



Road & Bridge Design Publications

Monthly Update – December 2013

Revisions for the month of **December** are listed and displayed below. The new special detail will be included in projects submitted for the **March** letting as is stated on the special detail index sheets. Contact Vladimir Zokvic (zokviev@michigan.gov) for questions related to this change.

Special Details

B-25-H: Updated “Exterior Base Plate” dimensions on page 6 of 6.

Updates to MDOT Cell Library, Bridge Auto Draw Program, etc., may be required in tandem with some of this month's updates. Until such updates to automated tools can be made, it is the designer's/detailer's responsibility to manually incorporate any necessary revisions to notes and plan details to reflect these revisions.

Index to Special Details

12-23-2013

⑥

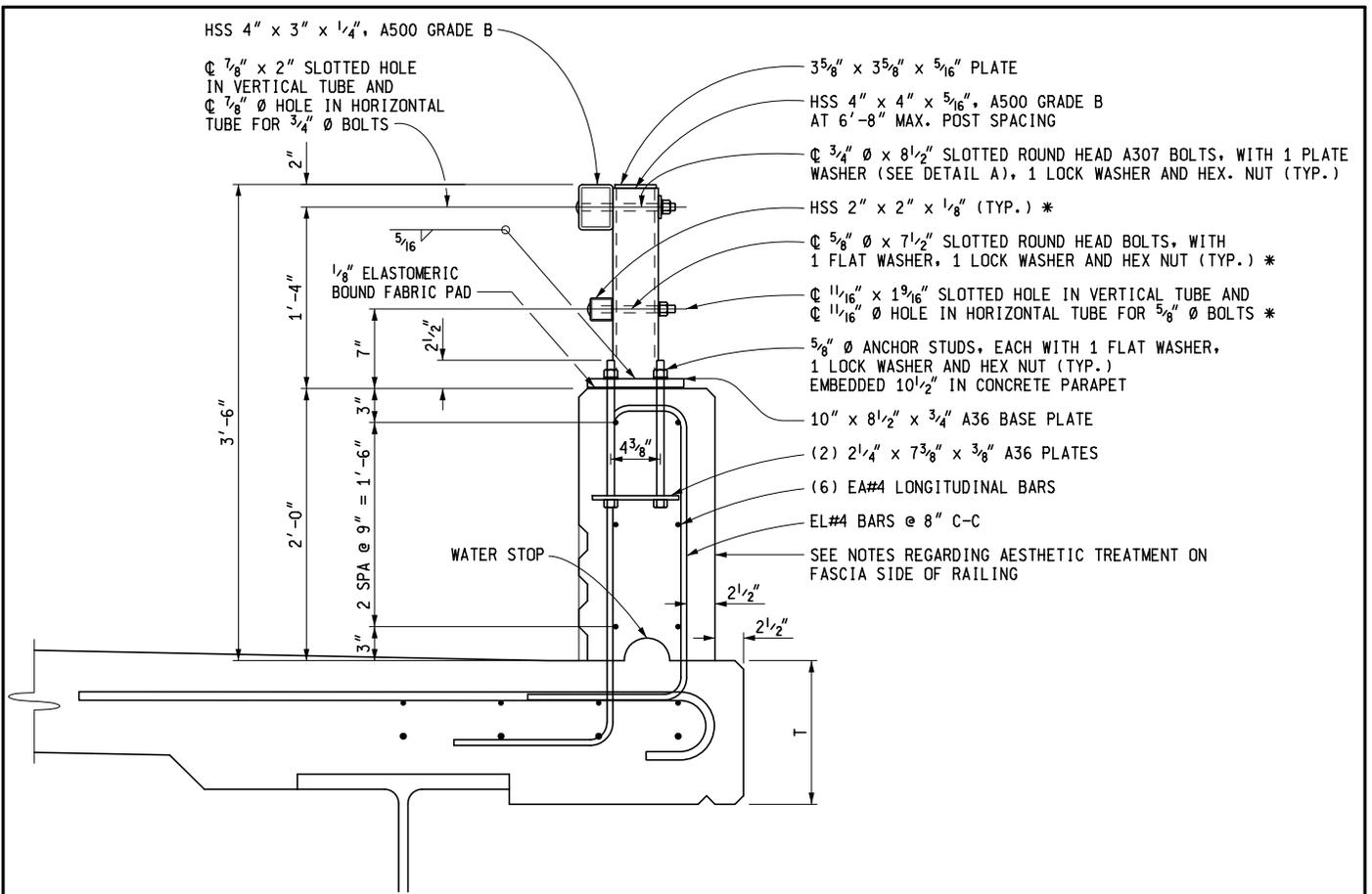
SPECIAL DETAIL NUMBER	NUMBER OF SHEETS	TITLE	CURRENT DATE
21	2	GUARDRAIL AT INTERSECTIONS	5-24-01
24	5	GUARDRAIL ANCHORED IN BACK SLOPE TYPES 4B & 4T	7-22-02
99	2	CHAIN LINK FENCE WITH WIRE ROPE	11-1-00
R-110-A	3	PAVEMENT SAFETY EDGE	6-21-13
R-126-I	5	PLACEMENT OF TEMPORARY BARRIER	3-26-12
<p style="text-align: center;">* Denotes New or Revised Special Detail to be included in projects for (beginning with) the March letting.</p> <p>Note: Former Standard Plans IV-87, IV-89, IV-90, and IV-91 Series, used for building cast-in-place concrete head walls for elliptical and circular pipe culverts, are now being replaced with plans that detail each specific size. The Municipal Utilities Unit will provide these full sized special details for inclusion in construction plans for MDOT jobs. To assure prompt delivery, requests must be made in advance.</p> <p>Former Standard Plans IV-93 and IV-94 series have been replaced with precast concrete box & three-sided culverts as per the 2012 Standard Specifications for Construction.</p>			

Index to Bridge Detail Sheets

12-23-2013

⑦

DETAIL NUMBER	NUMBER OF SHEETS	TITLE	CURRENT DATE
EJ3Z	1 or 2	EXPANSION JOINT DETAILS	6-8-11
EJ4M	1 or 2	EXPANSION JOINT DETAILS	6-8-11
* B-25-H	6	BRIDGE RAILING, AESTHETIC PARAPET TUBE	11-27-13
PC-2G	1	70" PRESTRESSED CONCRETE I-BEAM DETAILS	3-31-06
PC-4E	1	PRESTRESSED CONCRETE 1800 BEAM DETAILS	3-31-06
PC-1L	1	PRESTRESSED CONCRETE I-BEAM DETAILS	7-12-06
<p style="text-align: center;">* Denotes New or Revised Special Detail to be included in projects for (beginning with) the March letting.</p> <p>Note: Details EJ3Z & EJ4M are interactive, i.e. designers and detailers choose details based upon railing type and angle of crossing. Place all details appropriate for the project, structure specific information, and the Expansion Joint Device quantity on the sheet. The sheet shall then be added to the plans as a normal plan sheet.</p> <p>Detail PC-1L, PC-2G and PC-4E shall have structure specific information and quantities added to the sheet. The sheet shall then be added to the plans as a normal plan sheet.</p>			



FLUSH MOUNT BRIDGE RAILING

NOTES:

ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

DETAILS SHOWN ARE IN ACCORDANCE WITH CURRENT AASHTO SPECIFICATIONS.

BRIDGE RAILING USED WITH SIDEWALK SHALL BE USED ONLY WITH THE SIDEWALK CONFIGURATION (PROFILE) SHOWN ON THIS STANDARD PLAN.

NO SLIP FORMING OF "BRIDGE RAILING, AESTHETIC PARAPET TUBE" SHALL BE ALLOWED. RAILING SHALL BE CAST IN PLACE.

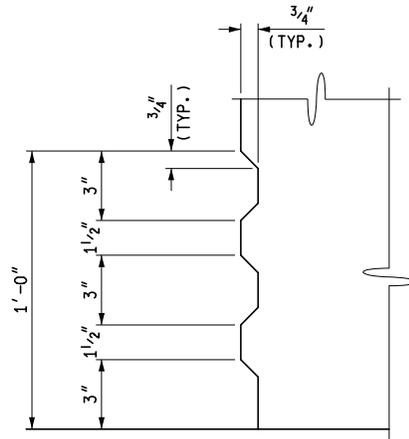
THE LIGHT STANDARD ANCHOR BOLT ASSEMBLY IS INCLUDED IN THE BID ITEM "BRIDGE RAILING, AESTHETIC PARAPET TUBE". SEE STANDARD PLAN B-103-SERIES.

