CONTENTS SHEET NO.

2

3

4 5-6

 \mathbf{m} 460 Ŕ REFERENCE

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

STATE OF NORTH CAROLINA

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

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY PITT

PROJECT DESCRIPTION BRDIGE NO. 29 ON -L- (SR 1715) OVER FORK SWAMP AT STA. 15+44.50

38429 PROJEC

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C	B-4603	1	6

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNIKG AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOLI TEST DATA AVAILABLE MAY BE REVEWED OR INSPECTED IN RALEICH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1991 707-6860. THE SUBSIFACE 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 UNPELACED TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOLI MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOLI MOISTURE CONDITIONS MAY YARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTONED 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 DOS NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERRETATIONS MADE, OR OPNION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONSTROST TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY IMINSELF 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 ACUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

NOTES:

- TES: 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 REDUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR SITEMENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE. 2.

PERSONNEL

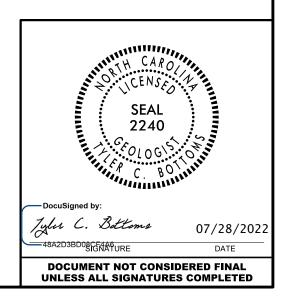
S.N. ZIMARINO

T.W. MILLER

R.E. SMITH

C.M. WALKER

INVESTIGATED BY _____. BOTTOMS DRAWN BY _S.N. ZIMARINO CHECKED BY ______. D.N. ARGENBRIGHT SUBMITTED BY ______. ARGENBRIGHT DATE _______ 2022



