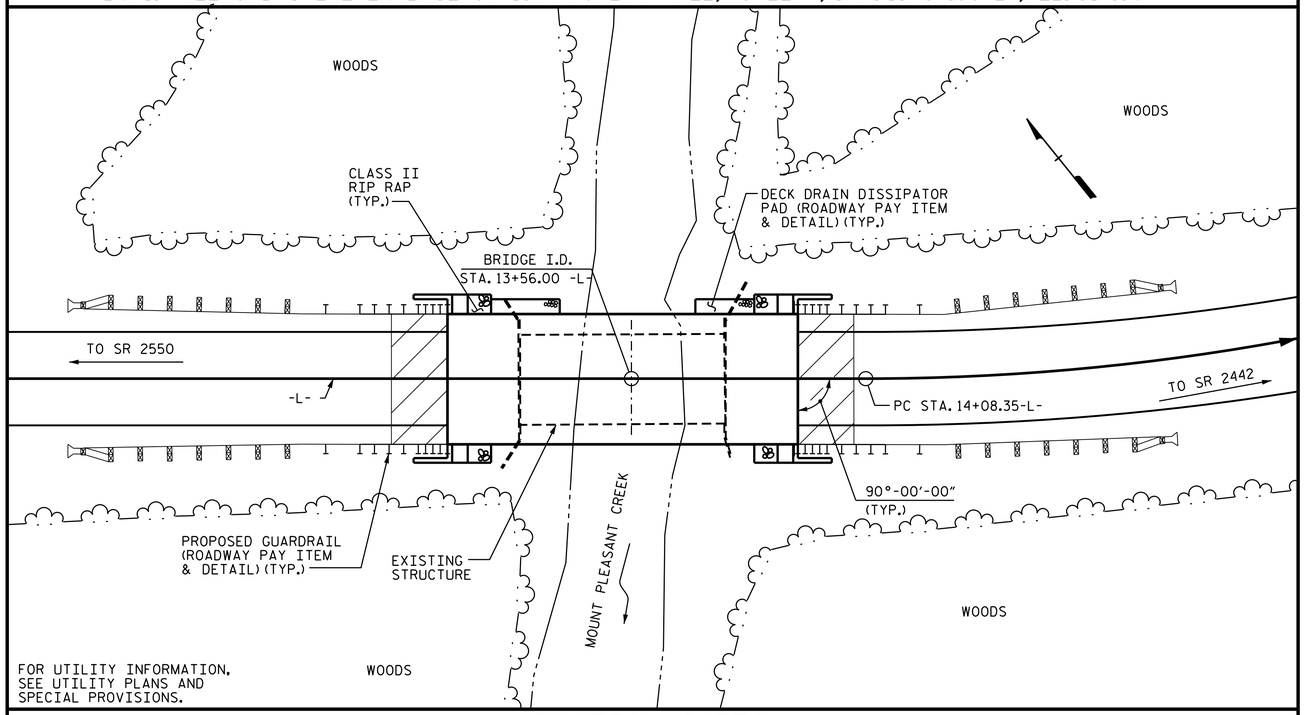
BM#1: RAILROAD SPIKE IN BASE OF 15"Ø POPLAR TREE, 75' LEFT, STA. 13+87.00-L-, EL. 514.36




LOCATION SKETCH

## 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 & FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

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 AT STATION 13+56.00-L-".

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET S-1 SHALL BE EXCAVATED FOR A DISTANCE OF 20 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION.

THE EXISTING STRUCTURE CONSISTING OF 1 SPAN @ 44'-6", WITH A TIMBER DECK AND A CLEAR ROADWAY WIDTH OF 19'-1" WITH AN 1" ASPHALT WEARING SURFACE ON STEEL I-BEAMS, ON TIMBER CAPS AND PILES, ONE WHICH IS ENCASED IN CONCRETE AND TIMBER BULKHEADS, LOCATED AT THE PROPOSED STRUCTURE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT.

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.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS. THE EXISTING END BENTS SHALL BE REMOVED DOWN TO EL. 514.30 WITH THE REMAINING PORTION LEFT IN PLACE FOR BANK STABILIZATION.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", MAY, 2001.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.

## HYDRAULIC DATA

| | |
|---|---|
| DESIGN DISCHARGE | = 1,900 CFS |
| FREQUENCY OF DESIGN FLOOD | = 25 YR. |
| DESIGN HIGH WATER ELEVATION | = 516.80 |
| DRAINAGE AREA | = 8.1 SQ. MI. |
| BASE DISCHARGE (Q 100) | = 2,801 CFS |
| BASE HIGH WATER ELEVATION | = 518.15 |

## OVERTOPPING FLOOD DATA

| | |
|---|---|
| OVERTOPPING DISCHARGE | =6,000 CFS |
| FREQUENCY OF OVERTOPPING FLOOD | =500+ YR. |
| OVERTOPPING FLOOD ELEVATION | =520.90 |

## TOTAL BILL OF MATERIAL

| | REMOVAL OF EXISTING STRUCTURE | PDA TESTING | UNCLASSIFIED STRUCTURE EXCAVATION | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | HP 12X53 STEEL PILES | | STEEL PILE POINTS | VERTICAL CONCRETE BARRIER RAIL | RIP RAP CLASS II | GEOTEXTILE FOR DRAINAGE | ELASTOMERIC BEARINGS | 3'-0" X 2'-9" PRESTRESSED CONCRETE BOX BEAMS | | ASBESTOS ASSESSMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LUMP SUM | EACH | LUMP SUM | CU. YDS. | LUMP SUM | LBS. | NO. | LIN.FT. | EACH | LIN.FT. | TONS | SQ. YDS. | LUMP SUM | NO. | LIN.FT. | LUMP SUM |
| SUPERSTRUCTURE | | | | | | | | | | 150.00 | | | | 10 | 750.00 | |
| END BENT NO. 1 | | | | 23.8 | | 3,342 | 5 | 125 | 5 | | 30 | 45 | | | | |
| END BENT NO. 2 | | | | 23.8 | | 3,342 | 5 | 100 | 5 | | 30 | 45 | | | | |
| TOTAL | LUMP SUM | 1 | LUMP SUM | 47.6 | LUMP SUM | 6,684 | 10 | 225 | 10 | 150.00 | 60 | 90 | LUMP SUM | 10 | 750.00 | LUMP SUM |

PROJECT NO. B-5546

RANDOLPH COUNTY

STATION: 13+56.00-L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER MOUNT PLEASANT CREEK ON SR 2481 BETWEEN SR 2550 AND SR 2442

NORTH CAROLINA PROFESSIONAL SEAL 025516 ENGINEER EMILY ANN MURRAY
CAUTIONARY ORIGINAL 8/22/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-25 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 38 |

DRAWN BY : D.A. DAVENPORT DATE : 10/08/14
CHECKED BY : J.K. BOWLES DATE : 4/25/16

17-AUG-2016 09:57
R:\Structures\Plans\B5546_SD_GD.dgn
jdhawk