

SEE SHEET 3 FOR PLAN SHEET LAYOUT
AT TIME OF INVESTIGATION

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-5306	1	5

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2	LEGEND
3	ROADWAY TITLE SHEET
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**ROADWAY
SUBSURFACE INVESTIGATION**

COUNTY SAMPSON
PROJECT DESCRIPTION BR. NO. 122 ON SR 1414 OVER
BIG SWAMP

INVENTORY

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

J.K. CRENSHAW

R.E. SMITH

J.M. EDMONSON

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INVESTIGATED BY J.K. CRENSHAW

DRAWN BY J.K. CRENSHAW

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE JUNE 2016



DocuSigned by:

Tyler Bottoms

6/22/2016

48A2D3BD08CF4A6

SIGNATURE

DATE

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

REFERENCE: B-5306

PROJECT: 46020

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

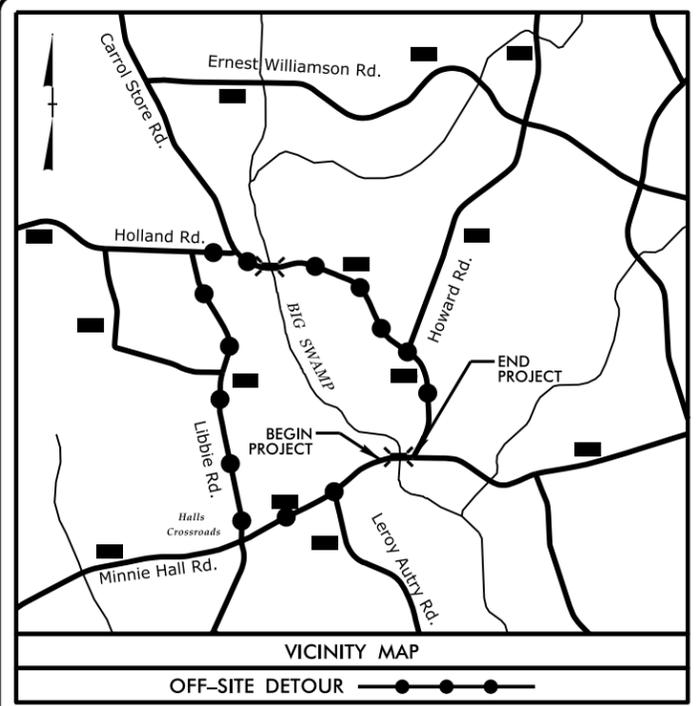
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

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 BENCH MARK. Includes various symbols, diagrams, and descriptive text for geotechnical engineering.

13-JUN-2016 14:50 S:\ERO\Greenville\Investigation\TIP\B5306_GEO_RDWY\CADD_GEO\TECH\Site&Sub\B5306_RDY_GEO_TSH.dgn
 \$\$\$USERNAME\$\$\$

T.I.P PROJECT: B-5306

CONTRACT:



See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

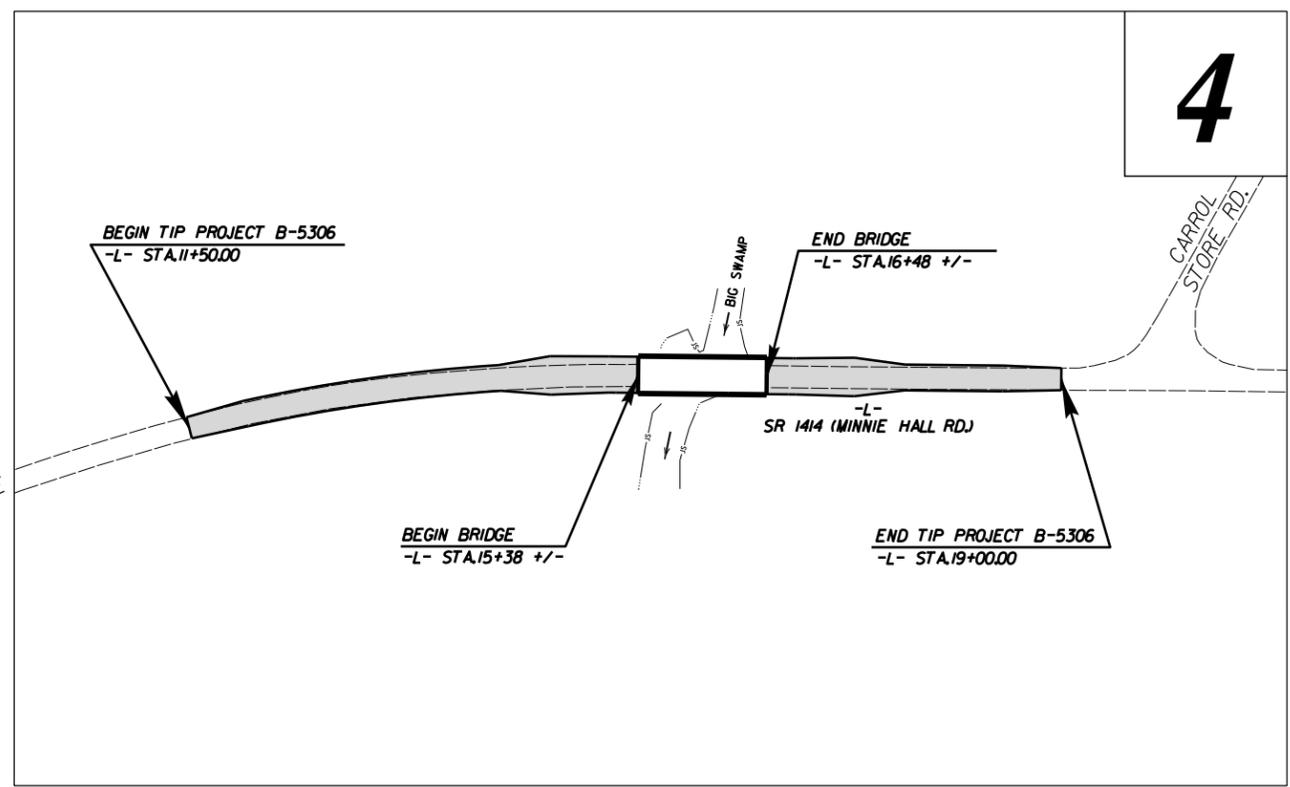
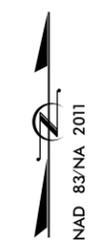
SAMPSON COUNTY