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

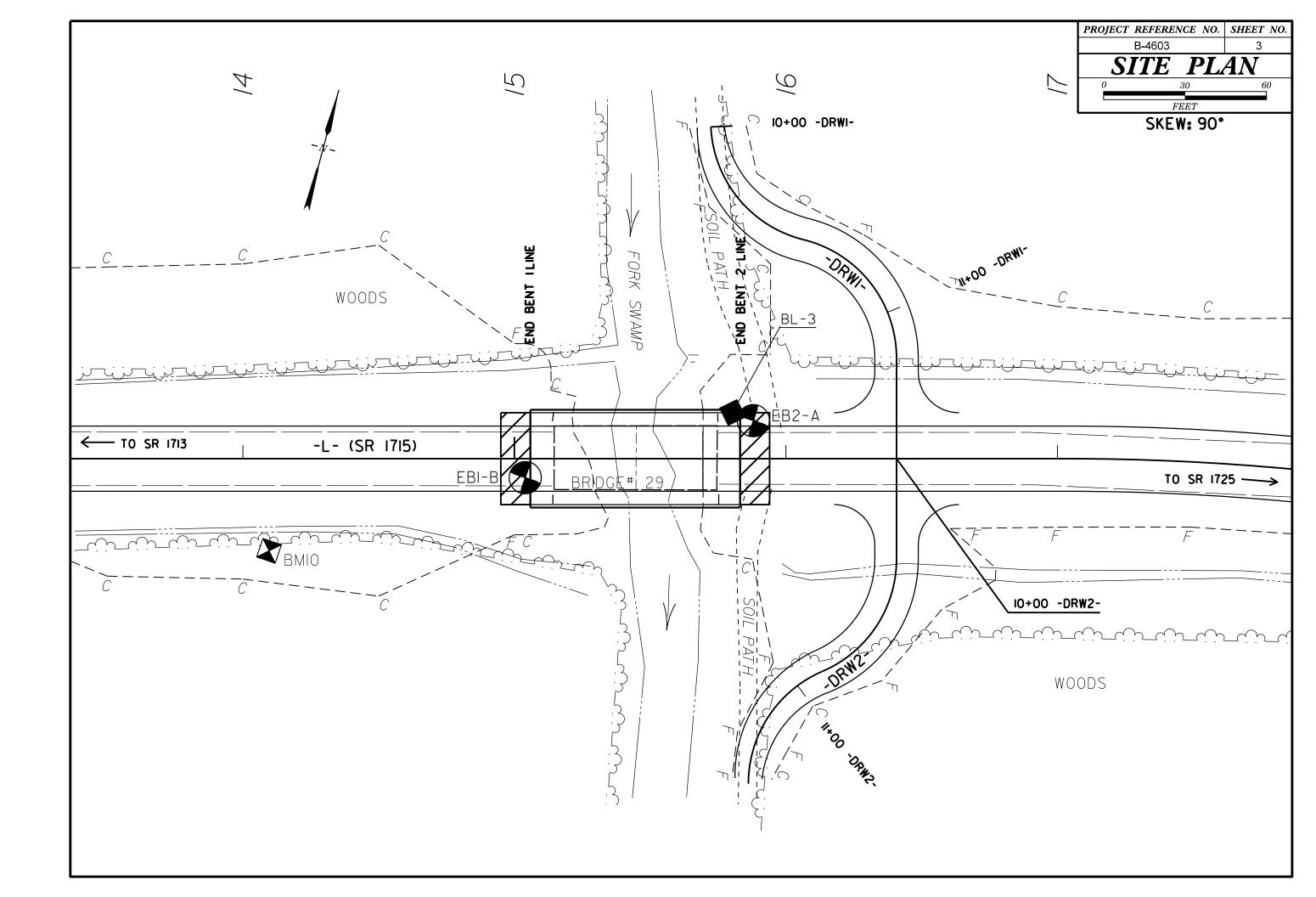
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION	TERMS AND DEFINITIONS					
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT	WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE.	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.					
ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586), SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM, BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING:	GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.	SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL, THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN	ADUIFER - A WATER BEARING FORMATION OR STRATA.					
CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH	ANGULARITY OF GRAINS	REPRESENTED BY A ZONE OF WEATHERED ROCK.	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.					
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, 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:	ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:	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.					
SOIL LEGEND AND AASHTO CLASSIFICATION	ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.	WEATHERED NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 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 ORGANIC MATERIALS	MINERALOGICAL COMPOSITION	CRYSTALLINE FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND					
LLASS. (≤ 33/ PASSING 200) (> 33/ PASSING 200)	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.	ROCK (CR) WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.	SURFACE.					
GROUP A-1 A-3 A-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5 CLASS. A-1-a A-1-b A-2-4 A-2-6 A-2-7 A-3 A-6, A-7	COMPRESSIBILITY	NON-CRYSTALLINE FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.					
A+//6	SLIGHTLY COMPRESSIBLE LL < 31	ROCK (NCR) SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED.	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.					
SYMBOL	MODERATELY COMPRESSIBLE LL = 31 - 50	COASTAL PLAIN COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SEDIMENTARY ROCK SANDSTONE, CEMENTED	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED					
7. PASSING •10 50 MX SILT- MUCK,	HIGHLY COMPRESSIBLE LL > 50 PERCENTAGE OF MATERIAL	C(P)	BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.					
*40 30 MX 50 MX 51 MN SOILS SOILS SOILS PEAT	GRANULAR SILT - CLAY	WEATHERING	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.					
NIN de NIN de NIN de NIN de NIN de NIN de XNI CE XM CI UUS"	ORGANIC MATERIAL SOILS OTHER MATERIAL TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10%	FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER	DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE					
MATERIAL PASSING #40	LITTLE ORGANIC MATTER 3 - 5% 5 - 12% LITTLE 10 - 20%	HAMMER IF CRYSTALLINE. VERY SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN.	HORIZONTAL.					
LL – – 40 MX 41 MN	MODERATELY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35% HIGHLY ORGANIC > 10% > 20% HIGHLY 35% AND ABOVE	(V SLI.) CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.					
