

REFERENCE: SF-810013

PROJECT: 17BP.3.R.43

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY SAMPSON
PROJECT DESCRIPTION BRIDGE NO. 13 ON SR 1147
OVER CRANE CREEK

CONTENTS

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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-810013	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

RES

DGP

JRS

INVESTIGATED BY J.L. STONE

DRAWN BY J.L. STONE

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE NOVEMBER 2015



DocuSigned by:
Joseph L. Stone 1/26/2016

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SIGNATURE DATE

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UNLESS ALL SIGNATURES COMPLETED**

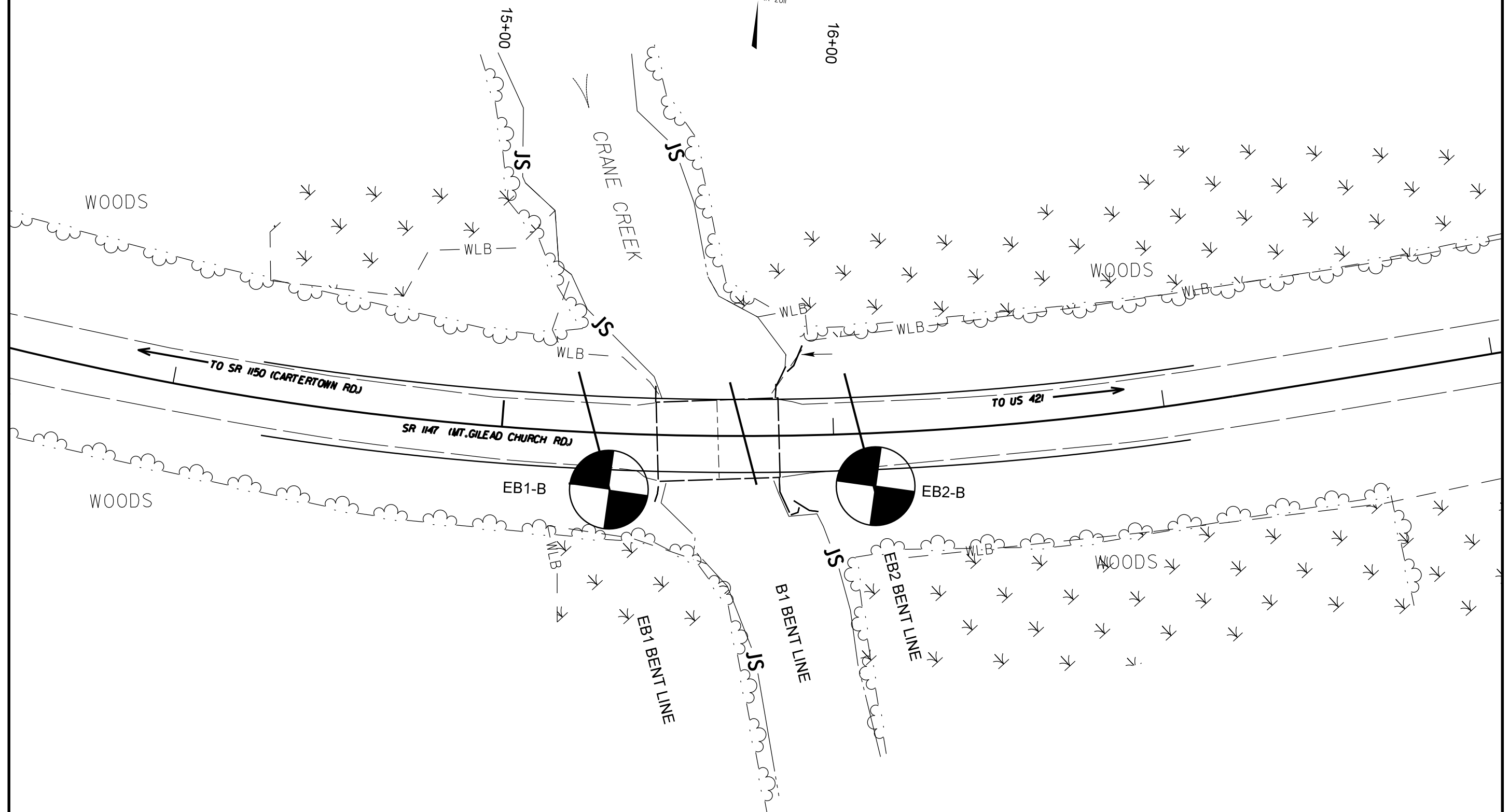
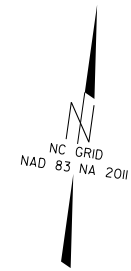
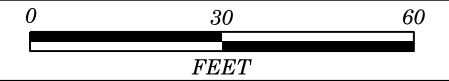
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with multiple columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL LEGEND AND AASHTO CLASSIFICATION, MINERALOGICAL COMPOSITION, COMPRESSIBILITY, PERCENTAGE OF MATERIAL, GROUND WATER, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, INDURATION, and NOTES.

