

REFERENCE: I-5986B

PROJECT: 47532

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY JOHNSTON
PROJECT DESCRIPTION I-95 FROM NORTH OF SR 1002
(LONG BRANCH ROAD) (EXIT 71) TO I-40 (EXIT 81).
SITE DESCRIPTION BRIDGE 653 ON -Y29- (S. MARKET ST.)
OVER -L- (I-95)

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4	PROFILE(S)
5-6	CROSS SECTION(S)
7-II	BORE LOG(S)
12	SITE PHOTOGRAPH(S)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5986B	1	12

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 (919) 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

E. BLONESHINE

J. PREVATTE

A. BLYTHE

J. SWARTLEY

INVESTIGATED BY S&ME, Inc.

DRAWN BY J. SWARTLEY

CHECKED BY S. MITCHELL

SUBMITTED BY S. MITCHELL

DATE JANUARY 2020



9751 SOUTHERN PINE BLVD
CHARLOTTE, NC 28273
(704) 523-4726



DocuSigned by:

Stacie Mitchell

1/9/2020

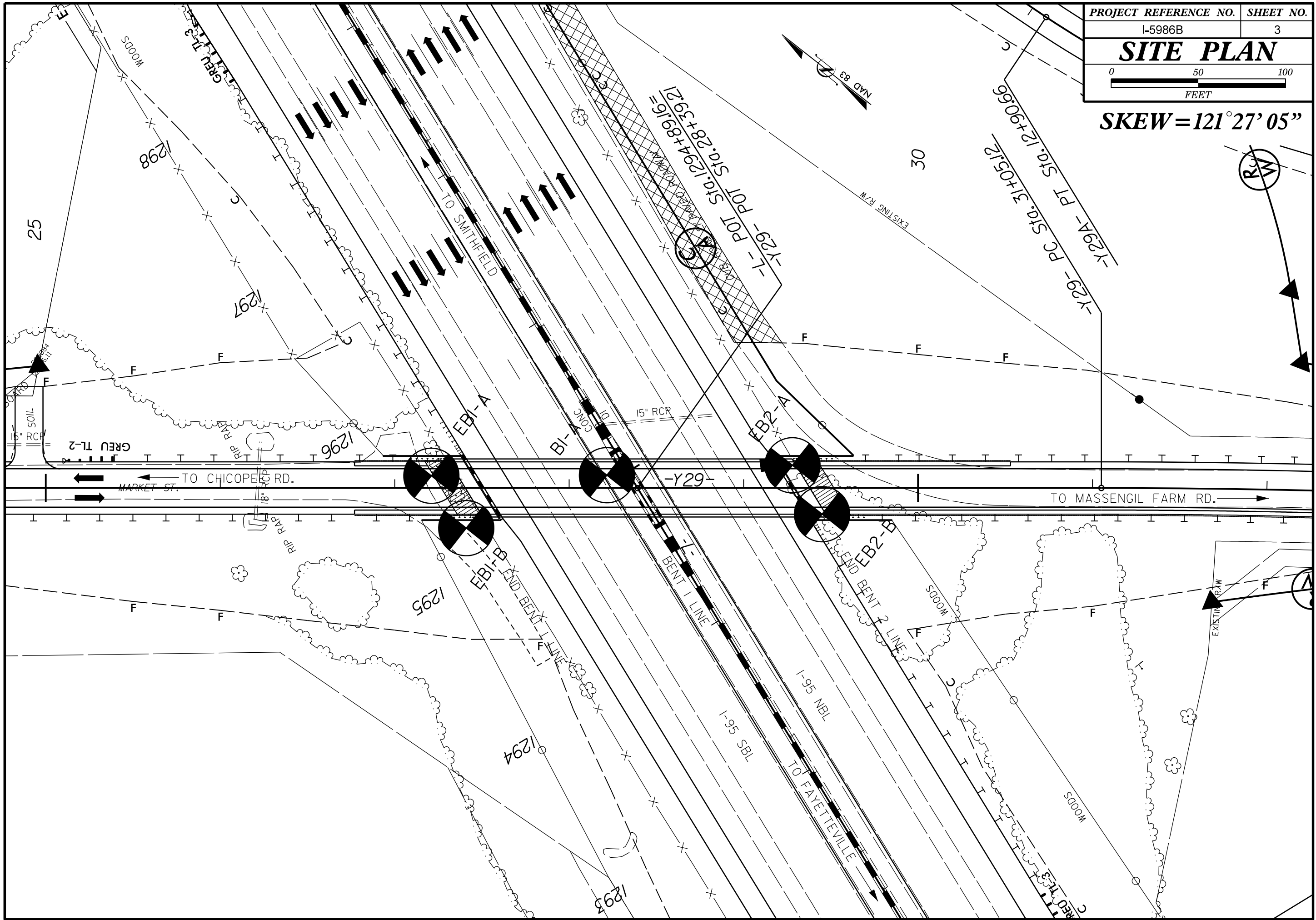
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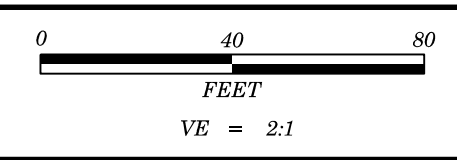
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DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

