

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

STATE	STATE PROJECT NUMBER	SHEET	TOTAL SHEETS
N.C.	B-5418	1	7

CONTENTS

SHEET	DESCRIPTION
1	TITLE SHEET
2	LEGEND
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STRUCTURE
SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 45479.1.1 (B-5418) F.A. PROJ. BRSTP-33(9)
 COUNTY PITT
 PROJECT DESCRIPTION BRIDGE NO. 50 ON NC 33 OVER JOHNSONS
MILL RUN AT -L- STA. 15+50

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 PAVT PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED ON REQUEST BY THE CONTRACTOR. THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1001 TOT-4450, FURNISHES THE SUBSURFACE PLANS AND REPORTS FOR THE FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND IMPLICATIONS ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLES TAKEN WITHIN THE BORING. THE LABORATORY SAMPLE DATA AND THE IN SITU UNPLACED TEST DATA CAN BE FILED ON ONLY TO THE DEGREE OF ACCURACY INDICATED BY THE STANDARD TEST METHODS. THE OBSERVED WATER LEVELS AND SOIL MOISTURE CONTENTS INDICATED BY THE SUBSURFACE INVESTIGATION ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS AND MOISTURE CONTENTS MAY VARY CONSIDERABLY WITH THE ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE OWNER OR CONTRACTOR IS ADVISED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT FOR BORING 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 OR MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE OWNER 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.

