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PROJEC

CONTENTS SHEET NO. **DESCRIPTION** TITLE SHEET LEGEND 20 END BENT MSE WALLS SITE PLAN END BENT I MSE WALL SUBSURFACE PROFILE END BENT 2 MSE WALL SUBSURFACE PROFILE - 5 WALL #I SITE PLAN AND SUBSURFACE PROFILE 6 S WALL #2 SITE PLAN AND SUBSURFACE PROFILE 8-17 BORE LOGS R REFERENCE

STATE OF NORTH CAROLINA

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

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY WAKE

PROJECT DESCRIPTION PROPOSED GRADE-SEPARATION OF DURANT ROAD (SR 2006) OVER CSX S LINE RAILROAD IN RALEIGH

SITE DESCRIPTION

-W1- -L- STA. 22+00.04, 48.5'LT TO -L- STA. 25+29.95, 48.5'LT

-W2- -Y3- STA. 12 + 75.00, 42' RT TO -Y3- STA. 15 + 00.00, 43.54' RT

-WALL 3- -L- STA. 31+11.23, 43.04' RT TO -L- STA. 31+07.73, 43.04' LT

-WALL 4- -L- STA. 33+53.23, 43.04'LT TO -L- STA. 33+45.23, 43.04'RT

STATE PROJECT REFERENCE NO. STATE NO SHEETS 17 N.C P-5720 1

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 SOLT TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (1991) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

CENERAL SOL 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 UN-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 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 OPHION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND COCUMENTS FOR FINAL SUFFICIENCY 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 OF 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: I. 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. 2. 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. 2.

PERSONNEL

CAROLINA DRILLING
LANE, R.W.
INVESTIGATED BY <i>LANE, R.W.</i>
DRAWN BYCROCKETT, S.C.
CHECKED BY
SUBMITTED BY FALCON ENG.
DATE FEBRUARY 2019



