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REFERENCE

DESCRIPTION TITLE SHEET LEGEND (SOIL & ROCK) SITE PLAN PROFILE BORE LOGS SITE PHOTOGRAPH

STATE OF NORTH CAROLINA

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

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY EDGECOMBE

PROJECT DESCRIPTION <u>REPLACE BRIDGE 320035 ON</u> SR 1616 (SHARP POINT RD.) OVER OTTER CREEK **AT STATION 16+42.6**

7117 Ó • PROJEC

STATE N.C.

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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, 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 1999 107-6850. 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 SOLL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOLL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH INTE ACCORDITORS INC COLDINATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE VIOL CLIMBURGACE PLANS. 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 WARANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPHION 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 SATISTY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OF FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ON OF OR AN THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

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PERSONNEL
N. MOHS, LG
M. STANBURY
M. SNYDER, PE
SUB TERRA EXP.
INVESTIGATED BY <u>N. MOHS, LG</u>
DRAWN BY <u>N. MOHS, LG</u>
CHECKED BYM. SNYDER, PE
SUBMITTED BY <u>N. MOHS, LG</u>
DATE _AUGUST 2019
E ICE of CAROLINAS, PLLC
SEAL 2124 DANIEL WITH DANIEL
DocuSigned by:
Nathan Molis 10/22/2019
35A8C1164EEA400 SIGNATURE DATE
DOCUMENT NOT CONSIDERED FINAL

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION

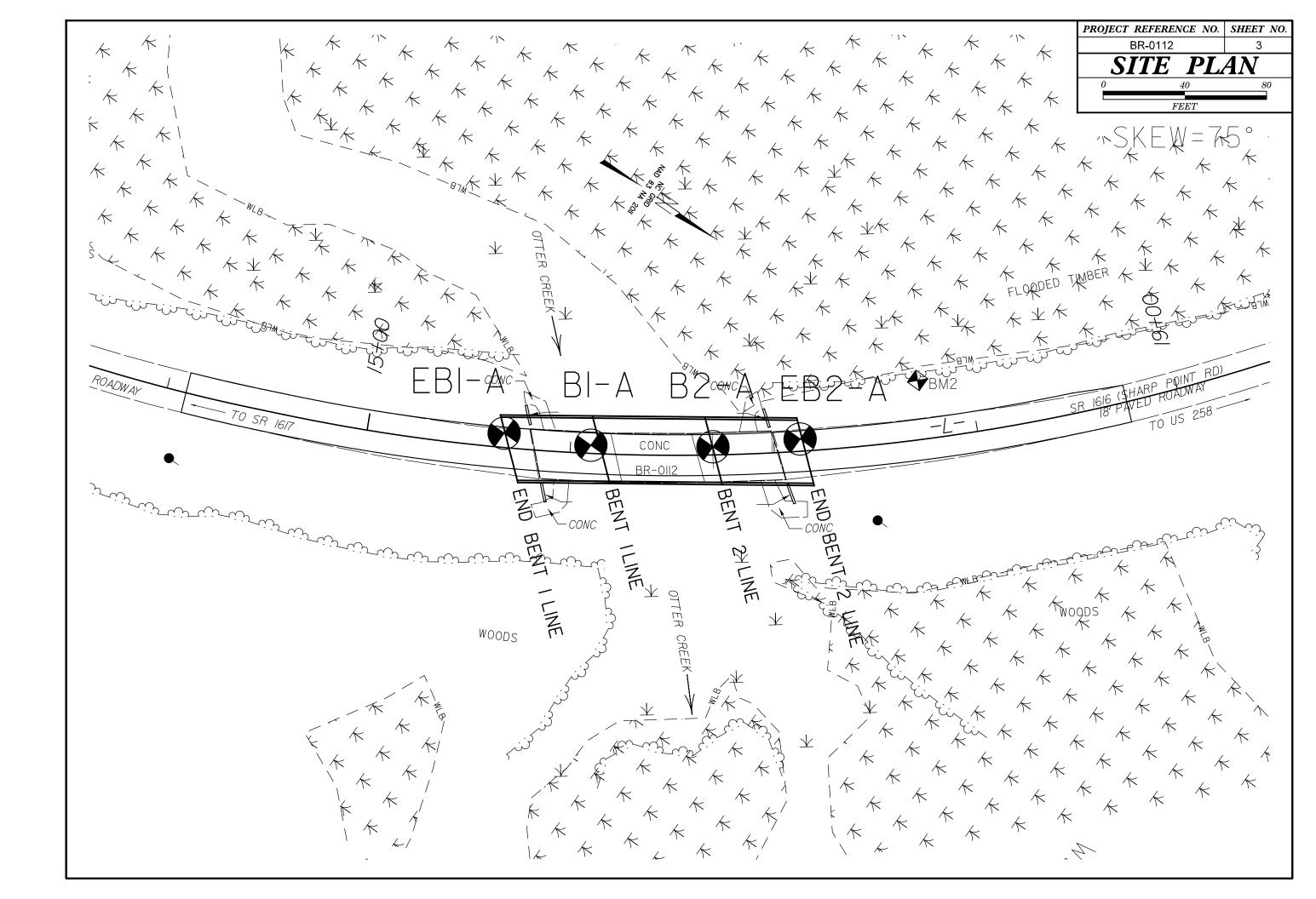
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

