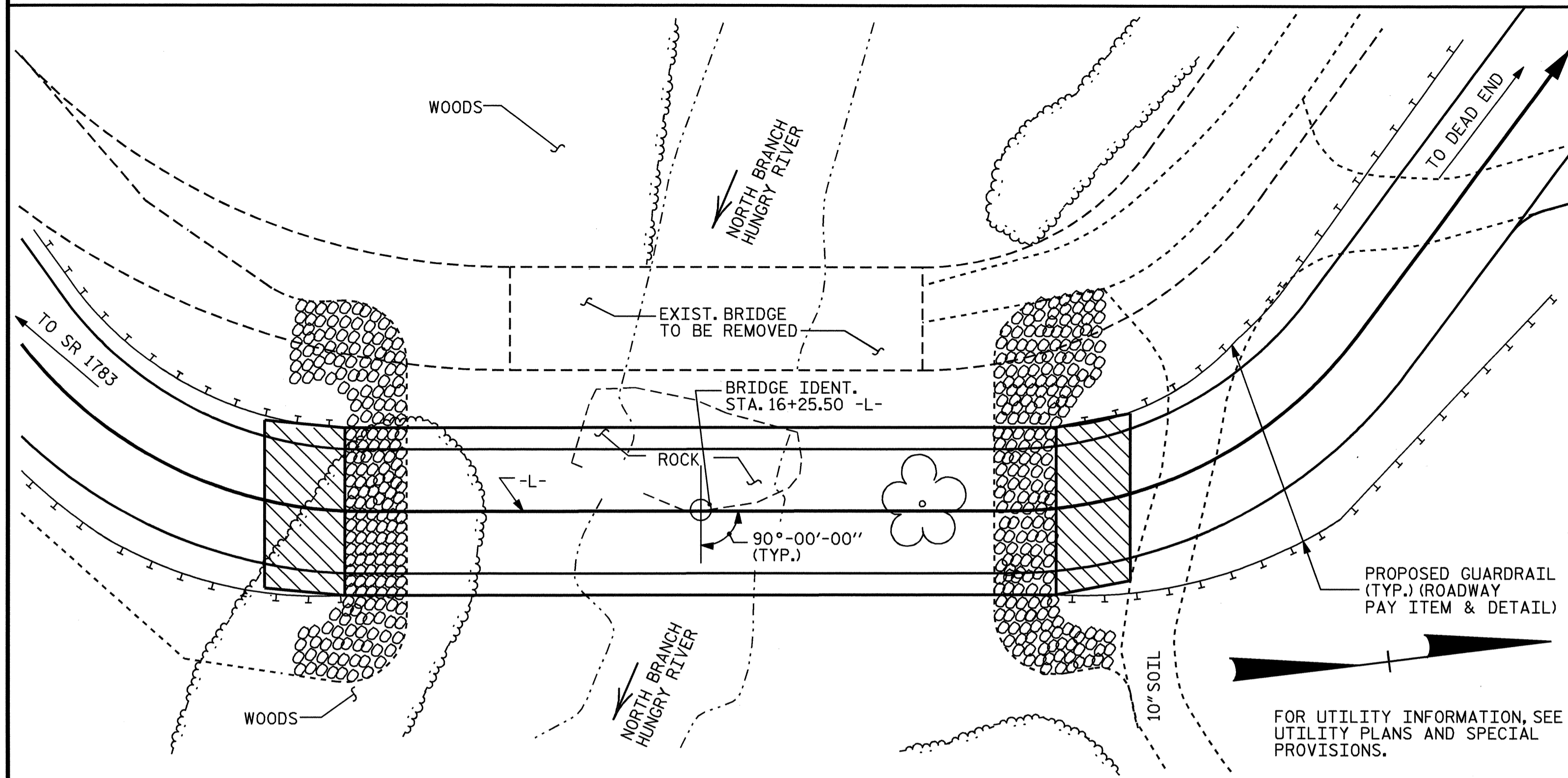


BM #2: 6" NAIL SET IN BASE OF 18" POPLAR TREE STA. 17+34.82 -L-, 6.10' RT. EL. 1903.15.