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 UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN	WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION	UNIFORMLY GRADED - INDICATES THAT SUIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE.	SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60	ADUIFER - A WATER BEARING FORMATION OR STRATA.
IS BASED ON THE AASHTO SYSTEM, BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING:	DHF-ORHDED - INDICHTES H MIXTORE OF ONIFORM FHRTICLE SIZES OF TWO OR MORE SIZES.	BLOWS IN NON-COASTAL PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
CUNSISTENCY, CULOR, TEXTORE, MOISTORE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE.	ANGULARITY OF GRAINS	ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:	ARGILLACEDUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS:		A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
SOIL LEGEND AND AASHTO CLASSIFICATION	ANGULAR, SUBANGULAR, SUBRUUNDED, UR RUUNDED.	ROCK (WR) 100 BLOWS PER FOOT IF TESTED.	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
GENERAL GRANULAR MATERIALS SILT-CLAY MATERIALS	MINERALOGICAL COMPOSITION	CONCTANTING	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND
CLASS. (≤ 35% PASSING *200) (> 35% PASSING *200) URGANIC MATERIALS	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC.	ROCK (CR) WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE,	SURFACE.
GROUP A-1 A-3 A-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5	ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.	LISS, GABBRU, SCHIST, ETC.	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.
CLASS. A-1-6 A-1-6 A-2-4 A-2-5 A-2-6 A-2-7 A-3 A-6, A-7	COMPRESSIBILITY	NON-CRYSTALLINE SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED.	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM
SYMBOL DOGOCOOC STATES	SLIGHTLY COMPRESSIBLE LL < 31	ROCK WCHV ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.	OF SLOPE.
	A MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50	SEDIMENTARY ROCK SANDSTONE, COASTAL PLAIN SEDIMENTS LEMENTED INTO ROCK, BUT MAY NOT YIELD	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED
7. PASSING #10. FG MV. SILT- MUCK	PERCENTAGE OF MATERIAL	(CP) SHELL BEDS, ETC.	BY TUTAL LENGTH OF CORE RON AND EXPRESSED AS A PERCENTAGE.
*40 30 MX 50 MX 51 MN SOILS COLO PEAT		WEATHERING	DIKE - A TABULAR BUDY OF TONEOUS RUCK THAT CUTS ACRUSS THE STRUCTURE OF AUJACENT
■200 15 MX 25 MX 10 MX 35 MX 35 MX 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN	ORGANIC MATERIAL SOILS SOILS OTHER MATERIAL	FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER	DID - THE ANGLE AT WHICH A STRATHM OR ANY DIAMAR EGATINE IS INCLINED FROM THE
MATERIAL	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10%	HAMMER IF CRYSTALLINE.	HORIZONTAL.
PASSING *40 SOILS WITH	MODERATELY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35%	VERY SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN,	NIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR REARING OF THE HORIZONTAL TRACE OF THE
PI 6 MX NP 10 MX 10 MX 11 MN 10 MX 11 MN 10 MX 10 MX 11 MN 11 MN 11 MN 11 MN 11 MN 11 MN	HIGHLY ORGANIC > 10% > 20% HIGHLY 35% AND ABOVE	(V SLI.) CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF	LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
	GROUND WATER	OF H CRISTHELINE INFORE.	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE
UNDER DE DE DE THA OTRA 12 HA TO HA TO HA HOMA SUILS		(SLI) 1 INCH, OPEN JOINTS MAY CONTAIN CLAY, IN GRANITOID ROCK SOME OCCASIONAL FELOSPAR	SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
OF MALOR GRAVELAND FINE SILTY OR CLAYEY SILTY CLAYEY MATTER	WATER LEVEL IN BURE HULE IMMEDIATELY AFTER DRILLING	CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
MATERIALS SAND SAND GRAVEL AND SAND SOILS SOILS	▼STATIC WATER LEVEL AFTER <u>24</u> HOURS	MODERATE SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM
GEN. RATING	✓ PW PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA	(MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY, ROCK HAS	PARENT MATERIAL.
AS SUBGRADE EXCELLENT TO GOOD FAIR TO POOR POOR UNSUITABLE		UULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ;PI OF A-7-6 SUBGROUP IS > LL - 30	UTUU SPRING UR SEEP		FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE
CONSISTENCY OR DENSENESS	MISCELLANEOUS SYMBOLS	SEVERE AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH	FIELD.
RANGE OF STANDARD RANGE OF UNCONFINED		(MOD. SEV.) AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
PRIMARY SOIL TYPE COMPACTNESS OR PENETRATION RESISTENCE COMPRESSIVE STRENGTH	L ROADWAY EMBANKMENT (RE) 25/025 DIP & DIP DIRECTION	<u>IF TESTED, WOULD YIELD SPT REFUSAL</u>	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO
(N-VALUE) (TONS/FT2)		SEVERE ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED, ROCK FABRIC CLEAR AND EVIDENT BUT	ITS LATERAL EXTENT.
GENERALLY VERY LOOSE < 4	SOIL SYMBOL	(SEV.) REDUCED IN STRENGTH TO STRUNG SUIL. IN GRANITUID RUCKS ALL FELDSPARS ARE KAULINIZED	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
GRANULAR MEDIUM DENSE 10 TO 30 N/A		IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF	MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS
MATERIAL DENSE 30 TO 50	ARTIFICIAL FILL (AF) OTHER AUGER BORING (A) CONE PENETROMETER	VERY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.
VERY DENSE > 50		SEVERE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
VERY SOFT < 2 < 0.25	I INFERRED SOIL BOUNDARY CORE BORING • SOUNDING ROD	(V SEV.) REMAINING, SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR	OF AN INTERVENING IMPERVIOUS STRATUM.
GENERALLY SOFT 2 TO 4 0.25 TO 0.5		VESTIDES OF URIDINAL RUCK FABRIC REMAIN. IF TESTED, WOULD TIELD SPI IN VALUES & 100 BPF	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
SILT-CLAY MEDIUM STIFF 4 10 8 0.5 10 1.0 MATERIAL STIFF 8 TO 15 1 TO 2	THE MUNITURING WELL THE WITH CORE	COMPLETE ROCK REDUCED TO SOIL, ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONFERINGERS CONSTRUCTIONS OF A DIABRY AND DE DESENT AS DIVERS OF STRUNGERS SADDOI ITE IS	ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF
(COHESIVE) VERY STIFF 15 TO 30 2 TO 4	ALLUVIAL SOIL BOUNDARY A PIEZOMETER	ALSO AN EXAMPLE.	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE
HARD > 30 > 4		BOCK HABONESS	
TEXTURE OR GRAIN SIZE	RECOMMENDATION SYMBOLS		SHEROLITE (SHE) - RESIDUAL SUIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE FARENT
U.S. STD. SIEVE SIZE 4 10 40 60 200 270	XX UNDERCUT Z UNCLASSIFIED EXCAVATION - TAN UNCLASSIFIED EXCAVATION -	VERT HARD CANNUT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES	SILL - AN INTRUSIVE BODY OF IGNEOUS BOCK OF APPROXIMATELY UNIFORM THICKNESS AND
OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053	ACCEPTABLE, BUT NOT TO BE		RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO
COARSE FINE	SHALLOW UNCLASSIFIED EXCAVATION - USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL	TO DETACH HAND SPECIMEN.	THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
BOULDER COBBLE GRAVEL SAND SAND SILT CLAY		MODERATELY CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT
(CSE, SD.) (F SD.) (CSE, SD.)	ABBREVIATIONS	HARD EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED	OR SLIP PLANE.
GRAIN MM 305 75 2.0 0.25 0.05 0.005	AR - AUGER REFUSAL MED MEDIUM VST - VANE SHEAR TEST	BY MODERATE BLOWS.	STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF
SIZE IN. 12 3	BT - BORING TERMINATED MICA MICACEOUS WEA WEATHERED	MEDIUM CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT.	A 140 LB. HAMMER FALLING 30 INCHES REDUIRED TO PRODUCE A PENETRATION OF I FOUT INTO SUIL
SOIL MOISTURE - CORRELATION OF TERMS	CPT - CONE PENETRATION TEST NP - NON PLASTIC γ - UNIT WEIGHT	POINT OF A GEOLOGIST'S PICK.	TO OR LESS THAN Ø.1 FOOT PER 60 BLOWS.
SOIL MOISTURE SCALE FIELD MOISTURE CULDE FOR FIELD MOISTURE SECONDITION	CSE COARSE ORG ORGANIC	SOFT CAN BE GROVED OR GOUGED READILY BY KNIFF OR PICK. CAN BE EXCAVATED IN FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY
(ATTERBERG LIMITS) DESCRIPTION OUTDE FOR FIELD MOISTORE DESCRIPTION	DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST <u>SAMPLE ABBREVIATIONS</u>	FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN	TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
- SATURATED - USUALLY LIQUID. VERY WET USUALLY	DPT - DYNAMIC PENETRATION TEST SAP SAPROLITIC S - BULK	PIECES CAN BE BROKEN BY FINGER PRESSURE.	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL
(SAT.) FROM BELOW THE GROUND WATER TABLE	F - FINE SL SILT, SILTY ST - SHEBY TUBE	VERY CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH	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.
	- FOSS FOSSILIFEROUS SLI SLIGHTLY RS - ROCK	SUFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY	
PLASTIC BANGE _ WET _ (W) SEMISOLID; REQUIRES DRYING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL		
(PI) DI ASTICI I MIT	HI - HIGHLY V - VERY RATIO		BENCH MARK:
		VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET	BORING ELEVATIONS TAKEN FROM P5720_ncdot_fs_170522 DATED 5/22/17
OM OPTIMUM MOISTURE - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTURE		WIDE 3 TO 10 FEET THICKLY BEDDED 1.5 - 4 FEET	ELEVAIIUN: FEEI
	UKILL UNITS: AUVANCING TUULS: HAMMER TYPE:	MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0.16 - 1.5 FEET	NOTES:
REQUIRES ADDITIONAL WATER TO		CLOSE 0.16 TO I FOOT VERY THINLY BEDDED 0.03 - 0.16 FEET	
- URY - (U) ATTAIN OPTIMUM MOISTURE	G" CONTINUOUS FLIGHT AUGER CORE SIZE:	THINLY LAMINATED < 0.008 FEET	
ΡΙΔΟΤΙΓΙΤΥ		INDURATION	
		FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, FTC.	
NON PLASTIC PLASTICITY INDEX (PI) DRY STRENGTH		RUBBING WITH FINGER FREES NUMEROUS GRAINS:	
SLIGHTLY PLASTIC 6-15 SLIGHT	VANE SHEAR TEST	FRIABLE GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.	
MODERATELY PLASTIC 16-25 MEDIUM		GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEFL PROBE	
HIGHLY PLASTIC 26 OR MORE HIGH		MUDERATELY INDURATED BREAKS EASILY WHEN HIT WITH HAMMER.	
COLOR		GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE:	
		DIFFICULT TO BREAK WITH HAMMER.	
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY).		SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE:	
MUDIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. AKE USED TO DESCRIBE APPEARANCE.	I ⊔	EXIMENELY INDUKATED SAMPLE BREAKS ACROSS GRAINS.	DATE: 1-XX-17

PROJECT REFERENCE NO.

SHEET NO.



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GEOTECHNICAL BORING REPORT BORE LOG

