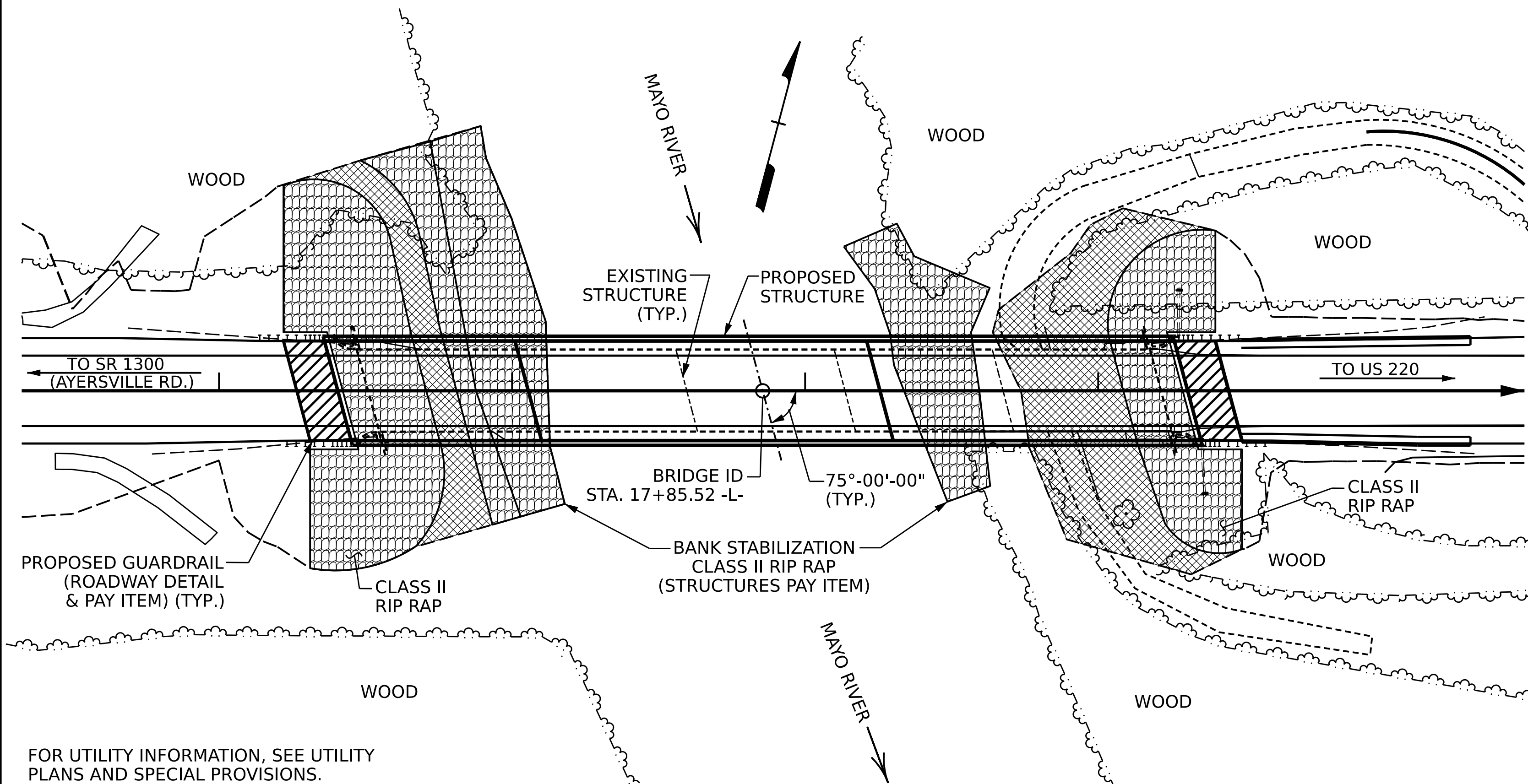


BM #1: STA. 9+93 -L-, 82' LT (RAILROAD SPIKE IN 24" POPLAR), EL. 721.47'