			SOIL D	ESCRIP	TION				1		GF	RADATION			1			ROCK	DESCRIPT	ION
		UNCONSOLIDATED	, SEMI-CONS	OLIDATED, O	R WEATHERE				WELL GRADED - INDICAT		GOOD REPRESE	NTATION OF PARTIC								LD SPT REFUSAL IF TESTE IN MATERIAL WOULD YIELD
ACCORD	ING TO THE	H A CONTINUOUS F STANDARD PENETF	RATION TES	T (AASHTO	T 206, ASTM	D1586) SO	IL CLASSIFI	CATION	UNIFORMLY GRADED - IN GAP-GRADED - INDICATE						SPT REFUSAL	IS PEN	VETRATION B	Y A SPLIT SPOOM	SAMPLER ED	UAL TO OR LESS THAN Ø.1 BETWEEN SOIL AND ROCK
CONSIST	ENCY, COLOR,	HE AASHTO SYSTE , TEXTURE, MOISTUR	RE, AASHTO	CLASSIFICA	TION, AND O	THER PERTIN	ENT FACTOR	IS SUCH				ITY OF GRAIN			REPRESENTED	BYA	ZONE OF WE	ATHERED ROCK.		BETWEEN SUIL HND RUCK
		GICAL COMPOSITIO GRAY, SILTY CLAY, MOIS										SOIL GRAINS IS DE	ESIGNATED	BY THE TERMS:	WEATHERED	ALS AR	FF/FFICALLY	DIVIDED AS FOL		
	S	OIL LEGEND) AND 4	ASHTO	CLASSI	FICATIO	N		ANGULAR, SUBAN				TION		ROCK (WR)			100 BLOWS PER		AL THAT WOULD YIELD SP1 STED.
GENERAL CLASS	,	GRANULAR MATERIALS ≤ 35% PASSING #200			Y MATERIALS ASSING #200)	0	rganic materi	ALS				ICAL COMPOSI			CRYSTALLINE		I.I.			OUS AND METAMORPHIC RO IF TESTED, ROCK TYPE IN
GROUP	A-1	A-3 A		A-4 A-5		7 A-1, A-2	A-4, A-5					N THEY ARE CONSID			ROCK (CR)			GNEISS, GABBRO), SCHIST, ETC	•
	A-1-a A-1-b	A-2-4 A-2-5		7	A-7- A-7-	5 Δ-3	A-6, A-7					RESSIBILITY			NON-CRYSTALI ROCK (NCR)	LINE		SEDIMENTARY I	ROCK THAT WO	AMORPHIC AND NON-COASTA DULD YEILD SPT REFUSAL
SYMBOL				1.7					MODE	ERATELY	COMPRESSIBLE Y COMPRESSIBL	LE	LL < 31 LL = 31		COASTAL PLA			COASTAL PLAIN	SEDIMENTS	ITE, SLATE, SANDSTONE, ET CEMENTED INTO ROCK, BUT
% PASSING							SILT-		HIGHL				LL > 50	1	SEDIMENTARY (CP)	ROCK		SPT REFUSAL. SHELL BEDS.E		NCLUDES LIMESTONE, SANDS
*1Ø *4Ø	50 MX 30 MX 50 MX	51 MN				GRANULAR SOILS	CLAY SOILS	MUCK, PEAT			GRANULAR	GE OF MATER	IAL					WE	ATHERING	
	15 MX 25 MX	10 MX 35 MX 35 MX	35 MX 35 M)	36 MN 36 M	1N 36 MN 36 I	MN	30123		ORGANIC MATERIAL TRACE OF ORGANIC MA		SOILS	SILT - CLAY <u>SOILS</u> 3 - 5%	<u>OTHE</u> TRACE	E <u>R MATERIAL</u> 1 - 10%	FRESH		RESH, CRYSTA		IOINTS MAY SH	OW SLIGHT STAINING, ROCK
MATERIAL PASSING *40						001	C MITH		LITTLE ORGANIC MATT	TER	3 - 5%	5 - 12%	LITTLE	10 - 20%	VERY SLIGHT				NED. SOME JOIN	ITS MAY SHOW THIN CLAY C
LL PI	- 6 MX	— 40 MX 41 MN NP 10 MX 10 MX				1N LIT	.S WITH TLE OR	HIGHLY	MODERATELY ORGANIC HIGHLY ORGANIC		5 - 10% > 10%	12 - 20% > 20%	SOME HIGHLY	20 - 35% 35% AND ABOVE	(V SLI.)	CRYSTA		KEN SPECIMEN FA		HTLY, ROCK RINGS UNDER H
GROUP INDEX	Ø	0 0	4 MX		1X 16 MX NO 1	MUL	Jerate JNTS of	ORGANIC			GROL	UND WATER			SLIGHT				NED AND DISCO	LORATION EXTENDS INTO RO
USUAL TYPES	STONE FRAGS.	FINE SILTY OF		SILTY	CLAYEY		GANIC	SOILS	∇	WAT	ER LEVEL IN F	BORE HOLE IMMEDIA	TELY AFTE	R DRILLING	(SLI.)	1 INCH.	OPEN JOINTS	MAY CONTAIN CL	AY. IN GRANIT	OID ROCKS SOME OCCASIONA ROCKS RING UNDER HAMMER
of Major Materials	GRAVEL, AND SAND	SAND GRAVEL 4		SOILS	SOILS		iii Ch			STA	TIC WATER LE	VEL AFTER 24	IOURS		MODERATE					N AND WEATHERING EFFECT
GEN. RATING				EAT	TD 0000	FAIR TO	0000	UNSUITABLE		PER	CHED WATER,S	ATURATED ZONE, OR	WATER BE	ARING STRATA	(MOD.)	GRANIT	OID ROCKS, M	DST FELDSPARS A	RE DULL AND I	DISCOLORED, SOME SHOW CLA NIFICANT LOSS OF STRENGTH
AS SUBGRADE		EXCELLENT TO GOOD			TO POOR	POOR	POOR	UNSUITABLE		SPR	ING OR SEEP						RESH ROCK.	HHMMER BLOWS H	AD 20082 210	AFICHNI LUSS OF STRENGT
		PI OF A-7-5 SUBGROU			7-6 SUBGROUP						MISCELLA	NEOUS SYMBO			MODERATELY SEVERE					IN GRANITOID ROCKS, ALL F ION. ROCK SHOWS SEVERE L
					F STANDARD		IGE OF UNC	ONFINED							(MOD, SEV.)	AND CA	N BE EXCAVA	TED WITH A GEOL	OGIST'S PICK.	ROCK GIVES "CLUNK" SOUND
PRIMARY	SOIL TYPE	COMPACTNES CONSISTEN		PENETRATI	ON RESISTEN		PRESSIVE S (TONS/F1	TRENGTH	L ROADWAY EMB			DIP & DIP DIR DIP & DIP DIR DF ROCK STRUE			SEVERE			<u>TELD SPT REFUSA</u>		ROCK FABRIC CLEAR AND E
GENERA		VERY LOO	ISE		< 4				SOIL SYMBOL			OPT DAT TEST BOR	_	SLOPE INDICATOR	(SEV.)	REDUCE	D IN STRENG	TH TO STRONG SO	IL. IN GRANITO	DID ROCKS ALL FELDSPARS A
GRANUL	AR	LOOSE MEDIUM DE	INSE		TO 10 TO 30		N/A		l 🖬					INSTALLATION				ome fragments c <i>Teld Spt n Valu</i>		K USUALLY REMAIN.