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s	ITE D	ESCF	RIPTION	PR(POS	ED G	RADE	-SEPA	RATIC	ON OF	DURA	NT R	D (SR	2006) OVE	R CS	XSL	INE R	AILR	OAD II	N RALE	EIGH	G	ROUND	NTR (ft)	SITE	E DES	CRIPT	ION	PROP	POSEE	D GRA	DE-SE	PARA		OF DL	JRANT	r RD (SR	2006) O	VER	CSX	(S LI	INE RA	AILRO	AD IN I	RALEIC	θH	GRO	JND W	VTR (ft)
В	ORIN	g NO	. RW2	2-2			STAT	ION 1	13+57			OF	FFSET	· 39	ft RT			AL	IGNM	IENT	-Y3-		0) HR.	N/A	BOF	RING N	NO. N	/ISE-1			ST	ATION	I 31+	-80			OFFSET	69 ft L	T			ALIC	IGNME	NT -L	-		0 HR	-	26.6
С	OLLA	REL	EV. 2	78.1 ft			TOT	L DEP	TH 5	5.0 ft		NC	ORTHI	NG	781,70)6		EA	STIN	G 2,1	127,24	5	24	HR.	N/A	COL	LAR	ELEV.	278	.6 ft		ТС	DTAL D	DEPTH	3 0.0	ft		NORTH	NG 78′	,868	3		EAS	STING	2,12	7,615		24 HR		21.9
D	RILLR	ig/hai	MMER EI	FF./DA1	EB	RI7893	CME-	50 90%	06/06/2	2017					RILL N	ETHO	DҢ	S. Auge	ers			н	AMMER	TYPE Au	tomatic	DRIL	L RIG/	Hamme	REFF.	/DATE	BRI7	7893 CIV	/IE-55090	0%06/	06/2017				DRIL	LME	THOD) H.S	3. Auger	rs			HAM	IER TYPI	E Auto	omatic
D	RILLE	ER B	Blackley,	, D.			STAF	T DAT	E 12	2/07/17	7	C	omp. e	DATE	12/0)7/17		SU	RFAC	CE WA	TER D	DEPTH	N/A			DRI	LLER	Black	kley, D).		ST		ATE	12/01	/17		COMP.	DATE 1	2/01	/17		SUR	RFACE	WAT	ER DEI	PTH N	/A		
EL	.EV	DRIVE	DEPTH				_		BLC	OWS P	PER FO	OT 75	1(00	SAMP.	▼⁄	0			SOI	L AND	ROCKI	DESCRI	PTION		ELEV				BLOV		JNT		25	BLOW	S PER	FOOT	75 1		1P.		0			SOIL	AND RC	CK DES	CRIPTIC	ON	
_		(ft)	(11)	0.5π	0.51	τ 0.5	πιυ		25			/5			NO.	/мо	I G	ELE\	/. (ft)						DEPTH (ft)	(11)	(ft	t) ((10)	0.5π	0.5π	0.5π	0	25		50		15 1). /	MOI	G								
2	80		+																							280		-+														-	- 278.6	1						0.0
		277.1	1.0			_			1				• • •					278.1	1			RESIDU	UAL		0.0		277	7.6 1	1.0	5	5	2	• •	• •	• • •	• •	• • •		•		_		- 270.0		RO			KMENT	(<u>.</u>
2	75		- -	5	9	14			4 23							М		_	Т	an Ora	inge Wł (A-	nite and 2-4) Sa	Brown,	Silty SANE	D	275	275	51 T 3	3.5	5	5	3			· · · ·				.		D		-	BLA	W/ SIL1	COWN, A	SOME C	N, SAND DAL PIEC	(A-1-b) CES))
	Ľ	2/4.6-	<u>- 3.5</u>	8	14	15	, [29	9				-		М		273.1	1		,	,			5.0		070	Ţ		5	4	3	•7								М		-							
			Ŧ						·									_		Boring surfa	Termin ace after	ated at r hitting	5.0' belo irrigation	ow ground n line at			2/2	<u> </u>	6.0	4	2	2	4						- SS-	16 1	10%		271.1							7.5
		-	Ŧ																		Ele	evation 2	273.1 ft			270	270).1 _ 8	8.5	2	1	2									м	L	-	BLA	ACK, BF (A-2-4	ROWN, .) W/ SC	AND TA	N, SILTY AL PIECE	' SAND ES)
			Ŧ															-										Ŧ											-			Ŀ	-		·					
			Ŧ															-								265	265	5 1 T 1	3.5				ι.						.			L	- 265.6	L						<u> </u>
		-	Ŧ															-										Ŧ		3	5	4	• •9						•		М		-	O	RANGE	, GRAY	, AND W	HITE, S	ANDY	
			Ŧ															-										Ŧ							· · · ·				.				-		CL	.AY (A-t), SAPF	OLITIC		
		-	Ŧ															-								260	260).1 1	8.5	4	4	6						+ • • •			м		-							
			Ŧ															-										Ŧ							• • •				.	,			-							
			Ŧ															-								255	255	$\frac{1}{51}$	35					<u>.</u>					.				<u>- 255.6</u>							<u> 23.0</u>
		-	Ŧ															-										Ŧ		4	9	12	• •	- Q 21					•		М	F	-	(A-	-2-4), S		TIC, W/	LITTLE	ROCK)
			Ŧ															-										Ŧ						11					.			F	-			F	RAGS.			
		-	Ŧ															-								250	250).1 + 2	8.5	10	15	13			 			+ • • •			м	F	-							20.0
			Ŧ															-										+					· ·	•••	20	• •	•••		·				- 248.6	Во	ring Te	minate	d at Elev	ation 248	.6 ft In	
			Ŧ															-										Ŧ														F	-			RESID	UAL (A-	2-4)		
		-	Ŧ															-										Ŧ														F	-							
			Ŧ															-										Ŧ														F	-							
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GEOTECHNICAL BORING REPORT BORE LOG

V	VBS	46932	2.1.1			Т	IP P-5720)	COUNT	Y WAKE				G	OLOGIST Lane, R.W	Ι.		WBS	46932	.1.1			TIF	P-5720		COUNT
S	ITE	DESCR	IPTION	PRC	POSE	D GR	ADE-SEPA	RATION C	F DURAN	T RD (SR 20	006) OVE	ER CS	SXSI		RAILROAD IN RALEIGH	ł	GROUND WTR (ft)	SITE	DESCR	IPTION	PRC	POSE	D GRA	DE-SEPAF	ATION OF	DURAN
E	BORI	NG NO.	MSE-	2		S	TATION :	31+81		OFFSET	75 ft RT			AI	IGNMENT -L-		0 HR. Dry	BOR	ing no.	MSE-	3		ST	ATION 32	2+80	
C	OLL	AR ELI	EV. 28	82.0 ft		Т	OTAL DEF	TH 19.9	ť	NORTHING	3 781,7	34		E	STING 2,127,563		24 HR. FIAD	COL	LAR ELE	EV. 27	8.2 ft		тс	TAL DEPT	H 30.0 ft	
	RILL	rig/han	/IMER EF	f./Dat	E BRI	7893 C	ME-550 90%	06/06/2017			DRILL	VIETHC	DDH	I.S. Aug	ers	Hamm	ER TYPE Automatic	DRILL	_ RIG/HAN	IMER EF	F./DAT	E BRI7	7893 CIV	1E-550 90%0	6/06/2017	
0	RILL	ER B	lackley,	D.		S	TART DAT	E 12/05/	17	COMP. DA	TE 12/	05/17		ุ่รเ	IRFACE WATER DEPT	H N/.	A	DRIL	LER B	lackley,	D.		ST		11/27/1	7
E	LEV	ELEV	DEPTH	BLC				BLOWS	PER FOO	T 75 100	SAMP.				SOIL AND ROC	K DES	CRIPTION	ELEV (ft)	ELEV	DEPTH	BLC		JNT		BLOWS	PER FOOT
_	,	(π)	()	0.51	0.51	0.51		1	<u> </u>	15 100	NO.		DI G	ELE	V. (ft)		DEPTH (ft)	()	(π)	(,	0.51	0.51	0.511		<u> </u>	
1	285		Ł											F				280		Ł						
			ł											282.	0		0.0		277.2	1.0			10	· · · ·		
2	80	280.5	1.5	21	16	12								- 280.	5 0.8' BITUMINO 0.7' BASE COUR	US CO RSE AG	NCRETE 1.5	275	274 7 -	35		8	10	•18		
		278.5	3.5		10	20		Q 28						- 278.			KMENT 3.5 SAND (A-2-4)			0.0	7	9	15	:::)	24	
		276.0	6.0		12	20		A ³² .						Ł					272.2	6.0	5	6	7			
4	275	-		5	7	8						M		274	$ \underline{0} _ \underline{0} \underline{0} _ \underline{0} \underline{0} \underline{0} \underline{0} \underline{0} \underline{0} \underline{0} \underline{0}$		SAND (A-2-4), 8.0	270	269.7-	8.5	7	9	13		· · · · ·	
	F	213.0	- 0.5	22	48	52/0.4				100/0.9					WEATHE TAN, WHITE, AN	red Ro Id Pink	CCK (, GRANITE		-	ł				::: i		
2	270		ŧ															265	264 7 -	13.5						
	ŀ	268.5	13.5	22	44	54				: : : : : !			110	<u>269</u>	⁰		<u> </u>		-	-	5	10	11		 21 · · · · · · · · · ·	
			ŧ							: ¶	98				TAN AND PINK, S SAPROLITIC W/ LI	ILTY S. TTLE R	AND (A-2-4), COCK FRAGS.		-	ŧ				::::'		
2	265		- 185										v new	264	0		18.0	260	259.7-	- 18.5	12	12	14			
	ļ	200.0	- 10.0	25	16	84/0.4				100/0.9				262.	WEATHE 1 TAN AND PI	RED RO NK, GF	ANITE		-	ł						
			ŧ											Ł	Boring Terminated a WR (at Eleva Granite	tion 262.1 ft In	255	254.7-	- 23.5					· · · · · · ·	
			ŧ											F					-	ŧ	8	16	36	· · · ·		• <u>5</u> 2
			ŧ											È.				250	-	ł						
		-	ŧ											F				230	249.7-	- 28.5 -	27	44	51			
			ŧ											ŧ					-	+				•		1
		-	ŧ											F					-	ŧ						
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T 2/5		-	ŧ											F					-	ŧ						
T.GD		•	ŧ											F					-	ŧ						
8		•	ŧ											F					-	ŧ						
N		-	ŧ											F					-	ŧ						
IT.GF			ŧ											F					-	ŧ						
GIN		-	ŧ											F					-	ŧ						
GEO		•	ŧ											F					-	ŧ						
5720		-	ŧ											F					-	ŧ						
Ц		-	ŧ											F					-	ŧ						
OUB		•	ŧ											F					-	ŧ						
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T BO		•	ŧ											F					-	ŧ						
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GEOTECHNICAL BORING REPORT BORE LOG