**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.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 17+85.52 -L-.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- 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 MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 79' LEFT AND 54' RIGHT OF CENTERLINE ROADWAY AT END BENT #1 AND 63' EACH SIDE OF CENTERLINE ROADWAY AT END BENT #2 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 1 @ 54.5', 3 @ 54', AND 1 @ 54.5' SPANS, CLEAR ROADWAY WIDTH OF 28' WITH 4 LINES OF 45" PRECAST PRESTRESSED CONCRETE GIRDERS @ 8' CTS., END BENTS AND INTERIOR BENTS 1 & 4 ON RC CAP ON PPC PILES, INTERIOR BENTS 2 & 3 ON RC CAP AND POSTS AND LOCATED AT PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR 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 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 DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."
- THE SCOUR CRITICAL ELEVATION FOR BENTS NO. 1 AND 2 IS ELEVATION 633 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- 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.
- FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.
- TEMPORARY CAUSEWAY SHALL NOT BE PERMITTED TO BLOCK THE CONFLUENCE OF ANY JURISDICTIONAL TRIBUTARY STREAM WITH MAYO RIVER.
- TEMPORARY FILL SHALL NOT BLOCK MORE THAN 50 PERCENT OF THE CHANNEL AT ANY TIME.

	CONSTRUCTION MAINTENANCE, AND REMOVAL OF TEMP ACCESS STA. 17+85.52 -L-	REMOVAL OF EXISTING STRUCTURE AT STA. 17+85.52 -L-	ASBESTOS ASSESSEMENT	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 INSPECTIONS	SPT TESTING	CSL TESTING	UNCLASSIFIED STRUCTURE EXCAVATION AT STA. 17+85.52 -L-	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE
	LUMP SUM	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EA.	EA.	EA.	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.
<b>SUPERSTRUCTURE</b>											10,738	9,835	
END BENT 1													41.0
BENT 1				18.8	28.0	16.8							39.1
BENT 2				18.6	30.2	16.8							37.2
END BENT 2													40.0
<b>TOTAL</b>	<b>LUMP SUM</b>	<b>LUMP SUM</b>	<b>LUMP SUM</b>	<b>37.4</b>	<b>58.2</b>	<b>33.6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>LUMP SUM</b>	<b>10,738</b>	<b>9,835</b>	<b>157.3</b>

**HYDRAULIC DATA**

DESIGN DISCHARGE	= 26,332 CFS
FREQUENCY OF DESIGN FLOOD	= 50 YRS.
DESIGN HIGH WATER ELEVATION	= 662.8 FT.
DRAINAGE AREA	= 293 SQ. MI.
BASIC DISCHARGE (Q100)	= 31,689 CFS
BASIC HIGH WATER ELEVATION	= 664.9 FT.

**OVERTOPPING FLOOD DATA**

OVERTOPPING DISCHARGE	= N/A CFS
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YRS.
OVERTOPPING FLOOD ELEVATION *	= 671.4 FT

\* CL @ SAG STA. 21+29 -L-  
WS ELEVATION TAKEN @ RIVER STATION 45929 (U/S TOE)

	BRIDGE APPROACH SLABS STA. 17+85.52 -L-	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	FIB 54" PRESTRESSED CONCRETE GIRDERS	PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 STEEL PILES	HP 12 X 53 STEEL PILES	PILE REDRIVES	DYNAMIC PILE TESTING	CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARING	
	LUMP SUM	LBS.	LBS.	NO.	LIN. FT.	EA.	NO.	LIN. FT.	EA.	LIN. FT.	TONS.	SQ. YDS.	LUMP SUM
<b>SUPERSTRUCTURE</b>				12	1,144.33					576.55			
END BENT 1		4,589				9	9	315			1,560	1,735	
BENT 1		12,573	2,033										
BENT 2		12,265	1,938										
END BENT 2		4,444				9	9	315		940	1,045		
<b>TOTAL</b>	<b>LUMP SUM</b>	<b>33,871</b>	<b>3,971</b>	<b>12</b>	<b>1,144.33</b>	<b>18</b>	<b>18</b>	<b>630</b>	<b>9</b>	<b>1</b>	<b>576.55</b>	<b>2,500</b>	<b>2,780</b>

PROJECT NO. BR-0093  
ROCKINGHAM COUNTY  
STATION: 17+85.52 -L-

SHEET 4 OF 4



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
**GENERAL DRAWING**  
FOR BRIDGE OVER  
MAYO RIVER  
ON NC 770 BETWEEN  
SR 1300 (AYERSVILLE RD.)  
AND US 220

DRAWN BY : Q. T. NGUYEN DATE : 12/2023  
CHECKED BY : F. LEA DATE : 03/2024  
DESIGN ENGINEER OF RECORD : E. BAYISSA DATE : 09/2023

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED