

REFERENCE: B-4440

PROJECT: 38367.1.1

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4440	1	6

**STRUCTURE**  
**SUBSURFACE INVESTIGATION**

COUNTY BRUNSWICK  
PROJECT DESCRIPTION BRIDGE NO. 163 ON SR 1349  
(BRIDGERS RD.) OVER MULBERRY BRANCH AT  
-L- STA. 18 + 90.36

**CONTENTS**

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
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**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 BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1919 TOT-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

JKC  
JRS  
DGP  
RES

INVESTIGATED BY J.L. STONE  
DRAWN BY J.L. STONE  
CHECKED BY D.N. ARGENBRIGHT  
SUBMITTED BY D.N. ARGENBRIGHT  
DATE OCTOBER 2014



DocuSigned by:  
Joseph L. Stone 2/20/2015  
1330580A87A24F5...  
SIGNATURE DATE

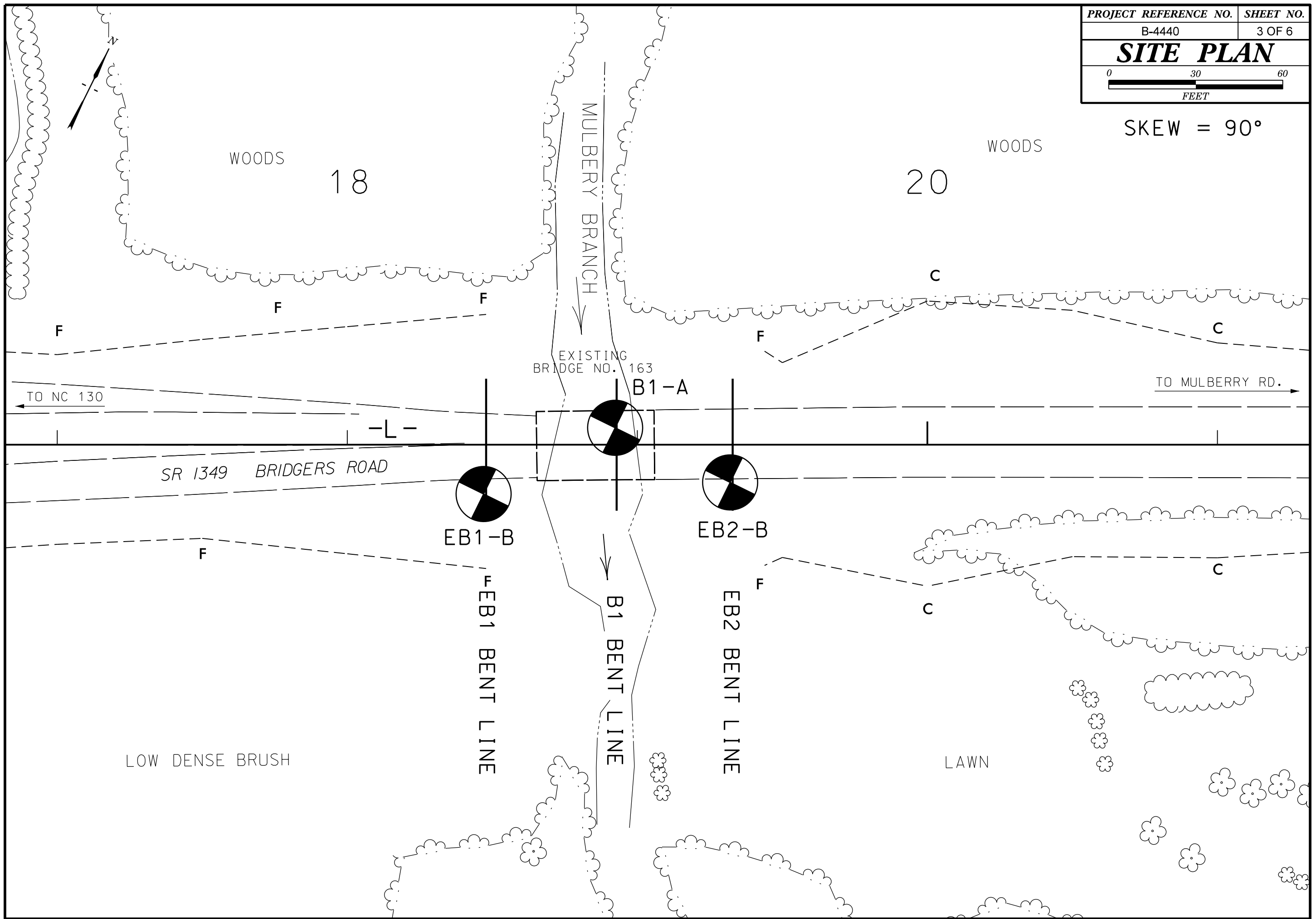
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, TERMS AND DEFINITIONS, SOIL 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, INDURATION.