1	NBS	46932	2.1.1			ТІ	P P-5720		COUNT	Y WAKE				GE	OLOGIST Lane, R.V	V.		WBS	6 46932	2.1.1			TI	P P-572	0	COUNTY
:	SITE	DESCR	IPTION	PRC	POSE	D GRA	ADE-SEPAR	RATION OF	DURAN	T RD (SR 20	06) OVE	R CS	хsı	LINE R/	AILROAD IN RALEIGI	Н	GROUND WTR (ft)	SITE	DESCR		PRO	POSE	D GRA	ADE-SEP/	ARATION O	F DURAN
I	BORII	NG NO.	MSE-	4		S	TATION 32	2+82		OFFSET	75 ft RT			ALI	GNMENT -L-		0 HR. 26.9	BOR	ing no.	RW1	-1		ST	TATION	22+00	
	COLL	AR EL	EV. 28	82.8 ft		т	OTAL DEPT	H 30.0 ft		NORTHING	3 781,7	29		EAS	STING 2,127,664		24 HR. FIAD	COL	LAR EL	EV. 27	76.9 ft		тс	JTAL DE	•TH 30.0 f	ït 🛛
	ORILL	rig/hai	/IMER EF	f./Dat	E BRI	7893 ON	VE-550 90%0	6/06/2017			DRILL	/IETHO	DН	I.S. Auge	rs	HAMM	ERTYPE Automatic	DRILL	RIG/HAN	VIMER EI	-F./DATI	E BRI7	7893 CIV	/E-550 90%	606/06/2017	
I	DRILL	ER B	lackley,	D.		S	TART DATE	12/04/1	7	COMP. DA	TE 12/	04/17		SUI	RFACE WATER DEP	TH N/A	۹	DRIL	LER B	lackley,	D.		ST	ART DA	FE 11/29/1	17
E		DRIVE ELEV		BLC	W CO	JNT		BLOWS	PER FOOT	Г 75 400	SAMP.				SOIL AND ROO	CK DESC	CRIPTION	ELEV	DRIVE	DEPTH	BLC	W COL	JNT		BLOWS	PER FOOT
-	(11)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0 2	25 5		75 100	NO.	Имо	I G	ELEV	. (ft)		DEPTH (ft)	(11)	(ft)		0.5ft	0.5ft	0.5ft			50
																							1	(
_	285		ł											F				280		╞			1	(
			I					1						282.8	ROADWAY	MBANK	0.0			Ŧ				(
	280	281.3	1.5	6	5	8					SS-17	11%		F	ORANGE AND O	GRAY, S	ILTY SAND	275	275.9	1.0	3	3	3			
	-	279.2	<u> </u>	5	5	3						м		279.3	GRAY, CLAYE	EY SANI	3.5 D (A-2-6)		273.4	3.5	2		6			
		276.8	6.0	3	4	6					SS-18	- 0%		276.8	ALL	UVIAL	6.0		270.9	I 6.0		4		10		
	275	274.3	8.5								00-10			274.8	GRAY, SILTY SAN	ID (A-2-4	4) W/ TRACE <u>8.0</u>	270		1	7	10	14	$\left \right $	24	<u> </u>
			Ī	4	3	4						M		E					268.4	<u> 8.5 </u>	5	8	9		/ 17	
	270		£											269.8	GRAY AND BR	OWN, C	LAY (A-7) 13.0	265		ŧ						
		269.3	13.5	5	10	14						м		Ľ	BROWN, SA	NDY SIL	_T (Ā-4) <u></u>		263.4	13.5	12	10				
			ŧ											265.8			17.0	_		ŧ		10		· · ∳! · · ·	6	
	265	264.3	18.5	12	22	22		· · · ·	×					1	TAN, WHITE, ANI (A-2-4), SAPROLIT	D PINK, IC. W/ L	SILTY SAND	260		- 10 5				1		
			ŧ	42	55	55		· · · ·		6					FR	AGS.				 	15	23	25	: : :	· · · · · ·	↓ •
	260	050.0						· · · ·										255		ŧ						
	ŀ	259.3	23.5	19	16	17			 			D							253.4	23.5	33	67/04		: : :		4
		•	ŧ						· · · ·			\Box						050		ŧ				: : :	· · · · · ·	
	255	254.3	28.5	13	20	28		· · · · ·						¦ ↓				250	248.4	+ 28.5					· · · · · ·	+
	-		<u>+</u>		20	20			48					<u>252.8</u>	Boring Terminated	at Eleva	30.0 tion 252.8 ft In				22	25	23		· · · · ·	↓ ↓48 <u>↓</u>
			ŧ											È.	RESIDU	JAL (A-2	-4)		-	ŧ				1		
			ŧ											F						ŧ				1		
		•	ŧ											F						ŧ				1		
		-	ŧ											F					-	ŧ				1		
		•	ŧ											F						ŧ				1		
		-	ŧ											F					-	ŧ				1		
			ŧ											F						ŧ				1		
			ŧ											F						ŧ				1		
		-	ŧ											F					-	ŧ				1		
/19			ŧ											F						ŧ				1		
T 2/5		-	ŧ											F					-	ŧ			1	1		
T.GD			ŧ											F						ŧ				1		
B			ŧ											F						ŧ			1	1		
N N		-	ŧ											F					-	ŧ				1		
T.GP		•	ŧ											F						ŧ			1	1		
GIN		_	‡											F					-	‡				1		
GEO			‡											F						‡						
5720			‡											F						‡			, I	1		
а́ щ		-	‡											F					-	‡						
OUBL			‡											ŧ						‡			, I	1		
RED		_	‡											F					-	‡				1		
T BO			‡											ŧ						‡				1		
NCDO			ŧ											F						ŧ				1		