MATERIA (NON-CO		DENSE		3Ø	TO 5Ø				ARTIFICIAL FI			- AUGER BORING) CONE PENETROMETER TEST	VERY					ROCK FABRIC ELEMENTS AF
		VERY DEN VERY SOF			> 5Ø < 2		< Ø.25		INFERRED SOI	IL BOUM		CORE BORING	•	SOUNDING ROD	SEVERE (V SEV.)					JS,WITH ONLY FRAGMENTS O ATHERED TO A DEGREE THAT
GENERA		SOFT		2	TO 4		Ø.25 TO I	Ø . 5						TEST BORING						STED, WOULD YIELD SPT N V
SILT-CL MATERI		MEDIUM ST STIFF		8	TO 8 TO 15		Ø.5 TO 1 1 TO 2		TITE INFERRED ROC	JK LINE	e "C		Ψ	WITH CORE	COMPLETE					IBLE, OR DISCERNIBLE ONLY ENT AS DIKES OR STRINGERS
(COHESI	VE)	VERY STI HARD	FF		TO 3Ø > 3Ø		2 TO 4 > 4	ł	ALLUVIAL SOI	L BOUN	NDARY 🛆	PIEZOMETER INSTALLATION	C)— SPT N-VALUE		ALSO A	N EXAMPLE.			
		TEX		DR GRAI						F	RECOMMEN	DATION SYMB	OLS		<u> </u>				HARDNES	
U.S. STD. SI	EVE SIZE	4	1Ø	4Ø	6Ø 2	00 270					NCLASSIFIED E			SSIFIED EXCAVATION -	VERY HARD			IED BY KNIFE OR IS OF THE GEOLOG		REAKING OF HAND SPECIMEN
OPENING (M	M)	4.76	6 2.00	Ø.42 COARSE		075 0.053 NE					NSUITABLE WAS NCLASSIFIED E	XCAVATION -	USED	TABLE, BUT NOT TO BE IN THE TOP 3 FEET OF	HARD		SCRATCHED		K ONLY WITH D	IFFICULTY. HARD HAMMER B
BOULDE (BLDR.)		BBLE GRAV		SAND	Sé	AND	SILT (SL.)	CLAY (CL.)		AC لک		GRADABLE ROCK	EMDHN	KMENT OR BACKFILL	MODERATELY				. GOUGES OR	GROOVES TO 0.25 INCHES DE
				(CSE, SD.)		SD.)						REVIATIONS	VCT	VANE CUEAD TECT	HARD		TED BY HARD		OGIST'S PICK.	HAND SPECIMENS CAN BE D
GRAIN MM SIZE IN		75 3	2.0		Ø . 25	0.05	0.005		AR - AUGER REFUSAL BT - BORING TERMINATED	D		MEDIUM - MICACEOUS	WEA.	- VANE SHEAR TEST WEATHERED	MEDIUM				HES DEEP BY	FIRM PRESSURE OF KNIFE C
	5	OIL MOISTL	JRE - C	ORRELF	TION O	TERMS	6		CL CLAY CPT - CONE PENETRATION	N TEST		MODERATELY NON PLASTIC		UNIT WEIGHT DRY UNIT WEIGHT	HARD		E EXCAVATED OF A GEOLOG		TO PEICES 1 IN	ICH MAXIMUM SIZE BY HARD
	MOISTURE		FIELD MO		GUIDE FO	R FIELD MO	ISTURE DES	CRIPTION	CSE COARSE		ORG	ORGANIC	u u	AMPLE ABBREVIATIONS	SOFT	can be	GROVED OR	GOUGED READILY		PICK. CAN BE EXCAVATED IN
	FERBERG LI	MITS)	DESCRIP						DMT - DILATOMETER TES DPT - DYNAMIC PENETRAT			PRESSUREMETER TE SAPROLITIC		BULK				ERAL INCHES IN S KEN BY FINGER PR		ATE BLOWS OF A PICK POIN
			- SATURA (SAT.)	ED -		LIQUID; VER _OW THE GR			e - VOID RATIO F - FINE			SAND, SANDY SILT, SILTY		- SPLIT SPOON - SHELBY TUBE	VERY					ADILY WITH POINT OF PICK.
		LIMIT							FOSS FOSSILIFEROUS		SLI	SLIGHTLY	RS ·	- ROCK	SOFT	OR MOR		ESS CAN BE BROK	EN BY FINGER	PRESSURE, CAN BE SCRATCH
RANGE <			- WET - (W)		D;REQUIRES PTIMUM MOI			FRAC FRACTURED, FRAC FRAGS FRAGMENTS	TURES		TRICONE REFUSAL DISTURE CONTENT		- RECOMPACTED TRIAXIAL - CALIFORNIA BEARING	F	RACT	URE SPA	CING		BEDDING
(PI) PL		CLIMIT							HI HIGHLY		V - VE			RATIO	TERM	_		SPACING		TERM
ПМ		M MOISTURE	- MOIST -	· (M)	SOLID; AT	OR NEAR (PTIMUM MO	ISTURE	DRILL UNITS:			ON SUBJECT	PROJE HAMMER		VERY WIDE WIDE		3	THAN 10 FEET TO 10 FEET	THIC	Y THICKLY BEDDED CKLY BEDDED 1
SL		AGE LIMIT							CME-45C		ANCING TOOLS:				MODERATE CLOSE	LY CLOS		TO 3 FEET 6 TO 1 FOOT		NLY BEDDED Ø.1 Y THINLY BEDDED Ø.0
			- DRY - (וכ		ADDITIONAL PTIMUM MOI)				S FLIGHT AUGER			VERY CLOS	SE		THAN Ø.16 FEET	THIC	CKLY LAMINATED 0.00
				STICITY					CME-55	ΙH	8" HOLLOW AU	JGERS	CORE S	П-н				IND	DURATION	
				CITY INDEX		r	ORY STRENG	тн	CME-55Ø	16	HARD FACED	FINGER BITS			FOR SEDIMEN	TARY R	JCKS, INDURA	TION IS THE HAP	DENING OF M	ATERIAL BY CEMENTING, HE
	I PLASTIC		. 200110	Ø-5		<u>-</u>	VERY LOW				TUNGCARBID	E INSERTS	<u> </u>		FRIABL	E				REES NUMEROUS GRAINS; R DISINTEGRATES SAMPLE.
MOE	GHTLY PLAS DERATELY P	LASTIC		6-15 16-25			SLIGHT MEDIUM		VANE SHEAR TEST			W/ ADVANCER		DOLS: DST HOLE DIGGER						ED FROM SAMPLE WITH ST
HIG	HLY PLASTI	IC		OR MORE			HIGH		PORTABLE HOIST	X	TRICONE 2	STEEL TEETH		AND AUGER	MODER	ATELY I	INDURATED			T WITH HAMMER.
			C	OLOR					X D-50		TRICONE	' TUNGCARB.		DUNDING ROD	INDURA	ATED				TO SEPARATE WITH STEEL
		INCLUDE COLOR (CORE BIT		🗌 V4	INE SHEAR TEST					TO BREAK WI	IH HAMMER. EQUIRED TO BREAK SAMPLE
МС	DIFIERS SL	JCH AS LIGHT, DA	RK, STREAK	ED, ETC. AF	RE USED TO	DESCRIBE	APPEARANCE	Ξ.		$ \Box$	l				EXTRE	MELY IN	NDURATED		MER BLUWS R EAKS ACROSS	

