

B.M. #1: RR SPIKE SET IN 22" OAK 148.17' LEFT OF STA. 13+64.87 -L-,
ELEV. 874.47', NAD 83.

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fooggins

F.A. PROJECT NO. BRZ-1706 (2)

NOTES

- ASSUMED LIVE LOAD -----HS20-44 OR ALTERNATE LOADING.
- DESIGN FILL----- 10.628'
- FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.
- 3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:
 1. WING FOOTINGS, FLOOR SLAB, AND APRON INCLUDING 4" OF ALL VERTICAL WALLS.
 2. THE REMAINING PORTIONS OF THE WALLS AND INLET WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.
 3. THE REMAINING PORTION OF THE OUTLET WINGS.

THE EXISTING STRUCTURE CONSISTING OF 3 SPANS (1 @ 30'-4", 1 @ 30'-0", AND 1 @ 30'-4") WITH A TOTAL LENGTH OF 90'-8", A CLEAR ROADWAY WIDTH OF 24.2' AND A TIMBER DECK/AWS WITH STEEL I-BEAMS ON TIMBER CAPS AND PILES AND LOCATED AT THE SITE OF PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THIS LOAD LIMITATION 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. SEE LOCATION SKETCH.

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

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 15+93.00 -L-"

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.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

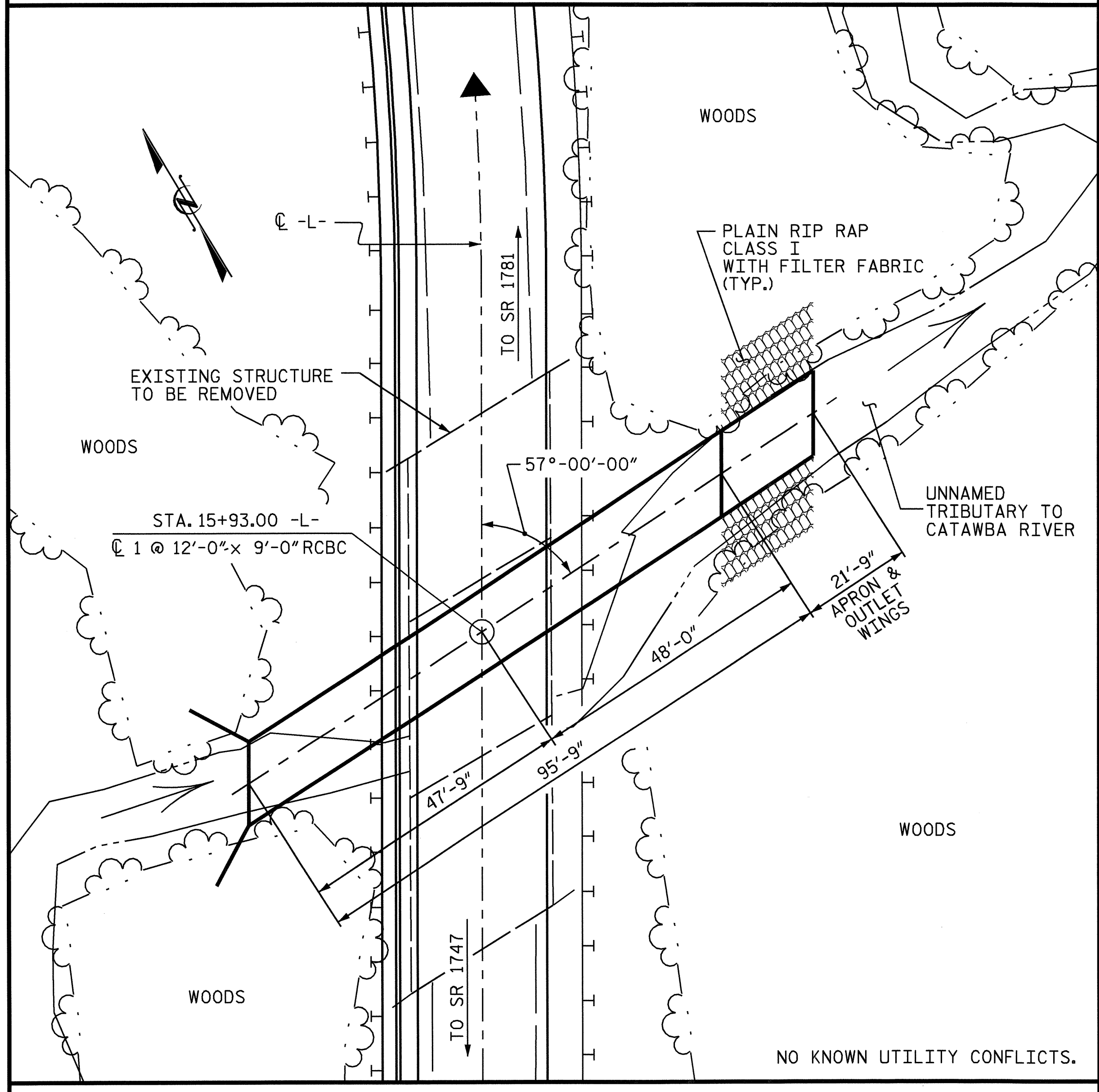
A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

