

REFERENCE: U-5797

PROJECT: 44367

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY ROBESON

PROJECT DESCRIPTION FAYETTEVILLE ROAD (SR 1997)
FROM EAST OF 22nd STREET TO FARRINGDOM STREET

SITE DESCRIPTION CULVERT ON -L- STA. 68+72
OVER POLE CAT BRANCH

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5797	1	9

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT, AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 - BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

BRIDGER DRILLING

ROSS, S. I.

INVESTIGATED BY ROSS, S.I.

DRAWN BY CROCKETT, S.C.

CHECKED BY HAMM, J.R.

SUBMITTED BY FALCON

DATE JUNE 2023



SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

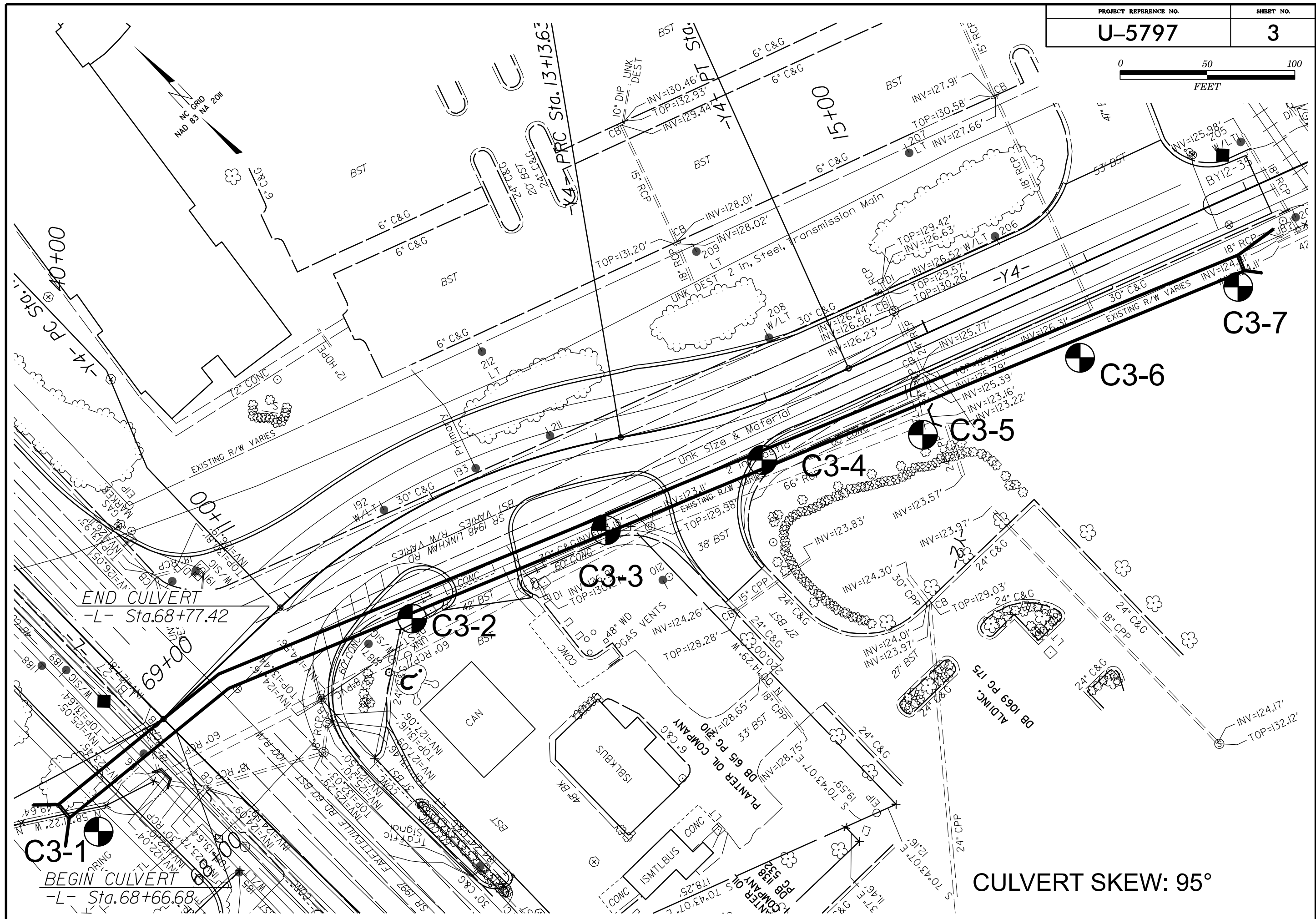
DIVISION OF HIGHWAYS

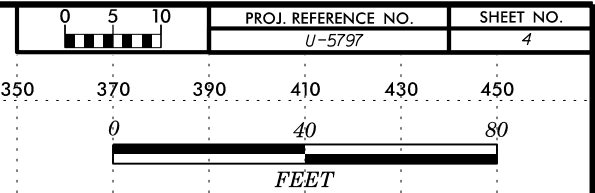
GEOTECHNICAL ENGINEERING UNIT

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 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: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i>										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. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.										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. 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 REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS: WEATHERED ROCK (WR) CRYSTALLINE ROCK (CR) NON-CRYSTALLINE ROCK (NCR) COASTAL PLAIN SEDIMENTARY ROCK (CP)										ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. 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. ARTESIAN - 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. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. 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. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOOGED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO 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 USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (RQD) - 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. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. 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. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. 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. STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL 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. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.									
SOIL LEGEND AND AASHTO CLASSIFICATION										MINERALOGICAL COMPOSITION										WEATHERING																			
GENERAL CLASS.										MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.										FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.																			
GROUP CLASS.										COMPRESSIBILITY										VERY SLIGHT (V SL.) ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.																			
SYMBOL										PERCENTAGE OF MATERIAL										SLIGHT (SL.) ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.																			
%										GROUND WATER										MODERATE (MOD.) SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN 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 WITH FRESH ROCK.																			
MATERIAL PASSING #40 #100 #200										MISCELLANEOUS SYMBOLS										MODERATELY SEVERE (MOD. SEV.) ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. <i>IF TESTED, WOULD YIELD SPT REFUSAL</i>																			