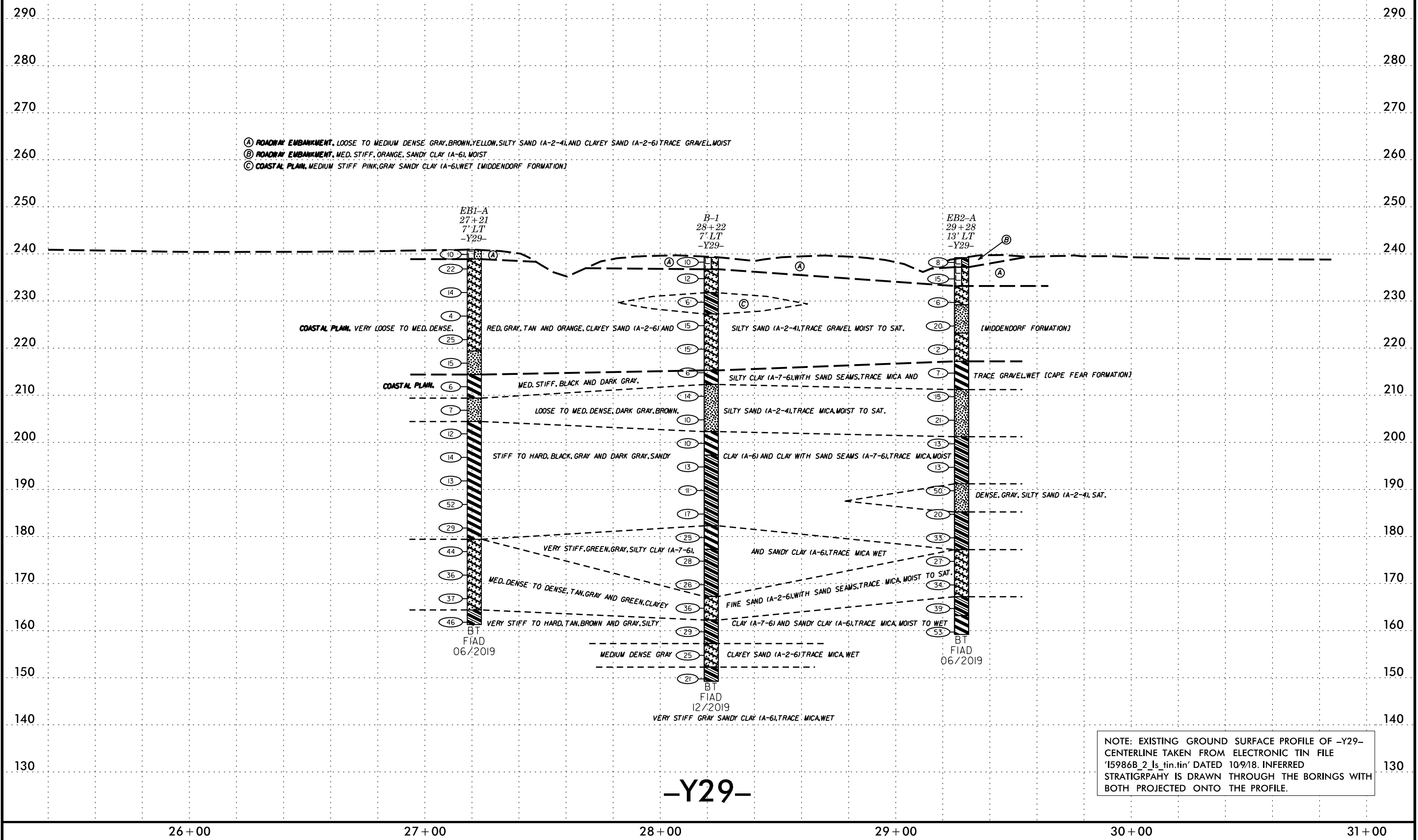
SKEW = 121° 27' 05"



