

TOTAL BILL OF MATERIAL

	CONSTRUCTION MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS	REMOVAL OF EXISTING STRUCTURE	3'-6" Ø DRILLED PIER IN SOIL	3'-6" Ø DRILLED PIER NOT IN SOIL	PERMANENT STEEL CASING FOR 3'-6" Ø DRILLED PIER	SID INSPECTION	SPT TESTING	CROSSHOLE SONIC LOGGING	CSL TUBES	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	45° PRESTRESSED CONCRETE GIRDERS	HP 12 X 53 STEEL PILES	CONCRETE BARRIER RAIL	PLAIN RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS		
	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	LIN. FT.	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE										5510	6067			LUMP SUM		15	728.33			295.83			LUMP SUM	LUMP SUM
END BENT 1												23.8		3811			8	200			225	250		
BENT 1			87.3	24.0	20.3	2	2	1	465.0			24.2		12892	2721									
BENT 2			108.7	36.0	16.7	2	2	1	599.0			24.9		15304	3480									
END BENT 2												23.8		3811			8	280			130	145		
TOTAL	LUMP SUM	LUMP SUM	196.0	60.0	37.0	4	4	2	1064.0	5510	6067	96.7	LUMP SUM	35818	6201	15	728.33	16	480	295.83	355	395	LUMP SUM	LUMP SUM

NOTES

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.
 FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
 FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.
 THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.
 REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

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.
 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.

AFTER SERVING AS A TEMPORARY STRUCTURE THE EXISTING STRUCTURE CONSISTING OF 3 SPANS @ 42'-6" OF REINFORCED CONCRETE GIRDERS WITH A CONCRETE DECK HAVING A CLEAR ROADWAY WIDTH OF 26' ON REINFORCED CONCRETE POST AND WEB BENTS WITH PILE FOOTINGS AND LOCATED APPROXIMATELY 30' DOWNSTREAM FROM THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED STRUCTURE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.
 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.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
 THE DRILLED PIERS AT BENT NO. 1 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 20 TSF LEFT AND 30 TSF RIGHT.
 THE DRILLED PIERS AT BENT NO. 2 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 20 TSF.
 THE REQUIRED TIP BEARING CAPACITY AT BENT NO. 1 AND BENT NO. 2 SHALL BE VERIFIED.
 DRILLED PIERS FOR BENT NO. 1 AND BENT NO. 2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 245 TONS EACH AT THE TOP OF THE COLUMN.

FOR FABRICATED METAL STAY-IN-PLACE FORMS, SEE SPECIAL PROVISIONS.

THE CONTRACTOR MAY CHOOSE TO UTILIZE THE STANDARD OVERHANG FALSEWORK BRACING SYSTEM. SEE "STANDARD OVERHANG FALSEWORK" SHEETS.

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.

PERMANENT STEEL CASING MAY BE REQUIRED FOR DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2. IF REQUIRED, THE CASING SHALL NOT EXTEND BELOW ELEVATION 972 WITHOUT THE ENGINEER'S PERMISSION. THE NEED FOR PERMANENT STEEL CASING WILL BE DETERMINED BY THE ENGINEER.

FOR PERMANENT STEEL CASING, SEE SPECIAL PROVISIONS FOR DRILLED PIERS.

DRILLED PIERS AT BENT NO. 1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 908 LEFT AND 945 RIGHT, AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

DRILLED PIERS AT BENT NO. 2 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 908 AND SATISFY THE REQUIRED TIP BEARING CAPACITY.

THE SCOUR CRITICAL ELEVATIONS FOR BENT NO. 1 AND BENT NO. 2 ARE 958. THE SCOUR CRITICAL ELEVATIONS ARE FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.

SID INSPECTIONS ARE REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

SPT TESTING IS REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT NO. 1 AND BENT NO. 2.

PILES FOR END BENTS NO. 1 AND 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS.

WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.

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.

FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

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.

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+05.50 -L-.