WAKE		GEOLOGIST Lane, R.W.	
RD (SR 2006) OVER	R CSX S LI	NE RAILROAD IN RALEIGH	GROUND WTR (ft)
OFFSET 43 ft LT		ALIGNMENT -L-	0 HR. 19.6
NORTHING 782,178	8	EASTING 2,126,678	24 HR. 17.1
DRILL ME	ETHOD H.S	S. Augers	AMMER TYPE Automatic
COMP. DATE 11/29	9/17	SURFACE WATER DEPTH	N/A
SAMP.			
75 100 NO.	MOLG	SOIL AND ROCK	DESCRIPTION
DRILL ME COMP. DATE 11/29 75 100 NO. SS-19 SS-19	THOD HS 9/17 ↓ 0 0 0 0 12% ↓ ↓ 12% ↓ ↓ 0 0 0 0 0 0 0 0 0 0 0 0 0	SURFACE WATER DEPTH SOIL AND ROCK SOIL AND ROCK 276.9 0.2' TOI ROADWAY EM TAN, SANDY 272.4 RESID PINK, TAN, ORANG CLAYEY SAND (A-2-4 LITTLE ROC 263.9 PINK, TAN, AND BL (A-2-4), SAPROLITIC FRAC 253.9 WEATHERI PINK, GF 249.9 RESIDUAL PINK AND BROWN, S 246.9 SAPROLITIC W/ LITT Boring Terminated at RESIDUAL	AMMER TYPE Automatic I N/A DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION 0.0 BANKMENT SILT (A-4) 4.5 UAL 3E, AND WHITE, 3), SAPROLITIC W/ K FRAGS. ACK, SILTY SAND CW/ SOME ROCK 3S. ED ROCK CANITE UAL CAL 23.0 CANITE UAL CAL 23.0 CANITE UAL CAL CAL CAL CAL CAL CAL CAL C
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GEOTECHNICAL BORING REPORT BORE LOG

	WBS	46932	.1.1			Т	IP P-5720)	COUNT	Y WAKE				GEC	LOGIST Lane, F	R.W.		WE	S 4693	32.1.1			ТІ	P P-572	0	COUNT
;	SITE I	DESCR	IPTION	PRO	POSE	D GR/	ADE-SEPA	RATION O	F DURAN	T RD (SR 20	06) OVE	ER CS	SXSI	LINE RA	ILROAD IN RALE	IGH	GROUND WTR (ft) SIT	E DESC	RIPTION	I PRC	OPOSE	D GRA	DE-SEP/	ARATION (OF DURAN
	BORIN	ig no.	RW1	2		S	TATION 2	22+50		OFFSET	43 ft LT			ALIC	GNMENT -L-		0 HR. 17.	BO	ring no). RW1	-3		ST	ATION	23+00	
(COLL	AR ELE	EV . 27	4.7 ft		т	OTAL DEP	PTH 30.0 f	t	NORTHING	i 782,1	66		EAS	TING 2,126,728		24 HR. 15.3		LLAR E	_EV. 2	74.3 ft		т	DTAL DE	PTH 30.0	ft
	DRILL	rig/Han	IMER EF	F./DATI	E BRI	7893 CI	ME-550 90%	06/06/2017			DRILL	VIETHO	D H	I.S. Auger	8	HAMIN	NER TYPE Automatic	DR	LL RIG/H/	MIMER E	FF./DAT	E BRI	7893 CN	/E-550 90%	606/06/2017	
	DRILL	ER BI	ackley,	D.		S	TART DAT	E 11/29/1	7	COMP. DA	TE 11/	29/17		SUR	FACE WATER D	EPTH N	/A	DR	ILLER	Blackley	, D.		ST	ART DA	FE 11/28/	17
E	ELEV	DRIVE ELEV	DEPTH	BLC		UNT	4	BLOWS	PER FOO	т	SAMP.	- 🔨			SOIL AND F	ROCK DES	SCRIPTION	ELE			H BLC		UNT		BLOWS	PER FOOT
_	(11)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	Имо) G	ELEV.	(ft)		DEPTH ((II)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0	25	50
	275	070 7					<u> </u>		1					274.7	0.2			.0 27	5	+						
	F	- 213.1	- 1.0 -	6	4	3						м		271 7	BROWN, C	LAYEY SA	ND (A-2-6)	0	272.3	<u>+ 2.0</u>						
	270	271.2	3.5	3	4	10					SS-20	27%			GRAY, S	ANDY CL	AY (A-6)	270	270.8	- 3.5	4	3	3 24	● 6. _ .		
	_	268.7 -	6.0	11	8	4								269.2	F	RESIDUAL	5	5	268.3	F 6.0					36	
		266.2	8.5				•12	+						E	TAN, ORANGE, SAND (A-2-4),	pink, ane Saproli') WHITE, SILTY TIC W/ SOME		265.8	I 85	12	19	22			1
_	265	-	L	12	24	40			64			D			RC	CK FRAG	S.	26	5	+	14	12	11	· · · ·		
		-	L											261.7			13	0		Ŧ					: N : : :	
	260	261.2	13.5	4	5	23								260.2	BROWN, SANDY	SILT (A-4	4), SAPROLITIC 14	5 260	260.8	- 13.5	10	15	21		· · · ·	
		-	L									M	-		PINK, TAN, WHI SAND (A-2-4),	TE, AND E SAPROLIT	BROWN, SILTY FIC W/ LITTLE			Ŧ						
		256.2	18.5			10									RC	CK FRAG	S.		255 8	+ 18.5					. /	
-	255	-	F	5	5	19						W		-				25	>	+	7	8	10	· · · · ·		
		-								 				ł						‡				· · ·	↓ · · · ·	. .
	250	251.2	23.5	6	14	35		· · · · `	49			м		Ł				250	250.8	- 23.5	8	9	13		<u> </u>	
		-	+							 										‡				· · · ·		. .
	245	246.2	28.5	69	19	14				 				1				24	245.8	- 28.5						. .
	245		<u>-</u>					33						244.7	Boring Terminat	ed at Elev	30 ation 244.7 ft In	0 24	, 	†	<u> </u>	13	15		28	
		-	ł											F	RES	idual (a-:	2-4)			‡						
		-	÷											È.						Ŧ						
		-	t t											F						ŧ						
		-	+											F						Ŧ						
		-	F											F						Ŧ						
		-	÷											F						ŧ						
		-	÷											F						‡						
		-	F											F						Ŧ						
		-	F											F						Ŧ						
		-	F											F						Ŧ						
5/19		-	F											F						Ŧ						
T 2/5		-	F											F						Ŧ						
T.GD		-	F											F						Ŧ						
2		-	F											F						Ŧ						
ž C		-	F											F						Ŧ						
NT.GI		-	F											F						Ŧ						
G		-	F											F						Ŧ						
Э С			E											E						Ŧ						
⁵⁷²⁰			E											E						Ŧ						
SLE -		-	Ł											E						Ŧ						
DOUE		-	Ł											Ē						Ŧ						
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GEOTECHNICAL BORING REPORT BORE LOG