5/14/99



PROJECT REFERENCE NO.	SHEET NO.
I-5986B	4
PROFILE PROJECTED ALONG -Y29-	

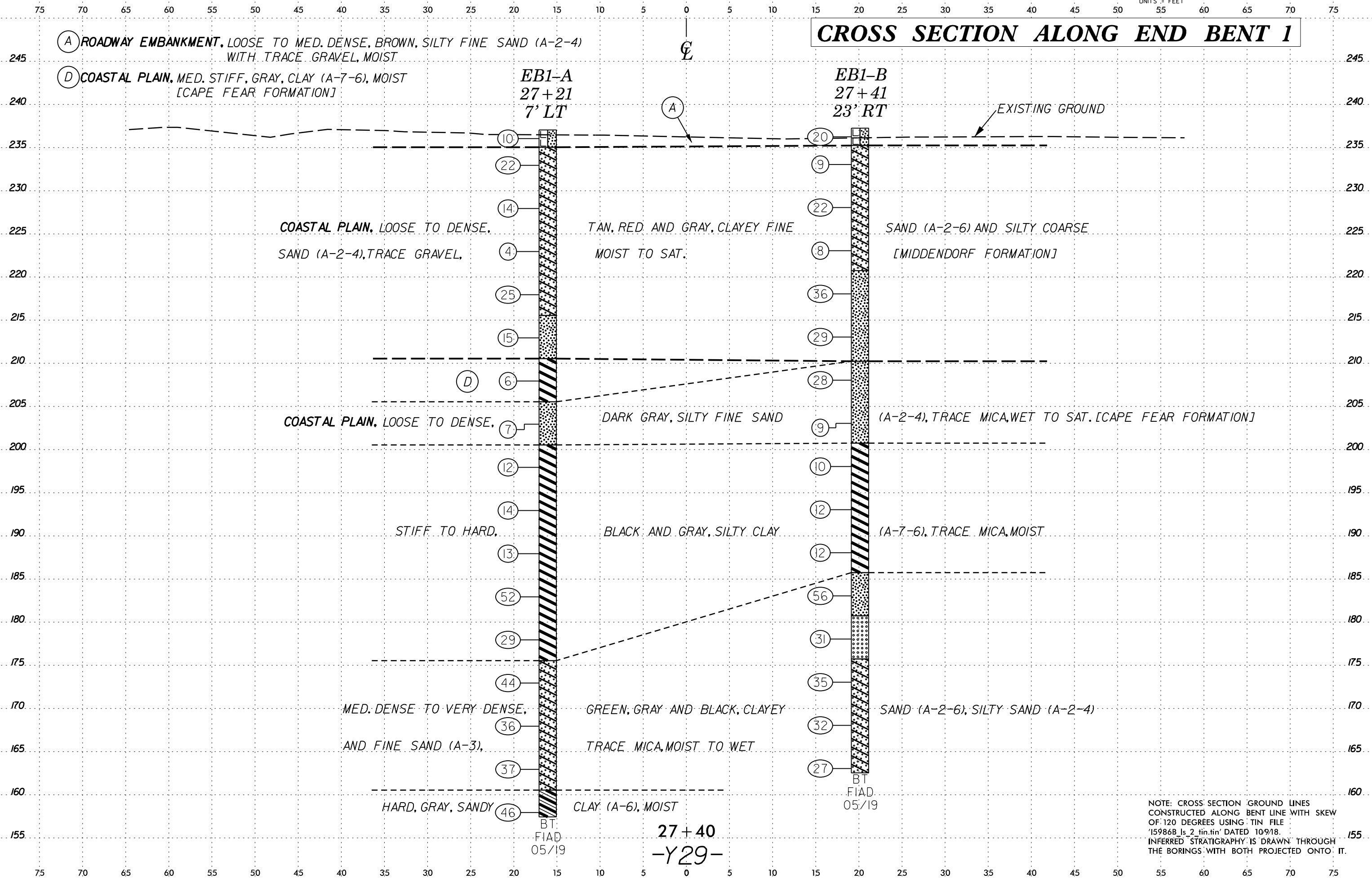


NOTE: EXISTING GROUND SURFACE PROFILE OF -Y29- CENTERLINE TAKEN FROM ELECTRONIC TIN FILE 'I5986B_2_Is_tin.tin' DATED 10/9/18. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE PROFILE.