PERSONNEL

C.M. WRIJKE

R.E. SMITH

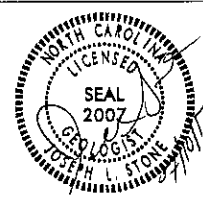
D.G. PENTER

INVESTIGATED BY J.L. STONE

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE JULY 2013



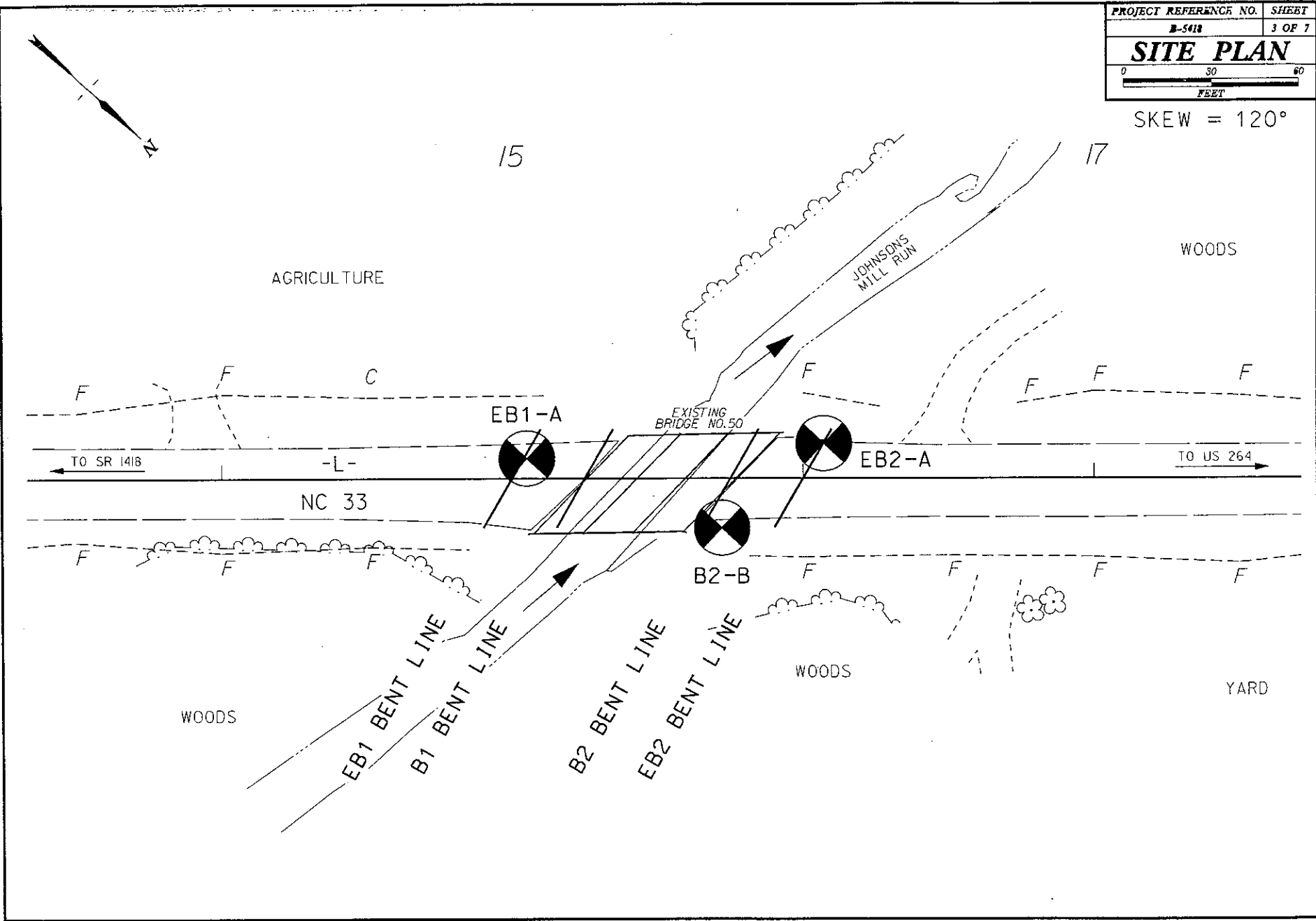