FOR LIGHT STANDARD ANCHOR BOLT ASSEMBLY DETAILS, IF BRIDGE RAILING, AESTHETIC PARAPET TUBE IS PLACED FLUSH ON THE BRIDGE DECK (WITHOUT SIDEWALK), THE LIGHTING CONDUIT SHALL NOT BE PLACED IN THE RAILING.

A RUBBED FINISH ON THE VERTICAL AND TOP CONCRETE SURFACES OF THE PARAPET RAILING IS REQUIRED.

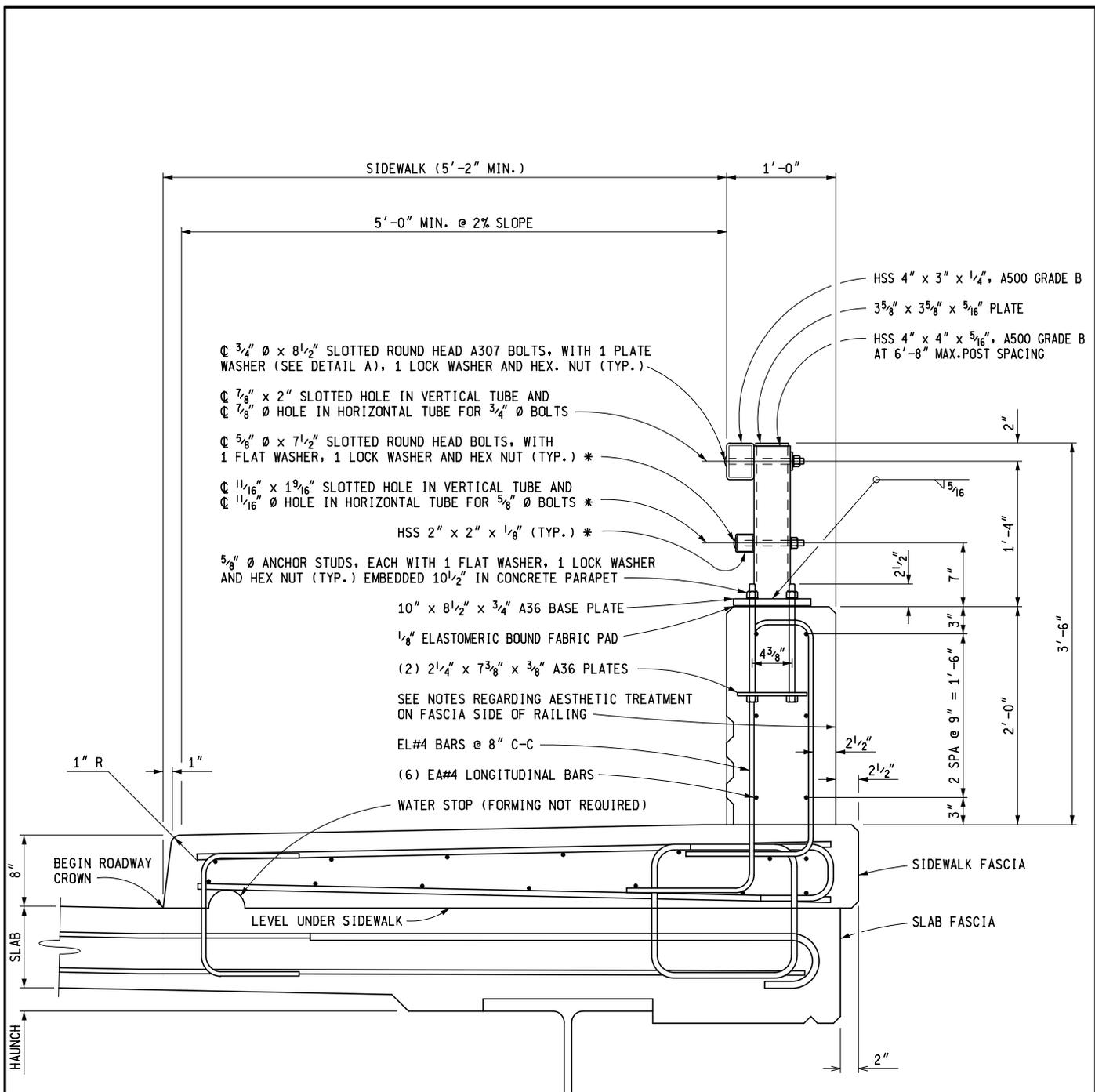
AESTHETIC TREATMENT AS DETAILED ON THIS SHEET SHALL BE ADDED TO THE FASCIA SIDE OF RAILING IF NO AESTHETIC TREATMENT IS DETAILED ON THE PLAN SHEETS AND SHALL BE INCLUDED IN THE BID ITEM "BRIDGE RAILING, AESTHETIC PARAPET TUBE". AESTHETIC TREATMENT DETAILED ON THE PLAN SHEETS MAY BE UP TO 1" IN CONCRETE DEPTH WITHOUT MODIFICATION TO THE RAILING WIDTH AND SHALL BE INCLUDED IN THE BID ITEM "BRIDGE RAILING, AESTHETIC PARAPET TUBE". AESTHETIC TREATMENT REQUIRING ADDITIONAL RAILING WIDTH OR THE USE OF ELASTOMERIC FORM LINERS SHALL BE PAID FOR SEPARATELY.

