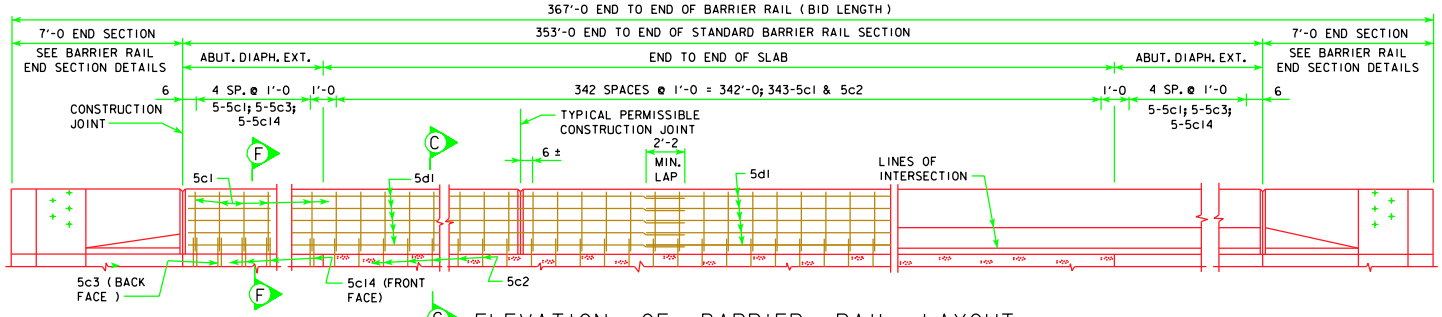
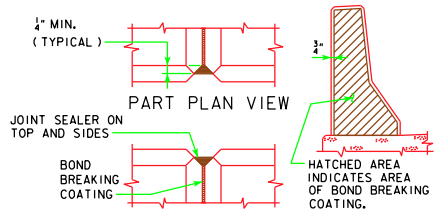


ELEVATION OF BARRIER RAIL LAYOUT

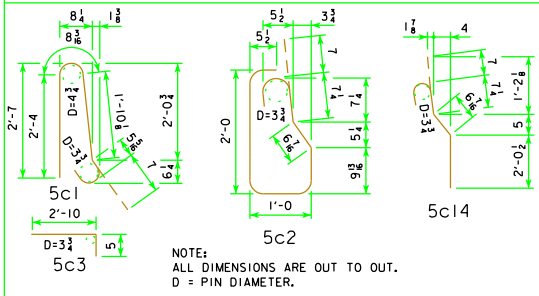


BARRIER RAIL JOINT DETAILS

EPOXY REINF. STEEL-TWO BARRIER RAILS

SECTION	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
STANDARD SECTION	5c1	VERTICAL		706	5'-11	4357
	5c2	VERTICAL		686	6'-0	4293
	5c3	VERTICAL		20	3'-3	68
	5c14	VERTICAL		20	3'-10	80
	5d1	LONGITUDINAL		180	37'-6	7041
	BARRIER RAIL END SECTION		4 AT 458 LBS.			1832
(INCLUDE WITH SUPERSTRUCTURE REINFORCING)			TOTAL (LBS.)			17,671

BENT BAR DETAILS



CONCRETE PLACEMENT SUMMARY

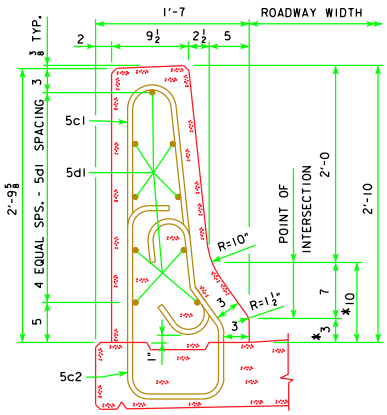
SECTION		TOTAL
STANDARD SECTION	2 @ 353.0 @ 0.1052 CU. YD. PER FT.	74.3
BARRIER RAIL END SECTION	4 @ 0.65 CU. YD.	2.6
	TOTAL (CU. YD.)	76.9

CONCRETE BARRIER RAIL QUANTITIES

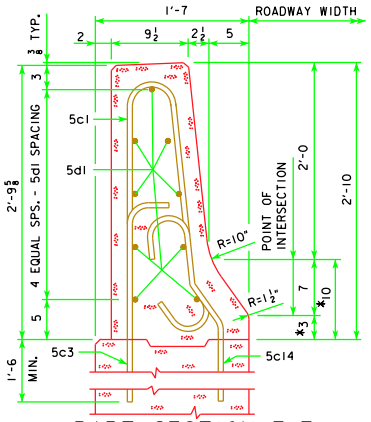
ITEM	UNIT	QUANTITY
CONCRETE BARRIER RAILING	L.F.	734.0

BARRIER RAIL NOTES:

1. MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.
2. THE PERMISSIBLE CONSTRUCTION JOINTS ARE TO BE PLACED BETWEEN VERTICAL BARS AT A MINIMUM SPACING OF 20 FEET. CONSTRUCTION JOINT CONTACT SURFACES ARE TO BE COATED WITH AN APPROVED BOND BREAKER.
3. COST OF THE JOINT SEALER AND BOND BREAKER SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
4. ALL BARRIER RAIL REINFORCING STEEL IS TO BE EPOXY COATED.
5. THE CONCRETE BARRIER RAIL IS TO BE BID ON A LINEAL FOOT BASIS. THE NUMBER OF LINEAL FEET OF BARRIER RAIL INSTALLED WILL BE PAID FOR AT THE CONTRACT PRICE PER LINEAL FOOT BASED ON PLAN QUANTITIES. PRICE BID FOR CONCRETE BARRIER RAILING SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EXCLUDING REINFORCING STEEL, AND ALL OF THE EQUIPMENT AND LABOR REQUIRED TO ERECT THE RAIL IN ACCORDANCE WITH THESE PLANS AND CURRENT SPECIFICATIONS. IF CONDUIT IS REQUIRED IN THIS PLAN THE RIGID STEEL CONDUIT, JUNCTION BOXES AND FITTINGS INCLUDING LABOR AND ANY ADDITIONAL WORK TO DO THE INSTALLATION IS CONSIDERED INCIDENTAL TO THE COST OF THE RAILING.
6. ALL BARRIER RAIL REINFORCING STEEL IS INCLUDED WITH THE SUPERSTRUCTURE REINFORCING STEEL.
7. THE JOINT SEALER SHALL BE LIGHT GRAY NONSAG LATEX CAULKING SEALER MARKETED FOR OUTDOOR USE. NO TESTING OR CERTIFICATION IS REQUIRED.
8. TOP OF THE BARRIER RAIL IS TO BE PARALLEL TO THE THEORETICAL ℄ GRADE.
9. CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 2.84 SQUARE FEET.
10. CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USE OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICAL 2513.03A OF THE STANDARD SPECIFICATIONS. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS (CAST-IN-PLACE OR SLIPFORMED METHODS).



PART SECTION C-C



PART SECTION F-F

* DENOTES THE MAXIMUM VALUE FOR THIS DIMENSION. THIS DIMENSION MAY VARY DUE TO CONSTRUCTION INACCURACIES.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

BARRIER RAIL DETAILS
SHEET 2

RS40-088-10