SITE PLAN

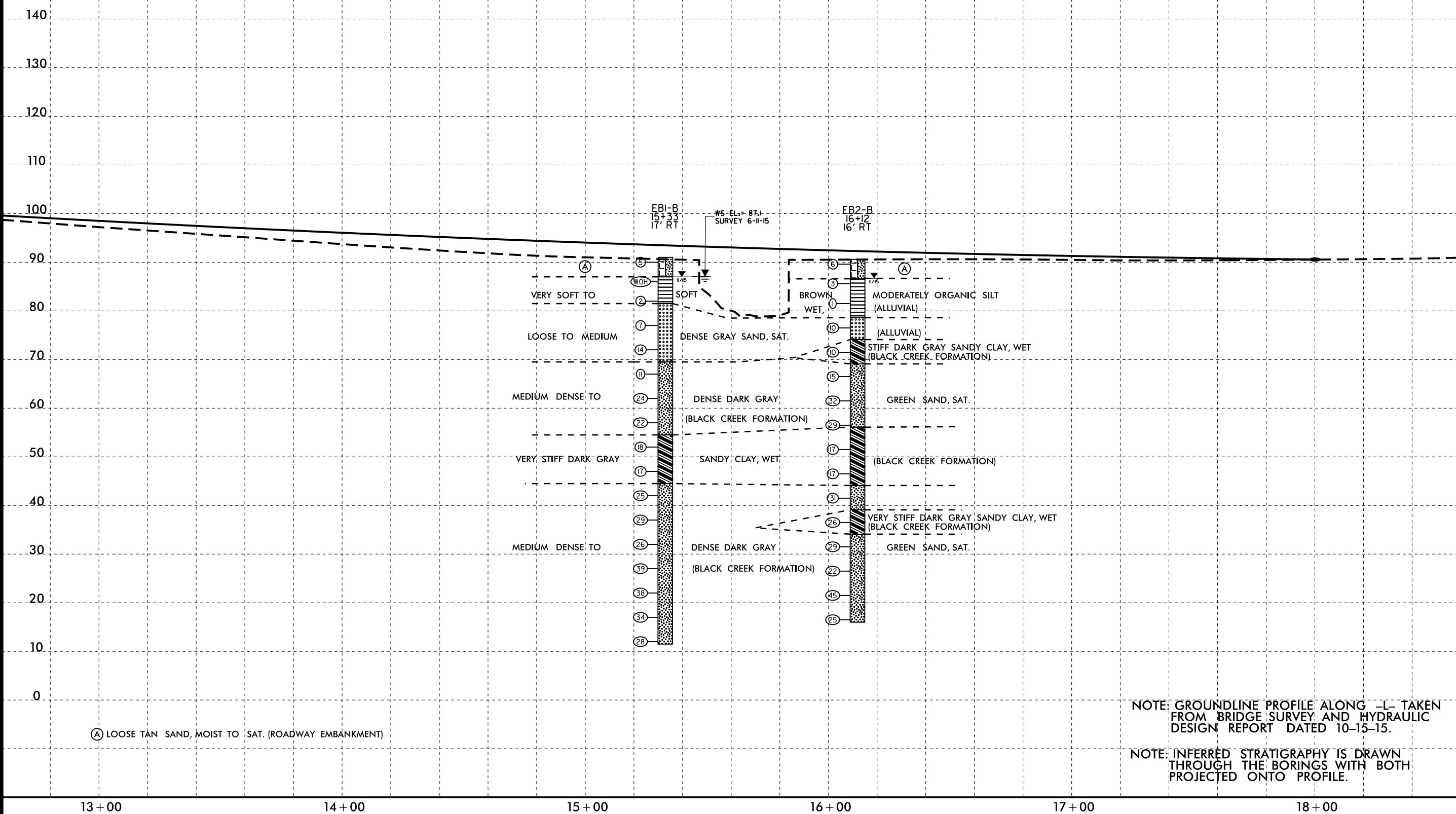


5/14/99

PROJECT REFERENCE NO. <i>SF-810013</i>	SHEET NO. <i>4 of 6</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PROFILE THROUGH BORINGS PROJECTED ALONG -L-

VE=2



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NOTE: GROUNDLINE PROFILE ALONG -L- TAKEN FROM BRIDGE SURVEY AND HYDRAULIC DESIGN REPORT DATED 10-15-15.

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

GEOTECHNICAL BORING REPORT

BORE LOG

WBS 17BP.3.R.43		TIP SF-810013		COUNTY SAMPSON		GEOLOGIST Swartley, J. R.										
SITE DESCRIPTION BRIDGE NO. 13 ON -L- (SR 1147) OVER CRANE CREEK							GROUND WTR (ft)									
BORING NO. EB1-B		STATION 15+33		OFFSET 17 ft RT		ALIGNMENT -L-										
COLLAR ELEV. 91.0 ft		TOTAL DEPTH 79.5 ft		NORTHING 423,627		EASTING 2,220,801										
DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 87% 02/27/2015			DRILL METHOD Mud Rotary			HAMMER TYPE Automatic										
DRILLER Smith, R. E.		START DATE 11/05/15		COMP. DATE 11/05/15		SURFACE WATER DEPTH N/A										
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)	
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
95																
91.0	91.0	0.0	2	3	2										91.0	GROUND SURFACE
