

REFERENCE: SF-810297

PROJECT: BP3.R002

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY SAMPSON
PROJECT DESCRIPTION BRIDGE NO. 297 ON -L-
(SR 1113) OVER MILL CREEK AT STA. 13+92

CONTENTS

SHEET NO.	DESCRIPTION
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2	LEGEND (SOIL & ROCK)
3	SITE PLAN
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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-810297	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:
- 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

S.N. ZIMARINO

T.W. MILLER

R.E. SMITH

C.M. WALKER

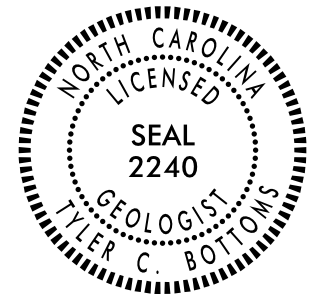
INVESTIGATED BY T.C. BOTTOMS

DRAWN BY S.N. ZIMARINO

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE JANUARY 2022



DocuSigned by:

Tyler C. Bottoms

02/16/2022

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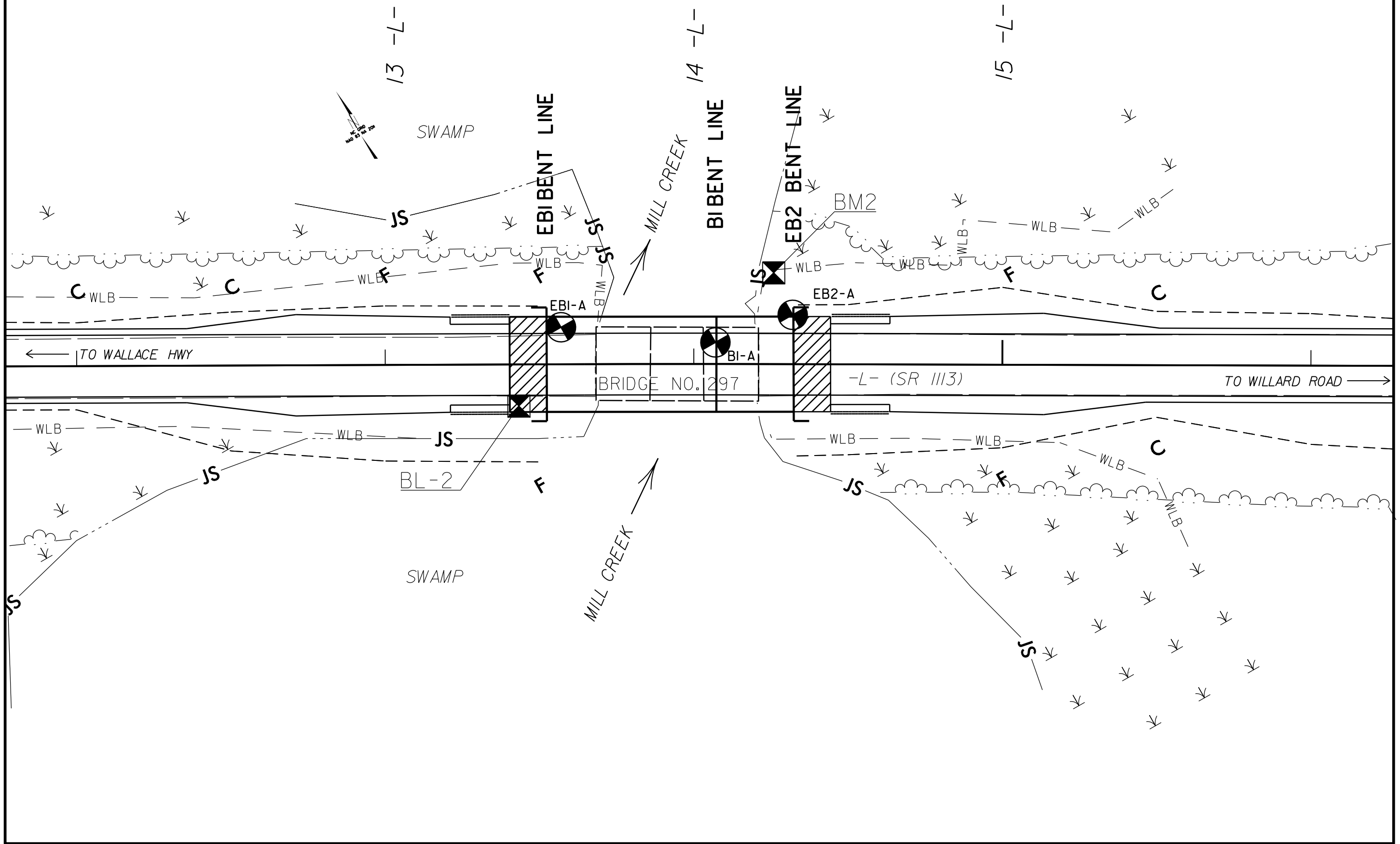
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DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