Γ	WRS	1603	2 1 1			т	P D_57	20		COLI							GEOLOGIST Lana RV	<u>۸</u>		WB	S 1603	2 1 1			т	P P-5720		COUNT
F	SITE	DESCE		PRC	POSE										52 5 1			и. н		SITE			PRC	POSE				
-	BORI		. RW1	-4		s		23+	50			DFFSET	43 ft I T				ALIGNMENT -I -		0 HR. Drv	BOF	RING NO.	. RW1	-5		S 1		<u>4+00</u>	Bolta
	COLI	AR EL	EV . 2	74.2 ft		Т	OTAL DI	EPTH	14.3 f	ť		ORTHING	782.1	40			EASTING 2.126.826		24 HR. Drv	COL	LAR EL	EV. 27	74.3 ft		т	DTAL DEPT	H 19.8 f	
	DRILL	.RIG/HA	MMER E	F./DAT	E BRI	7893 CN	VIE-550 90)%06/(06/2017	-			DRILL	VIETHO	DD H		Augers	HAMIN	IER TYPE Automatic	DRIL	L RIG/HAI	VIMER EF	F./DAT	E BRIZ	7893 CN	/IE-550 90%0	6/06/2017	-
	DRIL	LER E	Blacklev.	D.		S	TART D	ATE	11/28/1	7	C	COMP. DA	TE 11/	28/17	,		SURFACE WATER DEP	TH N	/Α	DRI	LER B	lacklev.	D.		S		11/28/1	7
-	LEV	DRIVE	DEPTH	BLC	ow co	JNT			BLOWS	PER FC	ОТ		SAMP.			Г		04.050		ELE\	DRIVE		BLC	ow cou	JNT		BLOWS	PER FOO
	(ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25		50	75	5 100	NO.	Имс	DI G	E	SOIL AND RO ELEV. (ft)	CK DES	DEPTH (ft)	(ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25	50
	275 270 265 260	LER E DRIVE ELEV (ft) 273.2 270.7 267.2 265.7 260.7	DEPTH (ft) 1.0 3.5 7.0 8.5 13.5 13.5 13.5	D. 4 BLC 0.5ft 3 1 6 30 44	0.5ft 0.5ft 4 1 19 70/0.3 56/0.3	S T 0.5ft 3 1 44	TART D/	ATE	11/28/1 BLOWS	17 PER FC 50	COT 75 	5 100 	TE 11/ SAMP. NO. SS-21	28/17 MC 20% 17% D			SURFACE WATER DEF SOIL AND RO ELEV. (ft) 273.5 0.2' BITUMIN 0.5' BASE COU ROADWAY 269.2 BROWN, SANDY S 267.2 MIC, 265.7 GRAY AND TAN, SAP WEATH GRAY AND 259.9 Boring Terminatec WR Other Samples: ST-1 (5.0 - 7.0)	CK DES OUS CC RSE AG EMBAN ILT (A-4 TY SAN ACEOUS SIDUAL SIDUAL SILTY SAN ACEOUS CANTON CALLEN CALLEN ACEOUS CALLEN CALEN CALLEN	/A CRIPTION DEPTH (ft) 0.0 DNCRETE GREGATE" (KMENT 4), MICACEOUS 5.0 ID (A-2-4) SAND (A-2-4), C OCK RANITE 14.3 ation 259.9 ft In C	DRII ELE\ (ft) 275 265 260 255	LER E DRIVE ELEV (ft) 273.3 270.8 268.3 265.8 265.8 260.8 265.8 265.8 260.8	Blackley, DEPTH (ft) - 1.0 - 3.5 - 6.0 - 8.5 - 13.5 - 13.5 - 13.5 - 13.5 	D. BLC 0.5ft 2 2 WOH 3 20 44	0.5ft 0.5ft 2 2 15 55	S T JNT 0.5ft 2 2 3 22 48 45/0.3	0 2 0 2 • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •	11/28/1 BLOWS 25	7 PER FOO 50
NCDOT BORE DOUBLE P5720_GEO_GINT.GPJ NC_DOT.GDT 2/5/19																	· ·											



GEOTECHNICAL BORING REPORT BORE LOG

14/54					-								0=-				14/5	4000					D D C		000
WB		2.1.1										V 0 '					WB	> 46932	2.1.1						
			6	ruse				DURAN	OFFEET	12 # I T	-r US	~ 3 L								7	rU3E			25±00	
BUR			-0 /2 F #			TATION 22	++5U			43 TLI	10				<u> </u>					-1		31		25+00	4
		EV. 2/	3.5 II F/DAT	= BDI	1 2027		H 23.8 T		NORTHING			пц		2,120,92				LAR EL	EV. Z		E BDI	7803 (1		PIH 34.81	t
					- Contra			7			20/47											100000		TE 11/07/	17
			D. BIC				BLOWS				20/17	1				/A				D. BIO	W CO			BLOWS	
ELEV (ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25	50	75 100	NO.		0		SOIL AND	ROCK DES		ELEV (ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50
	(,													(11)				(,							
075																	075								
2/5		ŧ											- 273.5			0.0	2/5		ŧ						
	272.5	1.0	3	3	4						м		- 272.5	0.3' BITUN	MINOUS CO	ONCRETE 1.0 GGREGATE			<u>+</u>					<u> </u>	
270	270.0	3.5				! ! ! ! !								ROADW			270		<u> </u>	3	3	2	- 6 5		· · · ·
	267 5	+ 60	4	2	1	4 3 · · · ·					M			GRAY AND BR	SAND LEN	SES		268.5	3.5	3	3	3			
0.05	207.5	1	2	3	3						м		265.5			8.0		266.0	6.0				9 6		
265	265.0	8.5	4	4	8						м	/./					265	263.5	+ 85	2	3	6	• 9		+ • • • •
		ŧ					· · · ·							SAND (A	4-2-6), SAP	ROLITIC		205.5	- 0.5	3	3	5		· · · · · ·	
260	260.0	13.5				· · · · ·						//	260.5				260		ŧ				· \.		
		Ŧ	11	11	17		Q 28····				D			(A-2-4), SAPR	OLITIC W/	SOME ROCK		258.5	13.5	8	11	9		$\cdot \mid \cdot \cdot \cdot \cdot$	
		ŧ													FRAGS.				ŧ			Ŭ	'	• <u>20</u>	
255	255.0	18.5	16	24	21			15			м						255		+					$-\sum$	+ • • • •
		Ŧ					· · · · •	+5					0515			22.0		253.5	T 18.5	13	18	21			
250	250.0	T 23.5					:::					<u>M</u>	201.0			ROCK 23.8	250		Ŧ						
	200.0	+	100/0.3						100/0.3				- 245.7	PINK Af Boring Termina	ND TAN, G ated at Elev	ration 249.7 ft In		248.5	23.5	12	10	25			
		Ŧ											F	,	WR Granite	e			Ŧ	13	19	25		.	4
	-	Ŧ											F				245		Ŧ						+ • • • •
		ŧ											F					243.5	<u>+ 28.5</u> +	11	13	12			
		ŧ											F				240		ŧ						
	-	ŧ											F				210	238.5	+ 33.5					· L· · · ·	<u> </u>
		ŧ											F						†	10	42	58/0.3	•••	· · · · ·	
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GEOTECHNICAL BORING REPORT BORE LOG

