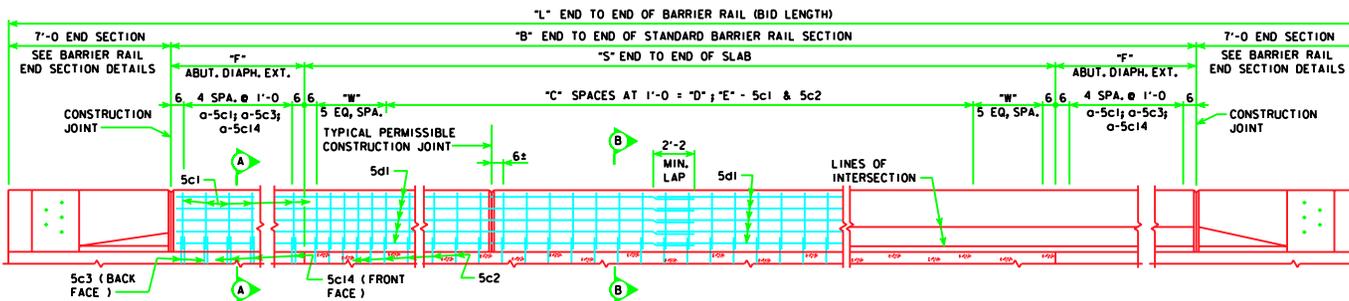
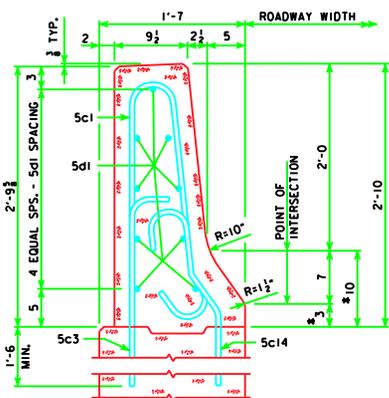
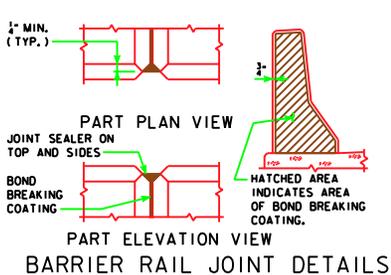


