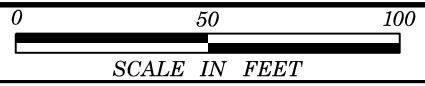
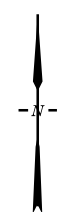
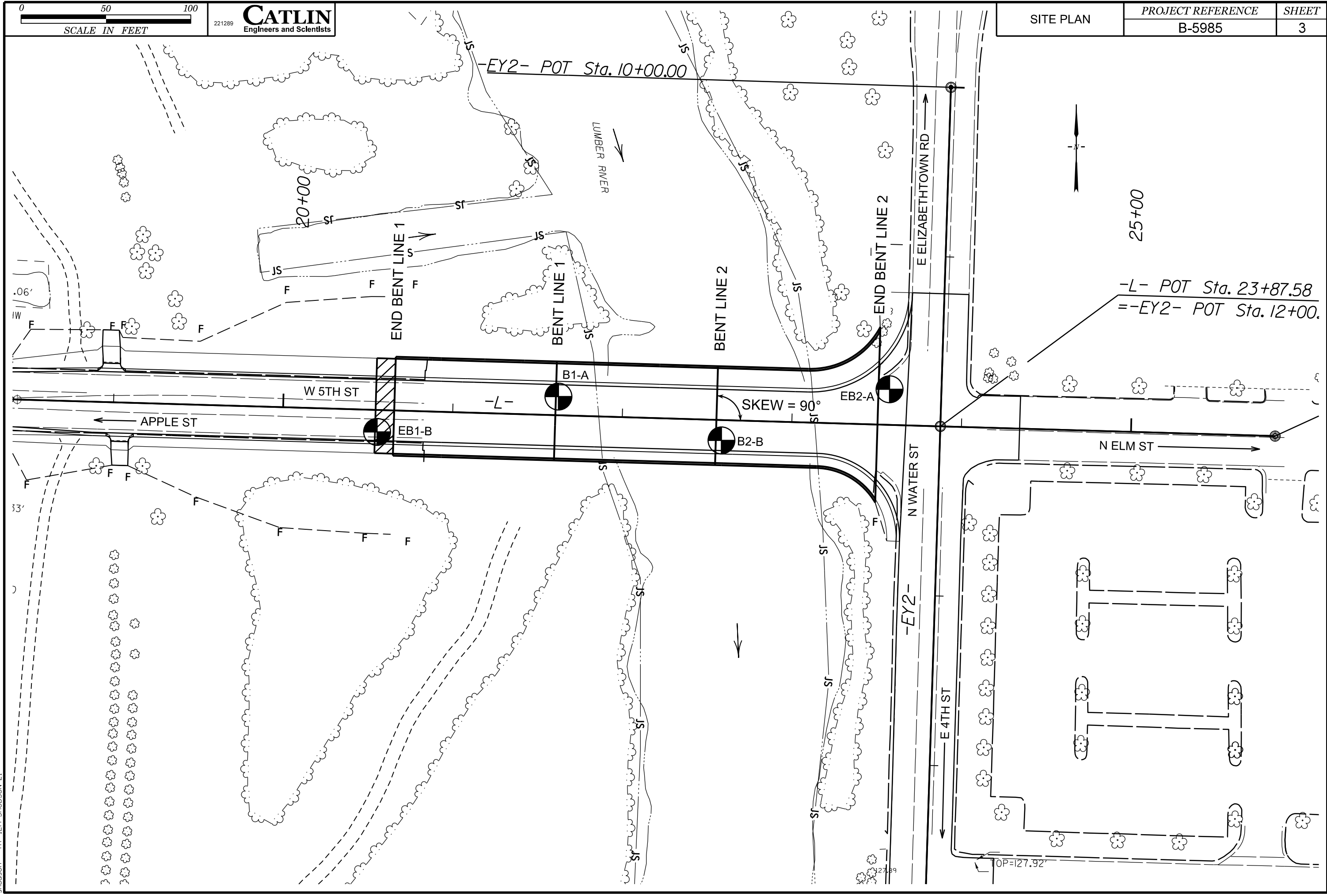


