

STATE	STATE PROJECT REFERENCE NO.	NO.	SHEET
N.C.	SF-320021	1	7

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

**STRUCTURE**  
**SUBSURFACE INVESTIGATION**

PROJ. REFERENCE NO. 17BP.4.R.23 (SF-320021) F.A. PROJ. \_\_\_\_\_  
COUNTY EDGEcombe  
PROJECT DESCRIPTION BRIDGE NO. 21 ON SR 1140 (CALHOUN RD.)  
OVER COKEY CREEK AT -L- STA. 12+25.00

<u>CONTENTS</u>	<u>DESCRIPTION</u>
<u>SHEET</u>	
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**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, PNEUMATIC CONES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR REPRODUCED IN WHOLE OR IN PART BY CONTACTING THE ALLOCATION UNIT OF THE TRANSPORTATION GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. NOTHING IN THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, PNEUMATIC CONES, OR SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND BOREHOLE STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOLOGICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BOUNDARIES OR BETWEEN SAMPLED STRATA WITHIN THE BOUNDARIES. THE LABORATORY SAMPLE DATA AND THE IN SITU UNPLACED TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF PROBABILITY INDICATED IN THE STANDARD TEST METHOD.

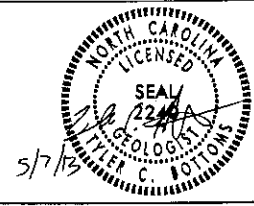
THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME, ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER HYDROLOGIC FACTORS.

THE OWNER 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 DESIGN 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 INFORMATION MADE, NOR THE INTERPRETATIONS MADE, ON BEHALF OF THE DEPARTMENT AS TO THE TIME OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE OWNER OR CONTRACTOR IS LAID UNDER TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADJUSTMENT, 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.

**PROJECT: 17BP.4.R.23 ID: SF-320021**

PERSONNEL  
D.N. ARGENBRIGHT  
C.M. WRIKE  
R.E. SMITH  
H.L. FROATS

INVESTIGATED BY I.C. BOTTOMS  
CHECKED BY D.N. ARGENBRIGHT  
SUBMITTED BY D.N. ARGENBRIGHT  
DATE MAY 2013



DRAWN BY: C.P. TURNER

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IS IT CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - 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.

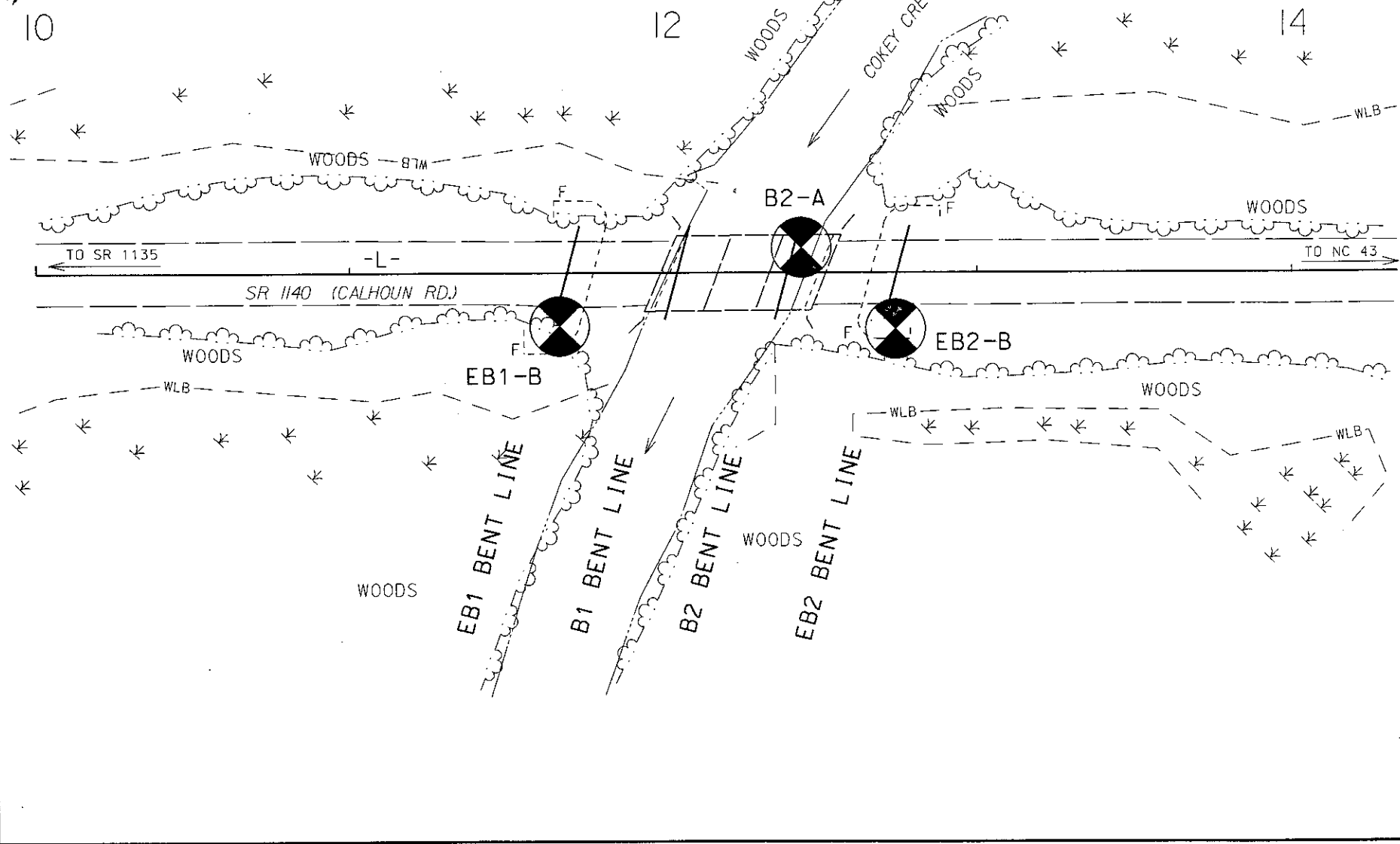
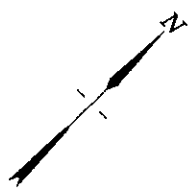
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**GEOTECHNICAL ENGINEERING UNIT**

