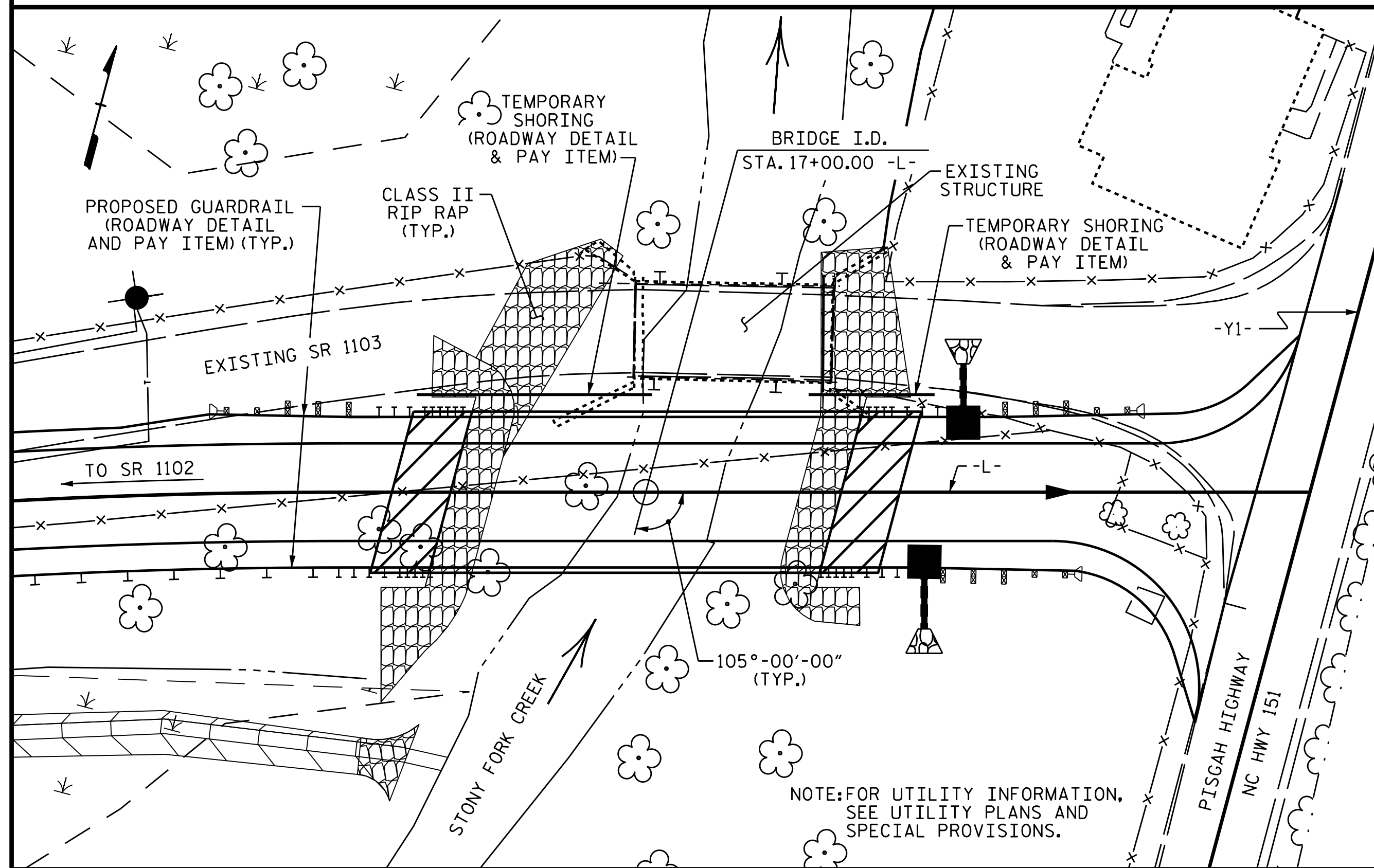


B.M. #1: 8" SPIKE SET IN ROOT OF WALNUT TREE 87' LEFT OF STA. 9+87 -L-, EL. 2394.43



LOCATION SKETCH

FOUNDATION NOTES

FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.  
 PILES AT END BENT No.1 AND END BENT No.2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 100 TONS PER PILE.  
 DRIVE PILES AT END BENT No.1 TO A REQUIRED DRIVING RESISTANCE OF 167 TONS PER PILE.  
 PILE EXCAVATION IS REQUIRED TO INSTALL PILES AT END BENT No.2. EXCAVATE HOLES AT PILE LOCATIONS TO EL. 2368.5. FOR PILE EXCAVATION, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.  
 CONCRETE OR GROUT IS REQUIRED TO FILL HOLES FOR PILE EXCAVATION AT END BENT No.2.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	HP 12 X 53 STEEL PILES	TWO BAR METAIL RAIL	1'-2" x 2'-9 1/2" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 2'-9" PRESTRESSED CONCRETE BOX BEAMS	ASBESTOS ASSESSMENT		
	LUMP SUM	LIN. FT.	LIN. FT.	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	LIN. FT.	LIN. FT.	TONS	SO. YDS.	LUMP SUM	NO.	LIN. FT.	LUMP SUM
SUPERSTRUCTURE						LUMP SUM			144.37	160.00			LUMP SUM	11	880.00		
END BENT NO. 1					26.2		3670	7	180		130	140					
END BENT NO. 2		25	46		26.2		3670	7	105		125	135					
TOTAL	LUMP SUM	25	46	LUMP SUM	52.4	LUMP SUM	7340	14	285	144.37	160.00	255	275	LUMP SUM	11	880.00	LUMP SUM

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.  
 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 SPICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.  
 THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 50 FT (LT) AND 40 FT (RT) 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. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.  