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

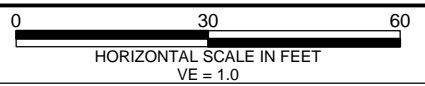
SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS																																																																																																																																																							
<p>SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, 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 208, 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, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i></p>										<p>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.</p>										<p>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. 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:</p>										<p>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 DISLOGGED 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 (N 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.</p>																																																																																																																																																							
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<p>MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.</p>										<p>SLIGHTLY COMPRESSIBLE LL < 31 MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50</p>										<p>FRESH - ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.</p> <p>VERY SLIGHT (IV SL.) - 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.</p> <p>SLIGHT (SL.) - 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.</p> <p>MODERATE (MOD.) - 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.</p> <p>MODERATELY SEVERE (MOD. SEV.) - ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. <i>IF TESTED, WOULD YIELD SPT REFUSAL</i></p> <p>SEVERE (SEV.) - ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. <i>IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF</i></p> <p>VERY SEVERE (IV SEV.) - ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <i>IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF</i></p> <p>COMPLETE - ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.</p>										<p>VERY HARD - CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.</p> <p>HARD - CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.</p> <p>MODERATELY HARD - CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.</p> <p>MEDIUM HARD - CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.</p> <p>SOFT - CAN BE GROOVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.</p> <p>VERY SOFT - CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGER NAIL.</p>																																																																																																																																																							
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<p>DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.</p>										<p>UNDERCUT</p> <p>SHALLOW UNDERCUT</p> <p>UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE</p> <p>UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK</p>										<p>AR - AUGER REFUSAL BT - BORING TERMINATED CL - CLAY CPT - CONE PENETRATION TEST CSE - COARSE DMT - DILATOMETER TEST DPT - DYNAMIC PENETRATION TEST e - VOID RATIO F - FINE FOSS. - FOSSILIFEROUS FRAC. - FRACTURED, FRACTURES FRAGS. - FRAGMENTS HI. - HIGHLY</p> <p>MED. - MEDIUM MICA - MICACEOUS MOD. - MODERATELY NP - NON PLASTIC ORG. - ORGANIC PMT - PRESSUREMETER TEST SAP. - SAPROLITIC SD. - SAND, SANDY SL. - SILT, SILTY SLI. - SLIGHTLY TCR - TRICONE REFUSAL w - MOISTURE CONTENT V - VERY</p> <p>VST - VANE SHEAR TEST WEA. - WEATHERED W - UNIT WEIGHT W_d - DRY UNIT WEIGHT</p> <p>SAMPLE ABBREVIATIONS</p> <p>S - BULK SS - SPLIT SPOON ST - SHELBY TUBE RS - ROCK RT - RECOMPACTED TRIAXIAL CBR - CALIFORNIA BEARING RATIO</p>										<p>DRILL UNITS:</p> <p><input type="checkbox"/> CME-45C</p> <p><input checked="" type="checkbox"/> CME-55</p> <p><input type="checkbox"/> CME-550</p> <p><input type="checkbox"/> VANE SHEAR TEST</p> <p><input type="checkbox"/> PORTABLE HOIST</p> <p>ADVANCING TOOLS:</p> <p><input type="checkbox"/> CLAY BITS</p> <p><input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER</p> <p><input type="checkbox"/> 8" HOLLOW AUGERS</p> <p><input type="checkbox"/> HARD FACED FINGER BITS</p> <p><input type="checkbox"/> TUNG-CARBIDE INSERTS</p> <p><input checked="" type="checkbox"/> CASING <input checked="" type="checkbox"/> W/ ADVANCER</p> <p><input checked="" type="checkbox"/> TRICONE 2 1/8" STEEL TEETH</p> <p><input type="checkbox"/> TRICONE " TUNG-CARB.</p> <p><input type="checkbox"/> CORE BIT</p> <p>HAMMER TYPE:</p> <p><input checked="" type="checkbox"/> AUTOMATIC <input type="checkbox"/> MANUAL</p> <p>CORE SIZE:</p> <p><input type="checkbox"/> -B <input type="checkbox"/> -H <input type="checkbox"/> -N</p> <p>HAND TOOLS:</p> <p><input type="checkbox"/> POST HOLE DIGGER</p> <p><input type="checkbox"/> HAND AUGER</p> <p><input type="checkbox"/> SOUNDING ROD</p> <p><input type="checkbox"/> VANE SHEAR TEST</p>																																																																																																																																																							