PI 6 MX NP 10 MX 10 MX 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN MODERATE MIGHLT	GROUND WATER	OF A CRYSTALLINE NATURE.	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE					
GROUP INDEX 0 0 0 4 MX 8 MX 12 MX 16 MX INU MX AMUUNIS UF SOILS		SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO (SLI.) 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR	SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.					
USUAL TYPES STONE FRAGS. FINE SILTY OR CLAYEY SILTY CLAYEY MATTER	✓ WATER LEVEL IN BORE HOLE 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 EXCELLENT TO GOOD FAIR TO POOR POOR UNSUITABLE	✓ PW PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA	(MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED	PARENT MATERIAL. 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	- Spring or seep	WITH FRESH ROCK.	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE					
CONSISTENCY OR DENSENESS	MISCELLANEOUS SYMBOLS	MODERATELY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL SEVERE AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH	FIELD.					
		(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 PENETATION RESISTENCE COMPRESSIVE STRENGTH CONSISTENCY (N-VALUE) (TONS/FT ²)	ROADWAY EMBANKMENT (RE) 25/025 DIP & DIP DIRECTION WITH SOIL DESCRIPTION OF ROCK STRUCTURES	IF TESTED, WOULD YIELD SPT REFUSAL	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO					
VERY LOOSE C 4		SEVERE ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT (SEV.) REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED	ITS LATERAL EXTENT.					
GRANULAR LOOSE 4 TO 10	SOIL SYMBOL	TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN.	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					
MATERIAL MEULUM DENSE 10 10 30 N/A	ARTIFICIAL FILL (AF) OTHER OUGER BORING CONE PENETROMETER	IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF VERY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.					
(NON-COHESIVE) 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	- INFERRED SOIL BOUNDARY - CORE BORING SOUNDING ROD	(V SEV.) REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <u>IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF</u>	OF AN INTERVENING IMPERVIOUS STRATUM.					
GENERALLY SOFT 2 TO 4 0.25 TO 0.5 SILT-CLAY MEDIUM STIFF 4 TO 8 0.5 TO 1.0		COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND	RESIDUAL (RES.)SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF					
MATERIAL STIFF 8 T0 15 1 T0 2 (COHESIVE) VERY STIFF 15 T0 30 2 T0 4	WITH CORE	SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF					
HARD > 30 > 4	ALLUVIAL SOIL BOUNDARY A PIEZUMEIER O- SPT N-VALUE	ALSO AN EXAMPLE.	RUN AND EXPRESSED AS A PERCENTAGE.					
TEXTURE OR GRAIN SIZE	RECOMMENDATION SYMBOLS		SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.					
U.S. STD. SIEVE SIZE 4 10 40 60 200 270	UNDERCUT UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE	VERY HARD CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND					
OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053	SHALLOW UNCLASSIFIED EXCAVATION - USED IN THE TOP 3 FEET OF	HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED	RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.					
BOULDER COBBLE GRAVEL COARSE FINE SILT CLAY	SHALLOW UNCLASSIFIED EXCAVATION - USED IN THE TOP 3 FEET OF ACCEPTABLE DEGRADABLE ROCK EMBANKMENT OR BACKFILL	TO DETACH HAND SPECIMEN.	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT					
