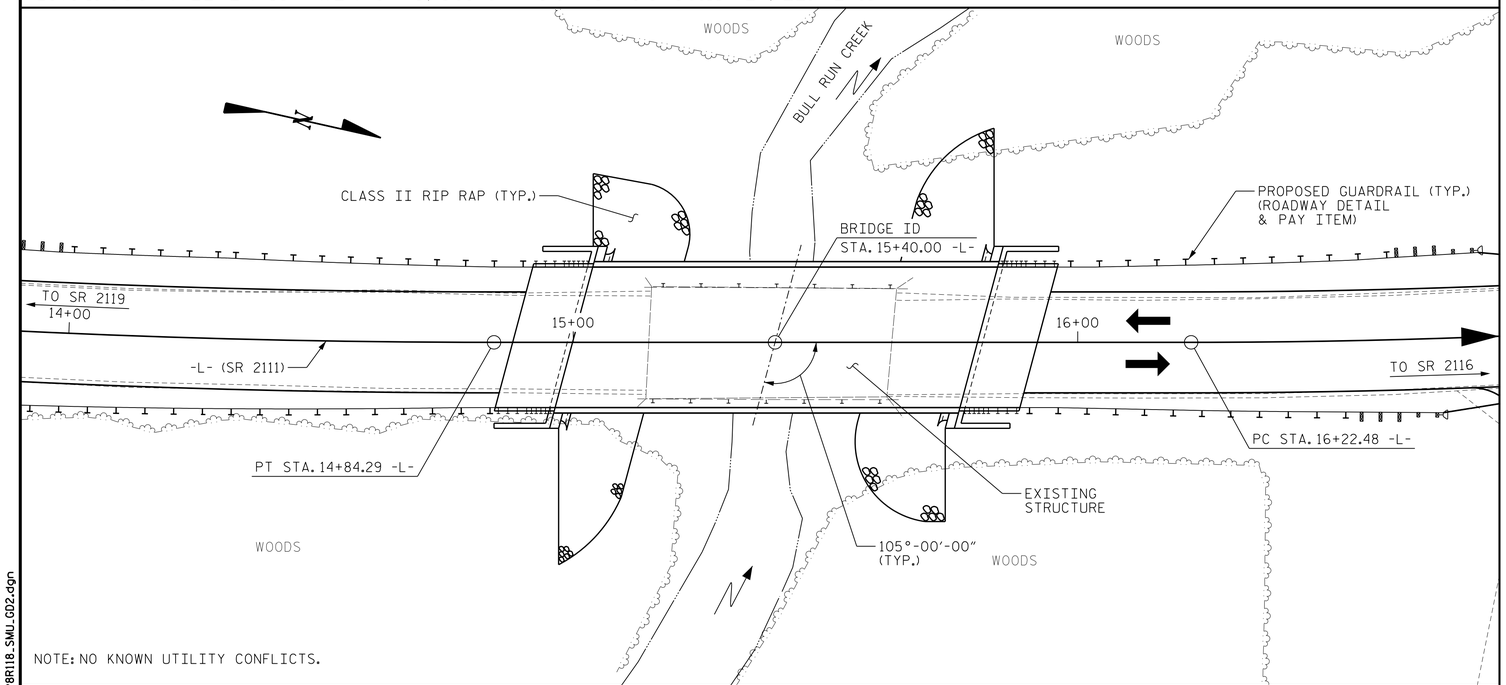
B.M. 1: 60d NAIL IN 15" TWIN OAKS, 30.76' RT. OF STA. 9+86.11 -L-, EL. 727.54



NOTE: NO KNOWN UTILITY CONFLICTS.

LOCATION SKETCH

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 EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

THE EXISTING STRUCTURE CONSISTING OF THREE (3) SPANS @ 17'-6", WITH ASPHALT WEARING SURFACE ON TIMBER DECK WITH TIMBER JOISTS AND A CLEAR ROADWAY WIDTH OF 21'-0" ON TIMBER CAPS WITH TIMBER PILES END BENTS AND BENTS AND LOCATED AT THE SITE OF THE PROPOSED STRUCTURE SHALL BE REMOVED. EXISTING CONCRETE FOOTINGS AT INTERIOR BENTS TO REMAIN.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS TO NOT ALLOW DEBRIS TO FALL 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.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 30 FT. EACH SIDE OF THE 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.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. 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 THE DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

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

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

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR ASBESTOS ASSESSMENT, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION, PRESTRESSED CONCRETE END BENT AND BENT CAPS MAY BE SUBSTITUTED IN PLACE OF THE CAST-IN-PLACE CAPS. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER TO RECEIVE REVISED PLANS AND DETAILS FROM THE STRUCTURES MANAGEMENT UNIT. THE REDESIGN AND ANY ADDITIONAL MATERIALS NEEDED WILL BE AT NO ADDITIONAL COST TO THE CONTRACTOR.

FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT 1 AND END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 120 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE.

STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT 1. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

TESTING THE PRODUCTION PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

CONCRETE IS REQUIRED TO FILL HOLES FOR PILE EXCAVATION AT END BENT 2.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	HP 12 X 53 STEEL PILES		STEEL PILE POINTS	VERTICAL CONCRETE BARRIER RAIL	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.	EACH	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	EACH	NO.	LIN. FT.	EACH	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN. FT.	LUMP SUM
SUPERSTRUCTURE							LUMP SUM						160.00			LUMP SUM	10	800.00	
END BENT 1					LUMP SUM	24.4		3430	5	5	85	5		134	148				
END BENT 2		40	25		LUMP SUM	24.4		3430		5	65			151	168				
TOTAL	LUMP SUM	40	25	1	LUMP SUM	48.8	LUMP SUM	6860	5	10	150	5	160.00	285	316	LUMP SUM	10	800.00	LUMP SUM

PROJECT NO. 17BP.8.R.118

RANDOLPH COUNTY

STATION: 15+40.00 -L-

SHEET 2 OF 2

NORTH CAROLINA PROFESSIONAL SEAL 24939 ENGINEER BYRON E. ATKINSON

4/18/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE ON SR 2111
OVER BULL RUN CREEK
BETWEEN SR 2116 AND SR 2119

MI ENGINEERING
1011 SCHAUB DRIVE, SUITE 100
RALEIGH, NC 27606
(919) 851-6606
FIRM PE NUMBER : P-0671

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			15

DRAWN BY :	B.E. LANNING	DATE :	01/17
CHECKED BY :	B.E. ATKINSON	DATE :	02/17
DESIGN ENGINEER OF RECORD :	B.E. ATKINSON	DATE :	03/17

4/18/2017
1:49:57 PM
User: blanning
Filename: P:\NC Bridges\M16005_CH Eng_Div. 8 Br. Repl. (6 Bridges)\M16005_04_Randolph (22)\17BP8R118\Structures\401_003_17BP8R118_SMU_GD2.dgn