# SUBSURFACE INVESTIGATION

## SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION	TERMS AND DEFINITIONS
SOIL IS CONSIDERED TO BE THE UNCONSOLIDATED, SEMI-CONSOLIDATED OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT PNEUMATIC AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO STANDARD PENETRATION TEST METHOD (ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE CASSELL SYSTEM. BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE CONSISTENCY, COLOR, TEXTURE, HUMIDITY, MOISTURE CLASSIFICATION AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, INCLINATION, STRUCTURE, PLASTICITY, ETC. (SEE ENDS).	SOIL GRADATION - INDICATES A GRADE REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. LIQUID LIMIT - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. PLASTICITY INDEX - INDICATES A MIXTURE OF UNIFORM PARTICLES OF 1/60 OR MORE SIZES. ANGULARITY OF GRAINS - THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS ANGULAR, SUBANGULAR, OR ROUND.	NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100. ROCK LINE INDICATES THE LEVEL AT WHICH NON-CRYSTALLINE PLAIN MATERIAL YIELDS YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPINER SAMPLER EQUAL TO OR LESS THAN 10 BLOW PER 6 INCHES. IN NON-CRYSTALLINE PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS USUALLY REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:	ALLOUVIUM (ALLUVIUM) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. MUDFLAT - A WATER BEARING FRESHWATER STRATIGRAPHY. AGGREGATES - APPLIED TO ALL ROCKS OR SUBSTANCES COMPRISED OF CLAY MINERALS. SAND - A MATERIAL PROPORION OF CLAY IN THIS COMPOSITION AS SHALE, SLATE, ETC. CRACKING - CRACKING WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO ABOVE THE GROUND SURFACE. CALCAREOUS SOILS - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLISION - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY INDEX - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SPLIT - A TABULAR ROW OF TENSORS WHICH CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CORE MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANE FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION - THE DIRECTION OF BEARING OF THE HORIZONTAL TRACE OF THE LINE OF CONTACT OR DISCONTINUITY FROM HEADING. SOIL - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE STRATA RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PLANAR PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISMISSED FROM PARENT MATERIAL. FLOOD PLAIN (F.P.) - LAND UNDER A STRONG BUILDUP OF SEDIMENTS DEPOSITED BY THE STREAM. GEOLOGICAL - A Mappable GEOLGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - A FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LENS - A SHELL-LIKE FORM OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LEGS - A BODY OF SOIL OR ROCK THAT THIN OUT IN ONE OR MORE DIRECTIONS. HOTTER (HOT) - IRREGULARLY MANNER WITH SPOTS OF DIFFERENT COLOR, HOTTING IN SOILS USUALLY INDICATES WATER ACHIEVED AND LACK OF GOOD GRAINAGE. FINGERED WATER - WATER INDICATED 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 (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SECTIONS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SANDSTONE (SAND) - SEDIMENTARY SOIL THAT RETAINS THE PELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SOIL - AN INTENSIVE BODY OF UNIFORM SOIL OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT THAT HAS BEEN REPLACED PARALLEL TO THE BEARING OR CONSISTENCY OF THE REMOVED ROCKS. SLICED/SPLIT - POLISHED AND STRATIFIED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS IN AN SPT OF A 140 LB HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT SPT SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPINER SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 10 BLOW PER 6 INCHES. STRATA CORE RECOVERY INDEX - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY THE TOTAL LENGTH OF ROCK SECTIONS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. SURFACE SOILS - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
<b>SOIL LEGEND AND CASSELL CLASSIFICATION</b> GENERAL CLASS. GRANULAR MATERIALS (< 30% PASSING #200) SILT-CLAY MATERIALS (> 30% PASSING #200) ORGANIC MATERIALS	<b>MINERALOGICAL COMPOSITION</b> GENERAL NAMES SUCH AS QUARTZ, FELDSPAR, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.	<b>WEATHERING</b> CRISTALLINE (PICK OR) FINE TO COARSE GRAIN (ORGANIC AND METAMORPHIC) ROCK (200) YIELD SPT REFUSAL. IF TESTER, ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, GYPSITE, ETC.	
GENERAL CLASS. GRANULAR MATERIALS (< 30% PASSING #200) SILT-CLAY MATERIALS (> 30% PASSING #200) ORGANIC MATERIALS	<b>COMPRESSION</b> SLIGHTLY COMPRESSIBLE MODERATELY COMPRESSIBLE HIGHLY COMPRESSIBLE	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>PERCENTAGE OF MATERIAL</b>	<b>COMPRESSION</b> LIQUID LIMIT LESS THAN 25 LIQUID LIMIT EQUAL TO 25-50 LIQUID LIMIT GREATER THAN 50	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>GROUND WATER</b>	<b>GROUND WATER</b> WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER MULLING STATIC WATER LEVEL AFTER 24 HOURS PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA SPRING OR SEEP	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>CONSISTENCY OR DENSIFICATION</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>TEXTURE OR GRAIN SIZE</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>SOIL MOISTURE - CORRELATION OF TERMS</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>PLASTICITY</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>COLOR</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>ABBREVIATIONS</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>EQUIPMENT USED ON SUBJECT PROJECT</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>FRACURE SPACING</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>BEDDING</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	
<b>INDURATION</b>	<b>MISCELLANEOUS SYMBOLS</b>	<b>WEATHERING</b> NON-CRYSTALLINE PLAIN MATERIAL THAT YIELDS YIELD SPT N VALUES > 100 BLOWS PER FOOT IN TESTER.	

