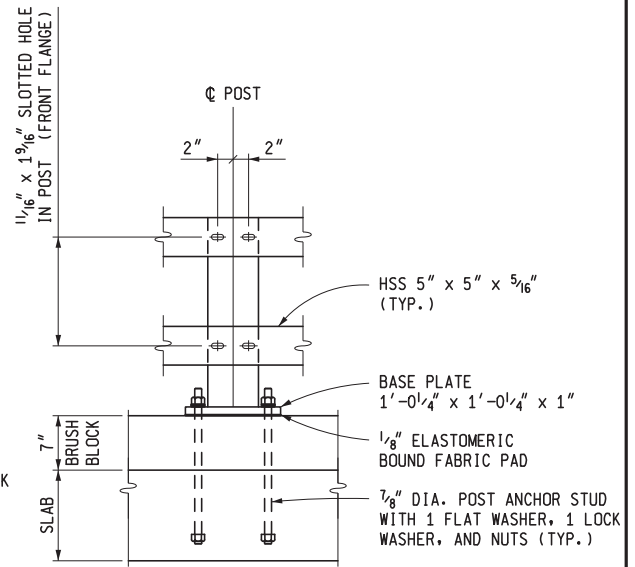
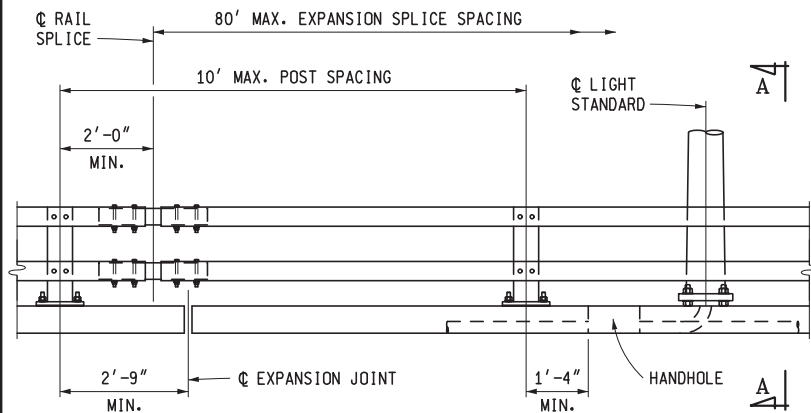


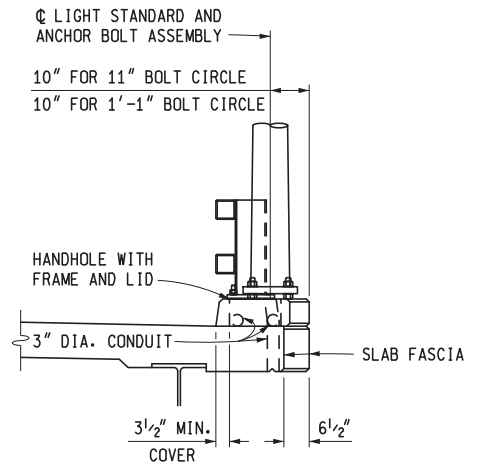
SECTION THROUGH
BRUSH BLOCK AND RAILING



POST ELEVATION



RAILING ELEVATION



SECTION A-A



PREPARED
BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: V.Z.

DEPARTMENT DIRECTOR

Kirk T. Stuedle

Randel R. Van
Portfliet

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

Bradley C.
Wieferich

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT

Digitally signed by Randel R. Van Portfliet
DN: cn=Randel R. Van Portfliet, o=Michigan
Department of Transportation, ou=Director,
Bureau of Field Services/Superior Region Engineer,
email=vportfliet@michigan.gov, c=US
Date: 2015.12.10 14:02:16 -0500

Digitally signed by Bradley C. Wieferich
DN: cn=Bradley C. Wieferich, o=Michigan
Department of Transportation, ou=Design
Division, email=wieferich@michigan.gov, c=US
Date: 2015.12.10 13:25:45 -0500

