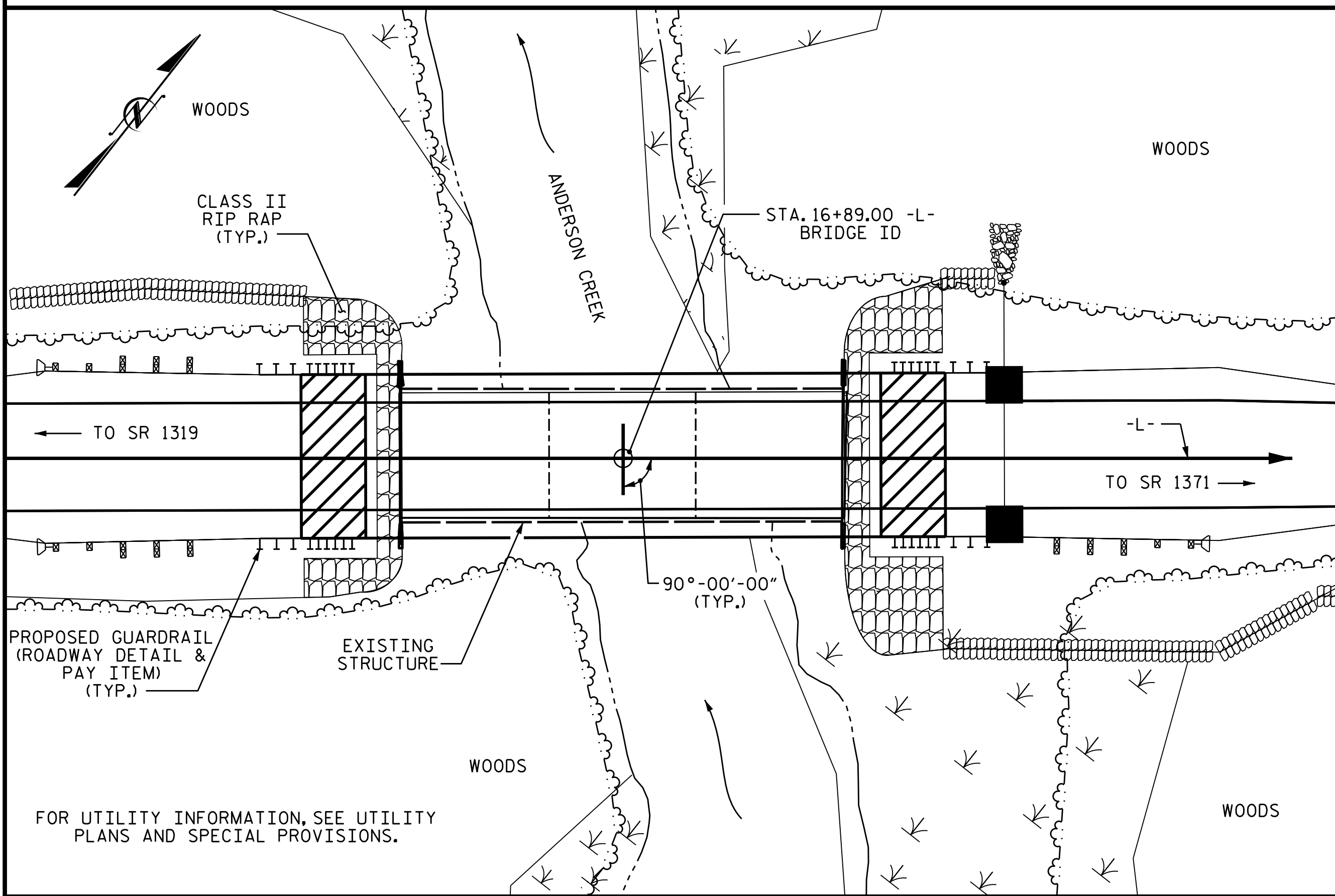


BM #50: RAIL ROAD SPIKE IN BASE OF 20" OAK, 65' RT. OF STA. 15+99.00 -L-, EL. 308.11



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE = 1700 C.F.S.
 FREQUENCY OF DESIGN FLOOD = 25 YRS.
 DESIGN HIGH WATER ELEVATION = 301.90 FT.
 DRAINAGE AREA = 6.9 SQ. MI
 BASE DISCHARGE (Q100) = 2502 C.F.S.
 BASE HIGH WATER ELEVATION = 303.14 FT.