BR-0112



ED. AN INFERRED	TERMS AND DEFINITIONS
SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
1 FOOT PER 60 IS OFTEN	AQUIFER - A WATER BEARING FORMATION OR STRATA.
	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
T N VALUES >	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.
DCK THAT ICLUDES GRANITE,	APTESIAN - 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.
AL PLAIN IF TESTED. C.	$\underline{\text{COLLUVIUM}}$ - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.
MAY NOT YIELD STONE, CEMENTED	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.
RINGS UNDER	\underline{DIKE} - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.
COATINGS IF OPEN,	$\underline{\text{DIP}}$ - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.
IAMMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
DCK UP TO NL FELDSPAR	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
R BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
S. IN AY. ROCK HAS H AS COMPARED	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
1 HO CUMPARED	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
FELDSPARS DULL .0SS OF STRENGTH	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.
WHEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
WDENT OUT	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO
EVIDENT BUT ARE KAOLINIZED	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
RE DISCERNIBLE	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.
F STRONG ROCK	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
F ONLY MINOR VALUES < 100 BPF	OF AN INTERVENING IMPERVIOUS STRATUM.
IN SMALL AND	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
5. SAPROLITE IS	<u>ROCK QUALITY DESIGNATION (ROD)</u> - 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.
IS REQUIRES	$\underline{SAPROLITE}$ - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.
LOWS REQUIRED	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.
EEP CAN BE DETACHED	<u>SLICKENSIDE</u> - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
DR PICK POINT. BLOWS OF THE	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.
FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
PIECES 1 INCH	STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR OREATER THAN 4 INCHES DIVIDED BY
HED READILY BY	THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. <u>TOPSOIL (TS.)</u> - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
	BENCH MARK: BM-2: -L- STATION 17+74,15, 28,96' LT
THICKNESS 4 FEET	ELEVATION: 59.69 FEET
1.5 - 4 FEET 16 - 1.5 FEET	
03 - Ø.16 FEET	NOTES:
08 - 0.03 FEET 3 0.008 FEET	FIAD - FILLED IMMEDIATELY AFTER DRILLING
EAT, PRESSURE, ETC.	
.m., FREODURE, ETC.	
,	
TEEL PROBE;	
PROBE;	
E;	DATE: 8-15-14



			EB1–A	4	B1–A			A	EB2	A		0	
			15+67 7' LT	7	16+10 4' LT)	16 + 4' L	70	17+1 6' LT	3		1	VE
	EXISTING GROUNDLINE		/	AS	SPHALT				··	ASF	HALT		
.60	ROADWAY EMBANKMENT,YELLOW,LOOSE TO MEDIUM DENSE,MOIST,CLAYEY SAND	\frown	<u></u>	\ \ \				/				BANKME. SE,MOIS	
.55	<u>+</u> ++	<u>(6)</u>			<i>EL.</i> =	0TTER CR - 54,2 (08	REEK 8 <u>722719)</u> -	į L		· 		<u>.</u>	· · · · · · · · · · · · · · · · · · ·
.50	ALLUVIAL,BROWN,VERY LOOSE TO LOOS MOIST,SAND AND SILTY SAND	SE, ∪				· · · · · · · · · · · · · · · · · · ·)6)- 				OWN,VEI T,SAND	
45		8		(5)-						DENO	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,	
40		(15)				(12		6					1. 1. 1. 1. 1. 1.
40	COASTAL PLAIN, GRAY, LOOSE TO MEDIUM DENSE, MOIST, SILTY SAN CLAYEY SAND, AND COARSE SAND WITH TRACE SHELL FRAGMENT	D, (5)		u (7) -		6)	(5)-				LAIN,GR ND,AND	
35	(YORKTOWN FORMATION)	\sim						9					(YORK
30		(8)		(27)		(6))	6-	-				
		26		9	1.1.1.	``(26		(15)-		GRA		STIFF FEAR	
25	GRAY,MEDIUM DENSE TO DENSE,MOIST,CLAYEY (CAPE FEAR FORMATION)	SAND		(18)-		(18		 (6)-		CRAY		DENSE	
.20		(21)		(24)-	1.1.1.	(35			1.1.1.	GRAI,1		DENSE	
.15					1.1.1			(41)-					
10		32		(32)		(26		31					
10		(40		32	B) > 29		31-		GRAY,E MOIST,	ROWN, SANDY	AND RE CLAY,SI	D.VERY 'LTY CL
5		(43		27	<	40		(33)					
0	GRAY, BROWN, AND RED, VERY STIFF TO HARD, MOIST, SANDY CLAY, SILTY CLAY, AND SANDY SILT	\sim		(22)-		- (1)) 					
. . 5		(31)						(40)		© 			- - - - - -
-10		30		82-		(74		27				A A	LLUVIA
		34	- BT	38-		30		.40		\bigcirc		5	SANDY (COAST AL
-15			FIAD (08/19)	(36)-		(34		(35)					CAPE I COASTAI
-20				<u> </u>	BT)			BT FIAD (08/19)			C	CLAYEY
-25	NOTE: GROUNDLINE PROFILE ALONG -L- TAKEN FROM FILE BROID RDY PFL NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH				TO THE	PROFILE			(00/19)			(CASTAL CAPE F
											-,	- (· · · · · · · · · · · · · · · · · · ·
	14+00 15+00			16	6+00			17	+00			18	+00