(BLDR.) (COB.) (GR.) (CSE. SD.) (F SD.) (CL.)	ABBREVIATIONS	MODERATELY CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE 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 CL CLAY MOD MODERATELY γ - UNIT WEIGHT	MEDIUM CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. HARD CAN BE EXCAVATED IN SMALL CHIPS TO PEICES I INCH MAXIMUM SIZE BY HARD BLOWS OF THE	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					
SOIL MOISTURE - CORRELATION OF TERMS	CPT - CONE PENETRATION TEST NP - NON PLASTIC $\dot{\gamma}_{ m d}$ - DRY UNIT WEIGHT	POINT OF A GEOLOGIST'S PICK.	TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.					
SOIL MOISTURE SCALE FIELD MOISTURE (ATTERBERG LIMITS) DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	CSE COARSE ORG ORGANIC DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST <u>SAMPLE ABBREVIATIONS</u>	SOFT CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.					
	DPT - DYNAMIC PENETRATION TEST SAP SAPROLITIC S - BULK	FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL					
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY (SAT.) FROM BELOW THE GROUND WATER TABLE	e - VOID RATIO SD SAND, SANDY SS - SPLIT SPOON F - FINE SL SILT, SILTY ST - SHELBY 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	SOFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.					
BANGE - WET - (W) SEMISULID; REQUIRES DRYING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL FRAGS FRAGMENTS w - MOISTURE CONTENT CBR - CALIFORNIA BEARING	FRACTURE SPACING BEDDING						
	HI HIGHLY V - VERY RATIO	TERM SPACING TERM THICKNESS	BENCH MARK: BL-3 N: 646923.7750					
	EQUIPMENT USED ON SUBJECT PROJECT	VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET WIDE 3 TO 10 FEET THICKLY BEDDED 1.5 - 4 FEET	E: 2488885.4630 ELEVATION: 47.84 FEET					
	DRILL UNITS: ADVANCING TOOLS: HAMMER TYPE:	MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0.16 - 1.5 FEET						
	X CME-45C CLAY BITS X AUTOMATIC MANUAL	CLOSE 0.16 TO I FOOT VERY THINLY BEDDED 0.03 - 0.16 FEET VERY CLOSE LESS THAN 0.16 FEET THICKLY LAMINATED 0.008 - 0.03 FEET	NOTES:					
- DRY - (D) ATTAIN OPTIMUM MOISTURE	CME-55 6' CONTINUOUS FLIGHT AUGER CORE SIZE:	THINLY LAMINATED C.008 FEET						
PLASTICITY	8' HOLLOW AUGERS	INDURATION						
PLASTICITY INDEX (PI) DRY STRENGTH	CME-550 HARD FACED FINGER BITS	FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.						
NON PLASTIC 0-5 VERY LOW	TUNGCARBIDE INSERTS	FRIABLE RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.						
SLIGHTLY PLASTIC 6-15 SLIGHT MODERATELY PLASTIC 16-25 MEDIUM	VANE SHEAR TEST CASING W/ ADVANCER HAND TOOLS:	CRAINS CAN BE SERARATER FROM CAMPLE VITU STEEL PROPE						
HIGHLY PLASTIC 26 OR MORE HIGH		MODERATELY INDURATED GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.						
COLOR		INDURATED GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE;						
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN. RED. YELLOW-BROWN, BLUE-GRAY).		DIFFICULT TO BREAK WITH HAMMER.						
MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.		EXTREMELY INDURATED SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.	DATE: 8-15-14					
			DATE: 0 13 14					