GROUP INDEX										RECOMMENDATION SYMBOLS										SEVERE (SEV.) ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. <i>IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF</i>																			
USUAL TYPES OF MAJOR MATERIALS										ABBREVIATIONS										VERY SEVERE (V SEV.) ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <i>IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF</i>																			
GEN. RATING AS SUBGRADE										EQUIPMENT USED ON SUBJECT PROJECT										COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.																			
PI OF A-7-5 SUBGROUP IS ≤ LL - 30; PI OF A-7-6 SUBGROUP IS > LL - 30										DRILL UNITS:										ROCK HARDNESS																			
CONSISTENCY OR DENSENESS										ADVANCING TOOLS:										VERY HARD CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.																			
PRIMARY SOIL TYPE										HAMMER TYPE:										HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.																			
COMPACTNESS OR CONSISTENCY										CORE SIZE:										MODERATELY HARD CAN BE SCRATCHED BY KNIFE OR PICK, GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.																			
RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)										HAND TOOLS:										MEDIUM HARD CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PIECES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.																			
RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT ²)										POST HOLE DIGGER										SOFT CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.																			
GENERAL										FRAGMENTS										VERY SOFT CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.																			
TEXTURE OR GRAIN SIZE										FRACTURE SPACING										BEDDING																			
U.S. STD. SIEVE SIZE OPENING (MM)										TERM										TERM										BENCH MARK: ELEVATIONS TAKEN FROM U5797-LS.TIN.I80723.TIN									
BOULDER (BLDR.)										SPACING										THICKNESS										DATED 07/18									
COBBLE (COB.)										VERY WIDE										VERY THICKLY BEDDED										ELEVATION: FEET									
GRAVEL (GR.)										WIDE										THICKLY BEDDED																			
COARSE SAND (CSE. SD.)										MODERATELY CLOSE										THINLY BEDDED																			
FINE SAND (F SD.)										CLOSE										VERY THINLY BEDDED																			
SILT (SL.)										VERY CLOSE										THICKLY LAMINATED																			
CLAY (CL.)																				THINLY LAMINATED																			
GRAIN SIZE																																							
SOIL MOISTURE - CORRELATION OF TERMS																																							
SOIL MOISTURE SCALE (ATTERBERG LIMITS)																																							
FIELD MOISTURE DESCRIPTION																																							
GUIDE FOR FIELD MOISTURE DESCRIPTION																																							
LL - LIQUID LIMIT																																							
PL - PLASTIC LIMIT																																							
OM - OPTIMUM MOISTURE SHRINKAGE LIMIT																																							
SL - SHRINKAGE LIMIT																																							
PLASTICITY																																							
NON PLASTIC																																							
SLIGHTLY PLASTIC																																							
MODERATELY PLASTIC																																							
HIGHLY PLASTIC																																							
COLOR																																							
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.																																							