PROJECT: 45479.1.1 ID: B-5418

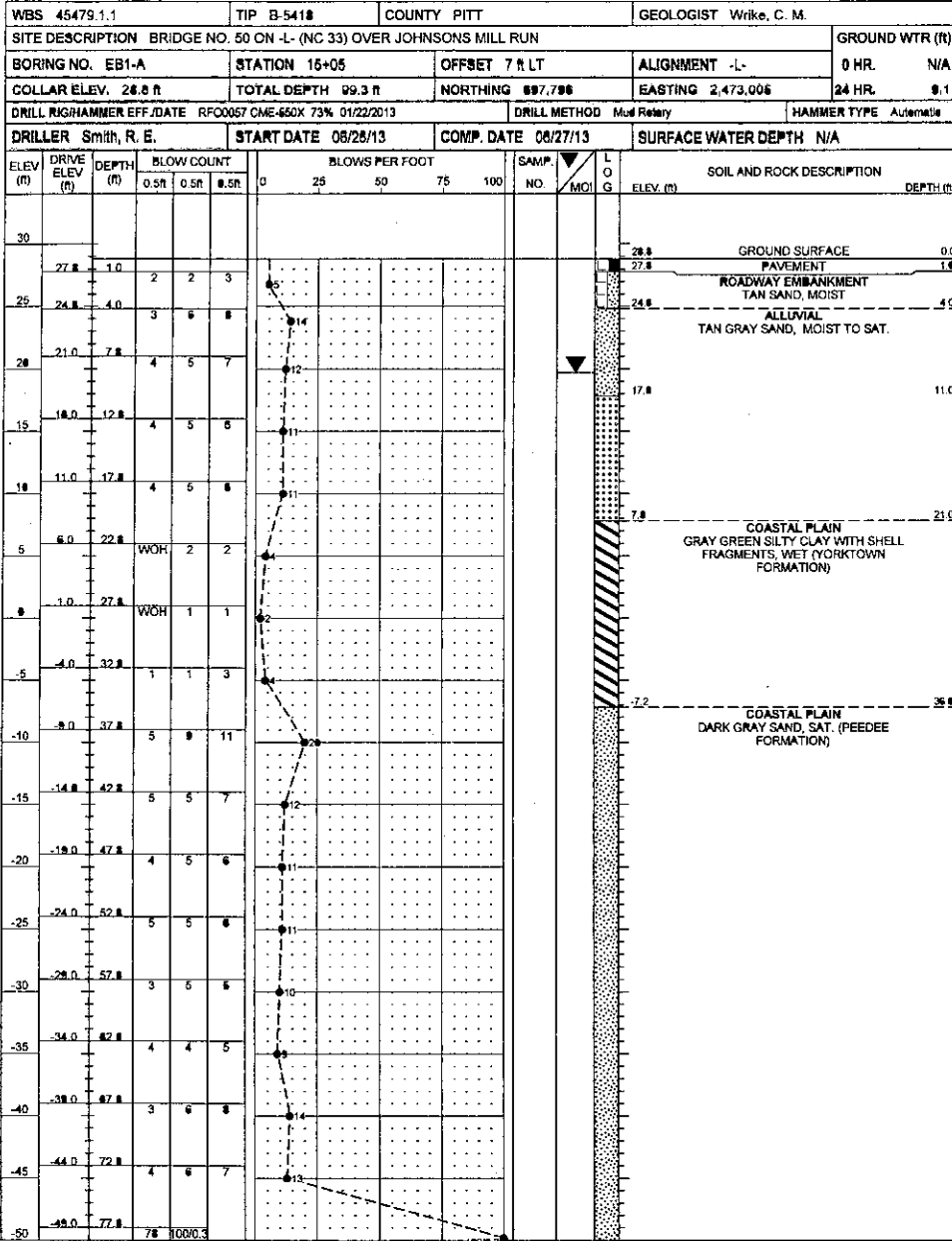
DRAWN BY: C.P. TURNER

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.

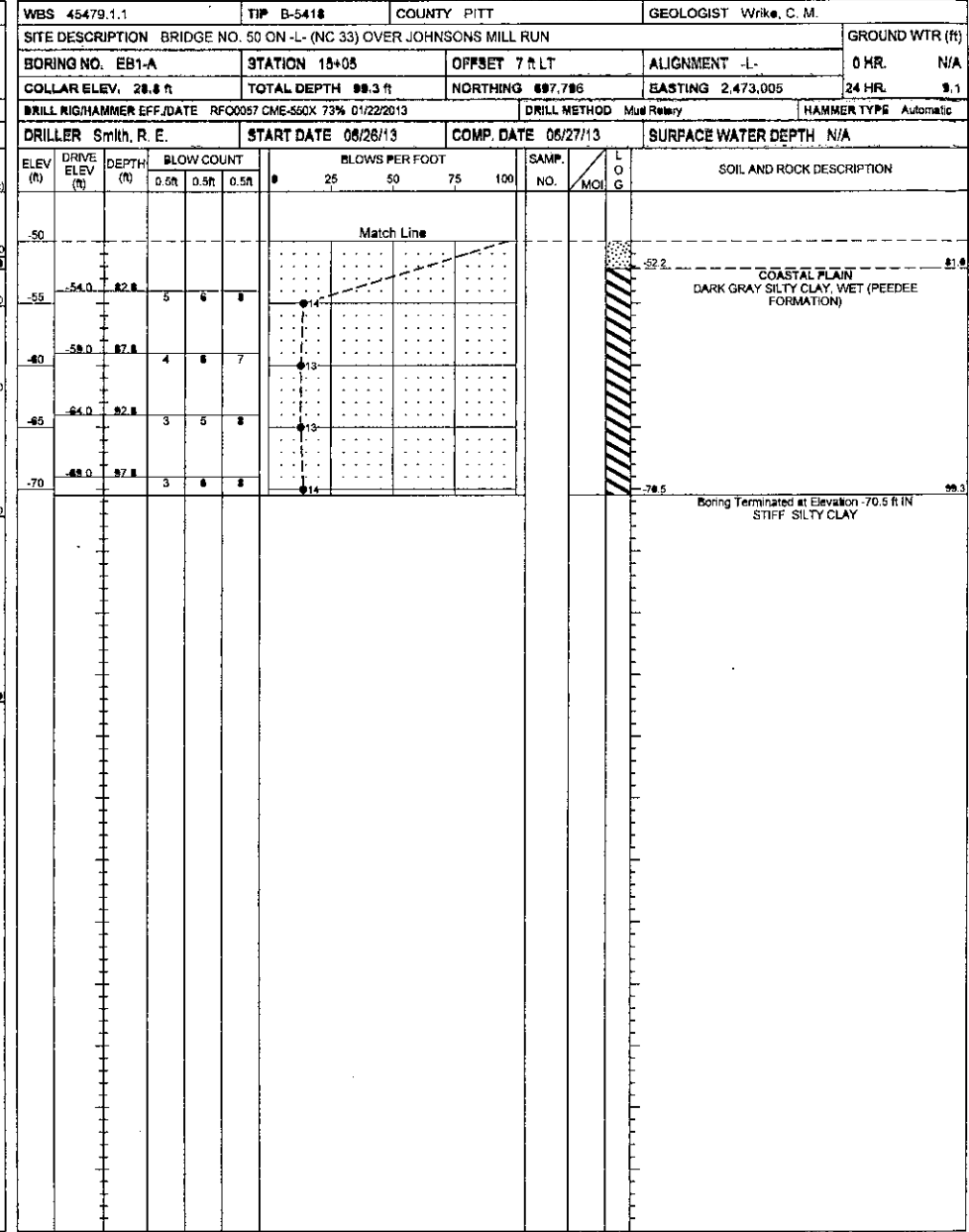
NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