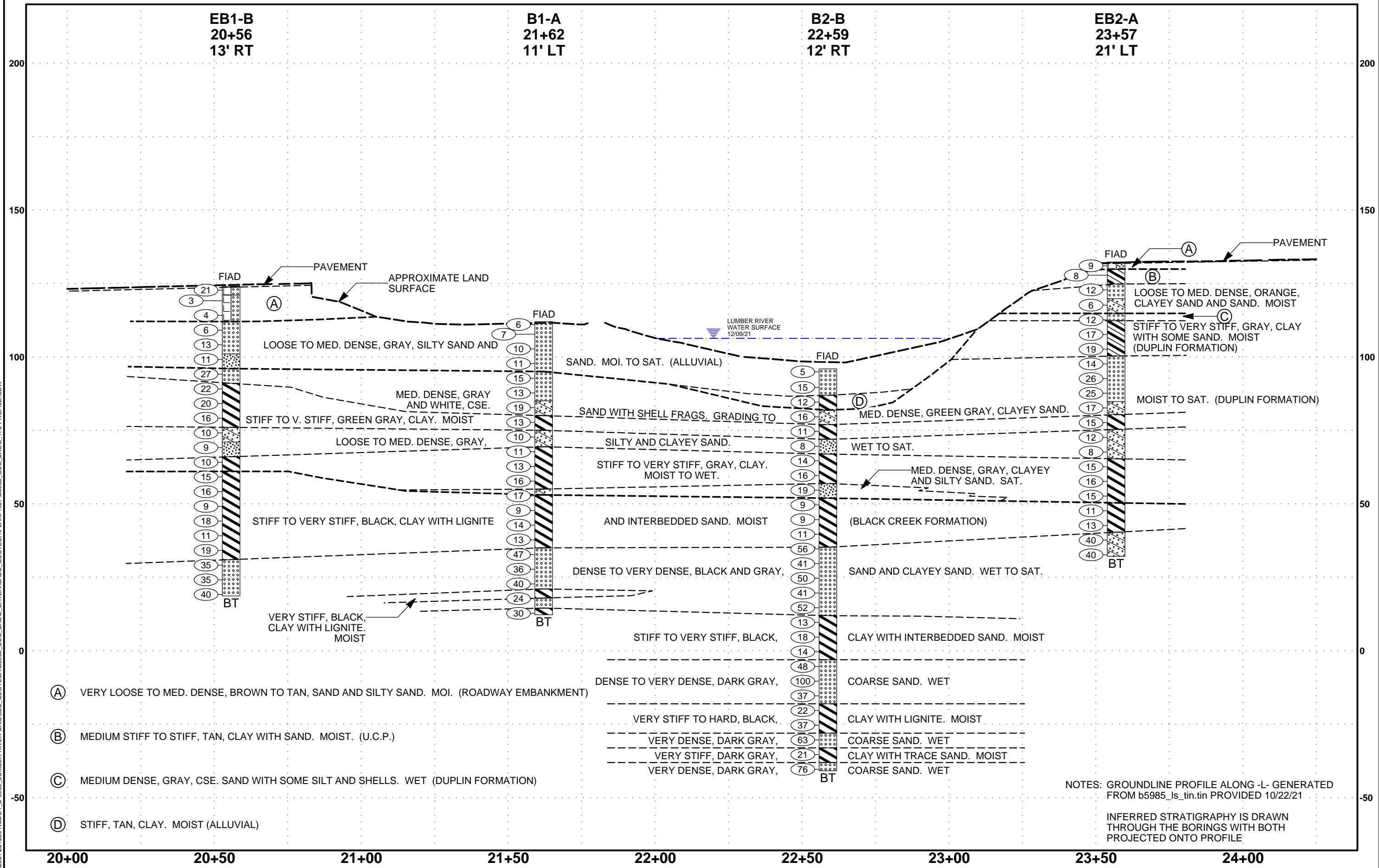
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 AT ILM:SHUDSON-21
 shudson



OP=127.92'



PROFILE THROUGH BORINGS PROJECTED ALONG -L-



P:\2021\21289 NCDOT_B-5985_LUMBER-RIVER-BRIDGES_GEO_BRDG_CATLIN\CADD_GEO\TECH\PLAN\PROF\B5985_GEO_BRDG_175-PROFILE.GDW

GEOTECHNICAL BORING REPORT BORE LOG



WBS: 47749.1.1	TIP: B-5985	COUNTY: ROBESON	GEOLOGIST: THOMAS PARK
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00			GROUND WTR (ft)
BORING NO.: B1-A	STATION: 21+62	OFFSET: 11 ft LT	ALIGNMENT: -L-
COLLAR ELEV.: 112.0 ft	TOTAL DEPTH: 99.8 ft	NORTHING: 316,716	EASTING: 1,996,707
DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021		DRILL METHOD: NW Casing w/ Advancer	HAMMER TYPE: AUTOMATIC
DRILLER: J. EDMONDSON	START DATE: 12/07/21	COMP. DATE: 12/07/21	SURFACE WATER DEPTH: N/A