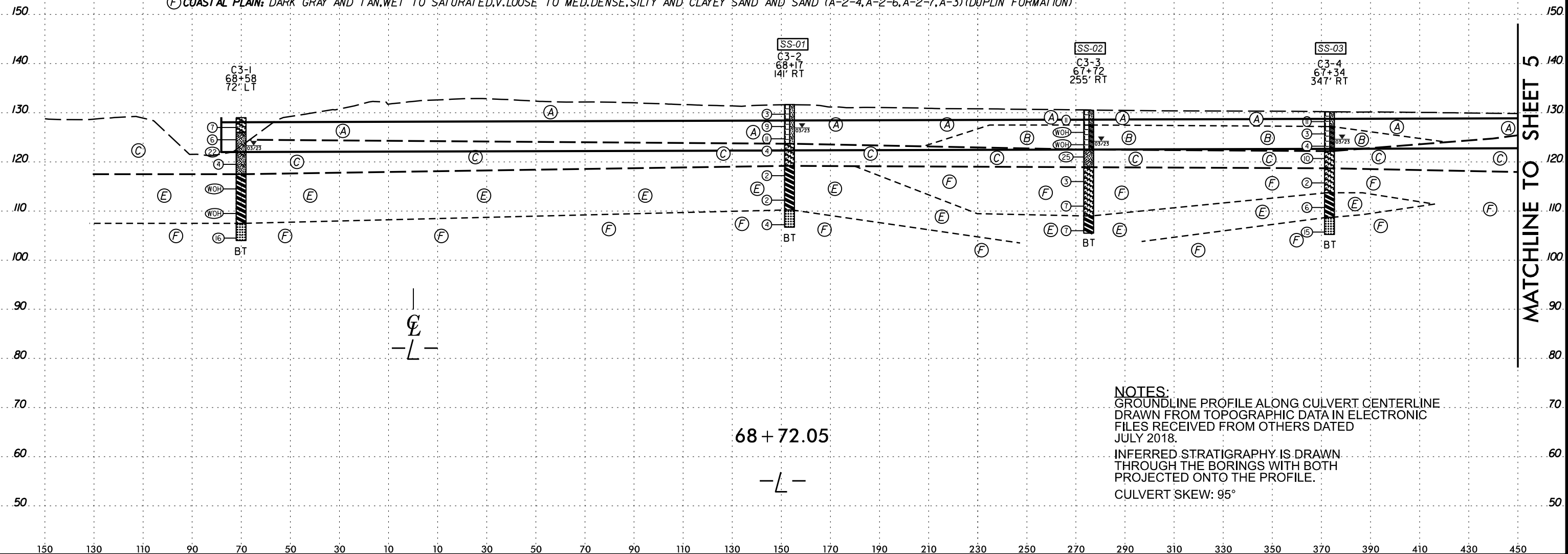




SOIL TEST RESULTS

[illegible]