50 100	PROJECT REFERENCE NO.	SHEET NO.
FEET	BR-0112	4
VE = 5	PROFILE OF BORIN ALONG -L-	NGS
		65
RANGE,LOOSE TO AYEY SAND		<u>6</u> 0
DOSE TO MEDIUM SILTY SAND		
		45
	of voict cuty cwb	40
DOSE TO MEDIUM DEN RSE SAND WITH TRAC RKTOWN FORMATION)	SE, MUIST, SILLY SAND, E SHELL FRAGMENTS	35
		30
ST, SANDY CLAY PMATION)		25
DENSE,MOIST,CLAYEY	SAND	20
RY STIFF TO HARD, CLAY, AND SANDY SILT		
		5
		0
		-5
(IAL, DARK BROWN, VERY Y CLAY WITH TRACE OI	RGANICS	10.
TAL PLAIN,GRAY,DENSE, FEAR FORMATION)		15.
Y SAND AND COARSE TAL PLAIN,GRAY,DENSE,	AND RED,DENSE,MOIST, SAND (CAPE FEAR FORM MOIST,SAND	MATION) _20
FEAR FORMATION)		25
10	9+00	

WBS	-					٦IF	-			со		
	DESCR			ge No			35 on SR			Otte	r Cr	-
	ING NO.							5+67				C
	LAR ELI	-	.2 ft				TAL DEP					N
				TE IN			iedrich D-50					
DRIL	LER R	. Casse				эт. —	ART DAT		5/22/1			C
ELEV (ft)	DRIVE ELEV	DEPTH (ft)				4	0	BL) 25	OWS F	PER F 50	-00	T 75
(14)	(ft)	(14)	0.5ft	0.5ft	0.5ft	+	0	25		1		10
65		\vdash										
	-	F										
60	61.3	0.9	11	4	6	Ŧ					· ·	
00	- 	÷						1.		1.		
	58.0	4.2	4	9	7	1	· · · •16	, · ·	•••	· .	· ·	:
55	- 54.2 -	8.0					/	· ·	• •	·	· ·	·
		0.0	1	0	1	1	•1		•••	·	· ·	:
50	-	ŧ					$\begin{pmatrix} \mathbf{N}_1 & \cdots & \mathbf{N}_n \\ \mathbf{N}_n & \cdots & \mathbf{N}_n \end{pmatrix}$		• •	:	 	:
50	49.2	13.0			_		<u>\</u>	+		<u> </u> .		-
	-	Ł	2	3	5		. • 8			·	 	·
45	-	F						• •	•••		•••	•
	44.2	18.0	8	6	9	+	· · \ ·	· ·	• •			
	-	F								.	· ·	
40	39.2	T 23.0						<u> </u>		·	· ·	·
		-	5	3	3	1	6		•••	:	· ·	:
35	-	ŧ.							•••	:	· · · ·	:
- 55	34.2	28.0	3	3	5	-		<u> </u>		1.		
	-	ŧ.			Ŭ				•••	:	 	:
30							· · <u>`</u>	· ·	• •	·	 	·
	29.2	33.0	11	12	14	1		26		·	· ·	:
	-	Ł						1::	•••	·	 	:
25	24.2	38.0					<u> </u>			-		+
	-	ł	9	12	12			4 24 ·	•••	·	•••	•
20	-	F							•••		•••	•
	19.2	43.0	8	10	11	-		21				
	-	F						× · ·		.	· ·	
15	14.2	- 48.0						-		·	· ·	•
		-	11	15	17	1			2	:	· ·	:
10	-	ŧ								.	· ·	:
10	9.2	53.0	12	20	20	-		1.	\	1.		.
	-	ŧ		20			· · · · ·		• 40	· .	· ·	:
5	40-	F 50 0						· ·	1	·	· ·	·
	4.2	58.0	16	19	24	1			 . ● 43	3.	 	:
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0	-0.8	63.0	10	11	47		<u> </u>	+ /	·	<u> </u> .		-
	-	Ł	10	14	17			4 3	1	·	 	·
-5		Ł					<u> </u>	<u> </u>]:		<u> </u>		•
	-5.8	68.0	12	13	17	+		-30				•
	-	F						1			· ·	:
-10	-10.8	73.0						<u> ;</u>	•••	·	· ·	·
			10	15	19	1		. \ . . ♥	34 <u>.</u>		 	:
	-	ŧ										
L		L	1	1	1							