SKEW = 90°

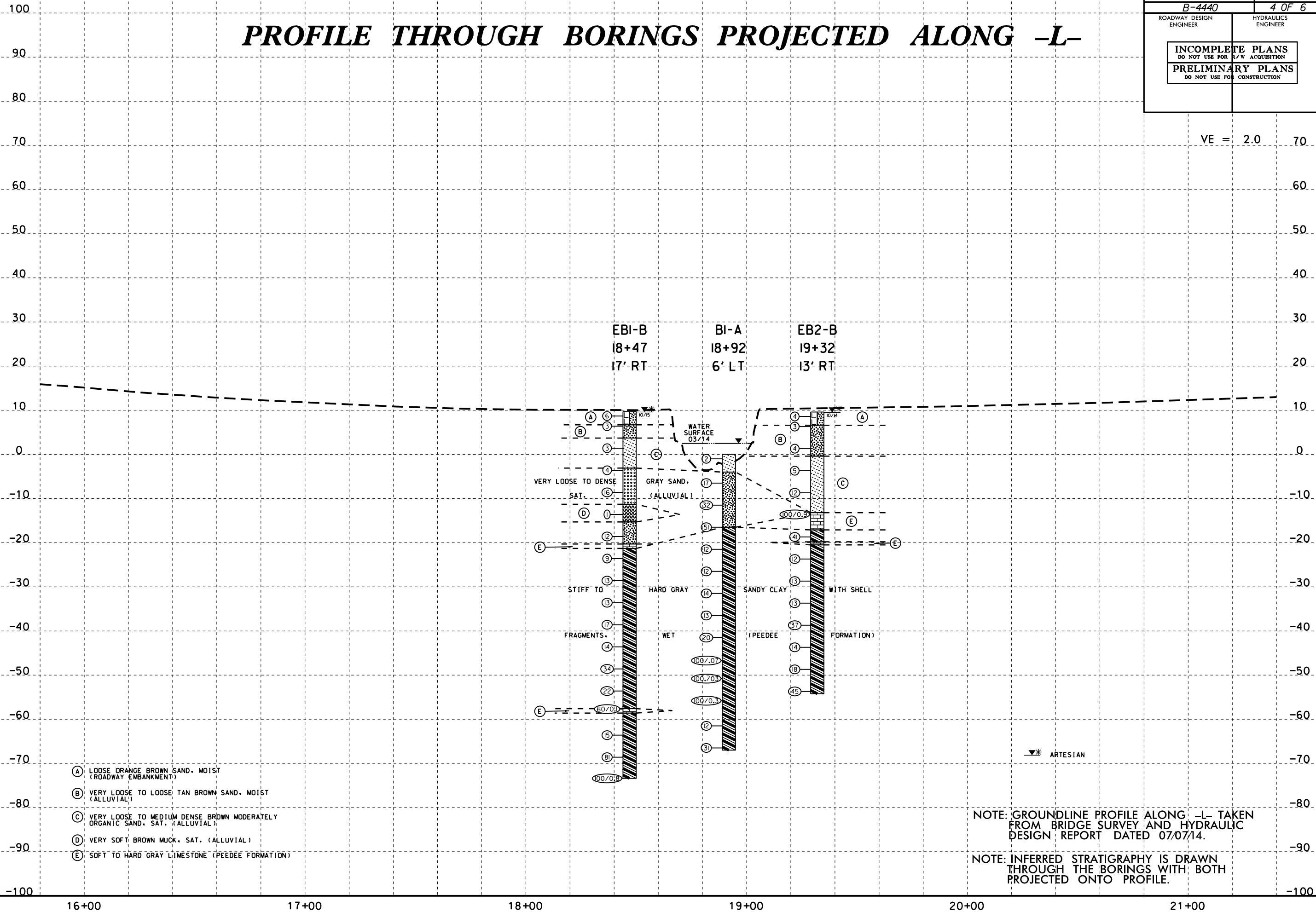


5/14/99

PROJECT REFERENCE NO. <b>B-4440</b>	SHEET NO. <b>4 OF 6</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

# PROFILE THROUGH BORINGS PROJECTED ALONG -L-

VE = 2.0 70



- (A) LOOSE ORANGE BROWN SAND, MOIST (ROADWAY EMBANKMENT)
- (B) VERY LOOSE TO LOOSE TAN BROWN SAND, MOIST (ALLUVIAL)
- (C) VERY LOOSE TO MEDIUM DENSE BROWN MODERATELY ORGANIC SAND, SAT. (ALLUVIAL)
- (D) VERY SOFT BROWN MUCK, SAT. (ALLUVIAL)
- (E) SOFT TO HARD GRAY LIMESTONE (PEEDEE FORMATION)

NOTE: GROUNDLINE PROFILE ALONG -L- TAKEN FROM BRIDGE SURVEY AND HYDRAULIC DESIGN REPORT DATED 07/07/14.