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 5500 C.F.S.
 FREQUENCY OF OVERTOPPING FLOOD = 500+ YRS.
 OVERTOPPING FLOOD ELEVATION = 307.43 FT. ▲
 ▲ ELEVATION IS TAKEN AT SAG IN ROAD @ STA. 17+60.71 -L-

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL
	LUMP SUM	LIN. FT.	LIN. FT.	EA.	LUMP SUM	CU. YDS.	LUMP SUM	LBS.
SUPERSTRUCTURE								
END BENT 1		32	7			29.0		4610
END BENT 2		24	9			29.0		4610
TOTAL	LUMP SUM	56	16	1	LUMP SUM	58.0	LUMP SUM	9220

	HP 12 X 53 STEEL PILES	STEEL PILE POINTS	VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 3'-3" PRESTRESSED CONCRETE BOX BEAMS	ASBESTOS ASSESSMENT		
	NO.	LIN. FT.	EA.	LIN. FT.	TON	SQ. YD.	LUMP SUM	NO.	LIN. FT.	LUMP SUM
SUPERSTRUCTURE				190.0			LUMP SUM	11	1045.0	LUMP SUM
END BENT 1	7	125	4		67	75				
END BENT 2	7	70	4		63	70				
TOTAL	14	195	8	190.0	130	145	LUMP SUM	11	1045.0	LUMP SUM

DRAWN BY: J.P. ADAMS DATE: 8/2016
 CHECKED BY: T.L. AVERETTE DATE: 8/2016

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.

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 16+89.00 -L-."

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET S-1 SHALL BE EXCAVATED FOR A DISTANCE OF 25 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. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

THE EXISTING STRUCTURE CONSISTING OF 3 SPANS (1 @ 28'-0", 1 @ 27'-6", 1 @ 28'-0") WITH A CLEAR ROADWAY WIDTH OF 24'-0" AND REINFORCED CONCRETE FLOOR ON I-BEAMS; ON REINFORCED CONCRETE CAPS AND TIMBER PILES AND LOCATED AT THE PROPOSED STRUCTURE SITE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, THE LOAD LIMIT MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

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 IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

PILES SHALL BE REMOVED COMPLETELY BY PULLING UNLESS THEY BREAK. SHOULD BREAKAGE OCCUR REMOVE PILES TO BELOW MUDLINE.

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

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.

FOUNDATION NOTES

FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD PROVISIONS.

PILES AT END BENT 1 AND END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 110 TONS PER PILE.

DRIVE PILES 1 THROUGH 4 AT END BENT 1 AND END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES 1 THROUGH 4 AT END BENT 1 AND END BENT 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

DRILLED-IN PILES ARE REQUIRED AT END BENT 1. EXCAVATE HOLES FOR PILES 5 THROUGH 7 TO ELEVATION 287.00. FOR PILE EXCAVATION, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

DRILLED-IN PILES ARE REQUIRED AT END BENT 2. EXCAVATE HOLES FOR PILES 5 THROUGH 7 TO ELEVATION 288.50. FOR PILE EXCAVATION, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

CONCRETE OR GROUT IS REQUIRED TO FILL HOLES FOR PILE EXCAVATION AT END BENT 1 AND END BENT 2.

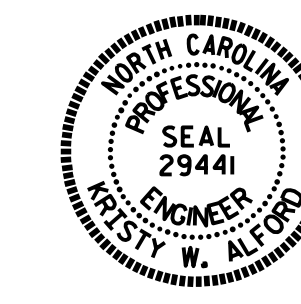
TESTING PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

AT THE CONTRACTOR'S OPTION, PILE 1 THROUGH 4 AT END BENT 1 MAY BE INSTALLED USING PILE EXCAVATION IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS TO ELEVATIONS WHERE A MINIMUM OF 1 FOOT OF PILE EXCAVATION NOT IN SOIL IS ACHIEVED, AND PILE 1 THROUGH 4 AT END BENT 2 MAY BE INSTALLED USING PILE EXCAVATION IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS TO ELEVATION 288.50. IF THIS OPTION IS CHOSEN, (1) PILES WILL NOT BE REQUIRED TO BE DRIVEN, (2) STEEL H-PILE POINTS ARE NOT REQUIRED, AND (3) PILE EXCAVATION IN SOIL, PILE EXCAVATION NOT IN SOIL, AND ADDITIONAL PILE LENGTHS FOR PILE 1 THROUGH 4 WILL BE AT THE CONTRACTOR'S COST AND NO SEPARATE PAYMENT WILL BE MADE.

NOTIFY THE ENGINEER AT LEAST 14 DAYS BEFORE PERFORMING EITHER THE FIRST PILE EXCAVATION OR FIRST PILE DRIVING AT END BENT 1 OR END BENT 2, WHICHEVER COMES FIRST.

PROJECT NO. B-4945
 VANCE COUNTY
 STATION: 16+89.00 -L-

SHEET 2 OF 2



DocuSigned by:
 W. Alford
 F245838930BF40E
 9/8/2016

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE OVER
 ANDERSON CREEK ON SR 1374
 (ANDERSON CREEK ROAD)
 BETWEEN SR 1319 & SR 1371

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S-2
2			4			15

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED