width of the embankment.
- (2) The station where undercut is needed is estimated based on the soil boring listed in the table. It starts/ends at the mid-point between two nearby borings.

The exposed subgrade soils should be evaluated per the Construction Considerations Section of this report. The extents of the undercuts should be field verified by a licensed Geotechnical Engineer in the State of Illinois during the construction. Undercut areas should be replaced with granular structural fill in accordance with IDOT standard construction requirements and District One Aggregate Subgrade Special Provision. It is also recommended that a woven geotechnical fabric be placed at the base of all undercuts. The geotextile fabric should consist of a woven material meeting the requirements of Section 1080.02 of the IDOT SSRBC (2016) and should be placed in accordance with Section 210 of the IDOT SSRBC (2016).

## **5.2 Drainage Recommendations**

The embankment fill with proper drainage systems should be designed using a Good drainage classification. Groundwater was generally encountered at a maximum elevation of 592 feet, which would be approximately 10 to 20 feet below the roadway surface for the majority of the project. The groundwater depth is significantly deeper than the anticipated frost depth of 45 to 60 inches for the northern Illinois region, and as such no subgrade saturation is anticipated due to capillary action.

Since the roadway of this project will be realigned or completely reconstructed, GSG recommend installing both longitudinal and transverse pipe underdrains below the pavement for the roadways. We recommend installing the transverse drains using a spacing of 300 feet. To provide drainage for the proposed pavement in widening areas, we recommend installing longitudinal pipe underdrains below the pavement for the roadways. Drains should also be installed in low areas and at the base of any undercuts. The underdrains should tie into the storm water drainage system and should be installed per Article 601 in the IDOT Standard Specifications and consist of Type 2 underdrains (Adopted January 1, 2016).



## **6.0 CONSTRUCTION CONSIDERATIONS**

---

All work performed for the proposed project should conform to the requirements in the IDOT Standard Specifications for Road and Bridge Construction (SSRBC) (2016) along with the Illinois Tollway Supplemental Specifications, and the IDOT Subgrade Stability Manual (2015). Any deviation from the requirements in the manuals above should be approved by the design engineer.

### **6.1 Topsoil Removal**

GSG recommends completely stripping the topsoil to a minimum depth of 6 inches or any greater full depth encountered within the limits of the proposed embankment and roadway areas and stockpiling it per Section 211.03 of the IDOT SSRBC. The topsoil should be separated from other materials being stockpiled onsite for reuse or haul off. If the topsoil is to be reused, mechanical and chemical analyses for nutrients should be performed in order to determine the suitability and nature of treatment required for the topsoil prior to reuse for this project.

### **6.2 Embankment and Pavement Subgrade Preparation**

The stability of the embankment subgrade should be evaluated immediately after excavation of the existing fill soils and prior to placement of any new engineered fill in accordance with the Section 205 - Embankment of IDOT SSRBC to determine if additional treatment is required.

After the subgrade areas are exposed, the inspection should include visual inspection and performing a proof roll using heavy equipment or heavily loaded tandem axle dump truck with a minimum gross weight of 25 tons to check for deflection or rutting. Areas with excessive rutting and deflection shall be evaluated using a dynamic cone penetrometer (DCP) and static cone penetrometer (SCP) to determine the depth of required treatment in accordance with the IDOT Subgrade Stability Manual (2005) and IDOT SSRBC (2016), Section 301. The subgrade should be prepared in accordance with Sections 205-Embankment and Section 301-Subgrade preparation, of the IDOT SSRBC (2016).

Treatment for unstable and unsuitable soils encountered during proof rolling and subgrade evaluation may include the use of a geotextile fabric, removal and replacement with approved structural fill for small areas, or the use of additive materials, such as lime, cement or fly ash. Subgrade improvements should be based on the recommendations in the Subgrade Treatment and Recommendations Section 5.1 of this report or based on field evaluation of the materials during construction. Field evaluation of the subgrade soils should be conducted in accordance





with the procedures outlined in the IDOT Geotechnical Manual and Subgrade Stability Manual, and under the supervision of a licensed geotechnical engineer.

### **6.3 Site Excavation and Construction Safety**

Site excavations are expected to encounter various types of soils as described in the Subsurface Exploration section of this report. The contractor will be responsible to provide a safe excavation during the construction activities of the project. All excavations should be conducted in accordance with applicable federal, state, and local safety regulations, including, but not limited to the Occupational Safety and Health Administration (OSHA) excavation safety standards. Excavation stability and soil pressures on temporary shoring are dependent on soil conditions, depth of excavations, installation procedures, and the magnitude of any surcharge loads on the ground surface adjacent to the excavation. Excavation near existing structures and underground utilities should be performed with extreme care to avoid undermining existing structures. Excavations should not extend below the level of adjacent existing foundations or utilities unless underpinning or other support is installed. It is the responsibility of the contractor for field determinations of applicable conditions and providing adequate shoring for all excavation activities.

### **6.4 Borrow Material and Compaction Requirements**

If borrow material is to be used for onsite construction, it should conform to Section 204 “Borrow and Furnish Excavations” of the IDOT Standard Specifications for Road and Bridge Construction (2016) and the District One Embankment I Special Provision. Imported or on-site fill materials should be evaluated using Table 8.4-1 of the IDOT Geotechnical Manual, Requirements of Borrow Soils for the top 24 inch, and Section 204, “Borrow and Furnish Excavations” of the IDOT SSRBC.

The fill material should be free of organic matter and debris and should be placed and compacted in accordance with Section 205, Embankment, of the IDOT SSRBC (2016) and the District One Embankment I Special Provision. Earth-moving operations should be avoided during excessively cold or wet weather to avoid freezing or softening subgrade soils. Fill should be placed in lifts and compacted according to Section 205, Embankment (IDOT, 2016) and the District One Embankment I Special Provision.

### **6.5 Groundwater Management**

The existing fill soils may be saturated and water seepage may be encountered during



excavation. This seepage will be temporary but there may be localized sloughing and near-surface instability of some soil slopes. The contractor should control groundwater and surface water infiltration to provide a dry condition for construction. Temporary ditches, sumps, granular drainage blankets, stone ditch protection, or hand-laid riprap with geotextile underlayment could be used to divert groundwater if significant seepage is encountered during construction. During earthmoving activities at the site, grading should be performed to ensure that drainage is maintained throughout the construction period. Water should not be allowed to accumulate in the foundation area either during or after construction. Undercut and excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater or surface run-off. Grades should be sloped away from the excavations to minimize runoff from entering.

If water seepage occurs during construction or where wet conditions are encountered, such that the water cannot be removed with conventional sumping, we recommend placing open grade stone similar to IDOT CA-7 to stabilize the bottom of the excavation below the water table. The CA-7 stone should be placed to 12 inches above the water table, in 12-inch lifts, and should be compacted with the use of a heavy smooth drum roller or heavy vibratory plate compactor until stable. The remaining portion of the excavation should be backfilled using approved structural fill.



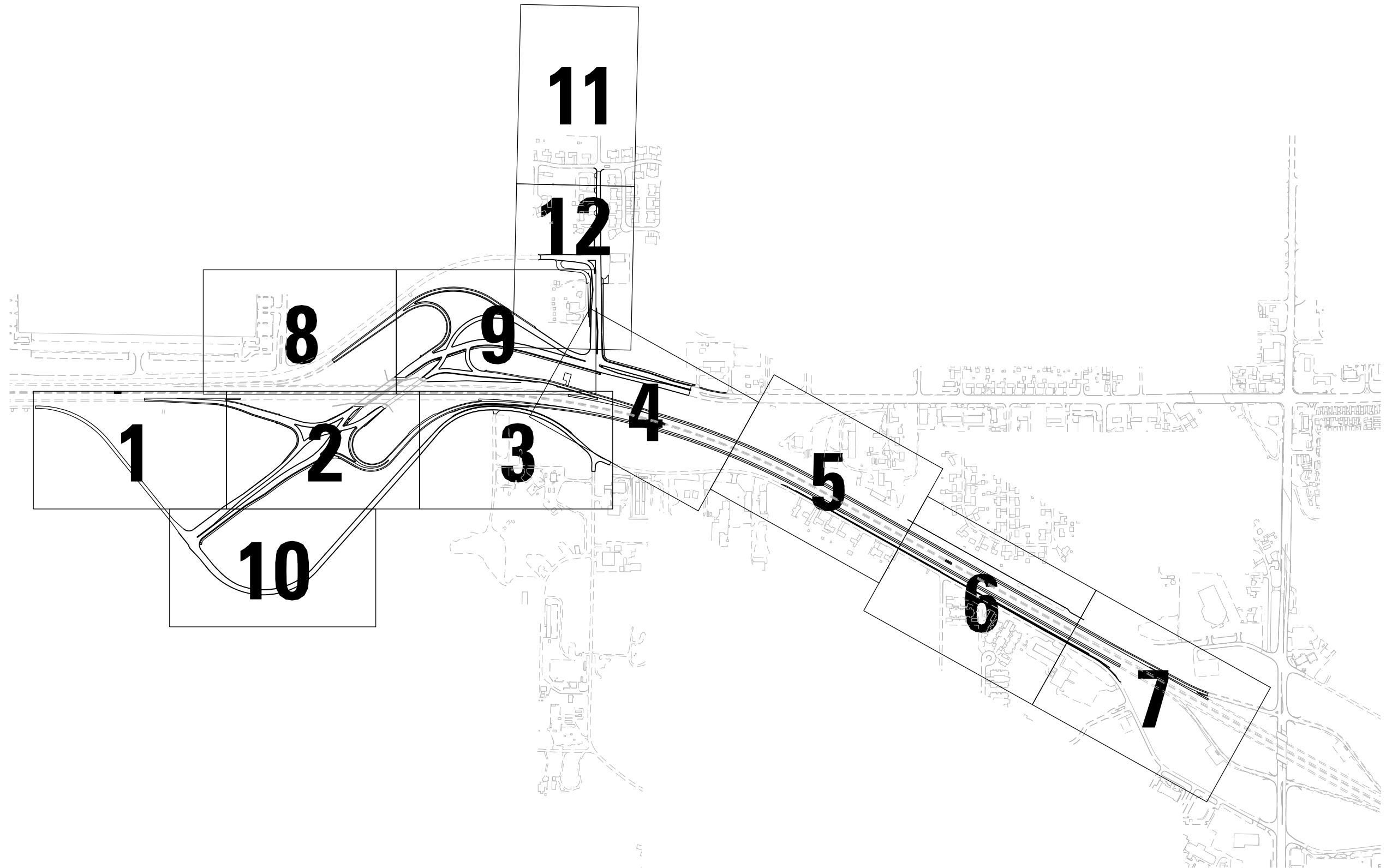
## **7.0 LIMITATIONS**

---

This report has been prepared for the exclusive use of the Illinois Department of Transportation and its Design Section Engineer. The recommendations provided in the report are specific to the project described herein and are based on the information obtained from the soil boring locations within the proposed project limits. The analyses have been performed and the recommendations have been provided in this report are based on subsurface conditions determined at the location of the borings. This report may not reflect all variations that may occur between boring locations or at some other time, the nature and extent of which may not become evident until during the time of construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and review the recommendations presented herein.



**APPENDIX A**  
**PRELIMINARY GRADING PLAN**



MODEL: Default  
 FILE: \\benesch-pw-bentley.com\benesch-pw-01\Documents\107005\10740\_001\Eng\_Docs\_Phase\_II\Grading\0162H15-sht-grading-001.dgn  
 benesch-pw-bentley.com\benesch-pw-01\Documents\107005\10740\_001\Eng\_Docs\_Phase\_II\Grading\0162H15-sht-grading-001.dgn



USER NAME = jworthington
PLOT SCALE = 9600.0000 ' / ft.
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS	REVISD -
DRAWN - JWORTHINGTON	REVISD -
CHECKED - POBRIEN	REVISD -
DATE - 12/04/2020	REVISD -

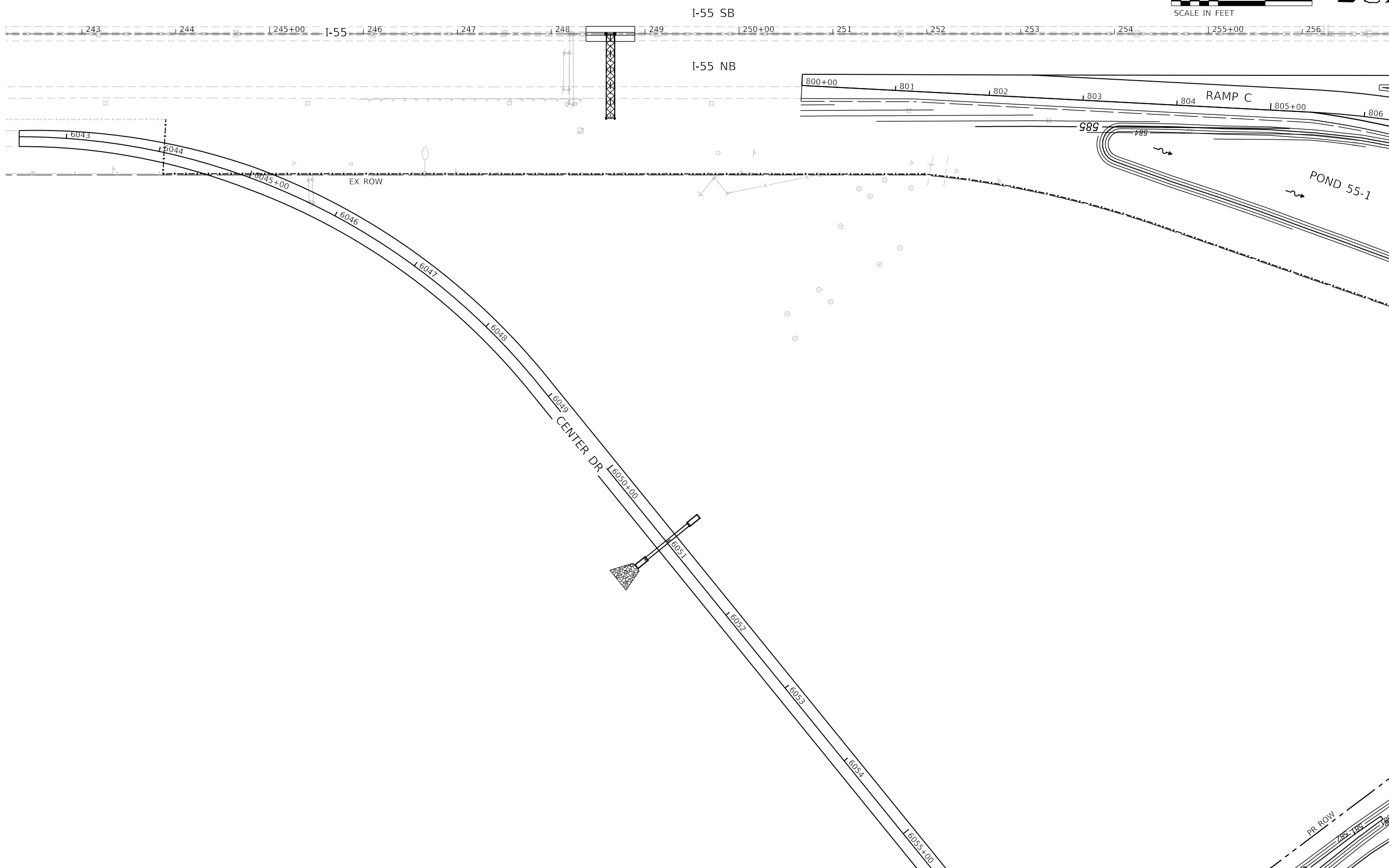
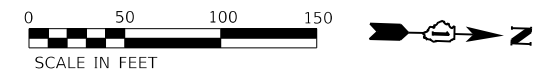
REVISD -
REVISD -
REVISD -
REVISD -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**OVERALL GRADING PLAN**  
**KEY MAP**

SCALE: NTS	SHEET	OF	SHEETS	STA.	TO	STA.
------------	-------	----	--------	------	----	------

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	91
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62H15				



MATCH LINE SEE GRADING PLAN SHEET 2

MATCH LINE SEE GRADING PLAN SHEET 10

MODEL: Default  
FILE: \\bentley.com\benesch\pw\benesch\pw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-grading-002.dgn



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
	DRAWN - JWORTHINGTON	REVISED -
PLOT SCALE = 1/200.0000 ' / ft.	CHECKED - POBRIEN	REVISED -
PLOT DATE = 2/15/2021	DATE - 12/04/2020	REVISED -

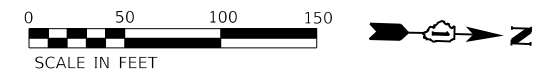
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 1 OF 12**

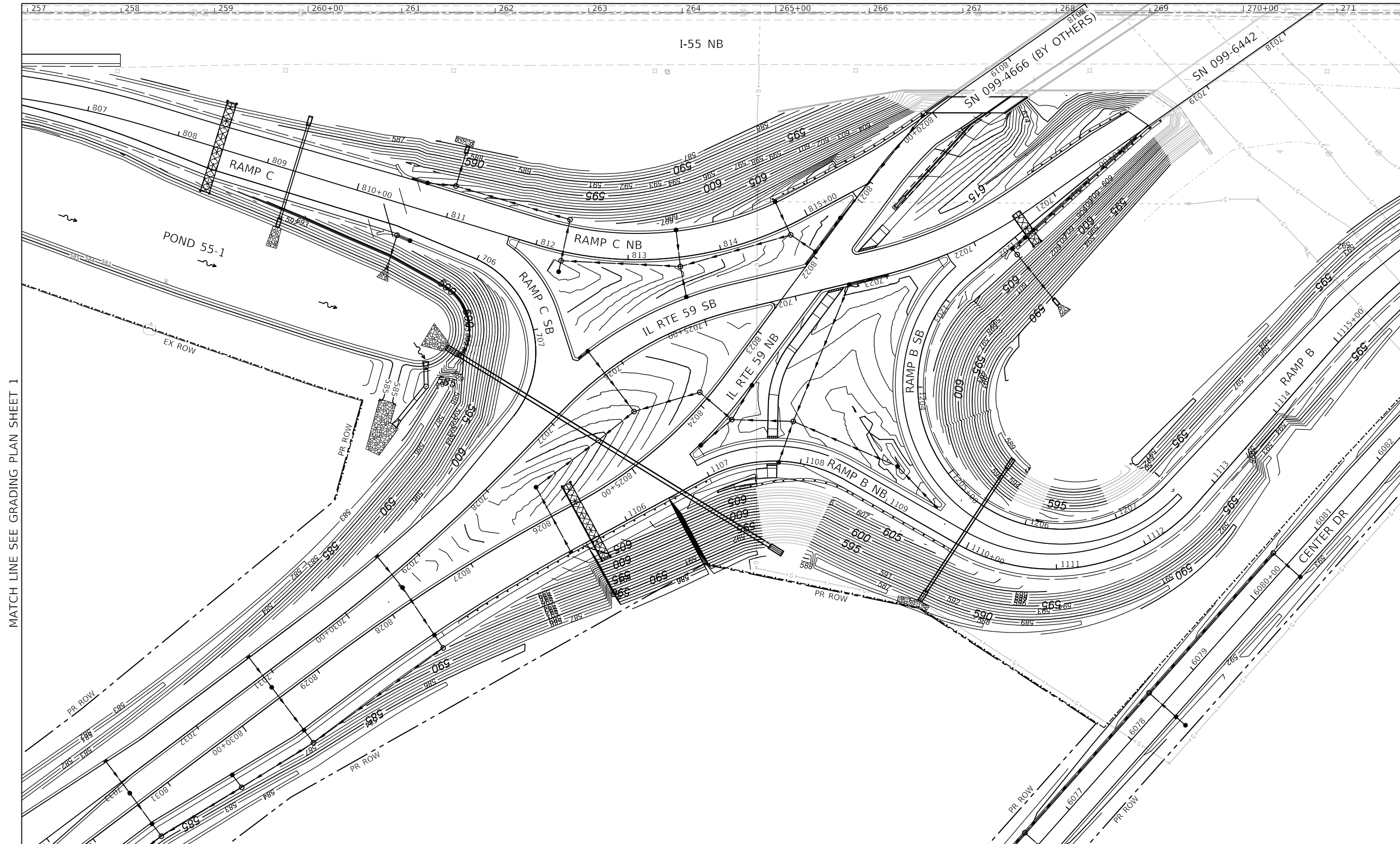
SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	92
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				

D:\162H15-sht-grading-002.dgn  
55746  
2012/11/30



SEE GRADING PLAN SHEET 8



MATCH LINE SEE GRADING PLAN SHEET 1

MATCH LINE SEE GRADING PLAN SHEET 3

MATCH LINE SEE GRADING PLAN SHEET 10

MODEL: Default  
FILE: \\benesch-pw-bentley.com\benesch-pw-011\Documents\107005\10740\001\Eng\_Docs\_Phase II\Grading\03\162H15-shi-grading-003.dgn



USER NAME = jworthington  
PLOT SCALE = 1/200,0000 ' / ft.  
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

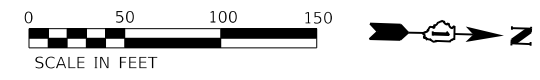
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 2 OF 12**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	93
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\162H15-shi-grading-003.dgn  
55746  
2012/11/30



MATCH LINE SEE GRADING PLAN SHEET 9



MATCH LINE SEE GRADING PLAN SHEET 2

SEE GRADING PLAN SHEET 4

KINDER MORGAN FACILITY

POND 59-1A

COUNTY FARM RD

MODEL: Default  
FILE: \\bentley.com\pub\benesch\pw\benesch\pw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\62H15-sic-grading-004.dgn



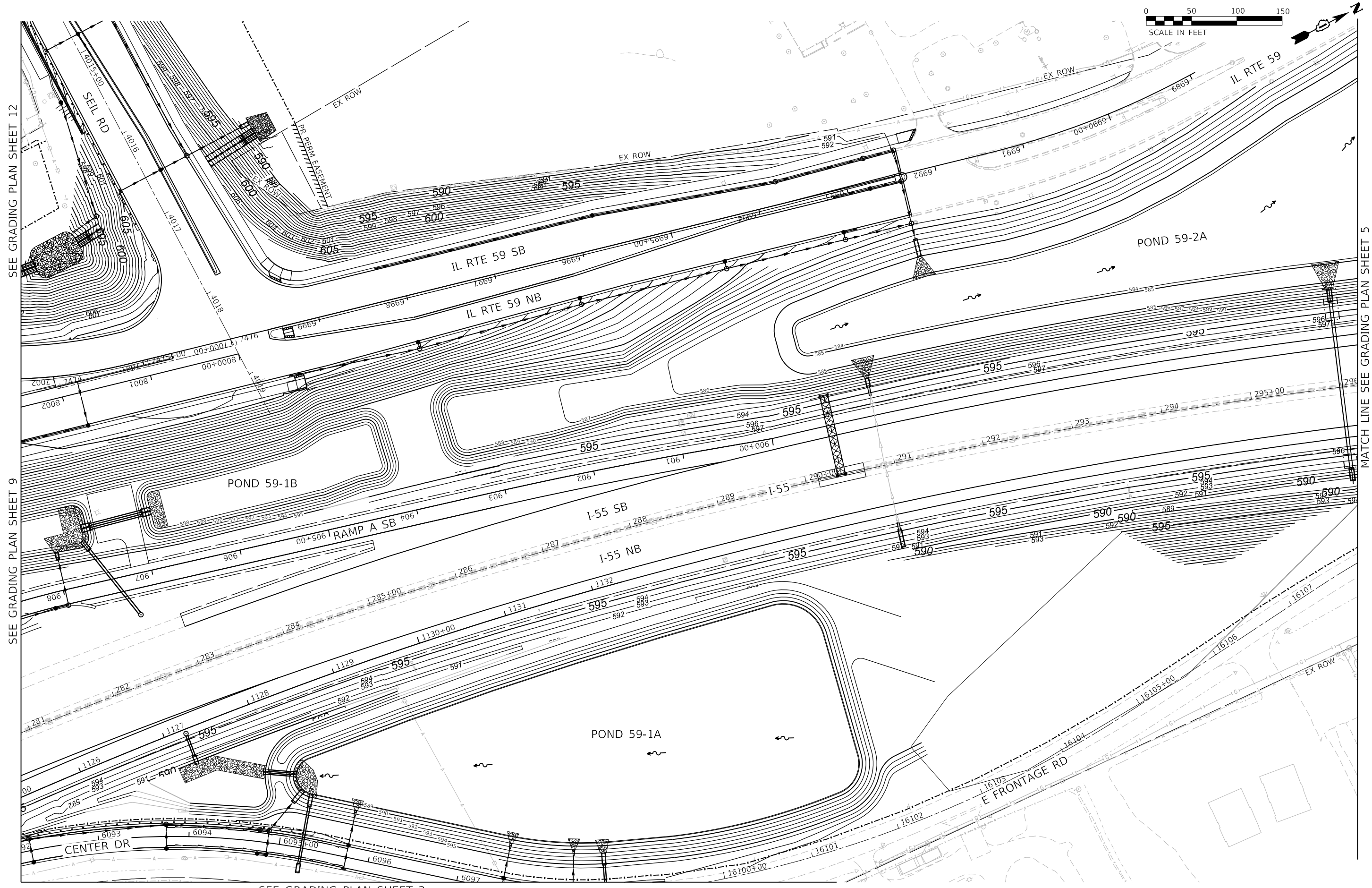
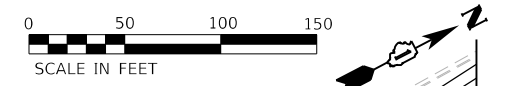
USER NAME = jworthington	DESIGNED -	REVISED -
PLOT SCALE = 1/200,000' / ft.	DRAWN -	REVISED -
PLOT DATE = 2/15/2021	CHECKED -	REVISED -
	DATE = 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
--------	-------	----	--------	------	----	------

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				





SEE GRADING PLAN SHEET 12

SEE GRADING PLAN SHEET 9

SEE GRADING PLAN SHEET 3

MATCH LINE SEE GRADING PLAN SHEET 5

MODEL: Default  
 FILE: \bentley\pub\benesch\pwworking\benesch\pwworking\11\Documents\11\07005\10740\000\Eng\_Docs\_Phase\_II\Grading\1162H15-sht-grading-005.dgn



USER NAME = jworthington  
 PLOT SCALE = 1200.0000' / ft.  
 PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS  
 DRAWN - JWORTHINGTON  
 CHECKED - POBRIEN  
 DATE - 12/04/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

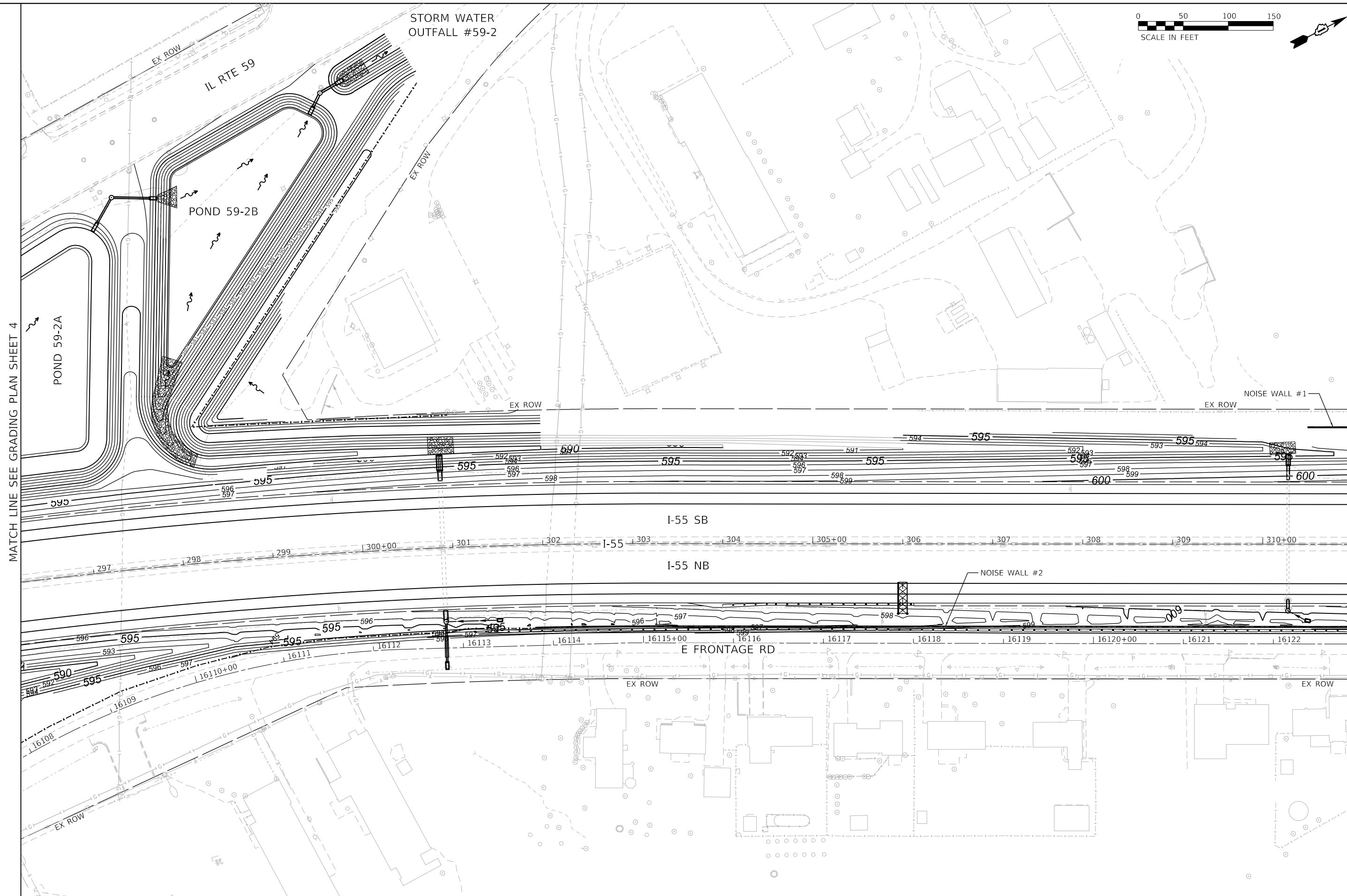
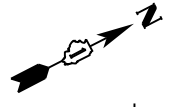
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
 SHEET 4 OF 12**

SCALE: 1" = 50'  
 SHEET OF SHEETS STA. TO STA.

F.A./P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	95
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\162H15-sht-grading-005.dgn  
 55746  
 2012/11/30



MATCH LINE SEE GRADING PLAN SHEET 4

MATCH LINE SEE GRADING PLAN SHEET 6

MODEL: Default  
FILE: \\nas01c:\pub\benesch-pw\benesch-pw-01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-grading-006.dgn



USER NAME = jworthington  
PLOT SCALE = 1/200,0000 ' / ft.  
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

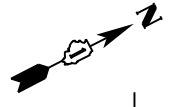
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 5 OF 12**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

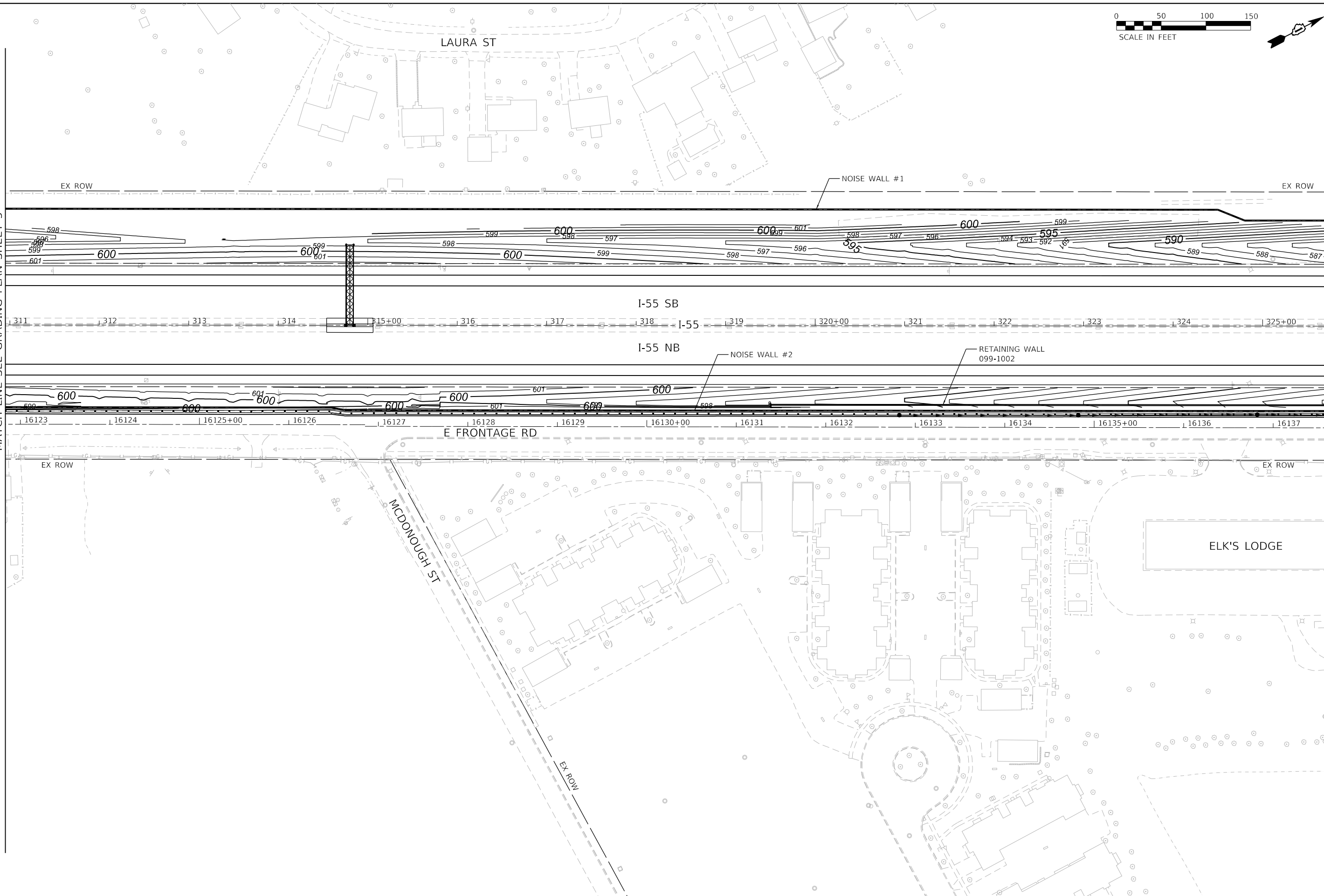
F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	96
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\162H15-sht-grading-006.dgn  
55746  
2012/11/30



MATCH LINE SEE GRADING PLAN SHEET 5

MATCH LINE SEE GRADING PLAN SHEET 7



MODEL: Default  
FILE: \\nas01c.pw.bentley.com\benesch\pw\01\Documents\107005\10740\_001\Eng\_Docs\_Phase\_II\Grading\0162H15-sht-grading-007.dgn



USER NAME = jworthington
PLOT SCALE = 1/200.0000' / ft.
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS	REVISOR -
DRAWN - JWORTHINGTON	REVISOR -
CHECKED - POBRIEN	REVISOR -
DATE - 12/04/2020	REVISOR -

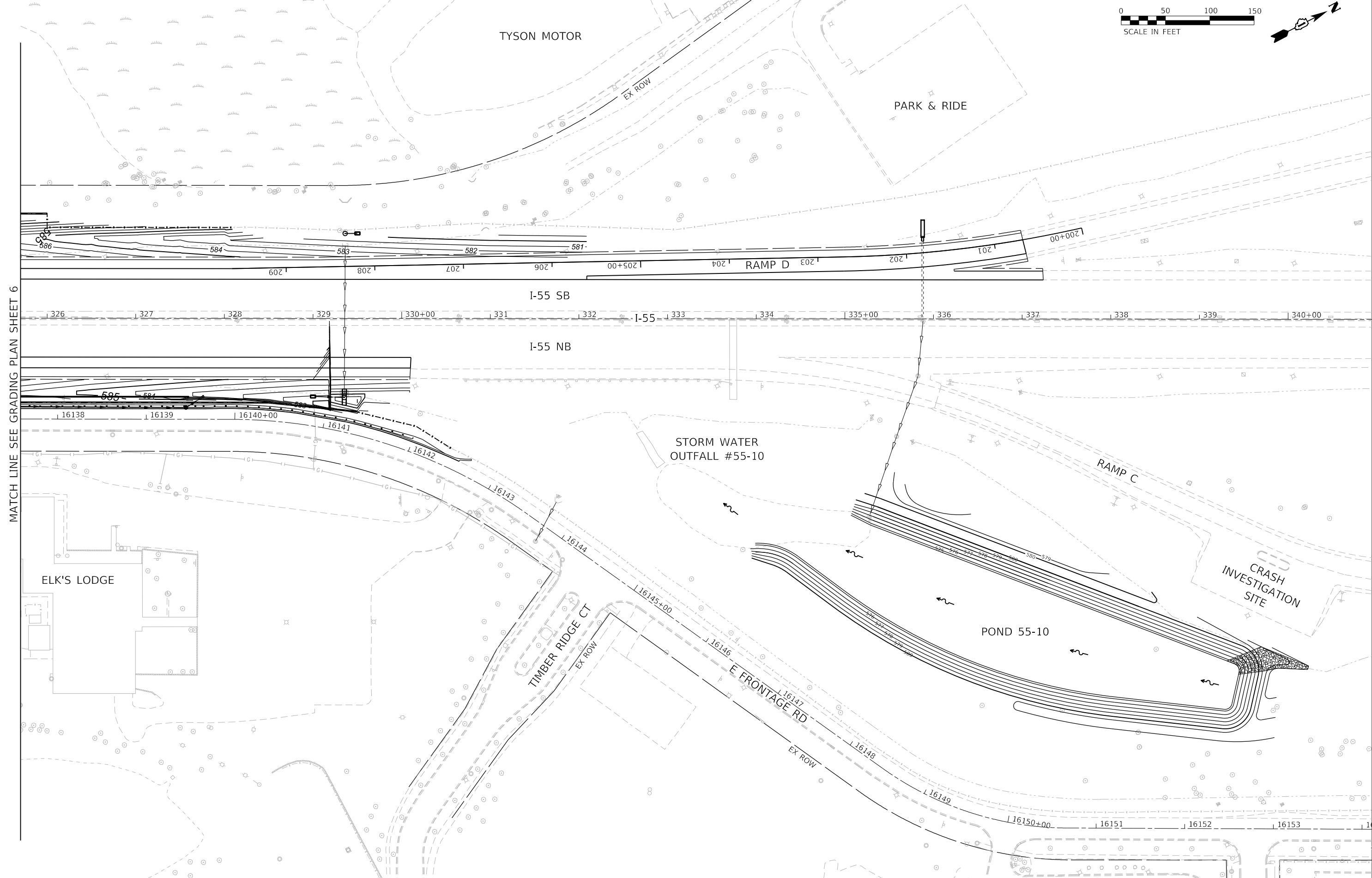
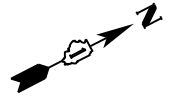
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 6 OF 12**

SCALE: 1" = 50'	SHEET	OF	SHEETS	STA.	TO	STA.
-----------------	-------	----	--------	------	----	------

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2018-075-R	WILL	1349	97
CONTRACT NO. 62H15				
* FAI 55, FAP 338	ILLINOIS	FED. AID PROJECT		

D:\62H15-sht-grading-007.dgn  
55746  
2012/11/30



MATCH LINE SEE GRADING PLAN SHEET 6

MODEL: Default  
FILE: \\bentley.com\pub\benesch-pw\benesch-pw-01\Documents\107005\107140\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-grading-008.dgn



USER NAME = jworthington  
PLOT SCALE = 1/2000.0000' / ft.  
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

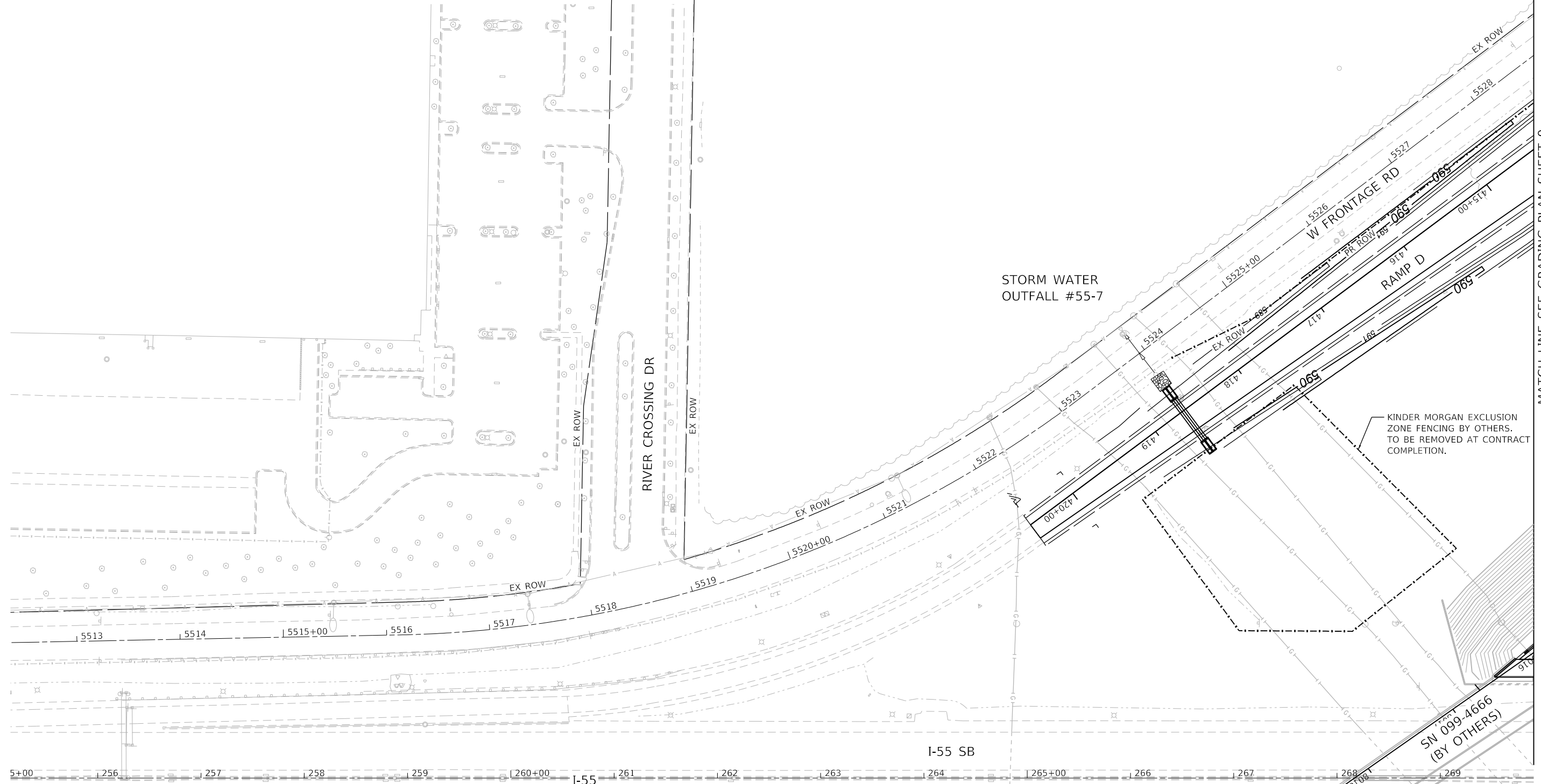
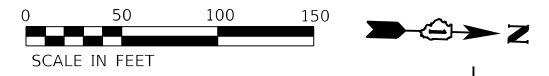
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 7 OF 12**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	98
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\162H15-sht-grading-008.dgn  
55746  
2012/11/30



MODEL: Default  
FILE: \\bentley.com\benesch\paw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase II\Grading\162H15-sht-grading-009.dgn



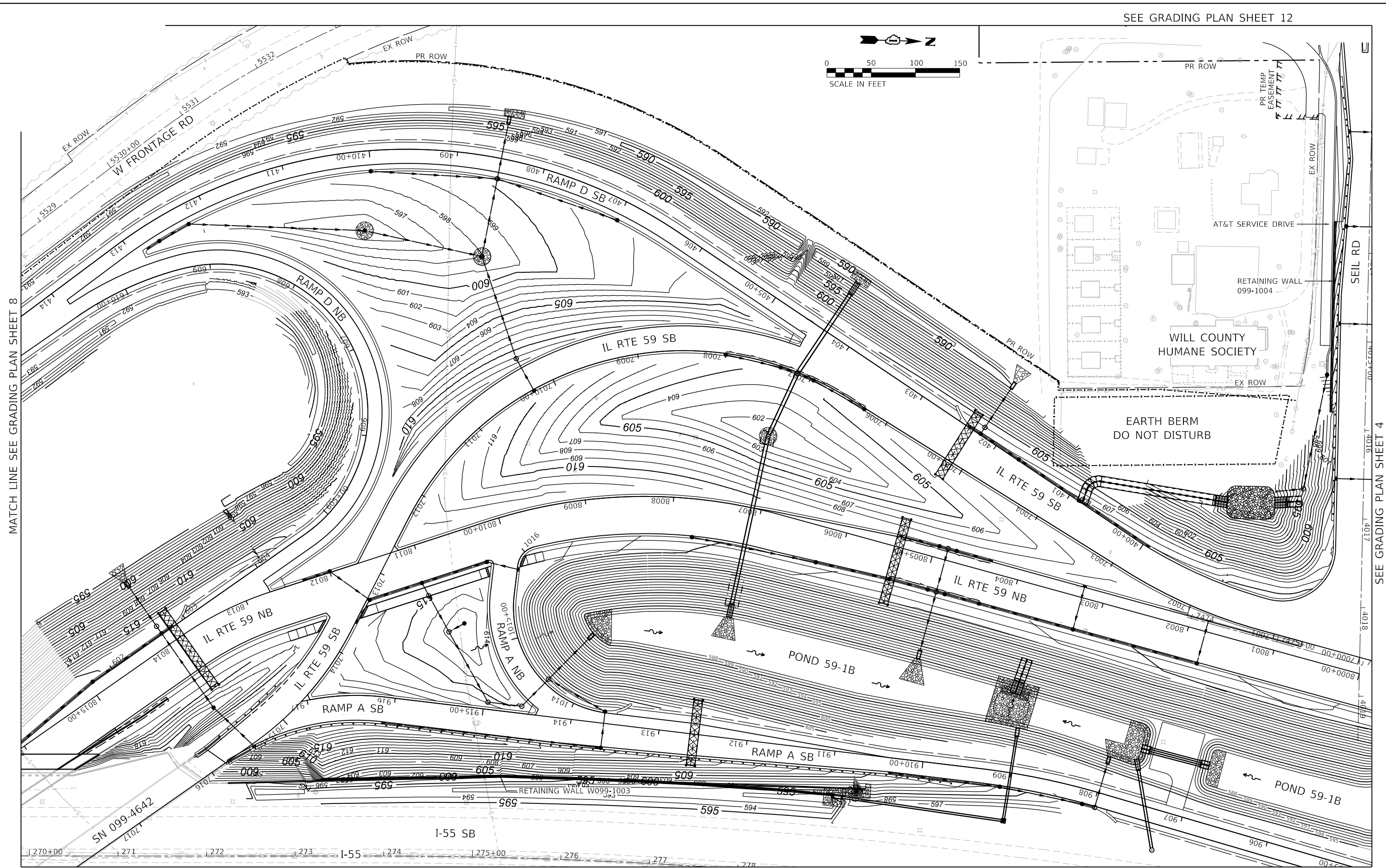
USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
PLOT SCALE = 1/200,0000' / ft.	DRAWN - JWORTHINGTON	REVISED -
PLOT DATE = 2/15/2021	CHECKED - POBRIEN	REVISED -
	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 8 OF 12**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2018-075-R	WILL	1349	99
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				



MATCH LINE SEE GRADING PLAN SHEET 8

SEE GRADING PLAN SHEET 4

SEE GRADING PLAN SHEET 2    SEE GRADING PLAN SHEET 3

MODEL: Default  
FILE: \\benesch-pw-bentley.com\benesch-pw-01\Documents\1027005\1027005-10\4000\Eng\_Docs\_Phase\_II\Grading\0162115-sh-grading-010.dgn



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
PLOT SCALE = 1200.0000' / ft.	DRAWN - JWORTHINGTON	REVISED -
PLOT DATE = 2/15/2021	CHECKED - POBRIEN	REVISED -
	DATE = 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 9 OF 12**

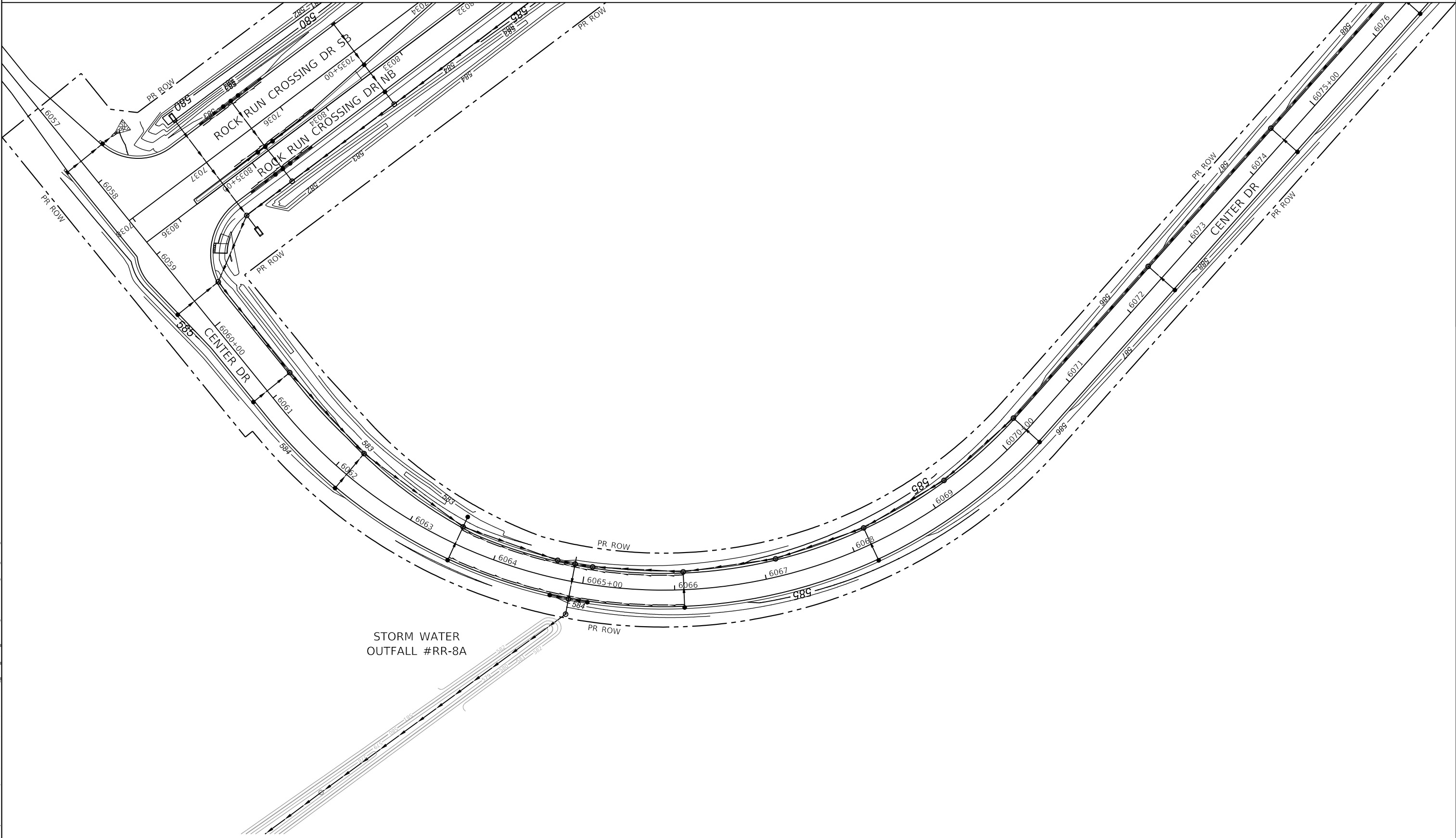
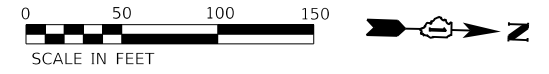
SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO    STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	100
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				

D162H15-sh-grading-010.dgn  
55746  
2012/11/30

MATCH LINE SEE GRADING PLAN SHEET 1

MATCH LINE SEE GRADING PLAN SHEET 2



MODEL: Default  
 FILE: \\nautilus.pw.bentley.com\benesch\pw-01\Documents\107005\107140\001\Eng\_Docs\_Phase\_II\Grading\162H15-sht-grading-01.dgn  
 D:\162H15-sht-grading-011.dgn  
 55746  
 2012/11/30



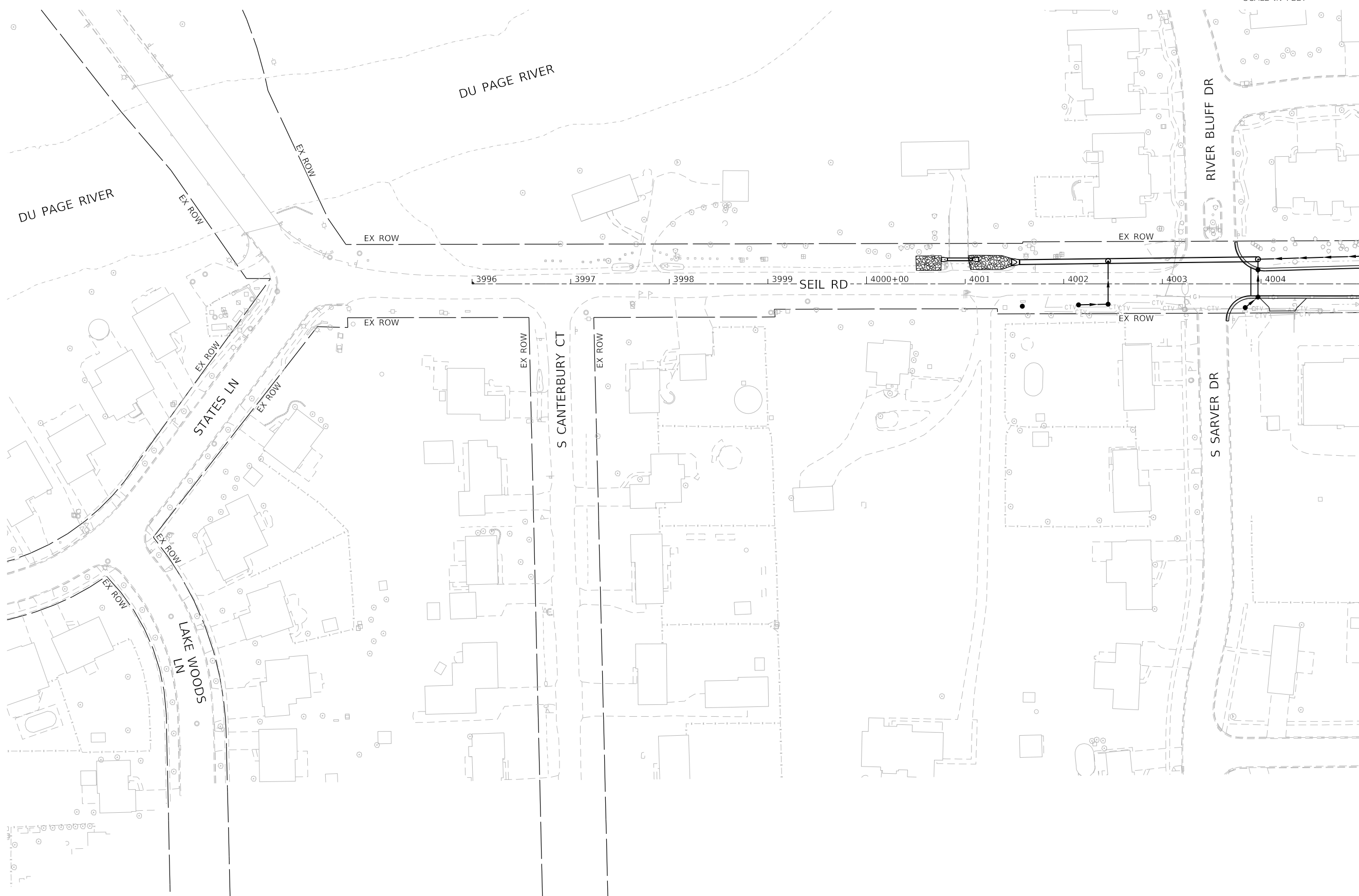
USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
DRAWN - JWORTHINGTON	REVISIONS	REVISED -
PLOT SCALE = 1200.0000' / ft.	CHECKED - POBRIEN	REVISED -
PLOT DATE = 2/15/2021	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
 SHEET 10 OF 12**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	101
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				