- (A) ROADWAY EMBANKMENT; TAN AND GRAY, MOIST TO WET, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND (A-2-4, A-2-6)
- (B) ROADWAY EMBANKMENT; TAN AND GRAY, WET, V. SOFT TO SOFT, SANDY CLAY (A-6)
- (C) UNDIVIDED COASTAL PLAIN; TAN AND GRAY, WET, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND (A-2-4, A-2-6)
- (D) UNDIVIDED COASTAL PLAIN; GRAY AND TAN, WET, SOFT, SANDY CLAY (A-6)
- (E) COASTAL PLAIN; DARK GRAY, WET, V. SOFT TO MED. STIFF, SANDY SILTY CLAY (A-7) (DUPLIN FORMATION)
- (F) COASTAL PLAIN; DARK GRAY AND TAN, WET TO SATURATED, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND AND SAND (A-2-4, A-2-6, A-2-7, A-3) (DUPLIN FORMATION)



8/23/99

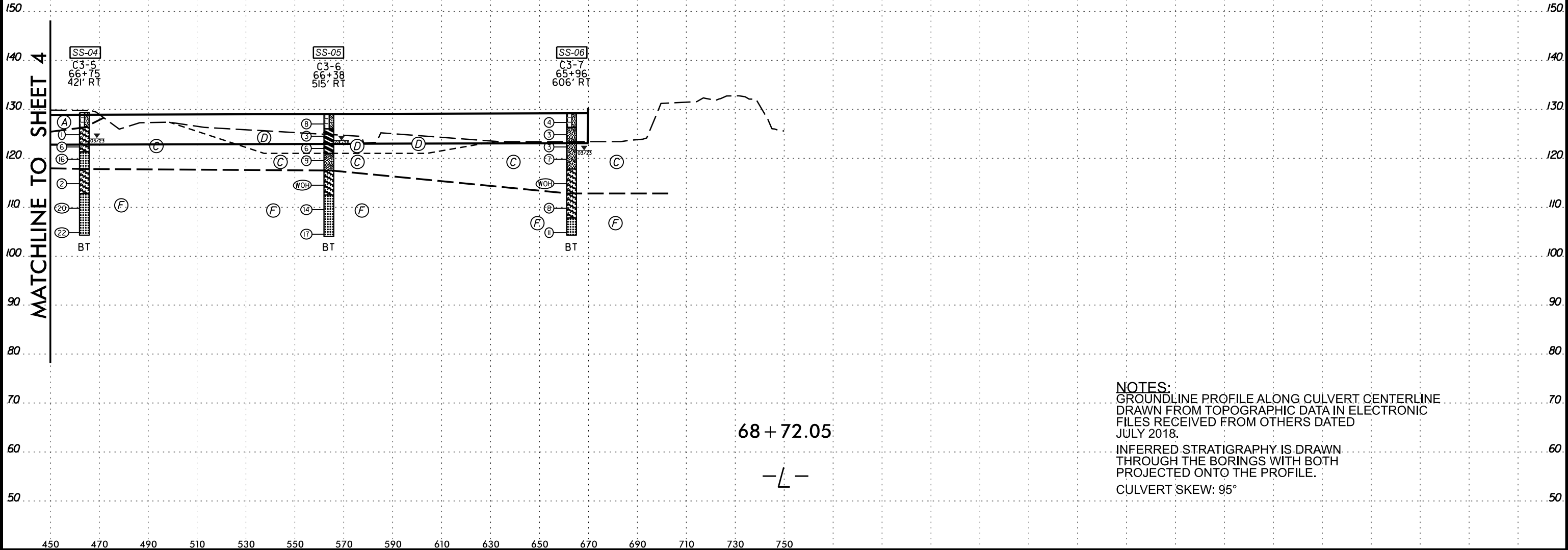


VE = 2V : 1H

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-04	421 FT RT	66+75	3.5'-5.0'	-	-	-	-	-	-	-	-	-	-	21	1.3
SS-05	515 FT RT	66+38	13.5'-15.0'	-	-	-	-	-	-	-	-	-	-	34	-
SS-06	606 FT RT	65+96	6.0'-7.5'	-	-	-	-	-	-	-	-	-	-	17	1.6