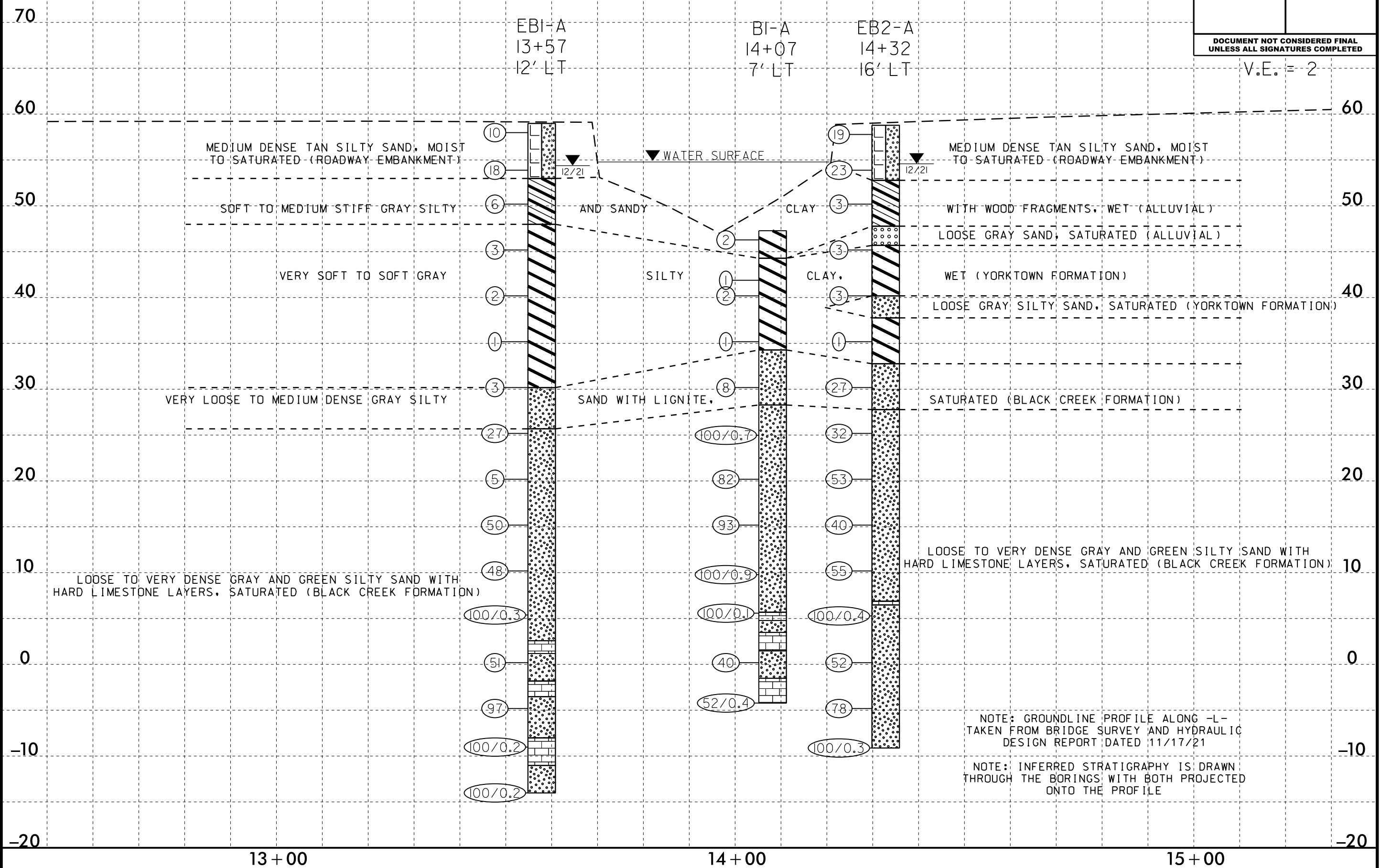
Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. Includes sub-sections like SOIL LEGEND AND AASHTO CLASSIFICATION, CONSISTENCY OR DENSENESS, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, and INDURATION.

SKEW: 90°



PROFILE THROUGH BORINGS PROJECTED ALONG -L-

V.E. = 2



NOTE: GROUNDLINE PROFILE ALONG -L- TAKEN FROM BRIDGE SURVEY AND HYDRAULIC DESIGN REPORT DATED 11/17/21

NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO THE PROFILE

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GEOTECHNICAL BORING REPORT

BORE LOG

WBS BP3.R002.1		TIP SF-810297		COUNTY SAMPSON		GEOLOGIST Miller, T. W.											
SITE DESCRIPTION BRIDGE NO. 297 ON -L- (SR 1113) OVER MILL CREEK							GROUND WTR (ft)										
BORING NO. EB2-A		STATION 14+32		OFFSET 16 ft LT		ALIGNMENT -L-		0 HR. N/A									
COLLAR ELEV. 58.7 ft		TOTAL DEPTH 67.9 ft		NORTHING 346,773		EASTING 2,256,670		24 HR. 4.2									
DRILL RIGHAMMER EFF./DATE GFC0075 CME-45C 87% 11/23/2021				DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Smith, R. E.		START DATE 12/07/21		COMP. DATE 12/07/21		SURFACE WATER DEPTH N/A											
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	L O G	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						ELEV. (ft)	
60	58.7	0.0	4	9	10										58.7	GROUND SURFACE	0.0
55	54.8	3.9	13	12	11										52.7	ROADWAY EMBANKMENT TAN SILTY SAND, MOIST TO SATURATED	
50	51.1	7.6	WOH	1	2										47.7	ALLUVIAL GRAY SANDY CLAY, WET	6.0
45	46.1	12.6	6	1	2										45.6	GRAY SAND, SATURATED	11.0
40	41.1	17.6	WOH	1	2										40.1	COASTAL PLAIN GRAY SILTY CLAY, WET (YORKTOWN FORMATION)	18.6
35	36.1	22.6	WOH	WOH	1										37.7	GRAY SILTY SAND, SATURATED	21.0
30	31.1	27.6	3	6	21										32.7	GRAY SILTY CLAY, WET	26.0
25	26.1	32.6	9	15	17										27.7	GRAY SILTY SAND WITH LIGNITE, SATURATED (BLACK CREEK FORMATION)	31.0
20	21.1	37.6	9	21	32											GRAY AND GREEN SILTY SAND WITH HARD LIMESTONE LAYERS, SATURATED (BLACK CREEK FORMATION)	
15	16.1	42.6	10	17	23												
10	11.1	47.6	15	21	34												
5	6.1	52.6	96	100/0.4											6.8		51.9
0	1.1	57.6	12	21	31										6.4		52.3
-5	-3.9	62.6	29	42	36												
	-8.9	67.6	100/0.3														
															-9.2	Boring Terminated at Elevation -9.2 ft in Very Dense Silty Sand	67.9

NCDOT BORE DOUBLE SF810297.GPJ NC_DOT.GDT 1/6/22