SHEET 5

TY EDGECOMBE	GEOLOGIST M. Stanbury	
eek		GROUND WTR (ft)
OFFSET 7 ft LT	ALIGNMENT -L-	0 HR. N/A
NORTHING 723,797	EASTING 2,411,503	24 HR. FIAD
DRILL METHOD Mu	d Rotary HAMME	RTYPE Automatic
COMP. DATE 08/22/19	SURFACE WATER DEPTH N/	4
T SAMP. L	L	
75 100 NO. MOI G	SOIL AND ROCK DESC	RIPTION
	62.2 GROUND SURFA	CE 0.0
	ROADWAY EMBAN	
	Yellow, Clayey Sa	ina
M	55.7	6.5
	ALLUVIAL Brown, Silty Sar	
M	· · ·	
· · · · · · · · · · · · · · · · · · ·	.51.2Brown, Fine Sand with Tra	
· · · · · M		
· · · · · · · · · · · · · · · · · · ·	45.7	
	45.7 COASTAL PLA	
: М	Gray, Silty Sand with Trace S (Yorktown Formati	hell Fragments on)
M		
M		
	31.2	31.0
	Gray, Clayey Sand with Tr (Cape Fear Forma)	ace Gravel
· · · · · · M		
M		
· · · · ·		
· · · · · M		
	10.7	51.5
	Gray, Sandy Cla	y
	5.7 Gray, Silty Clay	<u> 56</u> .5
	Gray, Only Oldy	
	0.7	61.5
·	<u> </u>	<u>01.5</u> ly
: :::: ⋈ 🕅		
	-4.3	<u>66.5</u>
· · · · · 🕅	Gray and Red, Mottled,	Silty Clay
	-12.3	74.5
<u>·····</u> ┤ ├─ ┼ ┺ <mark>╞</mark>	Boring Terminated at Elevat Silty Clay (Cape Fear Fo	ion -12.3 ft in
		omauon

GEOTECHNICAL BORING REPORT BORE LOG

SITE	67112				TI	P BR	-0112		CO	UNTY	/ ED	GECC	OMBE				LOGIST M.	Stanbury			WBS	67112) 1 1					12	COUN	TV I
	DESCR																	Stanbury									P BR-011			
BOR				lge No					er Otte										-	D WTR (ft)					ge No.		35 on SR 2		r Otter Cı	_
	ING NO				_	TATION						SET 4				-	NMENT -L-		0 HR.	N/A		ING NO.					TATION 1			OF
COL	LAR EL	EV. 51	.3 ft		те	OTAL C	DEPTH	i 68.5	i ft		NOR	THING	723,8	335		EAS	FING 2,411	483	24 HR.	N/A	COL	LAR ELE	EV. 45	5.8 ft		ТС	DTAL DEP	TH 63.0	ft	NC
DRIL	RIG/HA	MMER E	FF./DA	TE IN	S0439	Diedrich	D-50 90	0% 03/12	2/2019				DRILL N	NETHO	D N	lud Rotary	/	HAMN	MER TYPE	Automatic	DRILL	RIG/HAI	MMER E	FF./DAT	E INS	S0439 E	Diedrich D-50	0 90% 03/12	/2019	
DRIL	LER M						DATE	07/11	/19		COM	P. DA	TE 07/			SURI	FACE WATE	R DEPTH 7	.8ft		DRIL	LER M	I. Brown					E 07/11/	19	CC
ELEV	DRIVE ELEV			W COL				BLOW					SAMP.	▼∕	L		SOIL A	ND ROCK DES	CRIPTION		ELEV		DEPTH		W COL				PER FOO	
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25)	50		75	100	NO.	Ио		ELEV. (1	ft)			DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
55		Ŧ														_					50		Ļ							
	.	ŧ														-						-	ł							
50	51.3	<u>+ 0.0</u>	WOH	WOH	2		• •		• •		· · ·			Sat.	1	- 51.3	(ROUND SURF		0.0	45	45.8 -	0.0							
50	49.3	2.0	3	2	3						1			Sat.		<u>49.8</u>	<u>Dark Brown,</u>	Sandy Clay with Brown, Silty Sa	h Trace Orga	anics <u>1.5</u>	43	-	ŧ	2	6	6	12-			
	46.3	+ 5.0			-	= 5. 	· · ·	· · · · · ·	: :	· · · · · ·		· · ·		Jai.		- 46.3		DIOWN, SILLY SE	and	5.0		-	ŧ.							•
45	40.5	±	7	9	8	1 `	1 17		· ·					Sat.		<u> </u>	Cray Silt	COASTAL PLA	AIN		40	- 39.3	6.5				<u> </u>			·
	· ·	ŧ					1	· · · · · ·		· · ·		· ·				F		orktown Forma		.5			0.5	3	3	3	● 6			:
	41.3	10.0	5	4	3	./		· · ·	: :	· · ·	· · ·	· · ·										-	ŧ							:
40	-	ŧ		-	5	 -\$ 7-			<u> </u>		<u> </u>			W		-					35	34.3	11.5	3	2	4	<u> </u>			
		+				1 : Y	· · ·	· · ·	· ·	· · ·	· ·	· · ·				L						-	Ł	5	2	4				•
35	36.3	<u>† 15.0</u>	2	3	8									w		_					30	-					· · · · · · ·			•
		Ŧ					X:		: :			· · ·				33.3				<u> </u>		29.3	16.5 L	9	12	14	 	26		·
	31.3	20.0	<u> </u>		10		. \		• •			•••					(0	Gray, Clayey S ape Fear Form	and ation)			-	F					/		•
30	_	Ŧ	'	11	16			27		· · ·	+ • •			W	///	-					25	24.3	21.5	_						
		Ŧ													/./.	F						-	F	7	8	10		8		
25		Ŧ					: <u>'</u>									F					20	-	F							
	24.3	<u> </u>	8	10	8		. <i>I</i> .							w	///	-						19.3	26.5	12	15	20				
		Ŧ					· •	· · · · · ·		· · ·		· · · ·				-						-	F							
20	19.3 [–]	+ + _{32.0}					· \		· ·		· · ·				///	-					15	- 14.3	- 31.5					/		·
		Ŧ	10	11	13			24	: :					w		F						-	ŧ	8	11	15		•26		
15		ŧ					:: [· · · · · ·		· · · ·				<u> 16.3 </u>		Gray, Sandy C		<u> 35.0</u>	10	-	ŧ							
	14.3	+ 37.0 +	8	14	18			1 :			1.			М		-						9.3	36.5	9	13	16		1		
		ŧ						.¶ ³² .		· · · · · ·		· · · ·				- 11.3				40.0		-	ŧ							
10	9.3	+ 42.0					• •	- <u> </u>	· ·						//	F		Gray, Clayey S	and		5	4.3	41.5					· \ · · ·		· ·
		Ŧ	13	15	17			. . . 9 32 .	: :	· · ·				м	///	-						-	-	14	18	22		•40		
5		‡					· · ·	1::	: :	· · · · · ·					/	<u>- 6.3</u>		Gray, Sandy S		<u> </u>	0	-	t t					:: ! :		:
	4.3	<u>+</u> 47.0	11	13	14			<u>.</u>			1.			м		-		<u>,</u>			0	-0.7	46.5	16	19	23		· · · ·		
	· ·	‡					::/			· · · · · ·		· · · ·				-						-	t t							:
0	-07	+ 52.0					· · /		· ·		· ·	•••				-					-5	-5.7	515							· ·
	-0.1	+	8	8	14	1 : :		· · · · 2. · ·	: :	· · ·		· · ·		м		-						-0./	- 01.0	21	30	44				74
-5		‡						· · · ·		· · · · · ·	· ·	· · ·				<u>3.7</u>	Grav an	Brown, Mottle	d Silty Clay	<u> </u>	-10	-	÷.							:
	-5.7	57.0	23	17	65											-	City an	Brown, motio	a, only only		-10	-10.7	56.5	12	14	16				
		‡						· · ·	· ·	· · ·		2		M		-				60.0		-	ŧ.				· · · · ·	● 30		:
-10	10.7	+ 62.0					• •		· / ·	/	· ·	• •					Gray	and Brown, Sa	andy Silt		-15	-15.7	615					· <u></u> ····		·
	- 10.7	<u> 02.0</u> -	13	17	21	1 ::	::	. @ 38	$\left[\right] \left[\right]$	· · ·	· ·	· ·		м		-						-13.7	01.5	14	16	18		. • 34		•
45		‡							· ·	· · ·	· ·	· ·				<u>13.7</u>		Gray, Silty Cla		<u> </u>		-	+							
-15	-15.7	67.0	11	16	20				. .		+ : :					-		Jiay, Jilly Uk	чу			-	ŧ							
		<u>+</u>			20	<u> </u>		. •36	. .		<u> </u>		-	M		- 17.2	Boring Terr	ninated at Eleva	ation -17.2 ft	68.5 t in		-	ŧ							
	· _	‡														-	Silty C	ay (Cape Fear I	Formation)			-	Ł							
	.	<u>‡</u>														F						-	ŧ							
	.	±														F						-	ŧ							
		L				I							1	1	1								L							