SKREW = 120°





NCDOT BORE DOUBLE BORINGS GP 1, NC DOT GDT 7/10/13





NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

WBS 45479.1.1	TIP B-5418	COUNTY PITT	GEOLOGIST Wrike, C. M.
SITE DESCRIPTION BRIDGE NO. 50 ON -L- (NC 33) OVER JOHNSONS MILL RUN			GROUND WTR (ft)
BORING NO. B2-B	STATION 15+72	OFFSET 17 ft RT	ALIGNMENT -L-
COLLAR ELEV. 28.3 ft	TOTAL DEPTH 94.5 ft	NORTHING 697,861	EASTING 2,472,977
DRILL RIG/HAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	SURFACE WATER DEPTH N/A
			0.5ft	0.5ft	0.5ft					
30	28.3	0.0	8	5	3			GROUND SURFACE	0.0	
25	24.3	4.0	3	3	1			ROADWAY EMBANKMENT TAN SAND, MOIST TO SAT.		
20	20.3	8.0	1	1	2					
15	15.3	13.0	3	6	4			ALLUVIAL GRAY SAND, TO SAT.	11.0	
10	10.3	18.0	3	6	3					
5	5.3	23.0	2	2	3			COASTAL PLAIN GRAY GREEN SILTY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	21.0	
0	0.3	28.0	WOH	WOH	WOH					
-5	-4.7	33.0	WOH	3	3					
-10	-9.7	38.0	5	9	13			COASTAL PLAIN DARK GRAY SAND, SAT. (PEEDEE FORMATION)	36.0	
-15	-14.7	43.0	2	3	3					
-20	-19.7	48.0	2	3	5					
-25	-24.7	53.0	4	4	8					
-30	-29.7	58.0	3	4	5					
-35	-34.7	63.0	3	4	5					
-40	-39.7	68.0	3	6	8					
-45	-44.7	73.0	7	21	78/0.4					
-50	-49.7	78.0								

