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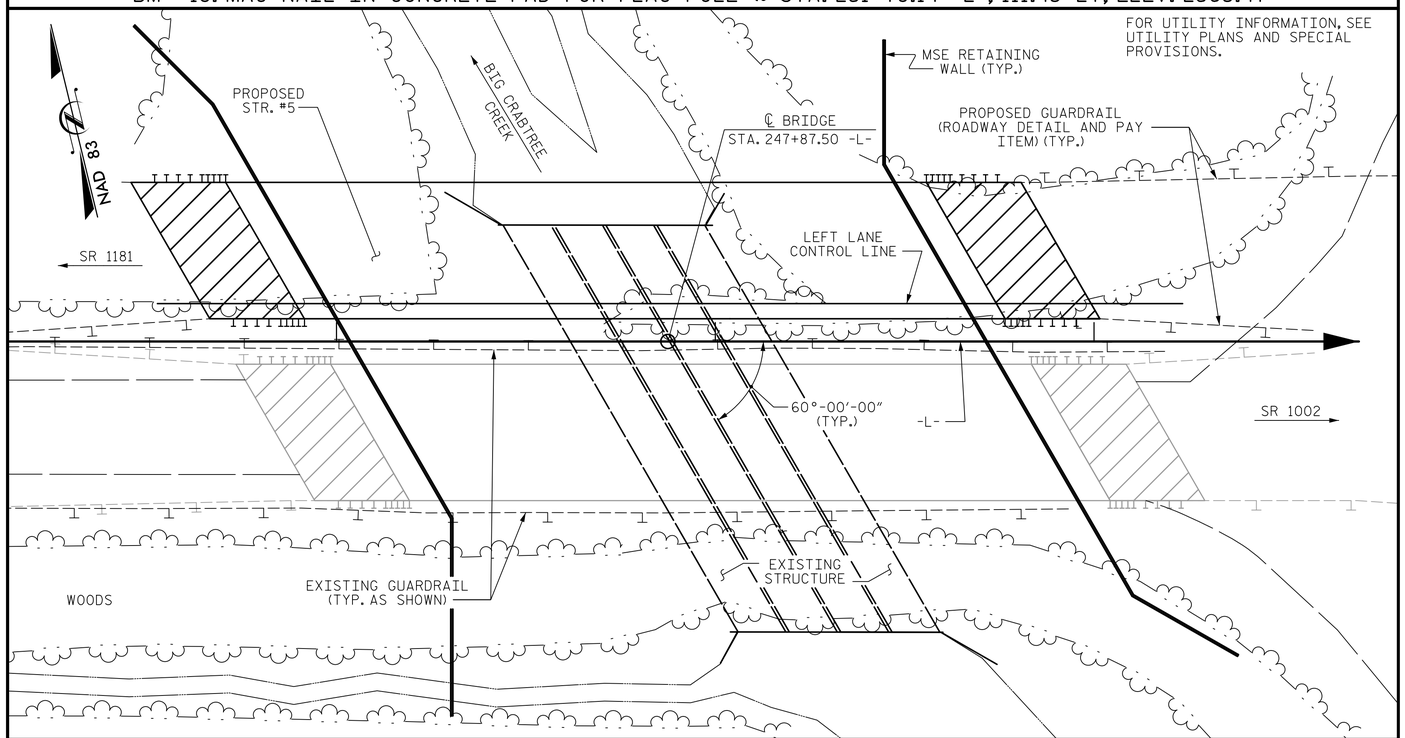
BM #18: MAG NAIL IN CONCRETE PAD FOR FLAG POLE @ STA. 251+79.14 -L-, 111.43' LT, ELEV. 2563.47'



LOCATION SKETCH

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	UNCLASSIFIED STUCTURE EXCAVATION @ STA. 247+87.50 -L-	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	STRUCTURAL STEEL
	LUMP SUM	EACH	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	APPROX. LBS.
SUPERSTRUCTURE				7,160	7,554				397,600
END BENT 1						53.8		7,972	
END BENT 2						51.9		7,747	
TOTAL	LUMP SUM	1	LUMP SUM	7,160	7,554	105.7	LUMP SUM	15,719	397,600

TOTAL BILL OF MATERIAL

	HP 14 X 73 STEEL PILES		CONCRETE BARRIER RAIL	4" CONCRETE SLOPE PROTECTION	RIP RAP CLASS B	RIP RAP CLASS II (2' THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	EXPANSION JOINT SEALS
	No.	LIN. FT.	LIN. FT.	SQ. YDS.	TON	TON	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE			406.8					LUMP SUM	LUMP SUM
END BENT 1	7	420		18.5	120	485	795		
END BENT 2	7	350		18.5	115	260	535		
TOTAL	14	770	406.8	37.0	235	745	1330	LUMP SUM	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.

FOR PLACING LOAD ON STRUCTURE MEMBERS, 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.

ALL STRUCTURAL STEEL SHALL BE AASTHO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE 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.

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 COSTS INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE STRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

THE EXISTING STRUCTURE LOCATED AT THE SITE OF THE PROPOSED STRUCTURE AND CONSISTING OF FOUR (4) 11' X 11' REINFORCED CONCRETE BOX CULVERT TOTALING 124'-0" AND 28'-0" CLEAR ROADWAY SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECASSARY DURING THE LIFE OF THE PROJECT.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE CULVERT AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET 1 OF 1 SHALL BE EXCAVATED FOR A DISTANCE OF 42 FT. LEFT OF -L- AS DIRECTED BY THE ENIGNEER, THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES", MAY 2001.

FOR EROSION CONTROL MEASURES, SEE SPECIAL PROVISIONS.

FOR TEMPORARY BENTS, SEE SPECIAL PROVISIONS.

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 _____ = 3590 CFS.
FREQUENCY OF DESIGN FLOOD _____ = 50 YR.
DESIGN HIGH WATER ELEVATION _____ = 2536.17
DRAINAGE AREA _____ = 16.7 SQ. MI.
BASE DISCHARGE (Q100) _____ = 4320 CFS.
BASE HIGH WATER ELEVATION _____ = 2537.42

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE _____ = 6360+
FREQUENCY OF OVERTOPPING FLOOD ___ = 500 YR. +
OVERTOPPING FLOOD ELEVATION _____ = 2568.89

PROJECT NO. R-2519B
YANCEY/MITCHELL COUNTY
STATION: 247+87.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON US 19
OVER BIG CRABTREE CREEK
BETWEEN SR 1181 AND SR 1002
(LEFT LANE)

Prepared by
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PHONE: 919 461-1100 FAX: 919 461-1415
NC LIC.# C-2243

8/21/2014
NORTH CAROLINA PROFESSIONAL SEAL 039173 ENGINEER MATTHEW K. TOM
DocuSigned by: Matthew K. Tom
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-133
1			3			TOTAL SHEETS
2			4			194

DRAWN BY : M. K. TOM DATE : 12/12/12
CHECKED BY : K. H. COMPTON DATE : 6/6/13
DESIGNED BY : M. K. TOM DATE : 12/12/12

8/20/2014
P:\Jobs1\R2519B\Structures\Electronic Signed Plans\Str 5\405_005_S05_R2519B_GD_02.dgn
kyle_compton

STR. #5