MATCH LINE SEE GRADING PLAN SHEET 12

MODEL: Default  
FILE: \\bentley.com\benesch\pw\benesch\pw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\0162H15-sht-grading-012.dgn



USER NAME = jworthington  
PLOT SCALE = 1200.0000' / ft.  
PLOT DATE = 2/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

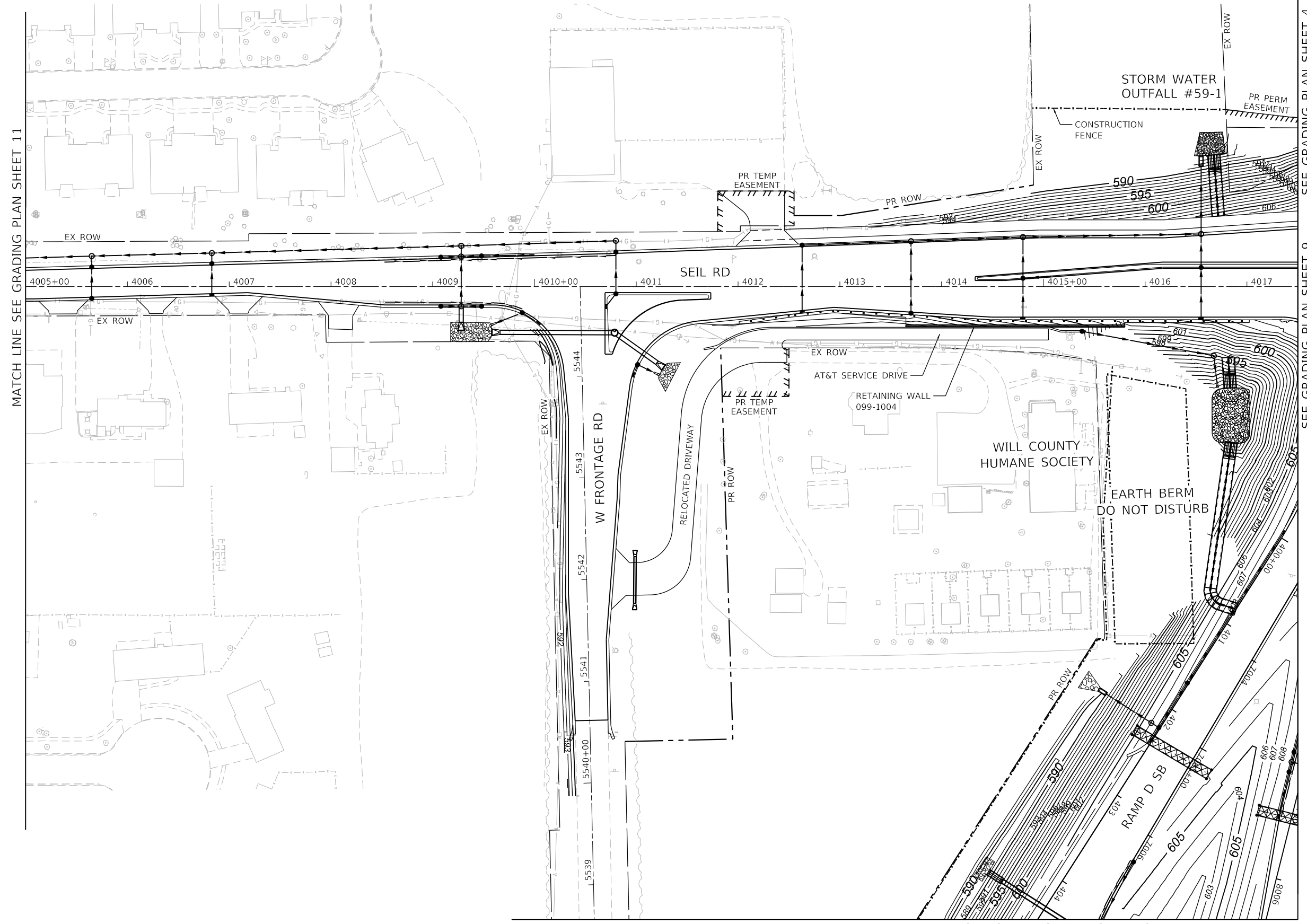
**GRADING PLAN  
SHEET 11 OF 12**

SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	\$B31
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				

D:\62H15-sht-grading-012.dgn  
55746  
2012/11/30





MATCH LINE SEE GRADING PLAN SHEET 11

SEE GRADING PLAN SHEET 4

SEE GRADING PLAN SHEET 9

SEE GRADING PLAN SHEET 9

MODEL: Default  
FILE: \\bentley.com\benesch\pw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\0162H15-sht-grading-013.dgn



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
DRAWN - JWORTHINGTON	REVISED -	
PLOT SCALE = 1/200,0000' / ft.	CHECKED - POBRIEN	REVISED -
PLOT DATE = 2/15/2021	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GRADING PLAN  
SHEET 12 OF 12**

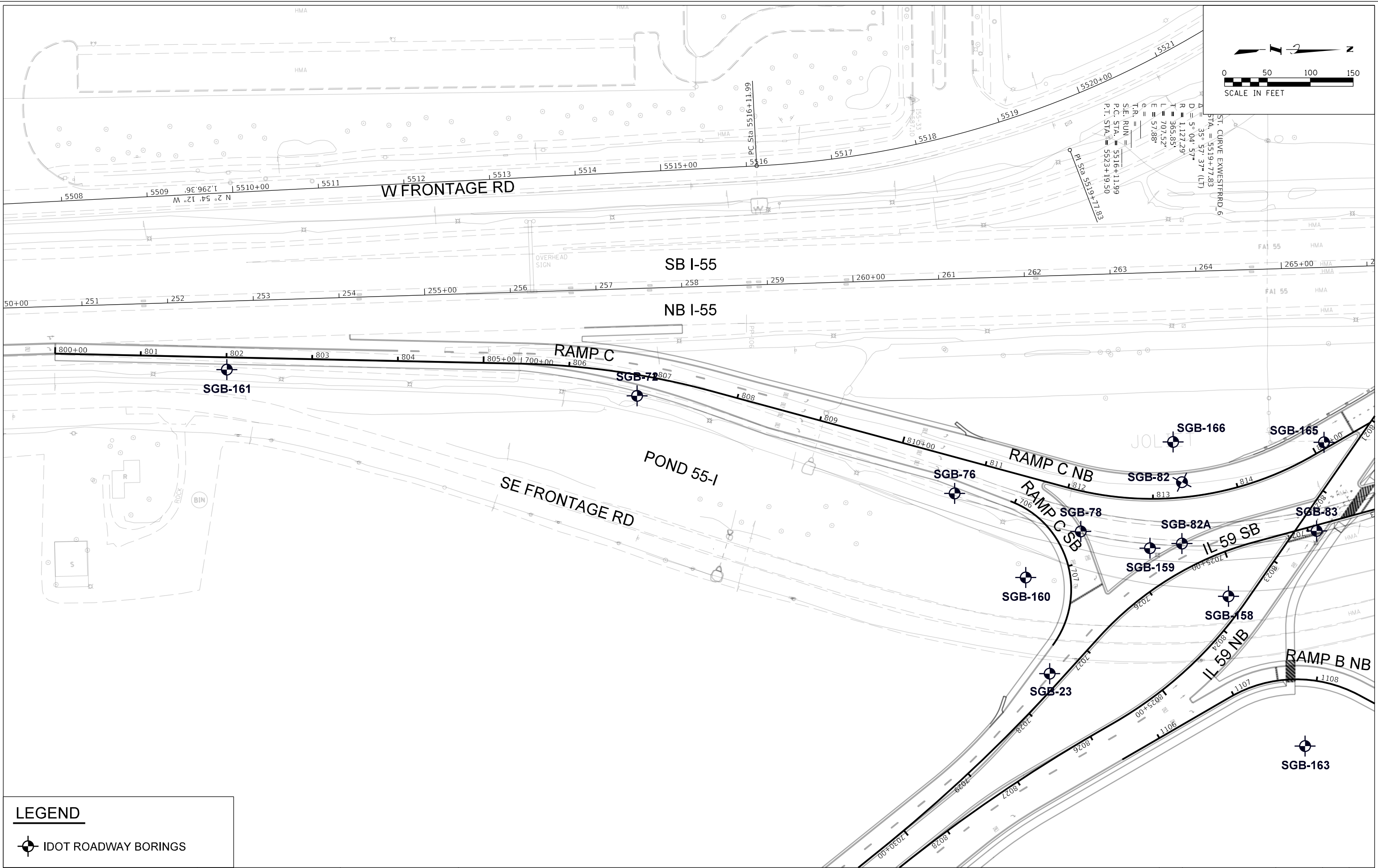
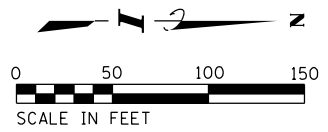
SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	\$B32
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\62H15-sht-grading-013.dgn  
55746  
2012/11/30

## **APPENDIX B**

### **BORING LOCATION PLAN AND SUBSURFACE PROFILES**



ST. CURVE EXISTING RD. 6  
 STA. = 5519+77.83  
 $\Delta = 35^\circ 57' 37''$  (LT)  
 $D = 5^\circ 04' 57''$   
 $R = 1,127.29'$   
 $T = 365.85'$   
 $L = 707.52'$   
 $E = 57.88'$   
 $P.C. STA. = 5516+11.99$   
 $P.T. STA. = 5523+19.50$

**LEGEND**

IDOT ROADWAY BORINGS

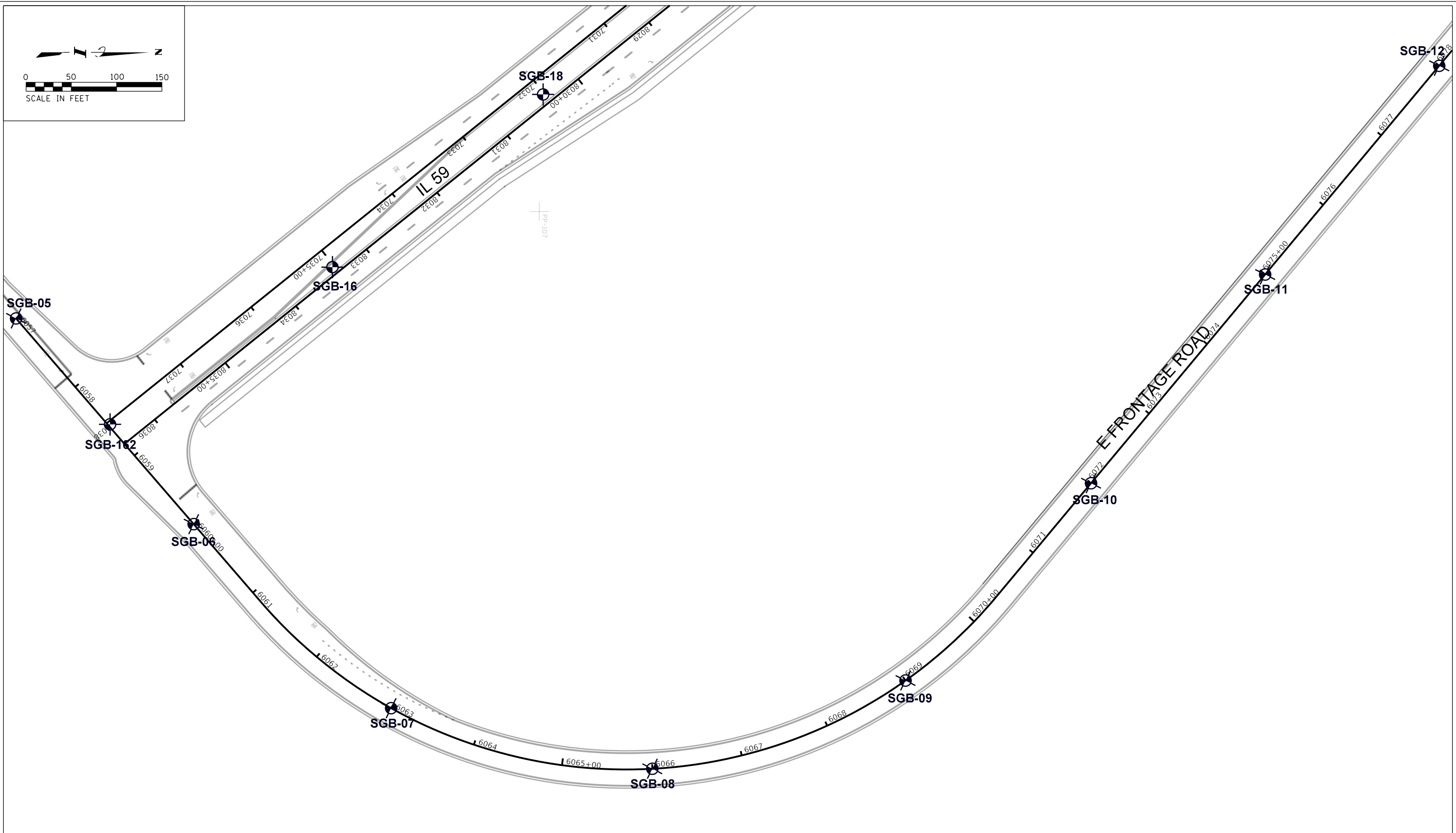
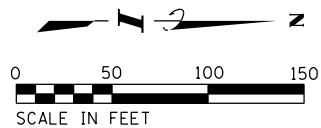
	USER NAME = nnano SHEET SIZE = 1.41667x0.916667 (ft.) PLOT SCALE = 1200.0000' / ft. PLOT DATE = 2/18/2021	DESIGNED - MZ DRAWN - NN CHECKED - DE DATE - 02/02/2021
--	--	--

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	FA. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 1
SCALE: AS NOTED	SHEET 1 OF 9 SHEETS	STA.	TO STA.	CONTRACT NO. 189-011	

ILLINOIS	FED. AID PROJECT
----------	------------------

FILE NAME = X:\Illinois\DOT\189-011\Borehole\GSG\CONTRACT\189-011\GSG\_Boring\_Location\_Plan\_1.dgn  
 PEN TABLE = X:\Illinois\DOT\189-011\Borehole\GSG\CONTRACT\189-011\GSG\_Boring\_Location\_Plan\_1.tbl  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nnano



**LEGEND**

IDOT ROADWAY BORINGS

FILE NAME = X:\Illinois\DOT\189-011\Benech\Geotechnical\Exhibits\SGB Borings Plan and Profile\Drawings\SGB Boring Location Plan 2.dgn  
 PEN TABLE = X:\Clients\Trinity\Work\Space\table\pen\gag.mon.ctb  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nnano

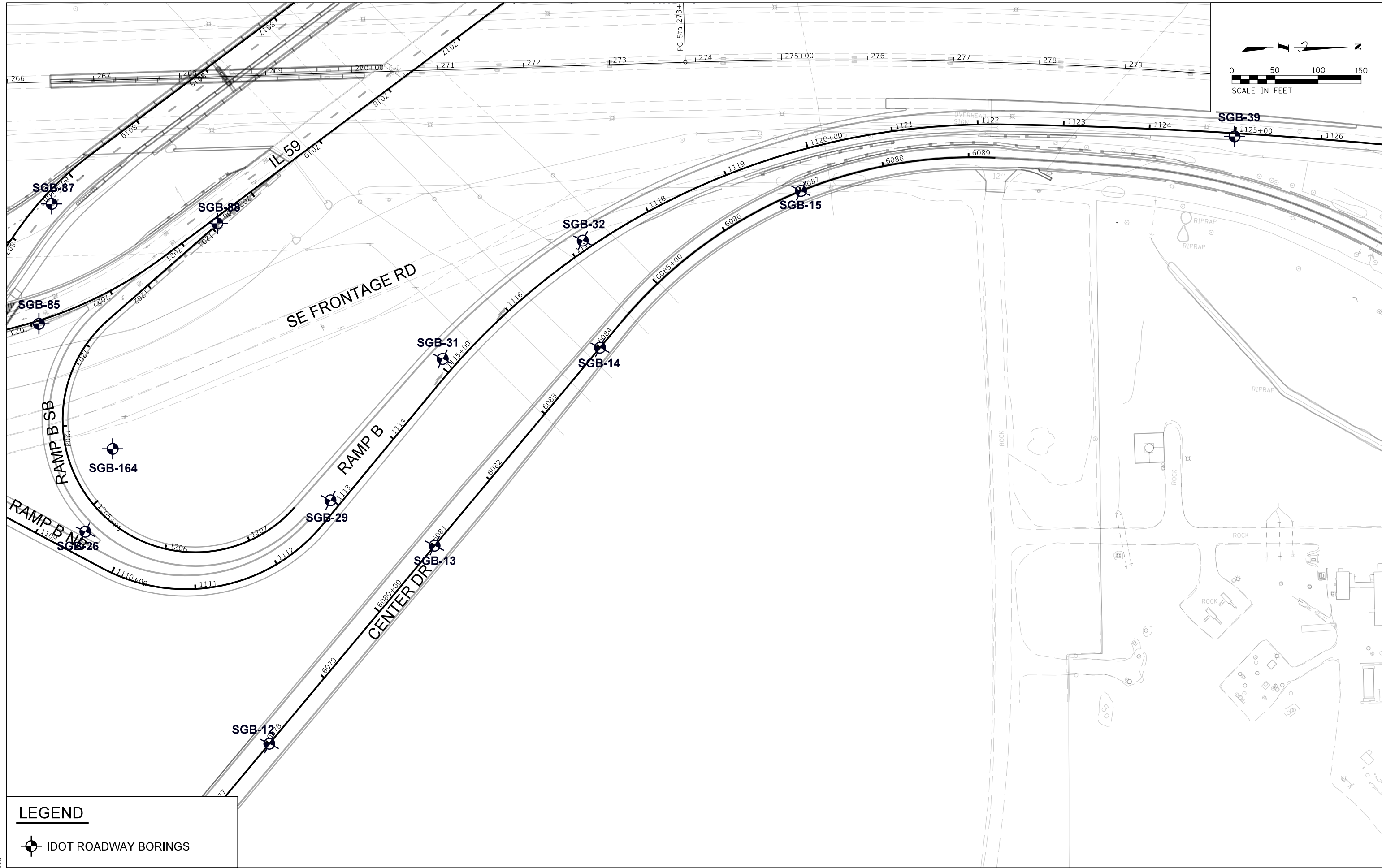
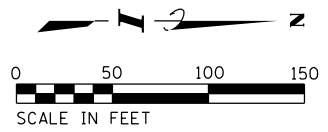


USER NAME = nnano	DESIGNED - MZ
SHEET SIZE = 1.41667x0.916667 (ft.)	DRAWN - NN
PLOT SCALE = 1200.0000' / ft.	CHECKED - DE
PLOT DATE = 2/18/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY SGB BORING LOCATION PLAN	
SCALE: <u>AS NOTED</u>	SHEET 2 OF 9 SHEETS
STA. _____	TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	2
CONTRACT NO. 189-011				
ILLINOIS		FED. AID PROJECT		



**LEGEND**

IDOT ROADWAY BORINGS

FILE NAME = \\mllc01\DOT\189-011\Benech\Geotechnical\Exhibits\SOI\189-011\Drawings\SGB Boring Location Plan 3.dgn  
 PEN TABLE = X:\Clients\T\Way\Work\Space\table\pen\gag.mono.ctb  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.91667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano



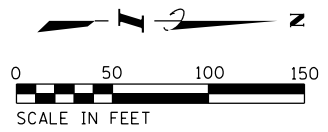
USER NAME =	nmano	DESIGNED =	MZ
SHEET SIZE =	1.41667x0.91667 (ft.)	DRAWN =	NN
PLOT SCALE =	1200.0000' / ft.	CHECKED =	DE
PLOT DATE =	2/18/2021	DATE =	02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

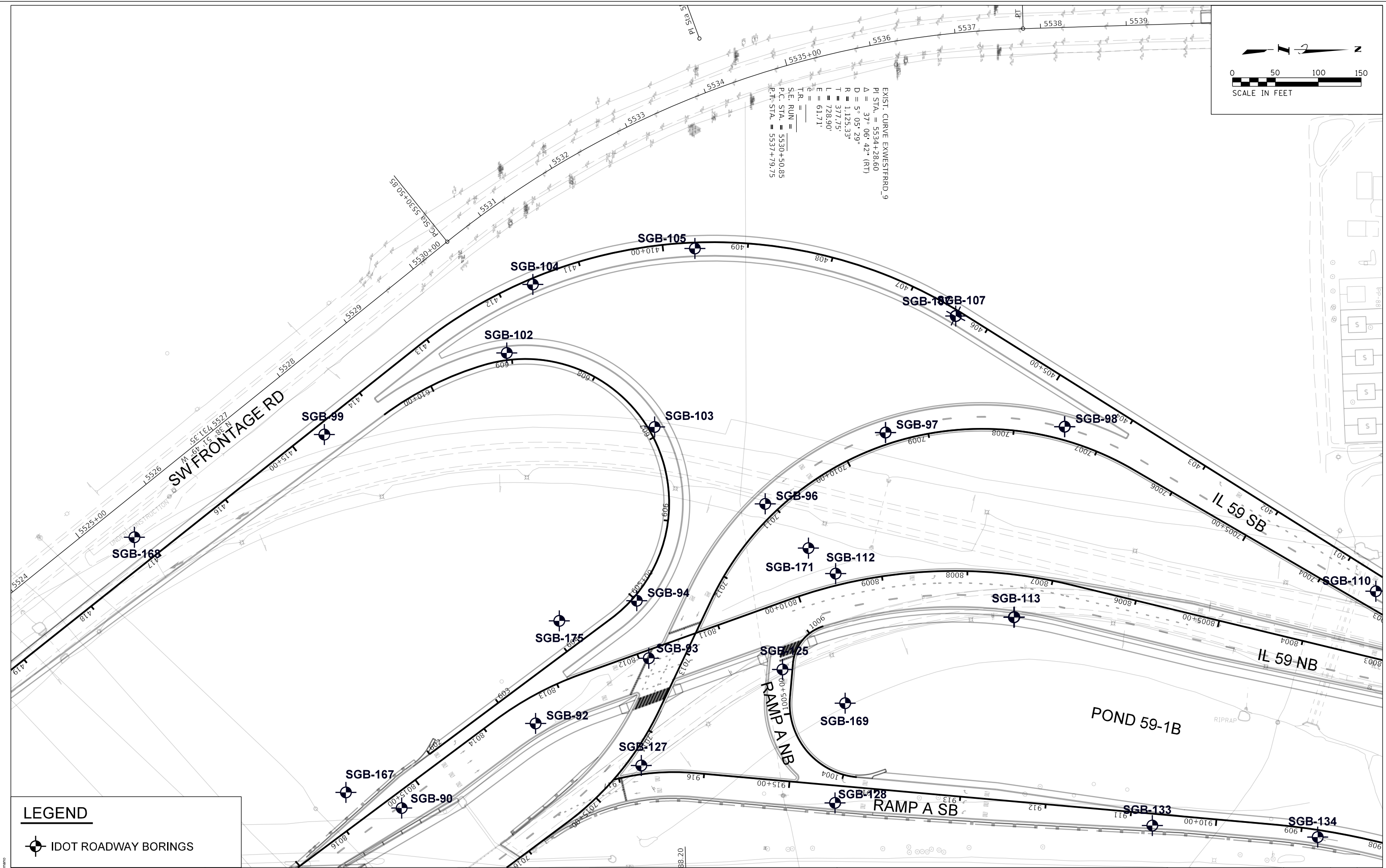
SCALE: AS NOTED	SHEET 3 OF 9 SHEETS	STA. _____	TO STA. _____
-----------------	---------------------	------------	---------------

CONTRACT NO. 189-011  
 I-55/ROUTE 59 WILL COUNTY  
 SGB BORING LOCATION PLAN

FA RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 3
CONTRACT NO. 189-011			ILLINOIS FED. AID PROJECT	



EXIST. CURVE EXWESTFRRD\_9  
 PI STA. = 5534+28.60  
 Δ = 37° 06' 42" (RT)  
 D = 5' 05' 29"  
 R = 1125.33'  
 T = 377.75'  
 L = 728.90'  
 E = 61.71'  
 TR =  
 S.E. RUN = 5530+50.85  
 P.C. STA. = 5537+79.75  
 P.T. STA. = 5537+79.75



**LEGEND**

IDOT ROADWAY BORINGS

FILE NAME = \\mills\DOT\189-011\Borehole\GIS\189-011\SGB\Boring\Location Plan.dgn  
 PEN TABLE = X:\Clients\189-011\Borehole\GIS\189-011\SGB\Boring\Location Plan\pen.tbl  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.91667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano

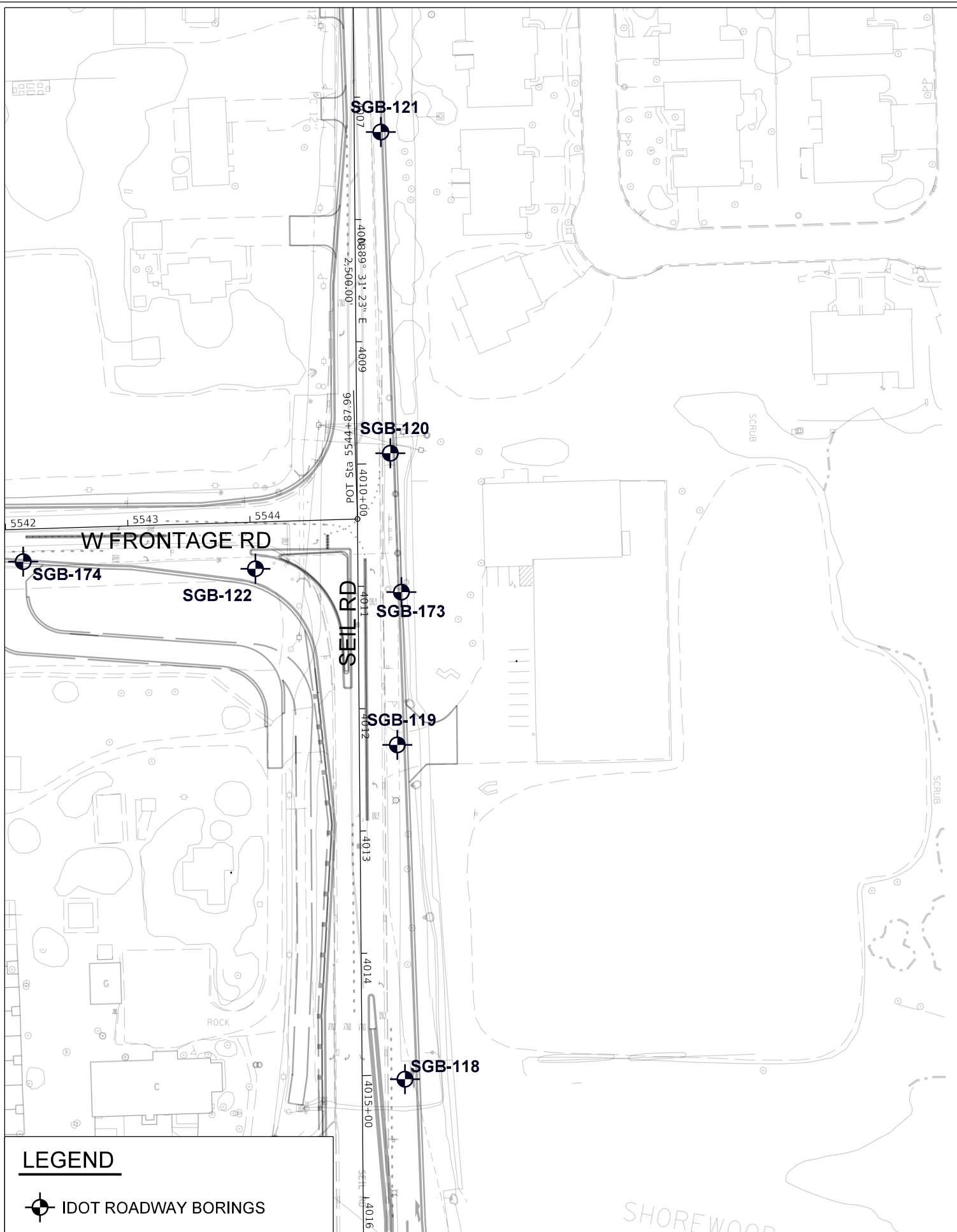
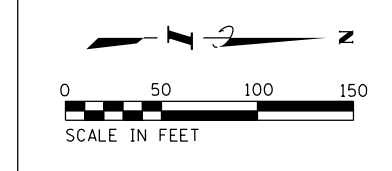


USER NAME	= nmano	DESIGNED	- MZ
SHEET SIZE	= 1.41667x0.91667 (ft.)	DRAWN	- NN
PLOT SCALE	= 1200.0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/18/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY SGB BORING LOCATION PLAN	
SCALE: AS NOTED	SHEET 3 OF 9 SHEETS
STA.	TO STA.

FA. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	4
CONTRACT NO. 189-011			ILLINOIS FED. AID PROJECT	



**LEGEND**

IDOT ROADWAY BORINGS

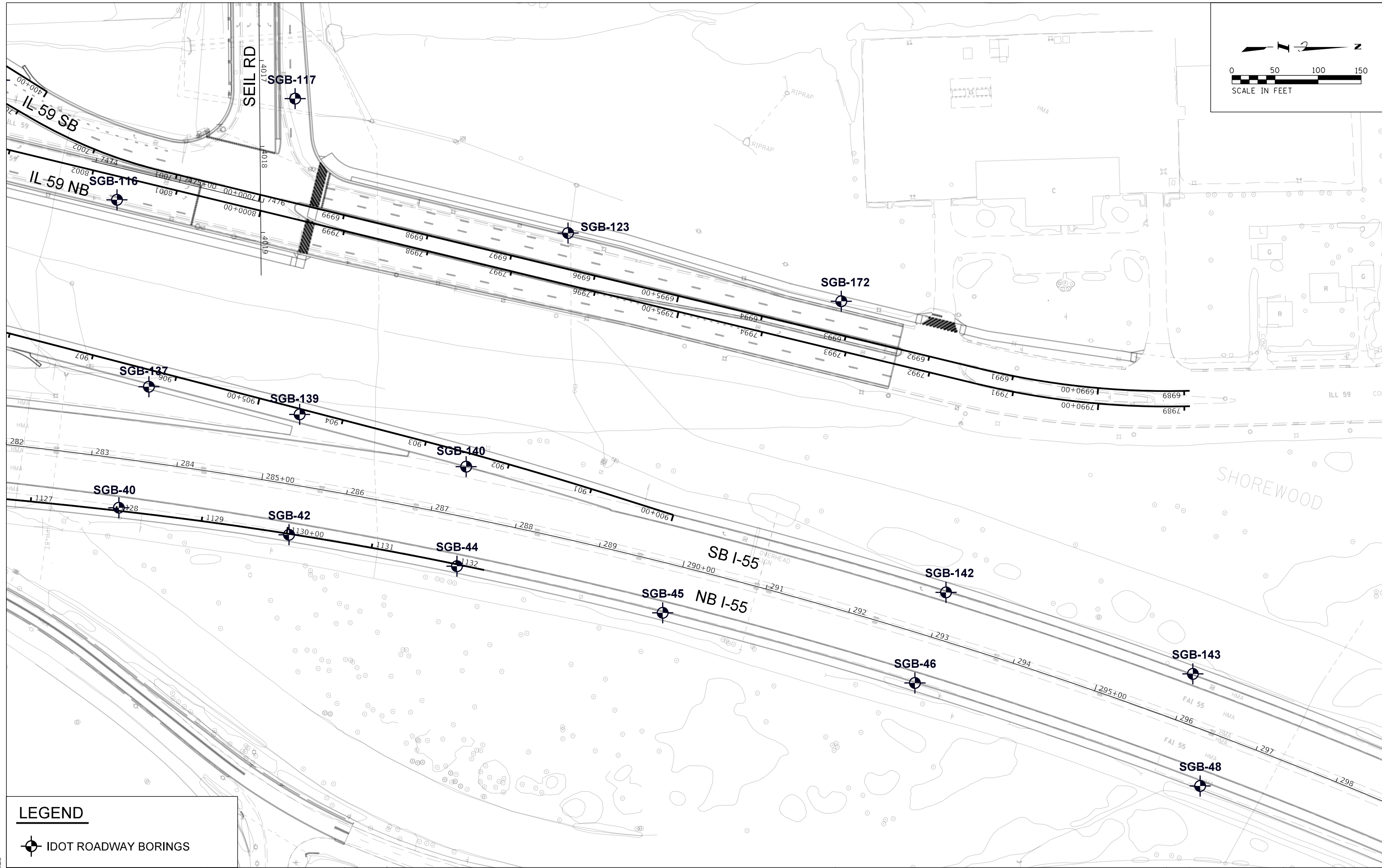
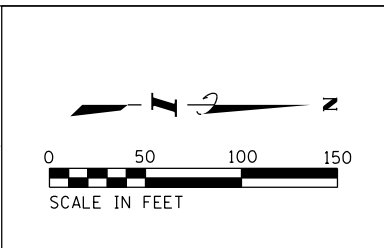
FILE NAME = X:\Illinois\DOT\189-011\Benech\Geotechnical\Exhibits\CON\SGB Borings Plan and Profile\Drawings\SGB Boring Location Plan 5.dgn  
 PEN TABLE = 2/18/2021  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.91667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano

	USER NAME = nmano	DESIGNED = MZ
	SHEET SIZE = 1.41667x0.91667 (ft.)	DRAWN = NN
	PLOT SCALE = 1200.0000' / ft.	CHECKED = DE
	PLOT DATE = 2/18/2021	DATE = 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY SGB BORING LOCATION PLAN	
SCALE: AS NOTED	SHEET 5 OF 9 SHEETS STA. TO STA.

FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	5
CONTRACT NO. 189-011			ILLINOIS FED. AID PROJECT	



**LEGEND**

 IDOT ROADWAY BORINGS

FILE NAME = \\illinois\DOT\189-011\Borehole\GIS\189-011\SBG\Borings\Plan and Profile\Drawings\SBG Boring Location Plan.dgn  
 PEN TABLE = X:\Clients\189-011\Work\Space\table\pen\gag.mno.tbl  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 11.697x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano



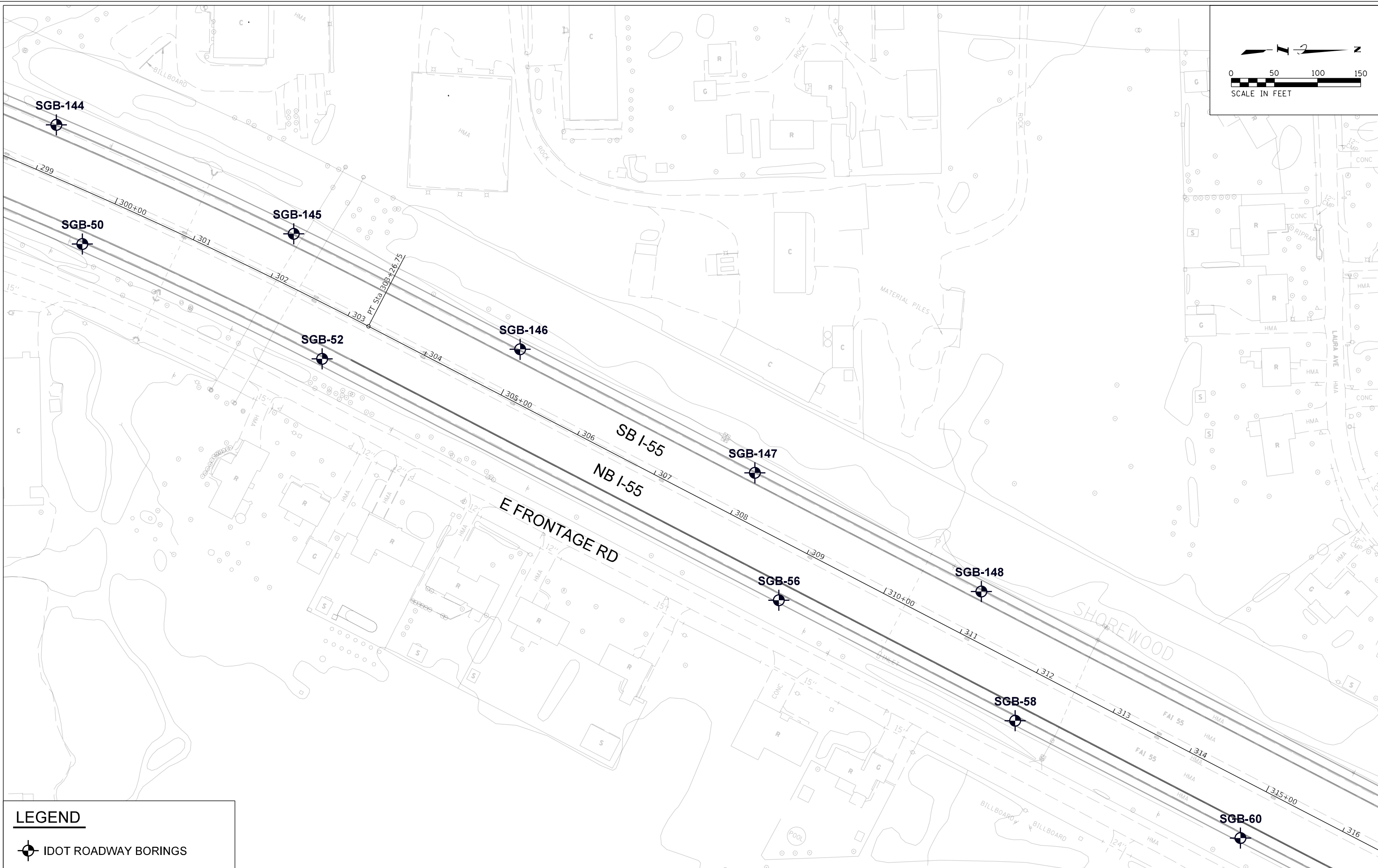
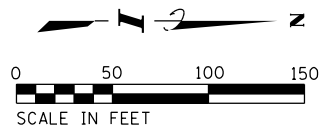
USER NAME =	nmano	DESIGNED =	MZ
SHEET SIZE =	1.41667x0.916667 (ft.)	DRAWN =	NN
PLOT SCALE =	1200.0000' / ft.	CHECKED =	DE
PLOT DATE =	2/18/2021	DATE =	02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY	
SGB BORING LOCATION PLAN	
SCALE: AS NOTED	SHEET 6 OF 9 SHEETS
STA.	TO STA.

FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	6
CONTRACT NO. 189-011			ILLINOIS FED. AID PROJECT	





**LEGEND**

IDOT ROADWAY BORINGS

FILE NAME = X:\Illinois\DOT\189-011\Borehole\GIS\DOT\CHN\SGB\Borings Plan and Profile\Drawings\SGB Boring Location Plan 7.dgn  
 PEN TABLE = X:\Illinois\DOT\189-011\Borehole\GIS\DOT\CHN\SGB\Borings Plan and Profile\Drawings\SGB Boring Location Plan 7.dgn  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano

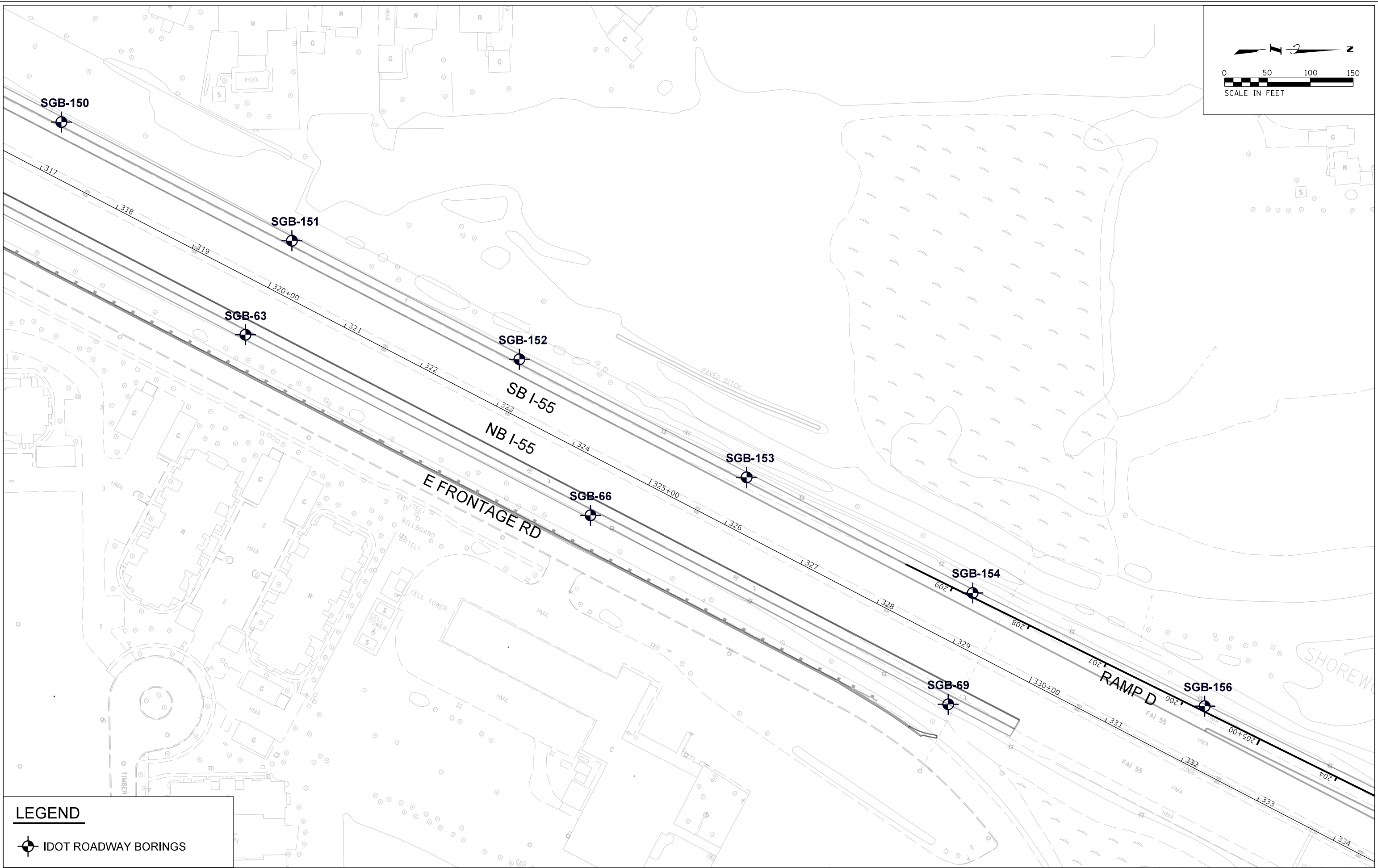
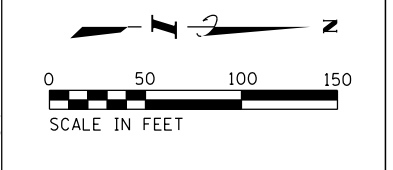


USER NAME =	nmano	DESIGNED =	MZ
SHEET SIZE =	1.41667x0.916667 (ft.)	DRAWN =	NN
PLOT SCALE =	1200.0000' / ft.	CHECKED =	DE
PLOT DATE =	2/18/2021	DATE =	02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY	
SGB BORING LOCATION PLAN	
SCALE: AS NOTED	SHEET 7 OF 9 SHEETS
STA.	TO STA.

FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	7
CONTRACT NO. 189-011				
ILLINOIS FED. AID PROJECT				



**LEGEND**

IDOT ROADWAY BORINGS

FILE NAME = X:\Illinois\DOT\189-011\Borehole\GIS\189-011\189-011\_SGB\_Boring\_Location\_Plan.dgn  
 PEN TABLE = 2/18/2021  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano

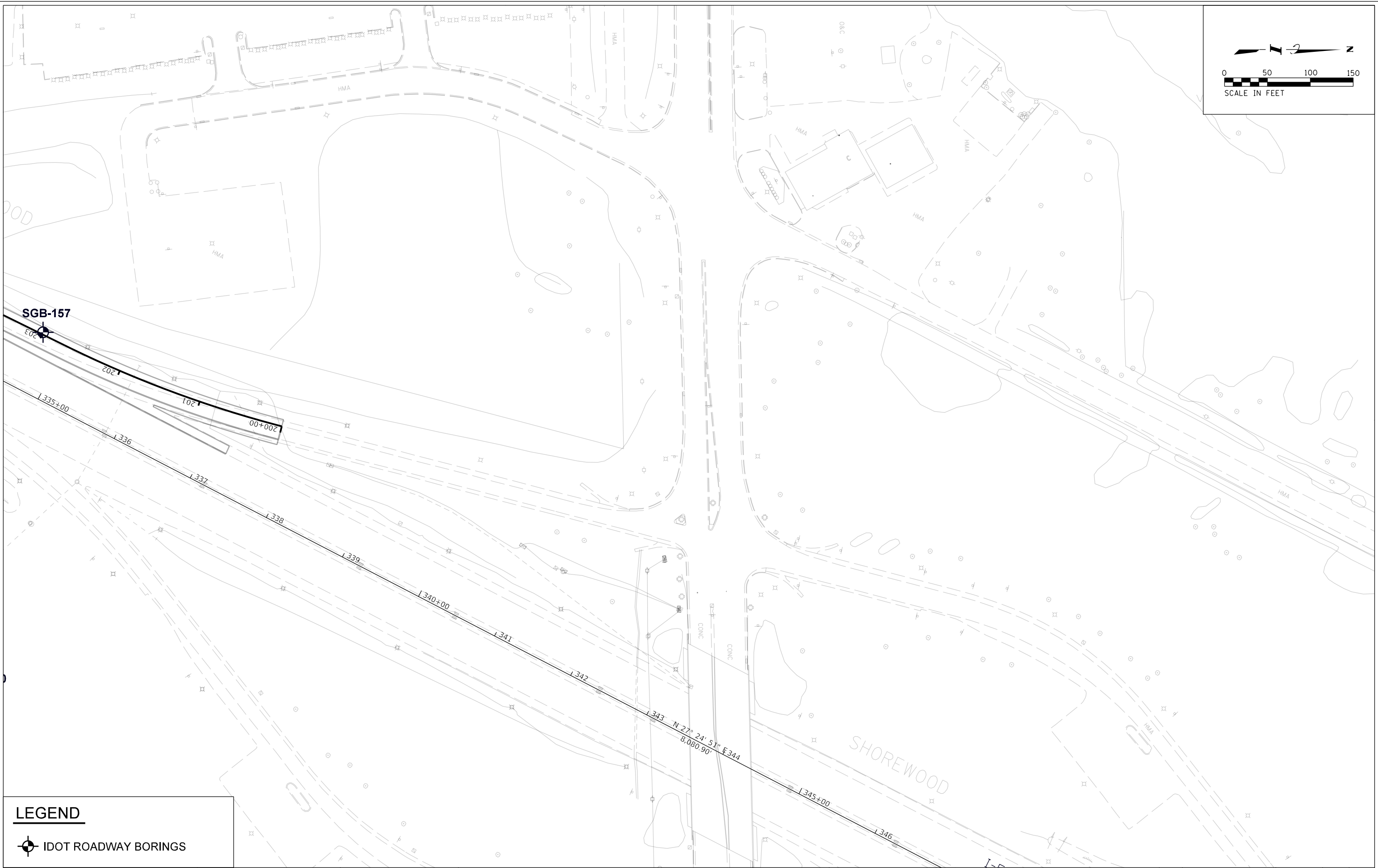
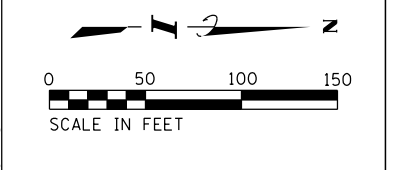
**GSG CONSULTANTS, INC.**  
 Geotechnical, Surveying & Construction Management  
 1800 N. Lincoln Ave., Suite 200, Chicago, IL 60614  
 Phone: (773) 399-8800 Fax: (773) 399-8801

USER NAME	= nmano	DESIGNED	- MZ
SHEET SIZE	= 1.41667x0.916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 1200.0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/18/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY SGB BORING LOCATION PLAN	
SCALE: AS NOTED	TO STA.
SHEET 8 OF 9 SHEETS	STA.

FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	8
		CONTRACT NO.	189-011	
		ILLINOIS	FED. AID PROJECT	



**LEGEND**

 IDOT ROADWAY BORINGS

FILE NAME = X:\Illinois\189-011\Borehole\GIS\189-011\Drawings\SGB Boring Location Plan 9.dgn  
 PEN TABLE = 2/18/2021  
 PLOT DATE = 2/18/2021  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 1200.0000' / ft.  
 USER NAME = nmano



**GSG CONSULTANTS, INC.**  
 Engineering, Subcontract & Construction Management

USER NAME = nmano	DESIGNED = MZ
SHEET SIZE = 1.41667x0.916667 (ft.)	DRAWN = NN
PLOT SCALE = 1200.0000' / ft.	CHECKED = DE
PLOT DATE = 2/18/2021	DATE = 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

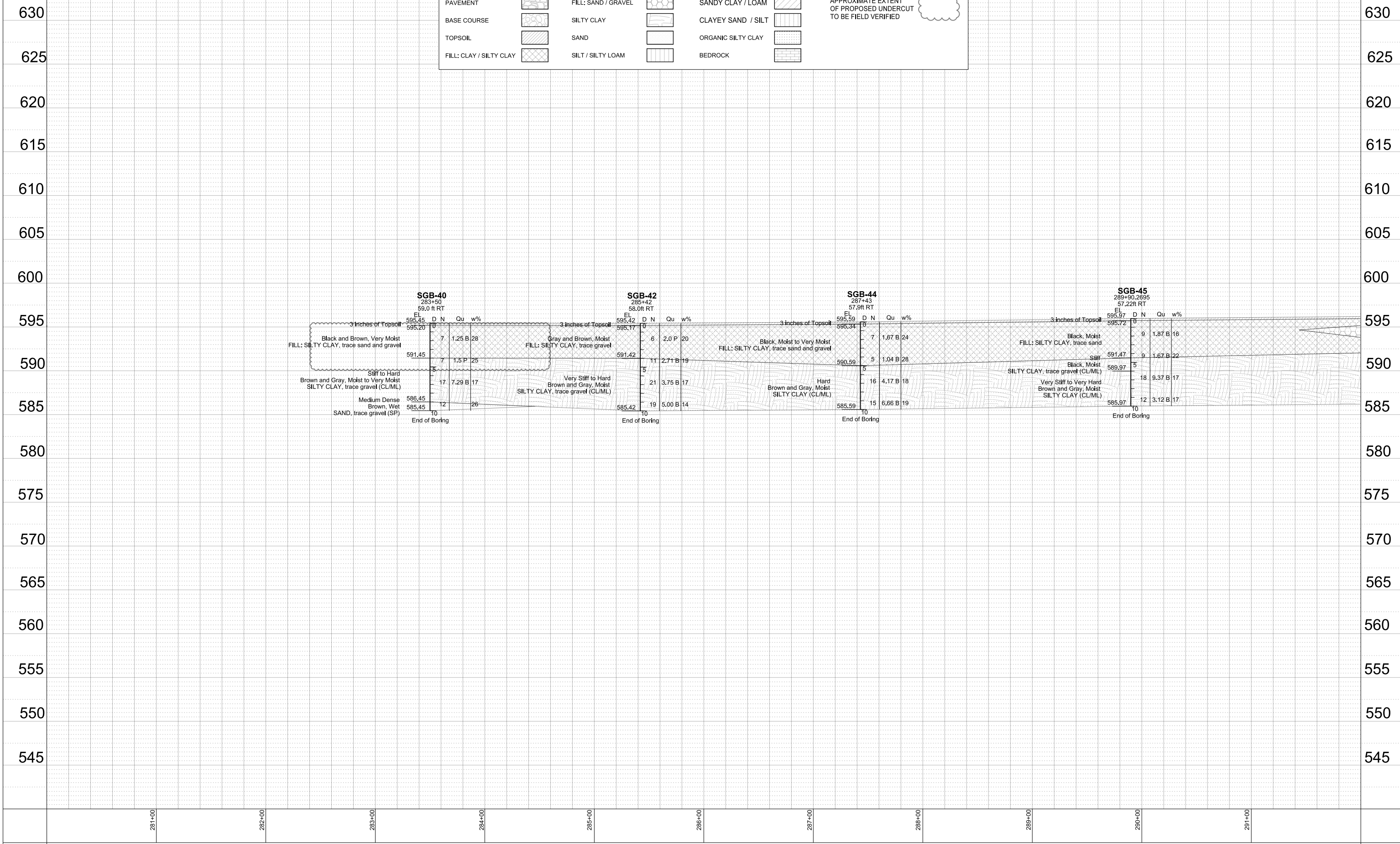
CONTRACT NO. 189-011	
I-55/ROUTE 59 WILL COUNTY	
SGB BORING LOCATION PLAN	
SCALE: AS NOTED	SHEET 9 OF 9 SHEETS
STA.	TO STA.