WBS	46932	2.1.1			ТІ	P P-5720)	COUNT	Y WAKE				GEOI	LOGIST	Lane, R.W	V.			WBS	46932	2.1.1			Т	P P-572)	COUNT
SITE	DESCR	RIPTION	PRC	POSE	D GR/	ADE-SEPA	RATION O	F DURAN	IT RD (SR 20	006) OVI	ER CS	SXSL	INE RAI	lroad in	RALEIGH	4	GROUND W	TR (ft)	SITE	DESCR	IPTION	PRC	POSE	D GR	ADE-SEP/	RATION	OF DURAN
BOR	ing no.	RW1	-8		S	TATION 2	25+50		OFFSET	43 ft LT			ALIG	NMENT -	-L-		0 HR.	16.4	BOR	ing no.	RW2	-1		S	TATION	12+99	
COL	LAR EL	EV . 27	71.3 ft		Т	OTAL DEP	TH 39.4 f	ť	NORTHING	G 782,0)75		EAST	ING 2,12	27,018		24 HR.	14.8	COL	LAR EL	EV. 27	79.4 ft		те	OTAL DE	PTH 8.9 f	t
DRILL	RIG/HAI	VIMER EF	-F./DAT	E BRI	7893 Cl	VIE-550 90%	06/06/2017		1	DRILLI	METHC	DH	.S. Augers			HAMME	RTYPE Auto	matic	DRILL	_ RIG/HAI	/IMER EF	-F./DAT	E BRI	7893 Cl	VIE-550 90%	506/06/2017	
DRIL	LER B	lackley,	D.		S		E 11/27/	17	COMP. DA	ATE 11/	/27/17	.		ACE WAT	FER DEPT	TH N/A			DRIL	LER B	lackley,	D.		S	TART DA	E 12/07	/17
ELEV	DRIVE						BLOWS	PER FOO	T 400	SAMP	. 🗸			SOIL	AND ROC	CK DESC	RIPTION		ELEV	DRIVE	DEPTH	BLC				BLOW	S PER FOO
(11)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.)IG	ELEV. (f	it)			0	EPTH (ft)	(11)	(ft)	(11)	0.5ft	0.5ft	0.5ft		25	50
275		+											-						280	-	<u> </u>						
		Ŧ											F							278.4	† 1.0 †	7	8	20			
270	270.3	1.0				<u> </u> · 1 · ·		· · · ·	• • • • • •				- 271.3 - 270.8	0.2'	BITMUINO	OUS CON	ICRETE	0.0 0.5	275	275.9	3.5	81	19/0.1	-		: <u>L</u>	
	267.0	Ŧ	8	5	6	. •11 .				SS-23	14%	È	268.3	0.3' A	GGREGAT	TE COUR	RSE BASE			273.4	6.0						
		+ 3.5 +	5	6	9	15					м			TAN-C	DRANGE, S	SANDY C	CLAY (A-6)	í		270.0		90	10/0.1				
265	265.3	<u> </u>	5	6	7	13					М	/./.	-	GRAY A		NGE, CLA	YEY SAND			- 210.3	- 0.0	100/0.4	4				.
	262.8	8.5	3			· / · ·									(A-	-2-6)					Ŧ						
260		ŧ		-		• • • • • • • • • • • • • • • • • • •					M	///									ŧ						
200		+								11		/./.	258.3					13.0		-	ŧ						
	257.8	+ 13.5 +	2	5	9	1			· · · · · ·						/N, GRAY, AND PINK.	ORANG	E, BLACK, AND (A-2-4).				ŧ						
255		ŧ				· · · <u>`</u>			· · · · ·		Sat.		- -	SAPROL	LITIC W/ S	OME RO	CK FRAGS.			-	ŧ						
	252.8	18.5		10	16		$\langle \vdots \vdots \vdots \vdots $		· · · · · ·				÷								ŧ						
250		ŧ	0	12	10		● 28				м		- -								ŧ						
200		†					1		 	11			} +							-	ŧ						
	247.8	+ 23.5 +	8	13	10		• · · · ·		· · · · · ·		м		}								ŧ						
245		ŧ					<u> </u>						-							_	ŧ						
	242.8	28.5							· · · · · ·				+								‡						
040		ŧ	17	21	24			45			м		∔								ŧ						
240	-	ŧ							<u></u> 	11			 -							-	ŧ						
	237.8	<u> </u>	19	24	27			51			М		- -								ŧ						
235		ŧ											-							_	ŧ						
	232.8	38.5											232.8					38.5			ŧ						
		+	50	50/0.4					100/0.9	•	<u>M</u> _	<u>977</u>	231.9	∫ PINK, W	WEATHE HITE, AND	RED RO	CK N, GRANITE	39.4			ŧ						
	-	ŧ											-	Boring Te	erminated a	at Elevati Granite	on 231.9 ft In			-	ŧ						
		ŧ											L		VVIX	Granite					ŧ						
		£											F								ŧ						
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5/19		Ŧ											F								Ŧ						
0T 2/	-	Ŧ											F							-	Ŧ						
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T.GP		ŧ											-								‡						
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720		ŧ											F								+						
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OUBL		ŧ											F								t						
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GEOTECHNICAL BORING REPORT BORE LOG

