

PROJECT: 17BP.4.R.103 REFERENCE: NA

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<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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**STATE OF NORTH CAROLINA**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**GEOTECHNICAL ENGINEERING UNIT**

**STRUCTURE**  
**SUBSURFACE INVESTIGATION**

COUNTY WAYNE  
PROJECT DESCRIPTION BRIDGE NO. 96 ON SR 1006  
(GRANTHAM SCHOOL RD.) OVER THOROUGHFARE  
SWAMP AT -L- STA. 20 + 53

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.4.R.103	1	7

**CAUTION NOTICE**

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1919 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

NOTES:

- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
- BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

NCDOT PERSONNEL

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INVESTIGATED BY NCDOT

DRAWN BY J.L. STONE PG

CHECKED BY S. HUDSON PG

SUBMITTED BY J.L. STONE PG

DATE NOVEMBER 2018



SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

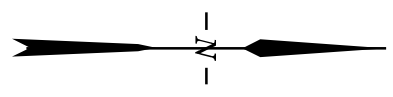
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GEOTECHNICAL ENGINEERING UNIT  
SUBSURFACE INVESTIGATION  
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS**

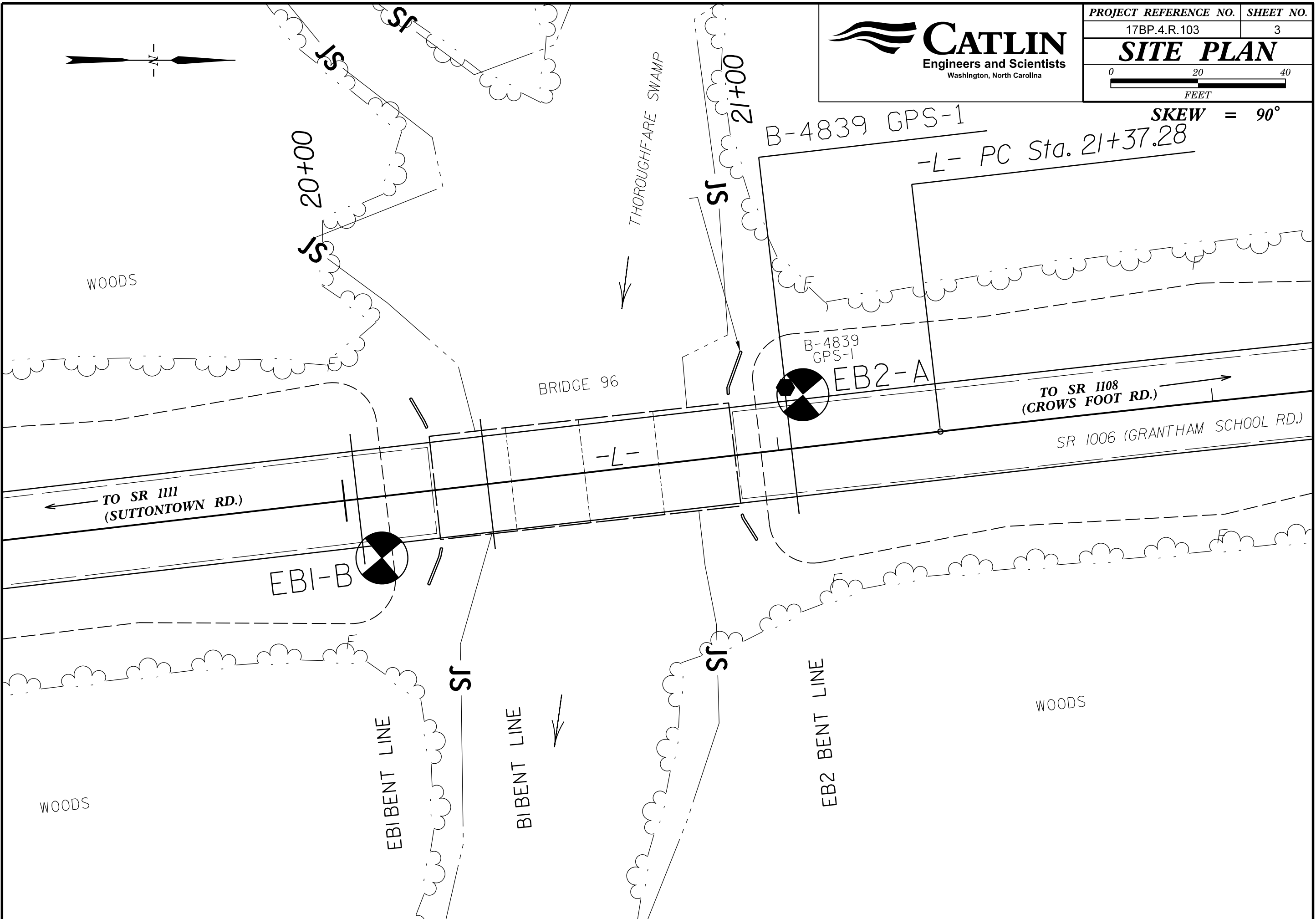
SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS																																																																																																																																																																																																																															
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6										WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.										HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED, AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:										ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOADED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (IN OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.																																																																																																																																																																																																																															
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GRAVEL, AND SAND</td> <td>FINE SAND</td> <td colspan="2">SILTY OR CLAYEY GRAVEL AND SAND</td> <td colspan="2">SILTY SOILS</td> <td colspan="2">CLAYEY SOILS</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td></td> </tr> <tr> <th>GEN. RATING AS SUBGRADE</th> <td colspan="5">EXCELLENT TO GOOD</td> <td colspan="5">FAIR TO POOR</td> <td>FAIR TO POOR</td> <td>POOR</td> <td>UNSATURABLE</td> <td colspan="5"></td> </tr> <tr> <td colspan="16">PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS &gt; LL - 30</td> </tr> </table>										GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)					SILT-CLAY MATERIALS (> 35% PASSING #200)					ORGANIC MATERIALS					GROUP CLASS.	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SEV.)</th> <th>SEVERE (SEV.)</th> <th>VERY SEVERE (IV SEV.)</th> <th>COMPLETE</th> </tr> <tr> <td>ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.</td> <td>ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN. CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.</td> <td>ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.</td> <td>SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.</td> <td>ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. 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MATERIAL PASSING #40 LL PI	-		NP	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS																																																																																																																																																																																																																																															
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CLOSE	0.16 TO 1 FOOT	VERY THINLY BEDDED	0.03 - 0.16 FEET																																																																																																																																																																																																																																																										
VERY CLOSE	LESS THAN 0.16 FEET	THICKLY LAMINATED	0.008 - 0.03 FEET																																																																																																																																																																																																																																																										
		THINLY LAMINATED	< 0.008 FEET																																																																																																																																																																																																																																																										
NON PLASTIC	PLASTICITY INDEX (PI)	DRY STRENGTH																																																																																																																																																																																																																																																											
SLIGHTLY PLASTIC	0-5	VERY LOW																																																																																																																																																																																																																																																											
MODERATELY PLASTIC	6-15	SLIGHT																																																																																																																																																																																																																																																											
HIGHLY PLASTIC	16-25	MEDIUM																																																																																																																																																																																																																																																											
	26 OR MORE	HIGH																																																																																																																																																																																																																																																											
FRIABLE	MODERATELY INDURATED	INDURATED	EXTREMELY INDURATED																																																																																																																																																																																																																																																										
RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.	GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.	GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.	SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.																																																																																																																																																																																																																																																										
ELEVATION: 127.1 FEET																																																																																																																																																																																																																																																													