**LOCATION: BRIDGE NO. 122 OVER BIG SWAMP
 ON SR 1414 (MINNIE HALL RD.)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

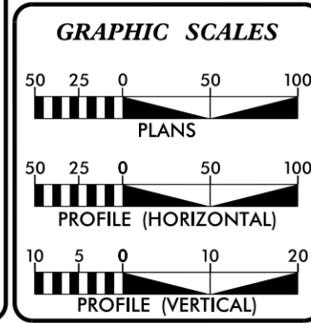
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5306	3	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46020.1.1	BRZ-1414(3)	PE	

25% APPROVED PLANS



CLEARING ON THIS PROJECT SHALL BE TO LIMITS ESTABLISHED USING METHOD ____.
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
 2018 ADT = 913 VPD
 2038 ADT = 1368 VPD
 K = 12%
 D = 60%
 T = 5% *
 V = 60 MPH
 * (TTST 2% + DUAL 3%)
 FUNC. CLASS. = RURAL LOCAL
 SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5306	=	0.121 mi.
LENGTH STRUCTURES TIP PROJECT B-5306	=	0.021 mi.
TOTAL LENGTH TIP PROJECT B-5306	=	0.142 mi.

Prepared in the Offices of:

STEWART
421 FARETTEVILLE ST. STE 400
FARETTA, NC 27801
757.380.8790

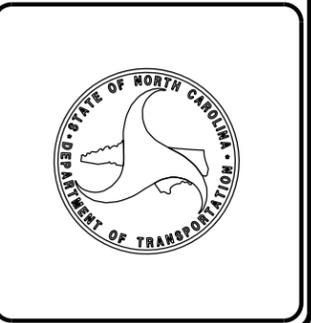
ECOLOGICAL ENGINEERING
NC FIRM LICENSE No. P-1141
1151 SR Camp Parkway, Suite 111
Cary, NC 27518
(919) 557-9629

2012 STANDARD SPECIFICATIONS	ANDY YOUNG, PE PROJECT ENGINEER
RIGHT OF WAY DATE: APRIL 21, 2017	MICHAEL BURNS, EI PROJECT DESIGN ENGINEER
LETTING DATE: APRIL 17, 2018	GARY LOVERING, PE NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.





PAT McCrORY
Governor
NICHOLAS J. TENNYSON
Secretary

Surficial soils in this area are generally classified as Black Creek Formation.

Ground Water

Ground water data was collected in April of 2014, during a time of normal precipitation. Ground water elevations ranged from 118± to 120± feet above sea level.

Soils

Soils within this project area have been divided into three categories: roadway embankment, alluvial, and Black Creek Formation.

Roadway embankment soils were encountered along existing SR 1414. These soils are comprised of 1± to 5± feet of loose sand (A-2-4, A-3) and soft sandy clay (A-6).

Alluvial soils were encountered beneath the roadway embankment. They are comprised of 3± or more feet of soft silt (A-4), loose sand (A-2-4), and loose sand and gravel (A-1-b).

Black Creek soils were encountered beneath the alluvial sediments. They are comprised of 2± or more feet of medium stiff silty clay (A-7-6).

June 13, 2016

STATE PROJECT: 46020.1.1 (B-5306)
F.A. PROJECT: BRZ-1414(3)
COUNTY: Sampson
DESCRIPTION: Bridge No. 122 on SR 1414 over Big Swamp
SUBJECT: Geotechnical Inventory

Project Description

This project is located in Sampson County on SR 1414 (Minnie Hall Rd.). Proposed construction consists of widening the bridge approach to accommodate bridge replacement. This geotechnical investigation was confined to the areas of proposed construction.

Fieldwork for this project was conducted during May of 2016. Hand auger borings were completed and representative soil samples were collected for visual classification in the field.

The following alignments were investigated. No plans, profiles or cross sections will be included in this report.

<u>Line</u>	<u>Station(±)</u>
-L-	11+50 to 19+00

Areas of Special Geotechnical Interest

- 1) The entire project was found to exhibit seasonal high ground water.

Physiography and Geology

This project corridor is located within the Coastal Plain Physiographic Province. Topography along the project is nearly flat to gently sloping. Natural ground elevations range from 113± feet in the bed of Big Swamp to 124± feet above sea level along the existing SR 1414 embankment.