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE..... 1700 CFS.
 FREQUENCY OF DESIGN FLOOD..... 25 YEARS
 DESIGN HIGH WATER ELEVATION..... 1895.4
 DRAINAGE AREA..... 7.5 SQ. MI.
 BASIC DISCHARGE(Q100)..... 2600 CFS.
 BASIC HIGH WATER ELEVATION..... 1896.9

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE..... 12000 CFS.
 FREQUENCY OF OVERTOPPING FLOOD..... 500 ++ YRS.
 OVERTOPPING FLOOD ELEVATION..... 1900.7

TOTAL BILL OF MATERIAL

	CONSTRUCTION MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS	REMOVAL OF EXISTING STRUCTURE	UNCLASSIFIED STRUCTURE EXCAVATION	3'-6" Ø DRILLED PIERS IN SOIL	3'-6" Ø DRILLED PIERS NOT IN SOIL	PERMANENT STEEL CASING FOR 3'-6" Ø DRILLED PIERS	SID INSPECTION	SPT TESTING	CROSSHOLE SONIC LOGGING	CSL TUBES	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	HP 12 X 53 STEEL PILES	STEEL PILE POINTS	CONCRETE BARRIER RAIL	PLAIN RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS		
	LUMP SUM	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	LIN. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	SQ. YDS.	SQ. YDS.	LUMP SUM	NO.	LIN. FT.
SUPERSTRUCTURE												LUMP SUM					225.5			LUMP SUM	30	1125.00	
END BENT NO. 1											11.3		1999		5	50	5		105	120			
BENT NO. 1				5.25	4.50	3.48	1	2	1	59.00	18.0		3780	636									
BENT NO. 2				11.50	4.50	9.79		2	1	84.00	17.5		3954	720									
END BENT NO. 2											11.3		2013		5	50	5		170	190			
TOTAL	LUMP SUM	LUMP SUM	LUMP SUM	16.75	9.00	13.27	1	4	2	143.00	58.1	LUMP SUM	11746	1356	10	100	10	225.5	275	310	LUMP SUM	30	1125.00

NOTES:

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.

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

THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.

THE EXISTING 6-SPAN STRUCTURE (1 @ 12'-9", 1 @ 12'-6", 1 @ 21'-2", 1 @ 11'-10", 1 @ 12'-4", 1 @ 12'-11") WITH A CLEAR ROADWAY WIDTH OF 19.1 FEET AND A 2" ASPHALT WEARING SURFACE ON A TIMBER DECK ON STEEL I-BEAMS, ON A SUBSTRUCTURE CONSISTING OF TIMBER POST AND SILL END BENTS AND TIMBER BENTS ON CONCRETE FOOTINGS AND TIMBER POST AND SILL CRUTCH BENTS AND LOCATED APPROXIMATELY 15 FEET UPSTREAM FROM THE EXISTING STRUCTURE SHALL BE REMOVED.

THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIERS IS BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT 1 FT. BELOW THE GROUND LINE.

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 MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 20 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THE ESTIMATED QUANTITY IS LESS THAN 500 CUBIC YARDS. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

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.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", NOVEMBER, 1995.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.

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.

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."

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

TEMPORARY WORKPAD WILL BE REQUIRED IN THE AREA INDICATED IN THE PLAN VIEW ON SHEET 1 OF 3. AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE WORKPAD, THE CLASS II RIP RAP USED IN THE WORKPAD MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS.

FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

PROJECT NO. B-3666
HENDERSON COUNTY
 STATION: 16+25.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE OVER NORTH BRANCH
 HUNGRY RIVER ON SR 1799
 BETWEEN SR 1800 AND SR 1155



DRAWN BY : QT NGUYEN DATE : 9-04
 CHECKED BY : MG CHEEK DATE : 10-04

10-JUN-2005 08:02
 RA\STRUCT\FINAL\p2\16366gd.dgn
 dahodge

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

NC003