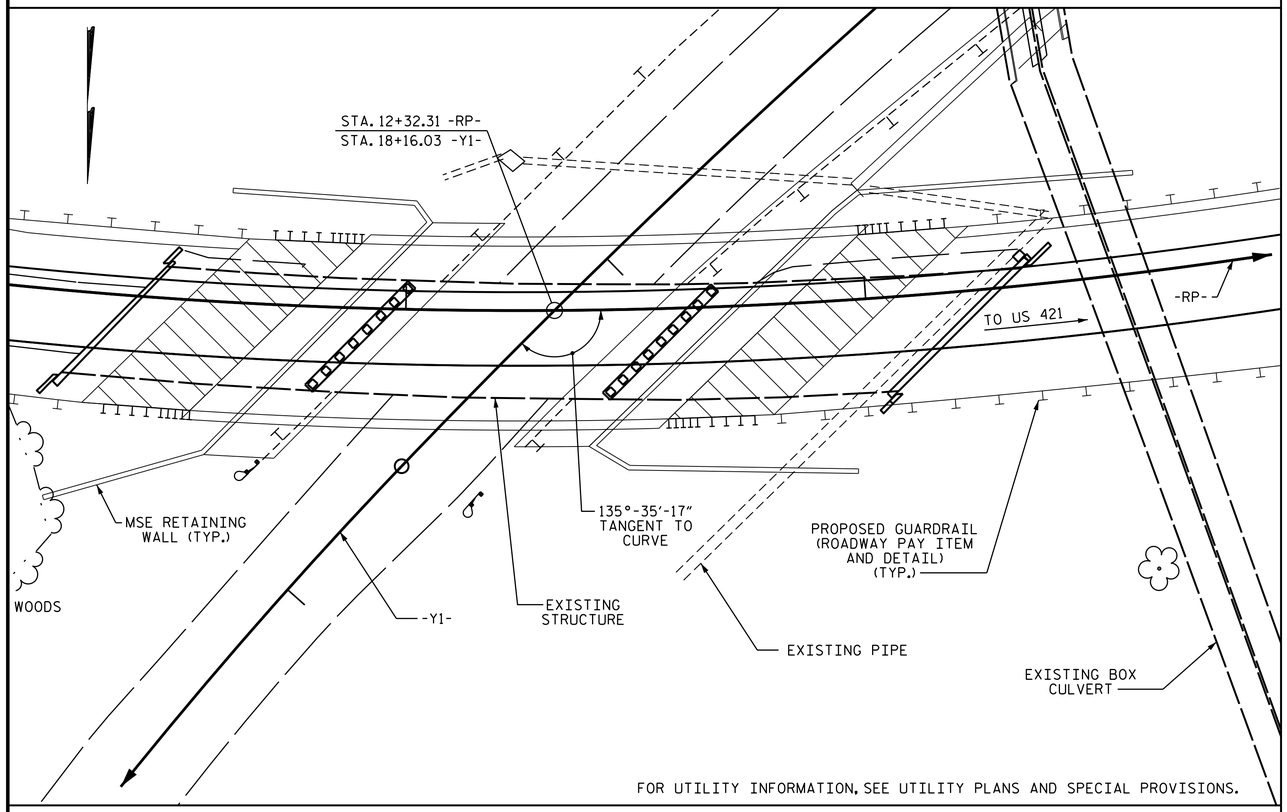
BM #2: WEST BOLT AT BASE OF BILL BOARD SIGN, 341' LEFT OF STA. 30+27.00 -L-, EL. 726.08



LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD 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 INDEPENDANT 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. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

THE ELEVATION AND CLEARANCE SHOWN ON THE PLANS AT THE POINT OF MINIMUM VERTICAL CLEARANCE ARE FROM THE BEST INFORMATION AVAILABLE. PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE ELEVATION ON THE EXISTING PAVEMENT AND CHECK THE CLEARANCE. REPORT ANY VARIATIONS TO THE ENGINEER. ANY PLAN REVISIONS NECESSARY TO ACHIEVE THE REQUIRED MINIMUM VERTICAL CLEARANCE WILL BE PROVIDED BY THE DEPARTMENT.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE, SEE SPECIAL PROVISIONS.

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.

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. AND 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 12+32.31 -RP-".

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.

THE EXISTING STRUCTURE, CONSISTING OF 3 SPANS OF 55'-0", 65'-7" AND 66'-11" WITH CONCRETE DECK AND STEEL GIRDERS AND A CLEAR ROADWAY WIDTH OF 24'-0" WITH 5" AWS ON A CONCRETE CAP WITH STEEL PILES SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. INTERIOR BENTS HAVE FULL CONCRETE ENCASEMENT. 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.

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 THE DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 85 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 145 TONS PER PILE.

PILES AT END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 100 TONS PER PILE.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 165 TONS PER PILE.

TESTING 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 AND FOR PILE DRIVING CRITERIA, SEE PILE DRIVING CRITERIA PROVISIONS.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	54" PRESTRESSED CONCRETE GIRDERS		HP 12 X 53 STEEL PILES		PILE REDRIVES	CONCRETE BARRIER RAIL	4" SLOPE PROTECTION	ELASTOMERIC BEARINGS	EXPANSION JOINT SEALS
	LUMP SUM	EA.	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	EA.	LIN. FT.	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE			4232	5203		LUMP SUM		5	496.10				247.67		LUMP SUM	LUMP SUM
END BENT 1					62.9		8253			11	660	11		29		
END BENT 2					71.4		9176			10	450	10		31		
TOTAL	LUMP SUM	1	4232	5203	134.3	LUMP SUM	17429	5	496.10	21	1110	21	247.67	60	LUMP SUM	LUMP SUM

NORTH CAROLINA PROFESSIONAL SEAL 29441 ENGINEER KRISTY W. ALFORD

DocuSigned by: F2458389 30BF40E...

11/25/2014

PROJECT NO. B-5119

GUILFORD COUNTY

STATION: 12+32.31 -RP-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

BRIDGE OVER US 29-70-220 ON I40/I85 BUS. RAMP

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-51
1			3			TOTAL SHEETS
2			4			77

DRAWN BY : J.P. ADAMS DATE : 10/2014
CHECKED BY : D.R. SHACKELFORD DATE : 10/2014

25-NOV-2014 10:59
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jpadams