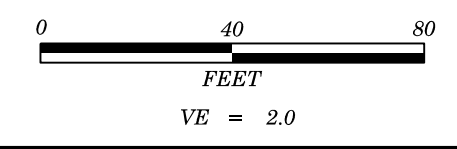


PROJECT REFERENCE NO.	SHEET NO.
17BP.4.R.103	3
<b>SITE PLAN</b>	
0 20 40 FEET	

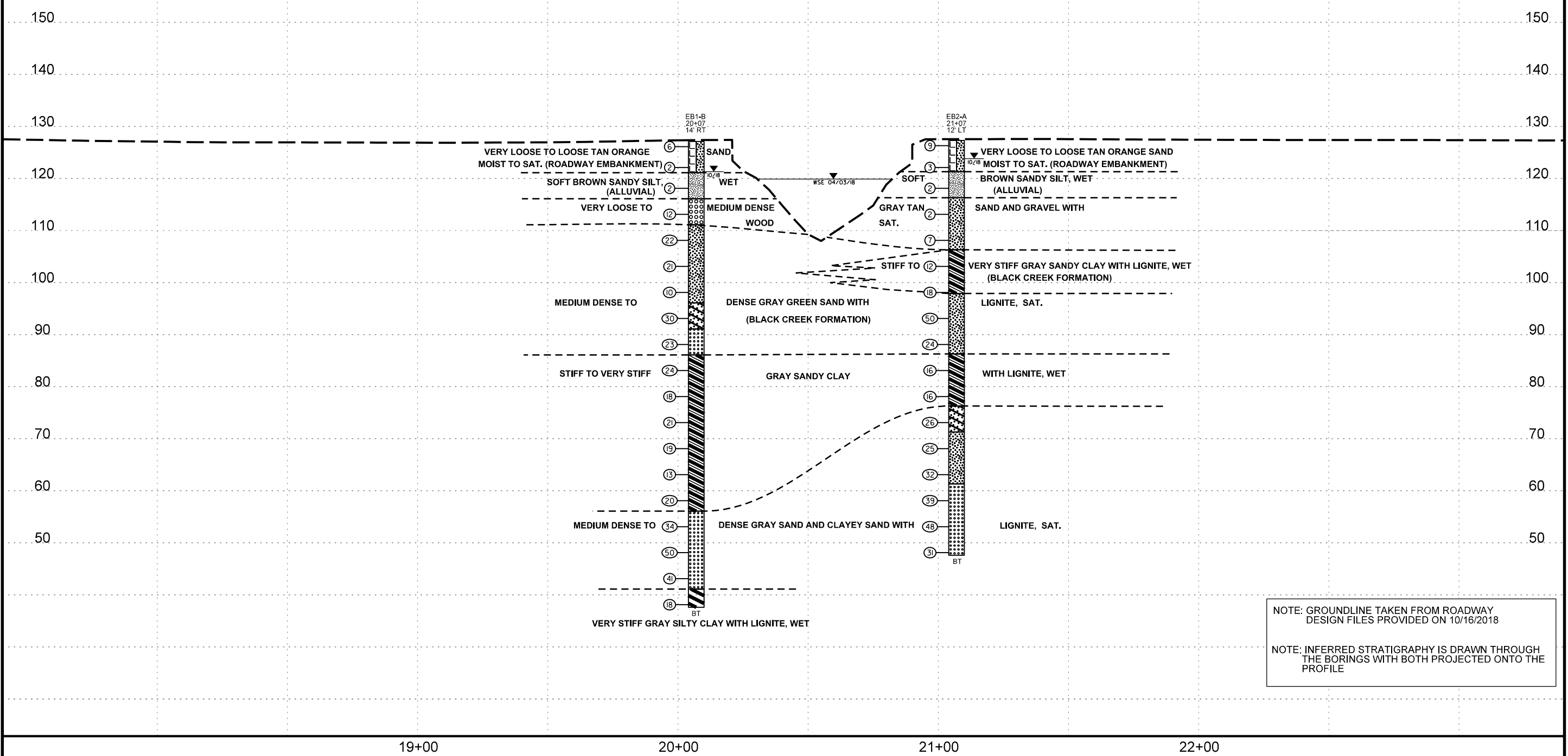


**SKEW = 90°**





## PROFILE THROUGH BORINGS PROJECTED ALONG -L-

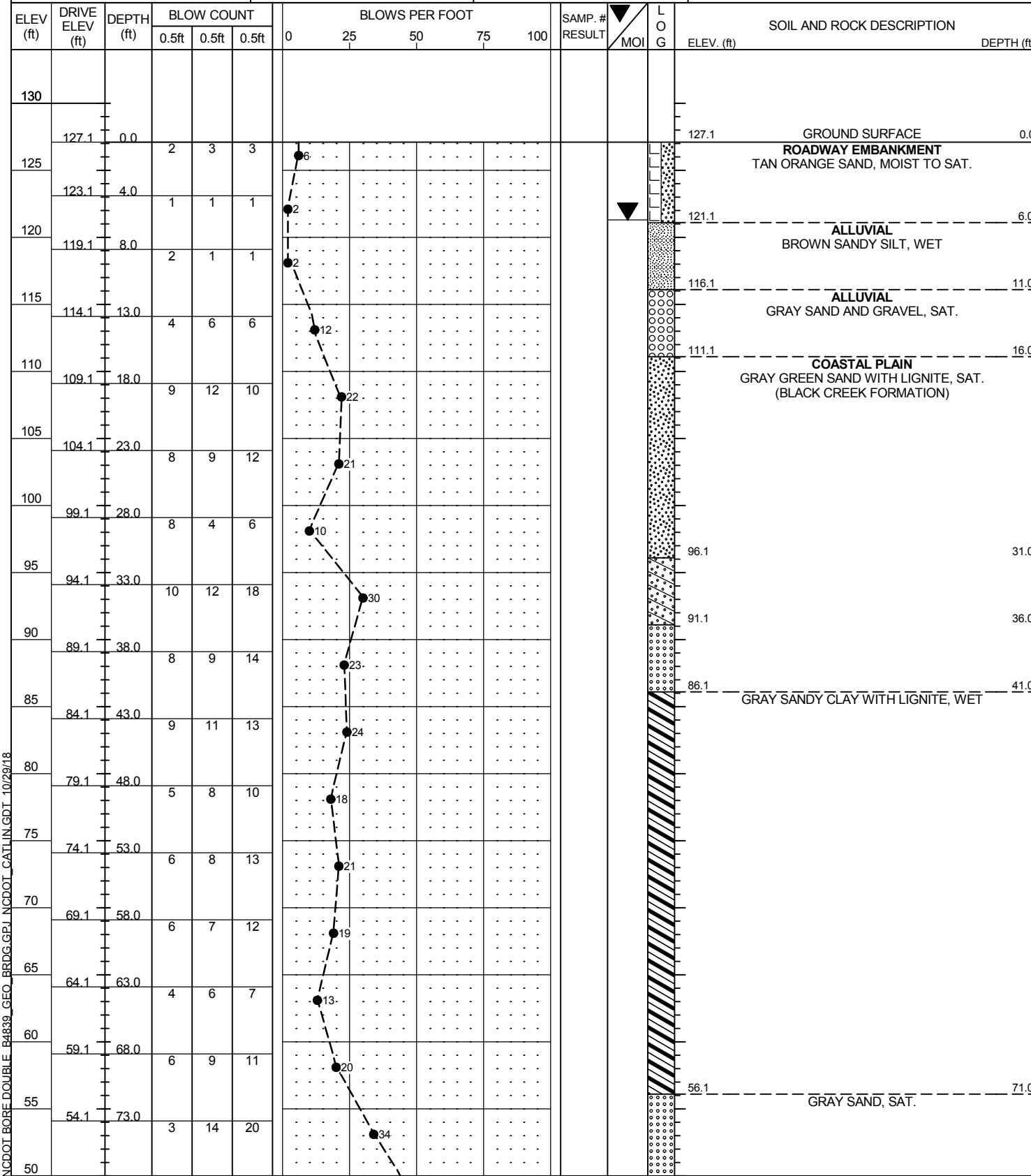


NOTE: GROUNDLINE TAKEN FROM ROADWAY DESIGN FILES PROVIDED ON 10/16/2018

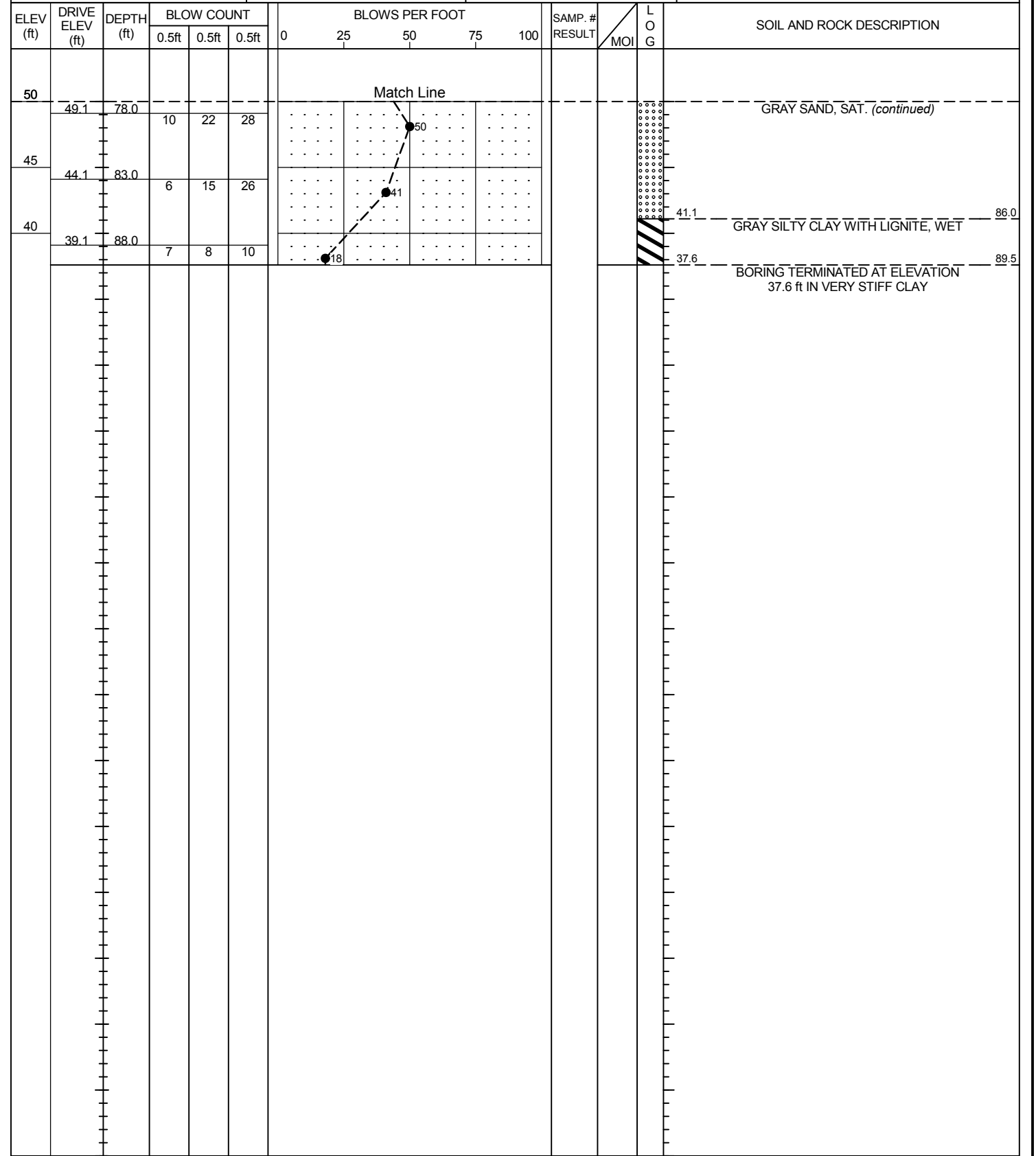
NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE PROFILE