- (A) ROADWAY EMBANKMENT; TAN AND GRAY, MOIST TO WET, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND (A-2-4, A-2-6)
(C) UNDIVIDED COASTAL PLAIN; TAN AND GRAY, WET, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND (A-2-4, A-2-6)
(D) UNDIVIDED COASTAL PLAIN; GRAY AND TAN, WET, SOFT, SANDY CLAY (A-6)
(E) COASTAL PLAIN; DARK GRAY, WET, V. SOFT TO MED. STIFF, SANDY SILTY CLAY (A-7) (DUPLIN FORMATION)
(F) COASTAL PLAIN; DARK GRAY AND TAN, WET TO SATURATED, V. LOOSE TO MED. DENSE, SILTY AND CLAYEY SAND AND SAND (A-2-4, A-2-6, A-2-7, A-3) (DUPLIN FORMATION)



NOTES:
GROUNDLINE PROFILE ALONG CULVERT CENTERLINE
DRAWN FROM TOPOGRAPHIC DATA IN ELECTRONIC
FILES RECEIVED FROM OTHERS DATED
JULY 2018.
INFERRED STRATIGRAPHY IS DRAWN
THROUGH THE BORINGS WITH BOTH
PROJECTED ONTO THE PROFILE.
CULVERT SKEW: 95°

NCDOT BORE DOUBLE G22082.GPJ NC DOT.GDT 6/13/23

[illegible]

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 44367			TIP U-5797			COUNTY ROBESON			GEOLOGIST Ross, S.						
SITE DESCRIPTION CULVERT ON -L- (FAYETTEVILLE ROAD) OVER POLE CAT BRANCH AT -L- STA. 68+72												GROUND WTR (ft)			
BORING NO. C3-5			STATION 66+75			OFFSET 421 ft RT			ALIGNMENT -L-			0 HR. N/A			
COLLAR ELEV. 129.3 ft			TOTAL DEPTH 25.0 ft			NORTHING 325,700			EASTING 2,000,396			24 HR. 5.2			
DRILL RIG/HAMMER EFF./DATE BRI5184 CME-45C 87% 03/30/2022						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic						
DRILLER Radford, J.			START DATE 03/09/23			COMP. DATE 03/09/23			SURFACE WATER DEPTH N/A						
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)
130															
125	125.8	3.5												129.3 GROUND SURFACE 0.0	
			WOH	WOH	1									ROADWAY EMBANKMENT	
120	123.3	6.0												126.3 LIGHT GRAYISH TAN, SILTY SAND (A-2-4) 3.0	
	120.8	8.5	6	3	3									UNDIVIDED COASTAL PLAIN	
115														GRAYISH TAN, CLAYEY SAND (A-2-7)	
			5	8	8									121.3 GRAYISH TAN, FINE SAND (A-3) WITH TRACE SILT 8.0	
110	115.8	13.5	WOH	1	1									117.8 COASTAL PLAIN 11.5	
														DARK GRAY, CLAYEY SAND (A-2-7) (DUPLIN FORMATION)	
105	110.8	18.5												112.8 DARK GRAY, SAND (A-3) WITH TRACE SILT (DUPLIN FORMATION) 16.5	
	105.8	23.5	5	9	11									104.3 Boring Terminated at Elevation 104.3 ft CP: SAND 25.0	
			7	10	12										