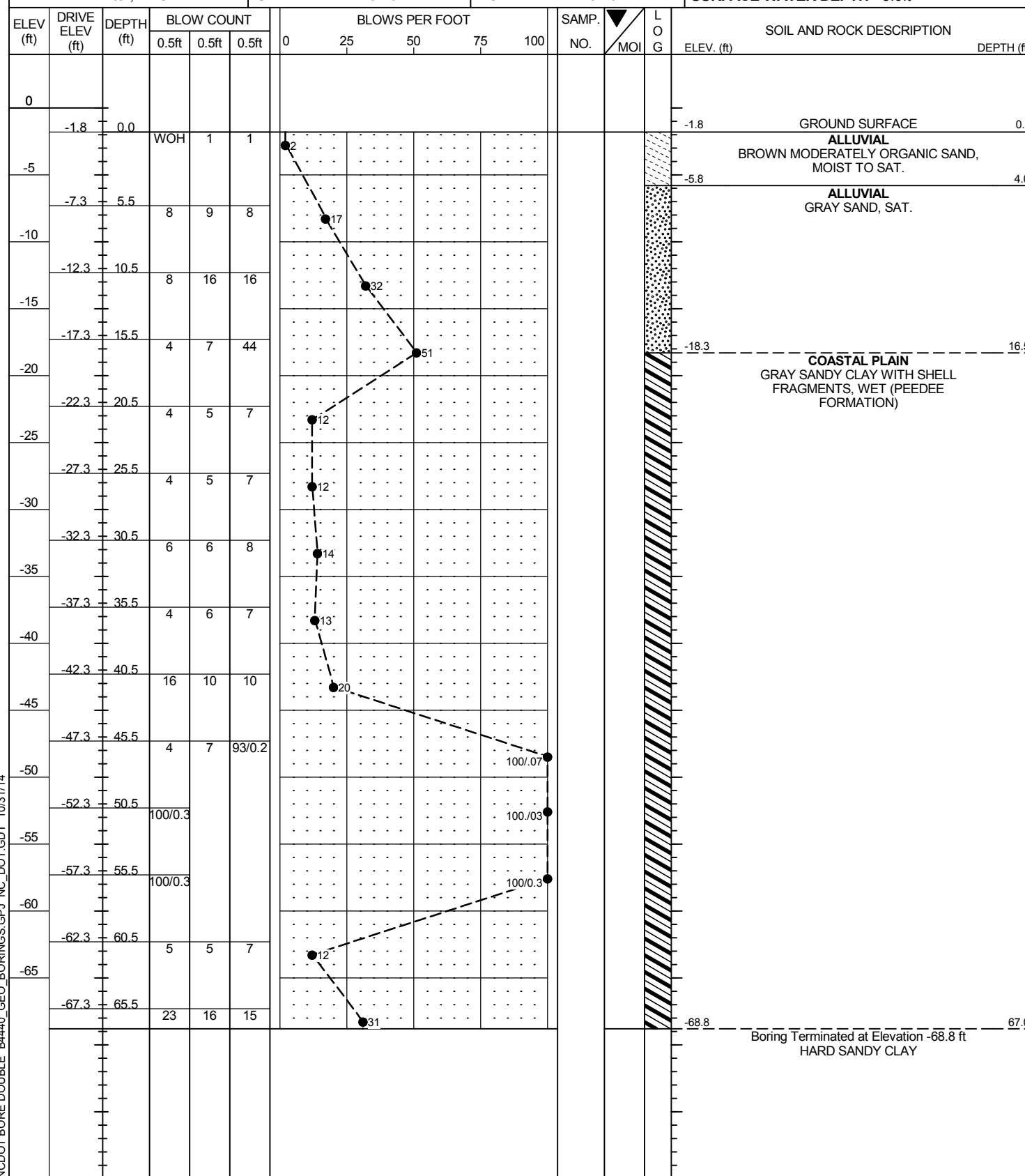
NOTE: INFERRED STRATIGRAPHY IS DRAWN THROUGH THE BORINGS WITH BOTH PROJECTED ONTO PROFILE.