FA. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 9
CONTRACT NO. 189-011			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGS Boring Profile 1-55 Mainline NB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 USER DATE = 2/4/2021 AM  
 SHEET SIZE = 141667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USERS

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME = \$USERS	DESIGNED - MZ
SHEET SIZE = 1,41667x0,916667 (ft.)	DRAWN - NN
PLOT SCALE = 240,0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

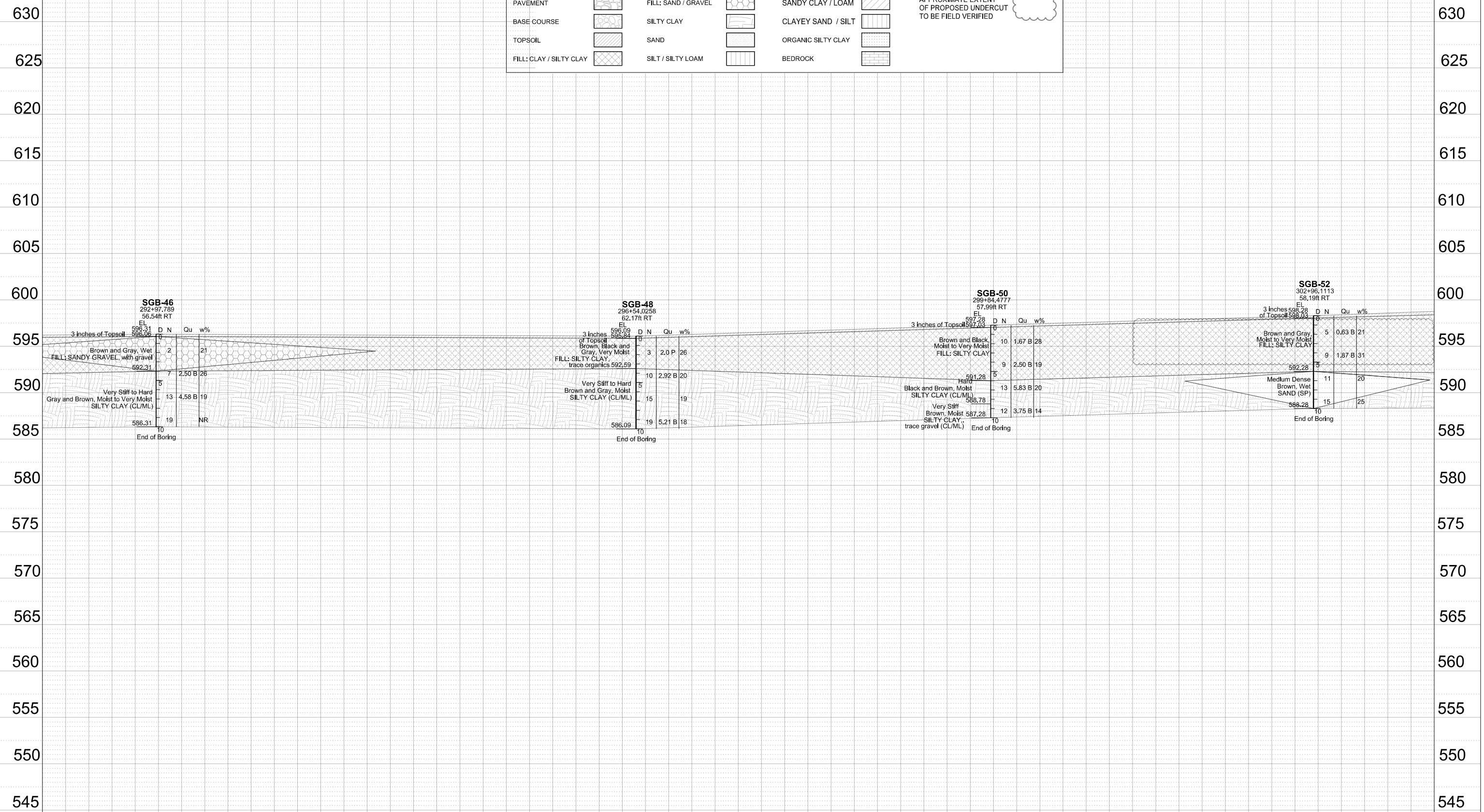
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
1-55/ROUTE 59 WILL COUNTY	
1-55 MAINLINE NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 5 SHEETS
STA. 280+00	TO STA. 292+00

F.A. RTE. 1-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 2419004	

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



FILE NAME = \$FILE\$  
PEN TABLE = \$PEN\$  
TWO DATE = \$DATE\$  
SHEET SIZE = \$SHEETSIZES\$  
PLOT SCALE = \$SCALE\$  
USER NAME = \$USER\$

623 Cooper Court • Schaumburg, IL 60173  
Tel: 630.994.2800 • Fax: 312.733.5612  
Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = \$SHEETSIZES\$	DRAWN - NN
PLOT SCALE = \$SCALE\$	CHECKED - DE
PLOT DATE = \$DATES\$	DATE - 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

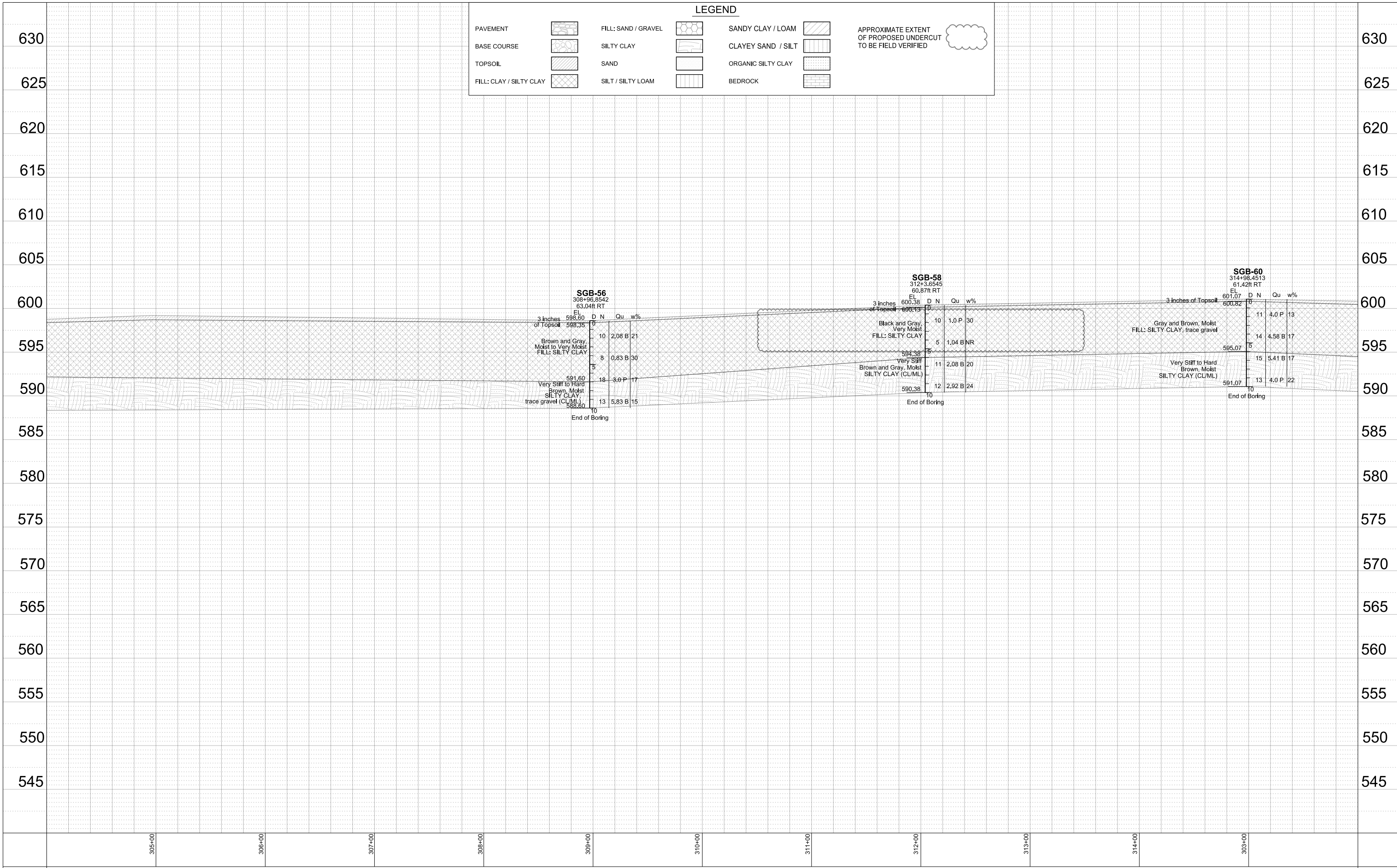
CONTRACT NO. 2419004	
1-55/ROUTE 59 WILL COUNTY	
1-55 MAINLINE NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 5 SHEETS
STA. 292+00	TO STA. 304+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 11
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGS Boring Profile 1-55 Mainline NB 3.dgn  
 PEN TABLE = X:\Clients\Illinois\WorkSpace\Tables\Pen\BlackWhite-IL\Illinois.tbl  
 USER NAME = \$USER\$  
 SHEET SIZE = 1,41667 x 0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2800 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

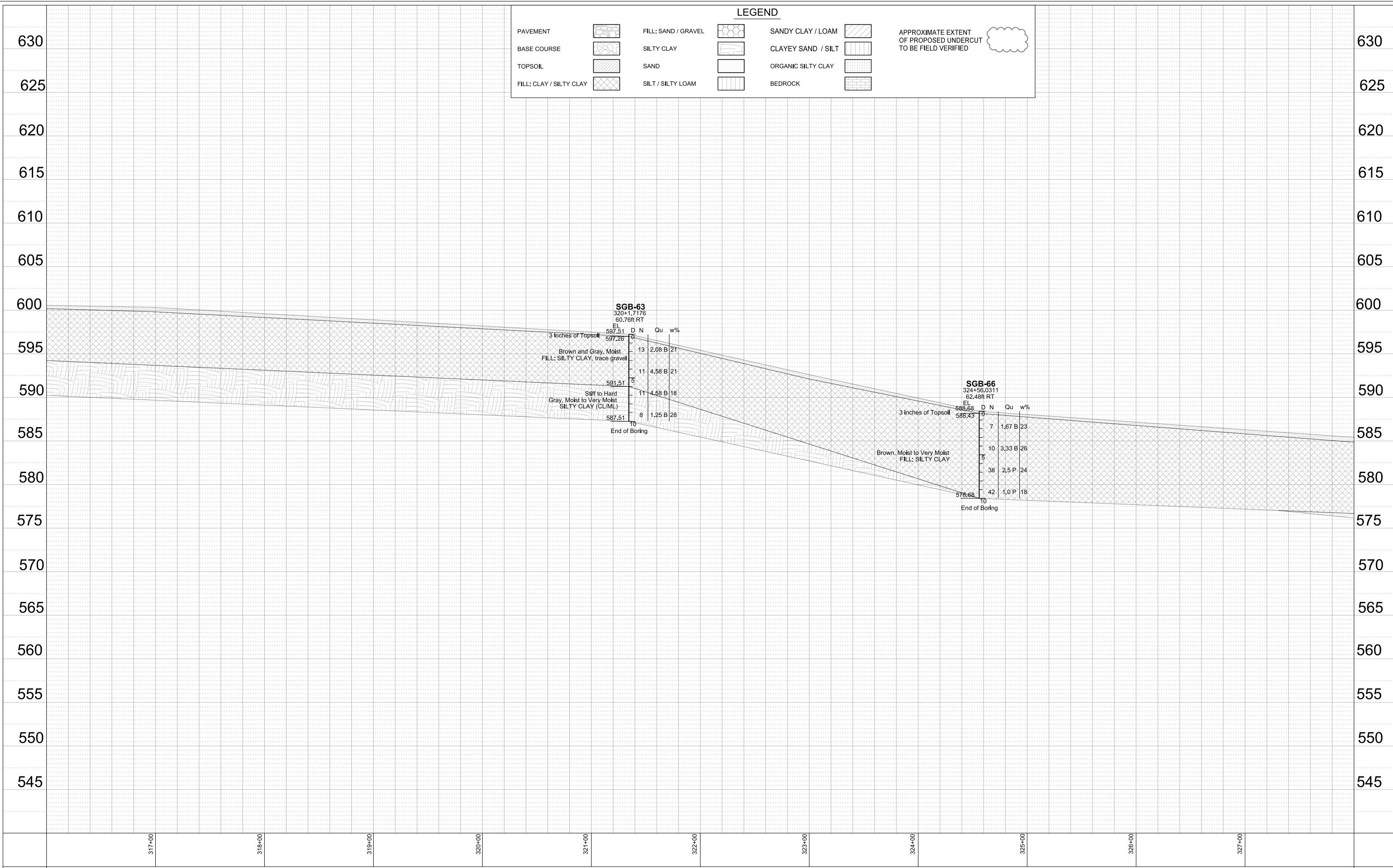
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY MAINLINE NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 5 SHEETS
STA. 304+00	TO STA. 304+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	12
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Beneesh\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\1-55 Mainline NB 4.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 TOL DATE = 2/24/2021  
 SHEET SIZE = 1,41667'x0,916667' (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667'x0,916667' (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

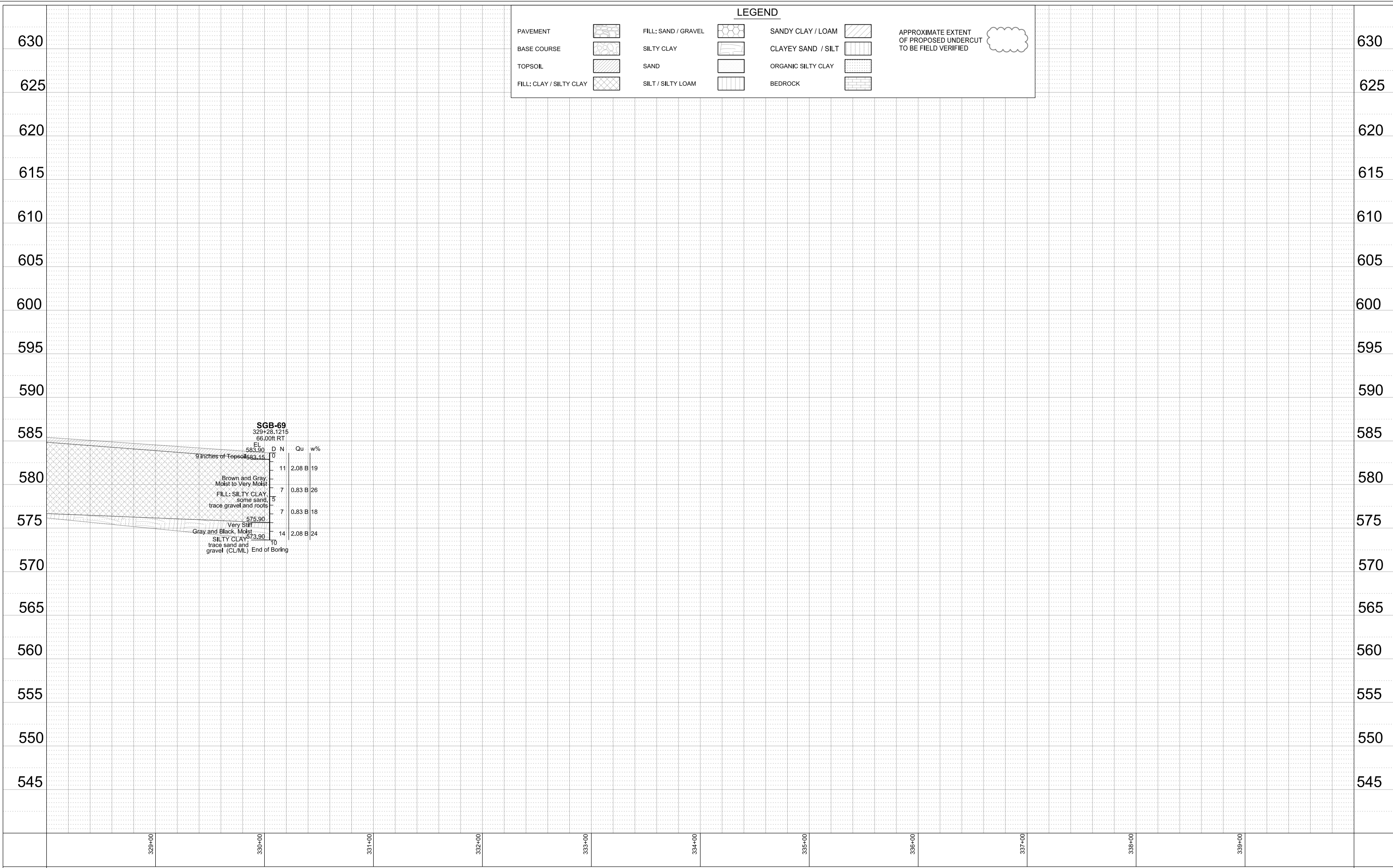
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY	
I-55 MAINLINE NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 4 OF 5 SHEETS
STA. 316+00	TO STA. 328+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	13
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGSB Borings Plan and Profile\Drawings\1-55 Mainline NB 5.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 TUP DATE = 2/2/2021 9:27 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USERS

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



SGS CONSULTANTS, LLC  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

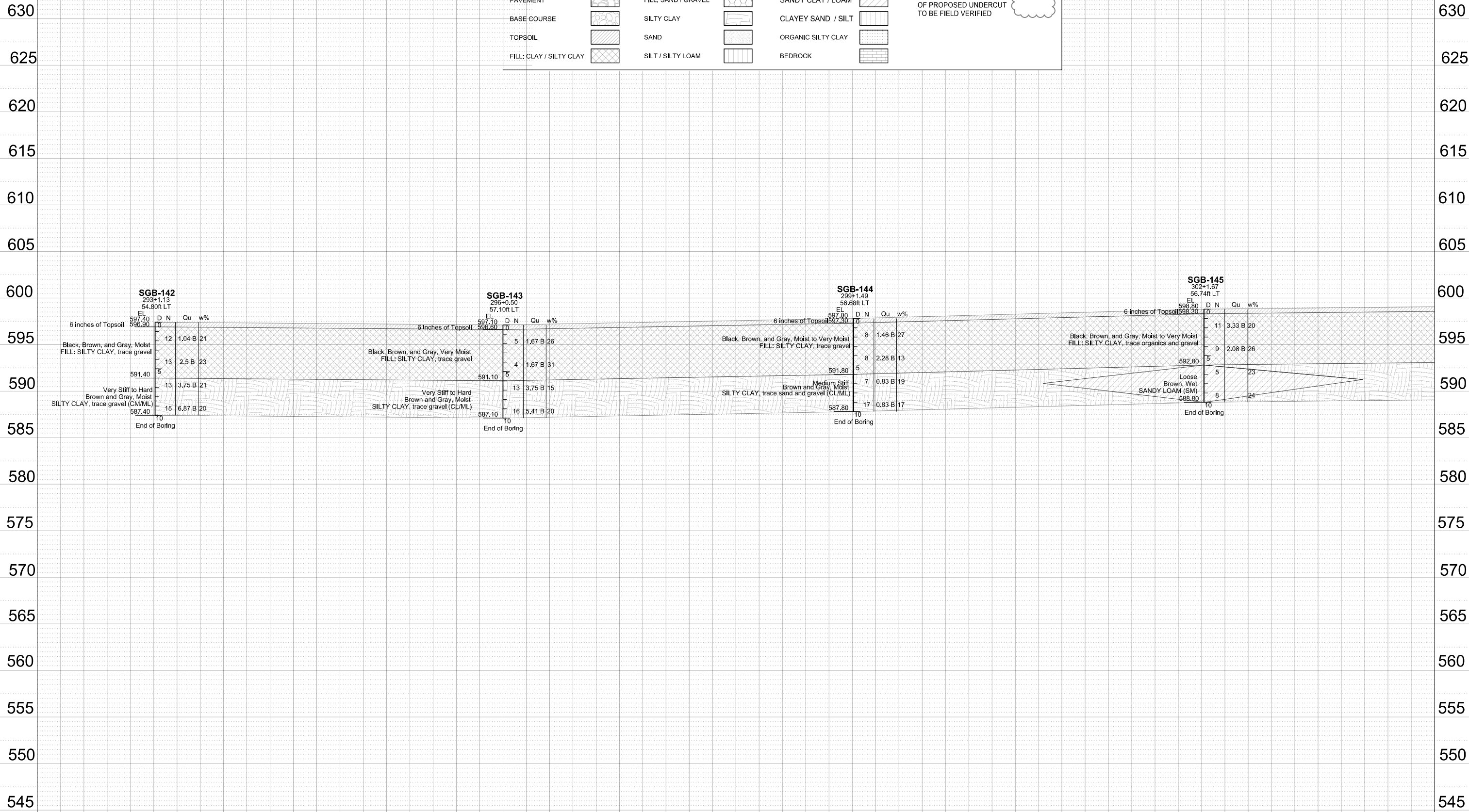
USER NAME = \$USERS	DESIGNED - MZ
SHEET SIZE = 14.1667x0.916667 (ft.)	DRAWN - NN
PLOT SCALE = 240.0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55 MAINLINE NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 5 OF 5 SHEETS
STA. 328+00	TO STA. 340+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 14
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	





**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

FILE NAME = \$FILE\$  
 PEN TABLE = \$PEN\$  
 TYP DATE = \$DATE\$  
 SHEET SIZE = \$SHEETSIZES\$  
 PLOT SCALE = \$SCALE\$  
 USER NAME = \$USER\$



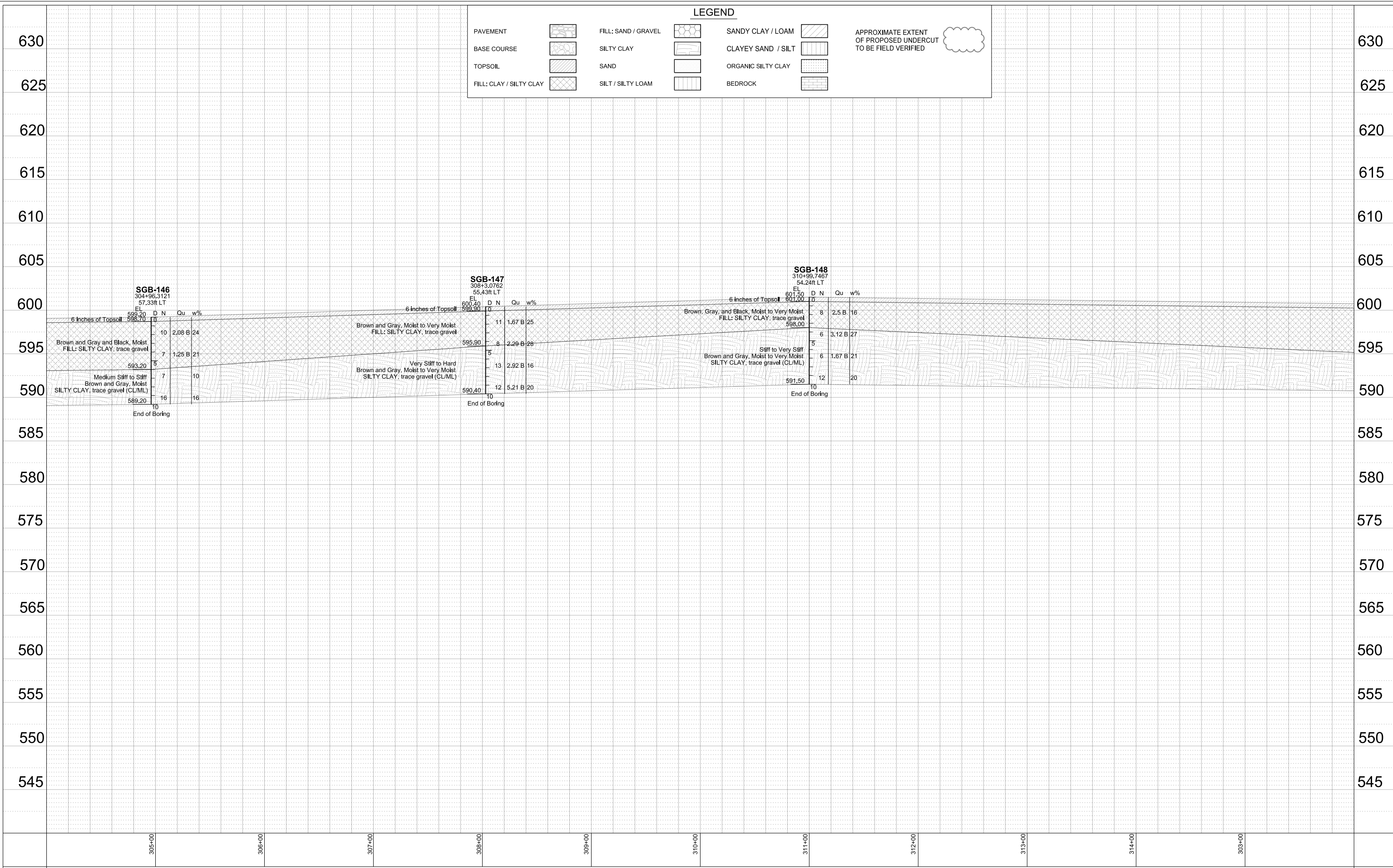
USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = \$SHEETSIZES\$	DRAWN - NN
PLOT SCALE = \$SCALE\$	CHECKED - DE
PLOT DATE = \$DATES\$	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY I-55 MAINLINE SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 3 SHEETS
STA. 292+00	TO STA. 304+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 15
ILLINOIS		FED. AID PROJECT		CONTRACT NO. 2419004

FILE NAME = I:\Illinois DOT\189-011\_Beneesh\Geotechnical\Exhibits\DCNS\SOB Borings Plan and Profile\Drawings\16-SOB Boring Profile 1-55 Mainline SB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 TOL DATE = 2/28/2021  
 SHEET SIZE = 14.1667 x 0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$



USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 2419004  
 I-55/ROUTE 59 WILL COUNTY  
 I-55 MAINLINE SB SUBSURFACE SOIL PROFILE

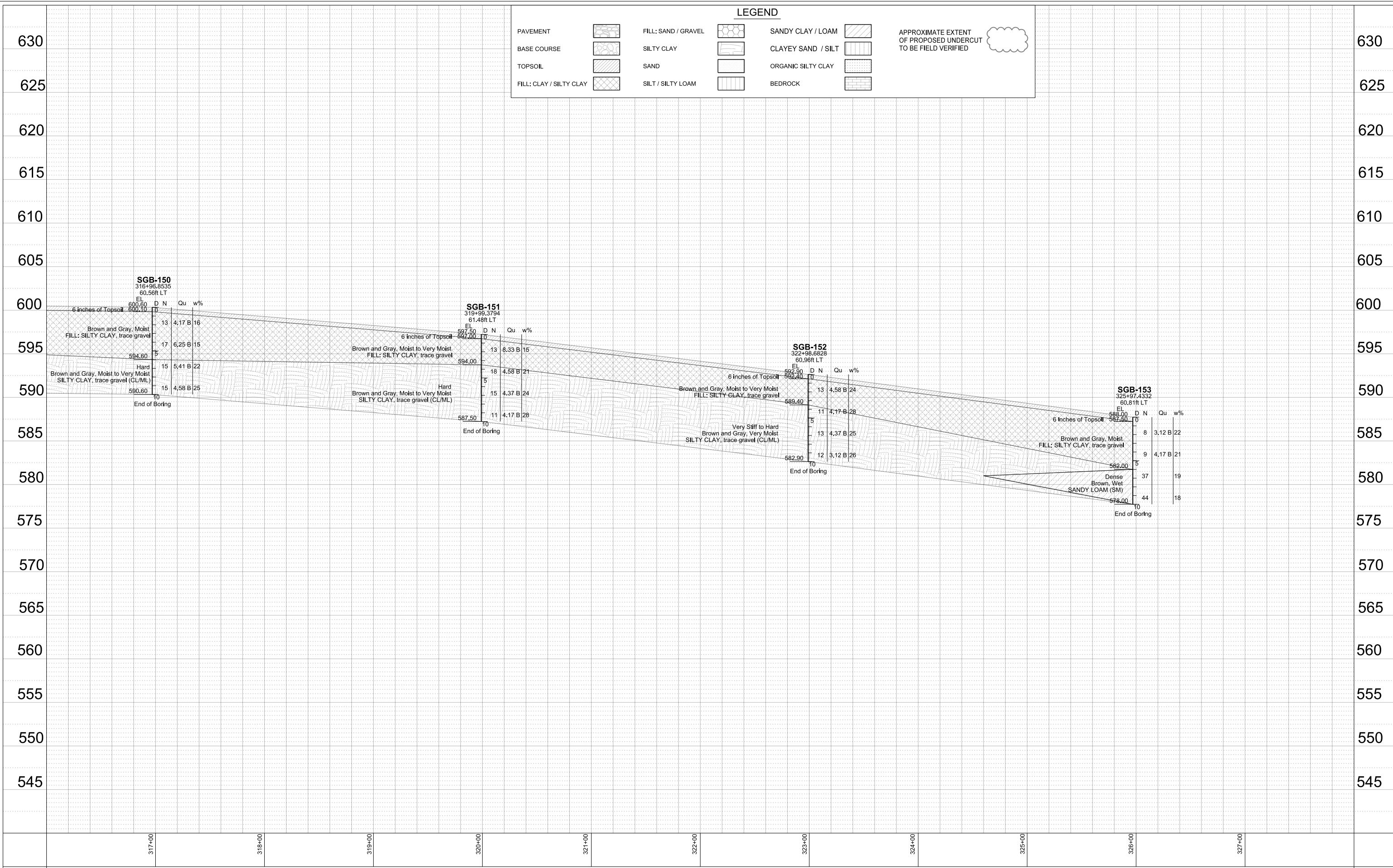
SCALE: AS NOTED    SHEET 2 OF 3 SHEETS    STA. 304+00 TO STA. 304+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	16
ILLINOIS		FED. AID PROJECT		
CONTRACT NO. 2419004				

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGS Boring Profile 1-55 Mainline SB 3.dgn  
 PLOT DATE = 2/4/2021  
 SHEET SIZE = 1,41667x0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



**SGS CONSULTANTS, LLC**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

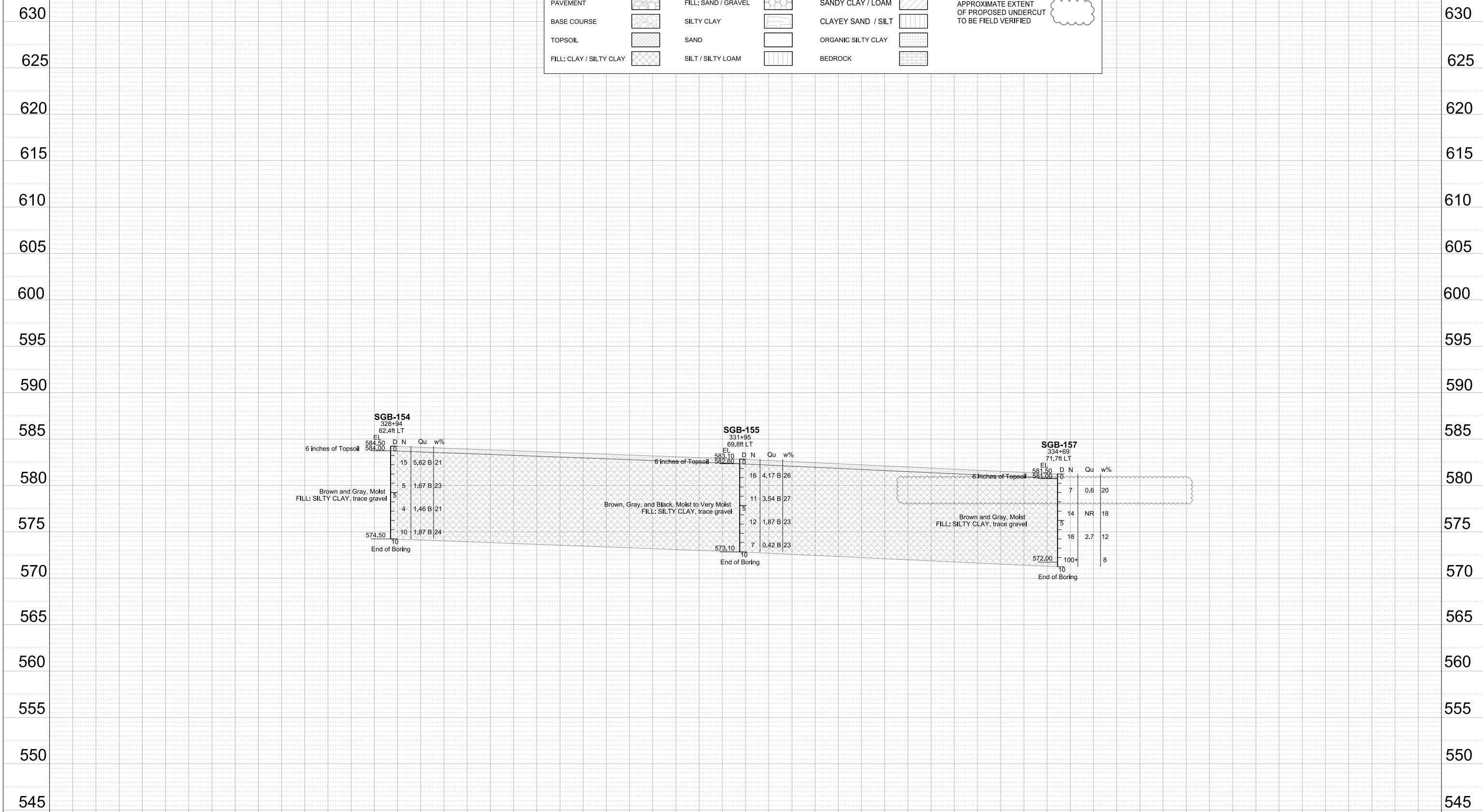
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY	
1-55 MAINLINE SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 3 SHEETS
STA. 316+00	TO STA. 328+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	17
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Plan and Profile\Drawings\18-SGB Boring Profile US 52 SB ENTRANCE RAMP 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021 7:57:52 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



327+00	328+00	329+00	330+00	331+00	332+00	333+00	334+00	335+00	336+00	337+00
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

**SGS CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = 14.1667x0.916667 (ft.)	DRAWN - NN
PLOT SCALE = 240.0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

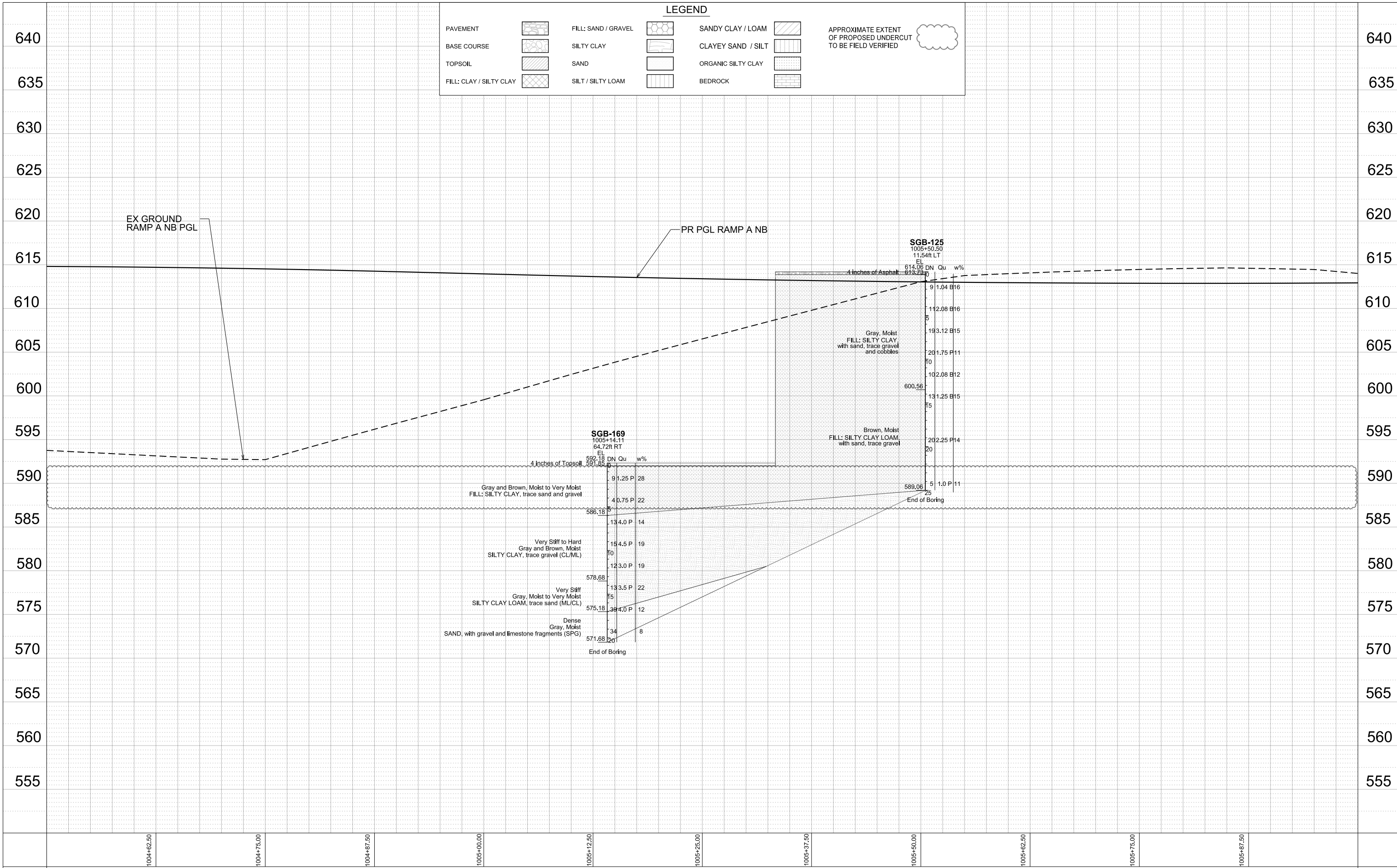
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY	
US 52 SB ENTRANCE RAMP SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 1 SHEETS
STA. 326+00	TO STA. 338+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 18
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGSB Borings Plan and Profile\Drawings\19-SGB Boring Profile Ramp A NB 1.dgn  
 PEN TABLE = X:\Clients\Illinois\WorkSpace\Tables\Pen\BlackWhite-IL\Illinois.tbl  
 USER NAME = \$USER\$  
 PLOT SCALE = 240.0000' / ft.  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT DATE = 2/4/2021  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



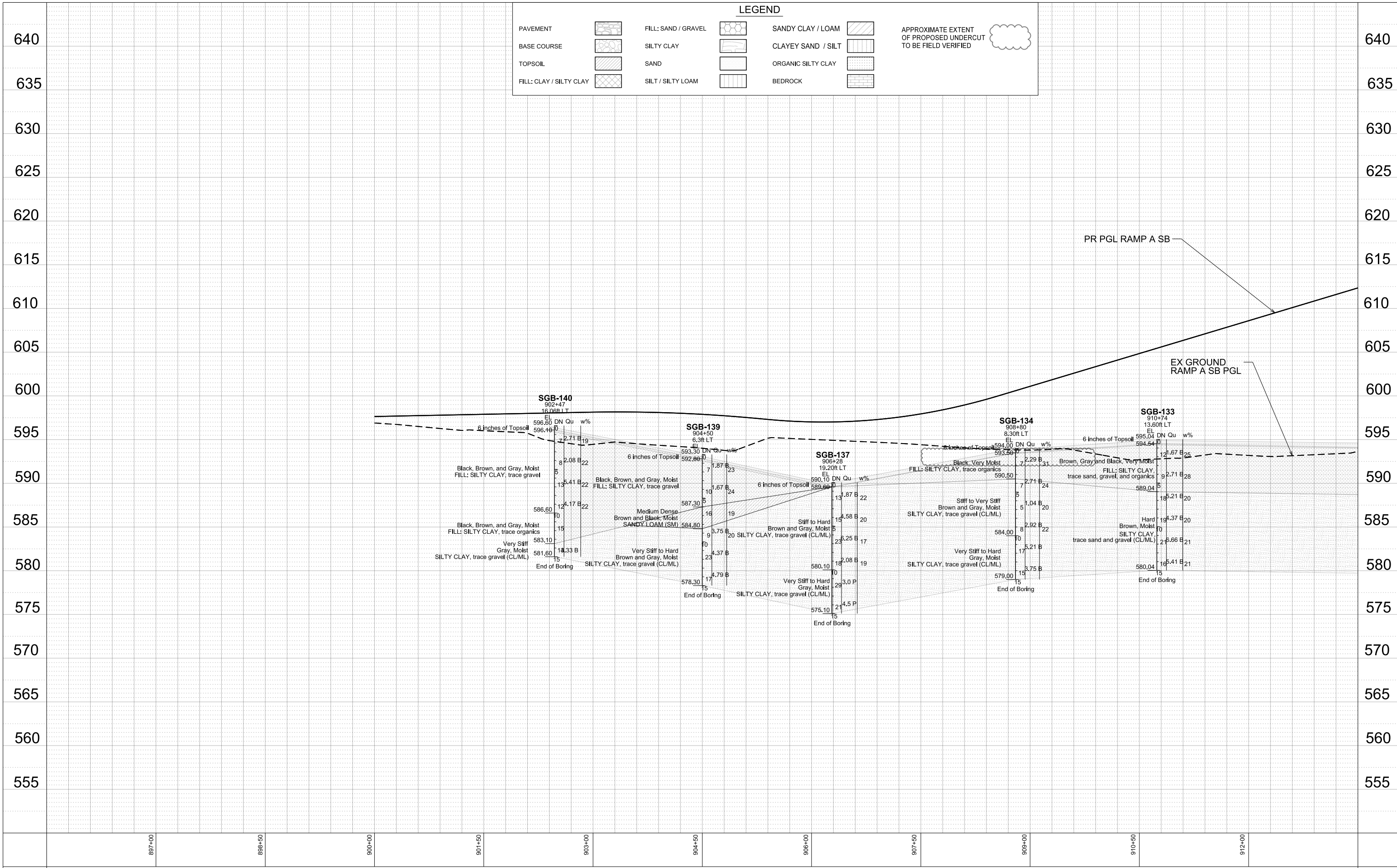
	1004+62.50	1004+75.00	1004+87.50	1005+00.00	1005+12.50	1005+25.00	1005+37.50	1005+50.00	1005+62.50	1005+75.00	1005+87.50
	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>										
	USER NAME = \$USER\$ SHEET SIZE = 1,41667x0,916667 (ft.) PLOT SCALE = 240,0000' / ft. PLOT DATE = 2/4/2021	DESIGNED - MZ DRAWN - NN CHECKED - DE DATE - 02/02/2021		CONTRACT NO. 2419004 I-55/ROUTE 59 WILL COUNTY RAMP A NB SUBSURFACE SOIL PROFILE		F.A. RTE. I-55 SECTION COUNTY WILL TOTAL SHEETS 45 SHEET NO. 19 CONTRACT NO. 2419004					
	SCALE: AS NOTED    SHEET 1 OF 1 SHEETS    STA. 1004+50.00 TO STA. 1006+00.00										
	ILLINOIS    FED. AID PROJECT										



FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SOB Borings Plan and Profile\Drawings\20-SOB Borings Plan and Profile\Profile Ramp A SB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/4/2021  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



**SOB CONSULTANTS, LLC**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 14.1667x0.916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240.0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

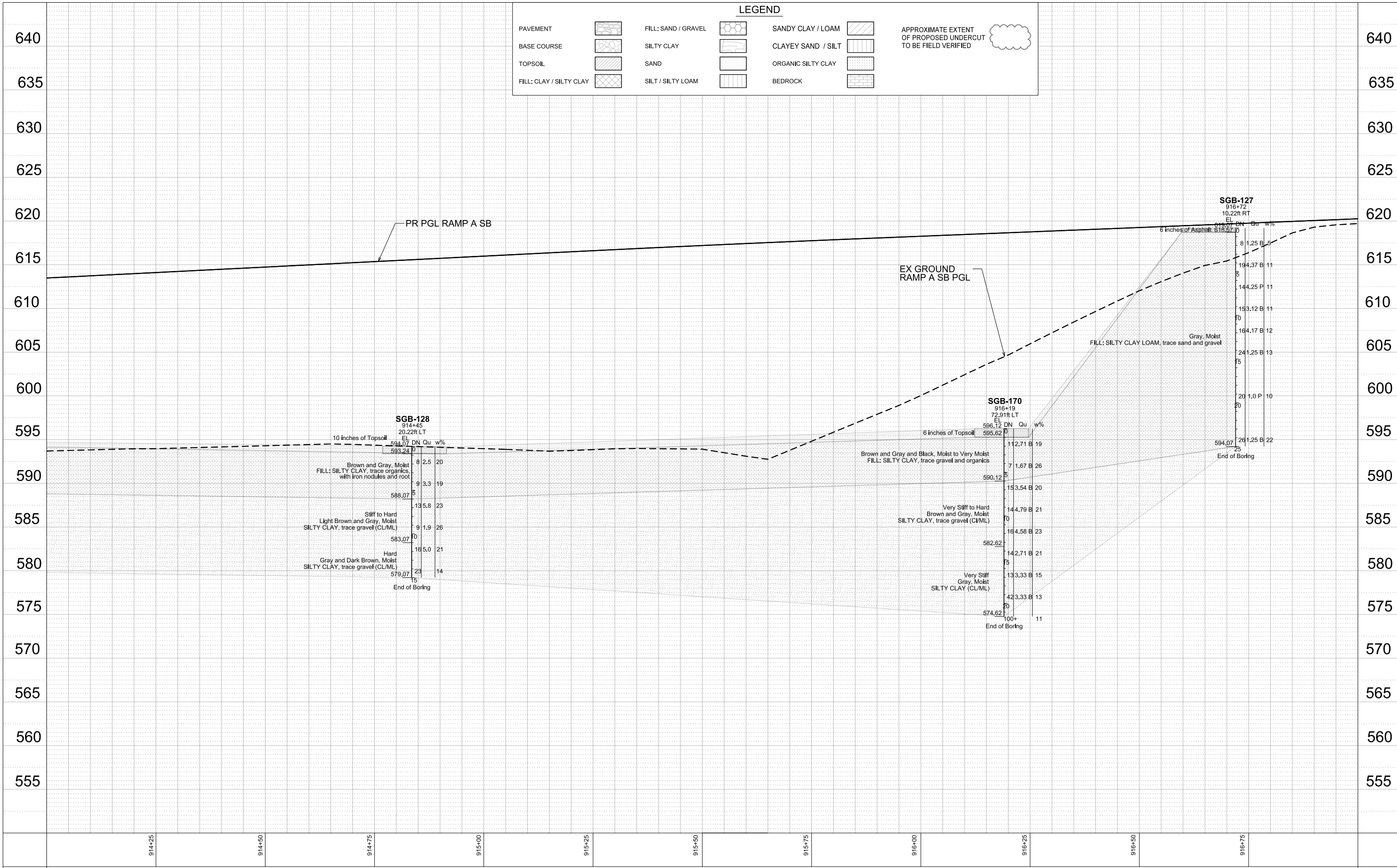
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP A SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 2 SHEETS
STA. 895+50	TO STA. 913+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	20
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGSB Borings Plan and Profile\Drawings\21-SSB Boring Profile Ramp A SB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/14/2021 7:17:02 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED	
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT			
TOPSOIL		SAND		ORGANIC SILTY CLAY			
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK			



**SGS CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = 1,41667x0,916667 (ft.)	DRAWN - NN
PLOT SCALE = 240,0000' / ft.	CHECKED - DE
PLOT DATE = 2/14/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

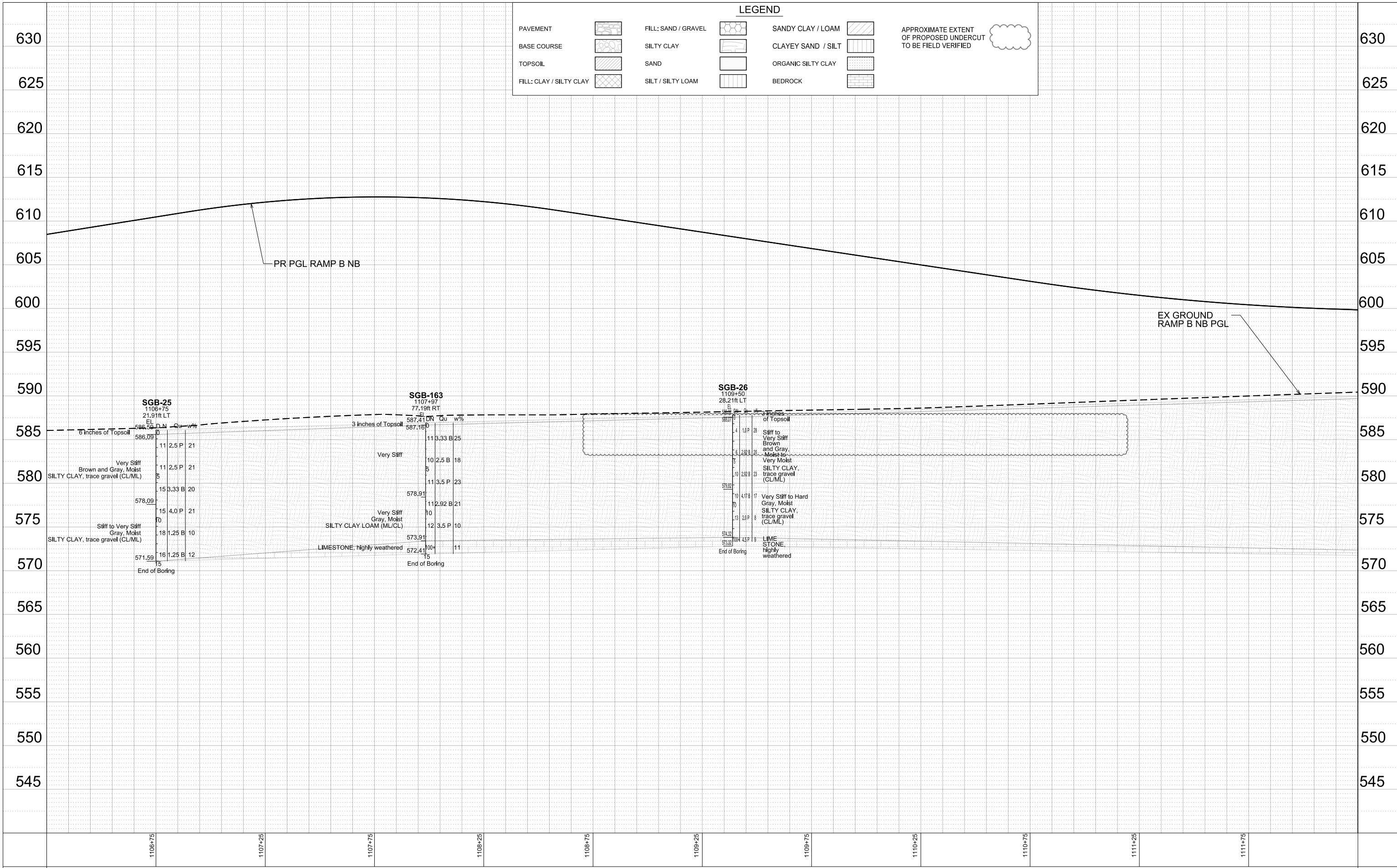
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP A SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 2 SHEETS
STA. 914+00	TO STA. 917+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 21
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Profile and Plan and Profile Drawings\22-SGB Boring Profile Ramp B NB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021 11:42:02 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

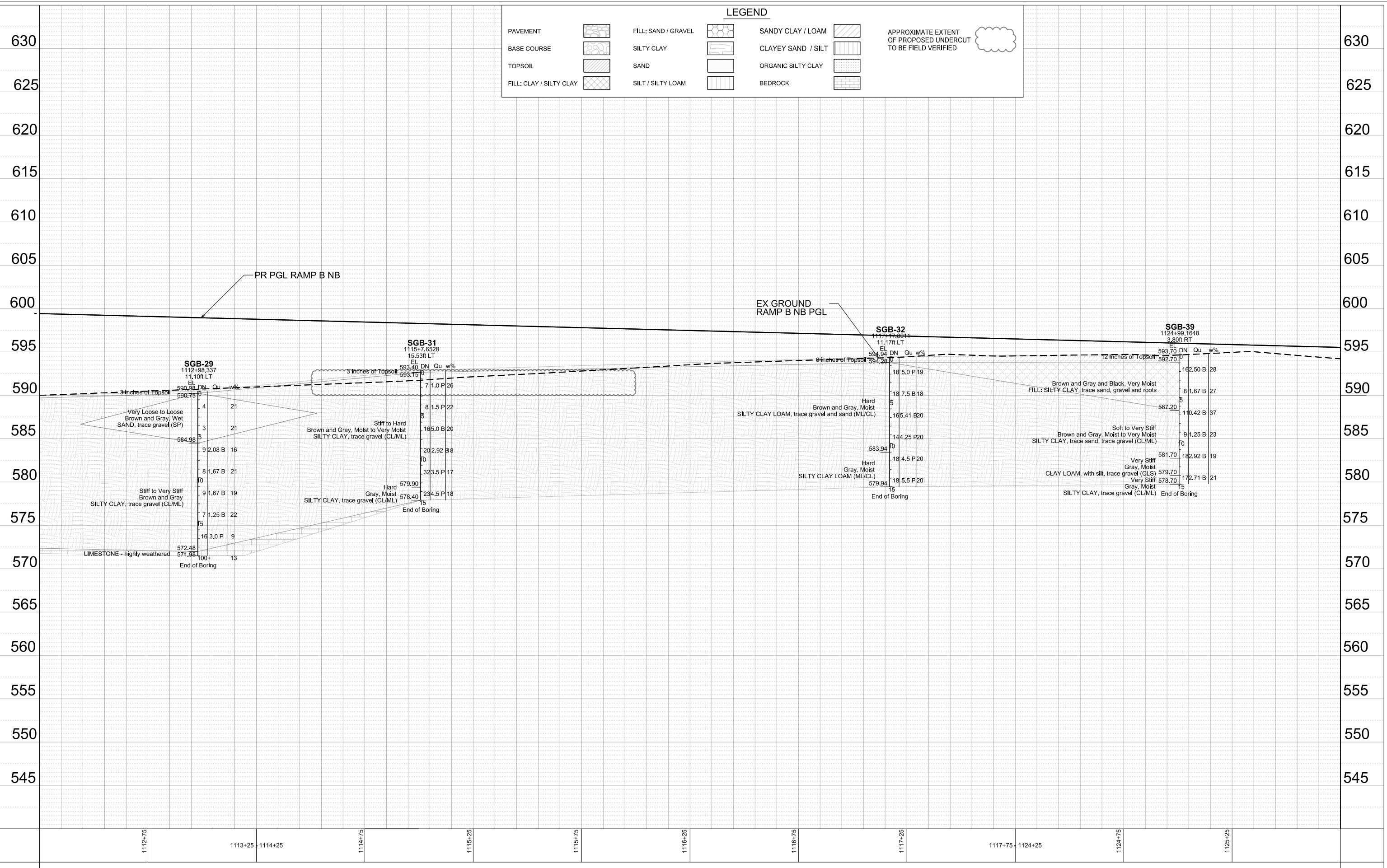




FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGB Borings Plan and Profile\Drawings\23-SGB Boring Profile Ramp B NB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 TUD DATE = 7/27/2021 11:47:20 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USERS

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED	
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT			
TOPSOIL		SAND		ORGANIC SILTY CLAY			
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK			



1112+75	1113+25 - 1114+25	1114+75	1115+25	1116+75	1116+25	1117+25	1117+75 - 1124+25	1124+75	1125+25
---------	-------------------	---------	---------	---------	---------	---------	-------------------	---------	---------

**SGE CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2000 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME = \$USERS	DESIGNED - MZ
SHEET SIZE = 1,41667x0,916667 (ft.)	DRAWN - NN
PLOT SCALE = 240,0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