# GEOTECHNICAL BORING REPORT BORE LOG

<b>WBS:</b> 17BP.4.R.103	<b>TIP:</b> B-4839	<b>COUNTY:</b> WAYNE	<b>GEOLOGIST:</b> ZIMARINO
<b>SITE DESCRIPTION</b> BRIDGE NO. 96 ON -L- (SR-1006) OVER THOROUGHFARE SWAMP AT -L- STA. 20+53			<b>GROUND WTR (ft)</b>
<b>BORING NO.:</b> EB1-B	<b>STATION:</b> 20+07	<b>OFFSET:</b> 14 ft RT	<b>ALIGNMENT:</b> -L-
<b>COLLAR ELEV.:</b> 127.1 ft	<b>TOTAL DEPTH:</b> 89.5 ft	<b>NORTHING:</b> 540,506	<b>EASTING:</b> 2,245,879
<b>DRILL RIG/HAMMER EFF./DATE:</b> GFO0075 CME-45C 89% 08/13/2018		<b>DRILL METHOD:</b> Mud Rotary	
<b>DRILLER:</b> SMITH		<b>HAMMER TYPE:</b> AUTOMATIC	
<b>START DATE:</b> 10/24/18		<b>COMP. DATE:</b> 10/25/18	
<b>SURFACE WATER DEPTH:</b> N/A			



<b>WBS:</b> 17BP.4.R.103	<b>TIP:</b> B-4839	<b>COUNTY:</b> WAYNE	<b>GEOLOGIST:</b> ZIMARINO
<b>SITE DESCRIPTION</b> BRIDGE NO. 96 ON -L- (SR-1006) OVER THOROUGHFARE SWAMP AT -L- STA. 20+53			<b>GROUND WTR (ft)</b>
<b>BORING NO.:</b> EB1-B	<b>STATION:</b> 20+07	<b>OFFSET:</b> 14 ft RT	<b>ALIGNMENT:</b> -L-
<b>COLLAR ELEV.:</b> 127.1 ft	<b>TOTAL DEPTH:</b> 89.5 ft	<b>NORTHING:</b> 540,506	<b>EASTING:</b> 2,245,879
<b>DRILL RIG/HAMMER EFF./DATE:</b> GFO0075 CME-45C 89% 08/13/2018		<b>DRILL METHOD:</b> Mud Rotary	
<b>DRILLER:</b> SMITH		<b>HAMMER TYPE:</b> AUTOMATIC	
<b>START DATE:</b> 10/24/18		<b>COMP. DATE:</b> 10/25/18	
<b>SURFACE WATER DEPTH:</b> N/A			