* THE HSS 2" x 2" x 1/8" RAIL, SLOTTED HOLE, AND 5/8" BOLT ARE NOT REQUIRED WHEN RAILING IS USED IN COMBINATION WITH PEDESTRIAN FENCING (SEE STANDARD PLAN B-41-SERIES).



AESTHETIC TREATMENT DETAIL

	DEPARTMENT DIRECTOR Kirk T. Stuedle	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR	
	PREPARED BY BY DESIGN DIVISION	APPROVED BY: _____ DIRECTOR, BUREAU OF FIELD SERVICES	BRIDGE RAILING, AESTHETIC PARAPET TUBE
DRAWN BY: <u>B.L.T.</u>	APPROVED BY: _____ DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT	11-27-2013 PLAN DATE	B-25-H
CHECKED BY: <u>V.Z.</u>		F.H.W.A. APPROVAL	SHEET 1 OF 6

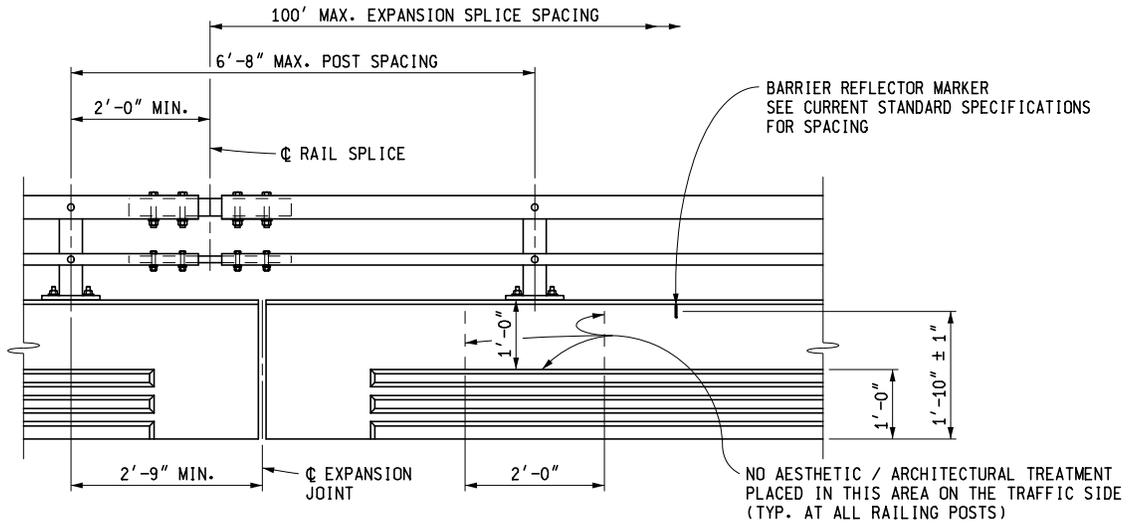


BRIDGE RAILING WITH SIDEWALK

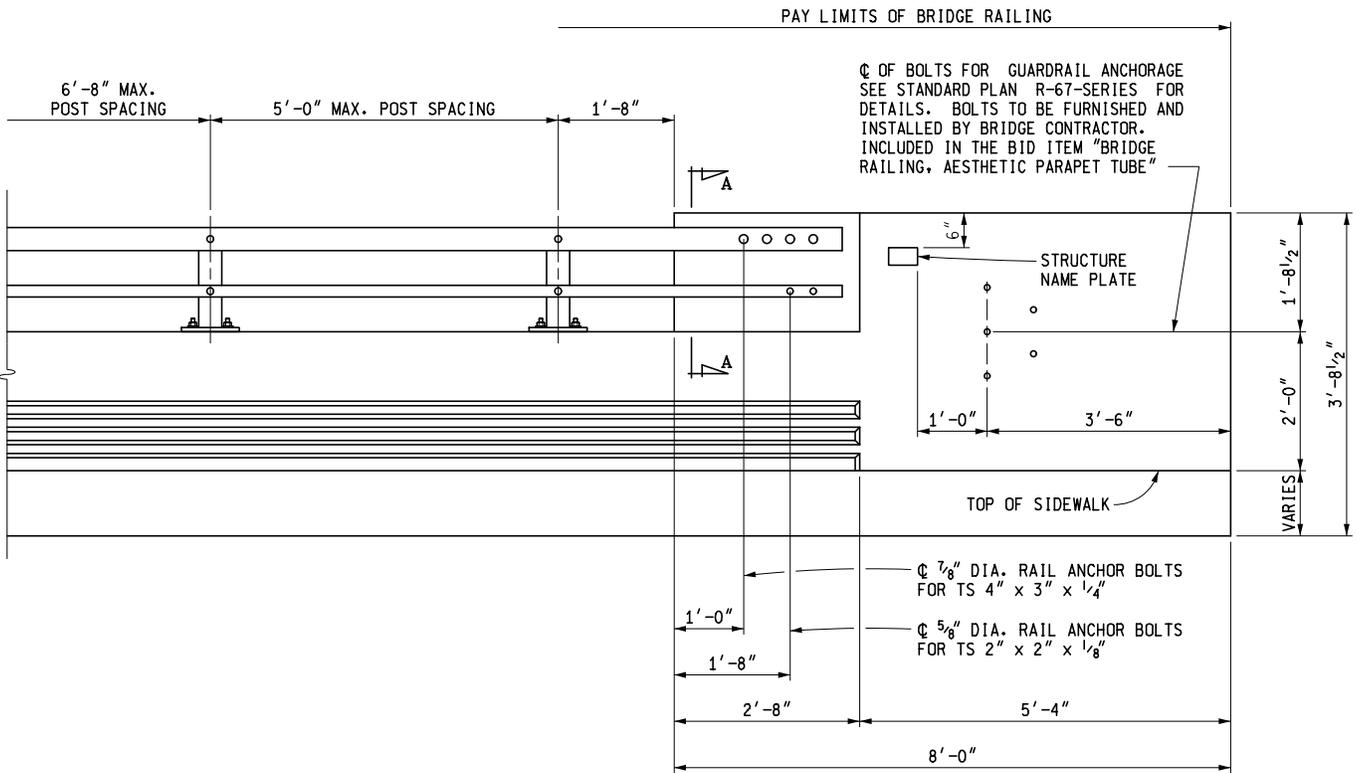
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

**BRIDGE RAILING,
AESTHETIC PARAPET TUBE**

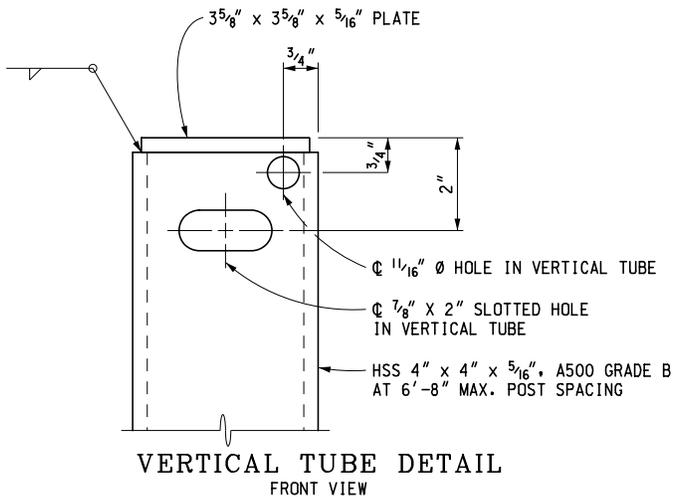
F.H.W.A. APPROVAL	11-27-2013 PLAN DATE	B-25-H
		SHEET 2 OF 6



RAILING ELEVATION



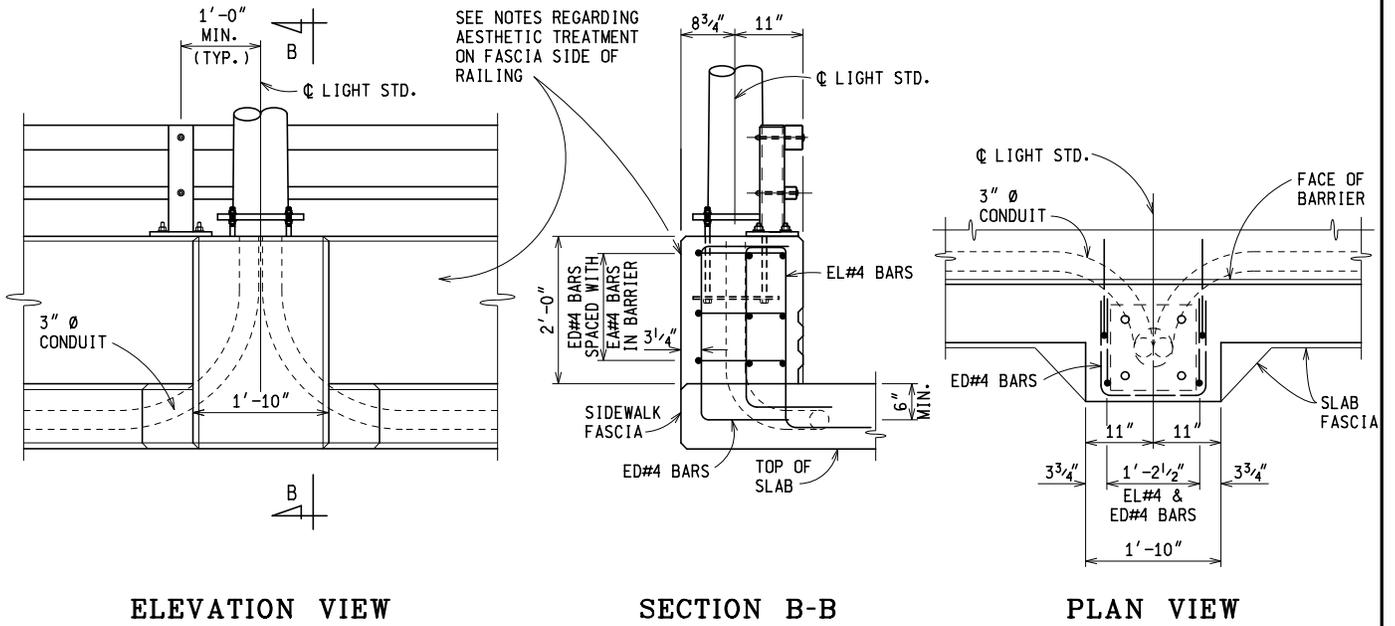
END WALL ELEVATION



MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

**BRIDGE RAILING,
AESTHETIC PARAPET TUBE**

F.H.W.A. APPROVAL	11-27-2013 PLAN DATE	B-25-H	SHEET 3 OF 6
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ELEVATION VIEW

