

PROJECT: DF15006.2024026

REFERENCE: SF-230188

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STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

STRUCTURE

SUBSURFACE INVESTIGATION

COUNTY COLUMBUS

PROJECT DESCRIPTION BRIDGE NO.188 ON -BL-
(SR 1516) OVER BRIER CREEK

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-------|-----------------------------|-----------|--------------|
| N.C. | SF-230188 | 1 | 5 |

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF PREPARING THE SCOPE OF WORK TO BE INCLUDED IN THE REQUEST FOR PROPOSAL. 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.

SOIL AND ROCK BOUNDARIES WITHIN A BOREHOLE ARE BASED ON GEOTECHNICAL INTERPRETATION UNLESS ENCOUNTERED IN A SAMPLE. INTERPRETED BOUNDARIES MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN SAMPLED STRATA AND BOREHOLE INFORMATION MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS. 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. EDMONDSON

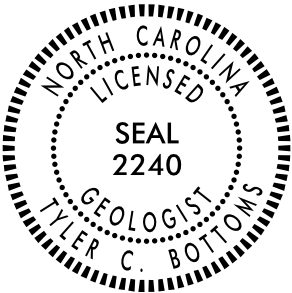
INVESTIGATED BY T.C. BOTTOMS

DRAWN BY T.C. BOTTOMS

CHECKED BY D.N. ARGENBRIGHT

SUBMITTED BY D.N. ARGENBRIGHT

DATE MARCH 2017



DocuSigned by:

Tyler Bottoms

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3/1/2017

SIGNATURE

DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

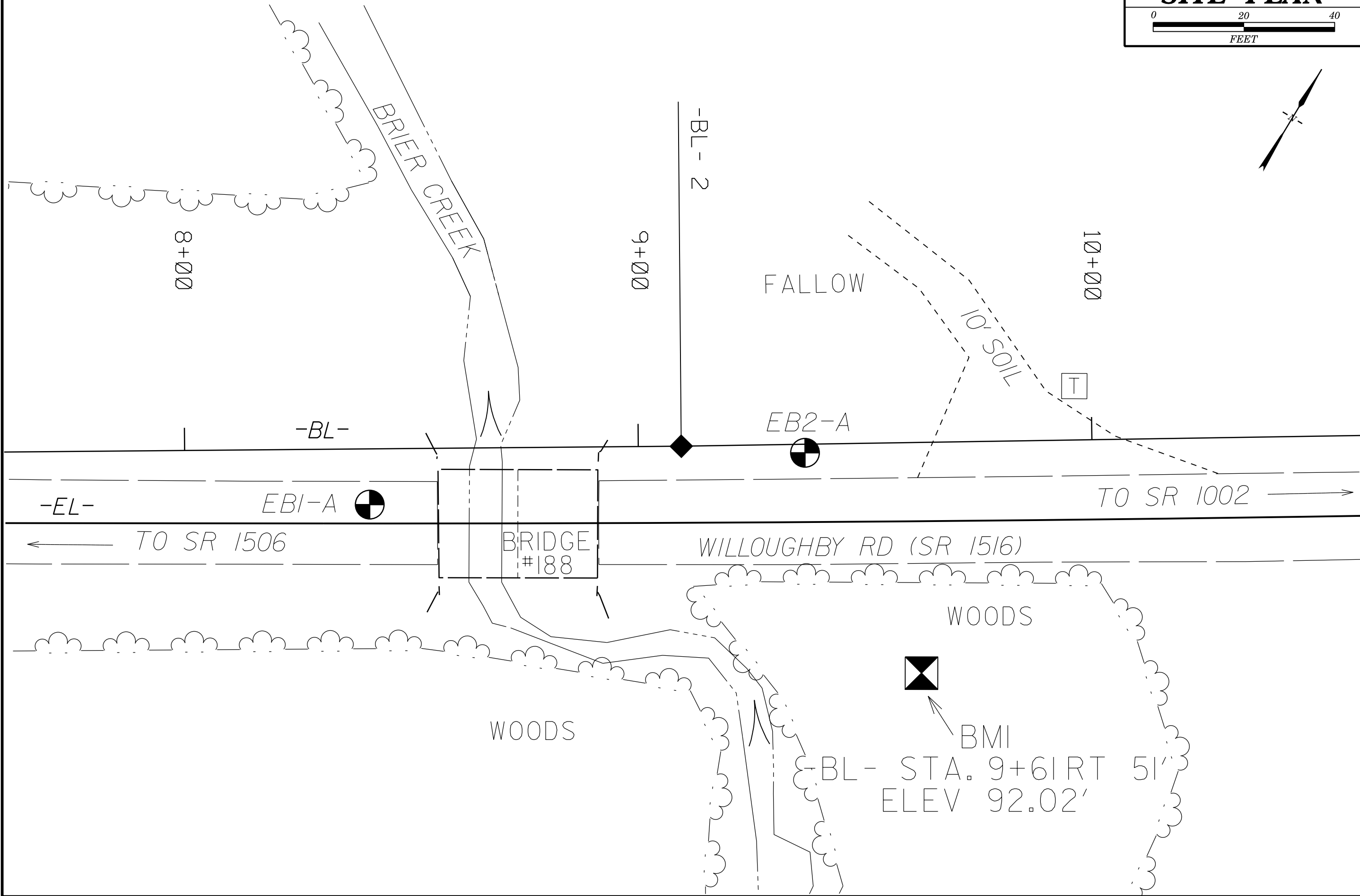
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

