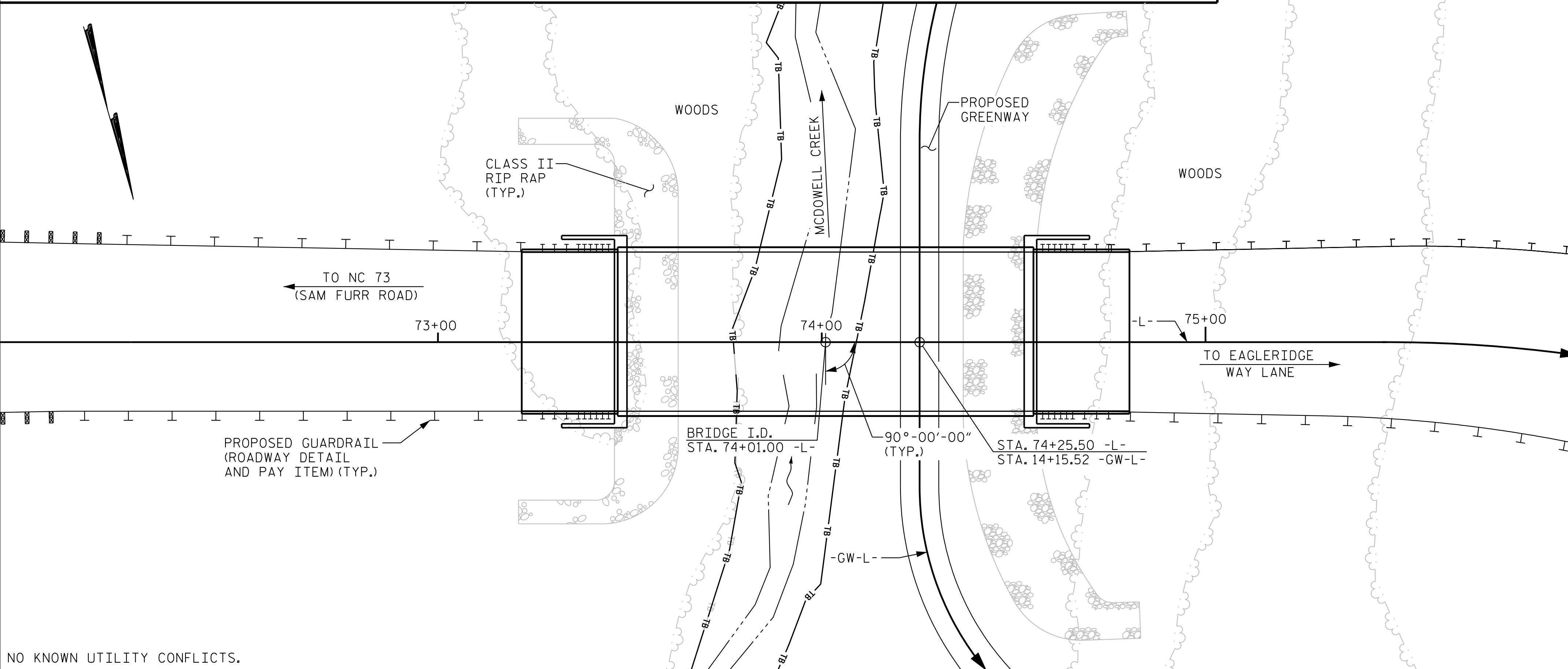


BENCHMARK: BM10 -L- STA. 75+31.71, 323.10' LT. (R.R. SPIKE IN 15" MAPLE), EL. 711.96'



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 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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.  
 PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE 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.  
 NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.  
 THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES".  
 FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.  
 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.

TOTAL BILL OF MATERIAL

	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	MODIFIED 63" PRESTRESSED CONCRETE GIRDERS	PILE DRIVING EQUIPMENT SET UP FOR HP 14x73 STEEL PILES	HP 14x73 STEEL PILES	STEEL PILE POINTS	TWO BAR METAL RAIL	1'-2" x 2'-6" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS		
	LIN. FT.	LIN. FT.	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	EA.	NO.	LIN. FT.	EA.	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM
SUPERSTRUCTURE			4,776	6,048		LUMP SUM		5	540.83				201.67	216.67				LUMP SUM
END BENT 1	98	25			30.8		6,419			7	140			205	227			
END BENT 2					30.8		6,429		7	7	245	7		367	407			
TOTAL	98	25	4,776	6,048	61.6	LUMP SUM	12,848	5	540.83	7	14	385	7	201.67	216.67	572	634	LUMP SUM

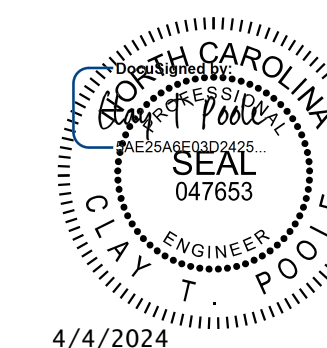
SAMPLE BAR REPLACEMENT

SIZE	LENGTH
#3	6'-2"
#4	7'-4"
#5	8'-6"
#6	9'-8"
#7	10'-10"
#8	12'-0"
#9	13'-2"
#10	14'-6"
#11	15'-10"

NOTE:  
 SAMPLE BAR REPLACEMENT LENGTHS  
 BASED ON 30" (SAMPLE LENGTH) PLUS  
 TWO SPLICE LENGTHS AND  $f_y = 60\text{ksi}$ .

PROJECT NO. U-5108  
MECKLENBURG COUNTY  
 STATION: 74+01.00 -L-

SHEET 4 OF 4



**Kimley»Horn**

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 NC LICENSE # F-0102

This document, together with the concepts and designs presented herein, is an integral part of the contract. It is to be read and interpreted in conjunction with the written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.  
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STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

GENERAL DRAWING  
 FOR BRIDGE ON NORTHCROSS  
 DRIVE EXTENSION  
 OVER MCDOWELL CREEK BETWEEN  
 NC 73 AND EAGLERIDGE WAY LANE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			33

**DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED**

K:\RD\Structures\Bridges\NC\U5108\08\_SML\02\_591403.dgn

DRAWN BY: J. I. KIMBLE DATE: 10/2023  
 CHECKED BY: T. H. ORR DATE: 10/2023  
 DESIGN ENGINEER OF RECORD: C. T. POOLE DATE: 10/2023