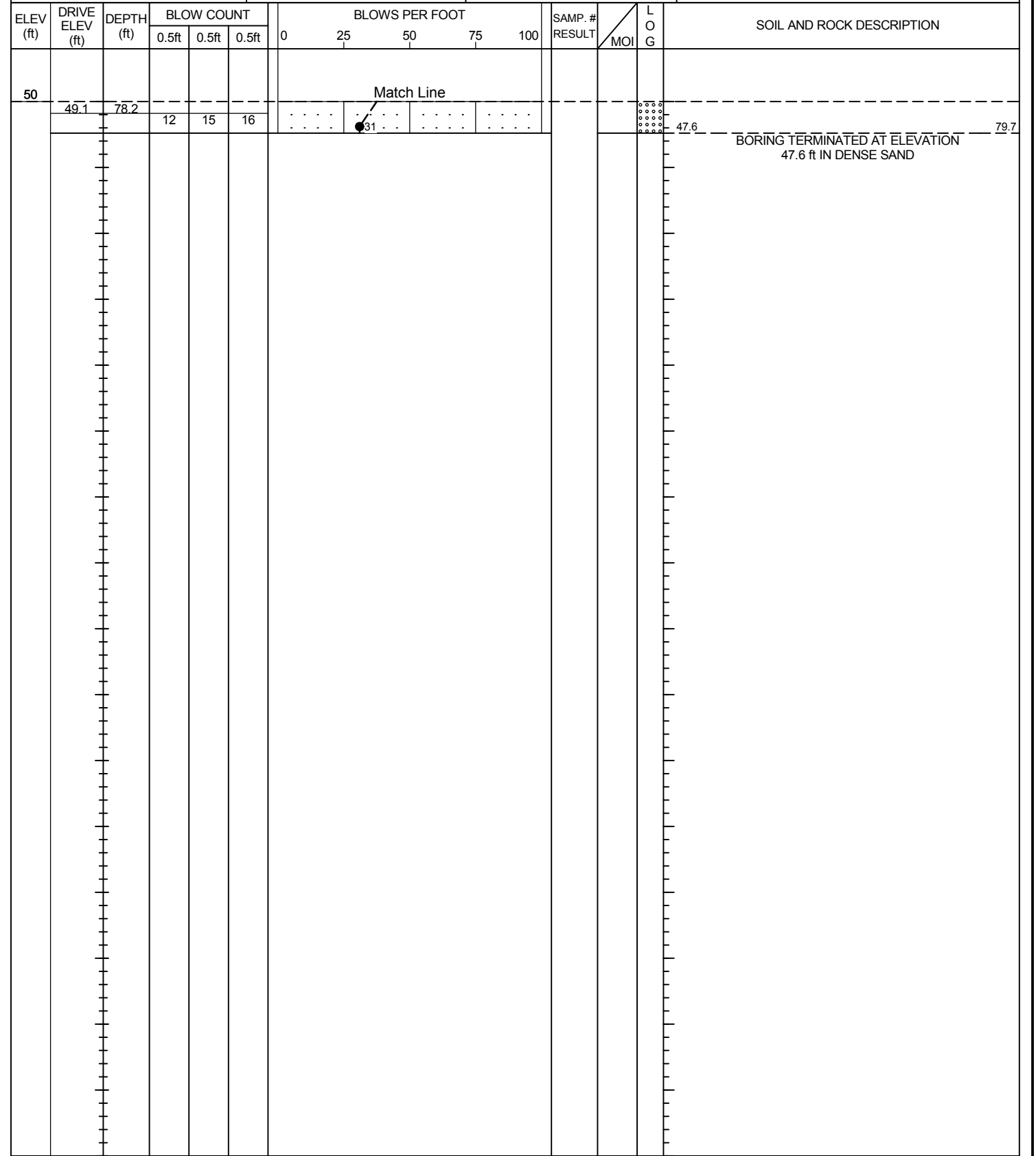