TABLE OF BARRIER RAIL DIMENSIONS AND NUMBERS

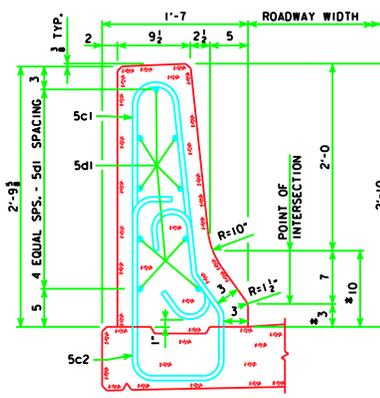
| E-E ABUT. BRG | | 46'-8 | | | 55'-0 | | | 67'-6 | | | 80'-0 | | | 90'-0 | | | 100'-0 | | | 110'-0 | | |
|---------------------|-------------|-----------|-----------|-----------|-------|-----------|-----------|----------|-----------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|----------|------------|------------|
| SKEW | | 0° | 15° | 30° | 0° | 15° | 30° | 0° | 15° | 30° | 0° | 15° | 30° | 0° | 15° | 30° | 0° | 15° | 30° | 0° | 15° | 30° |
| DIMENSION OR NUMBER | L (FT.-IN.) | 63'-8 | 63'-9 1/4 | 64'-1 1/8 | 72'-0 | 72'-1 1/4 | 72'-5 1/8 | 84'-6 | 84'-7 1/4 | 84'-11 1/8 | 107'-0 | 107'-1 1/4 | 107'-5 1/8 | 117'-0 | 117'-1 1/4 | 117'-5 1/8 | 127'-0 | 127'-1 1/4 | 127'-5 1/8 | 137'-0 | 137'-1 1/4 | 137'-5 1/8 |
| | B (FT.-IN.) | 49'-8 | 49'-9 1/4 | 50'-1 1/8 | 58'-0 | 58'-1 1/4 | 58'-5 1/8 | 70'-6 | 70'-7 1/4 | 70'-11 1/8 | 93'-0 | 93'-1 1/4 | 93'-5 1/8 | 103'-0 | 103'-1 1/4 | 103'-5 1/8 | 113'-0 | 113'-1 1/4 | 113'-5 1/8 | 123'-0 | 123'-1 1/4 | 123'-5 1/8 |
| | S (FT.-IN.) | 49'-8 | 49'-9 1/4 | 50'-1 1/8 | 58'-0 | 58'-1 1/4 | 58'-5 1/8 | 70'-6 | 70'-7 1/4 | 70'-11 1/8 | 93'-0 | 93'-1 1/4 | 93'-5 1/8 | 103'-0 | 103'-1 1/4 | 103'-5 1/8 | 113'-0 | 113'-1 1/4 | 113'-5 1/8 | 123'-0 | 123'-1 1/4 | 123'-5 1/8 |
| | C | 39 | 39 | 39 | 47 | 47 | 47 | 60 | 60 | 60 | 72 | 72 | 72 | 82 | 82 | 82 | 92 | 92 | 92 | 102 | 102 | 102 |
| | D (FT.-IN.) | 39'-0 | 39'-0 | 39'-0 | 47'-0 | 47'-0 | 47'-0 | 60'-0 | 60'-0 | 60'-0 | 72'-0 | 72'-0 | 72'-0 | 82'-0 | 82'-0 | 82'-0 | 92'-0 | 92'-0 | 92'-0 | 102'-0 | 102'-0 | 102'-0 |
| | E | 40 | 40 | 40 | 48 | 48 | 48 | 61 | 61 | 61 | 73 | 73 | 73 | 83 | 83 | 83 | 93 | 93 | 93 | 103 | 103 | 103 |
| | F (FT.-IN.) | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 0'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 | 5'-0 |
| W (FT.-IN.) | 4'-10 | 4'-10 1/8 | 5'-0 | 5'-0 | 5'-0 | 5'-2 1/8 | 4'-9 | 4'-9 1/8 | 4'-11 1/8 | 5'-0 | 5'-0 1/8 | 5'-2 1/8 | 5'-0 | 5'-0 1/8 | 5'-2 1/8 | 5'-0 | 5'-0 1/8 | 5'-2 1/8 | 5'-0 | 5'-0 1/8 | 5'-2 1/8 | |
| a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |



ELEVATION OF BARRIER RAIL LAYOUT



PART SECTION A-A



PART SECTION B-B

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

BARRIER RAIL NOTES:

- MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.
- 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.
- COST OF THE JOINT SEALER AND BOND BREAKER SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
- 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.
- ALL BARRIER RAIL REINFORCING STEEL IS TO BE INCLUDED WITH THE SUPERSTRUCTURE REINFORCING STEEL.
- THE JOINT SEALER SHALL BE LIGHT GRAY NONSAG LATEX CAULKING SEALER MARKETED FOR OUTDOOR USE. NO TESTING OR CERTIFICATION IS REQUIRED.
- TOP OF THE BARRIER RAIL IS TO BE PARALLEL TO THE THEORETICAL E GRADE.
- CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 2.84 SQUARE FEET.
- CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD WILL REQUIRE THE USE OF A CLASS BR CONCRETE IN ACCORDANCE WITH ARTICLE 2513.03B OF THE STANDARD SPECIFICATION. CLASS D CONCRETE IS NOT PERMITTED FOR CONCRETE BARRIER RAILS PLACED USING THE SLIPFORM METHOD.

| | | | |
|------------------------|--|--|-----------------|
| LATEST REVISION DATE : | <i>Thomas E. De... APPROVED BY</i> | STANDARD DESIGN - 30' ROADWAY, SINGLE SPAN BRIDGE | |
| | | PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES | |
| | | JANUARY, 2005 | HS20-44 LOADING |
| | | IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION | |
| BARRIER RAIL DETAILS | | H30SI-34-05 | |
| SHEET 1 OF 3 | | | |