WBS 46932.1.1	TIP P-5720 COUNT	Y WAKE	GEOLOGIST Lane, R.W.		WBS	S 4693	32.1.1			TIP P-5720		COUNTY WAKE		GE	OLOGIST Lane, R.W		
SITE DESCRIPTION PROPOSED G	GRADE-SEPARATION OF DURAN	IT RD (SR 2006) OVER CSX S L	INE RAILROAD IN RALEIGH	GROUND WTR (ft)	SITE	E DESCI	RIPTION	PROP	OSED G	RADE-SEPAF	RATION OF	DURANT RD (SR	2006) OVER (CSX S LINE R/	AILROAD IN RALEIGH	GROUND	WTR (ft)
BORING NO. RW2-2B	STATION 13+67	OFFSET 43 ft RT	ALIGNMENT -Y3-	0 HR. 23.0	BOF	Ring No) . RW2-	3		STATION 14	4+14	OFFSET	43 ft RT	ALI	IGNMENT -Y3-	0 HR.	Dry
COLLAR ELEV. 278.9 ft	TOTAL DEPTH 29.1 ft	NORTHING 781,714	EASTING 2,127,252	24 HR. 16.3	COL		LEV. 27	6.6 ft			FH 40.0 ft	NORTHI	NG 781,756		STING 2,127,272		17.7
	START DATE 40/00/47								DRI/093		D0/00/2017	COMP					
			SURFACE WATER DEPTH N	/A	DRI		віаскіеу,	D. BLOV			BLOWS P				RFACE WATER DEPT	n N/A	
(ft) ELEV (ft) (ft) 0.5ft 0.5ft 0.5	5ft 0 25 50	75 100 NO. MOI G	SOIL AND ROCK DES	SCRIPTION DEPTH (ft)	etev (ft)	ELEV (ft)	(ft)	0.5ft	0.5ft 0.5	ft 0 :	25 50) 75 10	00 NO.		SOIL AND ROCI	(DESCRIPTION	
(ft) LLL (t) (ft) 0.5ft 0.5ft 0.5ft 0.5ft 0.5ft 280 277.4 1.5 8 9 13 275 275.4 3.5 5 6 9 270 270.4 8.5 3 5 13 265 265.4 13.5 10 8 16 260 260.4 18.5 19 13 10 250 255.4 23.5 18 7 8 250 250.4 28.5 66 34/0.1 10 10 8 1 10 8 16 250 250.4 28.5 66 34/0.1 1 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 250 250.4 28.5 66 34/0.1 10 10 10 10 10 10 10 10 10 10 10 10 10 10 </td <td>5ft 0 25 50 3 </td> <td>75 100 NO. MOI G M M M M M M M M M D D D D </td> <td>278.9 0.3' TOPSO RESIDUAL TAN AND BROWN, SAN SAPROLITIC 270.9 270.9 270.9 PINK, TAN, AND WHITE (A-2-4), SAPRO AAPRO TAN, GRANT Boring Terminated at Elev WR Granite</td> <td>DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) 28.0 29.1 TC 28.0 29.1 TE ation 249.8 ft In 3</td> <td>(ft) 280 275 270 265 260 255 250 245 240</td> <td> </td> <td>(ft) 2.0 3.5 6.0 8.5 13.5 18.5 23.5 33.5 33.5 33.5 </td> <td>0.5ft 8 18 10 7 11 8 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15</td> <td>0.5ft 0.5 17 22 21 23 13 12 9 17 12 20 18 20 8 9 17 28 17 20 23 37</td> <td>ft 0 1 2 - - 3 - - - - - <</td> <td></td> <td>0 75 11 - - - - - -</td> <td>NO. MO. SS-24 24 SS-24 24 I I <tr< td=""><td>AOI G AOI G - -</td><td>ROADWAY EL TAN, CL RESI TAN, BLACK, PINK, (SILTY SAND (A-2- SOME ROO Boring Terminated a RESIDU/</td><td>IBANKMENT AY (A-6) JUAL _T (A-5) SREEN, AND WHIT I), SAPROLITIC W/ X FRAGS.</td><td>0.0 2.0 3.5 TE, 7</td></tr<></td>	5ft 0 25 50 3	75 100 NO. MOI G M M M M M M M M M D D D D	278.9 0.3' TOPSO RESIDUAL TAN AND BROWN, SAN SAPROLITIC 270.9 270.9 270.9 PINK, TAN, AND WHITE (A-2-4), SAPRO AAPRO TAN, GRANT Boring Terminated at Elev WR Granite	DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) DEPTH (ft) 28.0 29.1 TC 28.0 29.1 TE ation 249.8 ft In 3	(ft) 280 275 270 265 260 255 250 245 240	 	(ft) 2.0 3.5 6.0 8.5 13.5 18.5 23.5 33.5 33.5 33.5 	0.5ft 8 18 10 7 11 8 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15	0.5ft 0.5 17 22 21 23 13 12 9 17 12 20 18 20 8 9 17 28 17 20 23 37	ft 0 1 2 - - 3 - - - - - <		0 75 11 - - - - - -	NO. MO. SS-24 24 SS-24 24 I I <tr< td=""><td>AOI G AOI G - -</td><td>ROADWAY EL TAN, CL RESI TAN, BLACK, PINK, (SILTY SAND (A-2- SOME ROO Boring Terminated a RESIDU/</td><td>IBANKMENT AY (A-6) JUAL _T (A-5) SREEN, AND WHIT I), SAPROLITIC W/ X FRAGS.</td><td>0.0 2.0 3.5 TE, 7</td></tr<>	AOI G AOI G - -	ROADWAY EL TAN, CL RESI TAN, BLACK, PINK, (SILTY SAND (A-2- SOME ROO Boring Terminated a RESIDU/	IBANKMENT AY (A-6) JUAL _T (A-5) SREEN, AND WHIT I), SAPROLITIC W/ X FRAGS.	0.0 2.0 3.5 TE, 7

GEOTECHNICAL BORING REPORT BORE LOG

۱	NBS	46932	.1.1			ТІ	P P	-5720		С	OUNTY	w.	AKE				GEOLO	GIST Lane, R	.W.		
SITE DESCRIPTION PROPOSED GRADE-SEPARATION OF DURAN								URANT	TRD (SR 2006) OVER CSX S LIN				K S LI	INE RAILRO	E RAILROAD IN RALEIGH			D WTR (ft)			
BORING NO. RW2-4 STATION 14+46										OFFSET 12 ft RT					ALIGNMENT -Y3-			0 HR.	38.0		
COLLAR ELEV. 275.1 ft TOT							DTAL	TAL DEPTH 50.0 ft					NORTHING 781,			798		EASTING 2,127,257		24 HR.	FIAD
DRILL RIGHAMMER EFF/DATE BRI7893 CME-5						/IE-55	-550 90%06/06/2017					DRILL METHOD H.S.			S. Augers		Hamm	ERTYPE	Automatic		
I	DRIL	LER BI	ackley,	D.		S		DATE	12/11	1/17		CON	IP. DA	TE 12/1	1/17		SURFAC	E WATER DE	PTH N/	A	
E	ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLC 0.5ft	0W CO	JNT 0.5ft	0	2	BLOW 5	S PEF	RFOOT	75	100	SAMP. NO.	моі	L O G	ELEV. (ft)	SOIL AND RO	OCK DES	CRIPTION	DEPTH (ft)
	280		-														_ - -				
	275	+	-					ļ									275.1	1.0' BITUMI	NOUS CO	NCRETE	0.0
	270	273.1	2.0 3.5 6.0	3 15	3 25	6 33	-	I. ●9 · · · ·			● 58	- - -	 	SS-25	17% D		<u>273.1</u> - 271.6 	1.0' BASE CO RI GRAY, BROWI (A-7-6) W/ SC AN. SILTY SAN	URSE AG ESIDUAL N, AND W DME ROC ID (A-2-4).	<u>GREGATE</u> HITE, CLA <u>K FRAGS.</u> SAPROLI	<u>2.0</u> Y <u>3.5</u> TIC
	265	266.6	- - 8.5 -	3	7	12	-	• • •	●32 · · · ·	 	· · · · ·	- - -	· · · ·		M		- 266.6 - T	W/ LITTLE	QUARTZ ID (A-2-6),	FRAGS.	8.5 TIC
		261.6	- - - 13.5		_		-	. . .	· · · ·	 	· · · · ·	-	· · · · · ·			//////					
	260	-	-	6		11	-	• • • •			· · · · ·		· · · ·		М		- -				
	255	256.6 -	- 18.5 - -	11	27	49	-	· · · ·				76	· · · ·		D		- 256.6 	TAN, PINK, ANE A-2-4), SAPROL	D WHITE, LITIC W/ L	SILTY SAN	18.5 ND CK
	250	251.6	- - 23.5 -	7	13	18	-	· · · ·	• 31			- - -	 		М		- - -		10100.		
	245	246.6	- - 28.5 -	6	9	18	-	· · · · · · ·	1 1 4 ₂₇		· · · · ·	-	 		М		- - - -				
	240	241.6	- - 33.5 -	15	18	19	-	· · · · · · · · · · ·		· · ·	· · · · ·	-	· · · · · · · · · · · ·		М		- - -				
	235	- 	- - - 38.5 -	11	21	38	-	· · · · · · · · · · ·	· · · ·		0 59	- - -	 		М						
		231.6	- 43.5	18	33	30		· · · ·		· ·		-	· · · ·		P		 - -				
6	230	-	-	10	00	00		· · · ·			· · /· · ·	72 - -	· · · ·		D		- - -				
.GDT 2/5/1		- 220.0	- 40.5	13	21	23	-			4 44		-			W		225.1 B	Boring Terminate RESI	ed at Eleva DUAL (A-2	tion 225.1 1 -4)	<u>50.0</u> ft In
		+ + +	- - -														- - -				
GINT.GP		+ + +	- - -														- - -				
		-	-														- - - -				
DOUBLE		-	-																		
DOT BUKE		 - - -	- - -																		