WBS: 47749.1.1	TIP: B-5985	COUNTY: ROBESON	GEOLOGIST: THOMAS PARK
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00			GROUND WTR (ft)
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DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021		DRILL METHOD: NW Casing w/ Advancer	HAMMER TYPE: AUTOMATIC
DRILLER: J. EDMONDSON	START DATE: 12/07/21	COMP. DATE: 12/07/21	SURFACE WATER DEPTH: N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. # RESULT	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
115																
	112.0	0.0	2	2	4									112.0	LAND SURFACE	0.0
110	108.7	3.3	4	2	5								M	ALLUVIAL GRAY, SAND		
105	103.7	8.3	4	3	7								W			
100	98.7	13.3	4	5	6								W			
95	93.7	18.3	4	6	9								W	COASTAL PLAIN WHITE, CSE. SAND, WITH SHELL FRAGS (DUPLIN FORMATION)	17.0	
90	88.7	23.3	4	6	7								W			
85	83.7	28.3	5	8	11								M	GREEN-GRAY, CLAYEY SAND	27.0	
80	78.7	33.3	3	6	7								M	GRAY, CLAY. HIGH PLASTICITY	32.0	
75	73.7	38.3	4	4	6								W	LIGHT GRAY, CLAYEY SAND	37.0	
70	68.7	43.3	5	5	6								M	GRAY, CLAY	42.6	
65	63.7	48.3	4	5	8								M			
60	58.7	53.3	6	7	9								M			
55	53.7	58.3	5	8	9								M	GRAY, CLAYEY SAND	57.0	
50	48.7	63.3	4	4	5								M	COASTAL PLAIN BLACK, CLAY, WITH LIGNITE. HIGH PLASTICITY (BLACK CREEK FORMATION)	59.0	
45	43.7	68.3	4	6	8								M	INTERBEDDED LAYERS OF SAND		
40	38.7	73.3	3	6	7								M			
35																77.0

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. # RESULT	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
35																
	33.7	78.3	7	21	26								M	DARK GRAY, CSE. SAND		
30	28.7	83.3	16	16	20								W			
25	23.7	88.3	11	16	24								W			
20	18.7	93.3	3	9	15								M	BLACK, CLAY, WITH LIGNITE. HIGH PLASTICITY	21.0	
15	13.7	98.3	8	12	18								W	BLACK, CSE. SAND	17.9	
																91.0
																94.1
																97.5
																99.8