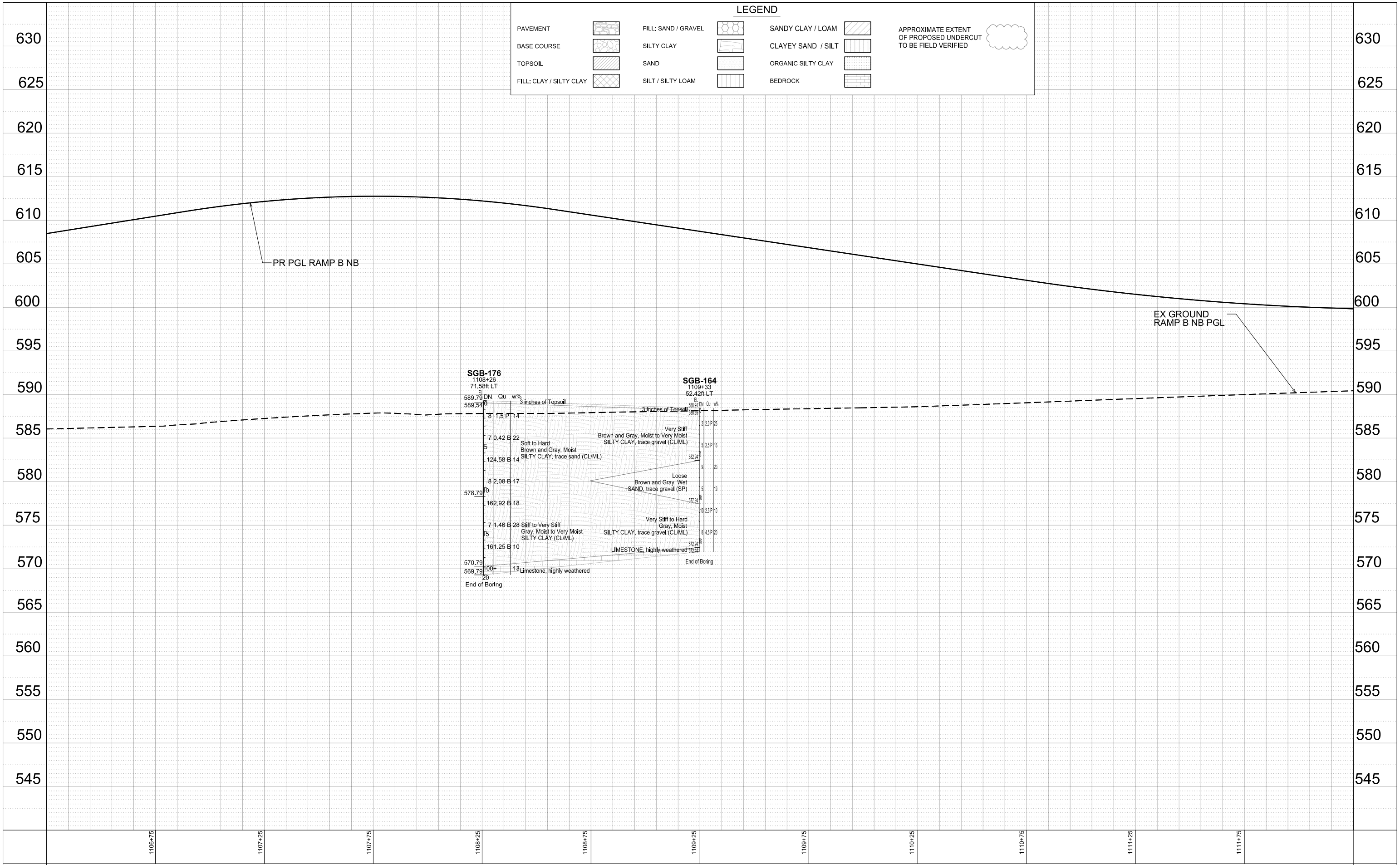
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP B NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 2 SHEETS STA. 1112+25 TO STA. 1125+75

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 23
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGS Boring Profile Plan and Profile Drawings\24-SGB Boring Profile Ramp B SB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlockWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021 7:27:20 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



**SGS CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = 14.1667x0.916667 (ft.)	DRAWN - NN
PLOT SCALE = 240.0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP B SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 1 SHEETS
STA. 1106+25	TO STA. 1112+25

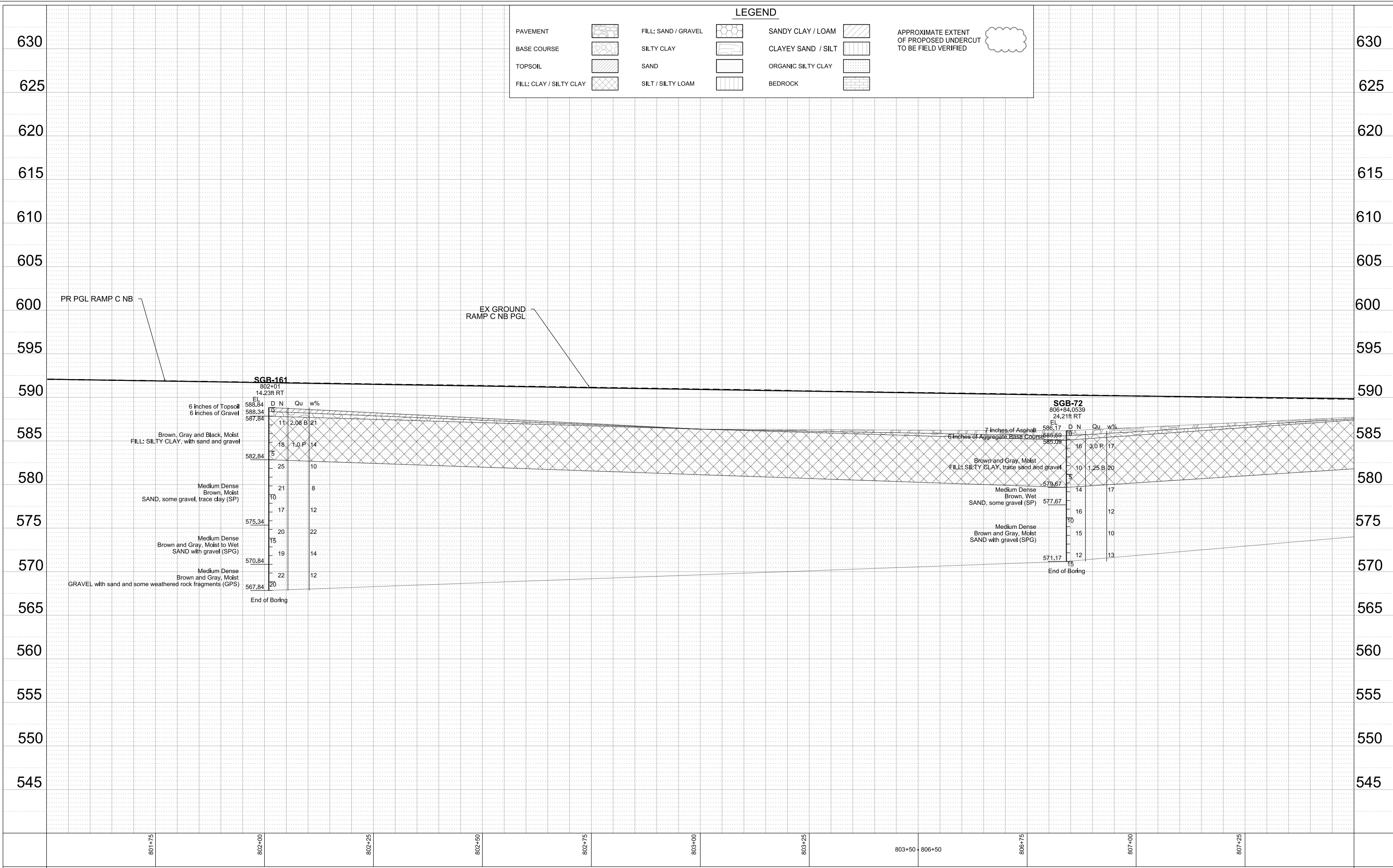
F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 24
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\25-SCB Boring Profile Ramp C NB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 TOL DATE = 7/27/2021  
 TOL TIME = 1:41:07 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USERS

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM	
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT	
TOPSOIL		SAND		ORGANIC SILTY CLAY	
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK	

APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED



**GBI CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.594.2600 • Fax: 312.733.5612  
 www.gbi-consultants.com  
 Integrity | Quality | Reliability

USER NAME	= \$USERS	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

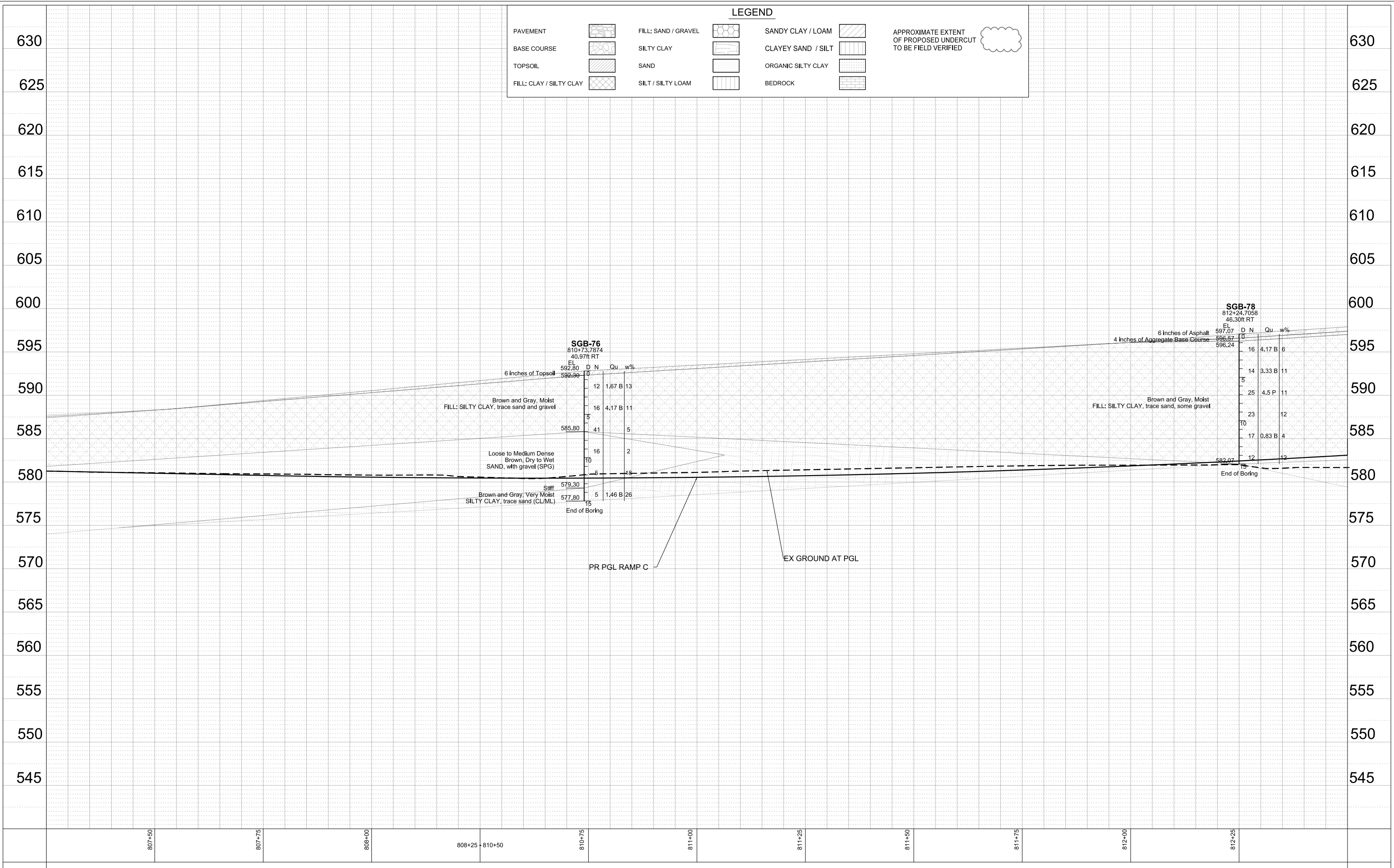
CONTRACT NO. 2419004	
1-55/ROUTE 59 WILL COUNTY RAMP C NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 3 SHEETS
STA. 801+50	TO STA. 807+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	25
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Profile and Plan and Profile Drawings\26-SGS Boring Profile Ramp C NB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL.tol\way.tbl  
 PLOT DATE = 2/4/2021 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



807+50	807+75	808+00	808+25 - 810+50	810+75	811+00	811+25	811+50	811+75	812+00	812+25
--------	--------	--------	-----------------	--------	--------	--------	--------	--------	--------	--------

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

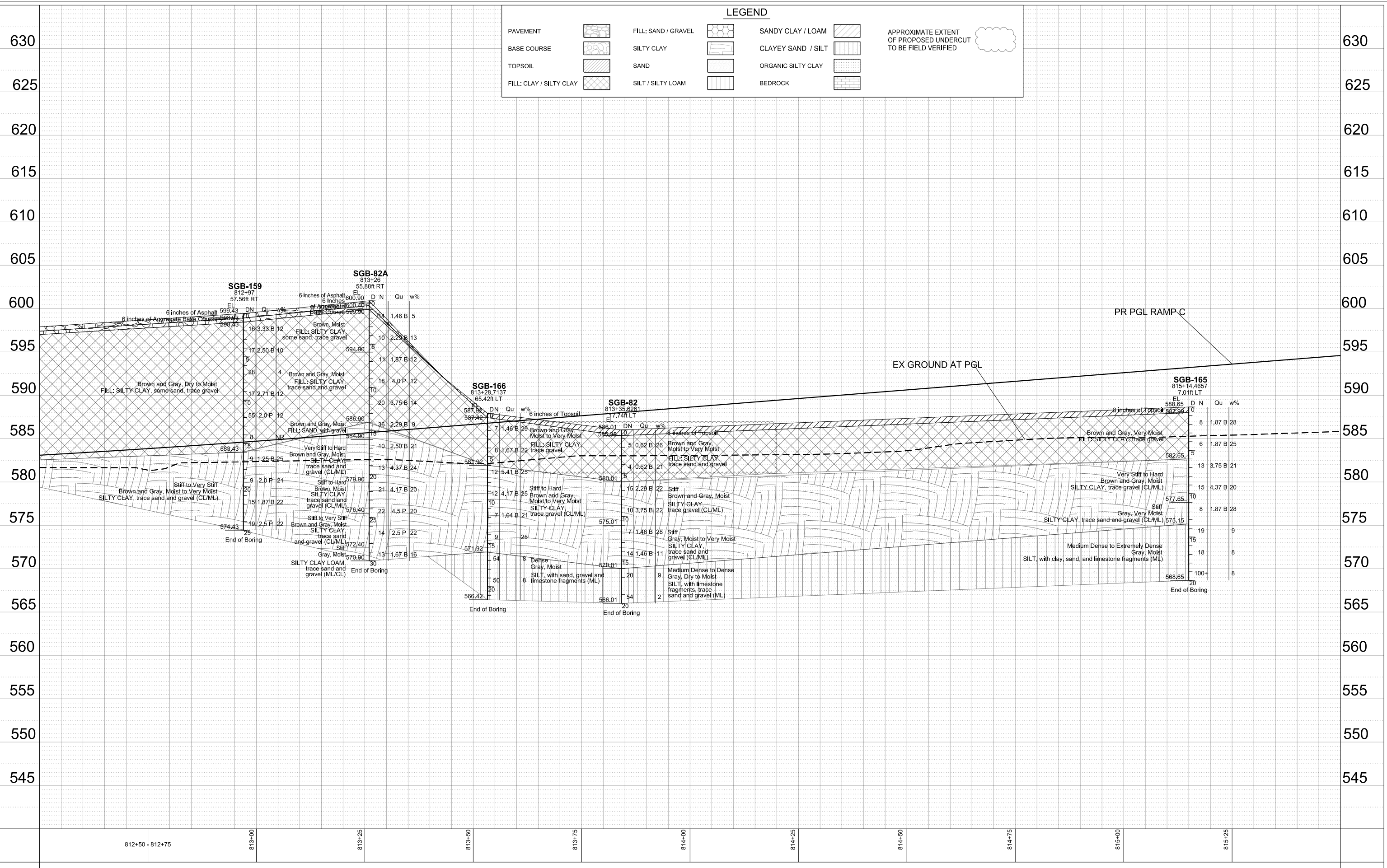
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP C NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 3 SHEETS
STA. 807+25	TO STA. 812+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	26
		CONTRACT NO.	2419004	
		ILLINOIS	FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\27-SCB Boring Profile Ramp C NB 3.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 TOL DATE = 7/2/2021 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



812+50	812+75	813+00	813+25	813+50	813+75	814+00	814+25	814+50	814+75	815+00	815+25
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

**SCB CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

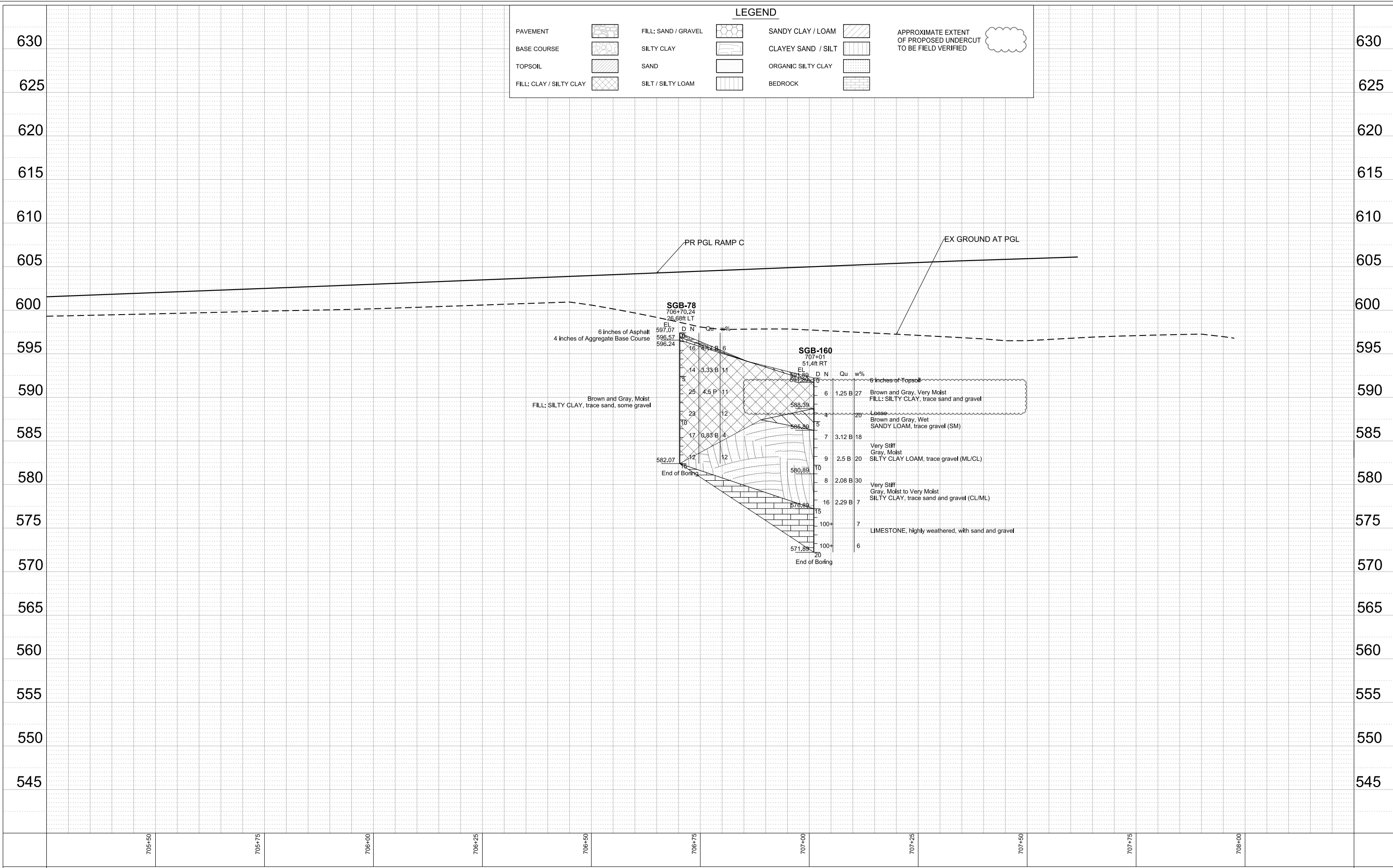
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP C NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 3 SHEETS
STA. 812+25	TO STA. 815+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	27
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGSB Borings Plan and Profile\Drawings\28-SSB Boring Profile Ramp C SB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 TUP DATE = 7/2/2021 11:42:09 AM  
 SHEET SIZE = 1,416x700 / ft.  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



705+00 705+75 706+00 706+25 706+50 706+75 707+00 707+25 707+50 708+00



USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,416x700,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

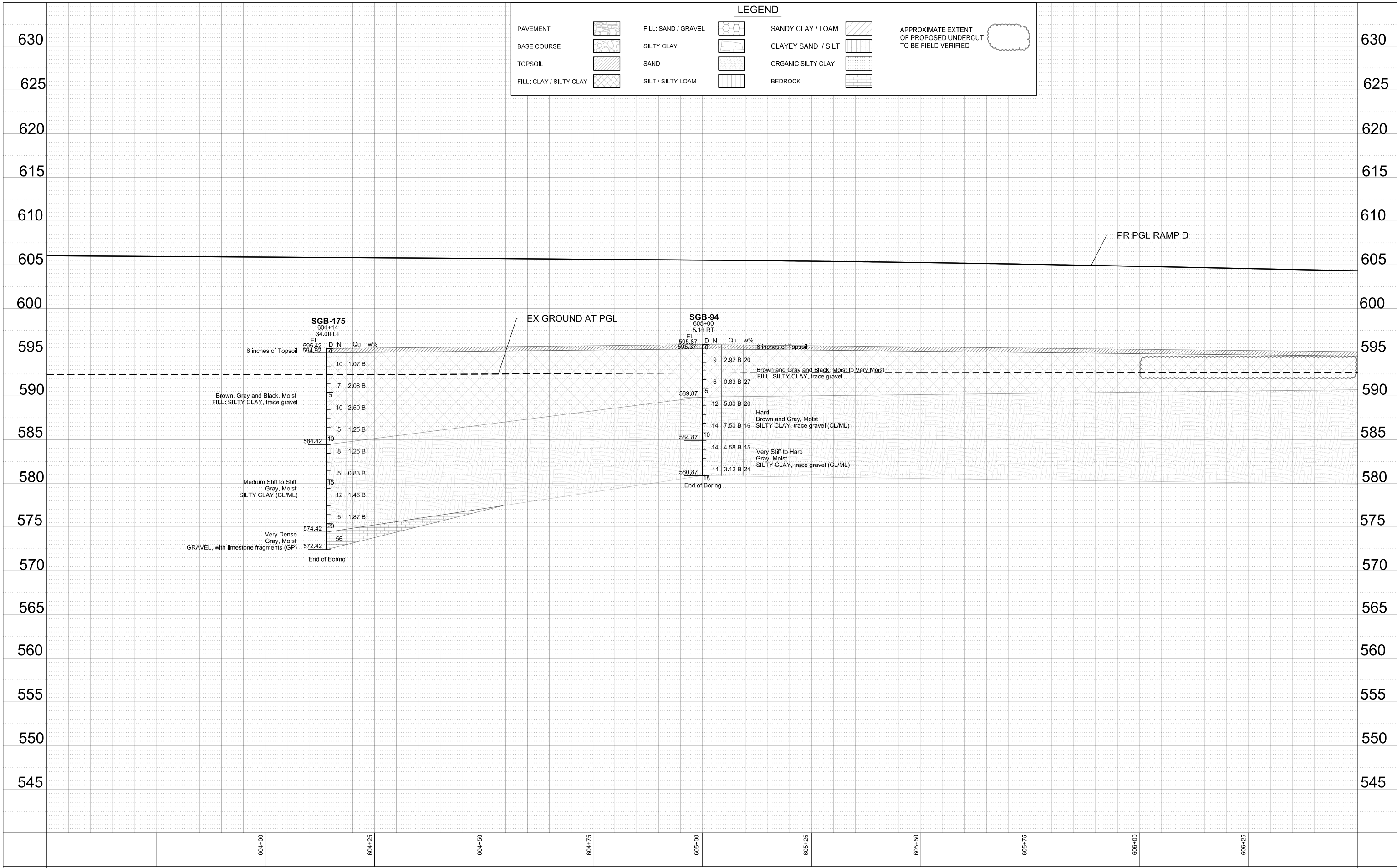
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004			
I-55/ROUTE 59 WILL COUNTY RAMP C SB SUBSURFACE SOIL PROFILE			
SCALE: AS NOTED	SHEET 1 OF 1 SHEETS	STA. 705+25	TO STA. 708+25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	28
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



FILE NAME = \$FILE\$  
PEN TABLE = \$PEN\$  
TWO DATE = \$DATE\$  
SHEET SIZE = \$SHEETSIZES\$  
PLOT SCALE = \$SCALE\$  
USER NAME = \$USER\$

623 Cooper Court • Schaumburg, IL 60173  
Tel: 830.994.2800 • Fax: 312.733.5612  
www.gsc-engineers.com  
Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = \$SHEETSIZES\$	DRAWN - NN
PLOT SCALE = \$SCALE\$	CHECKED - DE
PLOT DATE = \$DATES\$	DATE - 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

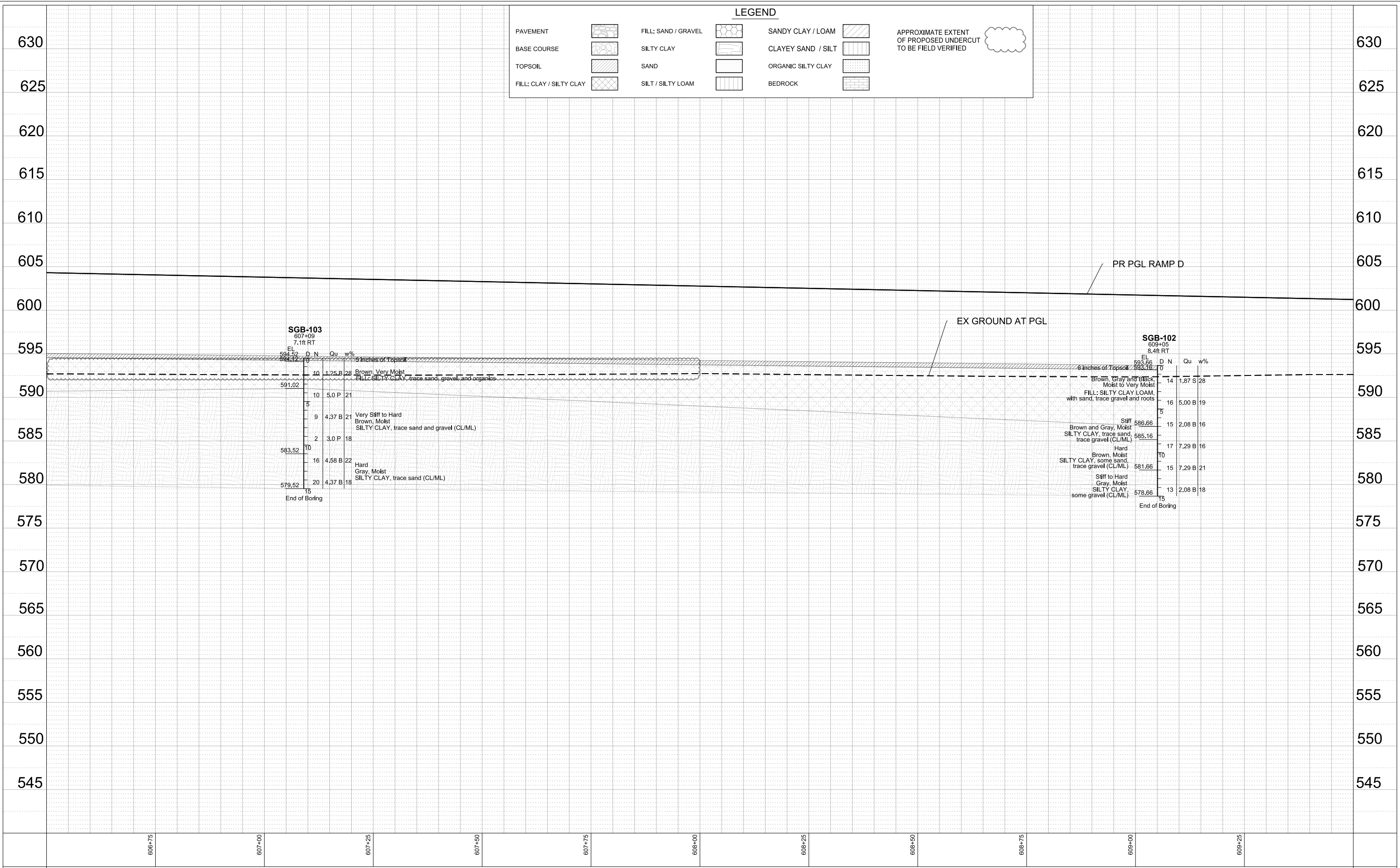
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP D NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 2 SHEETS
STA. 604+00	TO STA. 606+50

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 29
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SOB Borings Plan and Profile\Drawings\30-SOB Boring Profile Ramp D NB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/14/2021 7:17:02 AM  
 SHEET SIZE = 1,41667x0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



**SGB-103**  
 607+03  
 7.1ft RT

EL	D	N	Qu	w%
594.52	0	0		
594.12	10	1.25	B 28	
591.02	10	5.0	P 21	
	5			
	9	4.37	B 21	
	2	3.0	P 18	
583.52	10			
	16	4.58	B 22	
579.52	20	4.37	B 18	
	15			

End of Boring

**SGB-102**  
 609+05  
 6.4ft RT

EL	D	N	Qu	w%
593.66	0	0		
593.16	14	1.87	S 28	
	16	5.00	B 19	
	5			
586.66	15	2.08	B 16	
585.16	10			
	17	7.29	B 16	
	15	7.29	B 21	
	13	2.08	B 18	
578.66	15			

End of Boring

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/14/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP D NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 2 SHEETS
STA. 606+50	TO STA. 609+50

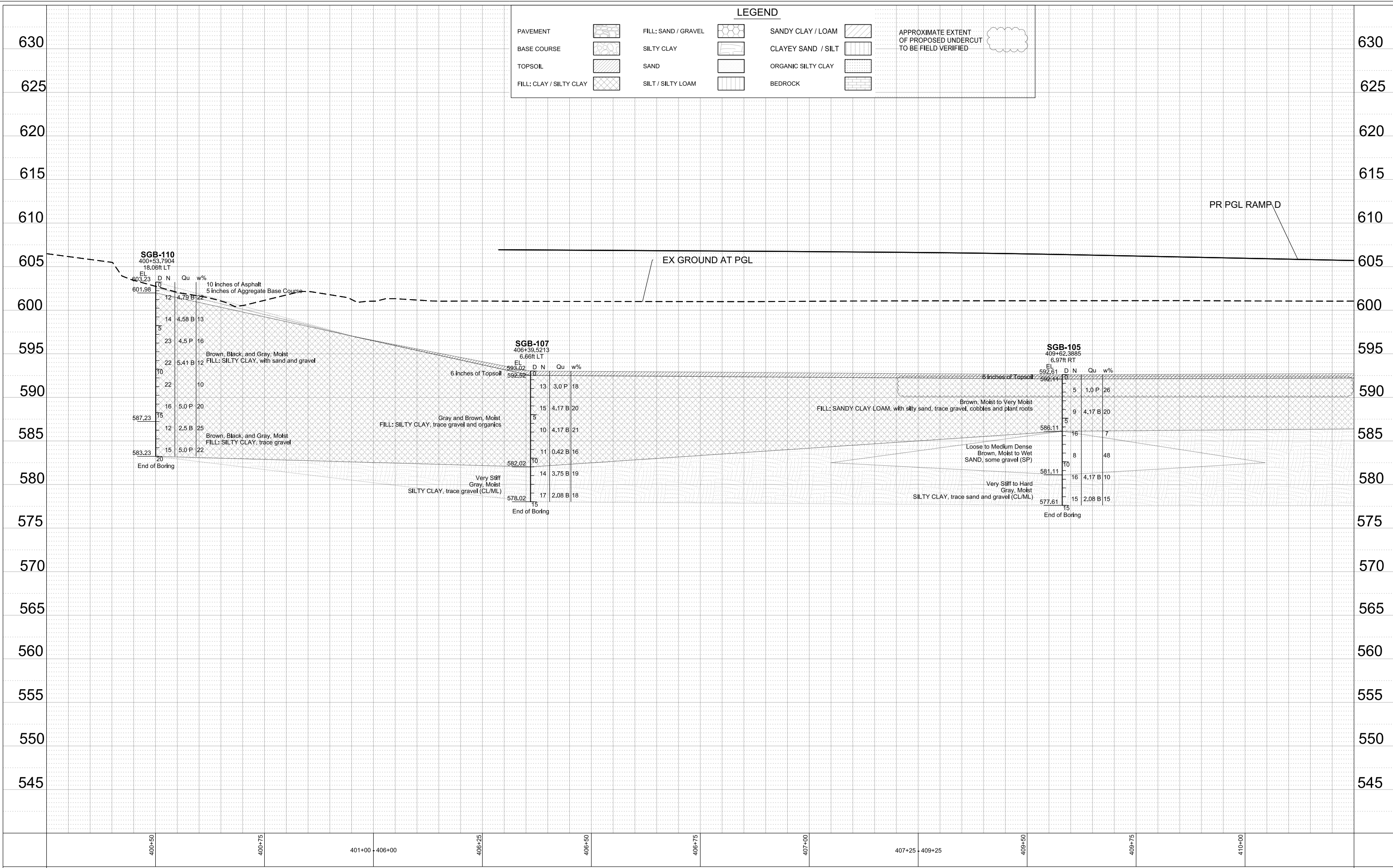
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	30
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	



FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SGS Boring Plan and Profile\Drawings\31-SGB Boring Profile Ramp D\_SB\_1.dgn  
 PEN TABLE = X:\Clients\Illinois\WorkSpace\Tables\Pen\BlackWhite-IL\Illinois.tbl  
 USER NAME = \$USER\$  
 PLOT SCALE = 240.0000' / ft.  
 SHEET SIZE = 14.1667' x 9.1667' (ft.)  
 SHEET DATE = 2/4/2021  
 PLOT DATE = 2/4/2021

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



823 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2800 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667' x 9,16667' (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

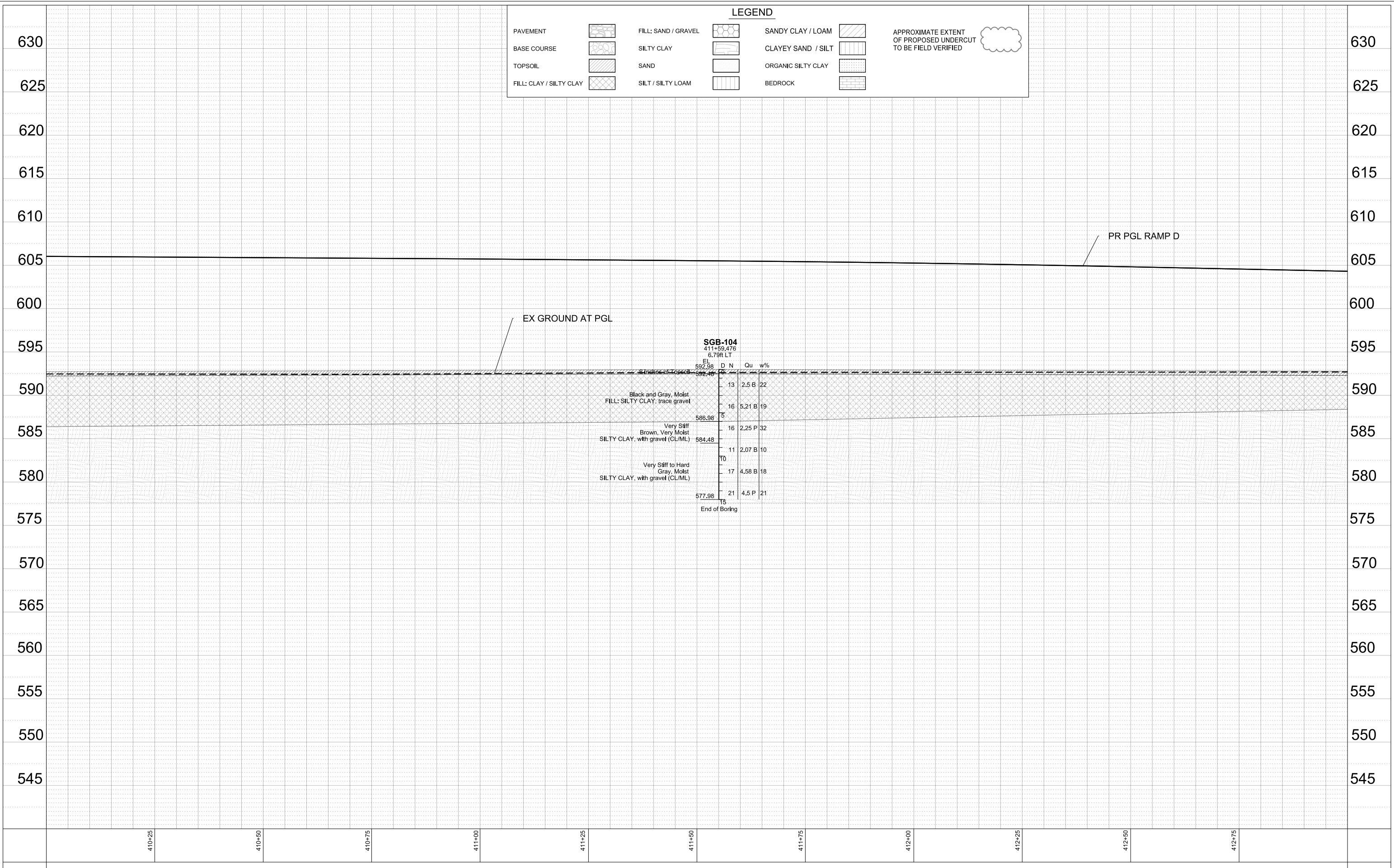
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY	
RAMP D SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 3 SHEETS
STA. 400+25	TO STA. 410+25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	31
		CONTRACT NO.	2419004	
		ILLINOIS	FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SOB Borings Plan and Profile\Drawings\32-SOB Boring Profile Ramp D\_SB\_2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021  
 PLOT TIME = 7:17:27 AM  
 SHEET SIZE = 1,416.67 x 0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,416.67x0.916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240.0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

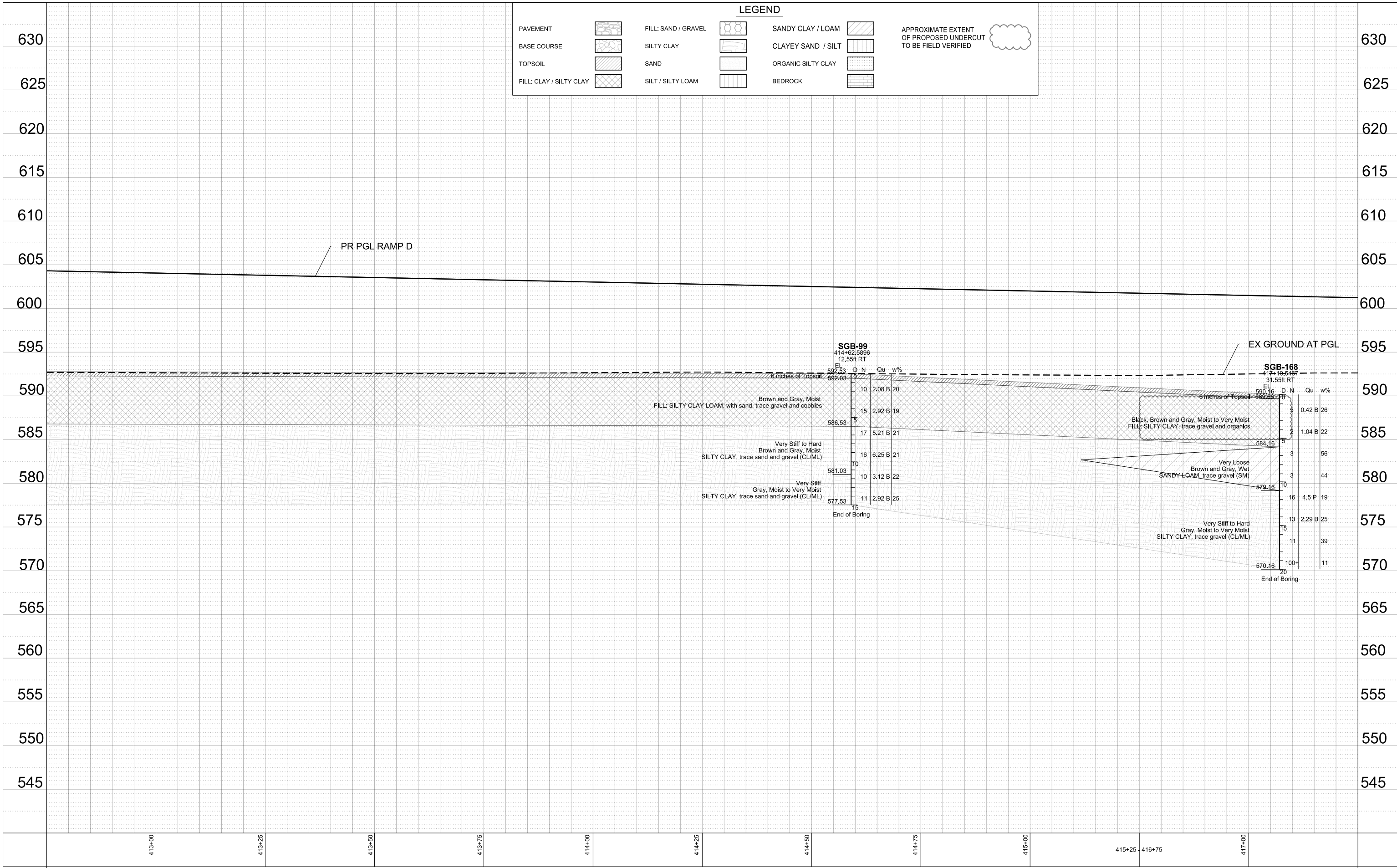
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP D SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 3 SHEETS
STA. 410+00	TO STA. 413+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	32
ILLINOIS		FED. AID PROJECT		CONTRACT NO. 2419004

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\33-SCB Boring Profile Ramp D\_SB\_3.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021 AM  
 SHEET SIZE = 1,41667x0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



**STATE CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 www.stateconsultants.com  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

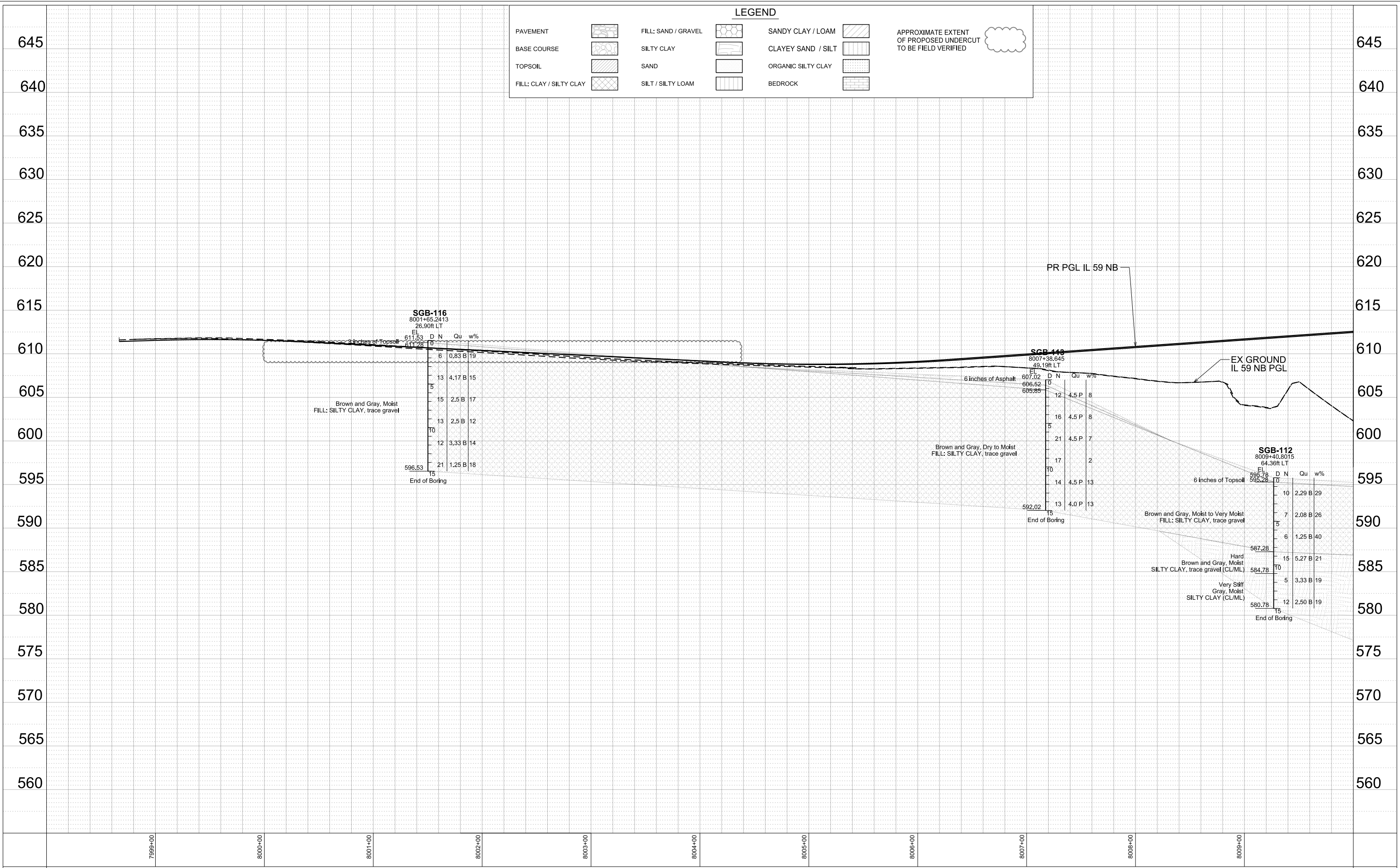
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY RAMP D SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 3 SHEETS
STA. 412+75	TO STA. 417+25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	33
CONTRACT NO. 2419004				
ILLINOIS		FED. AID PROJECT		

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\34-SCB Boring Profile IL 59 NB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/4/2021 7:17:09 AM  
 SHEET SIZE = 1,41667x0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



7999+00 8000+00 8001+00 8002+00 8003+00 8004+00 8005+00 8006+00 8007+00 8008+00 8009+00

**GC CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 www.gc-consultants.com  
 Integrity | Quality | Reliability

USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = 1,41667x0,916667 (ft.)	DRAWN - NN
PLOT SCALE = 240,0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

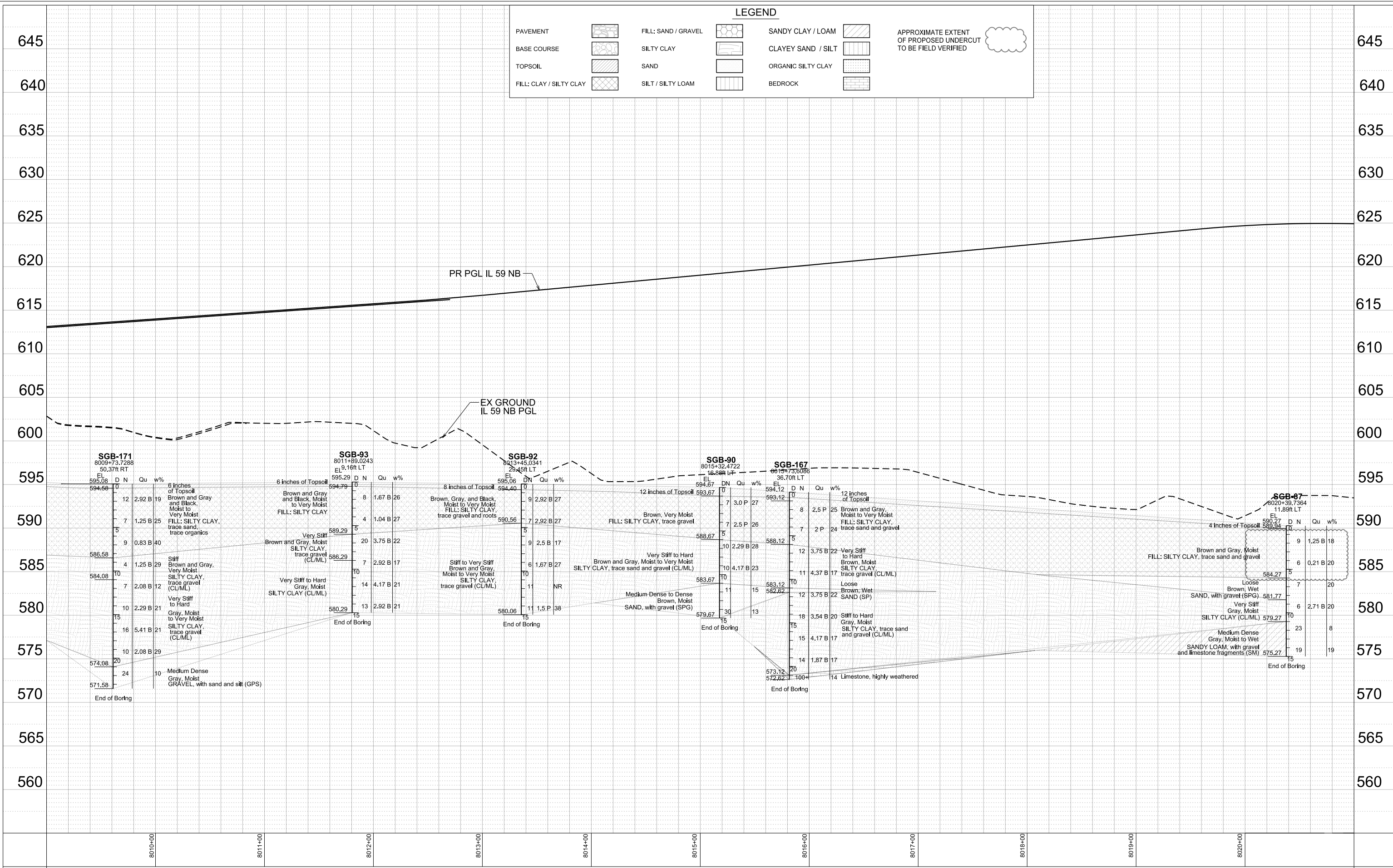
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY	
IL 59 NB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 2 SHEETS
STA. 7998+00	TO STA. 8010+00

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 34
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Profiles\IL 59 NB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 USER NAME = \$USERS\$  
 PLOT DATE = 2/4/2021  
 SHEET SIZE = 240.0000' / ft.  
 PLOT SCALE = 1:41667 (ft.)  
 USER NAME = \$USERS\$

**LEGEND**

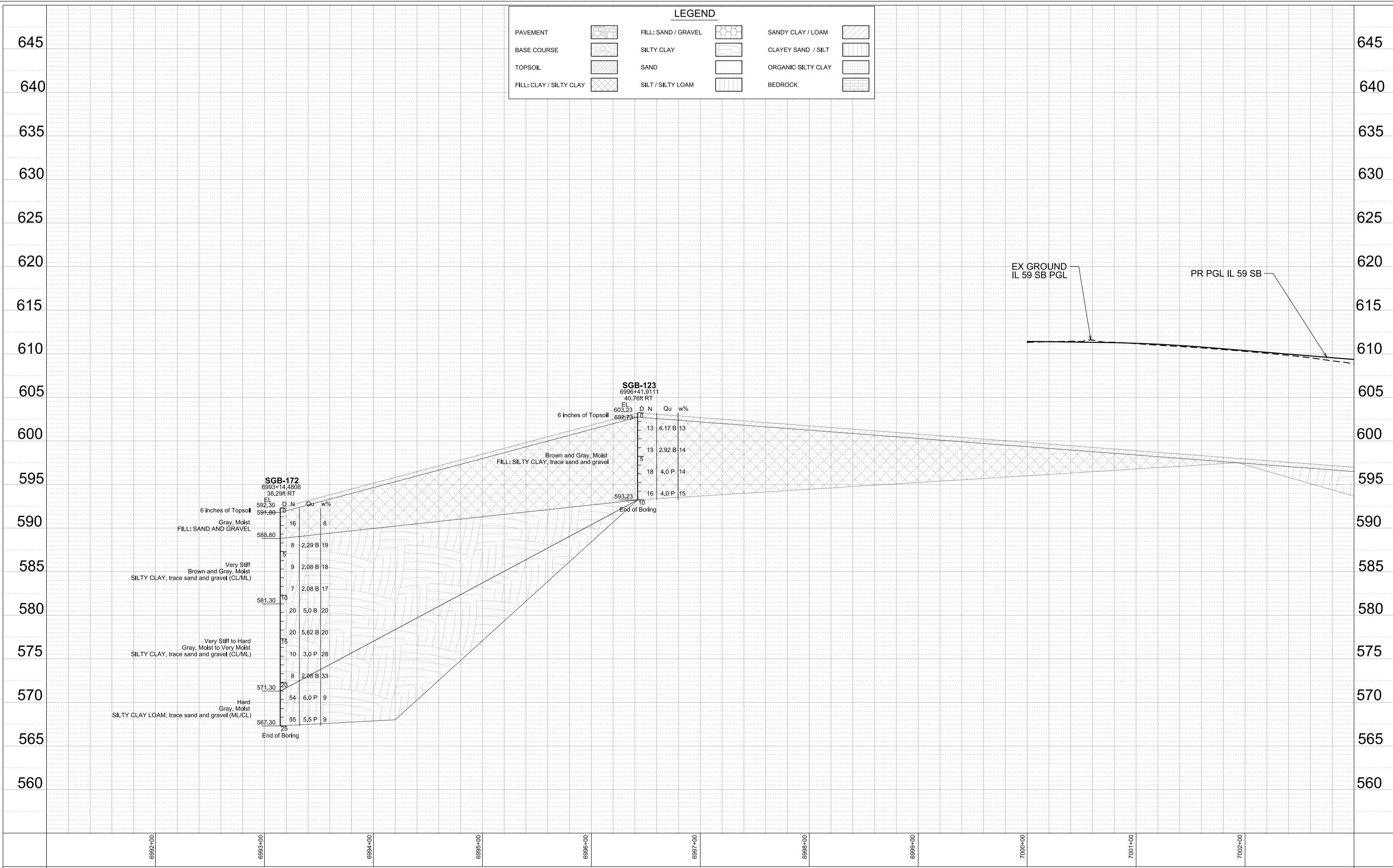
PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



FILE NAME = T:\Illinois DOT\189-011\_Beneesh\Geotechnical\Exhibits\DCNS\SGSB Borings Plan and Profile\Drawings\36-SGSB Boring Profile IL 59 SB 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/4/2021 7:17:20 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM	
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT	
TOPSOIL		SAND		ORGANIC SILTY CLAY	
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK	



**SGS CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 www.sgs-consultants.com  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