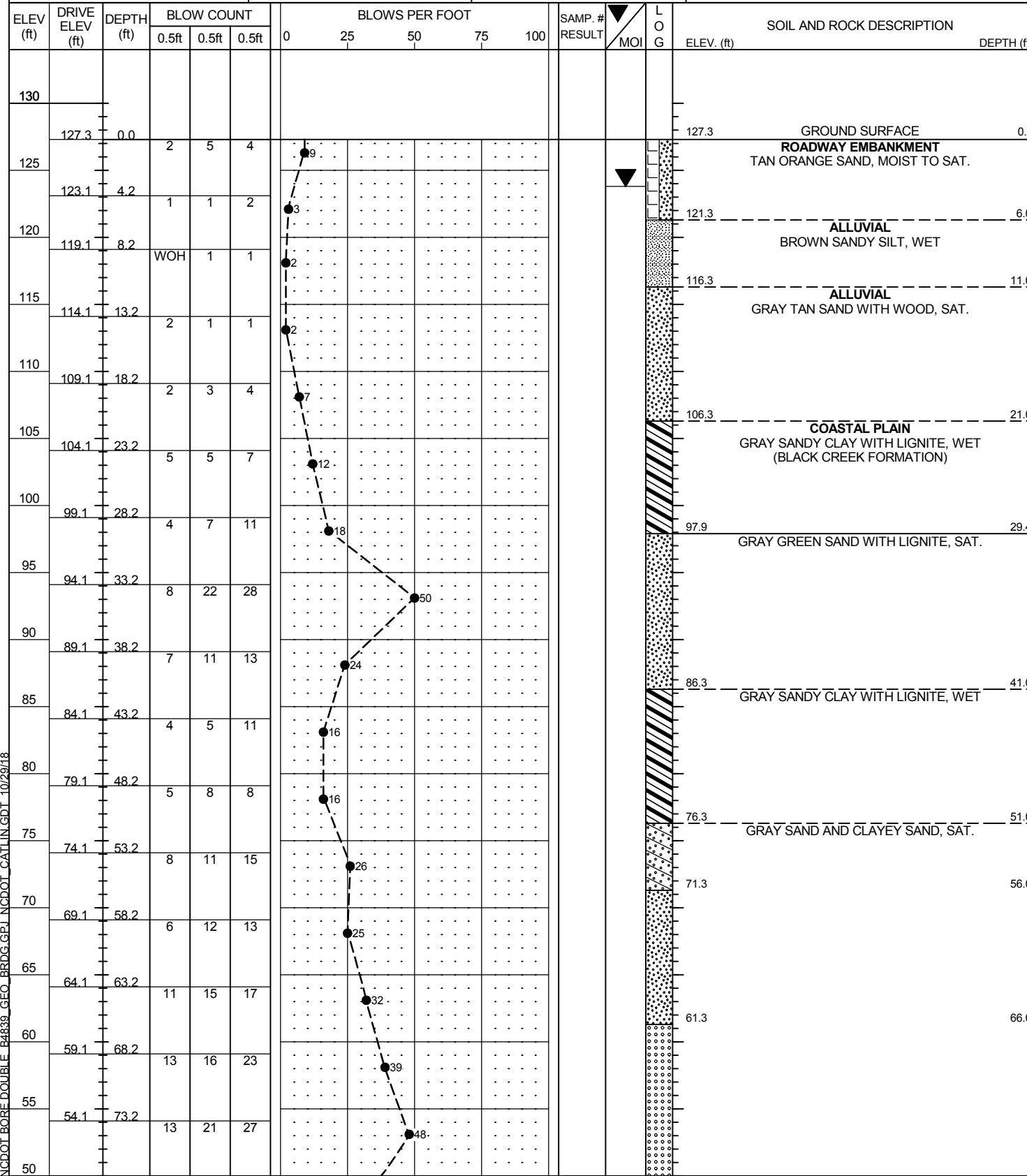


