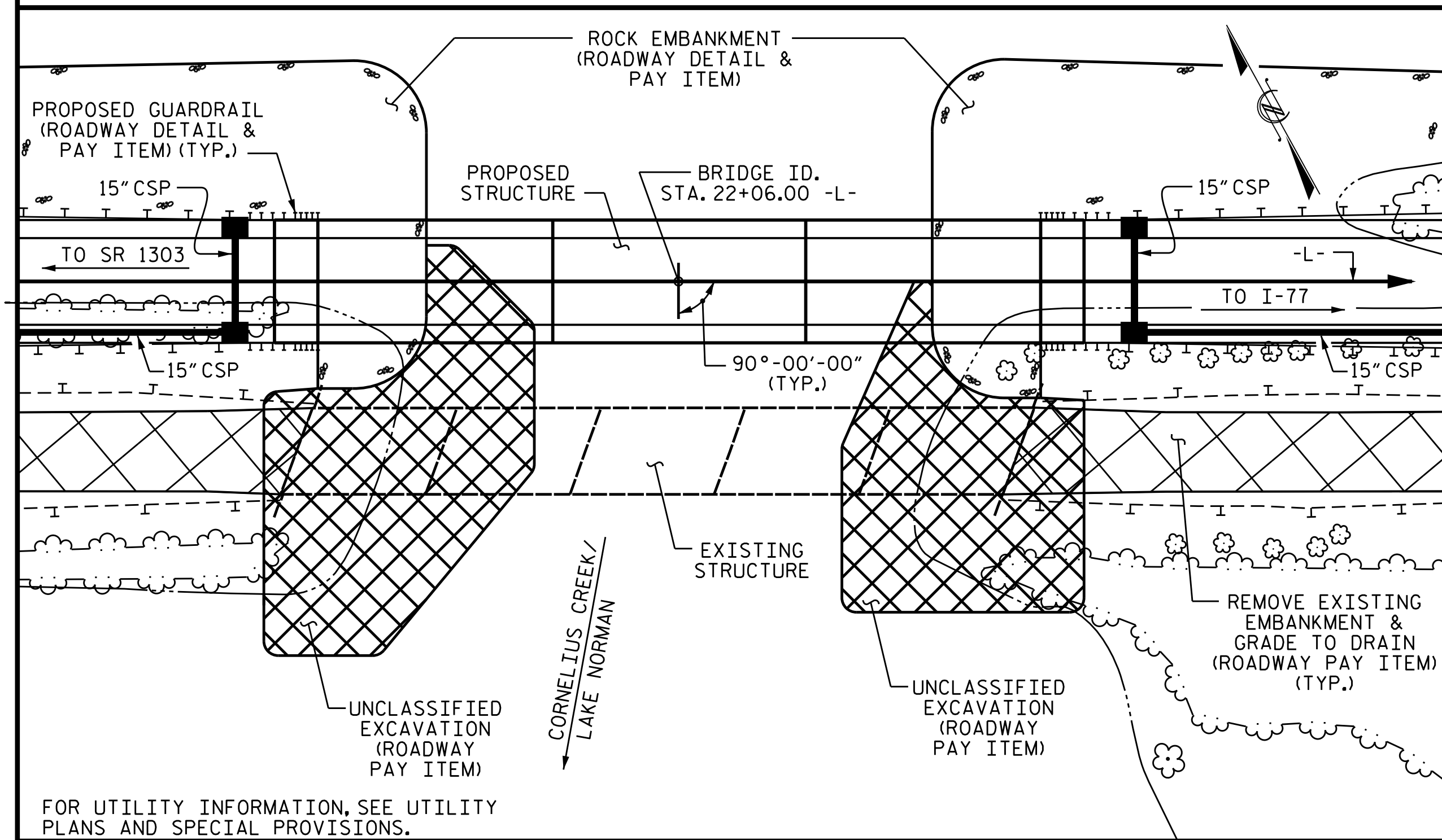


BM #2: CHISLED SQUARE IN CONC. GUTTER ON EAST SIDE OF PINTO RD.,
158' RIGHT OF STA. 26+49 -L-, EL. 770.92



LOCATION SKETCH

HYDRAULIC DATA		OVERTOPPING FLOOD DATA	
DESIGN DISCHARGE	= 2,240 CFS	OVERTOPPING DISCHARGE	= N/A
FREQUENCY OF DESIGN FLOOD	= 25 YRS.	FREQUENCY OF OVERTOPPING FLOOD	= 500+ YRS.
DESIGN HIGH WATER ELEVATION	= N/A★	OVERTOPPING FLOOD ELEVATION	= 770.5
DRAINAGE AREA	= 6.1 SQ. MI.		
BASE DISCHARGE (Q100)	= 2,880 CFS		
BASE HIGH WATER ELEVATION	= 760.2★★		

