

REFERENCE: R-5816

PROJECT: 46988

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<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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3	SITE PLAN
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY CARTERET
PROJECT DESCRIPTION SR 1182 (ATLANTIC BEACH CAUSEWAY) AT NC 58 (FORT MACON ROAD) INTERSECTION IMPROVEMENTS
INVENTORY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5816	1	6

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:

1. 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.

PERSONNEL

S.N. ZIMARINO

T.W. MILLER

C.M. WALKER

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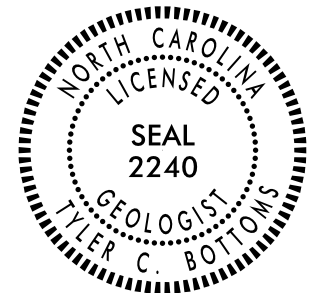
INVESTIGATED BY T.C. BOTTOMS

DRAWN BY S.N. ZIMARINO

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE MARCH 2022



DocuSigned by:
Tyler Bottoms 03/15/2022
48A2D3BD08CF4A6 SIGNATURE DATE



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

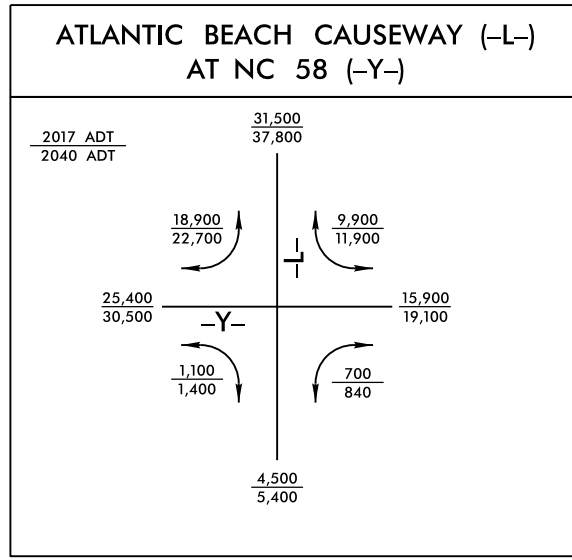
SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