SKEW = 105°







**NCDOT GEOTECHNICAL ENGINEERING UNIT**  
**BORELOG REPORT**

WBS 17BP.4.R.23		TIP SF-320021		COUNTY EDGEcombe		GEOLOGIST Wrike, C. M.										
SITE DESCRIPTION BRIDGE NO. 21 ON -L- (SR 1140) OVER COKEY CREEK																
BORING NO. EB1-B		STATION 11+67		OFFSET 17 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 87.3 ft		TOTAL DEPTH 84.4 ft		NORTHING 787,708		EASTING 2,368,352										
DRILL RIGHAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER Smith, R. E.		START DATE 05/02/13		COMP. DATE 05/03/13		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	L	O	G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0-5ft	5-10ft	10-15ft	25	50	75	100							
90																
87.3	87.3	0.0	2	3	4									GROUND SURFACE	90.0	
85														ROADWAY EMBANKMENT TAN SAND, MOIST	39.0	
83.3		4.0	1	2	2									ROADWAY EMBANKMENT TAN AND GRAY SANDY CLAY, MOIST TO WET		
80		8.0	2	3	3											
75		13.0	1	2	2									ALLUVIAL GRAY SAND, SATURATED	11.0	
70		18.0	2	3	4									COASTAL PLAIN GRAY SILT WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	16.0	
65		23.0	3	3	3									COASTAL PLAIN GRAY SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	21.0	
60		28.0	2	3	3									COASTAL PLAIN GRAY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	26.0	
55		33.0	2	3	3											
50		38.0	2	2	3											
45		43.0	6	7	8									SAPROLITE GRAY AND GREEN CLAYEY SILT, WET (METAVOLCANIC)	41.0	
40		48.0	4	5	5											
35		53.0	5	7	12											
30		58.0	7	13	21											
25		63.0	11	17	24											
20		68.0	18	16	26											
15		73.0	8	15	22											
10																

WBS 17BP.4.R.23		TIP SF-320021		COUNTY EDGEcombe		GEOLOGIST Wrike, C. M.										
SITE DESCRIPTION BRIDGE NO. 21 ON -L- (SR 1140) OVER COKEY CREEK																
BORING NO. EB1-B		STATION 11+67		OFFSET 17 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 87.3 ft		TOTAL DEPTH 84.4 ft		NORTHING 787,708		EASTING 2,368,352										
DRILL RIGHAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic												
DRILLER Smith, R. E.		START DATE 05/02/13		COMP. DATE 05/03/13		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	L	O	G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0-5ft	5-10ft	10-15ft	25	50	75	100							
10																
5		7.0	10	17	33									Match Line		
		8.0	18	35	65/0.4									SAPROLITE GRAY AND GREEN CLAYEY SILT, WET (METAVOLCANIC) (continued)	83.5	
		2.9												WEATHERED ROCK (METAVOLCANIC) Being Terminated at Elevation 2.9 ft in Weathered Rock	84.4	

NCDOT BORELOG FILE SF-320021\_GED\_BRODGPJ\_NC\_DOT\_GDI\_57713



### NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS 17BP 4.R.23		TIP SF-320021		COUNTY EDGEcombe		GEOLOGIST Wrike, C. M.									
SITE DESCRIPTION BRIDGE NO. 21 ON -L- (SR 1140) OVER COKEY CREEK							GROUND WTR (ft)								
BORING NO. B2-A		STATION 12+44		OFFSET 8 R LT		ALIGNMENT -L-									
COLLAR ELEV. 78.5 R		TOTAL DEPTH 72.9 R		NORTHING 787,780		EASTING 2,366,389									
DRILL RIG/HAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013		DRILL METHOD Mud Rotary		HAMMER TYPE Automatic											
DRILLER Smith, R. E.		START DATE 05/02/13		COMP. DATE 05/02/13		SURFACE WATER DEPTH 5.8ft									
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION			
			0.5ft	0.5ft	0.5ft	0	25	50	75			100	ELEV (ft)	DEPTH (ft)	
														WATER SURFACE (05/02/13)	
80														GROUND SURFACE	80
75	78.5	0.0	1	1	3									ALLUVIAL TAN SAND, SATURATED	
	72.1	4.4	1	1	1									COASTAL PLAIN GRAY AND GREEN SILT, WET (YORKTOWN FORMATION)	3.0
70	70.1	6.4	4	4	8									COASTAL PLAIN GRAY AND GREEN SANDY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	8.0
65	65.1	11.4	2	2	3										
60	60.1	16.4	2	2	4										
55	55.1	21.4	4	3	4										
50	50.1	26.4	2	3	4										
45	45.1	31.4	7	13	14									SAPROLITE GRAY AND GREEN CLAYEY SILT, WET (METAVOLCANIC)	28.9
40	40.1	36.4	9	11	15										
35	35.1	41.4	18	16	23										
30	30.1	46.4	9	17	23										
25	25.1	51.4	8	11	16										
20	20.1	56.4	9	15	22										
15	15.1	61.4	9	16	19										
10	10.1	66.4	14	19	28										
5	5.1	71.4	11	17	27										
														Boring Terminated at Elevation 3.6 ft in Hard Clayey Silt	72.9

