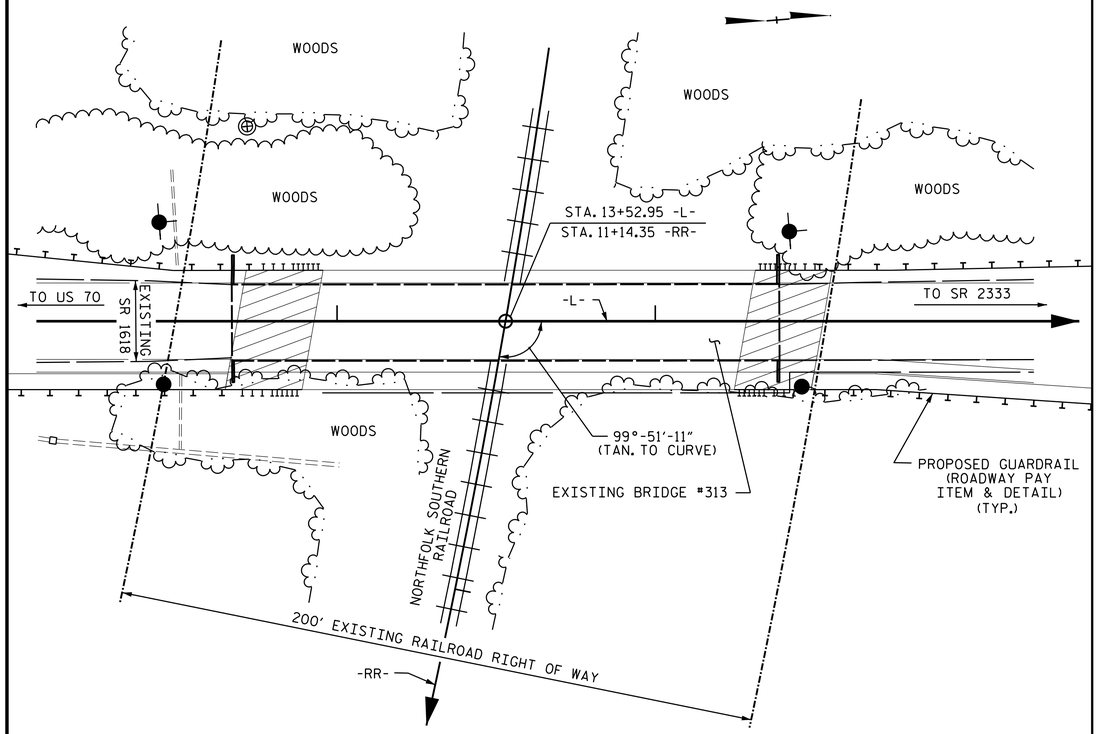
BENCHMARK No. 1 NAIL IN TOP OF 15" PINE STUMP, STA. 10+80.00 -L-, 30' RIGHT, ELEV. = 1190.12




LOCATION SKETCH

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

## NOTES

ASSUMED LIVE LOAD = HL 93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

THE RAILROAD TRACK TOP OF RAIL ELEVATIONS ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE TOP OF RAIL ELEVATIONS AND REPORT ANY VARIATIONS TO THE ENGINEER. ANY PLAN REVISIONS NECESSARY TO ACHIEVE THE REQUIRED MINIMUM CLEARANCE WILL BE PROVIDED BY THE DEPARTMENT.

NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

THE EXISTING 8-SPAN (3 @ 17'-6", 1 @ 50'-6", 1@ 17'-6", 2 @ 17'-0", 1@ 18'-0") STRUCTURE CONSISTING OF A REINFORCED CONCRETE FLOOR ON I-BEAMS (SPAN D) AND TIMBER JOISTS (SPANS A-C, E-H), AND A CLEAR ROADWAY WIDTH OF 32'-0" ON A SUBSTRUCTURE CONSISTING OF REINFORCED CONCRETE CAPS ON TIMBER PILES AND LOCATED AT THE SITE OF THE PROPOSED STRUCTURE SHALL BE REMOVED. SEE SPECIAL PROVISIONS FOR "REMOVAL OF EXISTING STRUCTURE".

