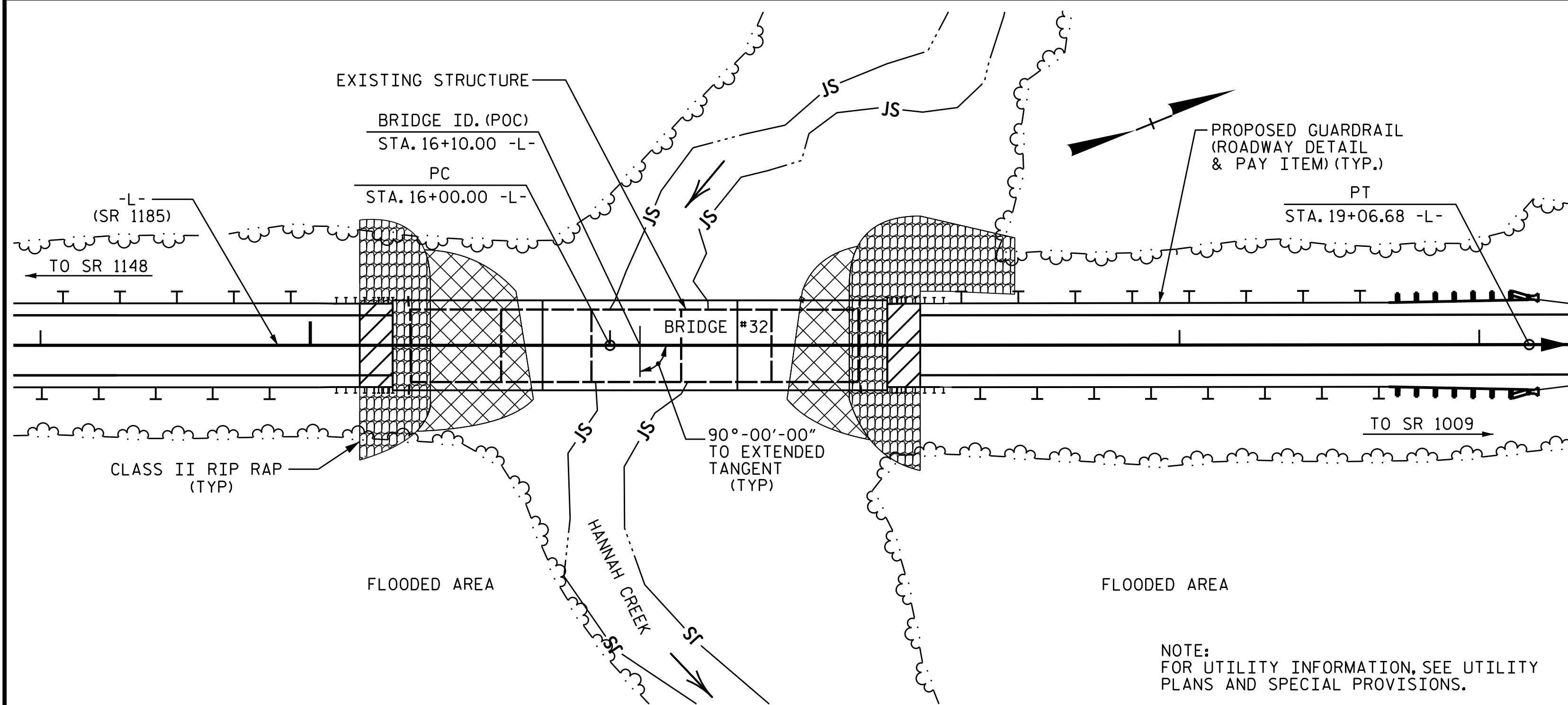


BM #1 : RR SPIKE IN BASE OF 12" PINE, -L- STA. 10+24.22, 71.2' LEFT, ELEV. 103.31'



LOCATION SKETCH

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	PILE DRIVING EQUIPMENT SETUP FOR PP 18 X 0.50 GALVANIZED STEEL PILES	HP 12 X 53 STEEL PILES	PP 18 X 0.50 GALVANIZED STEEL PILES		
	LUMP SUM	EACH	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	EACH	EACH	NO.	LIN. FT.	NO.	LIN. FT.
SUPERSTRUCTURE												
END BENT 1			LUMP SUM	20.0		2449	5		5	200		
BENT 1				9.9		2077		7			7	385
BENT 2				9.9		2077		7			7	385
END BENT 2			LUMP SUM	20.0		2449	5		5	200		
TOTAL	LUMP SUM	1	LUMP SUM	59.8	LUMP SUM	9052	10	14	10	400	14	770

TOTAL BILL OF MATERIAL

PIPE PILE PLATES	PILE REDRIVES	VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS	3'-0" X 2'-0" PRESTRESSED CONCRETE CORED SLABS	ASBESTOS ASSESSMENT
EACH	EACH	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN. FT.	LUMP SUM
		330.75				20	1000	
	3		180	200				
7	3							
7	4							
	2		175	195				
14	12	330.75	355	395	LUMP SUM	20	1000	10
								650
								LUMP SUM

DRAWN BY : A. K. PATEL DATE : 12/15/15
 CHECKED BY : W. F. PARKER DATE : 1/16
 DESIGN ENGINEER OF RECORD : P. N. HOLDER DATE : 8/16

20-JUN-2017 12:20
 G:\Structures\Plans\B-4770.SMU.GD.500032.dgn
 gdickey

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
 THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
 THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
 THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF A TEMPORARY CAUSEWAY OR WORK BRIDGE IS NOT PERMITTED.
 NO CRANE SHALL BE PLACED NOR OPERATED ON SPAN B.
 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 MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 30 FEET EACH SIDE OF THE CENTERLINE OF 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 5 SPANS OF PRESTRESSED CONCRETE CHANNELS @ 30' WITH A CLEAR ROADWAY WIDTH OF 24'-3" WITH AN ASPHALT WEARING SURFACE ON PRESTRESSED CONCRETE BENT AND END BENT CAPS ON TIMBER PILES SHALL BE REMOVED.
 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.
 THIS STRUCTURE HAS BEEN DESIGN IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."
 FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.
 PILES AT END BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 81 TONS PER PILE.

PILES AT END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 81 TONS PER PILE.
 PILES AT BENT NO. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 125 TONS PER PILE.
 PILES AT BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 125 TONS PER PILE.
 DRIVE PILES AT END BENT NO. 1 TO A REQUIRED DRIVING RESISTANCE OF 135 TONS PER PILE.
 DRIVE PILES AT END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 135 TONS PER PILE.
 DRIVE PILES AT BENT NO. 1 TO A REQUIRED DRIVING RESISTANCE OF 240 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR SCOUR.
 DRIVE PILES AT BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 240 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR SCOUR.
 INSTALL PILES AT BENT NO. 1 TO A TIP ELEVATION NO HIGHER THAN 73 FT.
 INSTALL PILES AT BENT NO. 2 TO A TIP ELEVATION NO HIGHER THAN 73 FT.
 PIPE PILE PLATES ARE REQUIRED FOR STEEL PIPE PILES AT BENT NO. 1. USE PIPE PILE PLATES WITH A DIAMETER EQUAL TO THE PIPE PILE DIAMETER. FOR STEEL PIPE PILE PLATES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.
 PIPE PILE PLATES ARE REQUIRED FOR STEEL PIPE PILES AT BENT NO. 2. USE PIPE PILE PLATES WITH A DIAMETER EQUAL TO THE PIPE PILE DIAMETER. FOR STEEL PIPE PILE PLATES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.
 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.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1 IS ELEVATION 81 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
 THE SCOUR CRITICAL ELEVATION FOR BENT NO. 2 IS ELEVATION 81 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
 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, SEE SPECIAL PROVISIONS.

HYDRAULIC DATA

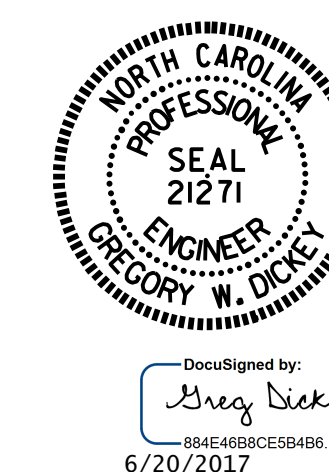
DESIGN DISCHARGE = 6503 CFS
 FREQUENCY OF DESIGN DISCHARGE = 25 YRS.
 DESIGN HIGH WATER ELEVATION = 105.7 FT.
 DRAINAGE AREA = 59.5 SQ. MI.
 BASE DISCHARGE (Q100) = 8947 CFS
 BASE HIGH WATER ELEVATION = 107.5 FT.

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 8100 CFS
 FREQUENCY OF OVERTOPPING FLOOD = 50+ YRS.
 OVERTOPPING FLOOD ELEVATION = 107.3 FT.
 OVERTOPPING OCCURS @ STA. 19+72.50 -L-
 OVERTOPPING ELEVATION REPRESENTS SAG ELEV.

PROJECT NO. B-4770
 JOHNSTON COUNTY
 STATION: 16+10.00 -L-

SHEET 2 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE OVER HANNAH CREEK ON SR 1185 BETWEEN SR 1009 AND SR 1009

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS 21
2			4			