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

BRIDGE RAILING, 2 TUBE

5-20-2016

F.H.W.A. APPROVAL

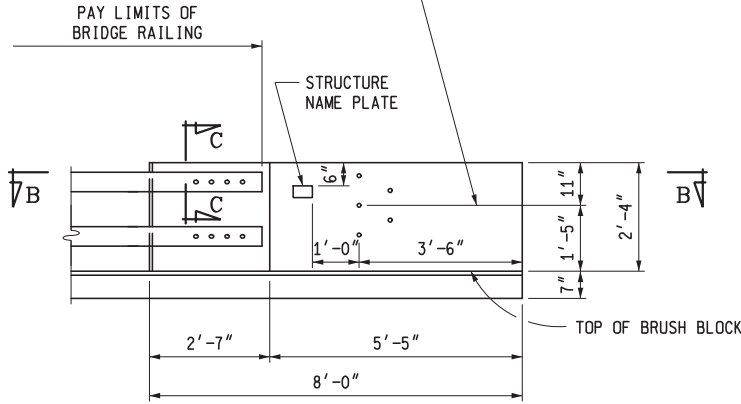
11-20-2015

PLAN DATE

B-21-J

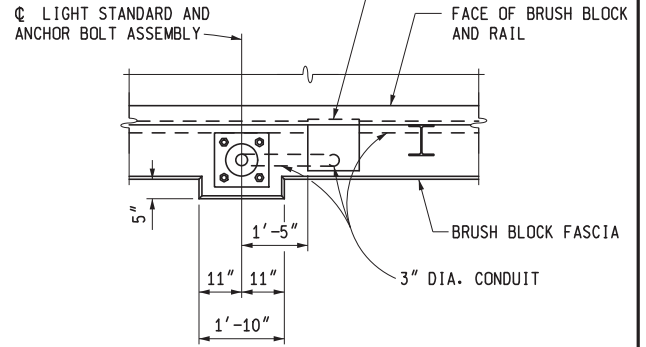
SHEET
1 OF 4

☉ OF BOLTS FOR GUARDRAIL ANCHORAGE
 SEE STANDARD PLAN R-67-SERIES FOR DETAILS
 BOLTS TO BE FURNISHED AND INSTALLED BY
 BRIDGE CONTRACTOR. (INCLUDED IN THE BID
 ITEM "BRIDGE RAILING, 2 TUBE")

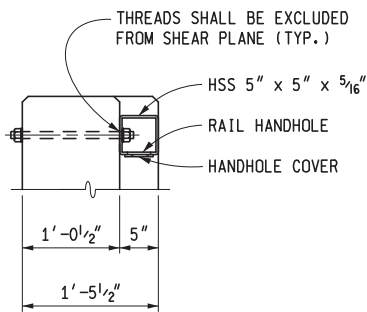


END WALL ELEVATION

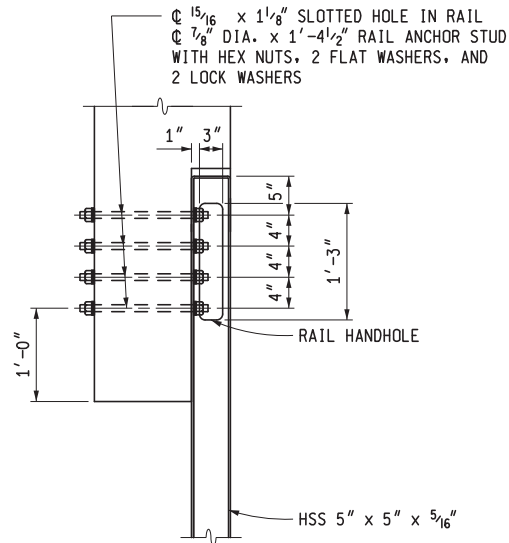
HANDHOLE WITH FRAME ANCHORED AND LID
 BOLTED TO FRAME. FRAME AND LID SHALL
 BE R-6687-A1 NEENAH FOUNDRY COMPANY,
 8111 EAST JORDAN IRON WORKS, OR
 APPROVED EQUAL.