PROJECT REFERENCE NO.



2



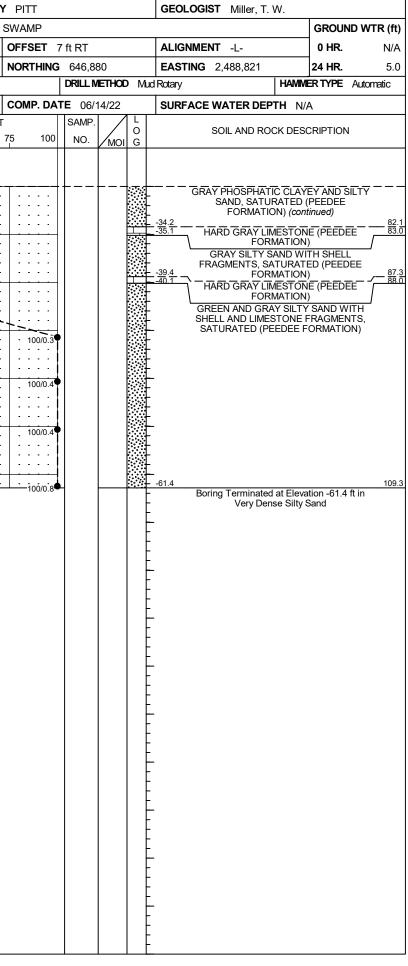
			PROF	ile thf	ROUGH BORII	NGS PROJEC	TED ALONG	-L+
50 Indext the second state of the second								
40 30. 30. 20. 20. 20. 20. 20. 20. 20. 2	50				ĖBI-B I5+04 7' RT	EB2 15+ 14'	P-A 88 LT	
.30. .30. .30. .30. .30. .30. .30. .30. .30. .30. .30. .30. .30. .31. TY SAND WITH SHELL .30. .31. TY SAND WITH SHELL .30. .31. TY SAND WITH SHELL .30. .31. TY SAND WITH SHELL .30. .3					3		LOOSE TAN AND BI	ROWN SILTY
20 LODSE TO DENSE GRAY AND TAN C SILTY SAND WITH SHELL STIFF GRAY SANDY CLAY. WET PREDEE FORMATION STIFF GRAY SANDY CLAY. WET PREDEE FORMATION O STIFF GRAY SANDY CLAY. WET PREDEE FORMATION O CLAYEY AND SILTY SAND. SATURATED (PEEDEE CLAYEY SAND. SATURATED (PEEDEE SILTY SA	30		VERY LODSE TO MEDIUM DENSE BRC	WN AND GRAY	I SAND A		WITH WOOD FRAGM	ENTS, MOIS
10. 0. STIFF GRAY SANDY CLAY, WET (PEEDEE FORMATION 0. -10. -10. MEDIUM DENSE TO VERY DENSE GRAY PHOSPHATIC -20. MEDIUM DENSE TO VERY DENSE GRAY PHOSPHATIC -30. -40. -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -40. -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -40. -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -50. -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -50. -50	20							
-0. -10. -20. -20. -30. -30. -50. MEDIUM DENSE TO VERY DENSE GRAY PHOSPHATIC -50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC -50.			LOOSE TO DENSE G	RAY AND TAN	3-8		FRAGMENTS, SATUF	RATED (YORK
-10 MEDIUM DENSE TO VERY DENSE GRAY PHOSPHATIC CLAYEY AND SILTY C- -20 -30 -30 -40 -50 MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- -50 MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- -60 -70 CARPENDING DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE TO VERY DENSE (RAY AND GREEN PHOSPHATIC C- CARPENDING DENSE (RAY AND GREEN PHOSPHATIC C- CARPEN	0		STIFF GRAY SANDY CLAY, WET (PEEDEE	FORMATION 1				
20. 30. 40. 50. MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC 60. 70. PAVEMENT (B) MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT)) MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT)	10					6- 		
30 40 50 60 70 (a) PAVEMENT (b) MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT)) 30 40 50 	20		MEDIUM DENSE TO VERY DENSE GRAY	PHOSPHATIC			SAND, SATURATED	(PEEDEE FO
40 50 MEDIUM DENSE TO VERY DENSE GRAY AND GREEN PHOSPHATIC 60 70 @ PAVEMENT @ MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT)) MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT)	30							
	40						= = = = = = = = = = = = = = = = = = = =	= = = = = = :
60. 70. (D) PAVEMENT (D) PAVEMENT (D	50	MEDIUN	DENSE TO VERY DENSE GRAY AND GREEN	PHOSPHATIC	SILTY SAM	ND WITH SHELL 🔡 🔯	AND LIMESTONE FF	RAGMENTS.
© PAVEMENT ® MEDIUM DENSE TAN SILTY SAND, MOIST (ROADWAY EMBANKMENT) BOT	60							NOTE :
	70	O PAVEMENT						NOTE: TAKEN HYDRA NOTE:
				MENT)				NOTE: DRAWN BOTH
		(C) HARD GRAY LIM	ESTONE (PEEDEE FORMATION)					