 AFTER SERVING AS A TEMPORARY STRUCTURE, THE EXISTING 40'-6" SINGLE SPAN STRUCTURE WITH A CLEAR ROADWAY WIDTH OF 18'-7" AND A 2" ASPHALT WEARING SURFACE ON A TIMBER FLOOR ON STEEL I-BEAMS, WITH A SUBSTRUCTURE CONSISTING OF TIMBER CAPS ON TIMBER POSTS AND SILLS ON CONCRETE FOOTINGS AT THE END BENTS AND LOCATED 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 BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT. FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.  
 FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.

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".  
 FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.  
 ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.  
 STEEL SHEET PILING REQUIRED FOR SHORING SHALL BE HOT ROLLED.  
 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.

HYDRAULIC DATA

DESIGN DISCHARGE.....1400 C.F.S.  
 FREQUENCY OF DESIGN FLOOD.....25 YEARS  
 DESIGN HIGH WATER ELEVATION.....2378.5  
 DRAINAGE AREA.....5.0 SQ. MI.  
 BASE DISCHARGE (Q100).....2050 C.F.S.\*  
 BASE HIGH WATER ELEVATION.....2379.83

OVERTOPPING DATA

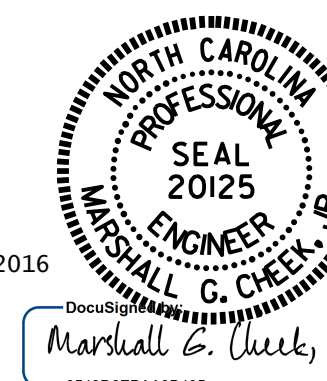
OVERTOPPING DISCHARGE.....5270 C.F.S.  
 FREQUENCY OF OVERTOPPING FLOOD.....500+ YRS.  
 OVERTOPPING FLOOD ELEVATION.....2385.8\*\*  
 \* FEMA  
 \*\* OVERTOPPING ELEVATION AT STATION 17+86 -L-

PROJECT NO. B-5396  
BUNCOMBE COUNTY  
 STATION: 17+00.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING  
 FOR BRIDGE OVER  
 STONY FORK CREEK ON SR 1103  
 BETWEEN SR 1102 AND NC 151



2/18/2016

DocuSign  
 Marshall G. Cheek, Jr.  
 65491028244336405

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S- 2
1			3			TOTAL SHEETS
2			4			18

DRAWN BY : B.N. GRADY  
 CHECKED BY : M.G. CHEEK  
 DATE : 12/15  
 DATE : 1/16