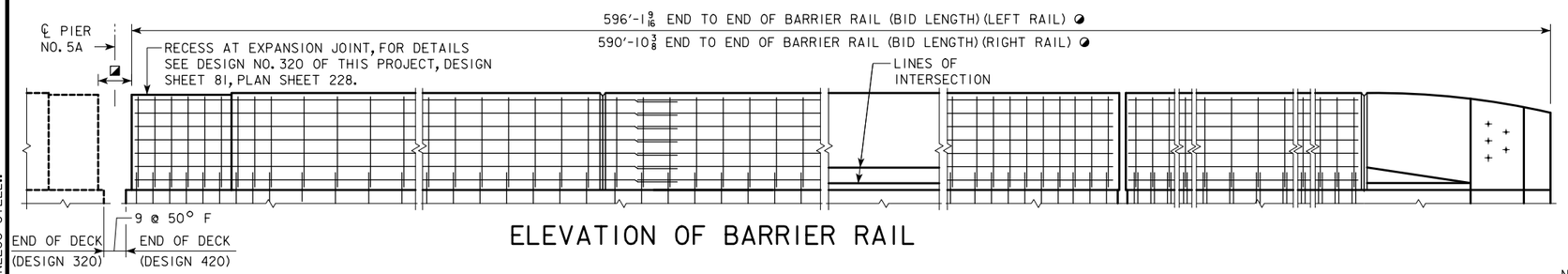
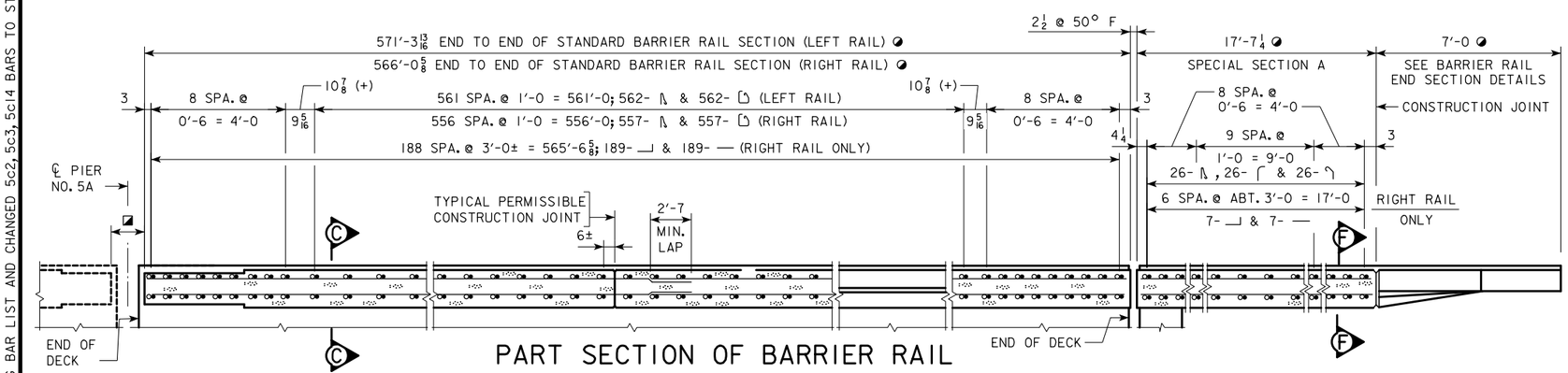
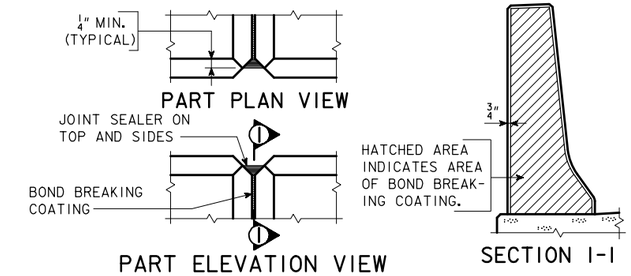


ELEVATION OF BARRIER RAIL

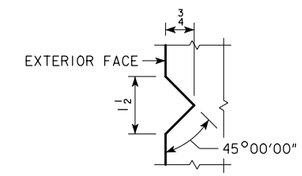


PART SECTION OF BARRIER RAIL

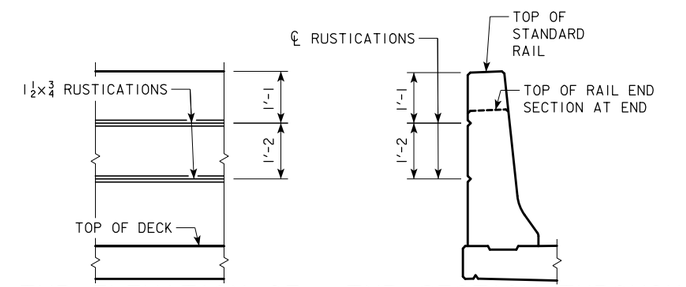


BARRIER RAIL JOINT DETAILS

NOTES:
◕ MEASURED ALONG EDGE OF DECK. FOR BID LENGTH PURPOSES, ASSUME DIMENSION MEASURED TO END OF DECK.
◪ DIMENSION TO BE SET BY JOINT MANUFACTURER.