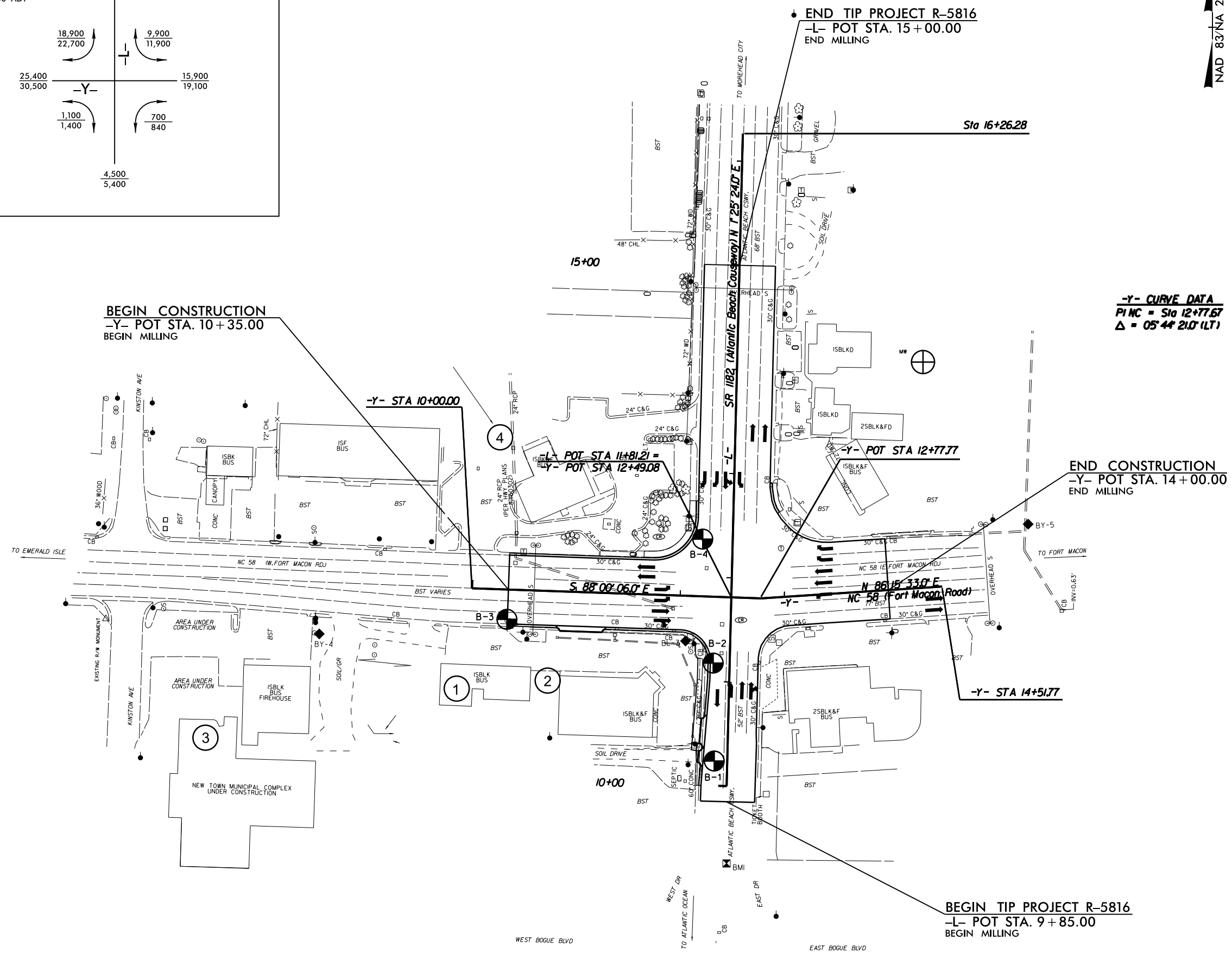
SOIL DESCRIPTION		GRADATION		ROCK DESCRIPTION		TERMS AND DEFINITIONS																																																																																																																																	
<p>SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (ASTM 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, VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</p>		<p>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.</p>		<p>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:</p>		<p>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 DISLOGGED 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 (ROD) - 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.</p>																																																																																																																																	
<p>SOIL LEGEND AND AASHTO CLASSIFICATION</p> <table border="1"> <thead> <tr> <th>GENERAL CLASS.</th> <th colspan="6">GRANULAR MATERIALS (≤ 35% PASSING #200)</th> <th colspan="4">SILT-CLAY MATERIALS (> 35% PASSING #200)</th> <th colspan="3">ORGANIC MATERIALS</th> </tr> <tr> <th>GROUP CLASS.</th> <th>A-1</th> <th>A-1-b</th> <th>A-2</th> <th>A-2-4</th> <th>A-2-5</th> <th>A-2-6</th> <th>A-2-7</th> <th>A-4</th> <th>A-5</th> <th>A-6</th> <th>A-7</th> <th>A-1, A-2</th> <th>A-3</th> <th>A-4, A-5</th> <th>A-6, A-7</th> </tr> </thead> <tbody> <tr> <td>SYMBOL</td> <td colspan="6">[Diagrams]</td> <td colspan="4">[Diagrams]</td> <td colspan="3">[Diagrams]</td> </tr> <tr> <td>% PASSING #10 #200</td> <td>50</td> <td>30</td> <td>15</td> <td>10</td> <td>5</td> <td>5</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> <td>35</td> <td>40</td> <td>45</td> </tr> <tr> <td>MATERIAL PASSING #40 LL PI</td> <td>-</td> <td>-</td> <td>40</td> <td>41</td> <td>42</td> <td>43</td> <td>44</td> <td>45</td> <td>46</td> <td>47</td> <td>48</td> <td>49</td> <td>50</td> <td>51</td> <td>52</td> </tr> <tr> <td>GROUP INDEX</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>USUAL TYPES OF MAJOR MATERIALS</td> <td colspan="2">STONE FRAGS. GRAVEL, AND SAND</td> <td colspan="2">FINE SAND</td> <td colspan="2">SILTY OR CLAYEY GRAVEL AND SAND</td> <td colspan="2">SILTY SOILS</td> <td colspan="2">CLAYEY SOILS</td> <td colspan="3">SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER</td> <td colspan="2">HIGHLY ORGANIC SOILS</td> </tr> <tr> <td>GEN. RATING AS SUBGRADE</td> <td colspan="6">EXCELLENT TO GOOD</td> <td colspan="4">FAIR TO POOR</td> <td>FAIR TO POOR</td> <td>POOR</td> <td>UNSATURABLE</td> </tr> </tbody> </table> <p>PI OF A-1-1 SUBGROUP IS ≤ LL - 30; PI OF A-7-6 SUBGROUP IS > LL - 30</p>		GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)						SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS			GROUP CLASS.	