NCDOT BORE DOUBLE B4839\_GEO\_BRDG.GPJ NCDOT\_CATLIN.GDT 10/25/18

# GEOTECHNICAL BORING REPORT BORE LOG

<b>WBS:</b> 17BP.4.R.103	<b>TIP:</b> B-4839	<b>COUNTY:</b> WAYNE	<b>GEOLOGIST:</b> CORNETTE
<b>SITE DESCRIPTION</b> BRIDGE NO. 96 ON -L- (SR-1006) OVER THOROUGHFARE SWAMP AT -L- STA. 20+53			<b>GROUND WTR (ft)</b>
<b>BORING NO.:</b> EB2-A	<b>STATION:</b> 21+07	<b>OFFSET:</b> 12 ft LT	<b>ALIGNMENT:</b> -L-
<b>COLLAR ELEV.:</b> 127.3 ft	<b>TOTAL DEPTH:</b> 79.7 ft	<b>NORTHING:</b> 540,602	<b>EASTING:</b> 2,245,842
<b>DRILL RIG/HAMMER EFF./DATE:</b> GFO0075 CME-45C 89% 08/13/2018		<b>DRILL METHOD:</b> Mud Rotary	<b>HAMMER TYPE:</b> AUTOMATIC
<b>DRILLER:</b> SMITH	<b>START DATE:</b> 10/24/18	<b>COMP. DATE:</b> 10/24/18	<b>SURFACE WATER DEPTH:</b> N/A