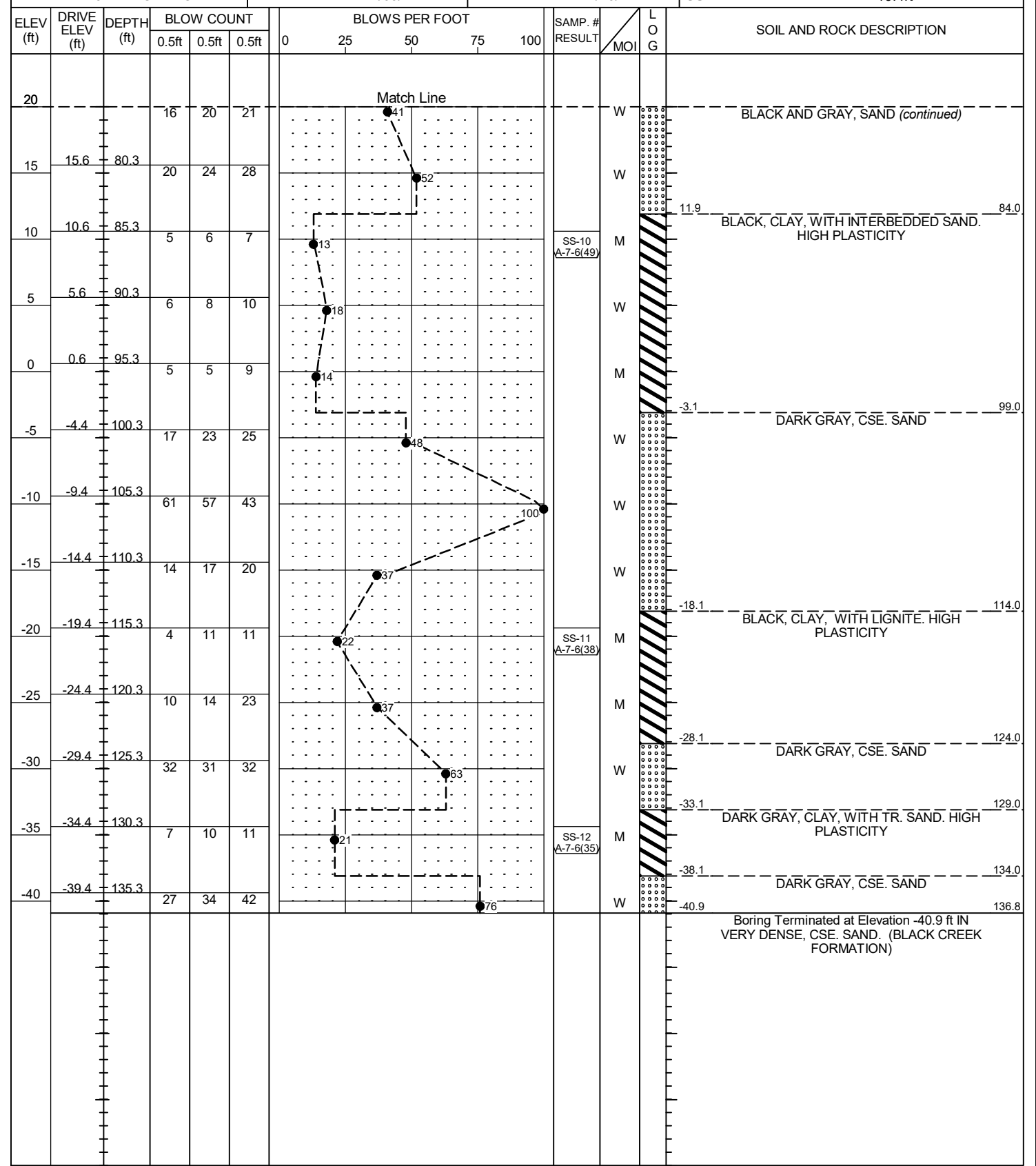
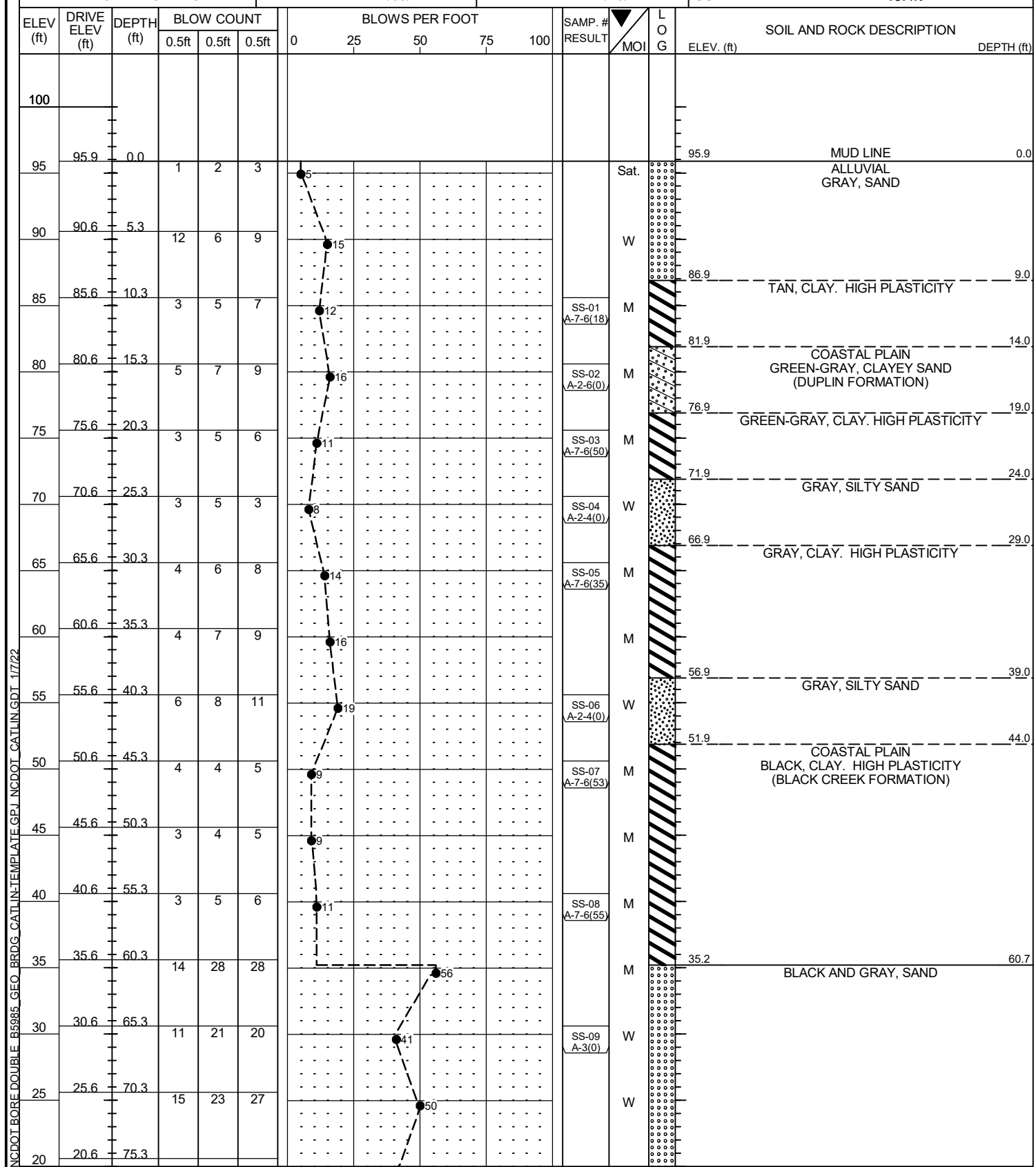
NCDOT BORE DOUBLE B5985_GEO_BRDG_CATLIN_TEMPLATE.GPJ NCDOT_CATLIN_GDT_1/17/22