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE".

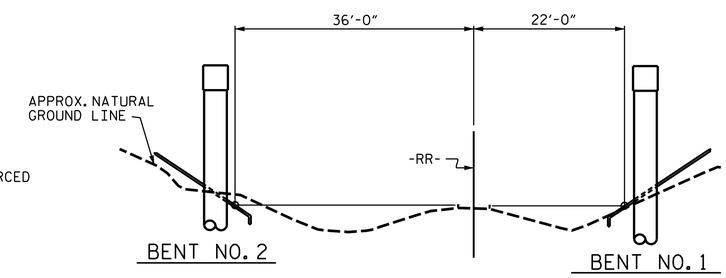
THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

FOR MINIMIZING RAILROAD FLAGGING SERVICE, SEE STANDARD SPECIFICATIONS.

FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.

IF A TEMPORARY AT-GRADE ACCESS ACROSS THE RAILROAD TRACK IS REQUIRED, THE CONTRACTOR MUST OBTAIN AN AGREEMENT WITH NORFOLK SOUTHERN RAILROAD.




SECTION THRU RAILROAD
(LOOKING STATION AHEAD ALONG RAILROAD)

SPAN LENGTHS BASED ON THIS SECTION

## TOTAL BILL OF MATERIAL

| | REMOVAL OF EXISTING STRUCTURE | PDA TESTING | REINFORCED CONCRETE DECK SLAB | GROOVING BRIDGE FLOORS | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | 45" PRESTRESSED CONCRETE GIRDERS | | HP 12 X 53 STEEL PILES | | PP 24 X 0.50 GALVANIZED STEEL PILES | | TWO BAR METAL RAIL | 1'-2" X 2'-6" CONCRETE PARAPET | 4" SLOPE PROTECTION | ELASTOMERIC BEARINGS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LUMP SUM | EACH | SQ.FT. | SQ.FT. | CU.YDS. | LUMP SUM | LBS. | NO. | LIN.FT. | NO. | LIN.FT. | NO. | LIN.FT. | LIN.FT. | LIN.FT. | SQ.YDS. | LUMP SUM |
| SUPERSTRUCTURE | | | 5377 | 5271 | | LUMP SUM | | 15 | 659.79 | | | | | 256.26 | 271.67 | | LUMP SUM |
| END BENT No. 1 | | | | | 25.2 | | 3332 | | | 6 | 450 | | | | | 470 | |
| BENT No. 1 | | | | | 18.2 | | 1932 | | | | | 5 | 375 | | | | |
| BENT No. 2 | | | | | 18.2 | | 1932 | | | | | 5 | 400 | | | | |
| END BENT No. 2 | | | | | 25.3 | | 3330 | | | 6 | 480 | | | | | 465 | |
| TOTAL | LUMP SUM | 2 | 5377 | 5271 | 86.9 | LUMP SUM | 10526 | 15 | 659.79 | 12 | 930 | 10 | 775 | 256.26 | 271.67 | 935 | LUMP SUM |

PROJECT NO. B-4983
BURKE COUNTY
STATION: 13+52.95 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE OVER NORFOLK SOUTHERN RAILROAD ON SR 1618 BETWEEN US 70 AND SR 2333

NORTH CAROLINA PROFESSIONAL SEAL 20125 ENGINEER MARSHALL G. CHEEK, JR.
Marshall G. Cheek, Jr.
65499D6EBAA3B405... 4/28/2014

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-3 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 36 |

DRAWN BY : M. POOLE DATE : 12/13
CHECKED BY : B. N. GRADY DATE : 02/14
DESIGN ENGINEER OF RECORD : W.J. HARRIS DATE : 4/14

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$