AT THE CONTRACTOR'S OPTION THE VERTICAL CONSTRUCTION JOINT BETWEEN THE OUTLET WINGS AND THE BARREL MAY BE ELIMINATED AND THE "C" BARS IN THE BARREL MAY BE EXTENDED TO REPLACE THE "D" AND "H" BARS IN THE WINGS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

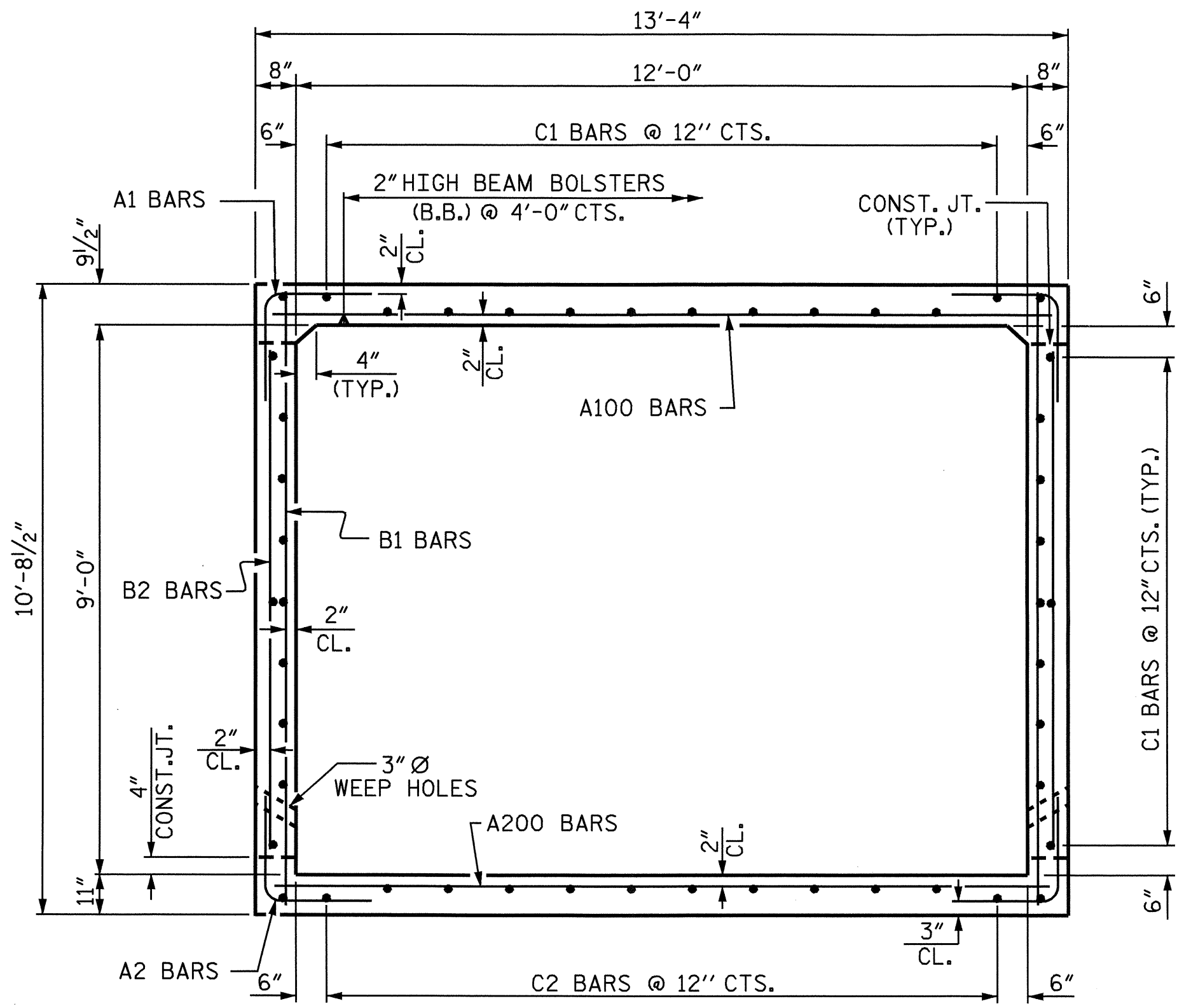
FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.