NCDOT BORE DOUBLE SF-320021 GEO BINGG GP, NC DOT GDT 5/7/13

# TV

## NCDOT GEOTECHNICAL ENGINEERING UNIT

### BORELOG REPORT

WBS 17BP.4.R.23	TIP SF-320021	COUNTY EDGEcombe	GEOLOGIST Write, C. M.
SITE DESCRIPTION BRIDGE NO. 21 ON -L- (SR 1140) OVER COKEY CREEK			GROUND WTR (ft)
BORING NO. EB2-B	STATION 12+74	OFFSET 18 ft RT	ALIGNMENT -L-
0 HR. N/A			
COLLAR ELEV. 87.6 ft	TOTAL DEPTH 79.3 ft	NORTHING 787,783	EASTING 2,388,429
24 HR. 4.7			

DRILL RIGHAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013	DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
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DRILLER Pinter, D. G.	START DATE 04/25/13	COMP. DATE 04/25/13	SURFACE WATER DEPTH N/A
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ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	L	O	G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75						
88	87.6	0.0	3	3	2	5	5	5	5					GROUND SURFACE	0.0
85	83.8	4.8	2	2	1									ROADWAY EMBANKMENT TAN AND BROWN SAND, MOIST TO SATURATED	
80	79.8	7.8	2	5	18									ALLUVIAL GRAY SAND, SATURATED	7.8
75	74.8	12.8	6	6	2									COASTAL PLAIN GRAY AND GREEN CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	13.6
70	69.8	17.8	2	3	4										
65	64.8	22.8	2	3	3										
60	59.8	27.8	2	3	2										
55	54.8	32.8	4	3	4										
50	49.8	37.8	2	4	11										
45	44.8	42.8	7	11	17										
40	39.8	47.8	5	14	17										
35	34.8	52.8	7	15	15										
30	29.8	57.8	8	13	17										
25	24.8	62.8	17	18	28										
20	19.8	67.8	10	16	22										
15	14.8	72.8	10	16	20										
10															

NCDOT BORE DOUBLE SF-320021, GEO. BMDG.GPJ NC, DOT, GDT, 5/7/13

WBS 17BP.4.R.23	TIP SF-320021	COUNTY EDGEcombe	GEOLOGIST Write, C. M.
SITE DESCRIPTION BRIDGE NO. 21 ON -L- (SR 1140) OVER COKEY CREEK			GROUND WTR (ft)
BORING NO. EB2-B	STATION 12+74	OFFSET 18 ft RT	ALIGNMENT -L-
0 HR. N/A			
COLLAR ELEV. 87.6 ft	TOTAL DEPTH 79.3 ft	NORTHING 787,783	EASTING 2,388,429
24 HR. 4.7			

DRILL RIGHAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013	DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
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DRILLER Pinter, D. G.	START DATE 04/25/13	COMP. DATE 04/25/13	SURFACE WATER DEPTH N/A
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ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT				SAMP. NO.	L	O	G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75							100
18	87.6	0.0												Match Line		
															Boring Terminated at Elevation 8.3 ft in Here Clayey Silt	79.3