RUSTICATION DETAIL



TYP. ELEVATION OF BARRIER RAIL

TYP. SECTION THROUGH BARRIER RAIL

BARRIER RAIL NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN IN THE PLANS.

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.

ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

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, AESTHETIC" 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. 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.

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 ℄ GRADE.

CROSS SECTIONAL AREA OF THE STANDARD SECTION OF THE BARRIER RAIL = 3.46 SQUARE FEET.

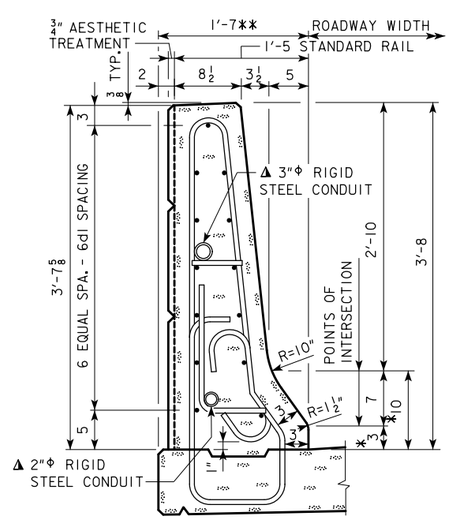
◭ CONDUIT IS REQUIRED IN THE RIGHT BARRIER RAIL ONLY.

THE GALVANIZED STEEL CONDUIT SHALL BE SECURELY TIED AT EVERY 3'-0 INTERSECTION WITH THE 4s1 AND 4s2 BARS TO AVOID CONTACT WITH THE STAINLESS STEEL REINFORCING. 4s1 AND 4s2 BARS ARE REQUIRED IN THE RIGHT RAIL ONLY.

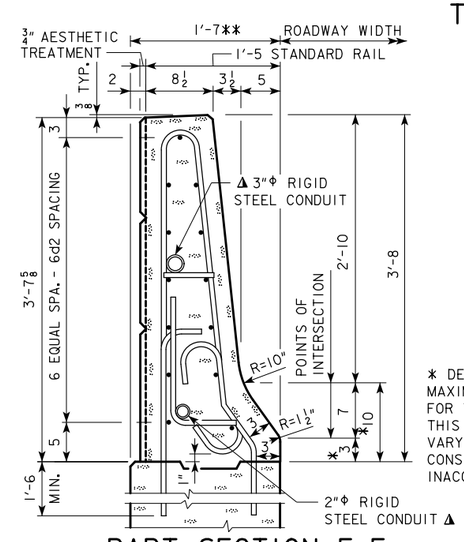
** FOR BARRIER RAIL ORIENTATION, SEE SUPERSTRUCTURE NOTES.

FOR RUSTICATION NOTES, SEE DESIGN SHEET 4.

RUSTICATIONS SHALL EXTEND THE FULL LENGTH OF BRIDGE BARRIER, INCLUDING BARRIER END SECTION. SEE RUSTICATION DETAILS AND "BARRIER AESTHETIC NOTES", THIS SHEET.



PART SECTION C-C



PART SECTION F-F

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

BARRIER AESTHETIC NOTES:

THIS WORK CONSISTS OF USING INTEGRALLY COLORED CONCRETE FOR CONCRETE BARRIERS SHOWN IN THIS PLAN. THE CONCRETE BARRIER MOCKUP AS DETAILED AND PAID FOR IN DESIGN NO. 120 OF THIS PROJECT MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE BEGINNING OF ANY PRODUCTION CONCRETE BARRIER WORK THAT INCLUDES INTEGRALLY COLORED CONCRETE. SEE THE "SPECIAL PROVISIONS FOR AESTHETIC TREATMENT OF CONCRETE BARRIER" FOR MORE REQUIREMENTS REGARDING THE USE OF RUSTICATION AND INTEGRALLY COLORED CONCRETE.

ALL COSTS FOR PROVIDING INTEGRAL COLOR AND RUSTICATION FOR CONCRETE BARRIERS SHALL BE INCLUDED IN THE BID ITEM "CONCRETE BARRIER RAILING, AESTHETIC".

DESIGN FOR 0° SKEW ON 3,300' RADIUS CURVE

566'-6 X VARIES CONTINUOUS WELDED GIRDER BRIDGE

171'-0, 226'-0, 169'-6 SPANS

BARRIER RAIL DETAILS

STA. 2543+48.27 (℄ RAMP B) APRIL 2018

JOHNSON COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 25 OF 31 FILE NO. 30864 DESIGN NO. 420

ENGLISHDECKRAILBRIDGES.DGN 1020SE - THIS SHEET ISSUED 04-14 - ADDED STAINLESS STEEL REINFORCING BAR LIST AND CHANGED 5c2, 5c3, 5c14 BARS TO STAINLESS STEEL.