-Y29-

6/23/16

CROSS SECTION ALONG END BENT 1



NOTE: CROSS SECTION GROUND LINES CONSTRUCTED ALONG BENT LINE WITH SKEW OF 120 DEGREES USING TIN FILE 'I5986B_Is_2.tin.tin' DATED 10/9/18. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO IT.

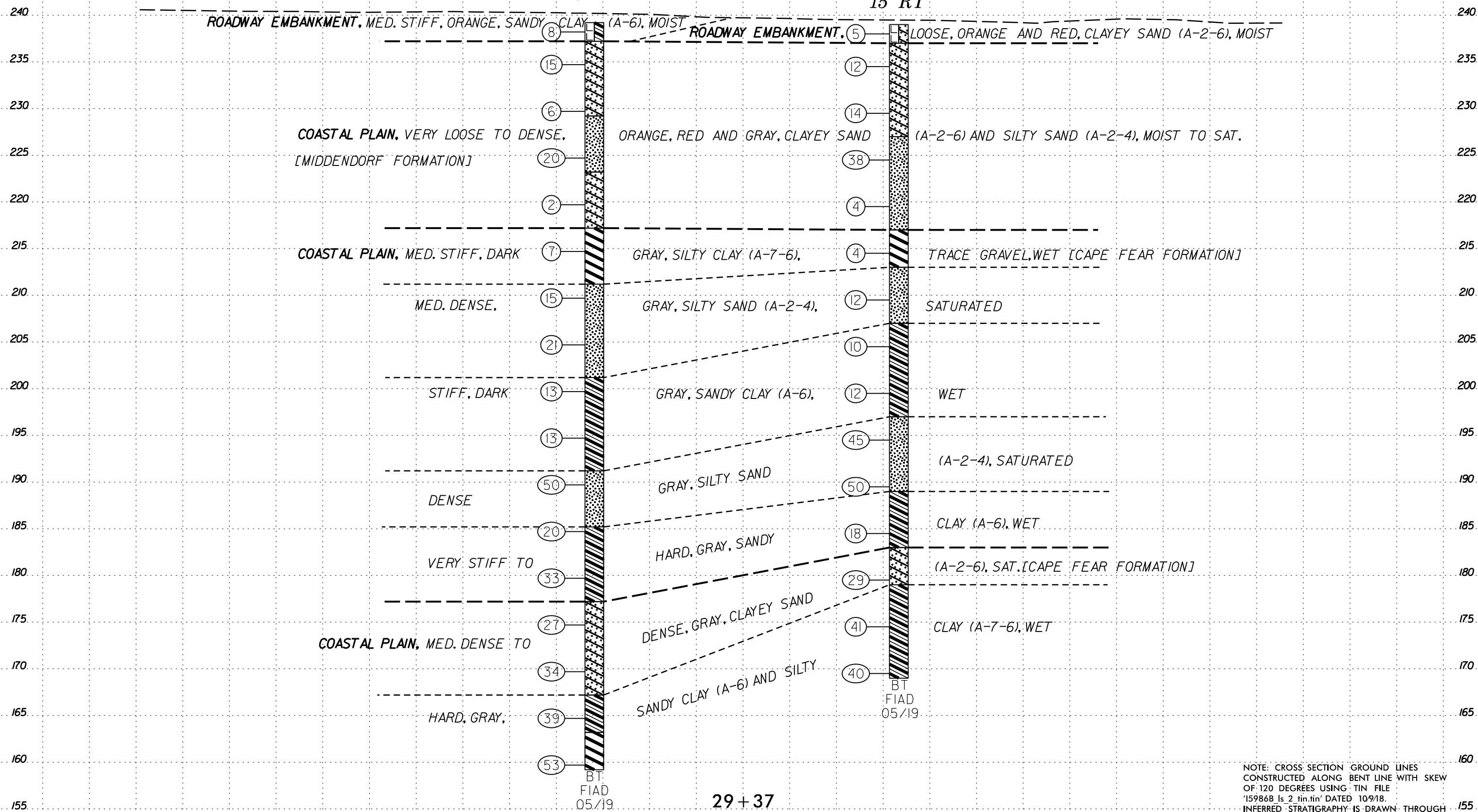
SYTIME CONSTRUCTION SERVICES

6/23/16



75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

CROSS SECTION ALONG END BENT 2



29+37
-Y29-

NOTE: CROSS SECTION GROUND LINES CONSTRUCTED ALONG BENT LINE WITH SKEW OF 120 DEGREES USING TIN FILE '15986B Is 2 tin.tin' DATED 10/9/18. INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO IT.