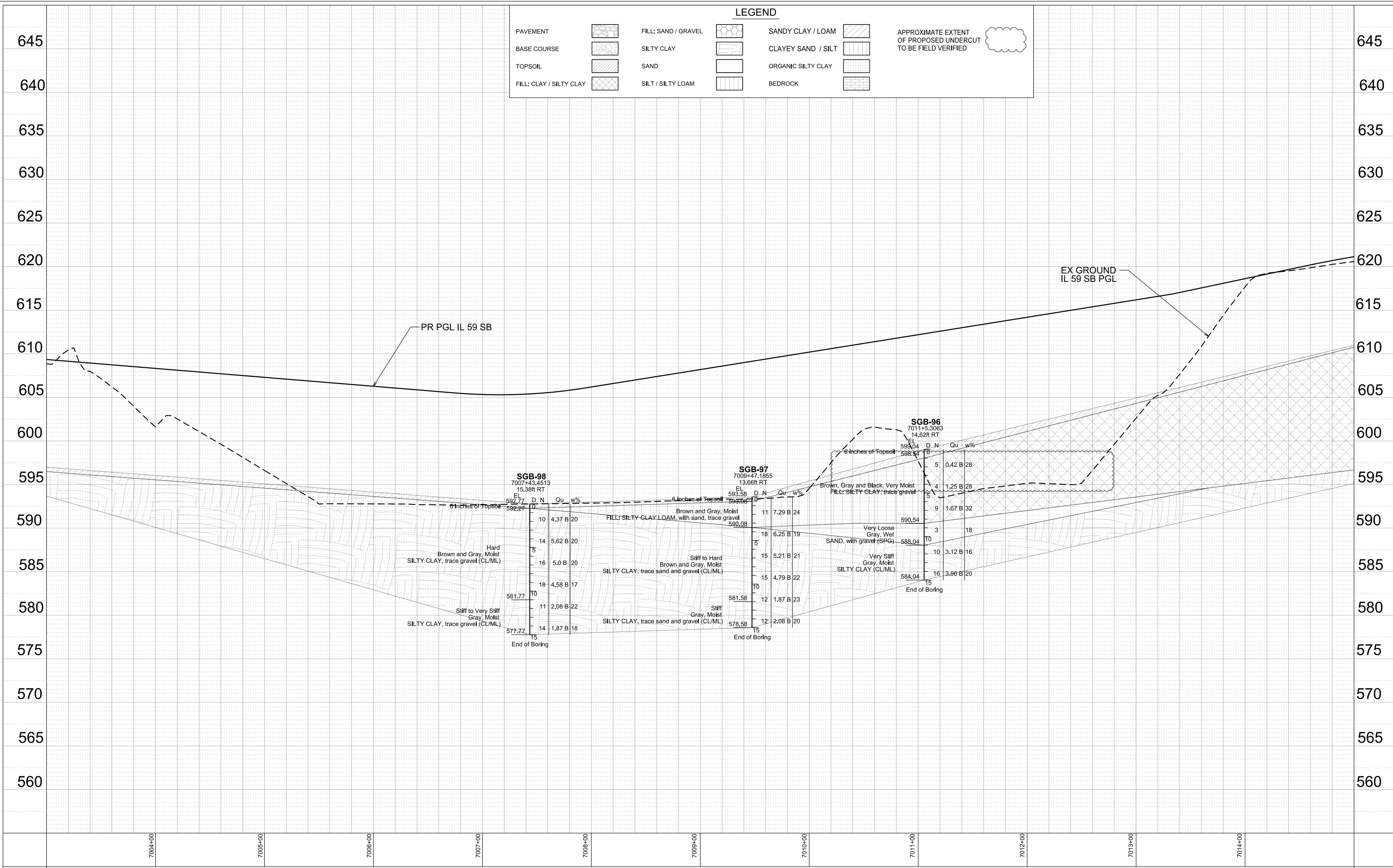
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY IL 59 SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 3 SHEETS
STA. 6991+00	TO STA. 7003+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	36
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benech\Geotechnical\Exhibits\DCNS\SOB Borings Plan and Profile\Drawings\37-SOB Boring Profile IL 59 SB 2.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/4/2021 10:27:27 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 830.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

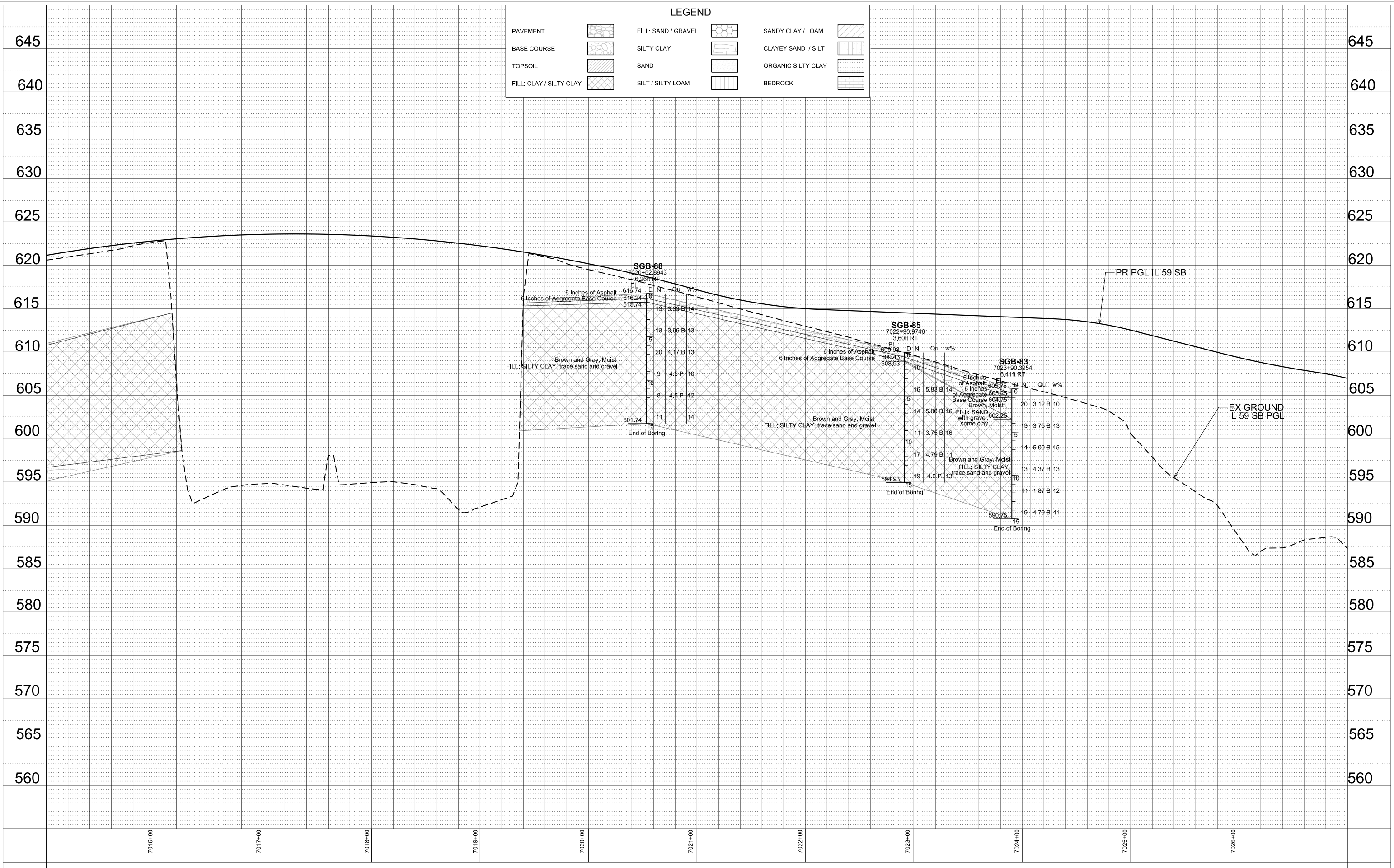
USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY IL 59 SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 3 SHEETS
STA. 7003+00	TO STA. 7015+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	37
ILLINOIS		FED. AID PROJECT		CONTRACT NO. 2419004

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SCB Borings Plan and Profile\Drawings\38-SCB Boring Profile IL 59 SB\_3.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 USER NAME = \$USERS\$  
 PLOT DATE = 2/4/2021  
 PLOT SCALE = 240.0000' / ft.  
 SHEET SIZE = 1,416.67 x 0.916667 (ft.)  
 SHEET SCALE = 240.0000' / ft.  
 USER NAME = \$USERS\$



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2800 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USERS\$	DESIGNED	- MZ
SHEET SIZE	= 1,416.67x0.916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240.0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY IL 59 SB SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 3 SHEETS
STA. 7015+00	TO STA. 7027+00

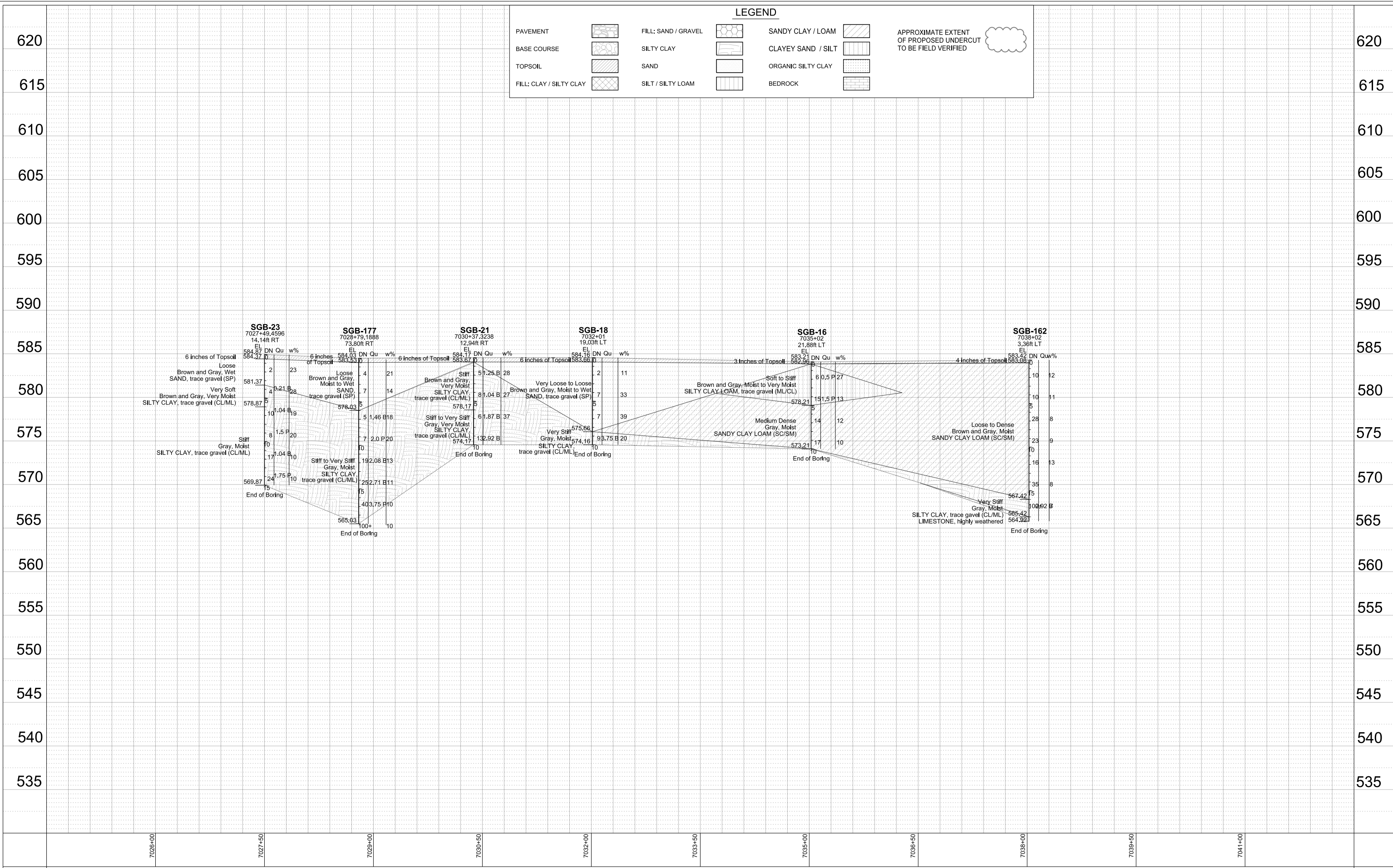
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	38
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	



FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Plan and Profile\Drawings\39-SGB Boring Profile Rock Run 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-IL\Tollway.tbl  
 PLOT DATE = 2/4/2021 11:47:20 AM  
 SHEET SIZE = 14.1667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

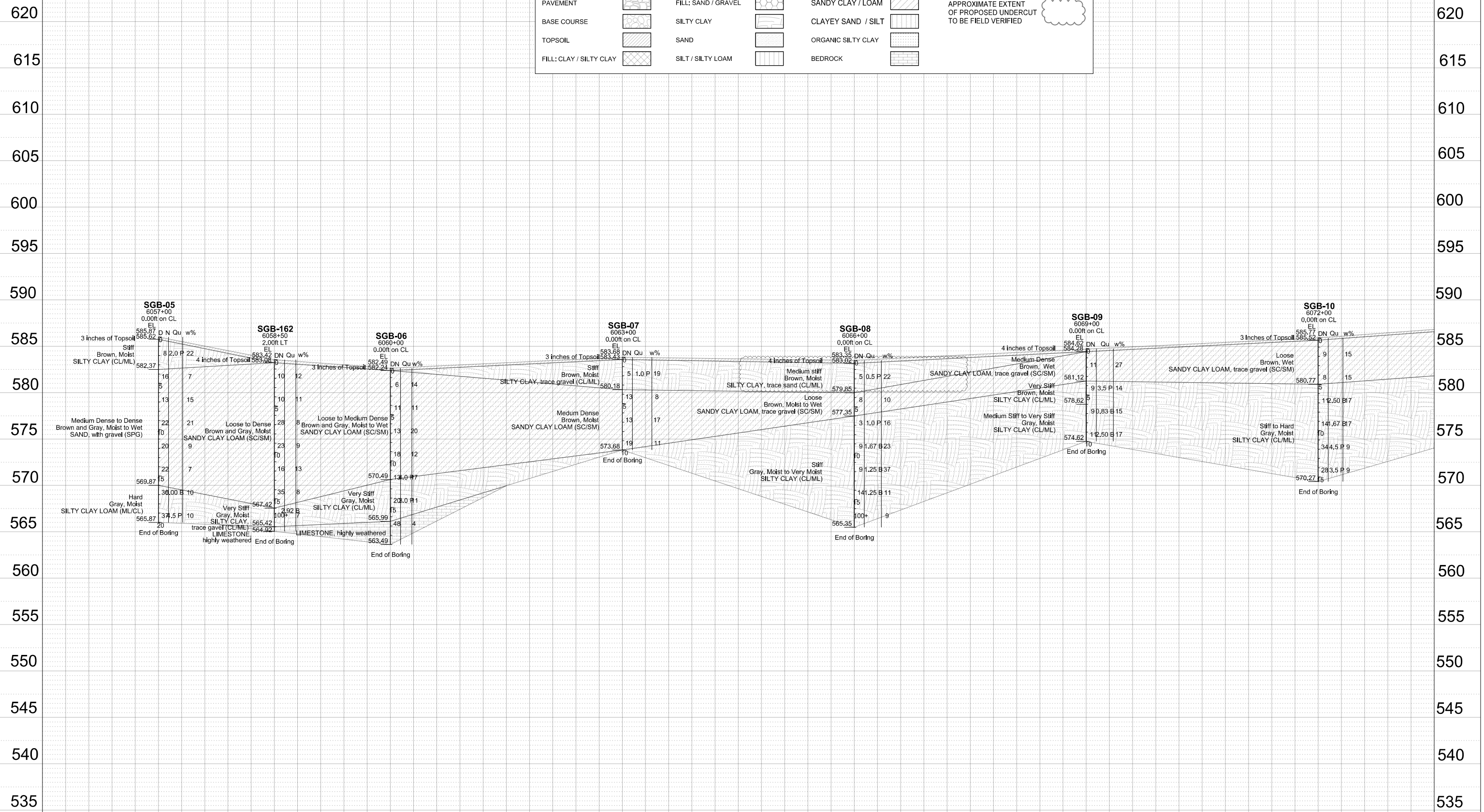


USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY ROCK RUN SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 1 SHEETS
STA. 7024+50	TO STA. 7042+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	39
CONTRACT NO. 2419004				
ILLINOIS		FED. AID PROJECT		



**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

FILE NAME = \$FILE\$  
 PEN TABLE = \$PEN\$  
 TYP DATE = \$DATE\$  
 SHEET SIZE = \$SHEET\$  
 PLOT SCALE = \$SCALE\$  
 USER NAME = \$USER\$

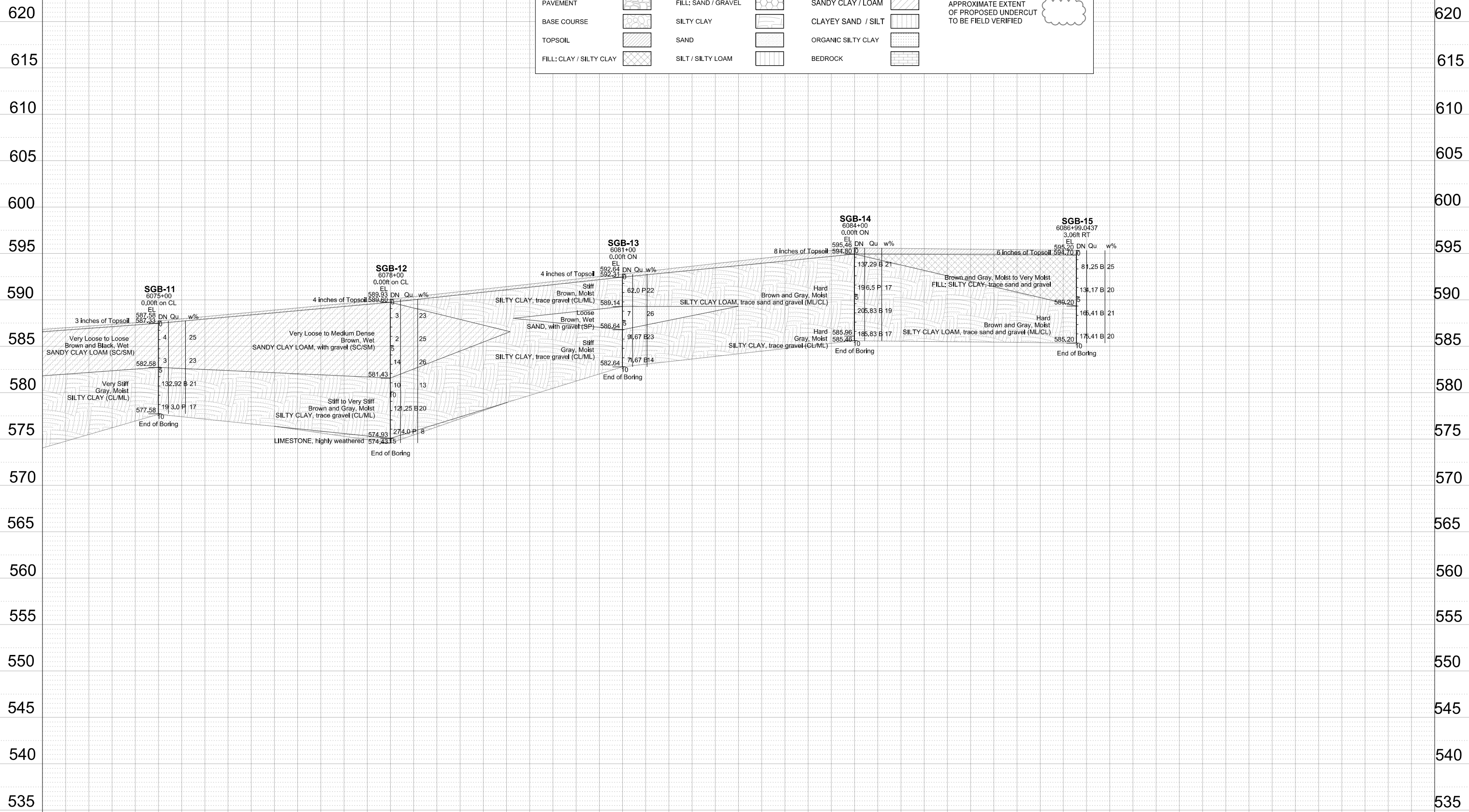


USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= \$SHEET\$	DRAWN	- NN
PLOT SCALE	= \$SCALE\$	CHECKED	- DE
PLOT DATE	= \$DATE\$	DATE	- 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY CENTER DRIVE SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 2 SHEETS
STA. 6055+50	TO STA. 6073+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	40
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	



**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

FILE NAME = \$FILE\$  
 PEN TABLE = \$PEN\$  
 TYP DATE = \$DATE\$  
 SHEET SIZE = \$SHEETSIZES\$  
 PLOT SCALE = \$SCALE\$  
 USER NAME = \$USER\$

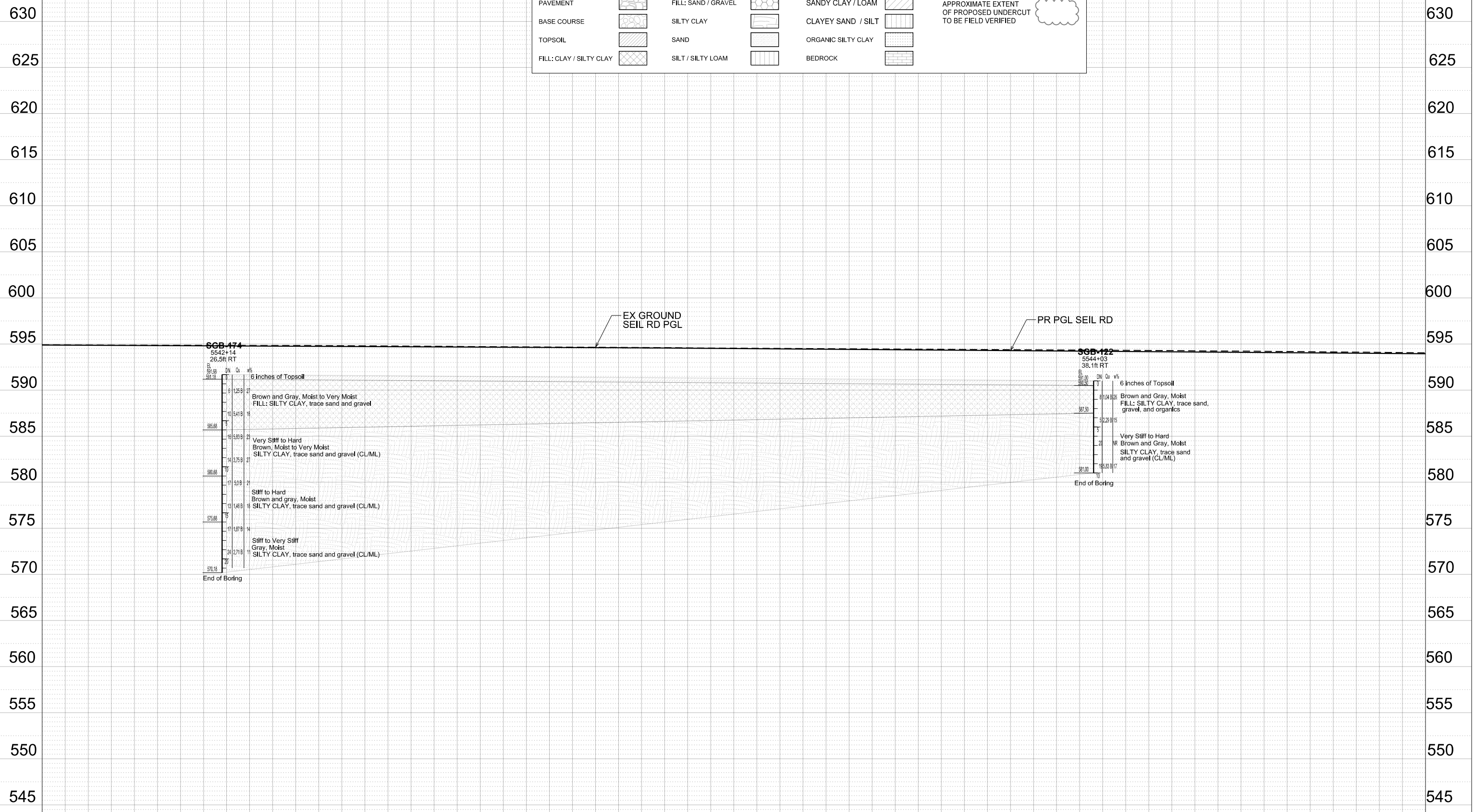


USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = \$SHEETSIZES\$	DRAWN - NN
PLOT SCALE = \$SCALE\$	CHECKED - DE
PLOT DATE = \$DATES\$	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY CENTER DRIVE SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 2 SHEETS
STA. 6073+50	TO STA. 6091+50

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 41
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	



**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		

**SCB-174**  
 5542+14  
 26.5ft RT

6 inches of Topsoil

9 1.25' 07  
 10 5.41' 18  
 16 5.83' 21  
 14 3.75' 27  
 17 5.0' 21  
 13 1.66' 18  
 17 1.87' 14  
 24 2.71' 11

End of Boring

**SCB-122**  
 5544+03  
 38.1ft RT

6 inches of Topsoil

8 1.04' 05  
 8 2.29' 15  
 19 5.83' 17

End of Boring

EX GROUND SEIL RD PGL

PR PGL SEIL RD

FILE NAME = \$FILE\$  
 PEN TABLE = \$PEN\$  
 TITL DATE = \$DATE\$  
 SHEET SIZE = \$SHEETSIZES\$  
 PLOT SCALE = \$SCALE\$  
 USER NAME = \$USER\$

**ORO CONSULTANTS, INC.**  
 623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

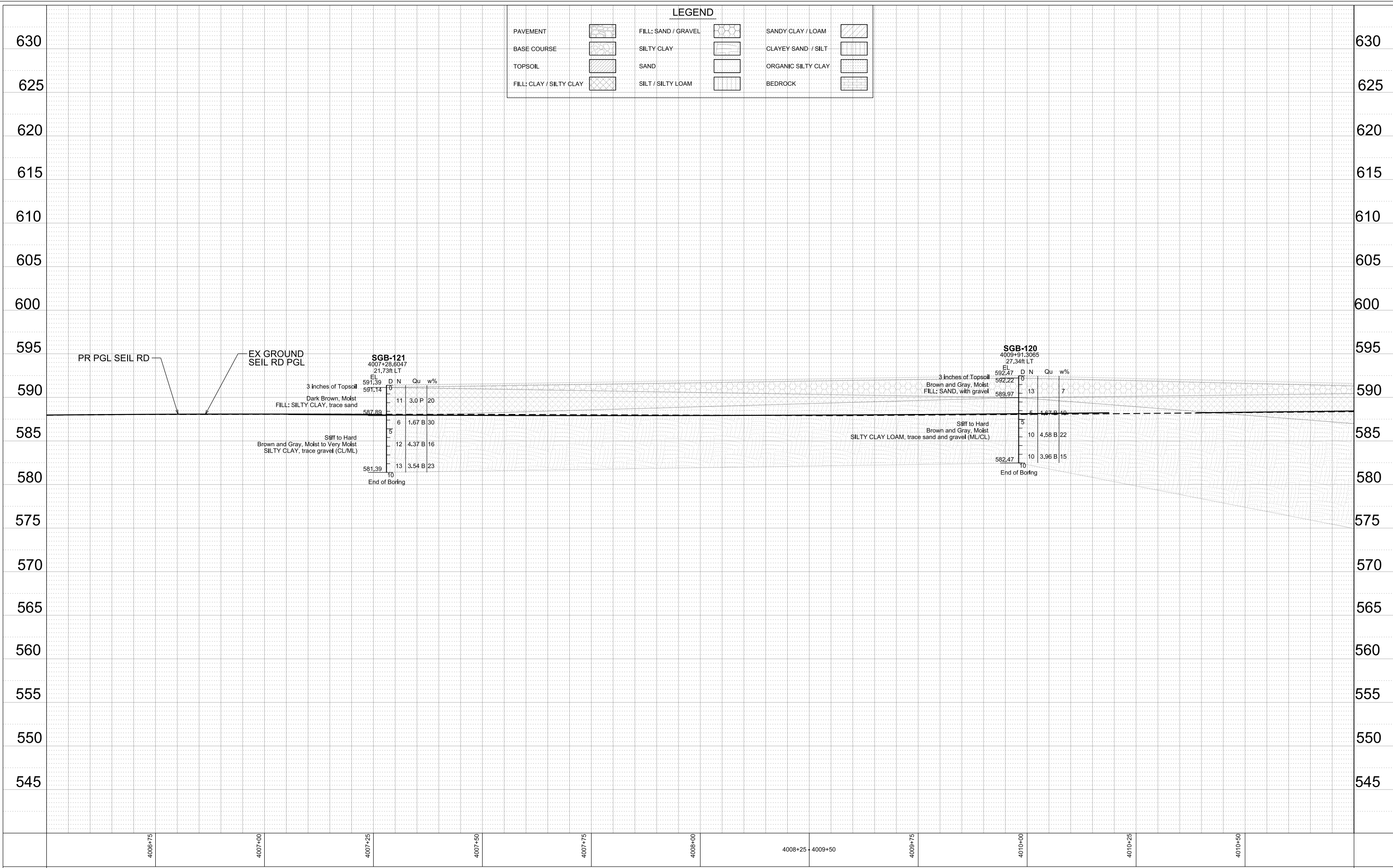
USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = \$SHEETSIZES\$	DRAWN - NN
PLOT SCALE = \$SCALE\$	CHECKED - DE
PLOT DATE = \$DATES\$	DATE - 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
1-55/ROUTE 59 WILL COUNTY WEST FRONTAGE ROAD WIDEN AND RECONSTRUCT SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 1 SHEETS
STA. 5541+75	TO STA. 5544+75

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 42
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Profile and Plan and Profile\Drawings\43-SGB Boring Profile Seil Rd 1.dgn  
 PEN TABLE = X:\Clients\Tollway\WorkSpace\Tables\Pen\BlackWhite-LL\Tollway.tbl  
 PLOT DATE = 2/4/2021 AM  
 SHEET SIZE = 1.41667x0.916667 (ft.)  
 PLOT SCALE = 240.0000' / ft.  
 USER NAME = \$USER\$



630  
625  
620  
615  
610  
605  
600  
595  
590  
585  
580  
575  
570  
565  
560  
555  
550  
545

630  
625  
620  
615  
610  
605  
600  
595  
590  
585  
580  
575  
570  
565  
560  
555  
550  
545

PR PGL SEIL RD  
EX GROUND SEIL RD PGL

3 inches of Topsoil  
Dark Brown, Moist  
FILL: SILTY CLAY, trace sand

Stiff to Hard  
Brown and Gray, Moist to Very Moist  
SILTY CLAY, trace gravel (CL/ML)

3 inches of Topsoil  
Brown and Gray, Moist  
FILL: SAND, with gravel

Stiff to Hard  
Brown and Gray, Moist  
SILTY CLAY LOAM, trace sand and gravel (ML/CL)

4006+75      4007+00      4007+25      4007+50      4007+75      4008+00      4008+25      4009+50      4009+75      4010+00      4010+25      4010+50

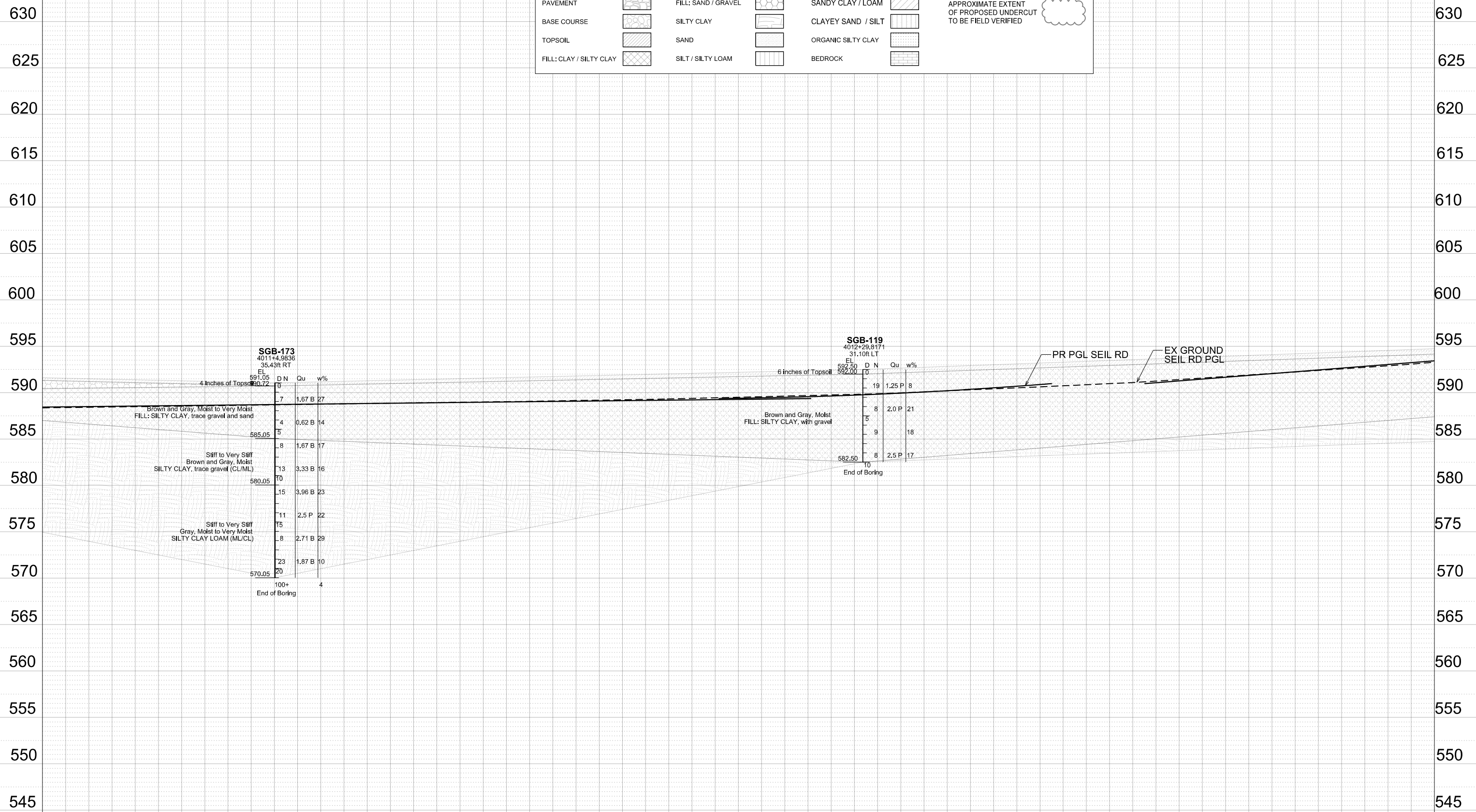


USER NAME = \$USER\$	DESIGNED - MZ
SHEET SIZE = 1.41667x0.916667 (ft.)	DRAWN - NN
PLOT SCALE = 240.0000' / ft.	CHECKED - DE
PLOT DATE = 2/4/2021	DATE - 02/02/2021

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY SEIL ROAD SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 1 OF 3 SHEETS
STA. 4006+50	TO STA. 4009+50

F.A. RTE. I-55	SECTION	COUNTY WILL	TOTAL SHEETS 45	SHEET NO. 43
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	



FILE NAME = \$FILE\$  
 PEN TABLE = \$PEN\$  
 PLOT DATE = \$DATE\$  
 SHEET SIZE = \$SHEET\$  
 PLOT SCALE = \$SCALE\$  
 USER NAME = \$USER\$



USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= \$SHEET\$	DRAWN	- NN
PLOT SCALE	= \$SCALE\$	CHECKED	- DE
PLOT DATE	= \$DATE\$	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

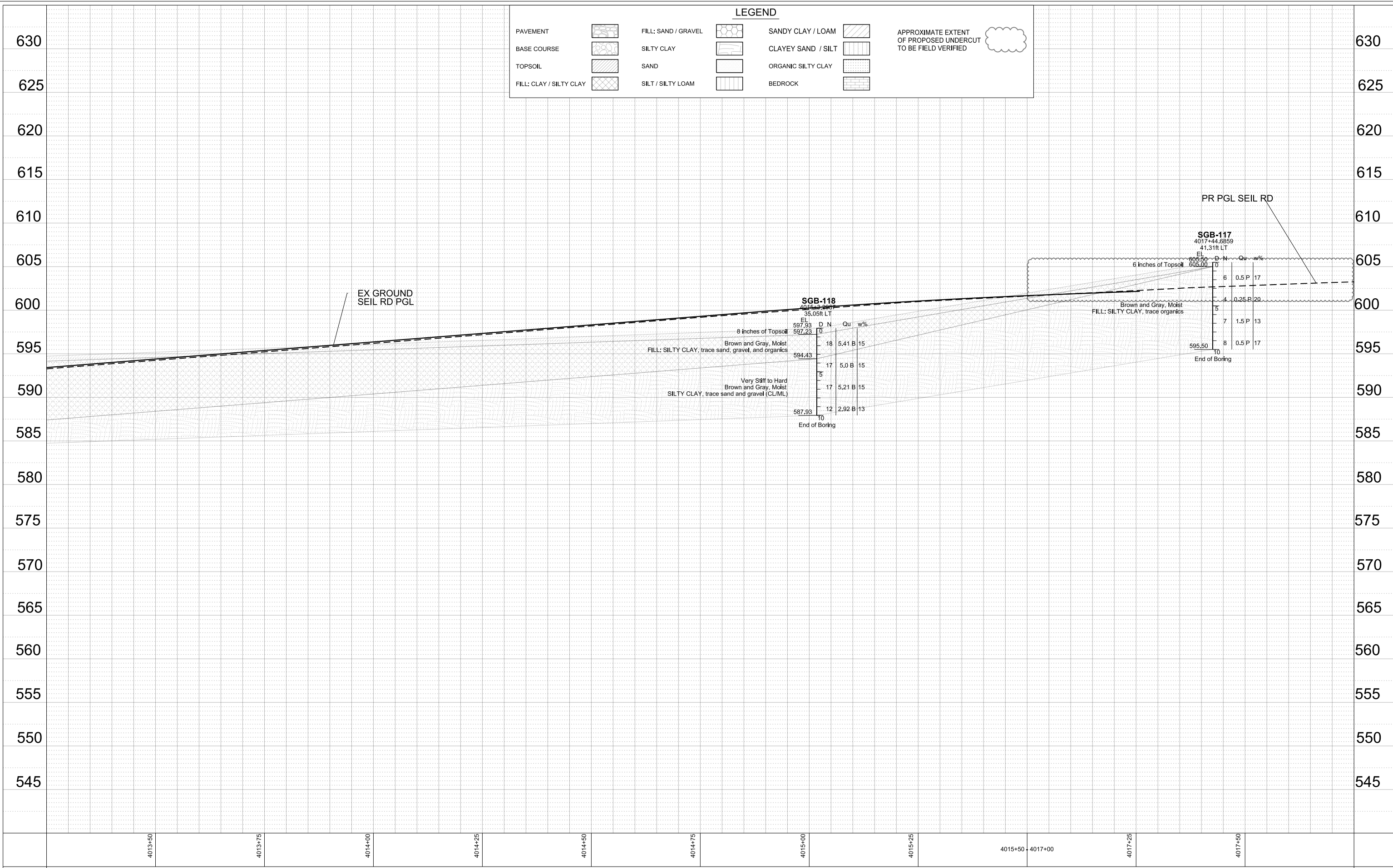
CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY SEIL ROAD SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 2 OF 3 SHEETS
STA. 4010+50	TO STA. 4013+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	44
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

FILE NAME = T:\Illinois DOT\189-011\_Benesch\Geotechnical\Exhibits\DCNS\SGS Boring Profile and Plan and Profile\Drawings\45-SGB Boring Profile Seil Rd 3.dgn  
 PLOT DATE = 2/4/2021  
 SHEET SIZE = 1,41667x0,916667 (ft.)  
 PLOT SCALE = 240,0000' / ft.  
 USER NAME = \$USER\$

**LEGEND**

PAVEMENT		FILL: SAND / GRAVEL		SANDY CLAY / LOAM		APPROXIMATE EXTENT OF PROPOSED UNDERCUT TO BE FIELD VERIFIED
BASE COURSE		SILTY CLAY		CLAYEY SAND / SILT		
TOPSOIL		SAND		ORGANIC SILTY CLAY		
FILL: CLAY / SILTY CLAY		SILT / SILTY LOAM		BEDROCK		



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.394.2600 • Fax: 312.733.5612  
 Integrity | Quality | Reliability

USER NAME	= \$USER\$	DESIGNED	- MZ
SHEET SIZE	= 1,41667x0,916667 (ft.)	DRAWN	- NN
PLOT SCALE	= 240,0000' / ft.	CHECKED	- DE
PLOT DATE	= 2/4/2021	DATE	- 02/02/2021

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

CONTRACT NO. 2419004	
I-55/ROUTE 59 WILL COUNTY SEIL ROAD SUBSURFACE SOIL PROFILE	
SCALE: AS NOTED	SHEET 3 OF 3 SHEETS
STA. 4013+25	TO STA. 4017+75

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-55		WILL	45	45
CONTRACT NO. 2419004			ILLINOIS FED. AID PROJECT	

**APPENDIX C**  
**SOIL BORING LOGS**





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-05</u> Station <u>6057+00</u> Offset <u>0.00ft on CL</u> Ground Surface Elev. <u>585.87</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.:
					First Encounter <u>577.4</u> ft ▼
					Upon Completion _____ ft
					After <u>N/A</u> Hrs. _____ ft

3 inches of Topsoil _____	585.62				
Stiff Brown, Moist SILTY CLAY (CL/ML)		3			
		4	2.0	22	
		4	P		
	582.37				
Medium Dense to Dense Brown and Gray, Moist to Wet SAND, with gravel (SPG)		3			
		6		7	
		10			
		-5			
		5			
		6		15	
		7			
		▼			
		3			
		8		21	
		14			
		-10			
		10			
		8		9	
		12			
Limestone fragments at 13.5 feet		12			
		8		7	
		14			
		-15			
	569.87				
Hard Gray, Moist SILTY CLAY LOAM (ML/CL)		6			
		12	5.0	10	
		18	B		
		6			
Limestone fragments at 19 feet		18	4.5	10	
		19	P		
	565.87	-20			

End of Boring  
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)  
BBS, form 137 (Rev. 8-99)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. _____ SGB-06 Station _____ 6060+00 Offset _____ 0.00ft on CL Ground Surface Elev. _____ 582.49 ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
3 inches of Topsoil _____ 582.24									
Loose to Medium Dense Brown and Gray, Moist to Wet SANDY CLAY LOAM (SC/SM)		2		14					
		4							
		4							
		6		11					
		5							
		4							
		6		20					
		7							
		5							
		9		12					
		9							
Cobbles at 10 feet									
		7							
		6	4.0	17					
		7	P						
Very Stiff Gray, Moist SILTY CLAY (CL/ML)		5							
		6	3.0	11					
		14	P						
		4							
LIMESTONE, highly weathered		27		4					
		21							
		50/6"							
Auger refusal at 19.0 feet									
End of Boring									

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)





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_

BORING NO. SGB-08  
Station 6066+00  
Offset 0.00ft on CL  
Ground Surface Elev. 583.35 ft

DEPTH H	BLOW S	UCS Qu	MOIST T
------------	-----------	-----------	------------

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft  
Groundwater Elev.:  
First Encounter 572.3 ft ▼  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

4 inches of Topsoil	583.02				
Medium stiff Brown, Moist SILTY CLAY, trace sand (CL/ML)		2			
		3	0.5	22	
		2	P		
	579.85				
Loose Brown, Moist to Wet SANDY CLAY LOAM, trace gravel (SC/SM)		3			
		4		10	
		4			
	577.35				
Stiff Gray, Moist to Very Moist SILTY CLAY (CL/ML)		5			
		1	1.0	16	
		2	P		
		1			
		5	1.7	23	
		4	B		
	-10				
		5			
		3	1.3	37	
		6	B		
		4			
		4	1.3	11	
		10	B		
	-15				
		27			
		50/6"		9	
	565.35				
Auger refusal at 18 feet End of Boring					
	-20				

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)









# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,  
Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H  S  F  T	B L O W S  S  Q u	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. SGB-12 Station 6078+00 Offset 0.00ft on CL Ground Surface Elev. 589.93 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.:
					First Encounter 581.4 ft ▼
					Upon Completion N/A ft
					After N/A Hrs. N/A ft

4 inches of Topsoil	589.60				
Very Loose to Medium Dense Brown, Wet SANDY CLAY LOAM, with gravel (SC/SM)		2		23	
		1			
		1		25	
		1			
		-5			
Cobbles at 6-7.5 feet		4		26	
		4			
		10			
	581.43 ▼				
Stiff to Very Stiff Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)		3		13	
		4			
		6			
	-10				
		4			
		6	1.3	20	
		6	B		
		5			
		14	4.0	8	
		13	P		
	574.93				
LIMESTONE, highly weathered	574.43				
Auger refusal at 15.5 feet					
End of Boring					
	-20				

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)  
BBS, form 137 (Rev. 8-99)





Illinois Department of Transportation

Division of Highways
GSG Consultants, Inc.

SOIL BORING LOG

Date 4/14/20

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,
Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station
BORING NO. SGB-13 Station 6081+00 Offset 0.00ft ON
Ground Surface Elev. 592.64 ft
Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft
Groundwater Elev.:
First Encounter None ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

Table with columns: Description, Depth (ft), Blows (blows/6"), UCS (tsf), Moisture (%). Rows include soil types like 'Stiff Brown, Moist SILTY CLAY, trace gravel (CL/ML)' and 'Loose Brown, Wet SAND, with gravel (SP)'.

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)















# SOIL BORING LOG

Date 4/10/20

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION 59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____	D E P T H	B L O W S	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft
Station _____					Stream Bed Elev. _____ N/A ft
BORING NO. _____ SGB-25					Groundwater Elev.:
Station _____ 1106+75.1539					First Encounter _____ None ft
Offset _____ 21.91ft LT					Upon Completion _____ N/A ft
Ground Surface Elev. _____ 586.59 ft	After _____ N/A Hrs. _____ N/A ft				

(ft)	(/6")	(tsf)	(%)	
6 inches of Topsoil				586.09
Very Stiff				
Brown and Gray, Moist		3		
SILTY CLAY, trace gravel (CL/ML)		5	2.5	21
		6	P	
		3		
		5	2.5	21
		6	P	
		-5		
		5		
		6	3.3	20
		9	B	
				578.09
Stiff to Very Stiff		4		
Gray, Moist		7	4.0	21
SILTY CLAY, trace gravel (CL/ML)		8	P	
		-10		
Cobbles at 11-12.5 feet		3		
		5	1.3	10
		13	B	
		6		
		7	1.3	12
		9	B	
		-15		571.59
End of Boring				
				-20





**Illinois Department of Transportation**

Division of Highways  
GSG Consultants, Inc.

**SOIL BORING LOG**

Date 4/14/20

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Ramp B, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_

BORING NO. SGB-26  
Station 1109+50.3464  
Offset 28.21ft LT  
Ground Surface Elev. 588.32 ft

DEPTH (ft)	B L O W S (/6")	U C S  Qu (tsf)	M O I S T  (%)
---------------	--------------------------------	--------------------------------	----------------------------------

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft  
  
Groundwater Elev.:  
First Encounter None ft  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

3 inches of Topsoil					
Stiff to Very Stiff					
Brown and Gray, Moist to Very Moist					
SILTY CLAY, trace gravel (CL/ML)	2	1.0	28		
	2	P			
	2				
	2	2.9	20		
	4	B			
	-5				
	3				
	4	2.9	23		
	6	B			
	579.82				
Very Stiff to Hard	4				
Gray, Moist	4	4.2	17		
SILTY CLAY, trace gravel (CL/ML)	6	B			
	-10				
	4				
	7	2.0	8		
	6	P			
	574.32	5			
LIMESTONE, highly weathered	10	4.5	9		
	573.32	-15	50/6"		
Auger refusal at 15 feet					
End of Boring					
	-20				

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Ramp B, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_

BORING NO. SGB-29  
Station 1112+98.337  
Offset 11.10ft LT  
Ground Surface Elev. 590.98 ft

D E P T H  (ft)	B L O W S  (/6")	U C S  (tsf)	M O I S T  (%)
-----------------------------------	------------------------------------	--------------------------	----------------------------------

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft  
Groundwater Elev.:  
First Encounter 572.5 ft ▼  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

3 inches of Topsoil	590.73				
Very Loose to Loose Brown and Gray, Wet SAND, trace gravel (SP)		2			
		2		21	
		2			
		1			
		2		21	
		1			
	-5				
	584.98				
Stiff to Very Stiff Brown and Gray SILTY CLAY, trace gravel (CL/ML)		3			
		3	2.1	16	
		6	B		
		2			
		2	1.7	21	
		6	B		
	-10				
		4			
		5	1.7	19	
		4	B		
		2			
		3	1.3	22	
		4	B		
	-15				
Cobbles at 16-17.5 feet		8			
		8	3.0	9	
		8	P		
	572.48 ▼				
LIMESTONE - highly weathered	571.98	50/6"			
Auger refusal at 19 feet				13	
End of Boring	-20				

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)







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp B, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft
BORING NO. <u>SGB-39</u> Station <u>1124+99.1648</u> Offset <u>3.80ft RT</u> Ground Surface Elev. <u>593.70</u> ft					First Encounter <u>581.7</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
12 inches of Topsoil	592.70				
Brown and Gray and Black, Very Moist FILL: SILTY CLAY, trace sand, gravel and roots	4 5 11	2.5 B	28		
	3 3 -5	1.7 B	27		
	587.20	2			
Soft Brown and Gray, Very Moist SILTY CLAY, trace sand, trace gravel (CL-CH)	2 9	0.4 B	37		
	585.20	2			
Stiff Brown and Gray, Moist SILTY CLAY, trace sand, trace gravel (CL/ML)	3 6 -10	1.3 B	23		
	581.70 ▼	5 8			
Very Stiff Gray, Moist CLAY LOAM, with silt, trace gravel (CLS)	10	2.9 B	19		
	579.70	5			
Very Stiff Gray, Moist SILTY CLAY, trace gravel (CL/ML)	7 10 -15	2.7 B	21		
End of Boring					
	-20				

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION I-55 NB, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW W S	UCS Qu	MOIST T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u>SGB-40</u> Station <u>1128+2.6056</u> Offset <u>3.59ft LT</u> Ground Surface Elev. <u>595.45</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter <u>586.5</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
3 inches of Topsoil <u>595.20</u> Black and Brown, Very Moist FILL: SILTY CLAY, trace sand and gravel		3 4	1.3 B	28	
<u>591.45</u> Stiff to Hard Brown and Gray, Moist to Very Moist SILTY CLAY, trace gravel (CL/ML)		3 4	1.5 P	25	
<u>586.45</u> ▼ Medium Dense Brown, Wet SAND, trace gravel (SP)		3 9		26	
<u>585.45</u> -10 End of Boring					
<u>-15</u>					
<u>-20</u>					

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)





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH  
 SECTION 2018-075-R LOCATION I-55 NB, SEC. , TWP. , RNG. ,  
 Latitude , Longitude  
 COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____  BORING NO. <u>SGB-44</u> Station <u>1132+1.5377</u> Offset <u>2.14ft RT</u> Ground Surface Elev. <u>595.59</u> ft	<b>D E P T H</b> (ft)	<b>B L O W S</b> (/6")	<b>U C S</b> Qu (tsf)	<b>M O I S T</b> (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft  Groundwater Elev.: First Encounter <u>None</u> ft Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
--	--	---	----------------------------------	---	---

3 inches of Topsoil / <u>595.34</u>					
Black, Moist to Very Moist FILL: SILTY CLAY, trace sand and gravel	2	3	1.7	24	
	4	B			
	2				
	2	1.0	28		
<u>590.59</u>	3	B			
Hard Brown and Gray, Moist SILTY CLAY (CL/ML)	4				
	7	4.2	18		
	9	B			
	4				
	7	6.7	19		
<u>585.59</u>	8	B			
End of Boring					
	-15				
	-20				

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)  
 BBS, form 137 (Rev. 8-99)









# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION I-55 NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft Groundwater Elev.: First Encounter <u>None</u> ft Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
3 inches of Topsoil Brown, Black and Gray, Very Moist FILL: SILTY CLAY, trace organics	595.84 592.59	1 2	2.0 P	26	
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY (CL/ML)	592.59 -5	3 4 6	2.9 B	20	
Cobbles at 6 feet		6 8 7		19	
		5 8 11	5.2 B	18	
End of Boring	586.09 -10 -15 -20				

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)







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION I-55 NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-56</u> Station <u>308+96.8542</u> Offset <u>63.04ft RT</u> Ground Surface Elev. <u>598.60</u> ft					Groundwater Elev.:
					First Encounter _____ None ft
					Upon Completion _____ N/A ft
					After <u>N/A</u> Hrs. _____ N/A ft

Soil Description	DEPTH (ft)	BLOW S (1/6")	UCS (tsf)	MOIST (%)	Notes
3 inches of Topsoil	598.35				
Brown and Gray, Moist to Very Moist FILL: SILTY CLAY	2				
	5	2.1	21		
	5	B			
	2				
	4	0.8	30		
	4	B			
	-5				
	7				
	8	3.0	17		
Cobbles at 7 feet	591.60	10	P		
Very Stiff to Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)	5				
	6	5.8	15		
	7	B			
	588.60	-10			
End of Boring					
	-15				
	-20				

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)



**SOIL BORING LOG**

ROUTE  I-55 and IL 59  DESCRIPTION  Roadway Boring  LOGGED BY  EH

SECTION  2018-075-R  LOCATION  I-55 NB, SEC. , TWP. , RNG. ,   
Latitude , Longitude

COUNTY  WILL  DRILLING METHOD  HSA  HAMMER TYPE  AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u> SGB-58 </u> Station <u> 312+3.6545 </u> Offset <u> 60.87ft RT </u> Ground Surface Elev. <u> 600.38 </u> ft					Groundwater Elev.: First Encounter <u> None </u> ft Upon Completion <u> N/A </u> ft After <u> N/A </u> Hrs. <u> N/A </u> ft
	3 inches of Topsoil Black and Gray, Very Moist FILL: SILTY CLAY	<u> 600.43 </u> _____ _____ <u> 3 </u> <u> 4 </u> <u> 6 </u>	<u> 1.0 </u>   <u> P </u>	<u> 30 </u>   	
		<u> 1 </u> <u> 2 </u> <u> 3 </u> <u> -5 </u>	<u> 1.0 </u> <u> B </u>	<u> NR </u>	
Very Stiff Brown and Gray, Moist SILTY CLAY (CL/ML)	<u> 594.38 </u> _____ _____ <u> 3 </u> <u> 4 </u> <u> 7 </u>	<u> 2.1 </u> <u> B </u>	<u> 20 </u>		
	<u> 3 </u> <u> 5 </u> <u> 7 </u> <u> 590.38 </u> <u> -10 </u>	<u> 2.9 </u> <u> B </u>	<u> 24 </u>		
End of Boring	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ <u> -15 </u> _____ _____ _____ _____ _____ _____ _____ <u> -20 </u>				



















# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
 Station \_\_\_\_\_

BORING NO. SGB-82  
 Station 813+35.6261  
 Offset 17.74ft LT  
 Ground Surface Elev. 586.01 ft

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOISTURE (%)
---------------	------------------------	--------------	-----------------

Surface Water Elev. N/A ft  
 Stream Bed Elev. N/A ft  
 Groundwater Elev.:  
 First Encounter 567.0 ft ▼  
 Upon Completion N/A ft  
 After N/A Hrs. N/A ft

8 inches of Topsoil	585.35			
Brown and Gray, Moist to Very Moist		2		
FILL: SILTY CLAY, trace sand and gravel		3	0.6	26
		2	B	
		1		
Sand seam at 4.0 feet		1	0.6	21
		3	B	
		-5		
	580.01			
Stiff		4		
Brown and Gray, Moist		6	2.3	22
SILTY CLAY, trace gravel (CL/ML)		9	B	
		2		
		3	3.8	22
		7	B	
		-10		
	575.01			
Stiff		2		
Gray, Moist to Very Moist		4	1.5	28
SILTY CLAY, trace sand and gravel (CL/ML)		3	B	
		2		
		3	1.5	11
Sand seam at 14.5 feet		11	B	
		-15		
	570.01			
Medium Dense to Dense		9		
Gray, Dry to Moist		10		9
SILT, with limestone fragments, trace sand and gravel (ML)		10		
		7		
		29		2
		25		
Auger refusal at 20.0 feet	566.01	-20		

End of Boring

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)











SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

Table with 4 columns: DEPTH (ft), BLOWS (/6"), UCS (tsf), MOIST (%). Includes rows for Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, and After N/A Hrs.