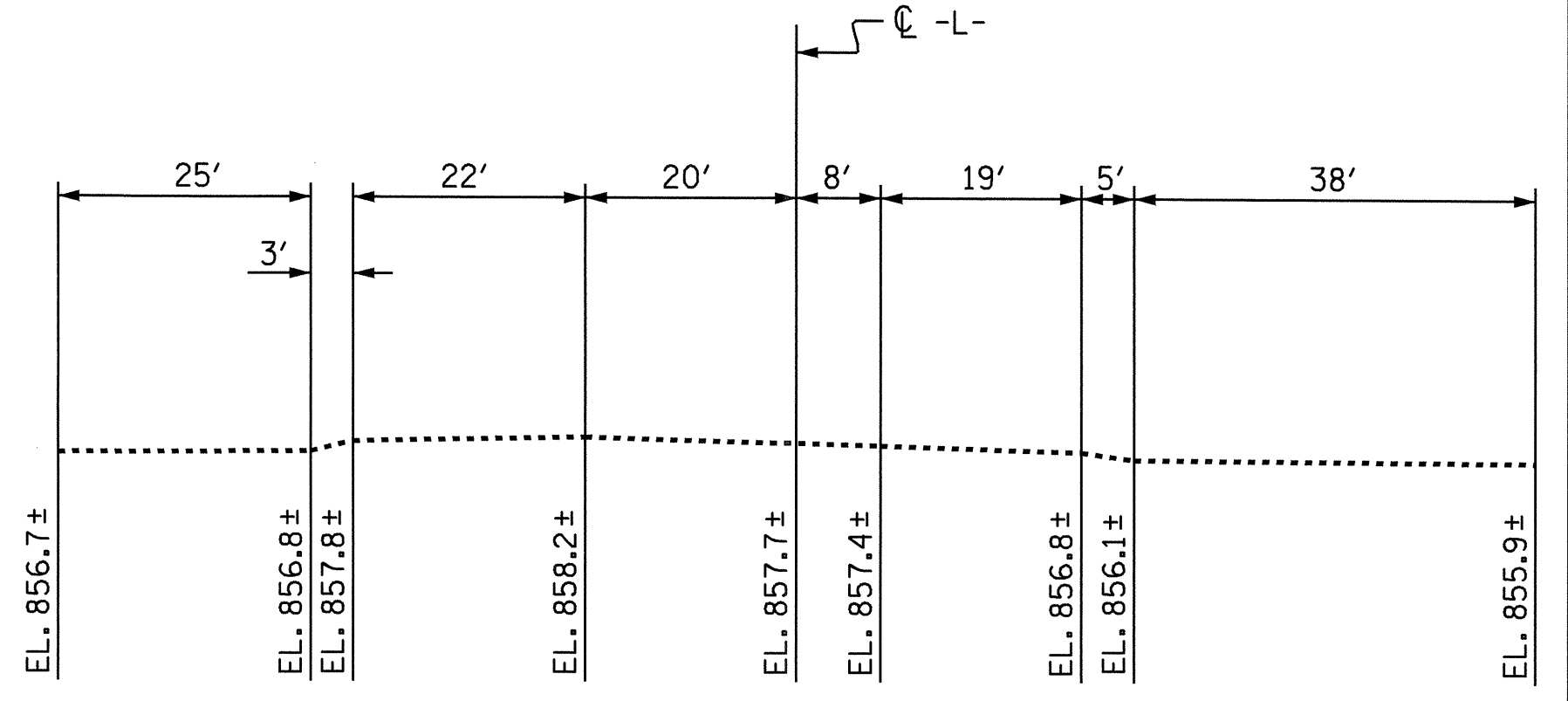
LOCATION SKETCH

GRADE DATA	
GRADE POINT ELEVATION @ STA. 15+93.00 -L-	= 875.117'
BED ELEVATION @ STA. 15+93.00 -L-	= 855.100'
ROADWAY SLOPES	= 2 : 1
HYDRAULIC DATA	
DESIGN DISCHARGE	= 550 ft ³ /s
FREQUENCY OF DESIGN FLOOD	= 25 YEARS
DESIGN HIGH WATER ELEVATION	= 863.3'
DRAINAGE AREA	= 1.2 Sq. Mi.
BASIC DISCHARGE (Q100)	= 850 ft ³ /s
BASIC HIGH WATER ELEVATION	= 865.3'
OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= N/A
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YEARS
OVERTOPPING FLOOD ELEVATION	= 872.9'

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
BARREL @ 1.292 CY/FT	123.7 C.Y.
OUTLET WINGS ETC.	17.7 C.Y.
INLET WINGS ETC.	16.5 C.Y.
TOTAL	157.9 C.Y.