SCHEMATIC DESIGN CONSULTANTS

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Bloneshine, E.										
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)									
BORING NO. EB1-A		STATION 27+21		OFFSET 7 ft LT		ALIGNMENT -Y29-										
COLLAR ELEV. 240.9 ft		TOTAL DEPTH 79.6 ft		NORTHING 588,367		EASTING 2,134,686										
DRILL RIGHAMMER EFF./DATE SME3193 CME-550X 85% 11/14/2018			DRILL METHOD Mud Rotary		HAMMER TYPE Automatic											
DRILLER T. Whitehead		START DATE 05/03/19		COMP. DATE 05/03/19		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
245																
240	240.9	0.0	4	4	6										240.9	GROUND SURFACE
235	237.8	3.1	4	9	13										238.9	ROADWAY EMBANKMENT LOOSE, BROWN, SILTY FINE SAND (A-2-4) W/ TRACE GRAVEL
230	232.8	8.1	6	8	6											COASTAL PLAIN LOOSE TO MED. DENSE, RED, GRAY AND TAN, CLAYEY FINE SAND (A-2-6) W/ TRACE GRAVEL [MIDDENDORF FORMATION]
225	227.8	13.1	2	2	2											
220	222.8	18.1	12	12	13											
215	217.8	23.1	13	7	8										219.4	MED. DENSE, TAN, SILTY COARSE SAND (A-2-4) WITH TRACE GRAVEL
210	212.8	28.1	3	3	3										214.4	COASTAL PLAIN MED. STIFF, BLACK, CLAY (A-7-6) W/ SAND SEAMS [CAPE FEAR FORMATION]
205	207.8	33.1	5	3	4										209.4	LOOSE, DARK GRAY, SILTY FINE SAND (A-2-4) W/ TRACE MICA
200	202.8	38.1	5	6	6										204.4	STIFF TO HARD, BLACK AND GRAY, CLAY (A-7-6) W/ SAND SEAMS AND MICA
195	197.8	43.1	5	6	8											
190	192.8	48.1	5	6	7											
185	187.8	53.1	9	20	32											
180	182.8	58.1	10	12	17											
175	177.8	63.1	11	14	30										179.4	DENSE, GREEN AND GRAY, CLAYEY FINE SAND (A-2-6) W/ TRACE MICA
170	172.8	68.1	15	16	20											
165	167.8	73.1	12	15	22											

NCDOT BORE DOUBLE I5986B_GEO BRDG_Y29.GPJ NC_DOT.GDT 1/9/20

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Bloneshine, E.										
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)									
BORING NO. EB1-A		STATION 27+21		OFFSET 7 ft LT		ALIGNMENT -Y29-										
COLLAR ELEV. 240.9 ft		TOTAL DEPTH 79.6 ft		NORTHING 588,367		EASTING 2,134,686										
DRILL RIGHAMMER EFF./DATE SME3193 CME-550X 85% 11/14/2018			DRILL METHOD Mud Rotary		HAMMER TYPE Automatic											
DRILLER T. Whitehead		START DATE 05/03/19		COMP. DATE 05/03/19		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
165																
	162.8	78.1	9	16	30											
															164.4	HARD, GRAY, SANDY CLAY (A-6)
															161.3	Boring Terminated at Elevation 161.3 ft IN HARD SANDY CLAY (COASTAL PLAIN)