PLAN VIEW AT LIGHT STANDARD



SECTION C-C



SECTION B-B

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR

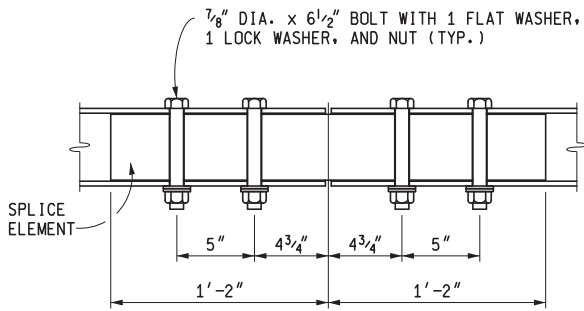
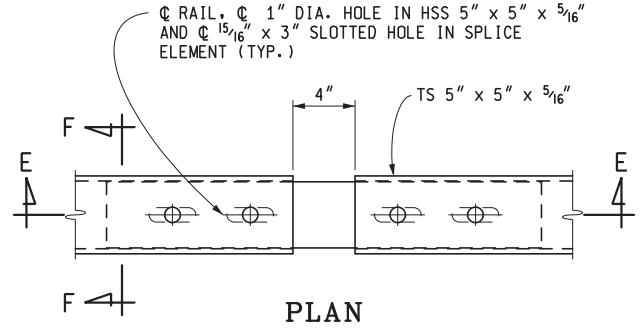
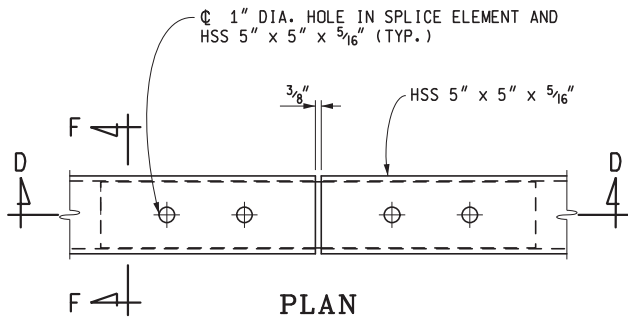
BRIDGE RAILING, 2 TUBE