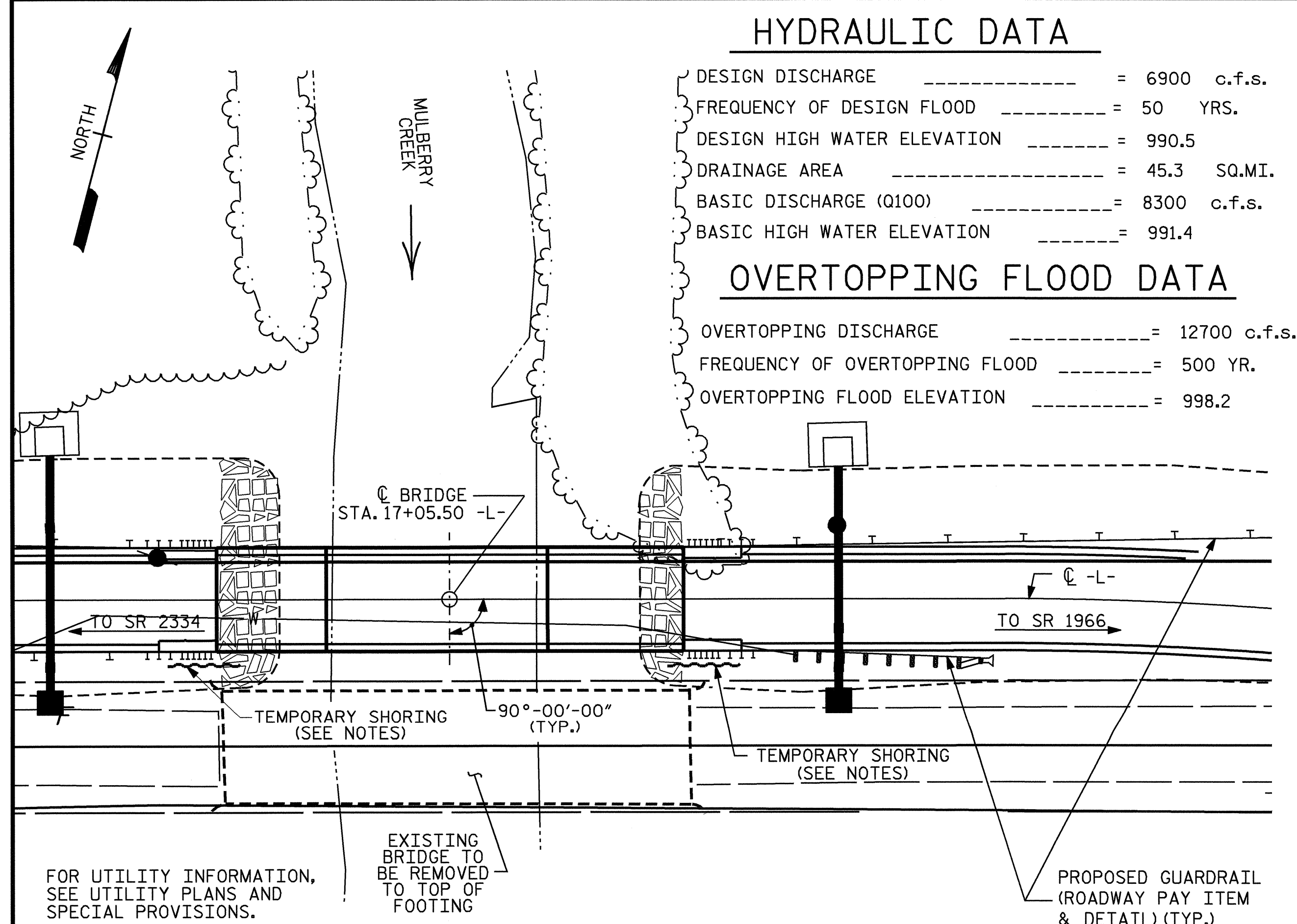
NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

DUE TO THE VARIABILITY OF THE ROCK LINE AND LACK OF SUBSURFACE BORINGS AT BENT 2, THE LISTED TIP ELEVATIONS FOR BENT 2 ARE ESTIMATES AND MAY BE ADJUSTED IN THE FIELD. ADDITIONAL INFORMATION WILL BE PROVIDED DURING THE PROJECT PRECONSTRUCTION MEETING.

BM #2: 8" SPIKE IN BASE OF H-FRAME POWER POLE
 (10) STA. 14+76.00 -BL- 173.00' RT. EL. 994.15 (NOT ON -L- LINE)



LOCATION SKETCH

DRAWN BY : J.L. WALTON DATE : 9/27/04
 CHECKED BY : D.G. ELY DATE : 11/5/04

PROJECT NO. B-3714
WILKES COUNTY
 STATION: 17+05.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**GENERAL DRAWING FOR
 BRIDGE OVER MULBERRY
 CREEK ON NC 268
 BETWEEN SR 2334
 AND SR 1966**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			35