	PROJECT REFERENCE NO.	. SHEET NO. 4					
	B-4603 ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER					
	INCOMPLETE Do not use for r/w	PLANS					
	DOCUMENT NOT CONS						
		ES COMPLETED					
		50					
Y SAND, MOIST (ROADWAY EMBANK	MENT						
ST TO SATURATED (ALLUVIAL)							
LAY, WET (YORKTOWN FORMATION)		20					
RKTOWN FORMATION)							
		10					
· · · · · · · · · · · · · · · · · · ·		0					
		10					
FORMATION)		20					
		_30					
		<u> </u>					
		40					
SATURATED (PEEDEE FORMATION)		_50					
E: GROUNDLINE PROFILE ALONG -L N FROM BRIDGE SURVEY AND		60					
RAULIC REPORT DATED 6/20/22		. 70					
E: INFERRED STRATIGRAPHY IS WN THROUGH THE BORINGS WITH H PROJECTED ONTO PROFILE							
		·					
17	18	i					

GEOTECHNICAL BORING REPORT BORE LOG

DBLL R04HWARE PF /ARE GTURES (A = COTONS (A = SCOPE) (N = 2C = COTOPS (A = SCOPE) (N = 2C = COTOPS (A = SCOPE) (N = 2C = COTOPS (A = SCOPE) (N = SCOPE) (A = S								-		.00																		
DODESION DE F5-6 STATION 150-4 OPFERT 71 817 ALGAMENT 4 948. MAN M																												
COLLAREELY 0.7.1. DEPTH 10.7.1. DEPT					1																	(SV						
Diskling Norman Diskling Norma Diskli	BORI	COLLAR ELEV. 47.9 ft TOTAL DEPTH 109.3 ft				OFFSET	7 ft RT			_												<u>_</u> o						
DBILLER THATE DATE DOUZ DOWN DATE DOUZ DURFACE NA 101 100					NORTHING																ft	N						
No. LACK COMIN LACK COMIN <td>DRILL</td> <td colspan="3">DRILL RIG/HAMMER EFF./DATE GF00075 CIVE-45C 87% 11/23/2021</td> <td></td> <td>DRILLI</td> <td>METHOD</td> <td>D M</td> <td>ud Rotary</td> <td>AH </td> <td>MMER TYP</td> <td>E Automatic</td> <td colspan="10"></td>	DRILL	DRILL RIG/HAMMER EFF./DATE GF00075 CIVE-45C 87% 11/23/2021				DRILLI	METHOD	D M	ud Rotary	AH	MMER TYP	E Automatic																
00 00 01 01 03 <						S	TART DAT	E 06/13	22	COMP. DA				SURF	ACE WATER DEPTH	N/A		DRIL			-			ART DATI	E 06/13/22	2	C	
0 0	ELEV		DEPTH									1 1			SOIL AND ROCK D	ESCRIPTI	ON		DRIVE	DEPTH	·							
40 41 4 6 4 4 6 4 4 6 4 4 6 4 4 6 4 4 6 4 4 6 4 4 6 4 4 6 4 4 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7	(π)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	Иог	G	ELEV. (f)		DEPTH (ft)	(11)	(ft)	(11)	0.5ft	0.5ft	0.5ft	0	25 5	50 I	75	
41 42 4 5 4 5 4 5 4 5<																												
4/12 000000 000000000000000000000000000000	50		+											_				-30	<u> </u>	<u> </u>	·		-1 7 -	_	7	h Line		
65 74 66 74 <th< td=""><td></td><td>17.2</td><td><u>+</u></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td><td></td><td>-</td><td>ŧ</td><td></td><td></td><td></td><td></td><td>• 25 · · · ·</td><td></td><td>:</td></th<>		17.2	<u>+</u>														0.0		-	ŧ					• 25 · · · ·		:	
43.7 4.7 </td <td>45</td> <td>41.2</td> <td>‡ 0.7</td> <td>62</td> <td>24</td> <td>5</td> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>PAVEME</td> <td>NT</td> <td></td> <td>25</td> <td>-</td> <td>+</td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>	45	41.2	‡ 0.7	62	24	5								-	PAVEME	NT		25	-	+				1				
	43	43.7	+ 4.2											<u>44.7</u>				-33	-34.9	- 02.0	8	6	9	· · • •15	· · · · ·	+ · · ·		
a0 a0 <td< td=""><td></td><td></td><td>‡</td><td> 1</td><td>1</td><td>2</td><td>63 · · · ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>BROWN AND GRAY S</td><td>SAND AND</td><td></td><td></td><td></td><td>ŧ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			‡	1	1	2	6 3 · · · ·							-	BROWN AND GRAY S	SAND AND				ŧ								
30 30.4 4 4 9 4 4 9 4 4 9 4 4 9 4 4 9 4 4 9 4 10001 10	40	40.1	7.8											-			N10,	-40	-39.9	87.8	42	6	-		· · · ·	<u> </u>	·	
33 331 62 4 6 1 <td></td> <td></td> <td>ŧ</td> <td>4</td> <td>°</td> <td>4</td> <td>1 I T</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>ŧ</td> <td>43</td> <td>0</td> <td> ' </td> <td>• • • 13•</td> <td></td> <td></td> <td>:</td>			ŧ	4	°	4	1 I T							-					-	ŧ	43	0	'	• • • 13•			:	
38 36.1 12.2 4 4 6 4.2 2.4 7 0.0007 39 36.1 17.4 0 10 12 10 10 12 10			ŧ											-					-	Ł						·	•	
30 30 47.8 10 <	35	35.1	12.8	4	4	9			· · · · · ·	· · · · · ·				-				-45	-44.9_	92.8	71	100/0.3		· · · · ·	+	+	-	
30 301 172			Ŧ				$ \cdot \cdot \overline{\chi} $.					31.9			16.0		-	Ł								
25 231 223	30	30.1	T 17.8										0000	-					-49.9	97.8							I	
20 24. 24. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 6 7 6 4 5 5 4 6 4 6 5 6 4 6 5 6 4 6 5 6 4 6 5 6 <td></td> <td>-</td> <td>Ŧ</td> <td>10</td> <td>10</td> <td>12</td> <td></td> <td>22</td> <td></td> <td></td> <td></td> <td></td> <td>0000</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>F</td> <td>100/0.4</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td>		-	Ŧ	10	10	12		22					0000	-						F	100/0.4	1						
28 24 24 5 4 5 20 21 27.4 5 4 5 20 21 27.4 7 8 9 16 15.1 12.2 7 8 9 16 15.1 12.2 7 8 9 16 15.1 12.2 7 8 9 16 16.1 12.4 7 10 10 10 10 10.1 10.7.4 15 12 17 10 10 10 10.1 10.7.4 15 12 17 10 10 10.1 <td></td> <td></td> <td>Ŧ</td> <td></td> <td></td> <td></td> <td> /</td> <td></td> <td></td> <td>. </td> <td></td> <td></td> <td>0000</td> <td>26.9</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>Ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>. </td>			Ŧ				/			.			0000	26.9					-	Ŧ							.	
20 201 27.8 7 8 9 15 15.1 22.8 6 10 13 10 10.1 37.8 15 12 17 10 10.1 37.8 15 12 17 10 10.1 37.8 15 12 17 10 11.4 47.8 5 5 10 10 10 11.4 47.8 5 5 10	25	25.1	22.8	5	4	5				. .				-	GRAY AND TAN SIL	TY SAND V	VITH	-55	-54.9	102.8	100/0.4	1			+		-	
20 201 27.8 7 8 9 1 </td <td></td> <td></td> <td>ŧ</td> <td></td> <td></td> <td></td> <td> • ¶⁹ • ·</td> <td></td> <td></td> <td>. </td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>. </td>			ŧ				• ¶ ⁹ • ·			.				-					-	ŧ							.	
15 15.1 32.8 1 11	20	20.1	+ + _{27 8}				\-							-				-60	50.0	107.8								
15 15.1 22.8 6 10 13 10 10.1 37.8 - - - 5 5.1 42.8 - - - 6 4.8 5 5 - - - 0 0.1 47.8 6 5 6 - - 0 0.1 47.8 6 5 6 - - - 0 0.1 47.8 6 5 6 - - - - 10 9.9 57.8 12 -	_20_	20.1	+ 27.0	7	8	9		17						-					-39.9		63	55	45/0.3		· · · · ·			
15 161 32.8 6 10 13 10 10.1 32.8 15 12 17 5 5.1 42.8 - - - 0 0.1 47.8 5 5 - 0 0 0.1 47.8 5 6 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 0 0.1 47.8 5 6 - <td></td> <td></td> <td>‡</td> <td></td> <td></td> <td></td> <td> :::ÿ</td> <td></td> <td>. . </td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			‡				:::ÿ		. .					-					-	ŧ								
10 101 77.8 15 12 17	15	15.1	32.8	6	10	12		1 1						-					-	ŧ								
10 10.1 37.8			‡		10			••••23						-					-	ŧ								
5 51 42.8 4 5 5	40		±					: <u>N</u> EEEE						-					-	ŧ								
5 51 42.8		10.1	$\frac{1}{4}$ 37.8	15	12	17								-					-	ŧ								
5 51 42.8			ŧ											6.9			41.0		-	ŧ								
0 0.1 47.8 6 5 6 -01	5	5.1	42.8		_	_	/							-			EDEE		-	Ł								
0 0.1 47.8 - <td></td> <td></td> <td>ŧ</td> <td>4</td> <td>5</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>,</td> <td></td> <td></td> <td>-</td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			ŧ	4	5	5								-		,			-	ŧ								
0 0.1 47.8 - <td></td> <td></td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td>. </td> <td>. </td> <td></td> <td></td> <td></td> <td></td> <td><u>1.9</u></td> <td></td> <td></td> <td><u>46.0</u></td> <td></td> <td> -</td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			ŧ					.	.					<u>1.9</u>			<u>46.0</u>		-	ŧ								
-5 -4.9 52.8 -10 -11 -0 -9.9 57.8 -11 -10 -9.9 57.8 -11 -10 -9.9 57.8 -11 -10 -9.9 57.8 -11 -10 -9.9 57.8 -11 -10 -9.9 57.8 -11 -11 -14.9 62.8 -11 -13 -14.9 62.8 -14 -14 16 30 -11 -20 -19.9 67.8 -11 -21 -11 17 22 -25 -24.9 72.8 11 -11 17 22	0	0.1	47.8	6	5	6							///						-	Ł								
-5 -49 52.8 8 10 11 10 9.9 57.8 12 14 19 11 10 9.9 57.8 12 14 19 33. 10 11 10 9.9 57.8 12 14 19 10 9.3 10 </td <td></td> <td></td> <td>Ŧ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>///</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td> -</td> <td>Ł</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			Ŧ										///	-					-	Ł								
-10 -9.9 57.8 12 14 19 -15 -14.9 62.8 14 16 33.	-5	-4.9	52.8										$\langle / / \rangle$	-					-	Ł								
-10 -9.9 57.8 - 12 14 19			Ŧ	8	10	11		21 • • •					///	-					-	F								
-10 -9.9 57.8 12 14 19 -15 -14.9 62.8			Ŧ				::::						//	-8.1					-	Ŧ								
-15 -14.9 62.8 14 16 30	-10	-9.9	57.8	12	14	19		·						-	SAND, SATURAT	ED (PEEDE			-	Ŧ								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			Ŧ					$\cdot \mid \cdot \sqrt{\cdot}$.	.				-	FURMAT					Ŧ								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-15	-14 0	+											-					-	ŧ								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-10	-14.3	+ 02.0	14	16	30			46					-					-	ŧ								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			‡											-						ŧ								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	-20	-19.9	<u>+ 67.8</u>	32	43	57/0 /		· · · ·	-					-					-	ŧ								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			‡			0,,0.4			- -	100/0.9	▶			-						ŧ								
	25	04.0	‡											-						ŧ								
	-25	-24.9	$\frac{1}{12.8}$	11	17	22		• • 39	, 					-					-	ŧ								
			‡					. /.						-						ŧ								
	-30	-29.9	<u> </u>											-					·	-								