SHEET 6

EDGECO	MBE			GEOLOGIST M. Stanbu	ry		
k						GROUN	D WTR (ft)
OFFSET 4	ft LT			ALIGNMENT -L-		0 HR.	N/A
NORTHING	723,8	85		EASTING 2,411,449		24 HR.	N/A
	DRILL N		D M		HAMME	R TYPE	Automatic
COMP. DA1		12/19		SURFACE WATER DEPT	H 9.1	ft	
	SAMP.	7	L				
75 100	NO.	мо	O G	SOIL AND ROCH	K DESC	RIPTION	
			-				
				-			
				·	0	05	
<u> </u>		Sat.	\sim	45.8 GROUND COASTA	L PLAI	N	0.0
· · · ·			$\langle \cdot \rangle$	- Gray, Clayey Sand v - (Yorktown	with She Formati	II Fragmei on)	nts
			//	40.8			5.0
+				Gray, Silty Sand wi	ith Shell	Fragment	s
		Sat.		-			
				•			
· · · ·		Sat.		-			
							45.0
			Ï	Gray, Sa	indy Cla	<u>y</u>	<u> </u>
		w		(Cape Fear	Format	ion)	
				. 25.8			20.0
			//	Gray, Cla	iyey Sar	nd	
		W	\langle / \rangle				
			///	•			
		w	///	-			
			///				
· · · ·			Ň	Gray, Brown, and Re	ed, Mottl	ed, Silty C	lay <u>30.0</u>
		м	\square				
			\square				
+				-			
		М	\square				
		м	\square				
				. 0.8			45.0
· · · ·				Gray, Brown, and Red	, Mottle	d, Clayey	Sand <u>+5.0</u>
		м	///				
							<u> </u>
		м		Gray, Sa	inay Cla	у	
				_			
		м					
				-			
		М		- 17.2 Boring Terminated a	t Flevat	ion -17 ? f	63.0 t in
				Sandy Clay (Cape			
				-			
				_			