GEOTECHNICAL BORING REPORT BORE LOG



WBS: 47749.1.1		TIP: B-5985		COUNTY: ROBESON		GEOLOGIST: THOMAS PARK	
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00							GROUND WTR (ft)
BORING NO.: B2-B		STATION: 22+59		OFFSET: 12 ft RT		ALIGNMENT: -L-	
COLLAR ELEV.: 95.9 ft		TOTAL DEPTH: 136.8 ft		NORTHING: 316,690		EASTING: 1,996,803	
DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021			DRILL METHOD: NW Casing w/ Advancer			HAMMER TYPE: AUTOMATIC	
DRILLER: J. EDMONDSON		START DATE: 12/09/21		COMP. DATE: 12/10/21		SURFACE WATER DEPTH: 10.4ft	

WBS: 47749.1.1		TIP: B-5985		COUNTY: ROBESON		GEOLOGIST: THOMAS PARK	
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00							GROUND WTR (ft)
BORING NO.: B2-B		STATION: 22+59		OFFSET: 12 ft RT		ALIGNMENT: -L-	
COLLAR ELEV.: 95.9 ft		TOTAL DEPTH: 136.8 ft		NORTHING: 316,690		EASTING: 1,996,803	
DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021			DRILL METHOD: NW Casing w/ Advancer			HAMMER TYPE: AUTOMATIC	
DRILLER: J. EDMONDSON		START DATE: 12/09/21		COMP. DATE: 12/10/21		SURFACE WATER DEPTH: 10.4ft	