[illegible]



NCDOT BORE DOUBLE SF230188 GEO_BRDG.GPJ NC_DOT.GDT 3/1/17

[illegible]

GEOTECHNICAL BORING REPORT
BORE LOG

| | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------------|---------------|------------|-------|---------------------|----------------|----|----|----|-------------------------|--------------|-----|-----|---------------------------|---------------------------|--|--|--|--|-------------|--|
| WBS DF15006.2024026 | | | | | TIP SF-230188 | | | | | COUNTY COLUMBUS | | | | | GEOLOGIST Crenshaw, J. K. | | | | | | |
| SITE DESCRIPTION BRIDGE NO. 188 ON -BL- (SR 1516) OVER BRIER CREEK | | | | | | | | | | | | | | | GROUND WTR (ft) | | | | | | |
| BORING NO. EB2-A | | | | | STATION 9+37 | | | | | OFFSET 2 ft RT | | | | | ALIGNMENT -BL- | | | | | 0 HR. N/A | |
| COLLAR ELEV. 90.3 ft | | | | | TOTAL DEPTH 74.5 ft | | | | | NORTHING 257,263 | | | | | EASTING 2,029,652 | | | | | 24 HR. FIAD | |
| DRILL RIG/HAMMER EFF./DATE GFO0075 CME-45C 83% 04/11/2016 | | | | | | | | | | DRILL METHOD Mud Rotary | | | | | HAMMER TYPE Automatic | | | | | | |
| DRILLER Smith, R. E. | | | | | START DATE 02/28/17 | | | | | COMP. DATE 02/28/17 | | | | | SURFACE WATER DEPTH N/A | | | | | | |
| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | MOI | LOG | SOIL AND ROCK DESCRIPTION | | | | | | | |
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | ELEV. (ft) | DEPTH (ft) | | | | | | |
| 95 | | | | | | | | | | | | | | | | | | | | | |
| 90 | 90.3 | 0.0 | | | | | | | | | | | | | | | | | | | |
| 85 | 86.2 | 4.1 | 1 | 4 | 4 | | | | | | | | | | | | | | | | |
| 80 | 82.3 | 8.0 | 1 | 1 | 2 | | | | | | | | | | | | | | | | |
| 75 | 77.3 | 13.0 | 4 | 5 | 10 | | | | | | | | | | | | | | | | |
| 70 | 72.3 | 18.0 | 6 | 7 | 9 | | | | | | | | | | | | | | | | |
| 65 | 67.3 | 23.0 | WOH | 2 | 2 | | | | | | | | | | | | | | | | |
| 60 | 62.3 | 28.0 | 1 | 2 | 12 | | | | | | | | | | | | | | | | |
| 55 | 57.3 | 33.0 | 11 | 13 | 16 | | | | | | | | | | | | | | | | |
| 50 | 52.3 | 38.0 | 7 | 11 | 20 | | | | | | | | | | | | | | | | |
| 45 | 47.3 | 43.0 | 6 | 9 | 10 | | | | | | | | | | | | | | | | |
| 40 | 42.3 | 48.0 | 6 | 11 | 14 | | | | | | | | | | | | | | | | |
| 35 | 37.3 | 53.0 | 16 | 21 | 22 | | | | | | | | | | | | | | | | |
| 30 | 32.3 | 58.0 | 13 | 16 | 20 | | | | | | | | | | | | | | | | |
| 25 | 27.3 | 63.0 | 11 | 13 | 12 | | | | | | | | | | | | | | | | |
| 20 | 22.3 | 68.0 | 8 | 12 | 16 | | | | | | | | | | | | | | | | |
| | 17.3 | 73.0 | 9 | 10 | 13 | | | | | | | | | | | | | | | | |
| | | | 7 | 7 | 9 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

| | | |
|------|--|------|
| 90.3 | GROUND SURFACE | 0.0 |
| 84.3 | ROADWAY EMBANKMENT ORANGE SAND, MOIST | 6.0 |
| | ALLUVIAL TAN SAND, MOIST TO SATURATED | |
| 74.3 | COASTAL PLAIN GRAY SILTY CLAY, WET (PEEDEE FORMATION) | 16.0 |
| 66.3 | COASTAL PLAIN GRAY SAND, SATURATED | 24.0 |
| 59.3 | COASTAL PLAIN GRAY SILTY CLAY, WET | 31.0 |
| 54.3 | COASTAL PLAIN GRAY SANDY AND SILTY CLAY, WET | 36.0 |
| 34.3 | COASTAL PLAIN GRAY AND TAN SAND, SATURATED | 56.0 |
| 29.3 | COASTAL PLAIN GRAY SILTY CLAY WITH WOOD FRAGMENTS, WET | 61.0 |
| 15.8 | | 74.5 |

| | | | | | | | | | | | | | | | | | |
|--|-----------------------|---------------|------------|---------------------|-------|----------------|----|-------------------------|----|-----|--------------|---------------------------|-----|--|--|-------------|--|
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| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | | | | |
| 15 | | | | | | Match Line | | | | | | | | Boring Terminated at Elevation 15.8 ft in Very Stiff Silty Clay | | | |
| | | | | | | | | | | | | | | | | | |

NCDOT BORE DOUBLE SF230188_GEO_BRDG.GPJ NC_DOT.GDT 3/1/17