GEOTECHNICAL BORING REPORT BORE LOG

WBS 47532.1.3				TIP I-5986B				COUNTY JOHNSTON				GEOLOGIST Bloneshine, E.			
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95								GROUND WTR (ft)							
BORING NO. EB1-B				STATION 27+41				OFFSET 23 ft RT				ALIGNMENT -Y29-			
COLLAR ELEV. 241.1 ft				TOTAL DEPTH 74.7 ft				NORTHING 588,333				EASTING 2,134,674			
DRILL RIGHAMMER EFF./DATE SVE3193 CME-550X 85% 11/14/2018								DRILL METHOD Mud Rotary				HAMMER TYPE Automatic			
DRILLER T. Whitehead				START DATE 05/06/19				COMP. DATE 05/06/19				SURFACE WATER DEPTH N/A			
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION ELEV. (ft) DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
245															
240	241.1	0.0	6	11	9										
	237.9	3.2	3	3	6										
235															
	232.9	8.2	9	11	11										
230															
	227.9	13.2	4	4	4										
225															
	222.9	18.2	9	19	17										
220															
	217.9	23.2	8	18	11										
215															
	212.9	28.2	8	14	14										
210															
	207.9	33.2	5	4	5										
205															
	202.9	38.2	2	5	5										
200															
	197.9	43.2	5	5	7										
195															
	192.9	48.2	4	5	7										
190															
	187.9	53.2	19	29	27										
185															
	182.9	58.2	9	14	17										
180															
	177.9	63.2	12	15	20										
175															
	172.9	68.2	10	14	18										
170															
	167.9	73.2	10	12	15										

NCDOT BORE DOUBLE I5986B GEO BRDG_Y29.GPJ NC_DOT.GDT 1/9/20

WBS 47532.1.3				TIP I-5986B				COUNTY JOHNSTON				GEOLOGIST Bloneshine, E.			
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95								GROUND WTR (ft)							
BORING NO. EB1-B				STATION 27+41				OFFSET 23 ft RT				ALIGNMENT -Y29-			
COLLAR ELEV. 241.1 ft				TOTAL DEPTH 74.7 ft				NORTHING 588,333				EASTING 2,134,674			
DRILL RIGHAMMER EFF./DATE SVE3193 CME-550X 85% 11/14/2018								DRILL METHOD Mud Rotary				HAMMER TYPE Automatic			
DRILLER T. Whitehead				START DATE 05/06/19				COMP. DATE 05/06/19				SURFACE WATER DEPTH N/A			
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION ELEV. (ft) DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
165															

Match Line

Boring Terminated at Elevation 166.4 ft IN

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Goslin, G.	
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)
BORING NO. B1-A		STATION 28+22		OFFSET 7 ft LT		ALIGNMENT -Y29-	
COLLAR ELEV. 239.3 ft		TOTAL DEPTH 90.0 ft		NORTHING 588,288		EASTING 2,134,748	
DRILL RIGHAMMER EFF./DATE SME9978 CME-750 74% 12/19/2018			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic	
DRILLER R. Norwood		START DATE 12/09/19		COMP. DATE 12/10/19		SURFACE WATER DEPTH N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
240	239.3	0.0											239.3	GROUND SURFACE	0.0
			3	4	6							M	236.8	ROADWAY EMBANKMENT LOOSE, YELLOW BROWN, CLAYEY FINE TO COARSE SAND (A-2-6) W/ TRACE GRAVEL	2.5
235	235.8	3.5	4	6	6							W	231.8	COASTAL PLAIN MEDIUM DENSE, RED, GRAY, CLAYEY FINE TO COARSE SAND (A-2-6) [MIDDENDORF FORMATION]	7.5
230	230.8	8.5	2	3	3							W	227.3	MEDIUM STIFF, PINK GRAY, COARSE SANDY CLAY (A-6)	12.0
225	225.8	13.5	3	7	8							W	222.3	MEDIUM DENSE, TAN, YELLOW, CLAYEY FINE TO COARSE SAND (A-2-6)	12.0
220	220.8	18.5	3	1	14							W			
215	215.8	23.5	5	4	2							W	215.3	COASTAL PLAIN	24.0
210	210.8	28.5	1	5	9							W	212.3	MED. STIFF, DARK GRAY, SILTY CLAY (A-7-6) W/ SAND SEAMS, TRACE MICA [CAPE FEAR FORMATION]	27.0
205	205.8	33.5	4	3	7							W		MEDIUM DENSE TO LOOSE, DARK GRAY, SILTY FINE SAND (A-2-4) W/ TRACE MICA	
200	200.8	38.5	2	4	6							W	202.3	STIFF, DARK GRAY, SILTY CLAY (A-7-6) W/ SAND SEAMS, TRACE MICA	37.0
195	195.8	43.5	3	6	7							W	197.3	STIFF TO VERY STIFF GRAY, SANDY CLAY (A-6), TRACE MICA	42.0
190	190.8	48.5	4	4	7							W			
185	185.8	53.5	28	8	9							W			
180	180.8	58.5	7	10	15							W	182.3	VERY STIFF, GREEN GRAY, SILTY CLAY (A-7-5) W/ SAND SEAMS, TRACE MICA	57.0
175	175.8	63.5	13	9	19							W	177.3	VERY STIFF GRAY, SANDY CLAY (A-6), TRACE MICA	62.0
170	170.8	68.5	8	12	14							W			
165	165.8	73.5	11	14	22							W	167.3	DENSE, GRAY, CLAYEY FINE SAND (A-2-6), TRACE MICA	72.0
160	160.8	78.5	12	14	15							W	162.3	VERY STIFF TAN, GRAY, SANDY CLAY (A-6), TRACE MICA	77.0