★ CORNELIUS CREEK EFFECTIVE FEMA MODEL BEGINS 0.4 MILES UPSTREAM OF BRIDGE 57. BRIDGE 57 IS LOCATED WITHIN THE BACKWATER OF CATAWBA RIVER (LAKE NORMAN). BRIDGE 57 NOT INCLUDED IN EFFECTIVE MODEL.
★★ BACKWATER OF CATAWBA RIVER (LAKE NORMAN).

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.
THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18 - EVALUATING SCOUR AT BRIDGES".
FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
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 SECURING OF VESSELS, SEE SPECIAL PROVISIONS.
FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.
FOR UTILITY PIPING AND SUSPENSION SYSTEM, SEE SPECIAL PROVISIONS.
FOR TEMPORARY ACCESS, 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 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.
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.
FOR ROCK EMBANKMENT AND CORE MATERIAL IN AREAS OF END BENTS, SEE ROADWAY PLANS.
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. ANY 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 22+06.00 -L-".
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 INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.
FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRANSPORTATION MANAGEMENT PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.
AFTER SERVING AS A TEMPORARY STRUCTURE, THE EXISTING STRUCTURE CONSISTING OF 5 SPANS (5 @ 40'-0") WITH A REINFORCED CONCRETE DECK ON I-BEAMS WITH A CLEAR ROADWAY WIDTH OF 24'-0" ON REINFORCED CONCRETE CAP AND TIMBER PILES AT END BENTS AND REINFORCED CONCRETE CAP ON TIMBER PILES WITH DOUBLE CAPS AT BENTS AND LOCATED JUST DOWNSTREAM FROM THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE 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 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 PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

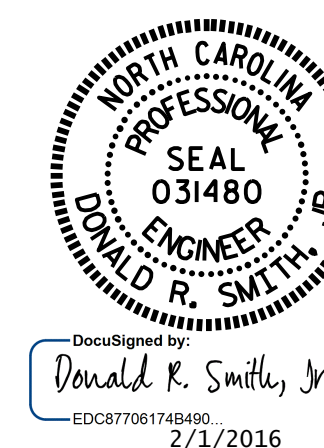
FOR INTERIOR BENTS, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR REQUIRED GALVANIZED LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.
FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL 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	45" PRESTRESSED CONCRETE GIRDERS	HP 12x53 STEEL PILES	PP 24x0.50 GALVANIZED STEEL PILES	TWO BAR METAL RAIL	1'-2" X 2'-6" CONCRETE PARAPET	ELASTOMERIC BEARINGS	12-INCH WATER LINE PIPE AND SUSPENSION SYSTEM	8-INCH FORCE MAIN SEWER PIPE AND SUSPENSION SYSTEM	TEMPORARY ACCESS	ASBESTOS ASSESSMENT		
	LUMP SUM	EA.	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	NO.	LIN. FT.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	
SUPERSTRUCTURE			7,317	7,634		LUMP SUM		12	785.67		381.17	396.67	LUMP SUM	LUMP SUM	LUMP SUM				
END BENT 1					25.0		3,142		6	270									
BENT 1					15.5		2,151			4	250								
BENT 2					15.5		2,151			4	220								
END BENT 2					25.0		3,142		6	330									
TOTAL	LUMP SUM	1	7,317	7,634	81.0	LUMP SUM	10,586	12	785.67	12	600	8	470	381.17	396.67	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM

PROJECT NO. B-5142
IREDELL COUNTY
STATION: 22+06.00 -L-

SHEET 3 OF 3



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER
CORNELIUS CREEK ON
SR 1302 (CORNELIUS RD.)
BETWEEN SR 1303 AND I-77

DRAWN BY : J.D. HAWK DATE : 6-29-15
CHECKED BY : K.D. LAYNE DATE : 8-13-15
DESIGN ENGINEER OF RECORD: T. H. CARROLL DATE : 8/18/15

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			38