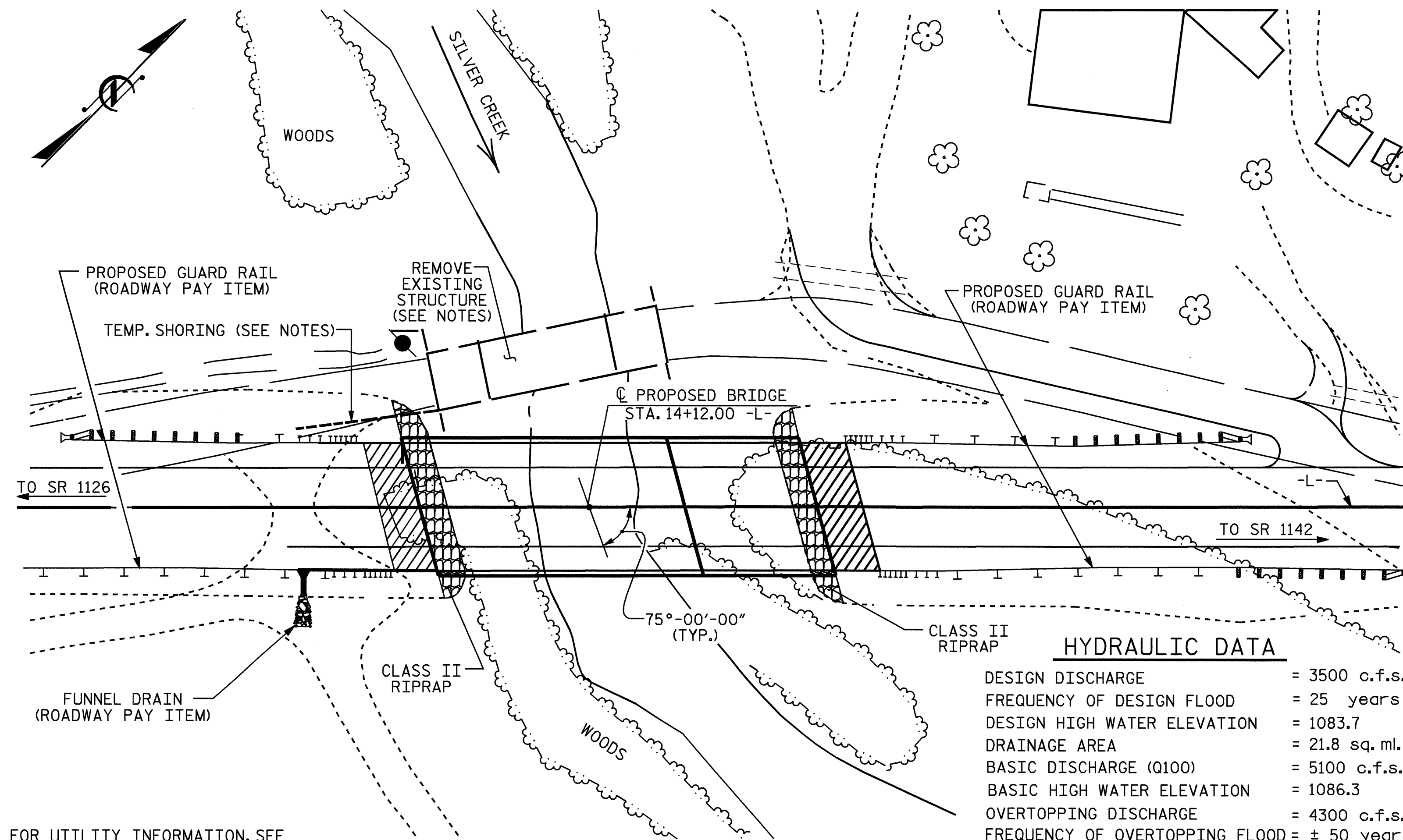


B. M. #2, 8" NAIL SET IN BASE OF 12" BIRCH 175' LT. OF -BL-  
 STA. 15+75, 186.06' LT. OF -L- STA. 12+71.81, EL. 1085.31.



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

**HYDRAULIC DATA**

DESIGN DISCHARGE	= 3500 c.f.s.
FREQUENCY OF DESIGN FLOOD	= 25 years
DESIGN HIGH WATER ELEVATION	= 1083.7
DRAINAGE AREA	= 21.8 sq. ml.
BASIC DISCHARGE (Q100)	= 5100 c.f.s.
BASIC HIGH WATER ELEVATION	= 1086.3
OVERTOPPING DISCHARGE	= 4300 c.f.s.
FREQUENCY OF OVERTOPPING FLOOD	= ± 50 years
OVERTOPPING FLOOD ELEVATION	= 1085.2

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.