5-20-2016
 F.H.W.A. APPROVAL

11-20-2015
 PLAN DATE

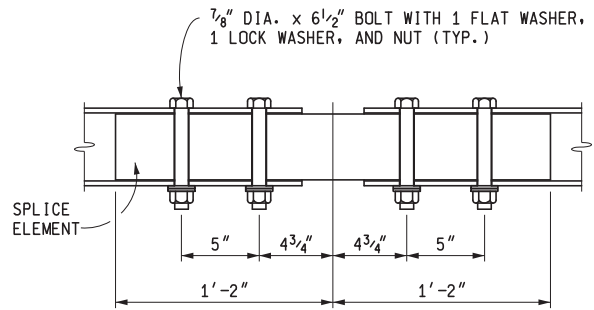
B-21-J

SHEET
 2 OF 4



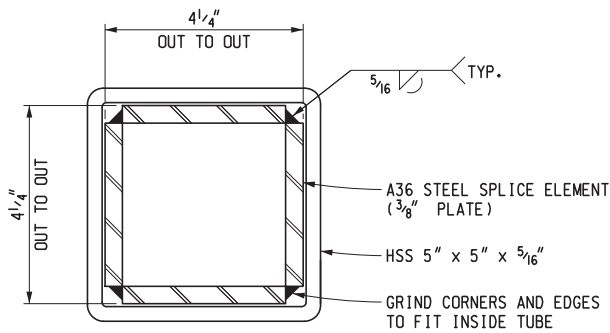
SECTION D-D

FIXED SPLICE DETAILS



SECTION E-E

EXPANSION SPLICE DETAILS



SECTION F-F

MICHIGAN DEPARTMENT OF TRANSPORTATION
 BUREAU OF DEVELOPMENT STANDARD PLAN FOR

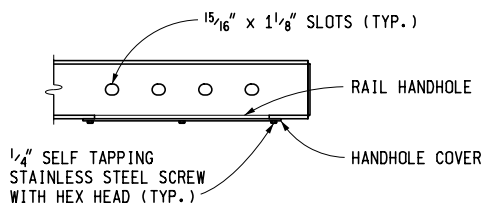
BRIDGE RAILING, 2 TUBE

5-20-2016
 F.H.W.A. APPROVAL

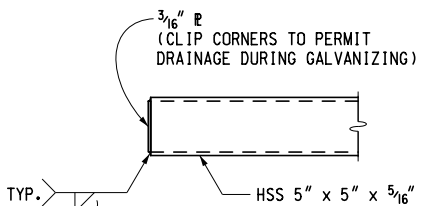
11-20-2015
 PLAN DATE

B-21-J

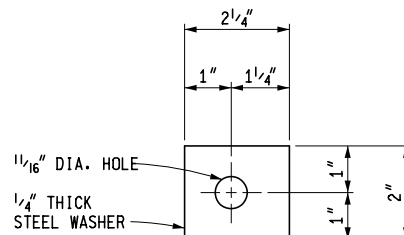
SHEET
 3 OF 4



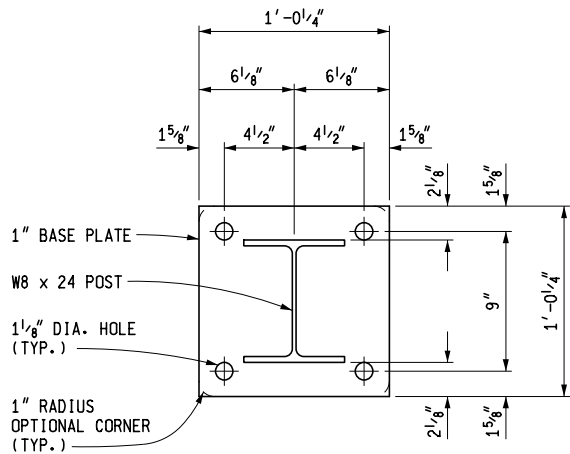
END OF RAIL SECTION



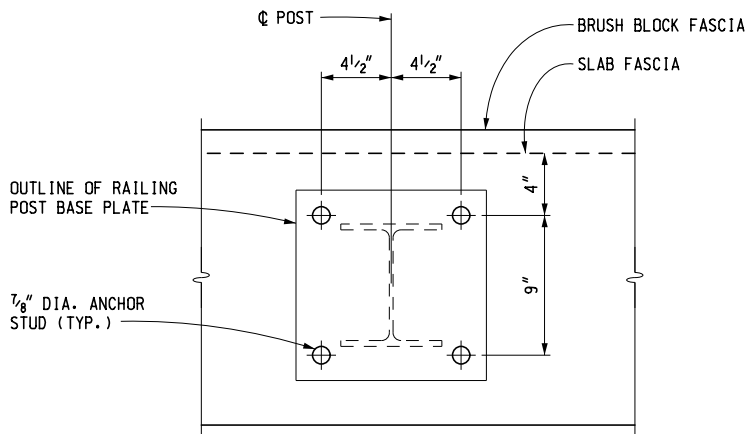
END OF RAIL



DETAIL A

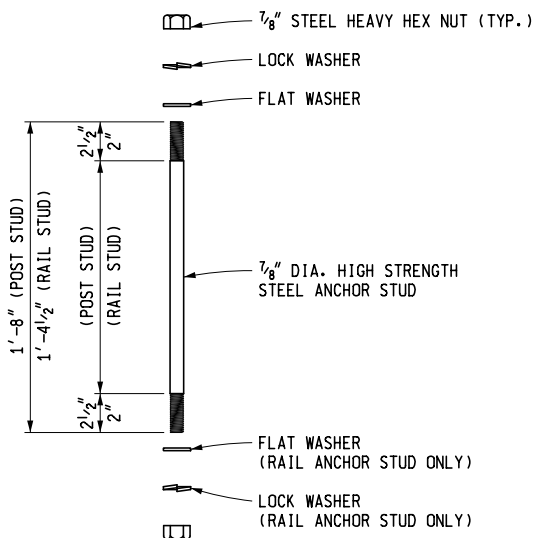


BASE PLATE DETAIL



ANCHOR STUD LAYOUT

NOTE: SURFACE UNDER POST IS TO BE FINISHED LEVEL



ANCHOR STUD DETAIL

NOTES:

DETAILS SHOWN ARE IN ACCORDANCE WITH CURRENT AASHTO SPECIFICATIONS. ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THIS RAILING SHALL BE USED ONLY WITH THE BRUSH BLOCK SHOWN ON THIS SHEET.

FOR LIGHT STANDARD ANCHOR BOLT ASSEMBLY DETAILS, SEE STANDARD PLAN B-103-SERIES.

FENCING MAY BE ATTACHED TO THE NON-TRAFFIC SIDE OF THE 2 TUBE RAILING TO PROTECT PEDESTRIANS.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

BRIDGE RAILING, 2 TUBE

5-20-2016
F.H.W.A. APPROVAL

11-20-2015
PLAN DATE

B-21-J

SHEET
4 OF 4