WBS 44367			TIP U-5797			COUNTY ROBESON			GEOLOGIST Ross, S.					
SITE DESCRIPTION CULVERT ON -L- (FAYETTEVILLE ROAD) OVER POLE CAT BRANCH AT -L- STA. 68+72												GROUND WTR (ft)		
BORING NO. C3-6			STATION 66+38			OFFSET 515 ft RT			ALIGNMENT -L-			0 HR.	N/A	
COLLAR ELEV. 129.0 ft			TOTAL DEPTH 25.0 ft			NORTHING 325,671			EASTING 2,000,492			24 HR.	5.4	
DRILL RIG/HAMMER EFF./DATE BRI5184 CME-45C 87% 03/30/2022						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic					
DRILLER Radford, J.			START DATE 03/09/23			COMP. DATE 03/09/23			SURFACE WATER DEPTH N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
			0.5ft	0.5ft	0.5ft	0	25	50	75	100				
130														
125	128.0	1.0	4	4	4						SS-05	34%		129.0 GROUND SURFACE 0.0
	125.5	3.5	WOH	1	2									126.0 ROADWAY EMBANKMENT GRAYISH-TAN, SILTY SAND (A-2-4) 3.0
120	123.0	6.0	1	3	3						W	W		UNDIVIDED COASTAL PLAIN MOTTLED, GRAYISH-TAN AND ORANGE, FINE SANDY SILTY CLAY (A-7) 8.0
	120.5	8.5	4	5	4									121.0 LIGHT GRAYISH TAN, SILTY SAND (A-2-4) 11.5
115	115.5	13.5	WOH	WOH	WOH						W	W		COASTAL PLAIN DARK GRAY, FINE, SANDY CLAY (A-2-7) (DUPLIN FORMATION) 16.5
110	110.5	18.5	6	7	7									112.5 DARK GRAY, FINE TO MEDIUM SAND (A-3) WITH TRACE SILT (DUPLIN FORMATION) 25.0
105	105.5	23.5	6	7	10						W	W		Boring Terminated at Elevation 104.0 ft CP: SAND

NCDOT BORE DOUBLE G22082.GPJ NC_DOT.GDT 6/13/23

GEOTECHNICAL BORING REPORT
BORE LOG

WBS 44367			TIP U-5797			COUNTY ROBESON			GEOLOGIST Ross, S.					
SITE DESCRIPTION CULVERT ON -L- (FAYETTEVILLE ROAD) OVER POLE CAT BRANCH AT -L- STA. 68+72												GROUND WTR (ft)		
BORING NO. C3-7			STATION 65+96			OFFSET 606 ft RT			ALIGNMENT -L-			0 HR.	N/A	
COLLAR ELEV. 129.3 ft			TOTAL DEPTH 25.0 ft			NORTHING 325,638			EASTING 2,000,585			24 HR.	7.7	
DRILL RIG/HAMMER EFF./DATE BRI5184 CME-45C 87% 03/30/2022						DRILL METHOD H.S. Augers			HAMMER TYPE Automatic					
DRILLER Radford, J.			START DATE 03/08/23			COMP. DATE 03/08/23			SURFACE WATER DEPTH N/A					
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100			ELEV. (ft)	DEPTH (ft)
130														
125	128.3	1.0	2	2	2							M	129.3 GROUND SURFACE 0.0	
	125.8	3.5	2	1	2								ROADWAY EMBANKMENT	
120	123.3	6.0	1	1	2							W	GRAYISH-TAN SILTY SAND (A-2-4) WITH TRACE ORGANICS	
	120.8	8.5	2	3	4								UNDIVIDED COASTAL PLAIN	
115												W	GRAYISH TAN AND BROWN, SILTY FINE SAND (A-2-4)	
	115.8	13.5	WOH	WOH	WOH								SS-06 17%	
110												Sat.	117.8 LIGHT TAN, CLAYEY SAND (A-2-6) 11.5	
	110.8	18.5	2	3	5								112.8 COASTAL PLAIN 16.5	
105												Sat.	DARK GRAY, CLAYEY FINE SAND (A-2-7) (DUPLIN FORMATION)	
	105.8	23.5	2	4	7								107.8 DARK GRAY, FINE TO MEDIUM SAND (A-3) (DUPLIN FORMATION) 21.5	
												W	104.3 Boring Terminated at Elevation 104.3 ft CP: SAND 25.0	

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