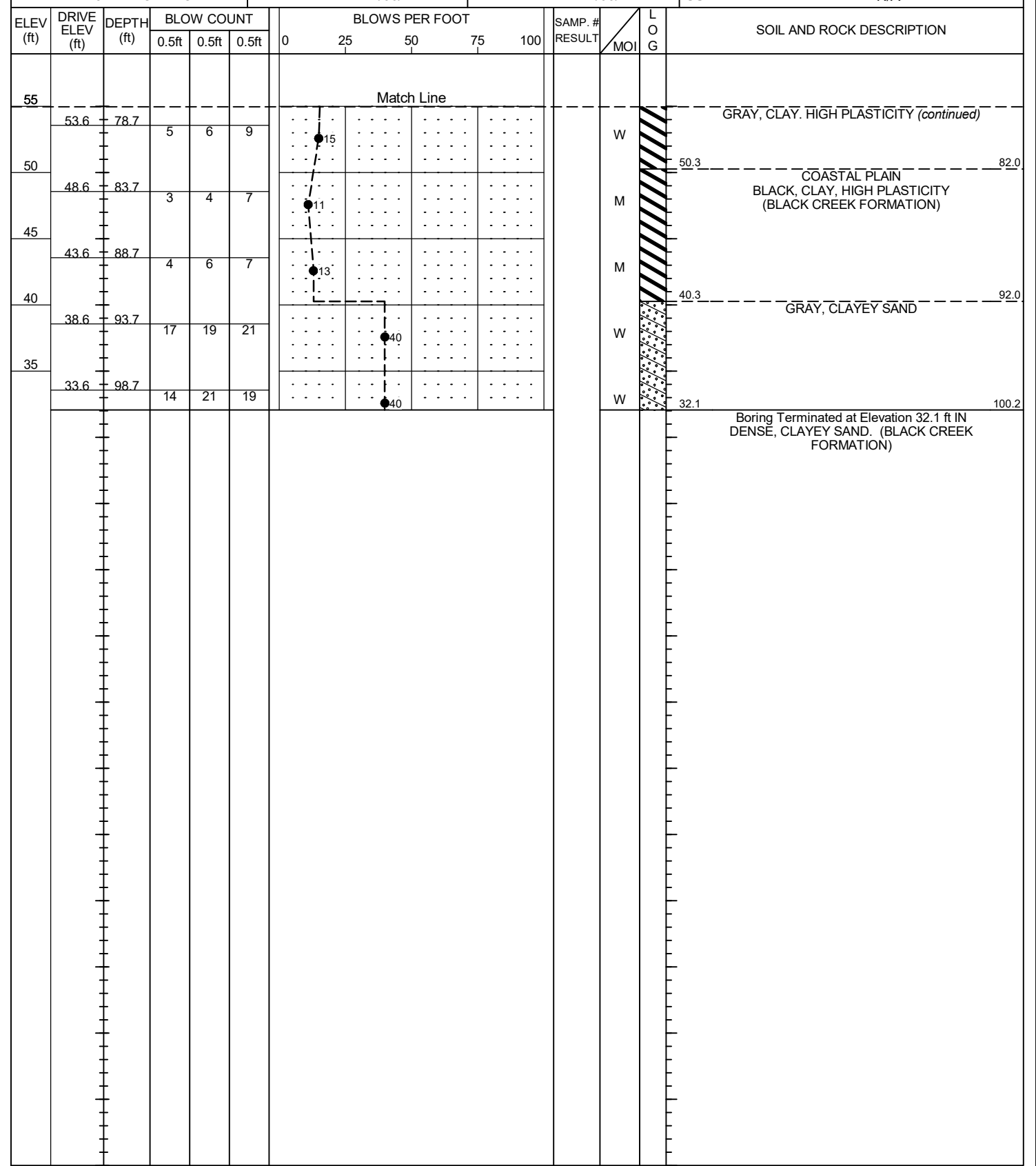
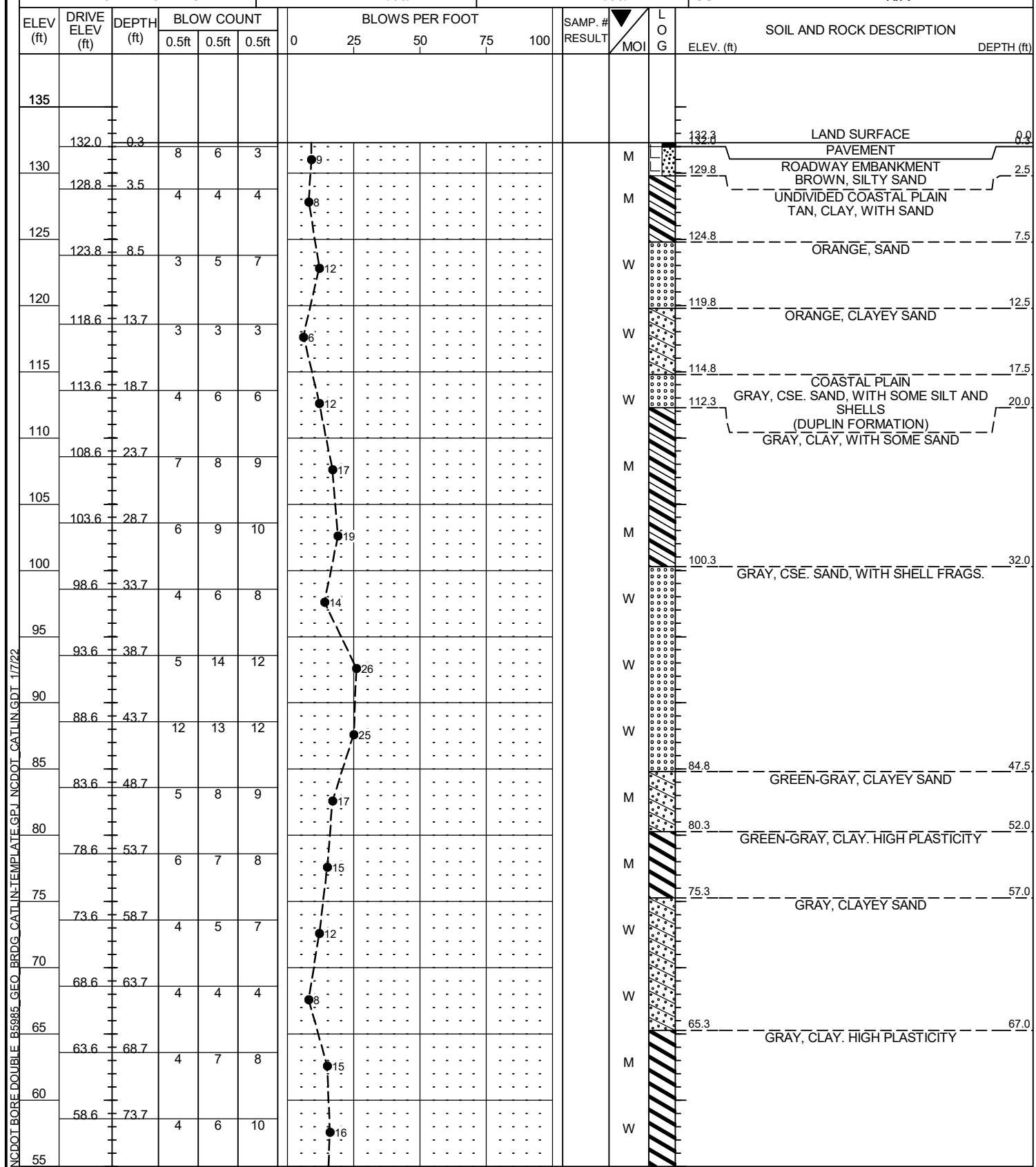
NCDOT BORE DOUBLE B5985_GEO_BRDG_CATLINTEMPLATE.GPJ NCDOT CATLIN.GDT 1/17/22