SHEET 5 OF 6



GEOTECHNICAL BORING REPORT BORE LOG

																		4 == -				B B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 1 B 	00111				
	WBS 38429.1.FD2 TIP B-4603 COUNT SITE DESCRIPTION BRIDGE NO. 29 ON -L- (SR 1715) OVER FORM											GEOLOGIST Miller, T. W.		GROUND WTR (ft)	WBS 38429.1.FD2						P B-4603	1715) 01/5					
	BORING NO. EB2-B STATION 15+88													BORING NO. EB2-B													
	COLLAR ELEV. 47.5 ft TOTAL DEPTH 108.9 ft									ALIGNMENT -L- 0 HR. EASTING 2,488,894 24 HR.		N/A							STATION 15+88 TOTAL DEPTH 108.9 ft								
									L	NORTHIN	DRILL		ע חר			24 HR. IER TYPE Aut	5.9					FCE				π	N
	DRILL RIG/HAMMER EFF/DATE GF00075 OME-45C 87% 11/23/2021 DRILLER Walker, C. M. START DATE 04/20/22									-									0075 CME-45C 87% 11/23/2021 START DATE 04/20/22								
	DRIVE	1		w col					ER FOO				: / L		RFACE WATER DEPTH N	/A						w co				2 PER FOOT	C
ELEV (ft)	ELEV (ft)	DEPTH (ft)	0.5ft			0	25	5005 F		75 100		17/			SOIL AND ROCK DES			ELEV (ft)	DRIVE ELEV (ft)	DEPTF (ft)	0.5ft		0.5ft	0		50	י 75
	(11)		0.011	0.011	0.0.1			1						ELEV	. (π)		DEPTH (ft)		(11)			0.011			1	T	<u> </u>
50																		20							Mate	h Line	
50		ŧ												-				-30	-30.2	77.7	 -	8	12	· · · •			. –
	47.5	+ 0.0	5	4	3	· 1 - ·						_		- 47.5 -	GROUND SURF ROADWAY EMBAN		0.0		-	-					 		
45	_	ŧ	-		-	!							Ę		BROWN AND TAN SILTY			-35	-35.2 _	82.7							1
	43.6	<u> </u>	2	1	1	<u>/</u> :::	· · · ·	· · · ·						43.1			4.4		-		60/0.0						
		ŧ				₹	: :	· · ·					_	-	ALLUVIAL BROWN AND GRAY SAN	ID AND SILTY			-								.
40	39.8 -	<u> </u>	1	2	2										SAND, MOIST TO SA	TURATED		-40	-40.2	<u> </u>	7	5	7	• •12			+
		ŧ				•4 • \ • •		•••						- 36.5			11.0		-	L				· · · · ·			
35	34.8 -	I 12.7				· · · ×							0000	50.5			11.0	-45	-45.2	92.7						 	
	01.0	-	11	11	10		0 21	• •					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	E					-		55	88	12/0.1				
		Ŧ					/ : :						0000	31.5			<u> </u>		-	F							.
30	29.8 -	17.7	5	6	10	<u> </u>				· · · · · ·				-	GRAY SILTY SAND, SA	ATURATED		-50	-50.2 _	97.7	100/0.4	1					-+
		Ŧ	Ŭ	Ŭ	10	/ •1	16	•••							(YORKTOWN FOR	MATION)			-	-	100/0.4	1					.
25	01.0	‡					: : :							<u>26.5</u>	GRAY SILTY CLAY, WET	(YORKTOWN	<u> 21.0</u>	-55	-								
20	24.8 -	<u>+</u> 22.7 +	2	2	3	•/•••					11			 -	FORMATION	1)		-00	-55.2 -	-102.7 -	80	100/0.:	3				. †
		‡				I N. I	: :	· · · ·	· · · · ·					- 21.5			26.0		-	-					· · · · ·		
20	19.8 -	27.7		_		<u>``.</u>	• • •							-	GRAY AND TAN SILTY SHELL FRAGMENTS, S			-60	-60.2 _	107.7		70	00/0.0		· · · ·		4
		ŧ	2	3	14	: : •	17	· · · ·	· · · ·					-	(YORKTOWN FOR				-	-	61	78	22/0.2				
45		t					N : :	::						-					-								
15	14.8 -	32.7	15	14	16		. 30							<u></u>					-	F							
		ŧ				· · ·	· 1 ·	· · ·											-								
10	9.8 -	37.7					· .							L					-	L							
		ł	14	15	18		· ·	33											-								
		ŧ					/::	· ·						6.5			<u>41</u> .0		-								
5	4.8 -	42.7	5	4	7									-					-	-							
		£	-				· · · ·	•••					/./.						-	Ł							
0	-0.2 -	I 47.7											///	F					-	Ē							
	-0.2 -	<u> </u>	5	6	8	• • • 14	4	• •]		/./.	F					-	E							
		Ŧ											///	ſ					-	F							
-5	-5.2 -	52.7	6	6	10								///	F					-	F							
		Ŧ	Ŭ	Ŭ	.0	::•	16	•••					/./.	F					-	F							
-10	10.0	‡												8.5 -	GRAY AND GREEN PH		56.0		-	F							
	-10.2 -	<u> </u>	11	13	22			35 •			11			F	CLAYEY AND SILTY SAND (PEEDEE FORMA		נ		-	F							
-15		‡					-	\ \	· · · · ·					F		-			-	F							
	-15.2 -	62.7	10	17	05	· · ·		<u> </u>						1					-	F							
		‡	12	17	25	· · · ·		4 2	· · · ·					1- 1-					-	t F							
-20		‡				· · · ·			· · · · ·					-					-	t –							
	-20.2 -	<u>+ 67.7</u> +	13	19	33)	b 52 • • •		11			 					-	F							
		‡				· · · ·		::/	· · · ·					<u>-</u>					-	t							
-25	-25.2 -	72.7						· /						-					-	F							
-25		±	13	16	25			4 1											-	F							
-30		t					. . /.	·											-	F							
-30		<u> </u>												Ĺ													

SHEET 6 OF 6