Main soil log table with columns: Description, Depth (ft), Blows (/6"), UCS (tsf), Moist (%). Rows include: 4 inches of Topsoil, Brown and Gray, Moist FILL: SILTY CLAY, trace sand and gravel, Loose Brown, Wet SAND, with gravel (SPG), Very Stiff Gray, Moist SILTY CLAY (CL/ML), Medium Dense Gray, Moist to Wet SANDY LOAM, with gravel and limestone fragments (SM), End of Boring.





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft Groundwater Elev.: First Encounter <u>583.7</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
12 inches of Topsoil	593.67				
Brown, Very Moist FILL: SILTY CLAY, trace gravel		3			
		4	3.0	27	
		3	P		
		2			
Very Stiff to Hard Brown and Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		3			
		4	2.3	28	
		6	B		
		2			
Medium Dense to Dense Brown, Moist SAND, with gravel (SPG)		4	4.2	23	
		6	B		
		9			
		12		13	
End of Boring	579.67 -15	18			
	-20				

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY TEK

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	D E P T H  (ft)	B L O W S  (/6")	U C S  Qu (tsf)	M O I S T  (%)	Surface Water Elev. <u>          </u> <u>N/A</u> ft
BORING NO. <u>SGB-92</u> Station <u>8013+45.0341</u> Offset <u>29.45ft LT</u> Ground Surface Elev. <u>595.06</u> ft					Stream Bed Elev. <u>          </u> <u>N/A</u> ft
					Groundwater Elev.:
					First Encounter <u>          </u> <u>None</u> ft
					Upon Completion <u>          </u> <u>N/A</u> ft
					After <u>N/A</u> Hrs. <u>          </u> <u>N/A</u> ft
8 inches of Topsoil 594.40					
Brown, Gray, and Black, Moist to Very Moist FILL: SILTY CLAY, trace gravel and roots	3				
	4	2.9	27		
	5	B			
	2				
590.56	3	2.9	27		
Stiff to Very Stiff Brown and Gray, Moist to Very Moist SILTY CLAY, trace gravel (CL/ML)	4	B			
	-5				
	3				
	4	2.5	17		
Cobbles at 8.5-10 feet	5	B			
	2				
	3	1.7	27		
	-10	B			
	8				
	5		NR		
	6				
	3				
580.06	5	1.5	38		
	-15	6	P		
End of Boring	-20				

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB  
 SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,  
 COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO  
 Latitude, Longitude

STRUCT. NO. Station	D E P T H (ft)	B L O W S (/6")	U C S  Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u>SGB-93</u> Station <u>8011+89.0243</u> Offset <u>9.16ft LT</u> Ground Surface Elev. <u>595.29</u> ft					Groundwater Elev.: First Encounter <u>586.8</u> ft ▼ Upon Completion _____ ft After <u>N/A</u> Hrs. _____ ft
6 inches of Topsoil Brown and Gray and Black, Moist to Very Moist FILL: SILTY CLAY	594.79	3 4 4	1.7 B	26	
		2 2 -5	1.0 B	27	
	589.29	3 7 13	3.8 B	22	
Sand seam at 8.5 feet Very Stiff to Hard Gray, Moist SILTY CLAY (CL/ML)	586.29	3 4 3	2.9 B	17	
		3 5 9	4.2 B	21	
		5 5 8	2.9 B	21	
580.29	-15				
End of Boring					
	-20				

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)













# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp D, SEC. , TWP. , RNG. ,  
Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H	B L O W S	U C S  Qu	M O I S T	Surface Water Elev. <u>        </u> <u>N/A</u> ft Stream Bed Elev. <u>        </u> <u>N/A</u> ft  Groundwater Elev.: First Encounter <u>        </u> <u>581.0</u> ft ▼ Upon Completion <u>        </u> <u>N/A</u> ft After <u>N/A</u> Hrs. <u>        </u> <u>N/A</u> ft
BORING NO. <u>SGB-99</u> Station <u>414+62.5896</u> Offset <u>12.55ft RT</u> Ground Surface Elev. <u>592.53</u> ft	(ft)	(/6")	(tsf)	(%)	

6 inches of Topsoil	592.03						
Brown and Gray, Moist FILL: SILTY CLAY LOAM, with sand, trace gravel and cobbles		4					
		4	2.1	20			
		6	B				
		4					
	6	2.9	19				
	-5	9	B				
	586.53						
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		4					
		7	5.2	21			
		10	B				
		5					
	6	6.3	21				
	-10	10	B				
	581.03 ▼						
Very Stiff Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		3					
		4	3.1	22			
		6	B				
		3					
	5	2.9	25				
	-15	6	B				
577.53	-15						
End of Boring							
	-20						

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
 Station \_\_\_\_\_

BORING NO. SGB-102  
 Station 609+5.0944  
 Offset 8.37ft RT  
 Ground Surface Elev. 593.66 ft

Surface Water Elev. N/A ft  
 Stream Bed Elev. N/A ft  
 Groundwater Elev.:  
 First Encounter 586.7 ft ▼  
 Upon Completion N/A ft  
 After N/A Hrs. N/A ft

DEPTH (ft)	BLOW (/6")	UCS (tsf)	MOIST (%)
0			
3			
6	1.9	28	
8	S		
4			
7	5.0	19	
9	B		
-5			
4			
6	2.1	16	
9	B		
4			
8	7.3	16	
9	B		
-10			
5			
8	7.3	21	
7	B		
4			
6	2.1	18	
7	B		
-15			
-20			

6 inches of Topsoil 593.16  
 Brown, Gray and Black, Moist to Very Moist  
 FILL: SILTY CLAY LOAM, with sand, trace gravel and roots  
 586.66 ▼  
 Stiff  
 Brown and Gray, Moist  
 SILTY CLAY, trace sand, trace gravel (CL/ML) 585.16  
 Hard  
 Brown, Moist  
 SILTY CLAY, some sand, trace gravel (CL/ML)  
 581.66  
 Stiff to Hard  
 Gray, Moist  
 SILTY CLAY, some gravel (CL/ML)  
 578.66 -15  
 End of Boring  
 -20

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft
BORING NO. <u>SGB-103</u> Station <u>607+9.9249</u> Offset <u>7.15ft RT</u> Ground Surface Elev. <u>594.52</u> ft					Groundwater Elev.: First Encounter <u>583.5</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
5 inches of Topsoil	594.12				
Brown, Very Moist FILL: SILTY CLAY, trace sand, gravel, and organics	2 4 6	1.3 B	28		
	591.02				
Very Stiff to Hard Brown, Moist SILTY CLAY, trace sand and gravel (CL/ML)	2 4 -5 4 5	5.0 P 4.4 B	21		
	1 -10	3.0 P	18		
	583.52 ▼				
Hard Gray, Moist SILTY CLAY, trace sand (CL/ML)	5 11	4.6 B	22		
	2				
	8 -15	4.4 B	18		
	579.52				
End of Boring	-20				

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)





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u>SGB-105</u> Station <u>409+62.3885</u> Offset <u>6.97ft RT</u> Ground Surface Elev. <u>592.61</u> ft					Groundwater Elev.: First Encounter <u>586.1</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
6 inches of Topsoil	592.11				
Brown, Moist to Very Moist FILL: SANDY CLAY LOAM, with silty sand, trace gravel, cobbles and plant roots		2			
		2	1.0	26	
		3	P		
		2			
		4	4.2	20	
	-5	5	B		
	586.11 ▼	5			
Loose to Medium Dense Brown, Moist to Wet SAND, some gravel (SP)		8		7	
		8			
		3			
		4		15	
		-10	4		
	581.11	7			
Very Stiff to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		5	4.2	10	
		11	B		
		3			
		6	2.1	15	
	577.61	-15	9	B	
End of Boring					
	-20				

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)







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-110</u> Station <u>400+53.7904</u> Offset <u>18.06ft LT</u> Ground Surface Elev. <u>603.23</u> ft					Groundwater Elev.:
					First Encounter _____ None ft
					Upon Completion _____ N/A ft
					After <u>N/A</u> Hrs. _____ N/A ft

10 inches of Asphalt					
5 inches of Aggregate Base					
Course _____ 601.98		5			
Brown, Black, and Gray, Moist FILL: SILTY CLAY, with sand and gravel		4	4.8	22	
		8	B		
		4			
		5	4.6	13	
		9	B		
	-5				
Cobbles at 6 feet		9			
		11	4.5	16	
		12	P		
		12			
Cobbles at 8.5 feet		8	5.4	12	
		14	B		
	-10				
		32			
		15		10	
		7			
		4			
		8	5.0	20	
		8	P		
	-15				
		587.23			
Brown, Black, and Gray, Moist FILL: SILTY CLAY, trace gravel		5			
		5	2.5	25	
		7	B		
		4			
		5	5.0	22	
		10	P		
	-20	583.23			

End of Boring

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB  
SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,  
COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	BLOW COUNT (SPT)	UCS	MOISTURE (%)	Other Data
<u>BORING NO. SGB-112</u> Station <u>8009+40.8015</u> Offset <u>64.36ft LT</u> Ground Surface Elev. <u>595.78</u> ft				Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft Groundwater Elev.: First Encounter <u>584.8</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
6 inches of Topsoil Brown and Gray, Moist to Very Moist FILL: SILTY CLAY, trace gravel	595.28			
	3			
	4	2.3	29	
	6	B		
	2			
	3	2.1	26	
	4	B		
	-5			
	2			
	2	1.3	40	
	4	B		
	587.28			
Hard Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)				
	3			
	6	5.3	21	
	9	B		
	-10			
	584.78 ▼			
Very Stiff Gray, Moist SILTY CLAY (CL/ML) Sand seam at 11.5 feet				
	4			
	2	3.3	19	
	3	B		
	5			
	5	2.5	19	
	7	B		
	580.78			
End of Boring	-15			
	-20			

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)  
BBS, form 137 (Rev. 8-99)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY ES

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	BLOW COUNT	UCS Qu	MOIST CONTENT %	Surface Water Elev.
BORING NO. <u>SGB-113</u> Station <u>8007+38.645</u> Offset <u>49.19ft LT</u> Ground Surface Elev. <u>607.02</u> ft	(ft)	(/6")	(tsf)	(%)
6 inches of Asphalt	606.52			N/A ft
8 inches of Aggregate Base Course	605.85	7		N/A ft
Brown and Gray, Dry to Moist FILL: SILTY CLAY, trace gravel	5	4.5	8	Groundwater Elev.:
	7	P		
Cobbles at 3.5 feet	6			First Encounter <u>None</u> ft
	6	4.5	8	Upon Completion <u>N/A</u> ft
Cobbles at 6 feet	10			After <u>N/A</u> Hrs. <u>N/A</u> ft
	5	4.5	7	
Limestone fragments at 8.5 feet	16	P		
	8			
3	7		2	
	10			
3	8	4.5	13	
	6	P		
4	3			
	4	4.0	13	
592.02	9	P		
	9			
End of Boring	-15			
	-20			







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION Seil Rd, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. <u>N/A</u> ft Stream Bed Elev. <u>N/A</u> ft Groundwater Elev.: First Encounter <u>None</u> ft Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
8 inches of Topsoil 597.23					
Brown and Gray, Moist FILL: SILTY CLAY, trace sand, gravel, and organics 594.43	5				
	9	5.4	15		
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML) 587.93	9	B			
	3				
	9	5.0	15		
	8	B			
	3				
	7	5.2	15		
	10	B			
	3				
End of Boring -10	6	2.9	13		
	6	B			
	-15				
	-20				

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)







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Seil Rd, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u>SGB-120</u> Station <u>4009+91.3065</u> Offset <u>27.34ft LT</u> Ground Surface Elev. <u>592.47</u> ft					Groundwater Elev.: First Encounter _____ ft Upon Completion _____ ft After <u>N/A</u> Hrs. _____ ft
3 inches of Topsoil _____ Brown and Gray, Moist FILL: SAND, with gravel	<u>592.22</u> _____ _____ <u>589.97</u>	8 8 5		7	
Stiff to Hard Brown and Gray, Moist SILTY CLAY LOAM, trace sand and gravel (ML/CL)	_____ _____ <u>-5</u> _____ _____ <u>582.47</u> <u>-10</u> _____ _____ _____ _____ _____ _____ <u>-15</u> _____ _____ _____ _____ <u>-20</u>	2 2 3  3 5 5  3 4 6	1.7 B  4.6 B  4.0 B	19     22     15	
End of Boring					

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)  
 BBS, form 137 (Rev. 8-99)





SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION Seil Rd, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station

BORING NO. SGB-122 Station 5544+3.2656 Offset 38.11ft RT Ground Surface Elev. 591.00 ft

DEPTH (ft) BLOWS (/6") UCS (tsf) MOIST (%)

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft Groundwater Elev.: First Encounter None ft Upon Completion N/A ft After N/A Hrs. N/A ft

Table with 4 columns: Description, Depth (ft), Blows (/6"), UCS (tsf), and Moisture (%). Rows include soil descriptions like '6 inches of Topsoil' and 'Brown and Gray, Moist FILL: SILTY CLAY, trace sand, gravel, and organics' with corresponding depth and blow count data.

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)





SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp A, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

Table with columns: STRUCT. NO., BORING NO., DEPTH (ft), BLOW COUNT (blows/6"), UCS (tsf), MOISTURE (%), Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter Upon Completion, After Hrs., and additional DEPTH, BLOW COUNT, UCS, MOISTURE columns.



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp A, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	Surface Water Elev. _____ N/A ft	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	Stream Bed Elev. _____ N/A ft	D E P T H  H	B L O W S	U C S  Qu	M O I S T  T	
	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)	
6 inches of Asphalt 618.57					Gray, Moist FILL: SILTY CLAY LOAM, trace sand and gravel										
		4													
		3	1.3	5											
		5	B												
		5										5			
		9	4.4	11								13	1.3	22	
	-5	10	B		Cobbles at 24.5 feet	594.07	-25	13	B						
					End of Boring										
		4													
		5	4.3	11											
		9	P												
		4													
		6	3.1	11											
Cobbles at 9.5 feet	-10	9	B												
		5													
		7	4.2	12											
		9	B												
		10													
Cobbles at 14 feet		10	1.3	13											
	-15	14	B												
		9													
		9	1.0	10											
		11	P												
	-20														

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)



SOIL BORING LOG

Date 10/23/19

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY TEK

SECTION 2018-075-R LOCATION Ramp A, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H	(ft)	B L O W S  S	U C S  Qu	M O I S T  T	(tsf)	M O I S T  T	Surface Water Elev. _____ N/A ft Stream Bed Elev. _____ N/A ft  Groundwater Elev.: First Encounter _____ None ft Upon Completion _____ N/A ft After _____ N/A Hrs. _____ N/A ft
BORING NO. SGB-128 Station 914+44.8577 Offset 20.22ft LT Ground Surface Elev. 594.07 ft								

(ft)	(/6")	(tsf)	(%)
10 inches of Topsoil 593.24			
Brown and Gray, Moist FILL: SILTY CLAY, trace organics, with iron nodules and root	3 4 4	2.5	20
	2 3 6 -5	3.3	19
588.07			
Stiff to Hard Light Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	4 6 7	5.8	23
	3 4 5 -10	1.9	26
583.07			
Hard Gray and Dark Brown, Moist SILTY CLAY, trace gravel (CL/ML)	7 8 8	5.0	21
	5 6 17 -15		14
579.07			
Rock fragments at 15 feet End of Boring			
-20			



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station

BORING NO. SGB-133 Station 910+74 Offset 13.60ft LT Ground Surface Elev. 595.04 ft

DEPTH (ft) BLOW S (1/6") UCS (tsf) MOIST (%)

Surface Water Elev. N/A ft Stream Bed Elev. N/A ft Groundwater Elev.: First Encounter None ft Upon Completion N/A ft After N/A Hrs. N/A ft

6 inches of Topsoil 594.54

Brown, Gray and Black, Very Moist  
FILL: SILTY CLAY, trace sand, gravel, and organics  
4  
5 1.7 25  
7 B

589.04

Hard Brown, Moist  
SILTY CLAY, trace sand and gravel (CL/ML)  
4  
8 5.2 20  
10 B

3  
9 4.4 20  
10 B  
-10

7  
8 6.7 21  
13 B

580.04

4  
6 5.4 21  
10 B  
-15

End of Boring

-20

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)





ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION SEC., TWP., RNG.,  
 Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
 Station \_\_\_\_\_

BORING NO. SGB-134  
 Station 908+80  
 Offset 8.30ft LT  
 Ground Surface Elev. 594.00 ft

D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)

Surface Water Elev. N/A ft  
 Stream Bed Elev. N/A ft

Groundwater Elev.:  
 First Encounter None ft  
 Upon Completion N/A ft  
 After N/A Hrs. N/A ft

6 inches of Topsoil				593.50
Black, Very Moist FILL: SILTY CLAY, trace organics	3			
	5	2.3	31	
	2	B		
				590.50
Stiff to Very Stiff Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	2			
	3	2.7	24	
	4	B		
	-5			
	2			
	2	1.0	20	
	3	B		
	2			
	4	2.9	22	
	4	B		584.00
Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)	4			
	7	5.2	16	
	10	B		
	3			
	7	3.8	21	
	8	B		579.00
End of Boring				
				-20

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)





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION Ramp B, SEC., TWP., RNG.,  
Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT (/6")	UCS Qu (tsf)	MOIST CONTENT (%)	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft
BORING NO. <u>SGB-139</u> Station <u>1124+99.1648</u> Offset <u>3.80ft RT</u> Ground Surface Elev. <u>593.30</u> ft					Groundwater Elev.: First Encounter <u>584.8</u> ft ▼ Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft
6 inches of Topsoil Black, Brown, and Gray, Moist FILL: SILTY CLAY, trace gravel	592.80	3 4	1.9 B	23	
Medium Dense Brown and Black, Moist SANDY LOAM (SM)	587.30	3 4 12		19	
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	584.80 ▼	3 4 5	3.8 B	20	
Cobbles at 11 feet		8 12 11	4.4 B	24	
End of Boring	578.30 -15	4 6 11	4.8 B	18	
	-20				

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)



**Illinois Department of Transportation**  
Division of Highways  
GSG Consultants, Inc.

# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION Ramp A, SEC., TWP., RNG.,  
Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_

BORING NO. SGB-140  
Station 902+47.2564  
Offset 16.06ft LT  
Ground Surface Elev. 596.60 ft

D E P T H	B L O W S	U C S	M O I S T
(ft)	(/6")	(tsf)	(%)

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft

Groundwater Elev.:  
First Encounter None ft  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

6 inches of Topsoil 596.10

Black, Brown, and Gray, Moist  
FILL: SILTY CLAY, trace gravel

2

3 2.7 19

4 B

3

4 2.1 22

-5 4 B

3

6 5.4 22

7 B

3

6 4.2 22

6 B

586.60 -10

Black, Brown, and Gray, Moist  
FILL: SILTY CLAY, trace organics

5

7 17

8

583.10

Very Stiff  
Gray, Moist  
SILTY CLAY, trace gravel (CL/ML)

3

5 3.3 21

9 B

581.60 -15

End of Boring

-20







# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION I-55 SB, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  B L O W S  U C S  M O I S T	Surface Water Elev. _____ N/A ft
		Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-144</u> Station <u>299+1.4852</u> Offset <u>56.68ft LT</u> Ground Surface Elev. <u>597.80</u> ft		Groundwater Elev.:
		First Encounter <u>None</u> ft Upon Completion <u>N/A</u> ft After <u>N/A</u> Hrs. <u>N/A</u> ft

Description	Depth (ft)	Blow Count (/6")	UCS (tsf)	Moist (%)
6 inches of Topsoil	597.30			
Black, Brown, and Gray, Moist to Very Moist FILL: SILTY CLAY, trace gravel	2 3 5	1.5 B	27	
	3 3 5 -5	2.3 B	13	
	591.80			
Medium Stiff Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)	2 3 4	0.8 B	19	
	4 6 11	0.8 B	17	
	587.80	-10		
End of Boring				
	-15			
	-20			

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)









# SOIL BORING LOG

**ROUTE** I-55 and IL 59 **DESCRIPTION** Roadway Boring **LOGGED BY** AB

**SECTION** 2018-075-R **LOCATION** I-55 SB, SEC., TWP., RNG.,

Latitude , Longitude

**COUNTY** WILL **DRILLING METHOD** HSA **HAMMER TYPE** AUTO

<b>STRUCT. NO.</b> _____ <b>Station</b> _____	<b>D E P T H</b>	<b>B L O W S</b>	<b>U C S  Qu</b>	<b>M O I S T</b>	<b>Surface Water Elev.</b> <u>      </u> <b>N/A</b> <b>ft</b>
<b>Stream Bed Elev.</b> <u>      </u> <b>N/A</b> <b>ft</b>					
<b>Groundwater Elev.:</b>					
<b>First Encounter</b> <u>      </u> <b>None</b> <b>ft</b> <b>Upon Completion</b> <u>      </u> <b>N/A</b> <b>ft</b> <b>After N/A Hrs.</b> <u>      </u> <b>N/A</b> <b>ft</b>					
<b>BORING NO.</b> <u>SGB-147</u> <b>Station</b> <u>308+3.0762</u> <b>Offset</b> <u>55.43ft LT</u> <b>Ground Surface Elev.</b> <u>600.40</u> <b>ft</b>	<b>(ft)</b>	<b>(/6")</b>	<b>(tsf)</b>	<b>(%)</b>	

6 inches of Topsoil	599.90				
Brown and Gray, Moist to Very Moist		3			
FILL: SILTY CLAY, trace gravel		4	1.7	25	
		7	B		
		3			
	595.90	4	2.3	28	
Very Stiff to Hard		4	B		
Brown and Gray, Moist to Very Moist	-5				
Moist		3			
SILTY CLAY, trace gravel (CL/ML)		6	2.9	16	
		7	B		
		3			
		5	5.2	20	
	590.40	7	B		
End of Boring	-10				
	-15				
	-20				

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)  
 BBS, form 137 (Rev. 8-99)



















# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION I-55 SB, SEC., TWP., RNG.,  
 Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
 Station \_\_\_\_\_

BORING NO. SGB-157  
 Station 203+0.1223  
 Offset 2.61ft RT  
 Ground Surface Elev. 581.50 ft

DEPTH (ft)	BLOWS (1/6")	UCS (tsf)	MOIST (%)
2		0.6	20
5			
2			
4	NR		18
10			
-5			
4			
7	2.7		12
11			
▼ 29			
50/2"			8
-10			
-15			
-20			

Surface Water Elev. N/A ft  
 Stream Bed Elev. N/A ft  
 Groundwater Elev.:  
 First Encounter 573.0 ft ▼  
 Upon Completion N/A ft  
 After N/A Hrs. N/A ft

6 inches of Topsoil 581.00

Brown and Gray, Moist  
 FILL: SILTY CLAY, trace gravel

Limestone pieces at 4.0 feet

Split spoon refusal at 9.5 feet 572.00

End of Boring

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.	DEPTH H (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)
					N/A ft				
BORING NO. <u>SGB-158</u> Station <u>8023+64.3632</u> Offset <u>19.98ft LT</u> Ground Surface Elev. <u>586.95</u> ft					Groundwater Elev.:				
					First Encounter <u>573.5</u> ft ▼				
					Upon Completion <u>N/A</u> ft				
					After <u>N/A</u> Hrs. <u>N/A</u> ft				
4 inches of Topsoil <u>586.62</u> Brown and Gray, Moist FILL: SILTY CLAY, trace gravel		3			LIMESTONE, highly weathered, with sand and gravel ( <i>continued</i> )		16		
		6	6.5	18	Auger refusal at 22 feet <u>564.95</u>		50/4"		17
		7	B		End of Boring				
		3							
		5	7.1	21					
	-5	8	B			-25			
<u>580.95</u> Very Stiff to Hard Brown and Gray, Moist SILTY CLAY LOAM, trace gravel (ML/CL)		3							
		8	5.5	21					
		9	B						
		3							
		7	3.8	17					
	-10	7	B			-30			
<u>575.95</u> Very Stiff Gray, Very Moist SILTY CLAY, trace sand (CL/ML)		2							
		2	2.7	29					
		7	B						
		4							
<u>572.95</u> Hard Gray, Moist SILTY CLAY LOAM, trace limestone fragments (ML/CL)		11	4.0	17					
	-15	10	P			-35			
		50/3"							
			5.0	11					
			P						
<u>568.45</u> LIMESTONE, highly weathered, with sand and gravel		30							
		50/3"		6					
	-20					-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T	Stream Bed Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)
6 inches of Asphalt 598.93														
6 inches of Aggregate Base 598.43														
Brown and Gray, Dry to Moist FILL: SILTY CLAY, some sand, trace gravel	4				Stiff to Very Stiff Brown and Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML) (continued)	3								
	8	3.3	12	6		1.9	22							
	8	B		9		B								
	7			6										
	8	2.5	10	10		2.5	22							
	9	B		9		P								
	-5			574.43		-25								
	10													
	12		4											
	16													
6														
7	2.7	12												
-10	10	B		-30										
9														
22	2.0	12												
33	P													
4														
4		NR												
-15	4			-35										
583.43														
Stiff to Very Stiff Brown and Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)	4													
	4	1.3	25											
	5	B												
	3													
	3	2.0	21											
-20	6	P		-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-160</u> Station <u>707+1.3191</u> Offset <u>51.43ft RT</u> Ground Surface Elev. <u>591.89</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
6 inches of Topsoil Brown and Gray, Very Moist FILL: SILTY CLAY, trace sand and gravel	591.39				Auger refusal at 20 feet End of Boring				
		2							
		3	1.3	27					
		3	B						
	588.39								
Loose Brown and Gray, Wet SANDY LOAM, trace gravel (SM)		1							
		2		20					
		-5							-25
	585.89								
Very Stiff Gray, Moist SILTY CLAY LOAM, trace gravel (ML/CL)		3							
		3	3.1	18					
		4	B						
		2							
		4	2.5	20					
		-10	B						-30
	580.89								
Very Stiff Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		3							
		3	2.1	30					
		5	B						
		▼							
		3							
		8	2.3	7					
	576.89	-15	B						-35
LIMESTONE, highly weathered, with sand and gravel									
		21							
		21		7					
		50/5"							
		24							
		41		6					
	571.89	-20	50/6"						-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY PS

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.	DEPTH H	BLOW S	UCS Qu	MOIST T
	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
	588.34				N/A				
6 inches of Topsoil	588.34				N/A				
6 inches of Gravel	587.84					567.84			
Brown, Gray and Black, Moist FILL: SILTY CLAY, with sand and gravel		3			Auger Refusal at 21.0 feet End of Boring				
		5	2.1	21					
		6	B						
		3							
		8	1.0	14					
	-5	10	P			-25			
	582.84								
Medium Dense Brown, Moist SAND, some gravel, trace clay (SP)		7							
		10		10					
		15							
		7							
		10		8					
	-10	11				-30			
		▼							
		7							
		8		12					
		9							
	575.34								
Medium Dense Brown and Gray, Moist to Wet SAND with gravel (SPG)		3							
		5		22					
		15					-35		
		3							
		7		14					
	-15	12							
	570.84								
Medium Dense Brown and Gray, Moist GRAVEL with sand and some weathered rock fragments (GPS)		5							
		10		12					
		12							
	-20					-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Proposed Center Dr, SEC., TWP., RNG.,  
 Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H	B L O W S	U C S  Qu	M O I S T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-162</u> Station <u>7038+2.5194</u> Offset <u>3.36ft LT</u> Ground Surface Elev. <u>583.42</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter <u>574.9</u> ft ▼ Upon Completion _____ ft After <u>N/A</u> Hrs. _____ ft

4 inches of Topsoil	583.08				
Loose to Dense Brown and Gray, Moist SANDY CLAY LOAM (SC/SM)		2			
		4		12	
		6			
		4			
		4		11	
		6			
		-5			
		6			
		12		8	
		16			
		▼			
		8			
		11		9	
		12			
		-10			
		8			
		6		13	
		10			
Limestone fragments at 13.5 feet		11			
		14		8	
		21			
		-15			
	567.42				
Very Stiff Gray, Moist SILTY CLAY, trace gravel (CL/ML)		20			
		50/6"	2.9	7	
			B		
	565.42				
LIMESTONE, highly weathered	564.92				
Auger refusal at 18.5 feet End of Boring					
		-20			

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)









# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. _____ Station _____	D E P T H  H  S  T  H  S  T  H  S  T  H  S  T	B L O W S  Q u  S  T  H  S  T  H  S  T	U C S  Q u  S  T  H  S  T  H  S  T	M O I S T  S  T  H  S  T  H  S  T	Surface Water Elev. _____ N/A ft
					Stream Bed Elev. _____ N/A ft
BORING NO. <u>SGB-165</u> Station <u>815+14.4657</u> Offset <u>7.01ft LT</u> Ground Surface Elev. <u>588.65</u> ft					Groundwater Elev.:
					First Encounter <u>569.7</u> ft ▼ Upon Completion _____ ft After <u>N/A</u> Hrs. _____ ft

8 inches of Topsoil 587.99					
Brown and Gray, Very Moist FILL: SILTY CLAY, trace gravel	2				
	4	1.9	28		
	4	B			
	2				
582.65	2	1.9	25		
	4	B			
	-5				
	4				
Very Stiff to Hard Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	4				
	5	3.8	21		
	8	B			
	2				
577.65	6	4.4	20		
	9	B			
	-10				
	2				
Stiff Gray, Very Moist SILTY CLAY, trace sand and gravel (CL/ML)	2	1.9	28		
	6	B			
575.15	3				
	9		9		
	10				
	-15				
	9				
	9		8		
	9				
	10				
▼	10				
Augur refusal at 20 feet 568.65	12		8		
	-20	50/4"			

End of Boring  
 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)  
 BBS, form 137 (Rev. 8-99)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp C, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-166</u> Station <u>813+28.7137</u> Offset <u>65.42ft LT</u> Ground Surface Elev. <u>587.92</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
6 inches of Topsoil Brown and Gray, Moist to Very Moist FILL: SILTY CLAY, trace gravel	587.42								
	2				Auger refusal at 21.5 feet				
	3	1.5	29		566.42				
	4	B			End of Boring				
	1								
	3	1.7	22						
	-5	5	B			-25			
581.92									
Stiff to Hard Brown and Gray, Moist to Very Moist SILTY CLAY, trace gravel (CL/ML)		3							
	5	5.4	25						
	7	B							
	4								
	5	4.2	25						
	-10	7	B			-30			
	3								
	3	1.0	21						
	4	B							
	3								
	4		25						
	-15	5				-35			
571.92									
Dense Gray, Moist SILT, with sand, gravel and limestone fragments (ML)		15							
	29		8						
	25								
	17								
	29		8						
	-20	21				-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,  
 Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPT H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-167</u> Station <u>8015+73.6086</u> Offset <u>36.70ft LT</u> Ground Surface Elev. <u>594.12</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
12 inches of Topsoil 593.12									
Brown and Gray, Moist to Very Moist FILL: SILTY CLAY, trace sand and gravel	2				573.12				
	4	2.5	25		Limestone, highly weathered Auger refusal at 21.5 feet	572.62	50/2"		14
	4	P							
	2								
Very Stiff to Hard Brown, Moist SILTY CLAY, trace gravel (CL/ML)	3								
	5	3.8	22						
	7	B							
	2								
Loose Brown, Wet SAND (SP)	4	4.4	17						
	4	B							
	8	B							
	4								
Stiff to Hard Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)	8	3.5	20						
	8	B							
	10	B							
	6								
	6	4.2	17						
	9	B							
	3								
	5	1.9	17						
	9	B							

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)  
 BBS, form 137 (Rev. 8-99)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_

BORING NO. SGB-168  
Station 417+10.5467  
Offset 31.55ft RT  
Ground Surface Elev. 590.16 ft

DEPTH (ft)	BLOW S (/6")	UCS (tsf)	MOIST (%)
---------------	--------------------	--------------	--------------

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft  
Groundwater Elev.:  
First Encounter 584.2 ft ▼  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

6 inches of Topsoil	589.66				
Black, Brown and Gray, Moist to Very Moist		1			
FILL: SILTY CLAY, trace gravel and organics		2	0.4	26	
		3	B		
		1			
		1	1.0	22	
		-5	1	B	
	584.16 ▼				
Very Loose		2			
Brown and Gray, Wet		1		20	
SANDY LOAM, trace gravel (SM)		2			
		2			
		2		15	
		-10	1		
	579.16				
Very Stiff to Hard		5			
Gray, Moist to Very Moist		6	4.5	19	
SILTY CLAY, trace gravel (CL/ML)		10	P		
		5			
Sand seam at 14 feet		6	2.3	25	
		-15	7	B	
		4			
		5		39	
		6			
		7			
		50/4"		11	
Auger refusal at 20 feet	570.16	-20			

End of Boring

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Ramp A (East of IL-59 SB), SEC., TWP., RNG.,  
 Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-169</u> Station <u>1005+14.1057</u> Offset <u>64.72ft LT</u> Ground Surface Elev. <u>592.18</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
4 inches of Topsoil	591.85					571.68			
Gray and Brown, Moist to Very Moist FILL: SILTY CLAY, trace sand and gravel	4				Auger refusal at 20.5 feet End of Boring				
	4	1.3	28						
	5	P							
	2								
	2	0.8	22						
	-5	2	P			-25			
	586.18								
Very Stiff to Hard Gray and Brown, Moist SILTY CLAY, trace gravel (CL/ML)	4								
	6	4.0	14						
	7	P							
	5								
	6	4.5	19						
	-10	9	P			-30			
	3								
	4	3.0	19						
	8	P							
	578.68								
Very Stiff Gray, Moist to Very Moist SILTY CLAY LOAM, trace sand (ML/CL)	3								
	5	3.5	22						
	-15	8	P			-35			
	3								
	575.18								
Dense Gray, Moist SAND, with gravel and limestone fragments (SPG)	13	4.0	12						
	26	P							
	13								
	16		8						
	18								
	-20					-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION Ramp A (East of IL-59 SB), SEC., TWP., RNG.,  
 Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPT H	BLOW S	UCS Qu	MOIST T
BORING NO. _____ SGB-170 Station _____ Offset _____	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
Ground Surface Elev. <u>596.12</u> ft					Groundwater Elev.:				
					First Encounter <u>575.1</u> ft ▼				
					Upon Completion _____ N/A ft				
					After <u>N/A</u> Hrs. _____ N/A ft				
6 inches of Topsoil <u>595.62</u>					Very Stiff				
Brown and Gray and Black, Moist to Very Moist		4			Gray, Moist				
FILL: SILTY CLAY, trace gravel and organics		5	2.7	19	SILTY CLAY (CL/ML) (continued) ▼	<u>574.62</u>	<u>50/2"</u>		
		6	B		Auger Refusal at 21.5 feet				11
					End of Boring				
		2							
		3	1.7	26					
	<u>-5</u>	4	B			<u>-25</u>			
		4							
Very Stiff to Hard		7	3.5	20					
Brown and Gray, Moist		8	B						
SILTY CLAY, trace gravel (Cl/ML)									
		4							
		6	4.8	21					
	<u>-10</u>	8	B			<u>-30</u>			
		5							
		7	4.6	23					
		9	B						
		3							
Very Stiff		5	2.7	21					
Gray, Moist		9	B						
SILTY CLAY (CL/ML)	<u>-15</u>					<u>-35</u>			
		7							
		6	3.3	15					
		7	B						
		5							
Cobbles at 19 feet		21	3.3	13					
	<u>-20</u>	21	B			<u>-40</u>			

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION IL-59 DDI NB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H S	BLOW W S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	Stream Bed Elev. _____ N/A ft	GROUNDWATER ELEV.: First Encounter _____ 584.1 ft ▼	Upon Completion _____ N/A ft	After _____ N/A Hrs. _____ N/A ft	DEPTH H S	BLOW W S	UCS Qu	MOIST T
	(ft)	(/6")	(tsf)	(%)						(ft)	(/6")	(tsf)	(%)
6 inches of Topsoil Brown and Gray and Black, Moist to Very Moist FILL: SILTY CLAY, trace sand, trace organics	594.58												
		5			574.08								
		6	2.9	19						10			
		6	B							12			10
										12			
					571.58								
		2					Auger Refusal at 23.5						
		3	1.3	25			End of Boring						
		-5	4	B						-25			
		2											
		3	0.8	40									
		6	B										
	586.58												
Stiff Brown and Gray, Very Moist SILTY CLAY, trace gravel (CL/ML)		2											
		2	1.3	29									
		-10	2	B						-30			
	584.08 ▼												
Very Stiff to Hard Gray, Moist to Very Moist SILTY CLAY, trace gravel (CL/ML)		3											
		3	2.1	12									
		4	B										
		3											
Sand Seam at 14 feet		4	2.3	21									
		-15	6	B						-35			
		7											
		7	5.4	21									
		9	B										
		3											
		3	2.1	29									
		-20	7	B						-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)





# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION IL-59 SB, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.	DEPTHS							
					N/A ft	(ft)	(/6")	(tsf)	(%)				
					Stream Bed Elev. N/A ft								
BORING NO. <u>SGB-172</u> Station <u>6993+14.4808</u> Offset <u>38.29ft RT</u> Ground Surface Elev. <u>592.30</u> ft					Groundwater Elev.:								
					First Encounter <u>None</u> ft								
					Upon Completion <u>N/A</u> ft								
					After <u>N/A</u> Hrs. <u>N/A</u> ft								
6 inches of Topsoil Gray, Moist FILL: SAND AND GRAVEL	591.80												
		3			571.30								
		7		8									
		9											
	588.80												
Very Stiff Brown and Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		3											
		3	2.3	19									
		5	B										
		-5			567.30								
		3											
		4	2.1	18									
		5	B										
		1											
		3	2.1	17									
		4	B										
		-10											
	581.30												
Very Stiff to Hard Gray, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		4											
		9	5.0	20									
		11	B										
		4											
		8	5.6	20									
		12	B										
		-15											
		4											
		5	3.0	28									
		5	P										
		2											
		3	2.1	33									
		3	2.1	33									
		5	B										
		-20											

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY MH

SECTION 2018-075-R LOCATION Seil Rd, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.	Stream Bed Elev.	DEPTH H (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)
					N/A ft	N/A ft				
BORING NO. <u>SGB-173</u> Station <u>4011+4.9836</u> Offset <u>35.43ft RT</u> Ground Surface Elev. <u>591.05</u> ft										
4 inches of Topsoil	590.72									
Brown and Gray, Moist to Very Moist		2								
FILL: SILTY CLAY, trace gravel and sand		3	1.7	27						
		4	B							
		2								
		2	0.6	14						
		-5	2	B			-25			
	585.05									
Stiff to Very Stiff		2								
Brown and Gray, Moist		3	1.7	17						
SILTY CLAY, trace gravel (CL/ML)		5	B							
		3								
		5	3.3	16						
Limestone fragments at 9.5 feet		-10	8	B			-30			
	580.05									
Stiff to Very Stiff		4								
Gray, Moist to Very Moist		6	4.0	23						
SILTY CLAY LOAM (ML/CL)		9	B							
		2								
		5	2.5	22						
		-15	6	P			-35			
		2								
		3	2.7	29						
		5	B							
		3								
Sand seam at 19 feet		8	1.9	10						
		-20	15	B			-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY NP

SECTION 2018-075-R LOCATION Seil Rd, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-174</u> Station <u>5542+13.6242</u> Offset <u>26.50ft RT</u> Ground Surface Elev. <u>591.68</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
6 inches of Topsoil Brown and Gray, Moist to Very Moist FILL: SILTY CLAY, trace sand and gravel	591.18								
		2			Auger refusal at 21.5 feet				
		2	1.3	27	570.18				
		4	B		End of Boring				
		1							
		4	5.4	18					
	-5	6	B			-25			
	585.68 ▼								
Very Stiff to Hard Brown, Moist to Very Moist SILTY CLAY, trace sand and gravel (CL/ML)		5							
		8	5.8	23					
		8	B						
		3							
		6	3.8	27					
	-10	8	B			-30			
	580.68								
Stiff to Hard Brown and gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		5							
		7	5.0	21					
		10	B						
		3							
		5	1.5	18					
	-15	8	B			-35			
	575.68								
Stiff to Very Stiff Gray, Moist SILTY CLAY, trace sand and gravel (CL/ML)		2							
		7	1.9	14					
		10	B						
		3							
		8	2.7	11					
	-20	16	B			-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB

SECTION 2018-075-R LOCATION Ramp D, SEC., TWP., RNG.,

Latitude , Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPT H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-175</u> Station <u>604+14.301</u> Offset <u>34.01ft LT</u> Ground Surface Elev. <u>595.42</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
6 inches of Topsoil Brown, Gray and Black, Moist FILL: SILTY CLAY, trace gravel	594.92								
		4			574.42 ▼		30		
		4	1.1				24		
		6	B				32		
					Auger Refusal at 23 feet	572.42			
		3			End of Boring				
		3	2.1						
		4	B						
	-5								
		3							
		5	2.5						
		5	B						
		2							
		2	1.3						
		3	B						
	-10								
		2							
		2	1.3						
		4	B						
		4							
		2							
		2	0.8						
		3	B						
	-15								
		3							
		6	1.5						
		6	B						
		2							
		2	1.9						
		3	B						
	-20								
Sand Seam at 19 feet		2							
		2	1.9						
		3	B						
	-20								

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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY EH

SECTION 2018-075-R LOCATION Ramp B, SEC., TWP., RNG.,

Latitude, Longitude

COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. _____ N/A ft	DEPTH H	BLOW S	UCS Qu	MOIST T
BORING NO. <u>SGB-176</u> Station <u>1108+25.851</u> Offset <u>71.58ft LT</u> Ground Surface Elev. <u>589.79</u> ft	(ft)	(/6")	(tsf)	(%)	Stream Bed Elev. _____ N/A ft	(ft)	(/6")	(tsf)	(%)
3 inches of Topsoil _____ 589.54-					Auger refusal at 20 feet				
Soft to Hard					End of Boring				
Brown and Gray, Moist		2							
SILTY CLAY, trace sand (CL/ML)		4	1.5	14					
		4	P						
		2							
		3	0.4	22					
	-5	4	B			-25			
		3							
		5	4.6	14					
		7	B						
		2							
		3	2.1	17					
	-10	5	B			-30			
		4							
578.79		9	2.9	18					
Stiff to Very Stiff		7	B						
Gray, Moist to Very Moist		2							
SILTY CLAY (CL/ML)		2	1.5	28					
	-15	5	B			-35			
		5							
		8	1.3	10					
		8	B						
		5							
570.79 ▼		10		13					
LIMESTONE, highly weathered		50/6"							
569.79 -20						-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)



# SOIL BORING LOG

ROUTE I-55 and IL 59 DESCRIPTION Roadway Boring LOGGED BY AB  
SECTION 2018-075-R LOCATION Rock Run Crossings Dr, SEC., TWP., RNG.,  
Latitude, Longitude  
COUNTY WILL DRILLING METHOD HSA HAMMER TYPE AUTO

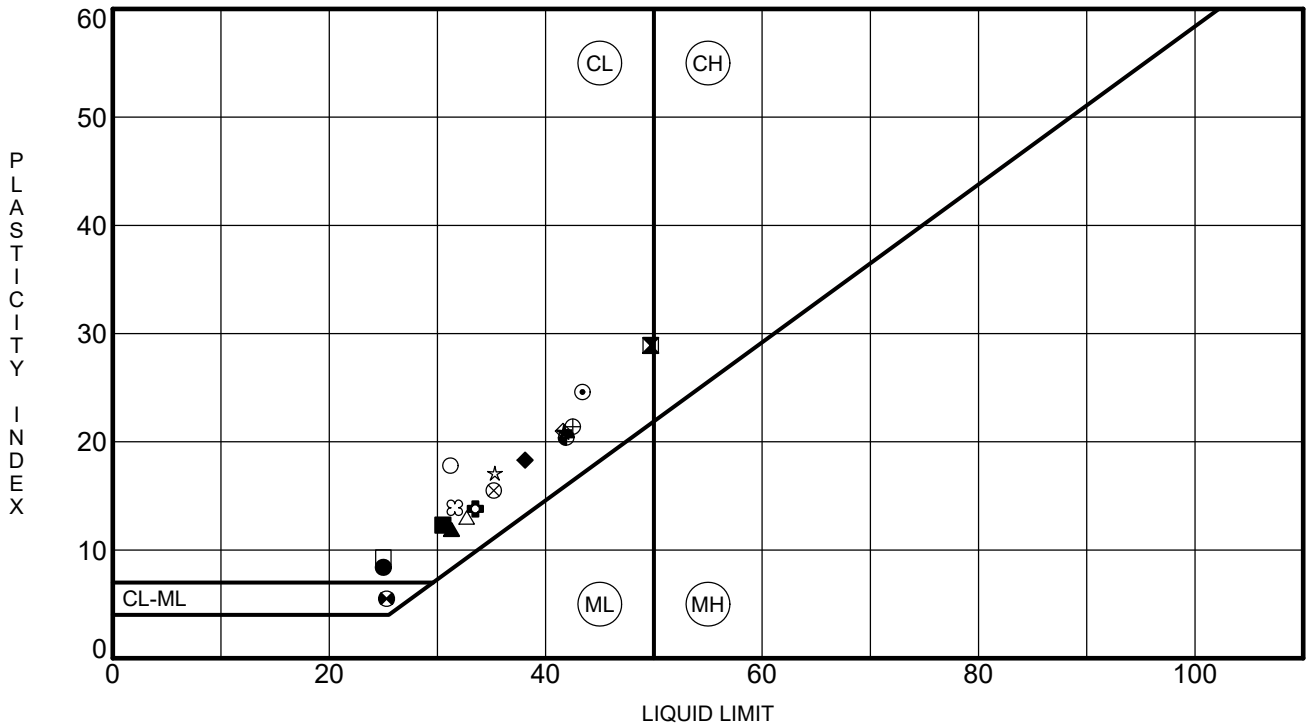
STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_  
BORING NO. SGB-177  
Station 7028+79.1888  
Offset 73.80ft RT  
Ground Surface Elev. 584.03 ft  
D E P T H (ft)    B L O W S (/6")    U C S (tsf)    M O I S T (%)

Surface Water Elev. N/A ft  
Stream Bed Elev. N/A ft  
Groundwater Elev.:  
First Encounter 570.5 ft ▼  
Upon Completion N/A ft  
After N/A Hrs. N/A ft

6 inches of Topsoil		583.53					
Loose Brown and Gray, Moist to Wet SAND, trace gravel (SP)			2			21	
			2				
			2			14	
			5				
		-5					
		578.03					
Stiff to Very Stiff Gray, Moist SILTY CLAY, trace gravel (CL/ML)			2			18	
			3	1.5			
			2	B			
			2				
			3	2.0		20	
			4	P			
		-10					
			5				
			9	2.1		13	
			10	B			
Cobbles at 13.5-15 feet			▼				
			5				
			11	2.7		11	
			14	B			
		-15					
			15				
			15	3.8		10	
			25	P			
Auger refusal at 19 feet		565.03	50/2"				
End of Boring						10	
		-20					

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)

**APPENDIX D**  
**LABORATORY TEST RESULTS**



Specimen Identification	LL	PL	PI	Fines	Classification
● SGB-09	8.50	25.0	16.6	8.4	
⊠ SGB-107	11.00	49.7	20.8	28.9	
▲ SGB-148	8.50	31.3	19.4	11.9	
★ SGB-160	11.00	41.7	20.8	20.9	
⊙ SGB-164	3.50	43.4	18.8	24.6	
⊕ SGB-165	6.00	33.5	19.7	13.8	
○ SGB-169	3.50	31.2	13.4	17.8	
△ SGB-169	11.00	32.7	19.7	13.0	
⊗ SGB-171	18.50	35.2	19.7	15.5	
⊕ SGB-172	18.50	42.5	21.1	21.4	
□ SGB-173	6.00	25.0	15.7	9.3	
⊕ SGB-177	8.50	25.3	19.8	5.5	
⊕ SGB-31	8.50	41.9	21.5	20.4	
☆ SGB-69	3.50	35.3	18.2	17.1	
⊗ SGB-87	8.50	31.6	17.7	13.9	
■ SGB-96	11.00	30.5	18.2	12.3	
◆ SGB-98	3.50	38.1	19.8	18.3	
◇ SGB-99	6.00	41.6	20.6	21.0	



623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

### ATTERBERG LIMITS' RESULTS

Route: I-55 and IL 59  
 Section: 2018-075-R  
 County: WILL





623 Cooper Court • Schaumburg, IL 60173

Tel: 630.994.2600 • Fax: 312.733.5612

Integrity | Quality | Reliability

**Table D1a–Test Results – Atterberg Limits**

Boring ID	Sample Depth (ft)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Soil Classification
SGB-9	8.5-10	25.0	16.6	8.4	CL/ML
SGB-31	8.5-10	41.9	21.5	20.4	CL/ML
SGB-69	3.5-5.0	35.3	18.2	17.1	CL/ML
SGB-87	3.5-5.0	31.6	17.7	13.9	CL/ML
SGB-96	11-12.5	30.5	18.2	12.3	CL/ML
SGB-98	3.5-5.0	38.1	19.8	18.3	CL/ML
SGB-99	6.0-7.5	41.6	20.6	21.0	CL/ML
SGB-107	11.0-12.5	49.7	20.8	28.9	CL-CH
SGB-148	8.5-10.0	31.3	19.4	11.9	CL/ML
SGB-160	11-12.5	41.7	20.8	20.9	CL/ML
SGB-164	3.5-5.0	43.4	18.8	24.6	CL/ML
SGB-165	6.0-7.5	33.5	19.7	13.8	CL/ML
SGB-169	3.5-5.0	31.2	13.4	17.8	CL/ML
SGB-169	11-12.5	32.7	19.7	13.0	CL/ML
SGB-171	18.5-20.0	35.2	19.7	15.5	CL/ML
SGB-172	18.5-20.0	42.5	21.1	21.4	CL/ML
SGB-173	6.0-7.5	25.0	15.7	9.3	CL/ML
SGB-177	8.5-10.0	25.3	19.8	5.5	CL-ML



623 Cooper Court • Schaumburg, IL 60173

Tel: 630.994.2600 • Fax: 312.733.5612

Integrity | Quality | Reliability

**Table D1b–Test Results – Organic Content**

<b>Boring ID</b>	<b>Sample Depth (ft)</b>	<b>Organic Content (%)</b>	<b>Soil Classification</b>
SGB-05	1-2.5	2.9	CL/ML
SGB-15	1-2.5	3.6	CL/ML
SGB-31	3.5-5.0	3.2	CL/ML
SGB-40	1-2.5	7.3	CL/ML
SGB-82	1.0-2.5	1.5	CL/ML
SGB-118	1-2.5	3.0	CL/ML
SGB-155	1-2.5	3.8	CL/ML
SGB-164	3.5-5.0	2.2	CL/ML



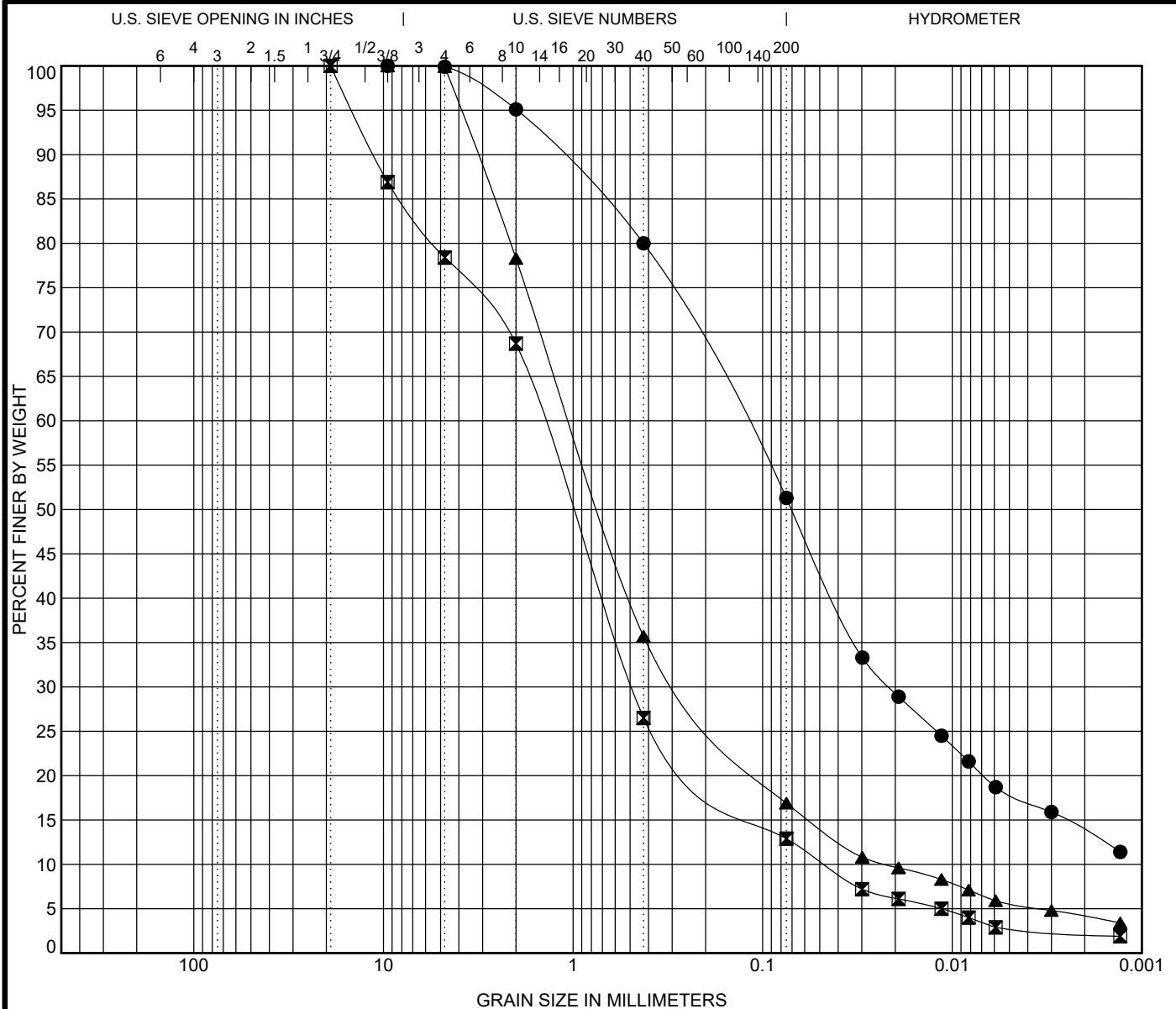
623 Cooper Court • Schaumburg, IL 60173

Tel: 630.994.2600 • Fax: 312.733.5612

Integrity | Quality | Reliability

**Table D1c–Test Results – Unit Weight**

Boring ID	Sample Depth (ft)	Wet Unit Weight (pcf)	Dry Unit Weight (pcf)	Soil Classification
SGB-09	6.0-7.5	134.6	117.2	CL/ML
SGB-96	11.0-12.5	131.7	109.8	CL/ML
SGB-98	3.5-5.0	125.1	104.7	CL/ML
SGB-99	6-7.5	129.9	111.6	CL/ML
SGB-107	11.0-12.5	123.0	100.9	CL-CH
SGB-160	11.0-12.5	122.5	94.1	CL/ML
SGB-163	11.0-12.5	147.4	133.8	CL/ML
SGB-165	3.5-5.0	122.8	101.4	CL/ML
SGB-169	11.0-12.5	132.4	111.7	CL/ML
SGB-171	18.5-20.0	123.6	95.6	CL/ML
SGB-172	3.5-5.0	127.7	107.6	CL/ML
SGB-172	18.5-20.0	123.6	92.9	CL/ML
SGB-173	6-7.5	138.2	117.8	CL/ML
SGB-177	8.5-10.0	139.3	116.3	CL-ML