WBS 45479.1.1	TIP B-5418	COUNTY PITT	GEOLOGIST Wrike, C. M.
SITE DESCRIPTION BRIDGE NO. 50 ON -L- (NC 33) OVER JOHNSONS MILL RUN			GROUND WTR (ft)
BORING NO. B2-B	STATION 15+72	OFFSET 17 ft RT	ALIGNMENT -L-
COLLAR ELEV. 28.3 ft	TOTAL DEPTH 94.5 ft	NORTHING 697,861	EASTING 2,472,977
DRILL RIG/HAMMER EFF./DATE RFO0057 CME-550X 73% 01/22/2013		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	SURFACE WATER DEPTH N/A
			0.5ft	0.5ft	0.5ft					
-50								Match Line		
-55	-54.7	63.0	4	6	7			COASTAL PLAIN DARK GRAY SILTY CLAY, WET (PEEDEE FORMATION) (continue)		
-60	-59.7	68.0	3	6	6					
-65	-54.7	63.0	4	7	8					
								Boring Terminated at Elevation -66.2 ft in STIFF SILTY CLAY	94.5	

NCDOT MORE DETAILED BORINGS @ N.C. DOT-GST-7/03/13



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

WBS 46479.1.1	TIP B-541B	COUNTY PITT	GEOLOGIST WIKKE, C. M.
SITE DESCRIPTION BRIDGE NO. 60 ON L- (NO 33) OVER JOHNSONS MILL RUN			
BORING NO. EB2-A	STATION 16+07	OFFSET 12 ft LT	ALIGNMENT -L-
COLLAR ELEV. 28.0 ft	TOTAL DEPTH 94.5 ft	NORTHING 697,867	EASTING 2,472,931
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 06/26/13	COMP. DATE	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	0.5ft	0.5ft					
30								GROUND SURFACE PAVEMENT	0.0	
27.2	0.0	0.0	1	2	3			ROADWAY EMBANKMENT TAN SAND, MOIST	0.0	
25	24.0	4.0	2	2	2					
20	20.0	8.0	1	1	4			ALLUVIAL GRAY SAND, MOIST TO SAT.	7.9	
15	15.0	13.0	5	7	10					
10	10.0	18.0	2	3	2					
5	5.0	23.0	1	3	2			COASTAL PLAIN GRAY GREEN SILTY CLAY WITH SHELL FRAGMENTS, WET (YORKTOWN FORMATION)	21.9	
0	0.0	28.0	WOH	WOH	1					
-5	-5.0	33.0	WOH	WOH	1					
-10	-10.0	38.0	7	9	11			COASTAL PLAIN DARK GRAY SAND, SAT. (PEEDEE FORMATION)	36.0	
-15	-15.0	43.0	3	4	4					
-20	-20.0	48.0	2	4	4					
-25	-25.0	53.0	4	5	5					
-30	-30.0	58.0	3	4	5					
-35	-35.0	63.0	3	3	5					
-40	-40.0	68.0	7	9	15					
-45	-45.0	73.0	37	1000.4						
-50	-50.0	78.0								

NCDOT BORE DOUBLE BORINGS, GEOTECHNICAL ENGINEERING UNIT

WBS 46479.1.1	TIP B-541B	COUNTY PITT	GEOLOGIST WIKKE, C. M.
SITE DESCRIPTION BRIDGE NO. 60 ON L- (NO 33) OVER JOHNSONS MILL RUN			
BORING NO. EB2-A	STATION 16+07	OFFSET 12 ft LT	ALIGNMENT -L-
COLLAR ELEV. 28.0 ft	TOTAL DEPTH 94.5 ft	NORTHING 697,867	EASTING 2,472,931
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 06/26/13	COMP. DATE	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	0.5ft	0.5ft					
-50								Match Line		
-55	-55.0	83.0	5	6	6					
-60	-60.0	88.0	8	9	10					
-65	-65.0	93.0	3	6	8					
								COASTAL PLAIN DARK GRAY SILTY CLAY, WET (PEEDEE FORMATION)	81.0	
								Boring Terminated at Elevation -66.5 ft IN STIFF SILTY CLAY	84.5	