NCDOT BORE DOUBLE I5986B_GEO BRDG_Y29.GPJ NC_DOT.GDT 1/9/20

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Goslin, G.	
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)
BORING NO. B1-A		STATION 28+22		OFFSET 7 ft LT		ALIGNMENT -Y29-	
COLLAR ELEV. 239.3 ft		TOTAL DEPTH 90.0 ft		NORTHING 588,288		EASTING 2,134,748	
DRILL RIGHAMMER EFF./DATE SME9978 CME-750 74% 12/19/2018			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic	
DRILLER R. Norwood		START DATE 12/09/19		COMP. DATE 12/10/19		SURFACE WATER DEPTH N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100					
160													160		
													157.3	VERY STIFF TAN, GRAY, SANDY CLAY (A-6), TRACE MICA (continued)	82.0
155	155.8	83.5	6	12	13							W	152.3	MEDIUM DENSE, GRAY, CLAYEY FINE SAND (A-2-6), TRACE MICA	87.0
150	150.8	88.5	10	9	12							W	149.3	VERY STIFF, GRAY, SANDY CLAY (A-6), TRACE MICA	90.0
														Boring Terminated at Elevation 149.3 ft IN VERY STIFF SANDY CLAY (COASTAL PLAIN)	

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Prevatte, J.								
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)							
BORING NO. EB2-A		STATION 29+28		OFFSET 13 ft LT		ALIGNMENT -Y29-								
COLLAR ELEV. 239.2 ft		TOTAL DEPTH 80.0 ft		NORTHING 588,208		EASTING 2,134,818								
DRILL RIGHAMMER EFF./DATE SME3193 CME-550X 85% 11/14/2018			DRILL METHOD Mud Rotary		HAMMER TYPE Automatic									
DRILLER T. Whitehead		START DATE 05/07/19		COMP. DATE 05/07/19		SURFACE WATER DEPTH N/A								
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
240	239.2	0.0	4	4	4							M	GROUND SURFACE	0.0
												M	ROADWAY EMBANKMENT MED. STIFF, ORANGE, SANDY CLAY (A-6)	2.0
235	235.7	3.5	4	6	9							M	COASTAL PLAIN LOOSE TO MED. DENSE, ORANGE, RED AND GRAY, CLAYEY SAND (A-2-6) [MIDDENDORF FORMATION]	
230	230.7	8.5	3	3	3							M		
225	225.7	13.5	17	14	6							Sat.	MED. DENSE, ORANGE AND GRAY, SILTY SAND (A-2-4)	10.0
220	220.7	18.5	2	1	1							Sat.	VERY LOOSE, ORANGE AND RED, CLAYEY SAND (A-2-6), TRACE GRAVEL	16.0
215	215.7	23.5	8	5	2							W	COASTAL PLAIN MED. STIFF, DARK GRAY, SILTY CLAY (A-7-6) W/ TRACE GRAVEL [CAPE FEAR FORMATION]	22.0
210	210.7	28.5	6	8	7							Sat.	MED. DENSE, DARK GRAY, SILTY SAND (A-2-4)	28.0
205	205.7	33.5	8	10	11							Sat.		
200	200.7	38.5	4	6	7							W	STIFF, DARK GRAY, SANDY CLAY (A-6)	38.0
195	195.7	43.5	5	6	7							W		
190	190.7	48.5	22	25	25							Sat.	DENSE, GRAY, SILTY SAND (A-2-4)	48.0
185	185.7	53.5	6	9	11							Sat.	VERY STIFF TO HARD, DARK GRAY AND GRAY, SANDY CLAY (A-6)	54.0
180	180.7	58.5	12	16	17							W		
175	175.7	63.5	10	12	15							W	MED. DENSE TO DENSE, GRAY, CLAYEY SAND (A-2-6)	62.0
170	170.7	68.5	11	17	17							Sat.		
165	165.7	73.5	14	19	20							W	HARD, BROWN AND GRAY, SANDY CLAY (A-6) AND SILTY CLAY (A-7-6)	72.0
160	160.7	78.5												76.0