GEOTECHNICAL BORING REPORT BORE LOG

														_													
	67112					P BR-0				Y EDGEC	OMBE			GEOLO	GIST M. Stanbury	-			6711					BR- 01		COUNT	
				dge No)35 on S			Otter Cre	-						_	OWTR (ft)					lge No			1616 Over	Otter Cr	
BOR	ING NO.	. EB2-	-A		S	TATION	17+13	3		OFFSET	6 ft LT			ALIGN	IENT -L-	0 HR.	N/A	BOR	ING NO	. EB2-	-A		ST	ATION 1	17+13		OF
COL	LAR ELE	EV. 62	2.2 ft		<u>т</u>	OTAL DE	PTH	79.9 ft		NORTHIN	G 723,9	917		EASTIN	G 2,411,422	24 HR.	FIAD	COLI	LAR EL	EV. 62	2.2 ft		ТС	TAL DEP	TH 79.9 f	ť	NC
DRILL	L RIG/HAI	MMER E	FF./DA	TE IN	S0439	Diedrich D	-50 90%	03/12/20)19		DRILL I	METHO	DD N	/lud Rotary	НАМ	MER TYPE	Automatic	DRILL	RIG/HA	MMER E	FF./DA	TE IN	S0439 D	iedrich D-50) 90% 03/12/2	2019	
DRIL	.LER R	R. Casse	ell		S	TART D	TE 08	8/21/19)	COMP. D	ATE 08/	/22/19		SURFA	CE WATER DEPTH	N/A		DRIL	LER F	R. Casse	ell		ST	ART DAT	E 08/21/1	9	co
ELEV	DRIVE ELEV			on wc	-		BL	LOWS PI	ER FOOT		SAMP.				SOIL AND ROCK DE	SCRIPTION		ELEV	DRIVE ELEV	DEPTH	·	ow col			BLOWS	PER FOO	Г
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	0	75 100	NO.	мо	I G	ELEV. (ft)			DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
65		L												L				-15		L		$\lfloor _ _$			Mato	h Line	
		ŧ												L					-16.2	78.4	12	15	20				: :
	-	<u> </u>										-	. e °	- 62.2 - 61.6	GROUND SURI Asphalt		0.0 0.6			Ŧ			-		· • 35 ·	1	
60	-	Ŧ									-				ROADWAY EMBA Orange, Clayey	NKMENT Sand	_		-	Ŧ							
	-	Ŧ												-	orango, olayoy	ound				Ŧ							
55	-	ŧ					: :		· · · · ·	· · · · · ·				<u>55.7</u>			6.5			ŧ							
	53.8 -	8.4			2						1			₩ •	ALLUVIAL Tan, Silty Sa	nd			-	ŧ							
	-	ŧ	3	3	3	. ¶ ⁶	: :	· · ·	· · · · ·	· · · · · ·		М								ŧ							
50		‡					· ·						0000	<u>50.2</u>			<u> </u>		-	‡							
	48.8 -	<u> </u>	8	7	5							м	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							ŧ							
	-	ŧ				. 	² · ·	· · ·		.			0000				17.0			ŧ							
45	43.8	 18.4				 _ i _					-		000	<u>45.2</u>	COASTAL PL		<u> </u>		-	Ŧ							
		+ 10.4	5	3	3	• 6 · ·						м	000	F	Tan, Coarse Sand with Fragments	;				Ŧ							
40	-	Ŧ]							000	40.2	(Yorktown Form	ation)	22.0			Ŧ							
	38.8 -	23.4	4	2	3						1				Gray, Silty Sand with Trace	Shell Fragme	ents		-	Ŧ							
	-	ŧ	1		5				· · · · ·	· · · · · ·		M								ŧ							
35		‡					· ·							- 					-	‡							
	33.8 -	<u> </u>	4	2	4		· · ·					м		÷-						ŧ							
	-	ŧ					: :	· · ·		. .				31.2			<u> 31.0</u>			ŧ							
30	28.8 -	33.4													Gray, Silty C (Cape Fear Forn	ay nation)			-	ŧ							
	-	t	5	7	8	::)	15					М		4						ŧ							
25	-	Ŧ												25.2			37.0			Ŧ							
	23.8 -	38.4	6	6	10								///		Gray, Clayey S	Sand			-	Ŧ							
	-	Ŧ					16					М								Ŧ							
20	-	T 43.4					· \ ·			• • • • • •				-					-	Ŧ							
	18.8 -	+ 43.4 +	14	19	22			41				м								ŧ							
15	-	ŧ							· · · · ·	· · · · · ·				15.2			47.0			ŧ							
	13.8 -	48.4		10	10		/	/ /			11				Gray, Silty C	ay			-	ŧ							
	-	‡	8	13	18			31 · ·	· · · · ·			м								‡							
10		‡					<u> </u>							t.					-	‡							
	8.8 -	<u> </u>	11	14	17		. .	 31 · ·				м		t						‡							
5	-	ŧ					· .			.				ŧ						ŧ							
5	3.8	T 58.4								+				<u>+</u>					-	Ŧ							
0		- <u></u>	14	14	19	1		33				м		+						£							
0	-	Ŧ						$\left \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $						0.2			62.0			Ŧ							
	-1.2 -	63.4	8	17	23			.\			11		0000		Gray, Sand	1 — — — — —			-	Ŧ							
-5	-	‡			23			. •40 . • •	· · · · ·	· · · · · ·		M	0000							‡							
-5		‡				· · ·		/ · ·			41			-4.8	Gray, Silty C		<u> </u>		-	‡							
	-6.2 -	<u>- 68.4</u> -	10	11	16		: 1		· · · · ·	.		м		ŧ	Gray, Silly C	ay				‡							
10	-	‡					: .	· · ·		.							70.0			‡							
-10	-11.2 -	73.4					<u> </u>	<u>\.</u>		<u> </u>	$\left \right $			<u>-9.8</u> — -	Gray, Sand		<u> </u>		-	ŧ							
5	-	1	17	19	21			. 40				м	00000							ŧ							
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SHEET 7

ידאט	YE	DGE	со	MBE			GEOLOG	ST	M. Stanb	ury		
r Cre	ek										GROUN	ID WTR (ft)
	OF	FSET	6	ft LT			ALIGNME	NT	-L-		0 HR.	N/A
	NC	RTHI	NG	723,9	17		EASTING	2,	411,422		24 HR.	FIAD
				DRILL N	IETHO	D N	lud Rotary			НАММ	ER TYPE	Automatic
	СС	MP. C	A	E 08/2	22/19		SURFACE	w	ATER DEP	TH N/	Ą	
OOT				SAMP.		L		~				
	75	10	00	NO.	моі	O G		SC	OIL AND ROO	K DESC	RIPTION	
е												
	Τ.		-		м				Gray, Silty C	lay (cont	inued)	
					111		<u>-17.7</u> Боран	oring	Terminated	at Elevat	ion -17.7 f	79.9 t in
							-	Sil	ty Clay (Cap	e Fear F	ormation)	
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SITE PHOTOGRAPH



VIEW LOOKING SOUTH TOWARD END BENT 2

PROJECT REFERENCE NO.	SHEET NO.
BR-0112	8