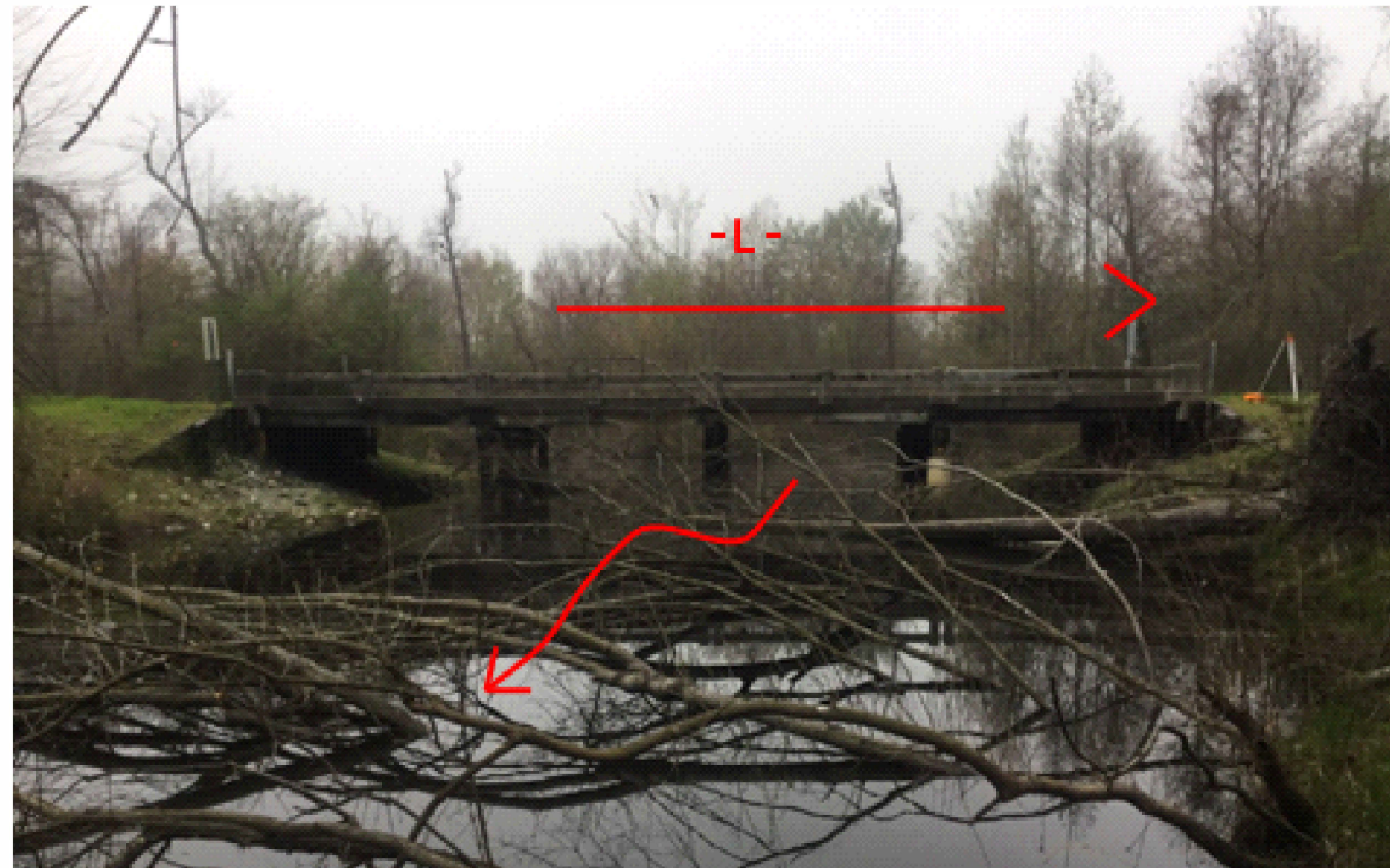
<b>WBS:</b> 17BP.4.R.103	<b>TIP:</b> B-4839	<b>COUNTY:</b> WAYNE	<b>GEOLOGIST:</b> CORNETTE
<b>SITE DESCRIPTION</b> BRIDGE NO. 96 ON -L- (SR-1006) OVER THOROUGHFARE SWAMP AT -L- STA. 20+53			<b>GROUND WTR (ft)</b>
<b>BORING NO.:</b> EB2-A	<b>STATION:</b> 21+07	<b>OFFSET:</b> 12 ft LT	<b>ALIGNMENT:</b> -L-
<b>COLLAR ELEV.:</b> 127.3 ft	<b>TOTAL DEPTH:</b> 79.7 ft	<b>NORTHING:</b> 540,602	<b>EASTING:</b> 2,245,842
<b>DRILL RIG/HAMMER EFF./DATE:</b> GFO0075 CME-45C 89% 08/13/2018		<b>DRILL METHOD:</b> Mud Rotary	<b>HAMMER TYPE:</b> AUTOMATIC
<b>DRILLER:</b> SMITH	<b>START DATE:</b> 10/24/18	<b>COMP. DATE:</b> 10/24/18	<b>SURFACE WATER DEPTH:</b> N/A



NCDOT BORE DOUBLE B4839\_GEO\_BRDG.GPI.NCDDOT\_CATLIN.GDT.10/29/18

**SITE PHOTO**

***BRIDGE NO. 96 ON SR 1006 OVER THOROUGHFARE SWAMP***



***LOOKING UPSTREAM***