NCDOT BORE DOUBLE I5986B_GEO BRDG_Y29.GPJ NC_DOT.GDT 1/9/20

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Prevatte, J.								
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)							
BORING NO. EB2-A		STATION 29+28		OFFSET 13 ft LT		ALIGNMENT -Y29-								
COLLAR ELEV. 239.2 ft		TOTAL DEPTH 80.0 ft		NORTHING 588,208		EASTING 2,134,818								
DRILL RIGHAMMER EFF./DATE SME3193 CME-550X 85% 11/14/2018			DRILL METHOD Mud Rotary		HAMMER TYPE Automatic									
DRILLER T. Whitehead		START DATE 05/07/19		COMP. DATE 05/07/19		SURFACE WATER DEPTH N/A								
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
160			15	24	29							W	Match Line	80.0
													Boring Terminated at Elevation 159.2 ft IN HARD SILTY CLAY (COASTAL PLAIN)	

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 47532.1.3		TIP I-5986B		COUNTY JOHNSTON		GEOLOGIST Prevatte, J.	
SITE DESCRIPTION BRIDGE 653 ON -Y29- OVER (-L-) I-95							GROUND WTR (ft)
BORING NO. EB2-B		STATION 29+45		OFFSET 15 ft RT		ALIGNMENT -Y29-	
COLLAR ELEV. 239.0 ft		TOTAL DEPTH 70.0 ft		NORTHING 588,177		EASTING 2,134,807	
DRILL RIG/HAMMER EFF./DATE SME3193 CME-550X 85% 11/14/2018				DRILL METHOD Mud Rotary		HAMMER TYPE Automatic	
DRILLER T. Whitehead		START DATE 05/08/19		COMP. DATE 05/08/19		SURFACE WATER DEPTH N/A	

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)	
240	239.0	0.0	5	3	2							M	239.0	GROUND SURFACE	0.0
235	235.5	3.5	5	6	6							M	237.0	ROADWAY EMBANKMENT LOOSE, ORANGE AND RED, CLAYEY SAND (A-2-6)	2.9
230	230.5	8.5	7	6	8							M		COASTAL PLAIN MED. DENSE, ORANGE AND RED, CLAYEY SAND (A-2-6) [MIDDENDORF FORMATION]	
225	225.5	13.5	14	17	21							Sat.	227.0	LOOSE TO DENSE, ORANGE AND RED, SILTY SAND (A-2-4)	12.0
220	220.5	18.5	5	1	3							Sat.			
215	215.5	23.5	1	2	2							W	217.0	COASTAL PLAIN SOFT, DARK GRAY, SILTY CLAY (A-7-6) [CAPE FEAR FORMATION]	22.0
210	210.5	28.5	4	5	7							Sat.	213.0	MED. DENSE, GRAY, SILTY SAND (A-2-4)	26.0
205	205.5	33.5	4	5	5							W	207.0	STIFF, DARK GRAY, SANDY CLAY (A-6)	32.0
200	200.5	38.5	4	6	6							W			
195	195.5	43.5	17	23	22							Sat.	197.0	DENSE, DARK GRAY, SILTY SAND (A-2-4)	42.0
190	190.5	48.5	9	28	22							Sat.	189.0	VERY STIFF, GRAY, SANDY CLAY (A-6)	50.0
185	185.5	53.5	7	8	10							W	183.0	MED. DENSE, GRAY, CLAYEY SAND (A-2-6)	56.0
180	180.5	58.5	8	11	18							Sat.	179.0	HARD, GRAY, SANDY CLAY (A-6)	60.0
175	175.5	63.5	10	12	29							W			
170	170.5	68.5	13	18	22							W	169.0	Boring Terminated at Elevation 169.0 ft IN HARD SANDY CLAY (COASTAL PLAIN)	70.0

NCDOT BORE DOUBLE I5986B_GEO BRDG_Y29.GPJ NC_DOT.GDT 1/19/20

SITE PHOTOGRAPH

Bridge 653 on -Y29- over -L- (I-95)



Looking North