AFTER SERVING AS A TEMPORARY STRUCTURE THE EXISTING STRUCTURE CONSISTING OF 3 SPANS 1 @ 15'-8", 1 @ 39'-2" AND 1 @ 15'-8" CLEAR ROADWAY WIDTH OF 15.9' AND TIMBER FLOOR ON TIMBER JOIST AND STEEL GIRDER FLOOR BEAM SYSTEM ON TIMBER END BENTS AND BENTS ON TIMBER PILES AT VARIOUS CENTERS AND LOCATED UPSTREAM FROM PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THIS LOAD LIMITATION 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 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.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 28 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, FOR UNCLASSIFIED STRUCTURE EXCAVATION, SEE SPECIAL PROVISIONS.

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 AT STATION 14+12.00-L-".

**NOTES**

- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- THE DRILLED PIERS AT BENT #1 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 30 TSF.
- DRILLED PIERS FOR BENT #1 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 269 TONS EACH AT THE TOP OF THE COLUMN.
- PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENT #1 AND THE CASING SHALL NOT EXTEND BELOW ELEVATION 1067 FT. WITHOUT THE ENGINEER'S PERMISSION.
- FOR PERMANENT STEEL CASING, SEE SPECIAL PROVISIONS FOR DRILLED PIERS.
- DRILLED PIERS AT BENT #1 MUST EXTEND TO AN ELEVATION NO HIGHER THAN 1046 FT. SATISFY THE REQUIRED TIP BEARING CAPACITY, AND HAVE A MINIMUM PENETRATION OF 3 FT. INTO ROCK AS DEFINED BY THE DRILLED PIERS SPECIAL PROVISION.
- THE SCOUR CRITICAL ELEVATION FOR BENT #1 IS ELEVATION 1066 FT. 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 MAY BE REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT BENT #1. SEE DRILLED PIERS SPECIAL PROVISION.
- CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT BENT #1. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.
- SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT #1.
- PILES FOR END BENT NO. 1 AND END BENT NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.
- STEEL PILE POINTS ARE REQUIRED FOR PILES AT END BENT NO. 1 AND END BENT NO. 2. SEE SPECIAL PROVISIONS FOR STEEL PILE POINTS.
- WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.
- 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.
- FOR STEEL H PILES, SEE SPECIAL PROVISION.

**TOTAL BILL OF MATERIAL**

	REMOVAL OF EXISTING STRUCTURE	3'-0" DIA. DRILLED PIER IN SOIL	3'-0" DIA. DRILLED PIER NOT IN SOIL	PERMANENT STEEL CASING FOR 3'-0" DRILLED PIER	SID INSPECTION	CROSSHOLE SONIC LOGGING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	HP 12 x 53 STEEL PILES		STEEL PILE POINTS
	LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	LBS.	NO.	LIN. FT.	EACH
SUPERSTRUCTURE														
END BENT #1							LUMP SUM	18.7		3083		11	330	11
BENT #1		91.9	15.0	43.9	1	1		22.1		9114	1969			
END BENT #2							LUMP SUM	17.3		2975		7	140	7
TOTAL	LUMP SUM	91.9	15.0	43.9	1	1	LUMP SUM	58.1	LUMP SUM	15172	1969	18	470	18

**TOTAL BILL OF MATERIAL**

	ONE BAR METAL RAIL	1'-0" x 1'-8 1/2" CONCRETE PARAPET	PLAIN RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" x 2'-3" PRESTRESSED BOX BEAM	3'-0" x 2'-9" PRESTRESSED BOX BEAM		
	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN. FT.	NO.	LIN. FT.
SUPERSTRUCTURE	219.80	235.3			LUMP SUM	13	504.02	13	1024.02
END BENT #1			88	98					
BENT #1									
END BENT #2			73	81					
TOTAL	219.80	235.3	161	179	LUMP SUM	13	504.02	13	1024.02

DRAWN BY : J. G. KHARVA DATE : 9/26/05  
 CHECKED BY : J. L. WALTON/WAD DATE : 12/19/05

03-FEB-2006 12:15  
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PROJECT NO. B-4039  
BURKE COUNTY  
 STATION: 14+12.00 -L-

SHEET 3 OF 3



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 GENERAL DRAWING  
 FOR BRIDGE OVER  
 SILVER CREEK ON  
 SR 1127 BETWEEN  
 SR 1126 AND SR 1142

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			26

NC005