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● SGB-12 3.5'-5.0'						
☒ SGB-162 3.5'-5.0'					3.42	30.94
▲ SGB-18 3.5'-5.0'					2.76	46.25

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● SGB-12 3.5'-5.0'	9.5	0.127	0.021		0.1	48.6	37.6	13.7
☒ SGB-162 3.5'-5.0'	19	1.453	0.483	0.047	21.6	65.5	10.7	2.2
▲ SGB-18 3.5'-5.0'	9.5	1.028	0.251	0.022	0.1	83.0	12.8	4.1

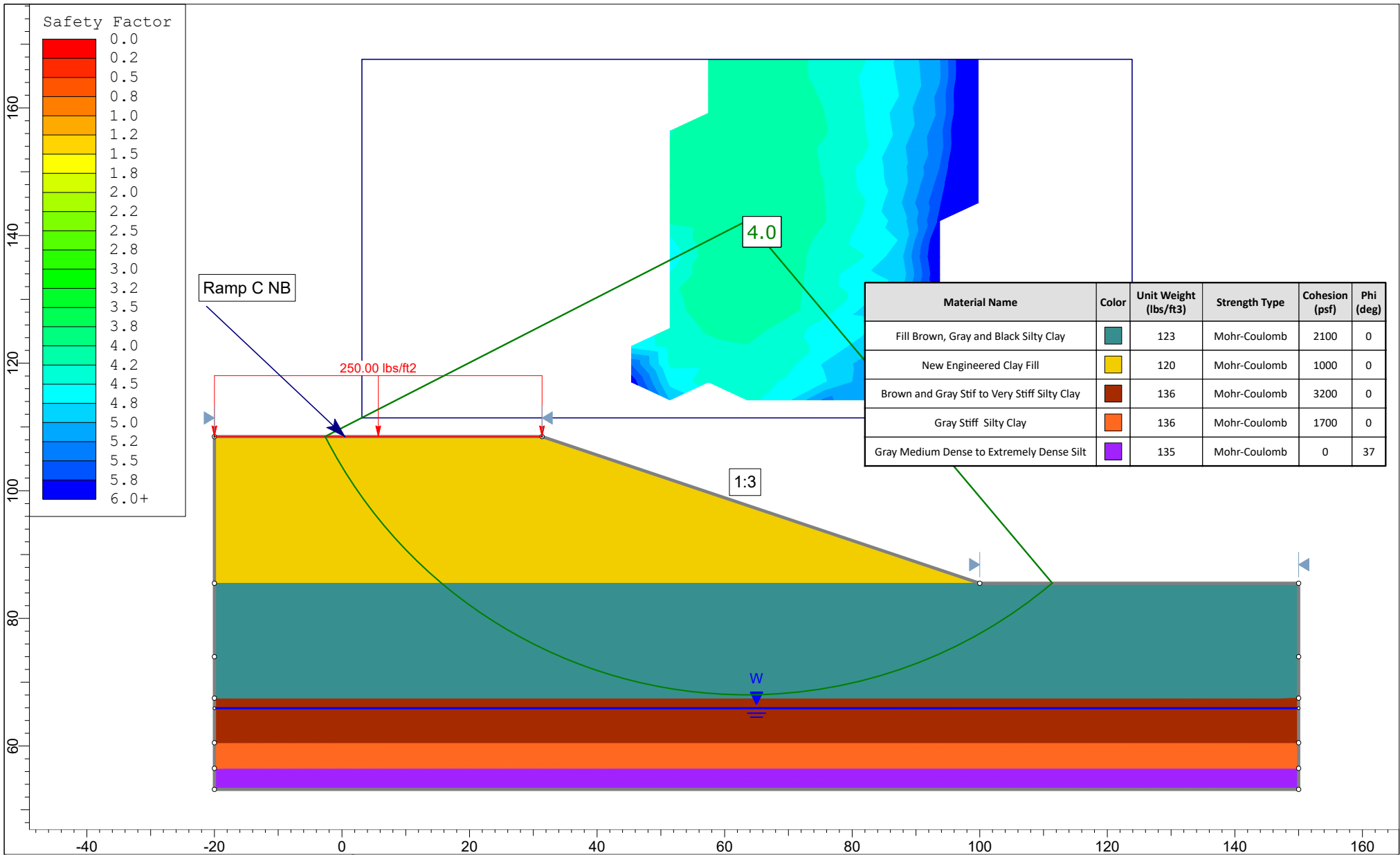


623 Cooper Court • Schaumburg, IL 60173  
 Tel: 630.994.2600 • Fax: 312.733.5612  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

### GRAIN SIZE DISTRIBUTION

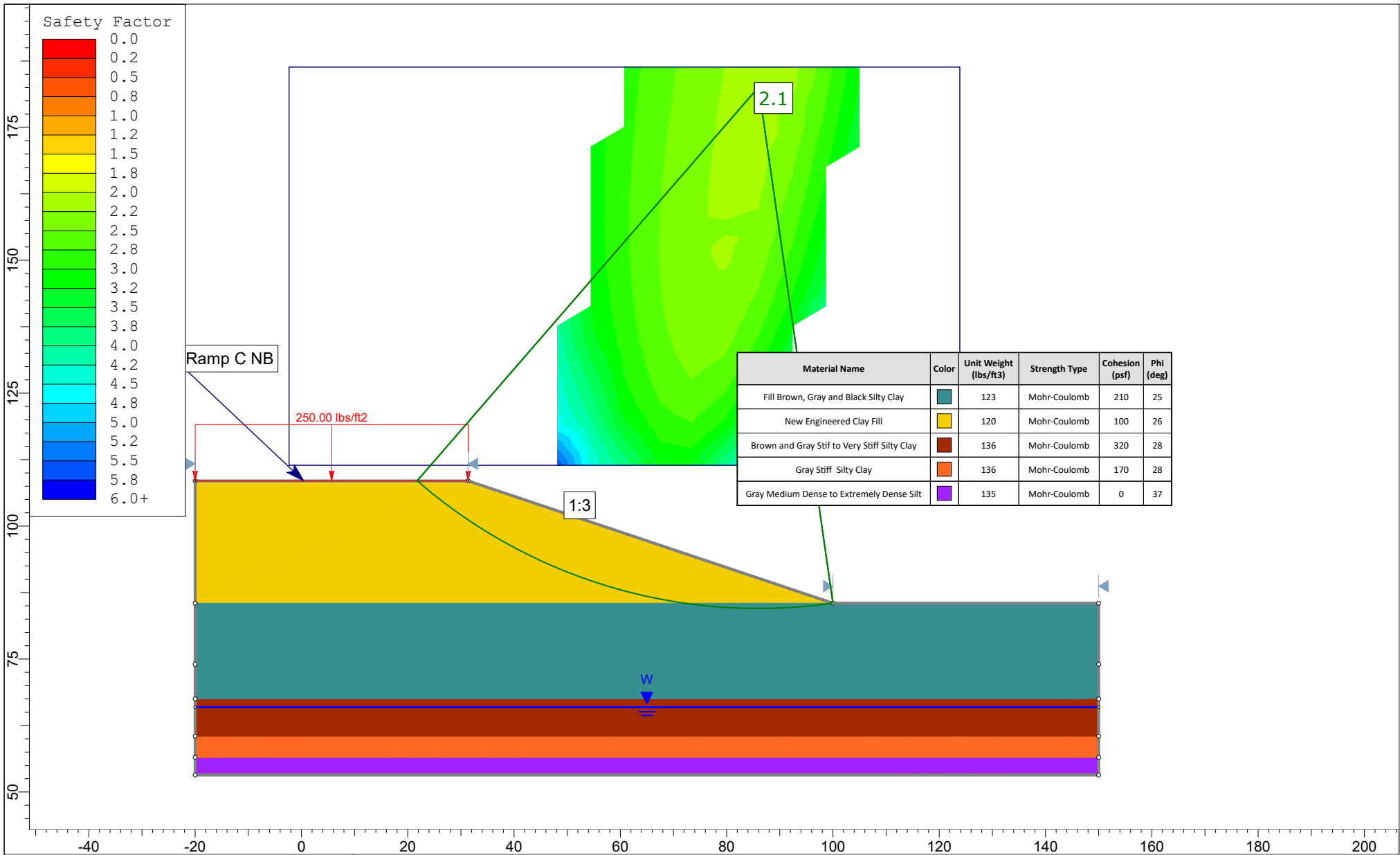
Route: I-55 and IL 59  
 Section: 2018-075-R  
 County: WILL

**APPENDIX E**  
**SLOPE STABILITY ANALYSIS EXHIBITS**



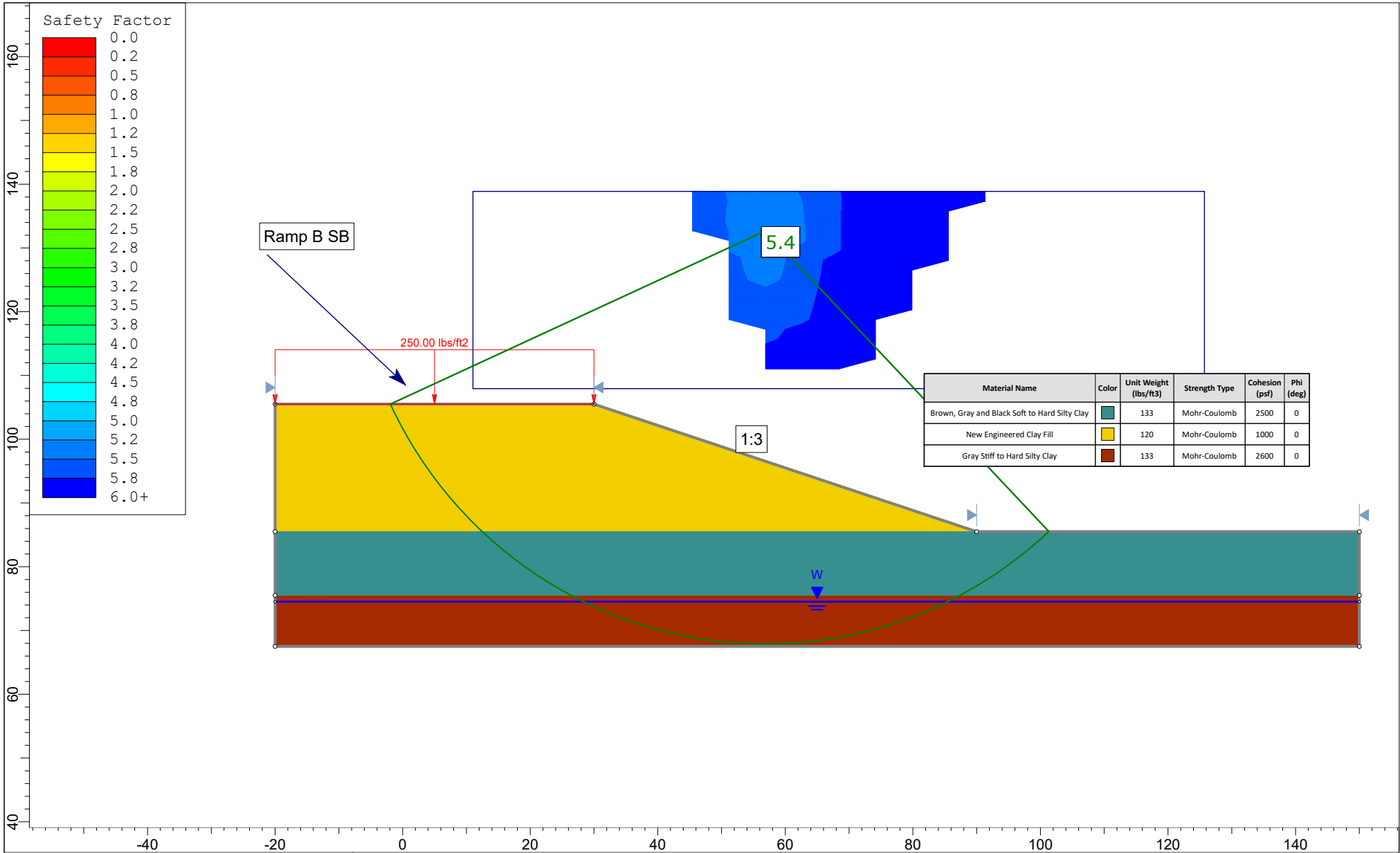
**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>	IL-59 Ramp C NB, Station 814 - Table 5a		
<b>Analysis Description</b>	Exhibit 1: Circular Failure Short Term - Undrained		
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp C NB, station 814-short.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

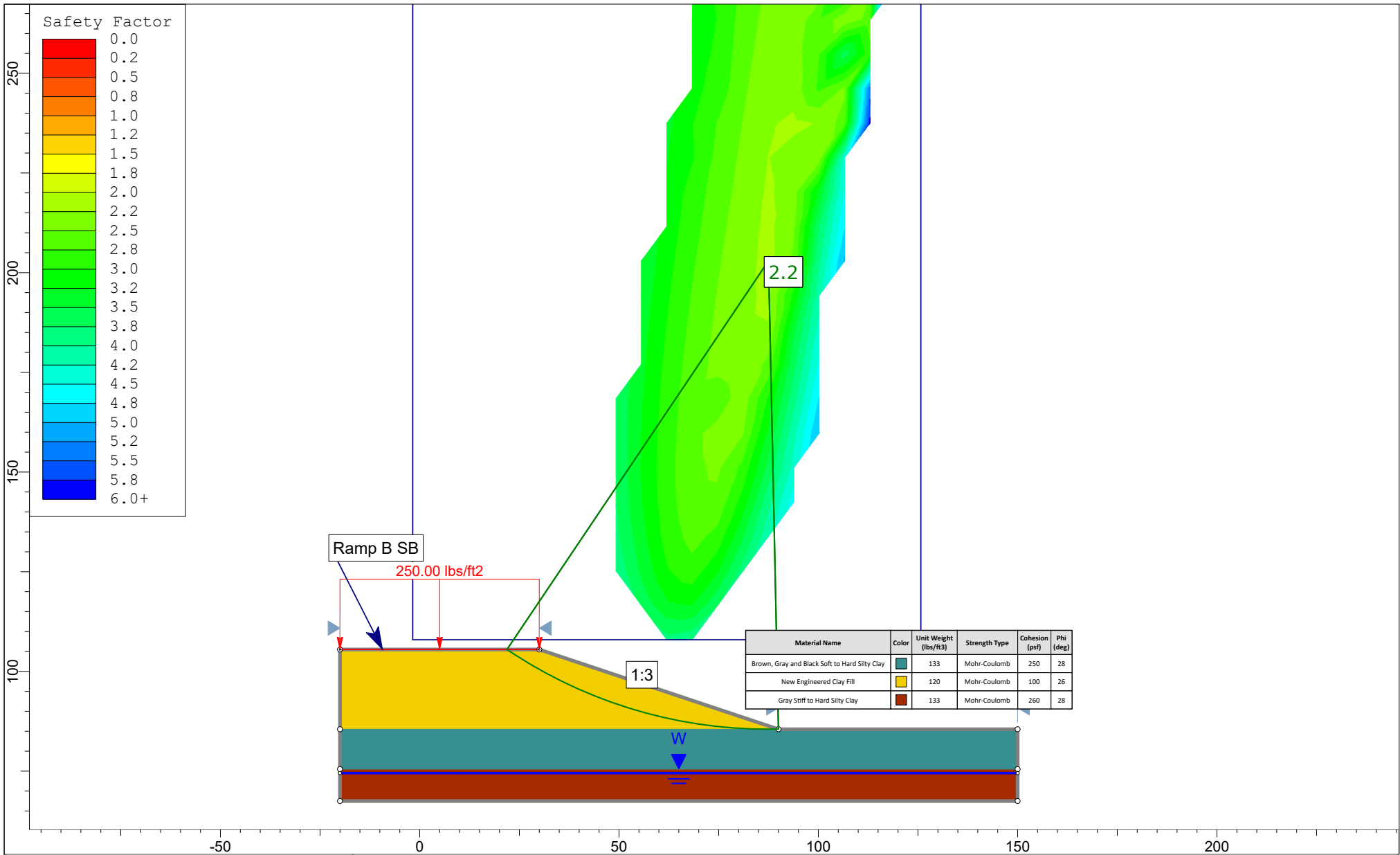
<b>Project</b>		IL-59 Ramp C NB, Station 814 - Table 5a	
<b>Analysis Description</b>		Exhibit 2: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:300
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp C NB, station 814-long.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>		IL-59 Ramp B SB, Station 1204 - Table 5b	
<b>Analysis Description</b>		Exhibit 3: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp B SB, station 1204-short.slmd





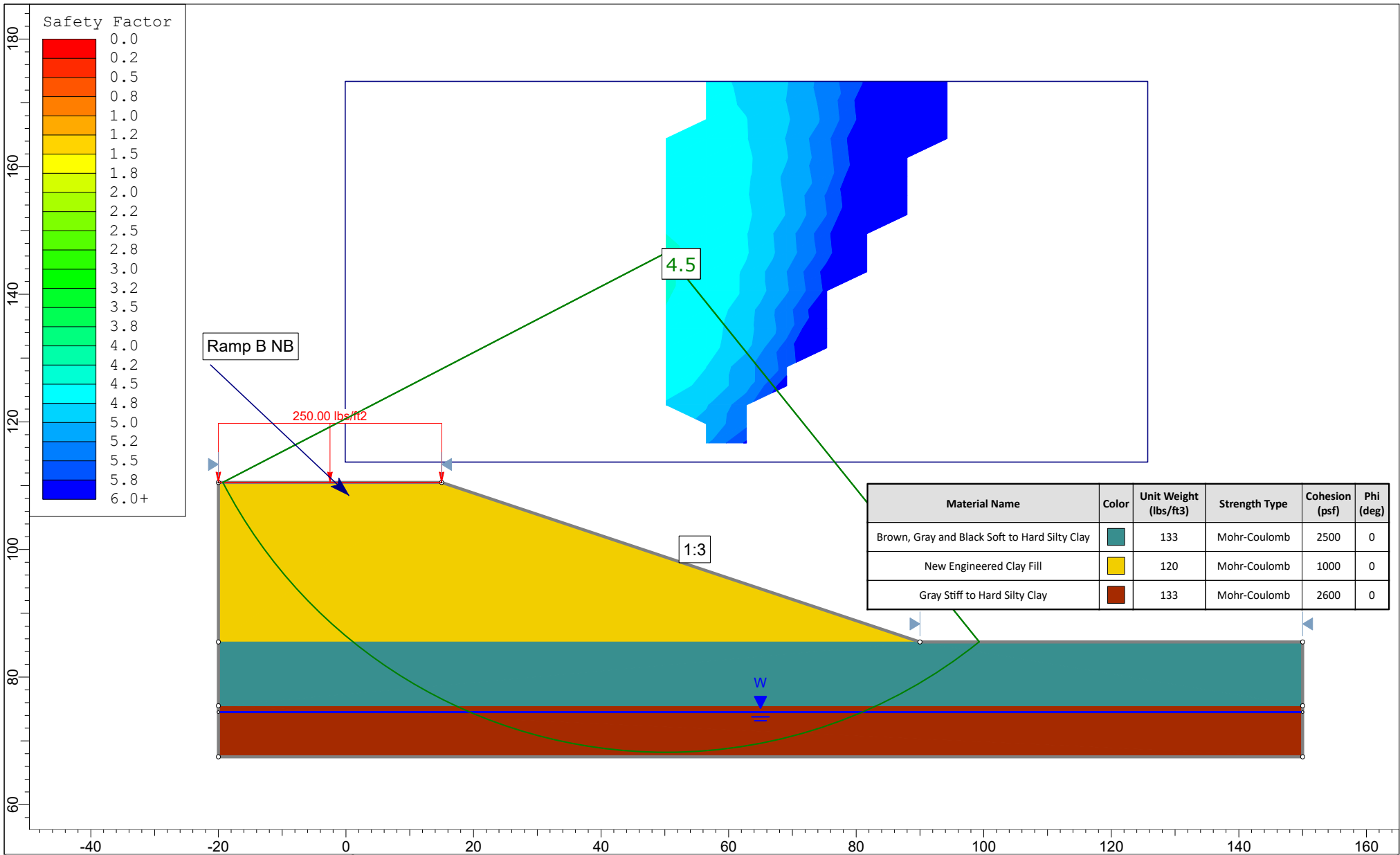
**GSG CONSULTANTS, INC.**  
 ENGINEERS - SCIENTISTS - CONSTRUCTION MANAGERS

623 Cooper Court  
 Schaumburg, IL 60173

Tel: 630.994.2600  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

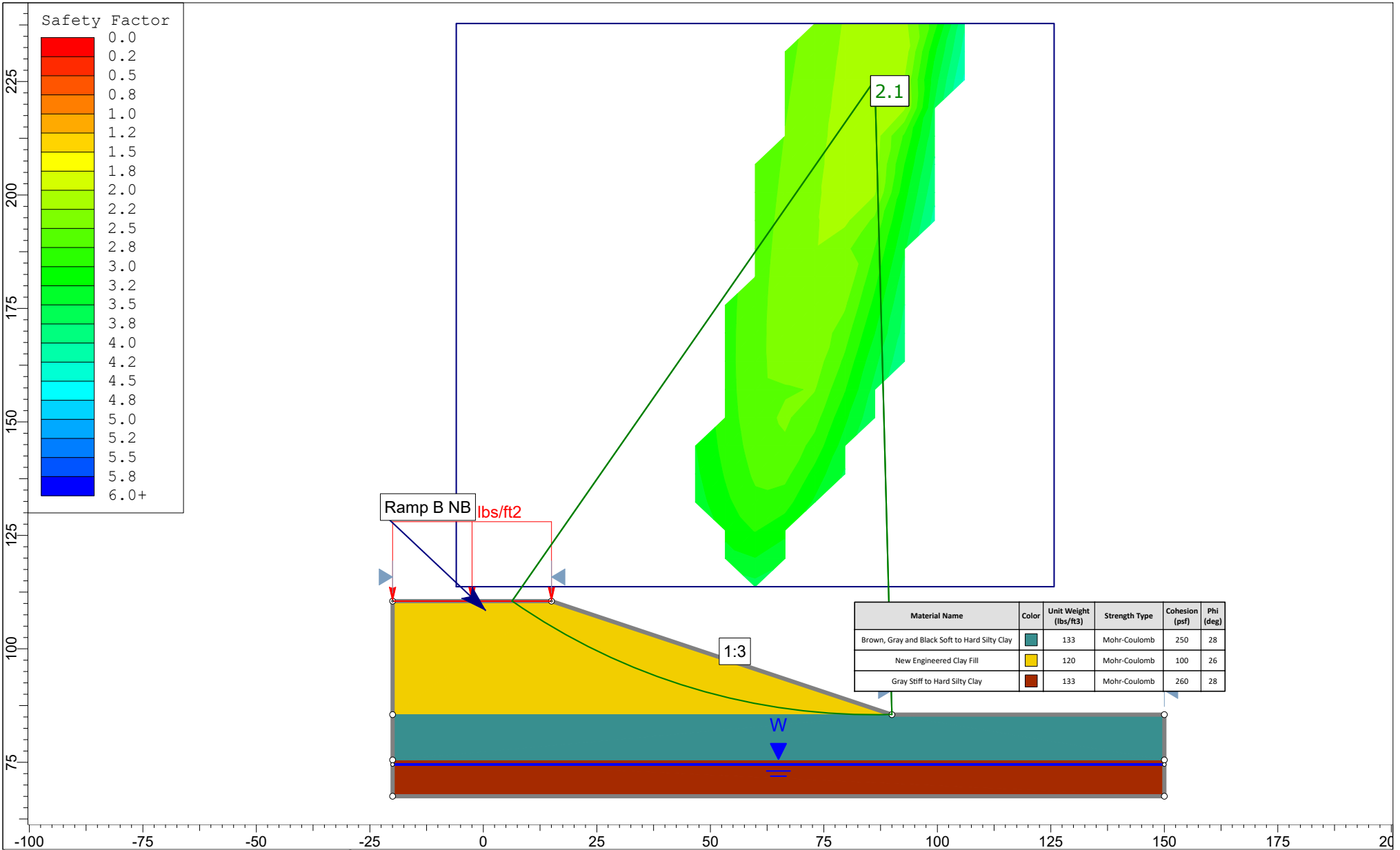
SLIDE INTERPRET 8.028

<b>Project</b>		IL-59 Ramp B SB, Station 1204 - Table 5b	
<b>Analysis Description</b>		Exhibit 4: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:400
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp B SB, station 1204-long.slmd



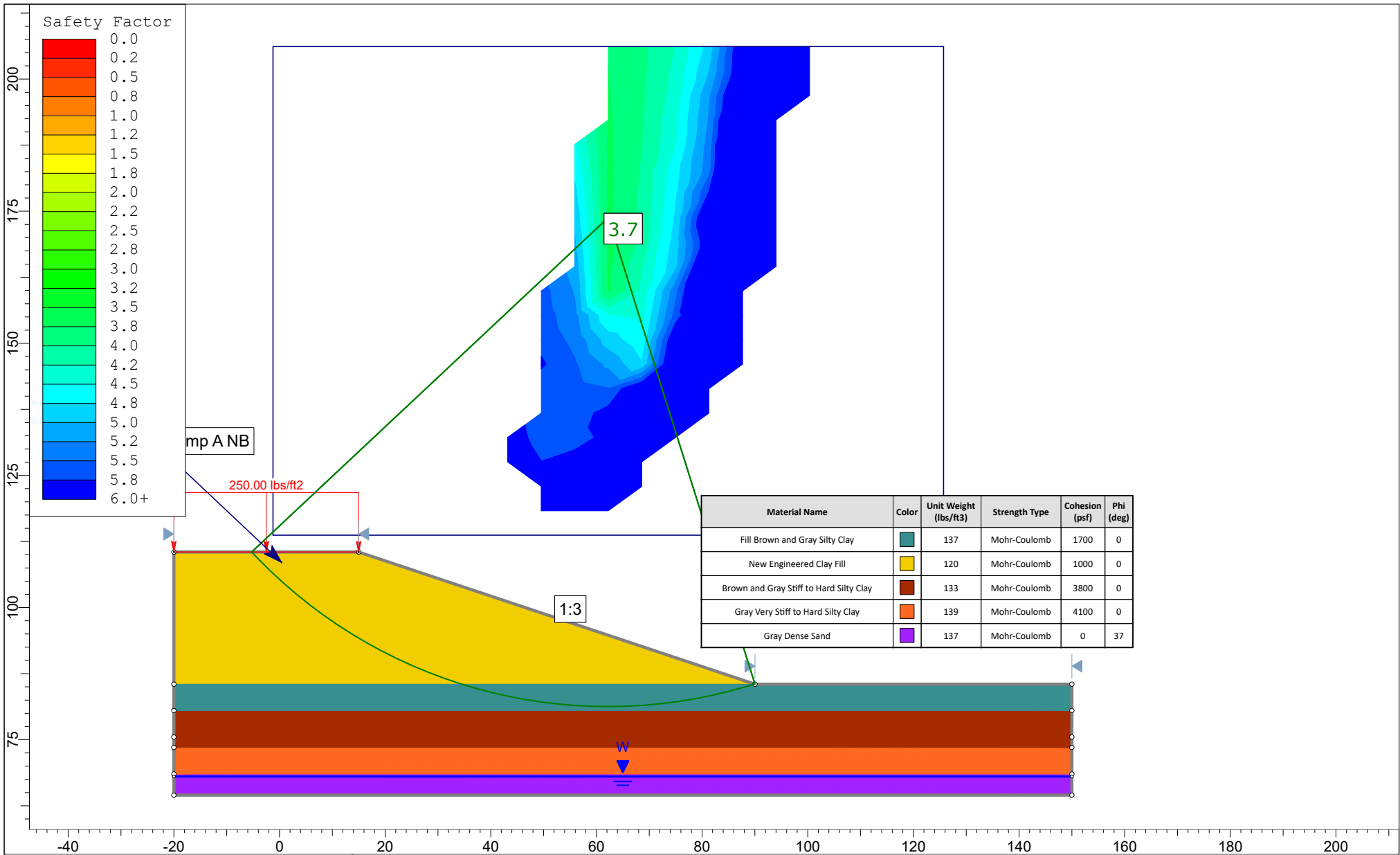
**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>		IL-59 Ramp B NB station 1107+50 - Table 5b	
<b>Analysis Description</b>		Exhibit 5: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp B NB station 1107+50-short.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

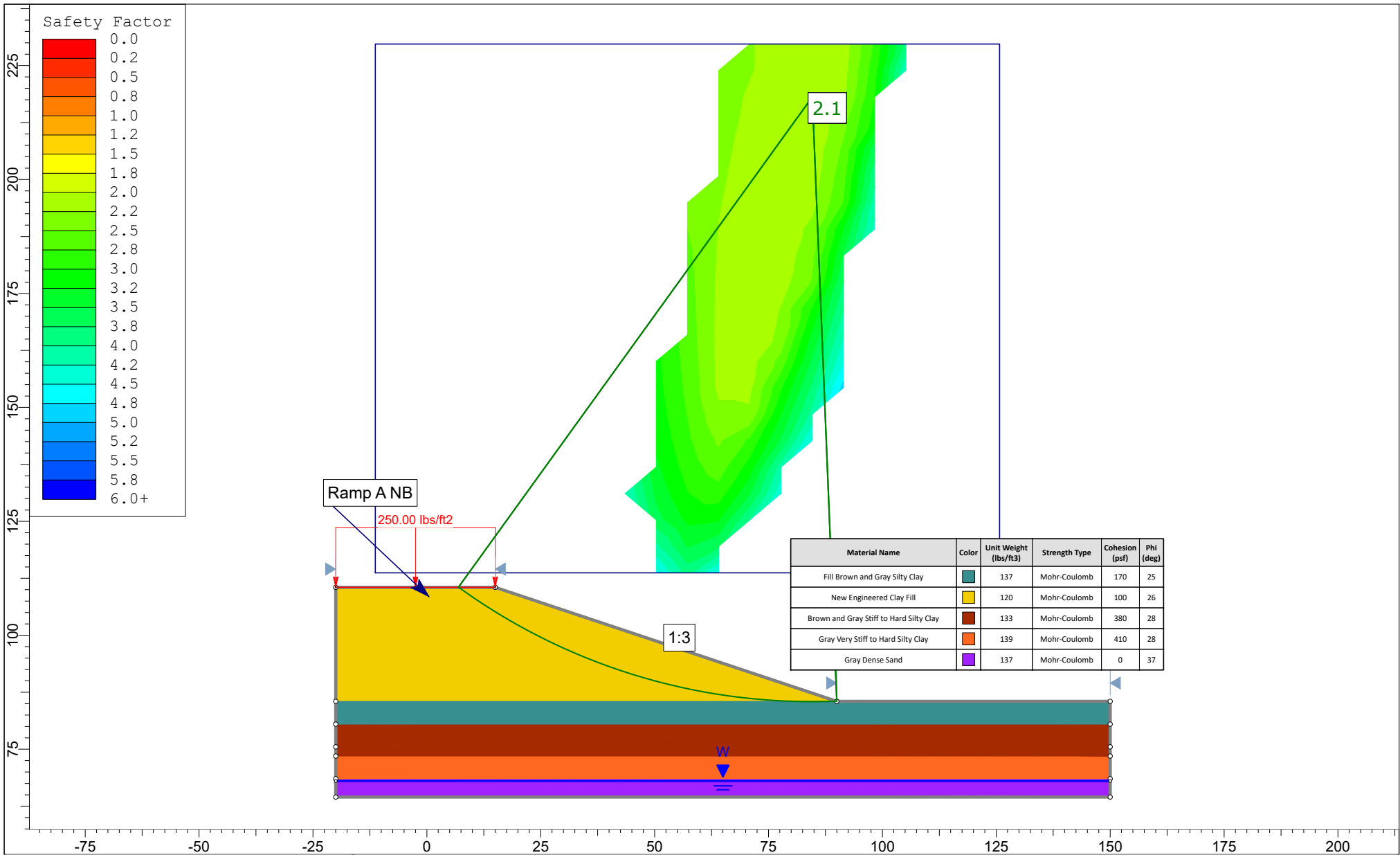
<b>Project</b>		IL-59 Ramp B NB station 1107+50 - Table 5b	
<b>Analysis Description</b>		Exhibit 6: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:350
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp B NB station 1107+50-long.slmtd



623 Cooper Court  
Schaumburg, IL 60173  
Tel: 630.994.2600  
www.gsg-consultants.com

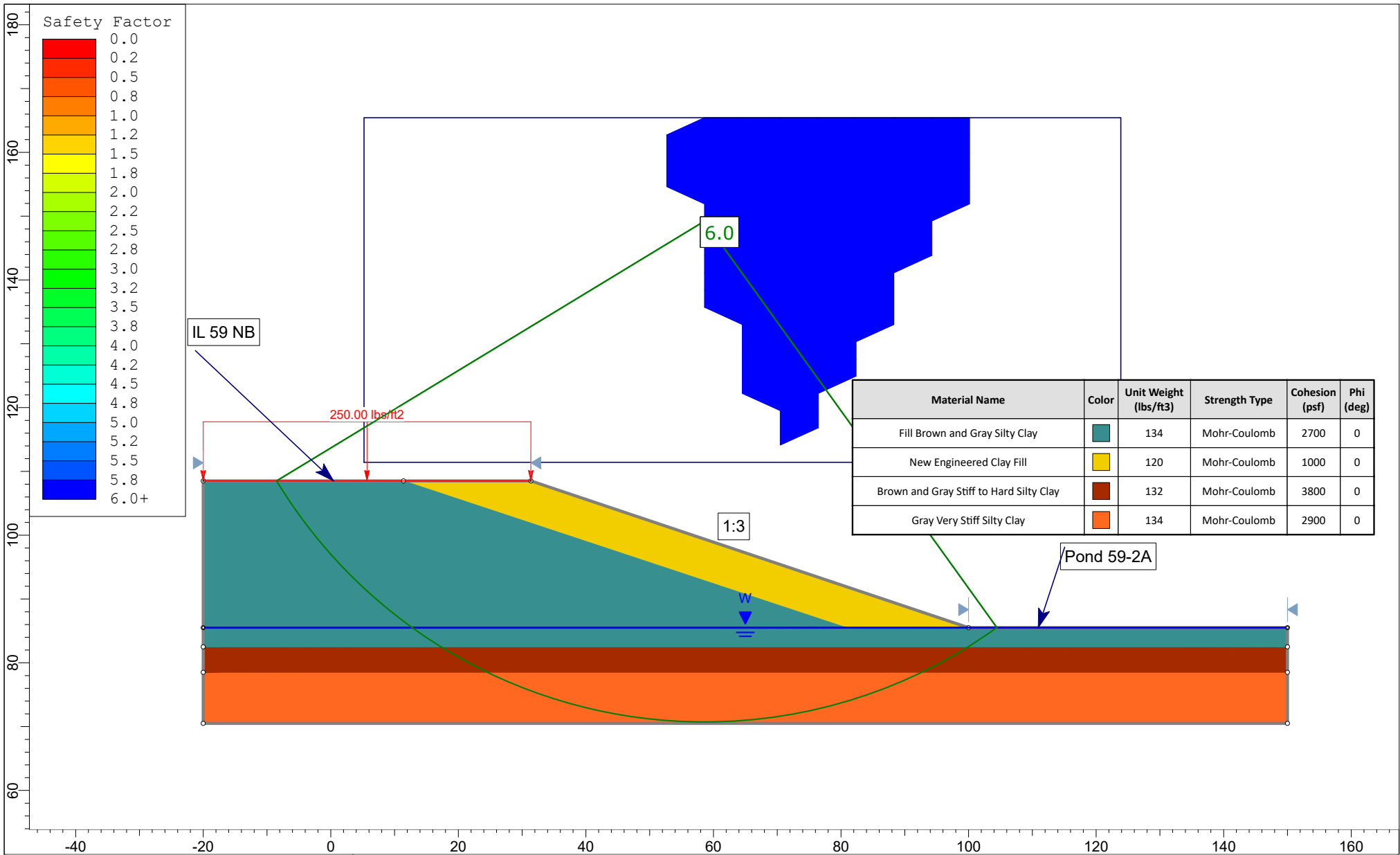
SLIDE INTERPRET 8.028

<b>Project</b>		IL-59 Ramp A NB, Station 1005 - Table 5c	
<b>Analysis Description</b>		Exhibit 7: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:300
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp A NB, Station 1005-short.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>		IL-59 Ramp A NB, Station 1005 - Table 5c	
<b>Analysis Description</b>		Exhibit 8: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:350
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	Ramp A NB, Station 1005-long.slmd

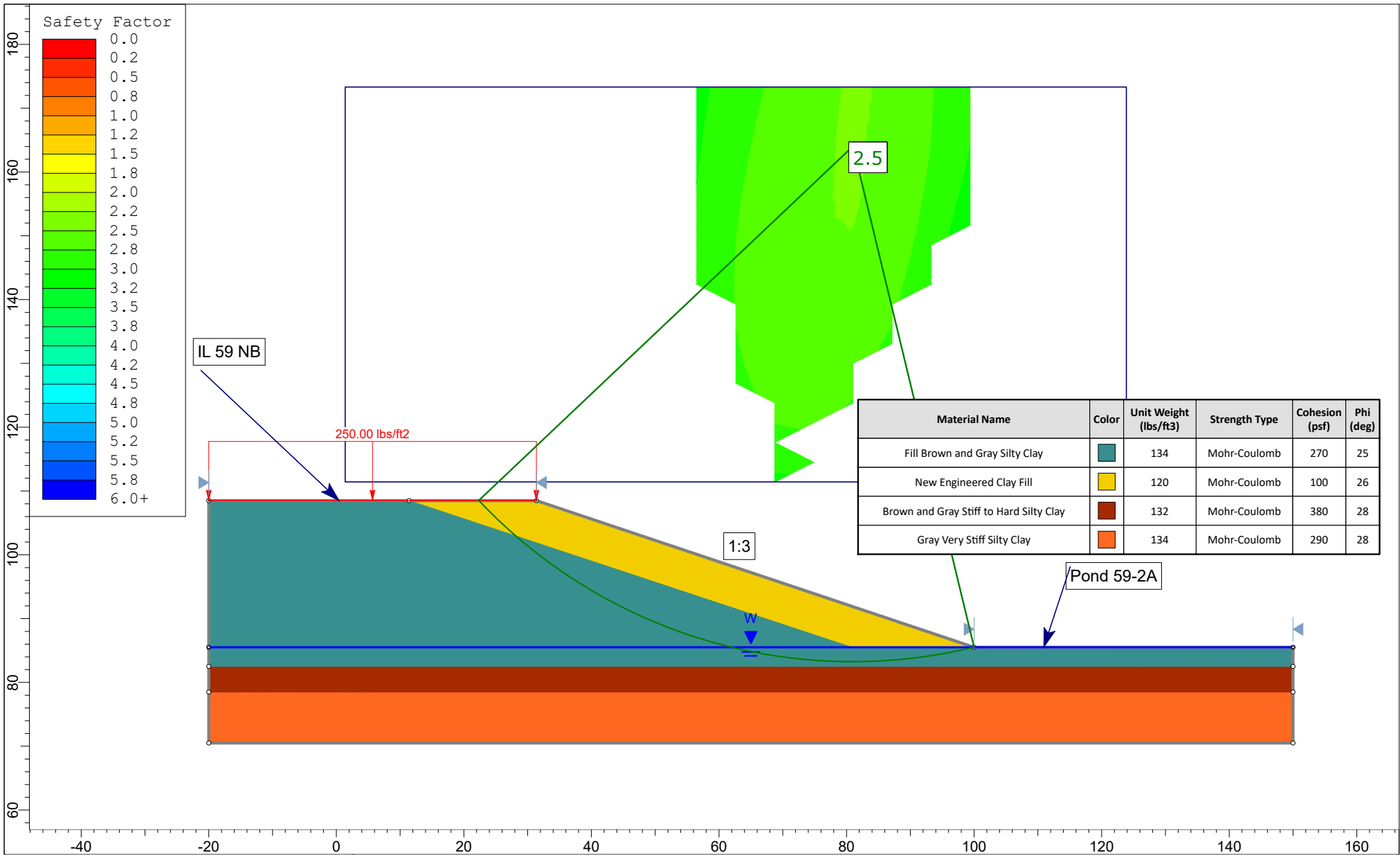


**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

ENGINEERS • SCIENTISTS • CONSTRUCTION MANAGERS

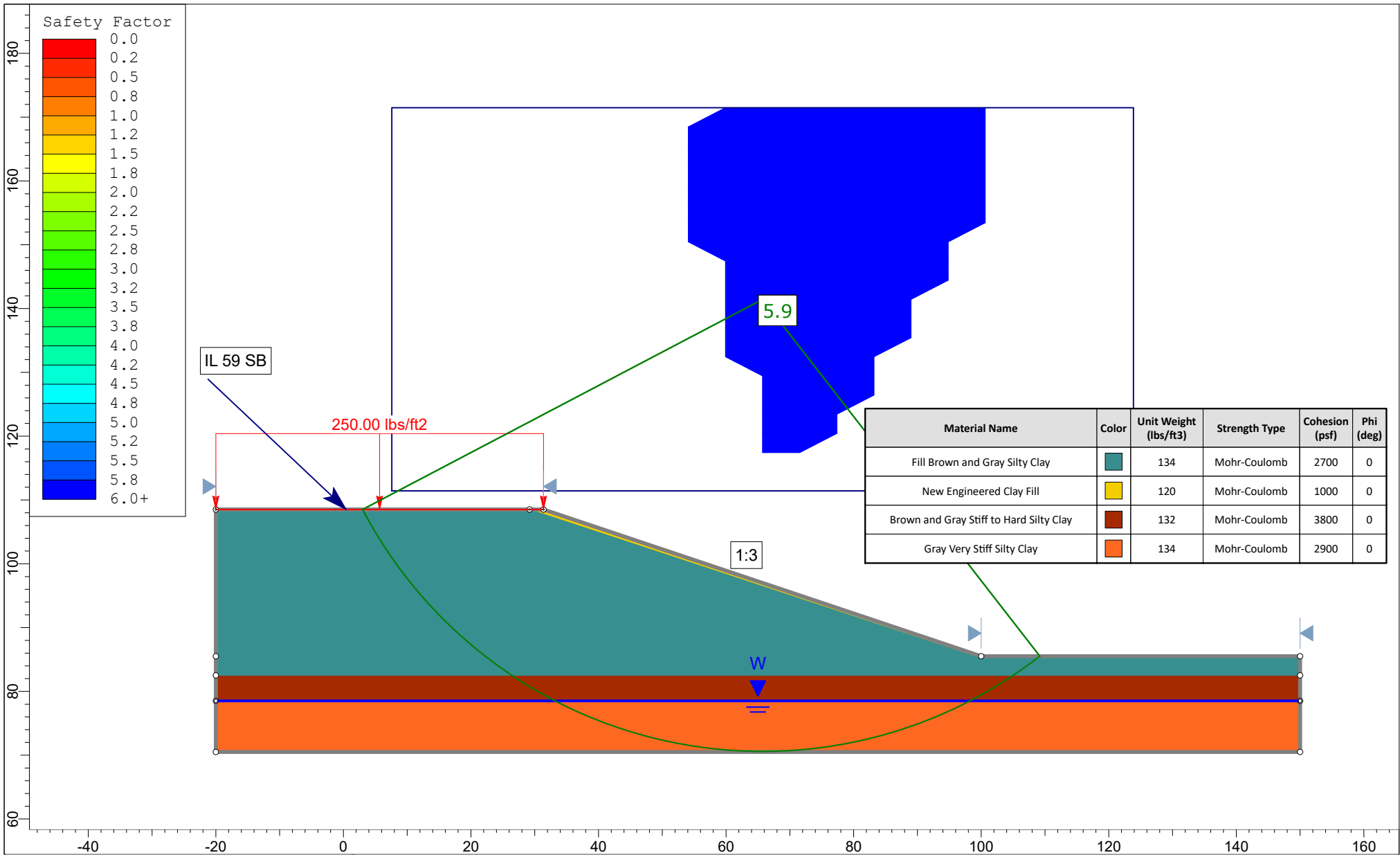
SLIDE INTERPRET 8.028

<b>Project</b>		IL 59 NB, station 8000 - Table 5d	
<b>Analysis Description</b>		Exhibit 9: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 NB, station 8000-short.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>		IL 59 NB, station 8000- Table 5d	
<b>Analysis Description</b>		Exhibit 10: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 NB, station 8000-long.slm



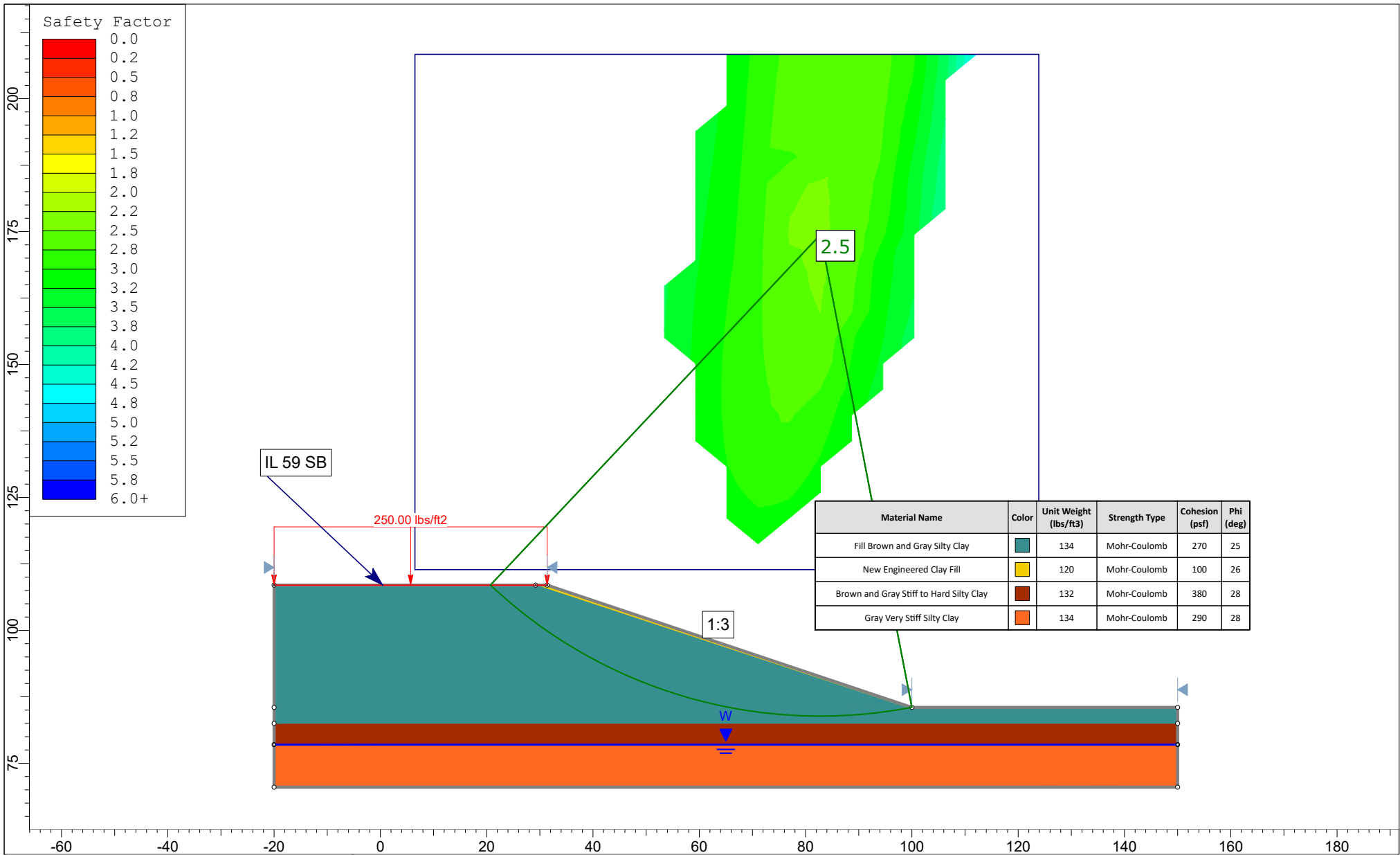
Material Name	Color	Unit Weight (lbs/ft <sup>3</sup> )	Strength Type	Cohesion (psf)	Phi (deg)
Fill Brown and Gray Silty Clay		134	Mohr-Coulomb	2700	0
New Engineered Clay Fill		120	Mohr-Coulomb	1000	0
Brown and Gray Stiff to Hard Silty Clay		132	Mohr-Coulomb	3800	0
Gray Very Stiff Silty Clay		134	Mohr-Coulomb	2900	0

**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
[www.gsg-consultants.com](http://www.gsg-consultants.com)

ENGINEERS - SCIENTISTS - CONSTRUCTION MANAGERS  
 SLIDE INTERPRET 8.028

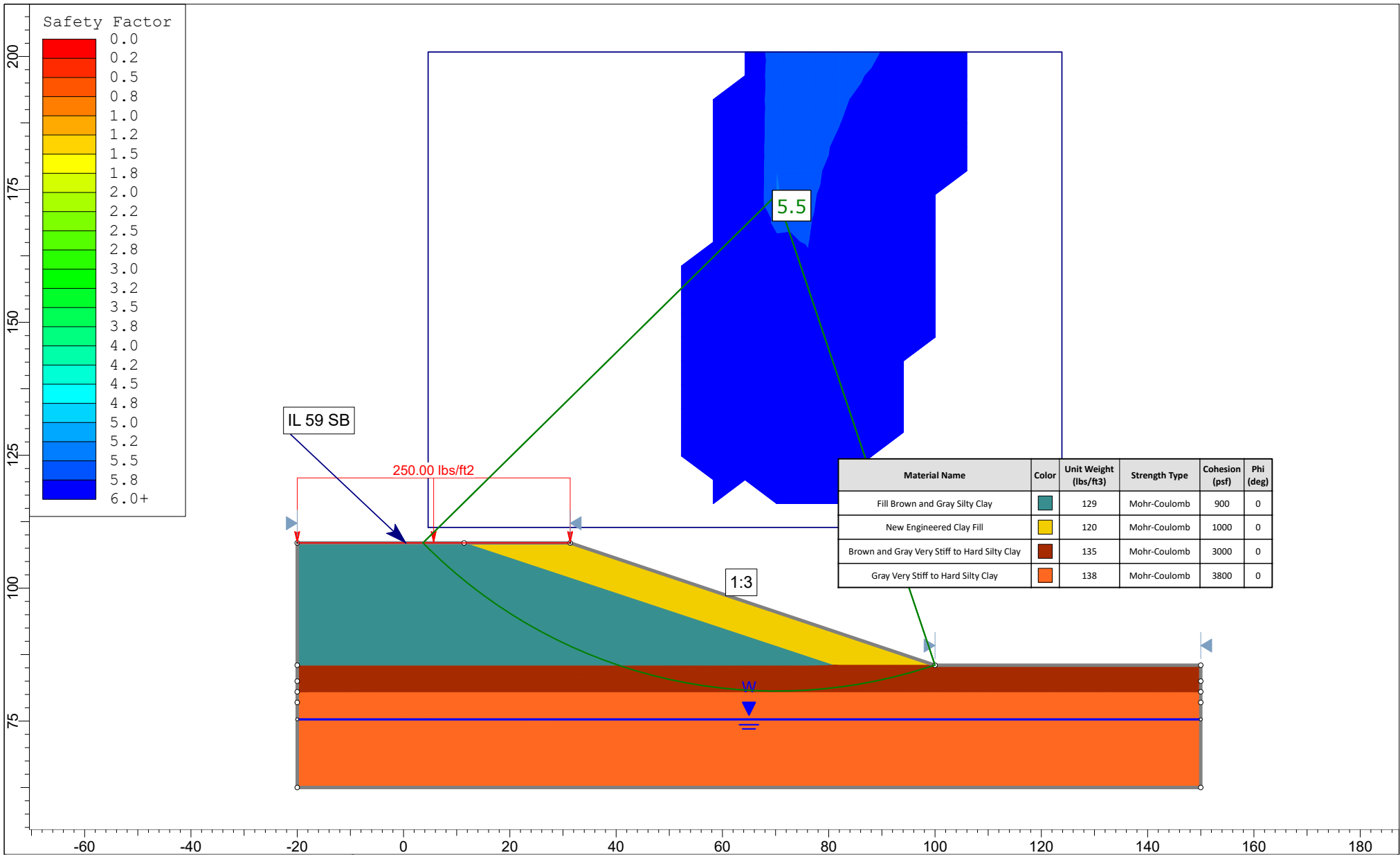
<b>Project</b>		IL 59 SB, STA 7002 - Table 5d	
<b>Analysis Description</b>		Exhibit 12: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:250
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 SB, STA 7002-short.slmd





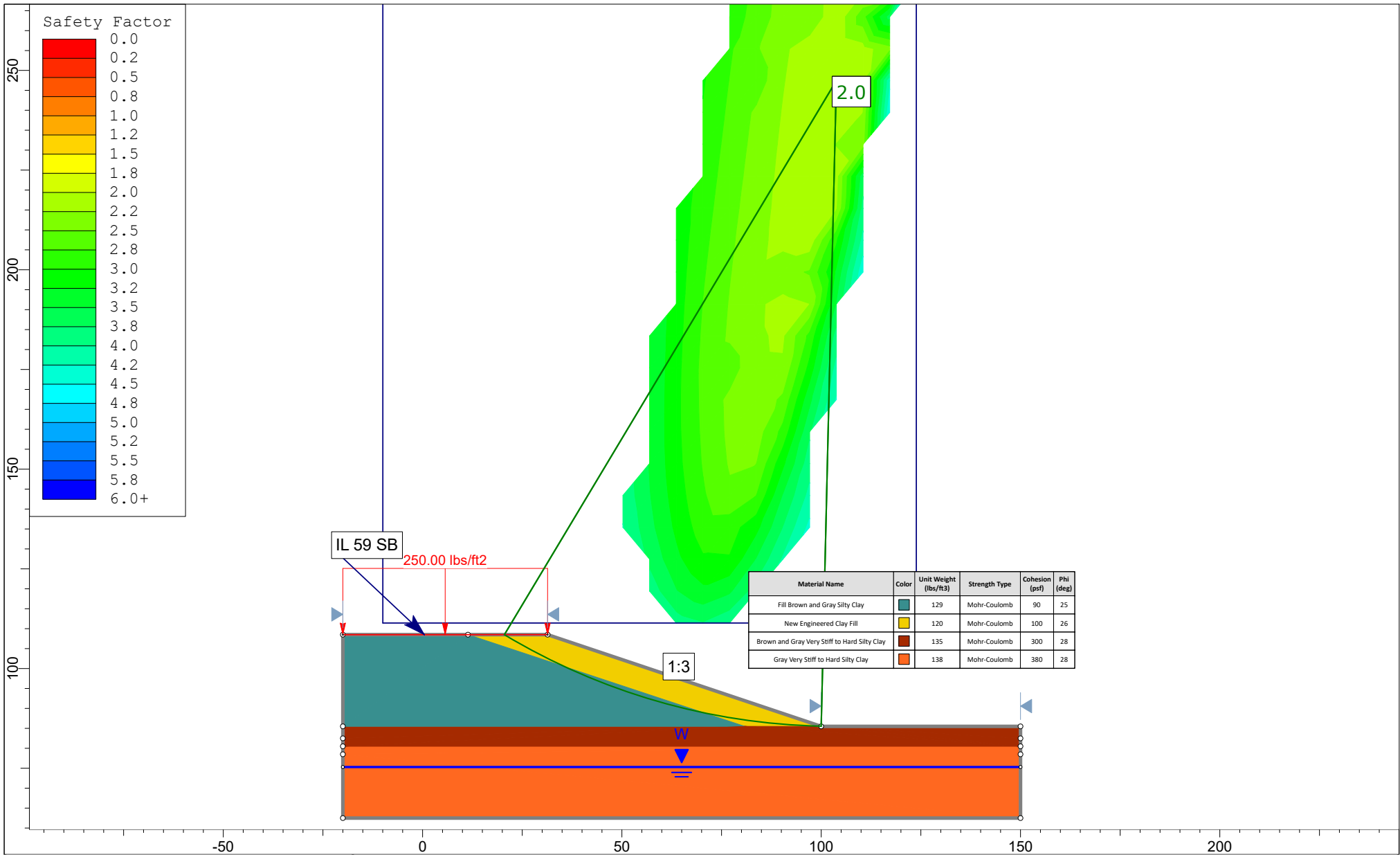
**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>		IL 59 SB, STA 7002 - Table 5d	
<b>Analysis Description</b>		Exhibit 13: Circular Failure Long Term - Drained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:300
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 SB, STA 7002-long.slm



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

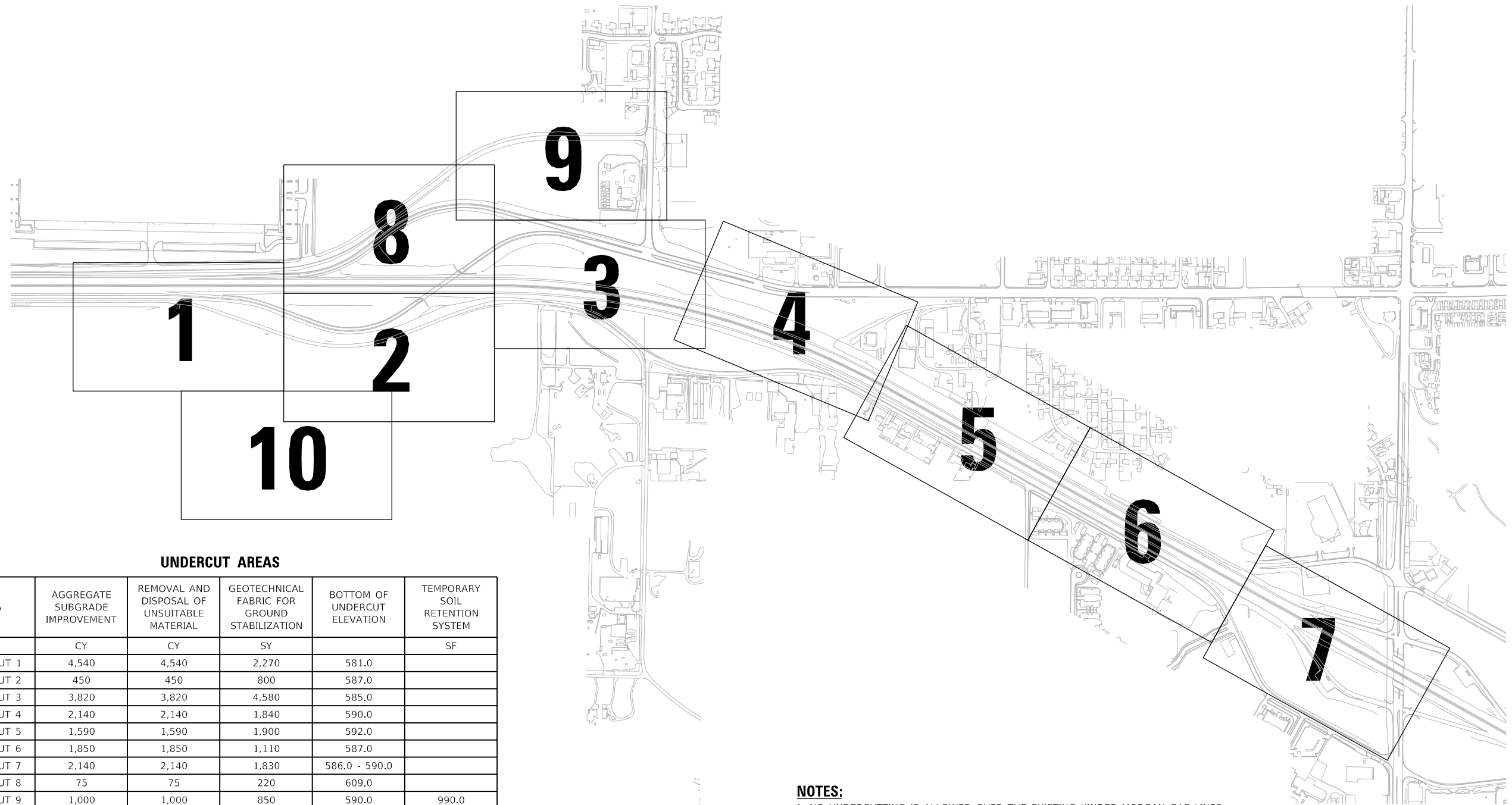
<b>Project</b>		IL 59 SB, STA 6998 - Table 5e	
<b>Analysis Description</b>		Exhibit 13: Circular Failure Short Term - Undrained	
<b>Drawn By</b>	SI	<b>Scale</b>	1:300
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 SB, STA 6998-short.slmd



**GSG CONSULTANTS, INC.**  
 623 Cooper Court  
 Schaumburg, IL 60173  
 Tel: 630.994.2600  
 www.gsg-consultants.com

<b>Project</b>	IL 59 SB, STA 6998 - Table 5e		
<b>Analysis Description</b>	Exhibit 14: Circular Failure Long Term - Drained		
<b>Drawn By</b>	SI	<b>Scale</b>	1:400
<b>Date</b>	01/30/2021	<b>Company</b>	GSG Consultants
		<b>File Name</b>	IL 59 SB, STA 6998-long.slm

**APPENDIX F**  
**62H15 UNDER CUT PLANS**



**UNDERCUT AREAS**

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION	TEMPORARY SOIL RETENTION SYSTEM
	CY	CY	SY		SF
UNDERCUT 1	4,540	4,540	2,270	581.0	
UNDERCUT 2	450	450	800	587.0	
UNDERCUT 3	3,820	3,820	4,580	585.0	
UNDERCUT 4	2,140	2,140	1,840	590.0	
UNDERCUT 5	1,590	1,590	1,900	592.0	
UNDERCUT 6	1,850	1,850	1,110	587.0	
UNDERCUT 7	2,140	2,140	1,830	586.0 - 590.0	
UNDERCUT 8	75	75	220	609.0	
UNDERCUT 9	1,000	1,000	850	590.0	990.0
UNDERCUT 10	530	530	400	601.0	
UNDERCUT 11	1,700	1,700	1,300	593.0	2,025.0
UNDERCUT 12	1,290	1,290	970	595.0	1,350.0
UNDERCUT 13	430	430	515	578.0	790.0
UNDERCUT 14	1,850	1,850	1,110	587.0	
UNDERCUT 15	770	770	925	591.0	
UNDERCUT 16	1,800	1,800	2,170	590.0	
UNDERCUT 17	975	975	1,462	580.0	
SUB TOTALS	26,950	26,950	24,252		5,155

**NOTES:**

- NO UNDERCUTTING IS ALLOWED OVER THE EXISTING KINDER MORGAN GAS LINES. UNDERCUTTING SHALL TERMINATE 10' OFFSET FROM CENTER OF GAS MAIN.
- IN ADDITION TO THE UNDERCUTTING TABLE ON THIS SHEET, THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED IN THE CONTRACT FOR USE AS DETERMINED BY THE ENGINEER IF POOR/SOFT SOILS ARE IDENTIFIED DURING CONSTRUCTION:
  - REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL: 11,000 CUBIC YARDS
  - AGGREGATE SUBGRADE IMPROVEMENT: 11,000 CUBIC YARDS
  - GEOTECHNICAL FABRIC FOR GROUND STABILIZATION: 30,000 SQUARE YARDS

MODEL: D:\default  
 FILE: \bentech\paw\_bentech\paw\_bentech\com\benesch\paw-01\Documents\107005\107140\_001\Eng\_Docs\_Phase\_II\Gradings\162H15-sht-undercut-001.dgn



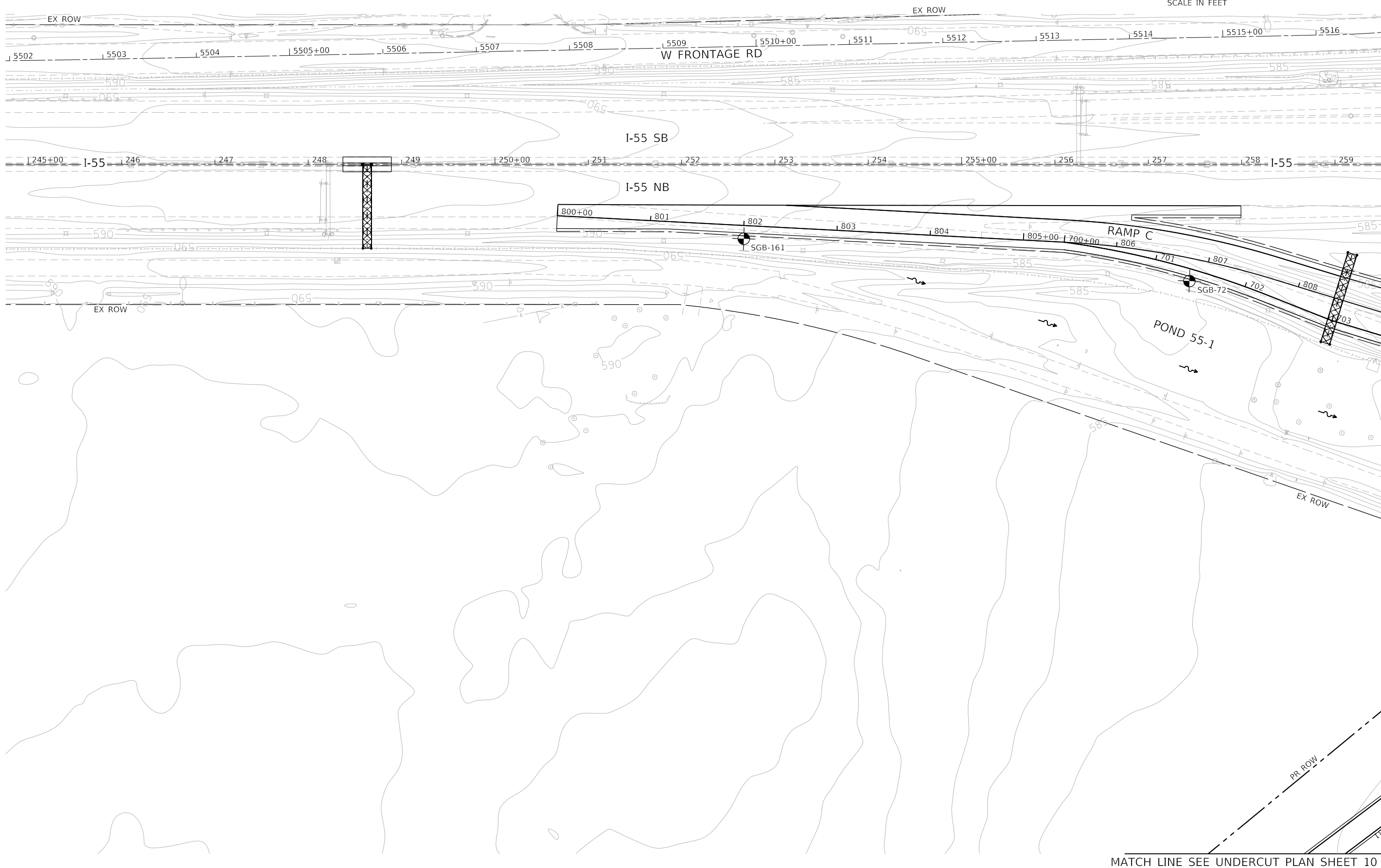
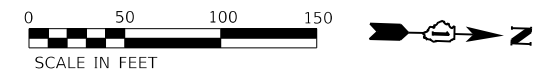
USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
PLOT SCALE = 9600,0000 ' / ft.	DRAWN - JWORTHINGTON	REVISED -
PLOT DATE = 7/15/2021	CHECKED - POBRIEN	REVISED -
	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OVERALL UNDERCUT PLAN  
KEY MAP**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2018-075-R	WILL	1349	102
CONTRACT NO. 62H15				
* FAI 55, FAP 338		ILLINOIS	FED. AID PROJECT	



MATCH LINE SEE UNDERCUT PLAN SHEET 10

MODEL: Default  
 FILE: \\benesch-pw-bentley.com\benesch-pw-01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-002.dgn



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
	DRAWN - JWORTHINGTON	REVISED -
PLOT SCALE = 1/200.0000' / ft.	CHECKED - POBRIEN	REVISED -
PLOT DATE = 7/15/2021	DATE - 12/04/2020	REVISED -

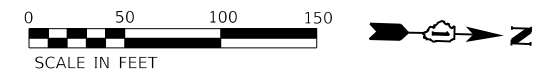
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
 SHEET 1 OF 10**

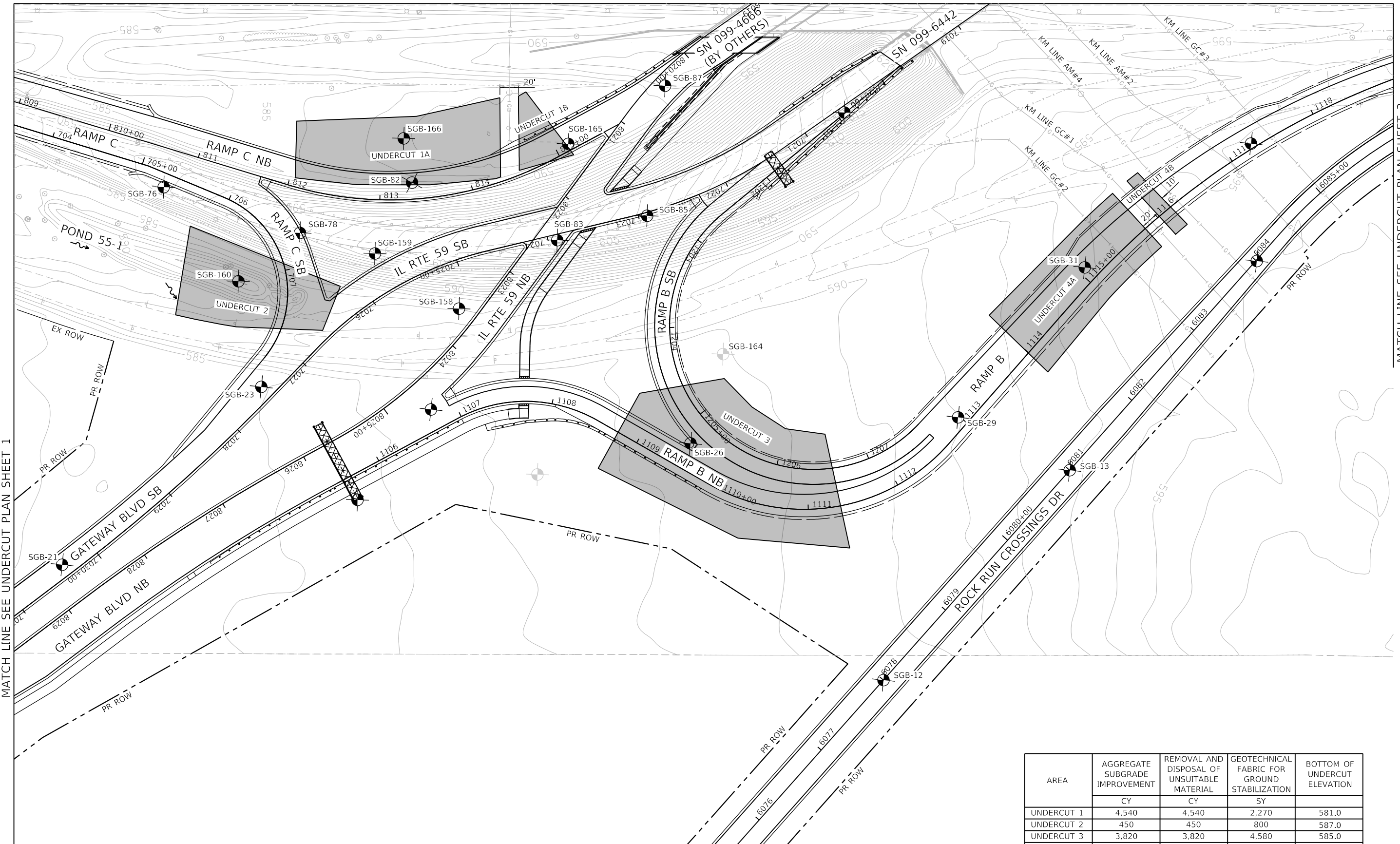
SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	103
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				

D:\62H15-sht-undercut-002.dgn  
 55746  
 2012/11/30



MATCH LINE SEE UNDERCUT PLAN SHEET 8



MATCH LINE SEE UNDERCUT PLAN SHEET 1

MATCH LINE SEE UNDERCUT PLAN SHEET 3

MATCH LINE SEE UNDERCUT PLAN SHEET 10

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 1	4,540	4,540	2,270	581.0
UNDERCUT 2	450	450	800	587.0
UNDERCUT 3	3,820	3,820	4,580	585.0
UNDERCUT 4	2,140	2,140	1,840	590.0

MODEL: Default; FILE: \\sbs\proj\benesch-pw\benesch-pw-01\Documents\107005\10740\_00\Eng\_Docs\_Phase II\Grading\162H15-sht-undercut-003.dgn



USER NAME = jworthington  
 PLOT SCALE = 1200.0000' / ft.  
 PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
 DRAWN - JWORTHINGTON  
 CHECKED - POBRIEN  
 DATE - 12/04/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

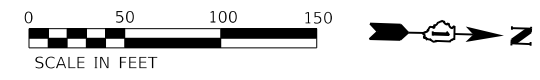
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
 SHEET 2 OF 10**

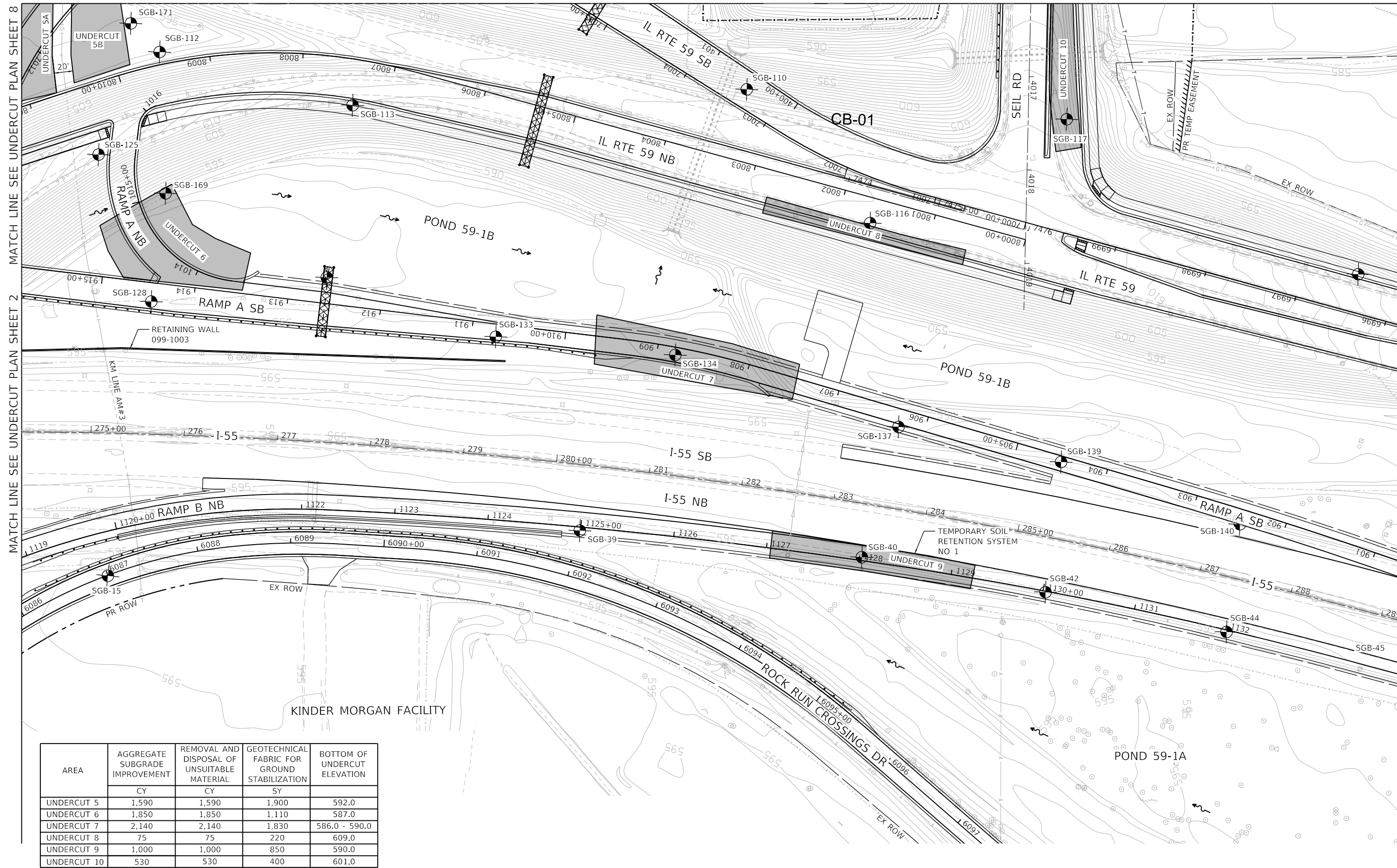
SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	104
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\62H15-sht-undercut-003.dgn  
 55746  
 2012/11/30



MATCH LINE SEE UNDERCUT PLAN SHEET 9



MATCH LINE SEE UNDERCUT PLAN SHEET 8

MATCH LINE SEE UNDERCUT PLAN SHEET 2

MATCH LINE SEE UNDERCUT PLAN SHEET 4

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 5	1,590	1,590	1,900	592.0
UNDERCUT 6	1,850	1,850	1,110	587.0
UNDERCUT 7	2,140	2,140	1,830	586.0 - 590.0
UNDERCUT 8	75	75	220	609.0
UNDERCUT 9	1,000	1,000	850	590.0
UNDERCUT 10	530	530	400	601.0

MODEL: Default  
FILE: \\s:\bentley\pub\benesch\p\62h15-sht-undercut-004.dgn  
D:\62H15-sht-undercut-004.dgn  
55746  
2012/11/30



USER NAME = jworthington  
PLOT SCALE = 1200.0000' / ft.  
PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

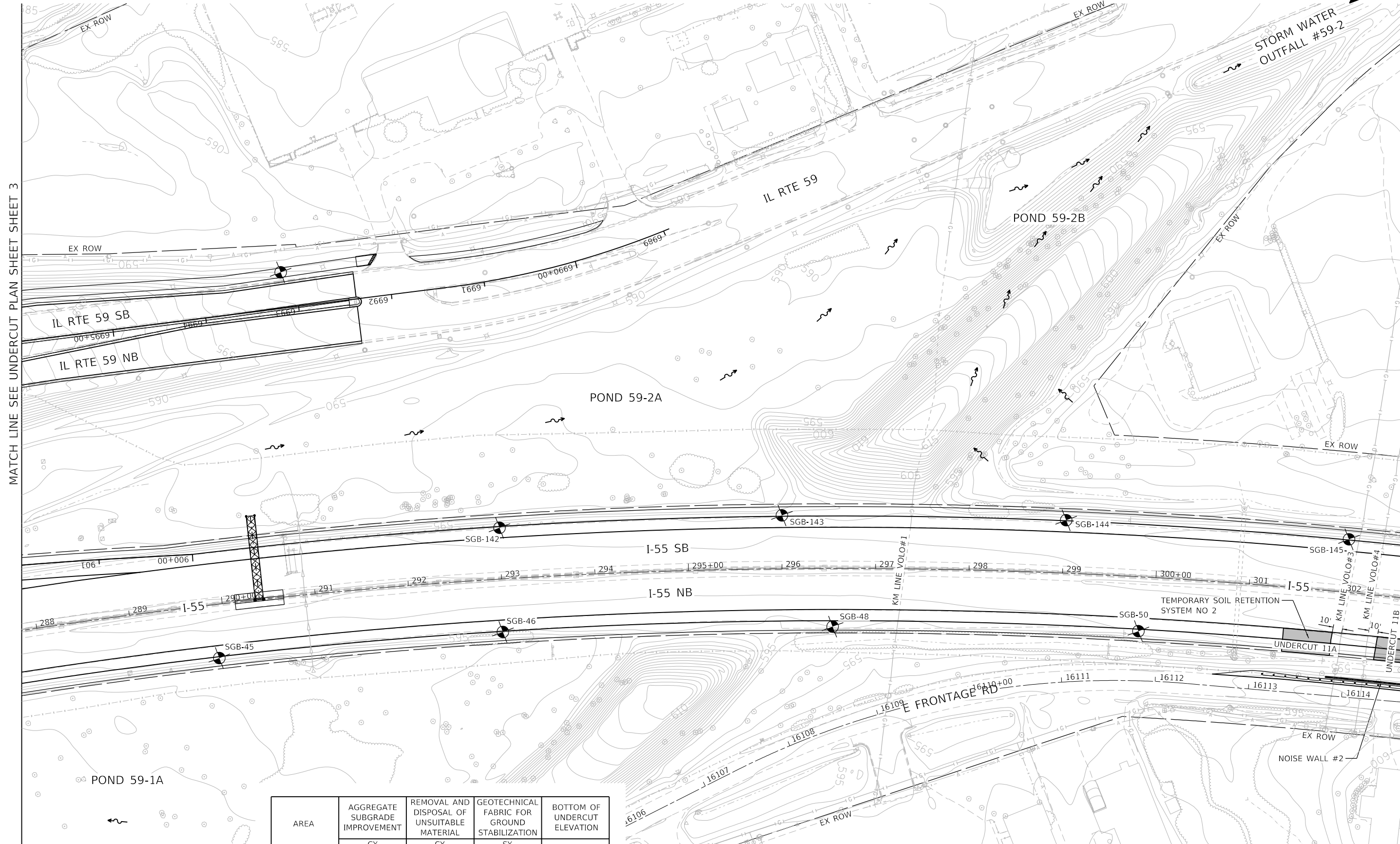
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 3 OF 10**

SCALE: 1" = 50'  
SHEET OF SHEETS STA. TO STA.

F.A./P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	105
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				





MATCH LINE SEE UNDERCUT PLAN SHEET SHEET 3

SEE UNDERCUT PLAN SHEET SHEET 5

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 11	1,700	1,700	1,300	593.0

MODEL: Default  
FILE: \\nas01c:\pub\benesch-pw\benesch-pw\01\Documents\107005\10740\00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-005.dgn  
D:\162H15-sht-undercut-005.dgn  
55746  
2012/11/30



USER NAME = jworthington  
DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
PLOT SCALE = 1/2000.0000' / ft.  
CHECKED - POBRIEN  
PLOT DATE = 7/15/2021  
DATE - 12/04/2020

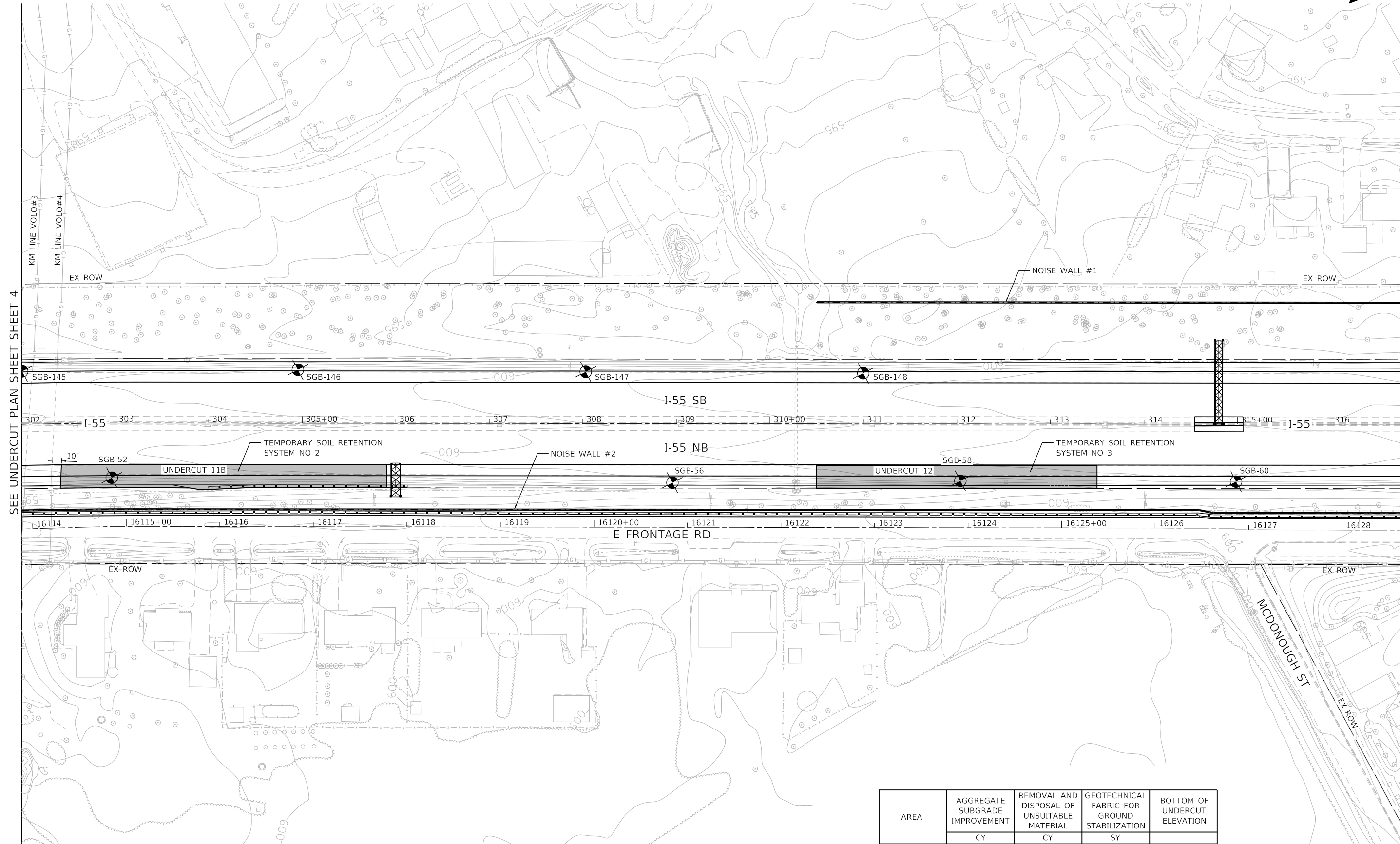
REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 4 OF 10**

SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	106
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				



SEE UNDERCUT PLAN SHEET 4

MATCH LINE SEE UNDERCUT PLAN SHEET 6

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 12	1,290	1,290	970	595.0

MODEL: Default  
FILE: \\bentech-pw-bentech.com\benesch\pww\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-006.dgn



USER NAME = jworthington  
PLOT SCALE = 1/200,0000 ' / ft.  
PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

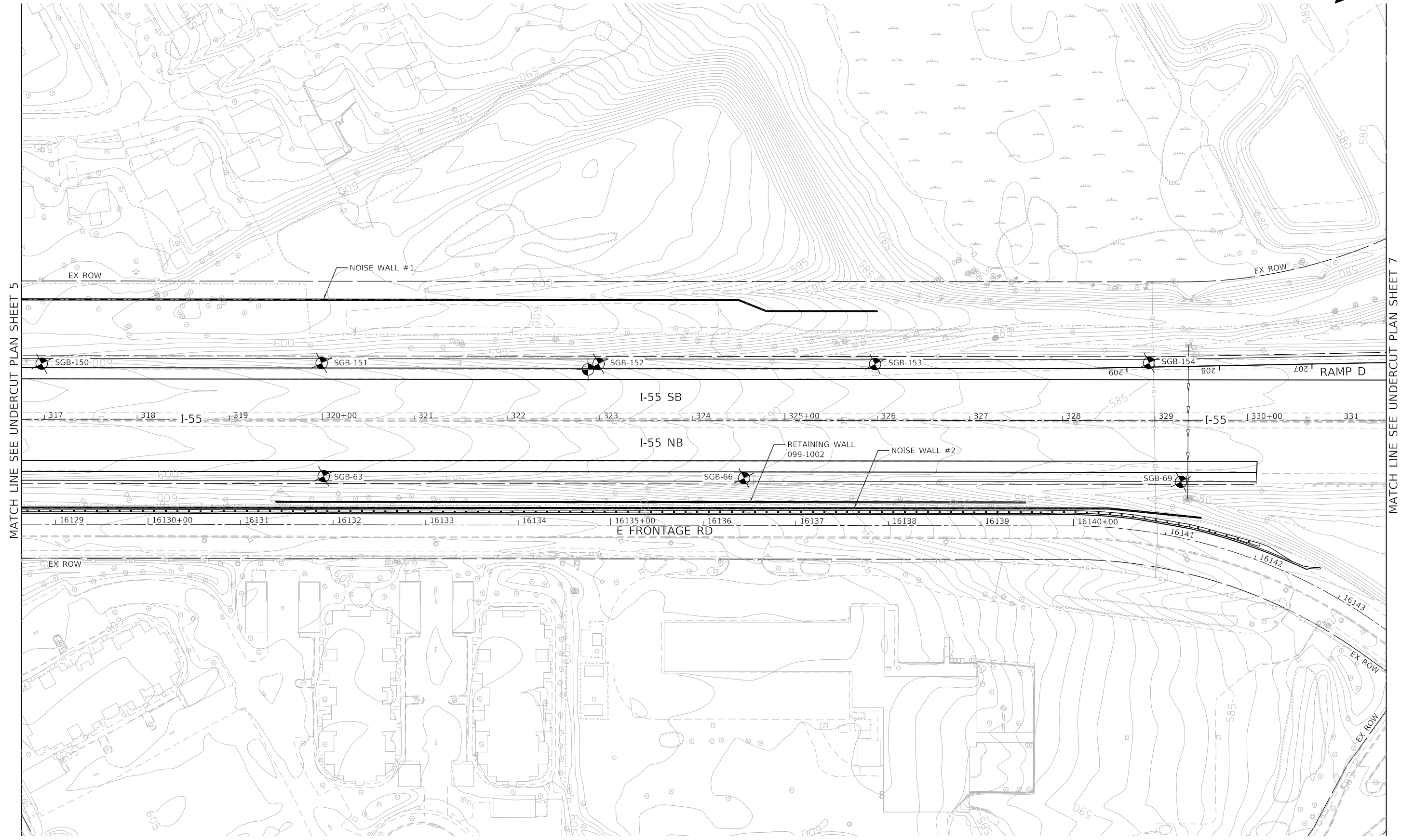
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 5 OF 10**

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	107
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\62H15-sht-undercut-006.dgn  
55746  
2012/11/30



MATCH LINE SEE UNDERCUT PLAN SHEET 5

MATCH LINE SEE UNDERCUT PLAN SHEET 7

MODEL: Default  
FILE: \\nas01c:\pub\benesch-pw\benesch-pw-01\Documents\107005\107140\001\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-007.dgn



USER NAME = jworthington  
PLOT SCALE = 1200.0000' / ft.  
PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

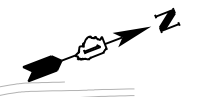
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 6 OF 10**

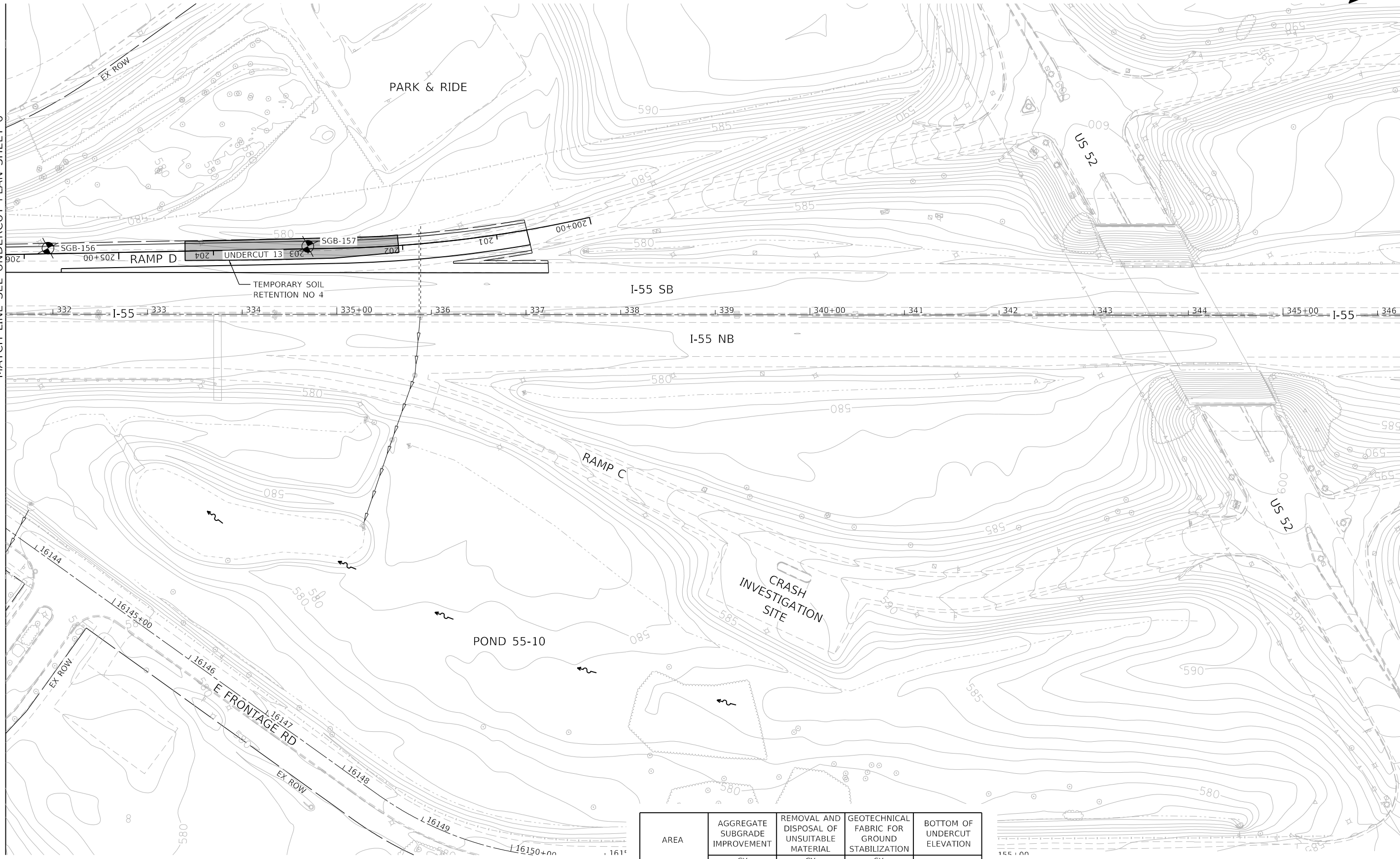
SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	108
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D:\162H15-sht-undercut-007.dgn  
55746  
2012/11/30



MATCH LINE SEE UNDERCUT PLAN SHEET 6



AREA	AGGREGATE SUBGRADE IMPROVEMENT CY	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL CY	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION SY	BOTTOM OF UNDERCUT ELEVATION
UNDERCUT 13	430	430	515	578.0

MODEL: Default  
FILE: \\bentley.com\benesch\paw\benesch\paw\01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-008.dgn



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
PLOT SCALE = 1200.0000' / ft.	DRAWN - JWORTHINGTON	REVISED -
PLOT DATE = 7/15/2021	CHECKED - POBRIEN	REVISED -
	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 7 OF 10**

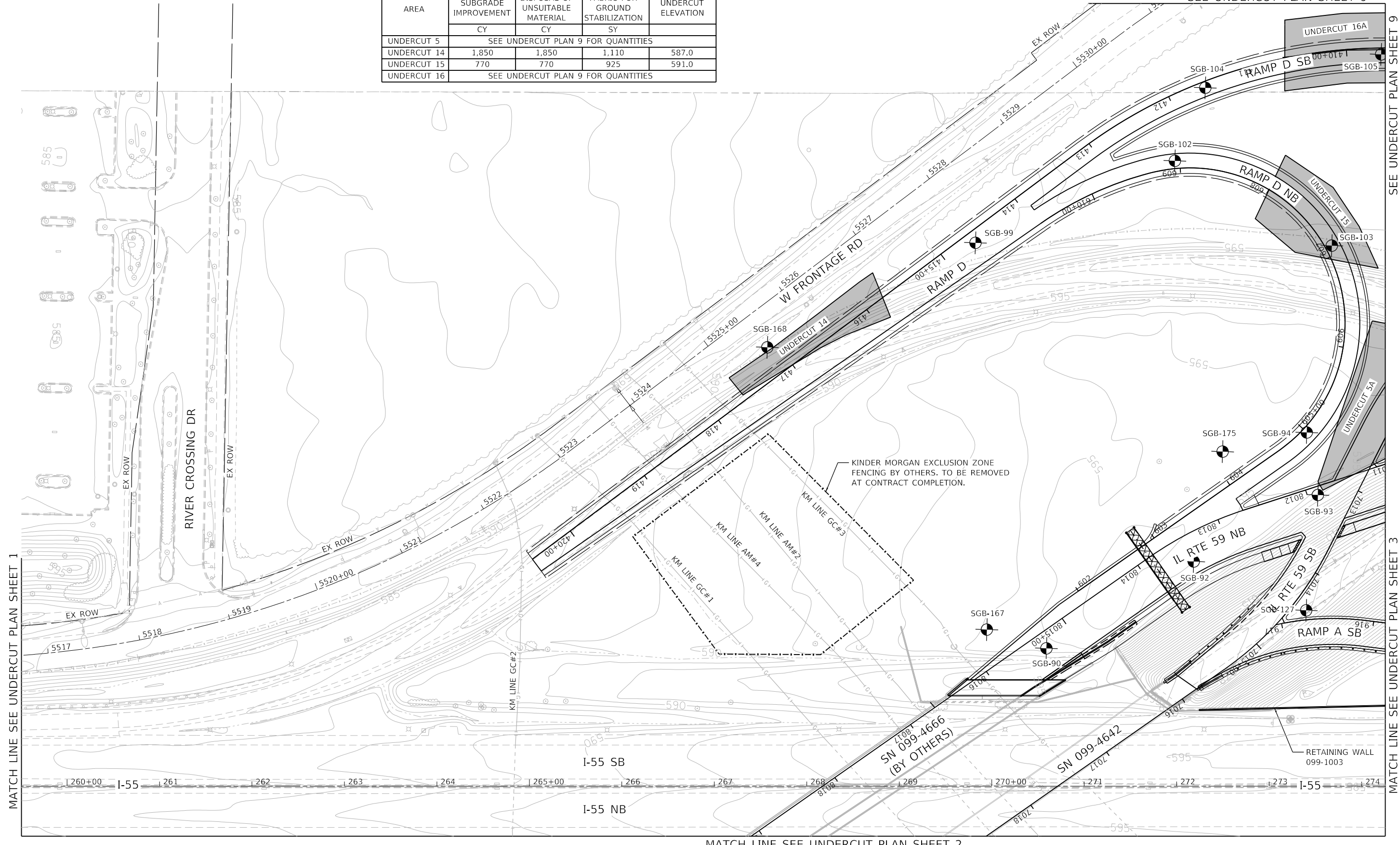
SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO    STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	109
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				

D:\62H15-sht-undercut-008.dgn  
55746  
2012/11/30



AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 5	SEE UNDERCUT PLAN 9 FOR QUANTITIES			
UNDERCUT 14	1,850	1,850	1,110	587.0
UNDERCUT 15	770	770	925	591.0
UNDERCUT 16	SEE UNDERCUT PLAN 9 FOR QUANTITIES			



MATCH LINE SEE UNDERCUT PLAN SHEET 1

SEE UNDERCUT PLAN SHEET 9

MATCH LINE SEE UNDERCUT PLAN SHEET 3

MATCH LINE SEE UNDERCUT PLAN SHEET 2

MODEL: Default  
FILE: \\bentech-pw-bentech.com\benesch\proj\11\Documents\1107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-shr-undercut-009.dgn



USER NAME = jworthington  
PLOT SCALE = 1200.0000 ' / ft.  
PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
DRAWN - JWORTHINGTON  
CHECKED - POBRIEN  
DATE - 12/04/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN  
SHEET 8 OF 10**

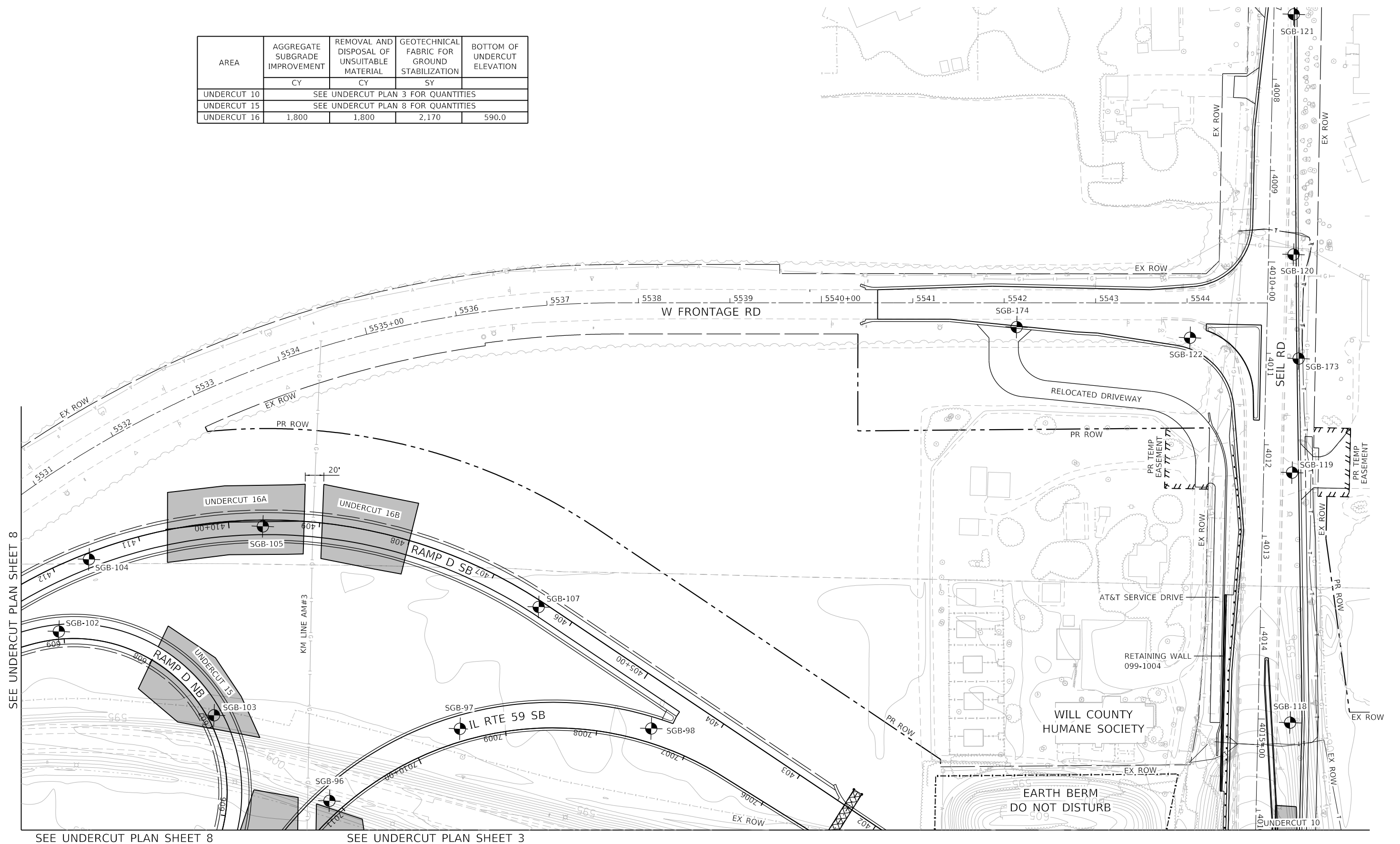
SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	110
CONTRACT NO. 62H15				
* FAI 55, FAP 338 ILLINOIS FED. AID PROJECT				

D162H15-shr-undercut-009.dgn  
55746  
2012/11/30



AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 10	SEE UNDERCUT PLAN 3 FOR QUANTITIES			
UNDERCUT 15	SEE UNDERCUT PLAN 8 FOR QUANTITIES			
UNDERCUT 16	1,800	1,800	2,170	590.0



MODEL: Default  
 FILE: \\bentech-pw-bentech-pw-bentech-pw-01\Documents\107005\10740\_00\Eng\_Docs\_Phase\_II\Grading\162H15-sht-undercut-010.dgn  
 2012/11/30

SEE UNDERCUT PLAN SHEET 8      SEE UNDERCUT PLAN SHEET 3



USER NAME = jworthington	DESIGNED - NREYNOLDS	REVISED -
PLOT SCALE = 1200.0000 ' / ft.	DRAWN - JWORTHINGTON	REVISED -
PLOT DATE = 7/15/2021	CHECKED - POBRIEN	REVISED -
	DATE - 12/04/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

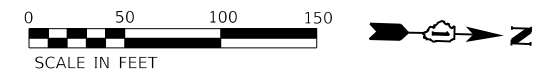
**UNDERCUT PLAN  
SHEET 9 OF 10**

SCALE: 1" = 50'      SHEET OF SHEETS      STA. TO STA.

F.A./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-075-R	WILL	1349	111
CONTRACT NO. 62H15				

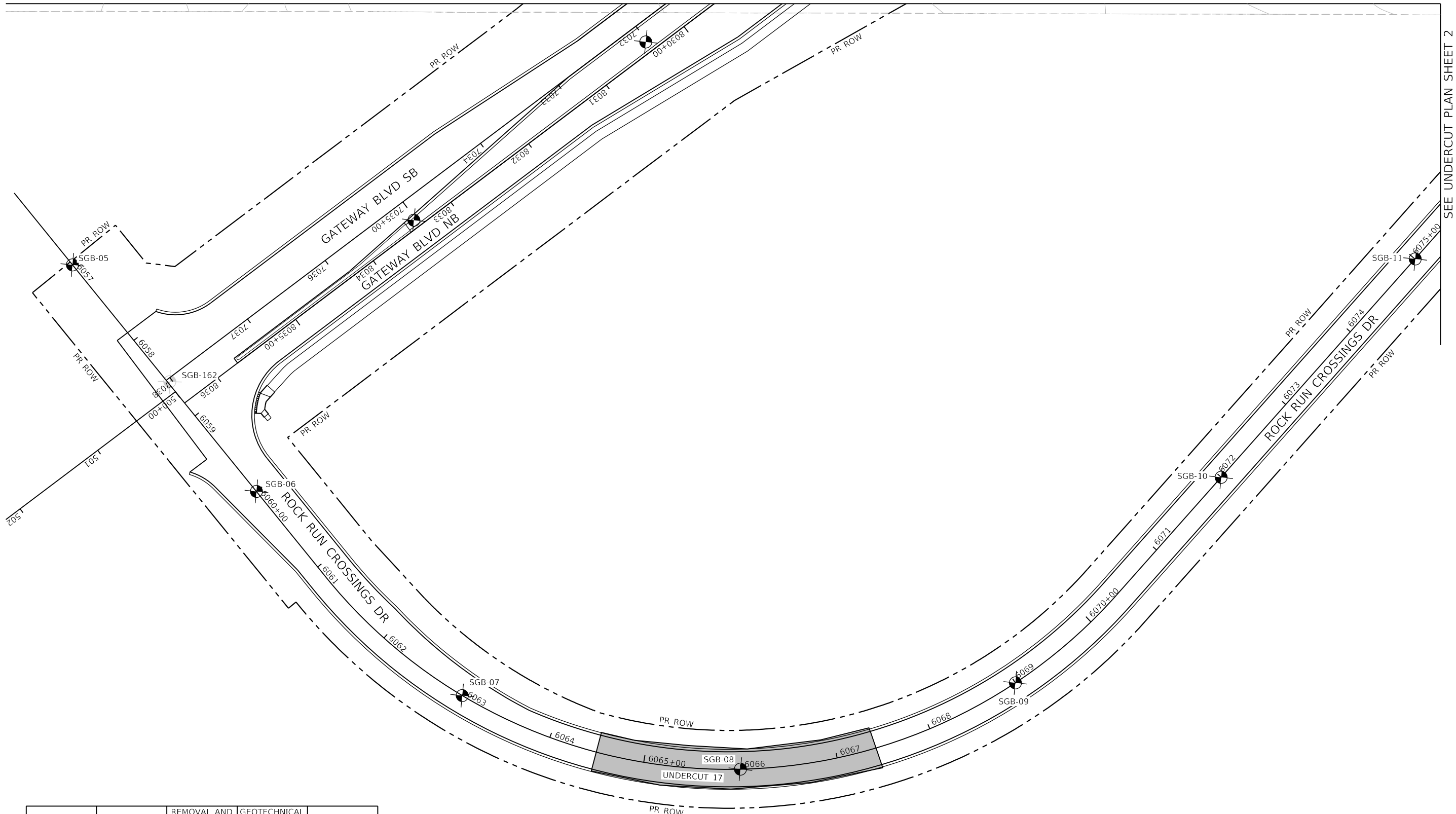
\* FAI 55, FAP 338      ILLINOIS      FED. AID PROJECT

D:\162H15-sht-undercut-010.dgn  
55746  
2012/11/30



MATCH LINE SEE UNDERCUT PLAN SHEET 1

SEE UNDERCUT PLAN SHEET 2



SEE UNDERCUT PLAN SHEET 2

AREA	AGGREGATE SUBGRADE IMPROVEMENT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	BOTTOM OF UNDERCUT ELEVATION
	CY	CY	SY	
UNDERCUT 17	975	975	1,462	580.0

MODEL: Default  
 FILE: \\bentley.com\benesch\pwworking\Documents\107005\10740\00\Eng\_Docs\_Phase\_1\Grading\162H15-sht-undercut-011.dgn  
 D:\162H15-sht-undercut-011.dgn  
 55746  
 2012/11/30



USER NAME = jworthington  
 PLOT SCALE = 1/2000.0000 ' / ft.  
 PLOT DATE = 7/15/2021

DESIGNED - NREYNOLDS  
 DRAWN - JWORTHINGTON  
 CHECKED - POBRIEN  
 DATE - 12/04/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**UNDERCUT PLAN**  
**SHEET 10 OF 10**

SCALE: 1" = 50'    SHEET    OF    SHEETS    STA.    TO STA.

F.A./P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	2018-075-R	WILL	1349	112
CONTRACT NO. 62H15				
* FAI 55, FAP 338    ILLINOIS    FED. AID PROJECT				