87.0	87.0	4.0	WOH	WOH	WOH										87.0	ROADWAY EMBANKMENT TAN SAND, MOIST TO SAT.
83.0	83.0	8.0	WOH	WOH	2										81.5	ALLUVIAL BROWN MODERATELY ORGANIC SILT, WET
78.0	78.0	13.0	3	3	4										69.5	ALLUVIAL GRAY SAND, SAT.
73.0	73.0	18.0	3	7	7										21.5	COASTAL PLAIN DARK GRAY GREEN SAND, SAT. (BLACK CREEK FORMATION)
68.0	68.0	23.0	3	5	6										36.5	COASTAL PLAIN DARK GRAY SANDY CLAY, WET (BLACK CREEK FORMATION)
63.0	63.0	28.0	8	11	13										46.5	COASTAL PLAIN DARK GRAY GREEN SAND, SAT. (BLACK CREEK FORMATION)
58.0	58.0	33.0	8	9	13											
53.0	53.0	38.0	6	7	11											
48.0	48.0	43.0	5	7	10											
43.0	43.0	48.0	6	11	14											
38.0	38.0	53.0	8	12	17											
33.0	33.0	58.0	7	11	15											
28.0	28.0	63.0	6	12	27											
23.0	23.0	68.0	11	15	23											
18.0	18.0	73.0	8	11	23											

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			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
15																
	13.0	78.0	7	11	17										11.5	Match Line
															79.5	COASTAL PLAIN DARK GRAY GREEN SAND, SAT. (BLACK CREEK FORMATION) (continued) Boring Terminated at Elevation 11.5 ft IN MEDIUM DENSE SAND

NCDOT BORE DOUBLE SF810013_GEO_BORINGS.GPJ NC_DOT.GDT 11/12/15