A-1	A-1-b	A-2	A-2-4	A-2-5	A-2-6	A-2-7	A-4	A-5	A-6	A-7	A-1, A-2	A-3	A-4, A-5	A-6, A-7	SYMBOL	[Diagrams]						[Diagrams]				[Diagrams]			% PASSING #10 #200	50	30	15	10	5	5	5	10	15	20	25	30	35	40	45	MATERIAL PASSING #40 LL PI	-	-	40	41	42	43	44	45	46	47	48	49	50	51	52	GROUP INDEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND		SILTY OR CLAYEY GRAVEL AND SAND		SILTY SOILS		CLAYEY SOILS		SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER			HIGHLY ORGANIC SOILS		GEN. RATING AS SUBGRADE	EXCELLENT TO GOOD						FAIR TO POOR				FAIR TO POOR	POOR	UNSATURABLE	<p>ANGULARITY OF GRAINS</p> <p>THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.</p>		<p>MINERALOGICAL COMPOSITION</p> <p>MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.</p>		<p>WEATHERED ROCK (WR)</p> <p>NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.</p>		<p>CRYSTALLINE ROCK (CR)</p> <p>FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.</p>		<p>NON-CRYSTALLINE ROCK (NCR)</p> <p>FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.</p>		<p>COASTAL PLAIN SEDIMENTARY ROCK (CP)</p> <p>COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.</p>	
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<p>GROUND WATER</p> <p>▽ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING ▽ 24 HOURS STATIC WATER LEVEL AFTER 24 HOURS ▽ PW PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA ○ SPRING OR SEEP</p>		<p>MISCELLANEOUS SYMBOLS</p> <p>ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION SOIL SYMBOL ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT INFERRED SOIL BOUNDARY INFERRED ROCK LINE ALLUVIAL SOIL BOUNDARY</p> <p>DIP & DIP DIRECTION OF ROCK STRUCTURES SPT DMT VST PMT TEST BORING AUGER BORING CORE BORING MONITORING WELL PIEZOMETER INSTALLATION</p> <p>SLOPE INDICATOR INSTALLATION CONE PENETROMETER TEST SOUNDING ROD TEST BORING WITH CORE SPT N-VALUE</p>																																																																																																																																					
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<p>INDURATION</p> <p>FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.</p> <p>FRIABLE - RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.</p> <p>MODERATELY INDURATED - GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.</p> <p>INDURATED - GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER.</p> <p>EXTREMELY INDURATED - SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.</p>		<p>NOTES:</p>																																																																																																																																					
<p>BENCH MARK: BORINGS SURVEYED BY LOCATION AND SURVEYS UNIT</p>		<p>ELEVATION: FEET</p>																																																																																																																																					