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 At 11/17/2014

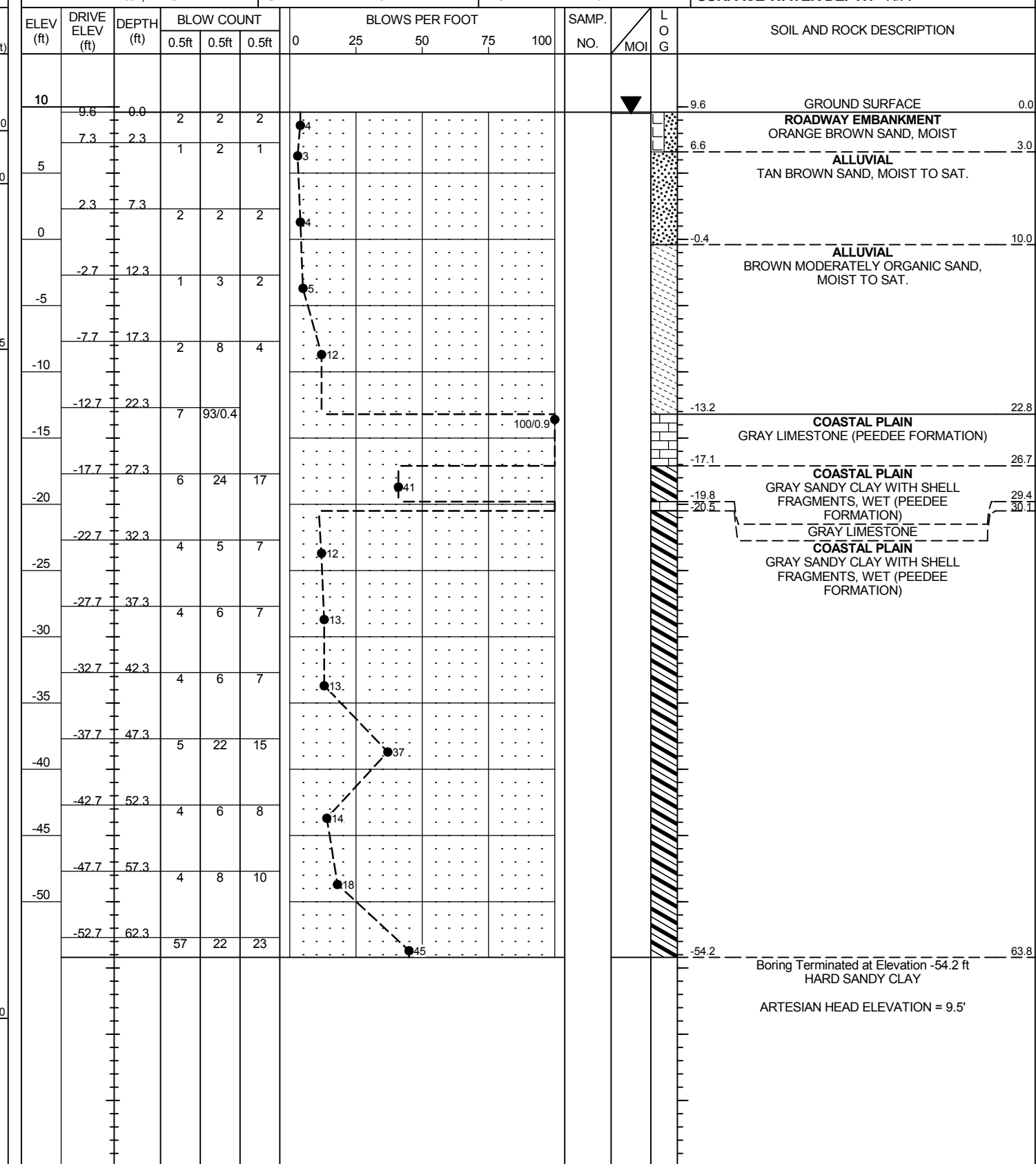


**NCDOT GEOTECHNICAL ENGINEERING UNIT**  
**BORELOG REPORT**

WBS 38367.1.1	TIP B-4440	COUNTY BRUNSWICK	GEOLOGIST Crenshaw, J. K.
SITE DESCRIPTION BRIDGE NO. 163 ON -L- (SR 1349) OVER MULBERRY BRANCH			GROUND WTR (ft)
BORING NO. B1-A	STATION 18+92	OFFSET 6 ft LT	ALIGNMENT -L-
COLLAR ELEV. -1.8 ft	TOTAL DEPTH 67.0 ft	NORTHING 83,228	EASTING 2,182,152
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 92% 07/12/2011		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 10/16/14	COMP. DATE 10/16/14	SURFACE WATER DEPTH 3.9ft



WBS 38367.1.1	TIP B-4440	COUNTY BRUNSWICK	GEOLOGIST Crenshaw, J. K.
SITE DESCRIPTION BRIDGE NO. 163 ON -L- (SR 1349) OVER MULBERRY BRANCH			GROUND WTR (ft)
BORING NO. EB2-B	STATION 19+32	OFFSET 13 ft RT	ALIGNMENT -L-
COLLAR ELEV. 9.6 ft	TOTAL DEPTH 63.8 ft	NORTHING 83,228	EASTING 2,182,197
DRILL RIG/HAMMER EFF./DATE RFO0074 CME-55 92% 07/12/2011		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic
DRILLER Pinter, D. G.	START DATE 10/17/14	COMP. DATE 10/17/14	SURFACE WATER DEPTH N/A



NCDOT BORE DOUBLE B4440\_GEO BORINGS.GPJ NC\_DOT.GDT 10/31/14