GEOTECHNICAL BORING REPORT BORE LOG



WBS: 47749.1.1	TIP: B-5985	COUNTY: ROBESON	GEOLOGIST: THOMAS PARK
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00			GROUND WTR (ft)
BORING NO.: EB2-A	STATION: 23+57	OFFSET: 21 ft LT	ALIGNMENT: -L-
COLLAR ELEV.: 132.3 ft	TOTAL DEPTH: 100.2 ft	NORTHING: 316,720	EASTING: 1,996,902
DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021		DRILL METHOD: MUD ROTARY	HAMMER TYPE: AUTOMATIC
DRILLER: J. EDMONDSON	START DATE: 12/06/21	COMP. DATE: 12/06/21	SURFACE WATER DEPTH: N/A

WBS: 47749.1.1	TIP: B-5985	COUNTY: ROBESON	GEOLOGIST: THOMAS PARK
SITE DESCRIPTION: BRIDGE NO. 770175 ON -L- (W. 5TH ST) OVER LUMBER RIVER AT -L- STA. 22+08.00			GROUND WTR (ft)
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DRILL RIG/HAMMER EFF./DATE: CAT4425 CME-55 83.7% 03/10/2021		DRILL METHOD: MUD ROTARY	HAMMER TYPE: AUTOMATIC
DRILLER: J. EDMONDSON	START DATE: 12/06/21	COMP. DATE: 12/06/21	SURFACE WATER DEPTH: N/A



NCDOT BORE DOUBLE B-5985 GEO BRDG CATLIN TEMPLATE.GPJ NCDOT CATLIN GDT-1/17/22

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

LABORATORY RESULTS

REFERENCE: B-5985

PROJECT: 47749

B2-B SOIL TEST RESULTS															
SAMPLE NUMBER	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P. I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-01	12 ft RT	22+59	10.3 - 11.8	A-7-6(18)	54	39	29.3	18.2	28.0	24.5	91.2	78	57	-	-
SS-02	12 ft RT	22+59	15.3 - 16.8	A-2-6(0)	27	11	51.6	29.2	12.1	7.1	97.8	69	21	-	-
SS-03	12 ft RT	22+59	20.3 - 21.8	A-7-6(50)	74	52	3.0	15.3	25.8	55.9	100	98	88	-	-
SS-04	12 ft RT	22+59	25.8 - 26.8	A-2-4(0)	NP	NP	72.9	15.1	2.6	9.4	99.3	57	13	-	-
SS-05	12 ft RT	22+59	30.3 - 31.8	A-7-6(35)	55	40	1.3	20.1	29.0	49.6	100	100	84	-	-
SS-06	12 ft RT	22+59	40.3 - 41.8	A-2-4(0)	26	6	1.8	73.9	11.8	12.5	100	99	33	-	-
SS-07	12 ft RT	22+59	45.3 - 46.8	A-7-6(53)	73	45	0.6	0.8	84.2	14.4	99.9	100	99	-	-
SS-08	12 ft RT	22+59	55.3 - 56.8	A-7-6(55)	73	49	2.4	1.7	38.2	57.7	100	99	97	-	-
SS-09	12 ft RT	22+59	65.3 - 66.8	A-3(0)	NP	NP	74.8	17.7	3.0	4.6	99.1	51	9	-	-
SS-10	12 ft RT	22+59	85.3 - 86.8	A-7-6(49)	69	44	2.7	1.9	38.2	57.2	100	98	96	-	-
SS-11	12 ft RT	22+59	115.3 - 116.8	A-7-6(38)	59	37	3.1	6.5	33.9	56.6	99.3	98	93	-	-
SS-12	12 ft RT	22+59	130.3 - 131.8	A-7-6(35)	56	35	3.0	7.5	33.0	56.5	99.2	98	92	-	-



NEAR BENT 1 FACING WEST
TO END BENT 1



NEAR BENT 1 FACING EAST
TO END BENT 2



NEAR END BENT 1
LEFT OF -L- FACING EAST
TO END BENT 2



DOWNSTREAM (RIGHT) OF -L-
FACING NORTH

10-MAN-2022-10-44
2021-221289
shudson
NCDOT-B-5985-LUMBER-RIVER-BRIDGES-GEOTECH\B5985-GEO.BRDG.175\CADD.GEOTECH\Site&Sub\B5985-GEO.BRDG.PHOTOS.175.dgn