PROJECT REFERENCE NO. R-5816	SHEET NO. 3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared by	
 VHB Engineering, P.C. (C-3705) 540 Main Campus Drive, Suite 500 Raleigh, NC 27606	 SUNGATE DESIGN GROUP, P.A. 915 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27606 TEL: (919) 885-2243 FAX: (919) 885-4208 ENG. FIRM LICENSE NO. C4997

NAD 83/NA 2011



REVISIONS
 02/08/2022 - ROW REVISION: REMOVE TCE FROM FMB AT THE GROVE LLC PROPERTY AND MOVED PARCEL 3 TO THE TOWN OF ATLANTIC BEACH PROPERTY;
 REMOVED PDE AND ADDED TCE ON PARCEL 4.
 - DESIGN REVISION: MODIFIED DRAINAGE PIPE LAYOUT AND ADDED C&G ALONG -Y- LT SIDE AND ALONG -L- LT AND RT SIDES.



-Y- CURVE DATA
 P/NC = Sta 12+77.67
 Δ = 05°44' 21.0" (LT)

NOTE 1: ALL LANE WIDTHS ARE 11 FEET UNLESS OTHERWISE DIMENSIONED

FOR -L- & -Y- PROFILE
SEE SHEET 5

14-MAR-2022 16:42
 C:\N:\TIP\5816-CEP\RDWY\CADD_GEO\TECH\Site&Sub\R-5816-r.dwg_PSH04.dgn
 \$\$\$\$ UNPLANNED \$\$\$

SOIL TEST RESULTS

SAMPLE NO.	ALIGNMENT	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-1	-L-	16' LT	11+18	5.0-6.5	A-3(0)	20	NP	18.2	80	1.8	0.0	100	99	2	-	-
SS-2	-L-	16' LT	11+18	10.0-11.5	A-3(0)	19	NP	18.8	72.3	6.8	2.0	99	97	10	-	-
SS-3	-L-	16' LT	11+18	15.0-16.5	A-3(0)	22	NP	27.5	69.5	3.0	0.0	99	89	3	-	-
SS-4	-L-	16' LT	11+18	20.0-21.5	A-3(0)	22	NP	40.1	56.5	3.4	0.0	97	79	4	-	-
SS-5	-L-	16' LT	11+18	25.0-26.5	A-3(0)	21	NP	51.1	45.1	3.8	0.0	98	74	4	-	-
SS-6	-L-	12' LT	10+24	5.0-6.5	A-3(0)	21	NP	22.8	76.2	1.0	0.0	100	98	2	-	-
SS-7	-L-	12' LT	10+24	10.0-11.5	A-3(0)	22	NP	14.0	81.4	2.6	2.0	99	96	5	-	-
SS-8	-L-	12' LT	10+24	15.0-16.5	A-3(0)	25	NP	5.6	91.6	0.8	2.0	99	98	3	-	-
SS-9	-L-	12' LT	10+24	20.0-21.5	A-3(0)	21	NP	32.7	64.1	1.2	2.0	99	91	3	-	-
SS-10	-L-	12' LT	10+24	25.0-26.5	A-3(0)	21	NP	60.3	36.7	1.0	2.0	89	61	3	-	-
SS-11	-Y-	29' RT	10+35	5.0-6.5	A-3(0)	23	NP	63.3	34.5	0.2	2.0	93	64	2	-	-
SS-12	-Y-	29' RT	10+35	10.0-11.5	A-3(0)	21	NP	34.1	60.7	1.2	4.0	98	90	6	-	-
SS-13	-Y-	29' RT	10+35	15.0-16.5	A-3(0)	25	NP	10.8	85.4	1.8	2.0	93	88	4	-	-
SS-14	-Y-	29' RT	10+35	20.0-21.5	A-3(0)	24	NP	37.3	58.7	0.0	4.0	98	84	4	-	-
SS-15	-Y-	29' RT	10+35	25.0-26.5	A-3(0)	22	NP	48.1	48.1	1.8	2.0	97	84	4	-	-
SS-16	-L-	29' LT	12+36	5.0-6.5	A-3(0)	19	NP	65.7	31.9	0.4	2.0	91	58	3	-	-
SS-17	-L-	29' LT	12+36	10.0-11.5	A-3(0)	22	NP	18.2	76.6	1.2	4.0	98	93	6	-	-
SS-18	-L-	29' LT	12+36	15.0-16.5	A-3(0)	22	NP	5.0	92.4	0.6	2.0	99	97	3	-	-
SS-19	-L-	29' LT	12+36	20.0-21.5	A-3(0)	22	NP	29.1	66.7	2.2	2.0	98	88	8	-	-
SS-20	-L-	29' LT	12+36	25.0-26.5	A-2-4(0)	26	NP	0.6	92.4	3.0	4.0	100	99	11	-	-

GROUND WATER DEPTHS BELOW SURFACE AT -L- STA. 14+11 178' RT

DATE	TIME	WATER DEPTH
2/22/22	8:00	3.7'
	9:00	3.8'
	10:00	3.6'
	11:00	3.5'
	12:00	3.7'
	13:00	3.5'
	14:00	3.4'
	15:00	3.5'
	16:00	3.6'
	17:00	3.9'
2/23/22	8:00	3.6'
	9:00	3.8'
	10:00	3.7'
	11:00	3.6'
	12:00	3.7'
	13:00	3.5'
	14:00	3.5'
	15:00	3.4'
	16:00	3.5'
	17:00	3.7'
2/24/22	8:00	3.7'

NOTE:

Ground water depths at the boring locations will fluctuate at the site due to tidal conditions.

Measurements provided at STA. 14+11 178' RT indicate approximately 0.5 feet of fluctuation for the dates and times noted.

Actual fluctuations due to tide will vary depending on lunar cycles, weather, soil conditions and proximity to the shoreline and may exceed the magnitude of fluctuation noted.