REINFORCING STEEL	
BARREL & OUTLET WINGS ETC.	28573 LBS.
INLET WINGS ETC.	1074 LBS.
TOTAL	29647 LBS.
CULVERT EXCAVATION	LUMP SUM
FOUNDATION COND. MAT'L	110 TONS
PLAIN RIP RAP CLASS I	62 TONS
FILTER FABRIC FOR DRAINAGE	69 S.Y.
REMOVAL OF EXISTING STRUCTURE	LUMP SUM

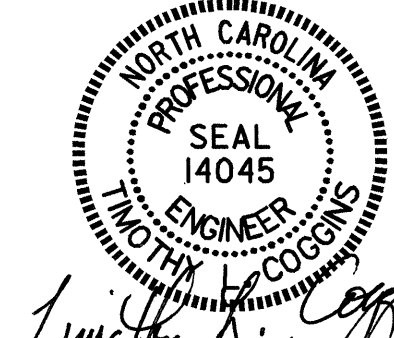


RIGHT ANGLE SECTION OF BARREL
THERE ARE 48 "C" BARS IN SECTION OF BARREL



PROFILE ALONG CULVERT

PROJECT NO. B-3822
CATAWBA COUNTY
STATION: 15+93.00 -L-
SHEET 1 OF 4 REPLACES BRIDGE NO.8



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SINGLE BARREL
12'-0" x 9'-0"
CONCRETE
BOX CULVERT
57° SKEW

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

DRAWN BY : T.L. AVERETTE DATE : 3-03
CHECKED BY : P. ADKINS DATE : 4-03