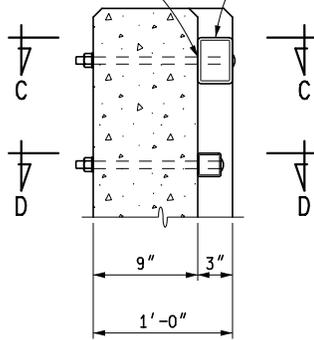
SECTION B-B

PLAN VIEW

LIGHT STANDARD DETAILS

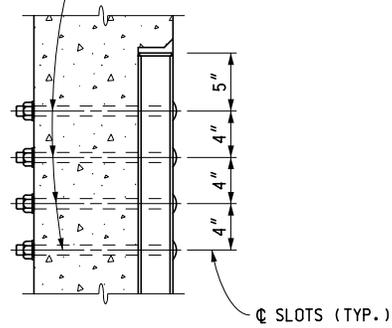
THREADS SHALL BE EXCLUDED FROM SHEAR PLANE (TYP.)

HSS 4" x 3" x 1/4", A500 GRADE B



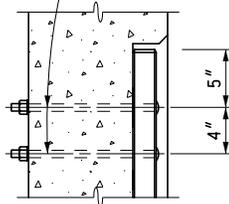
SECTION A-A

1 5/16" x 1/8" SLOTTED HOLE IN RAIL, 7/8" Ø x 1'-2" SLOTTED ROUND HEAD BOLTS WITH HEX. NUT, 1 FLAT WASHER, 1 LOCK WASHER (TYP.)



SECTION C-C

1 1/16" x 7/8" SLOTTED HOLE IN RAIL, 5/8" Ø x 1'-1" SLOTTED ROUND HEAD BOLTS WITH HEX. NUT, 1 FLAT WASHER, 1 LOCK WASHER (TYP.)



SECTION D-D

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

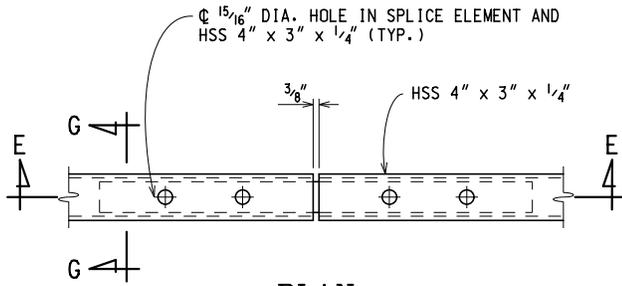
BRIDGE RAILING,
AESTHETIC PARAPET TUBE

F.H.W.A. APPROVAL

11-27-2013
PLAN DATE

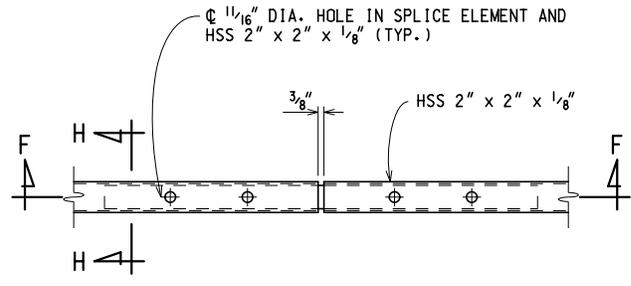
B-25-H

SHEET
4 OF 6



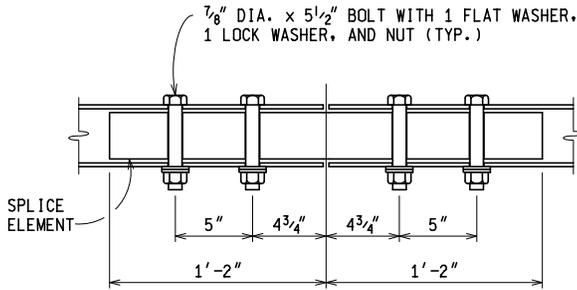
PLAN

HSS 4" x 3" x 1/4"



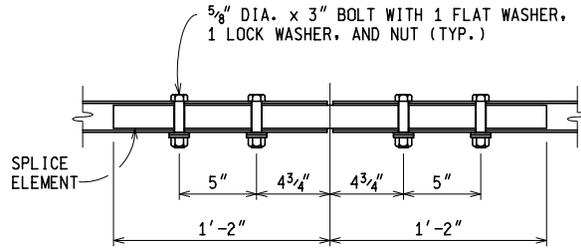
PLAN

HSS 2" x 2" x 1/8"



SECTION E-E

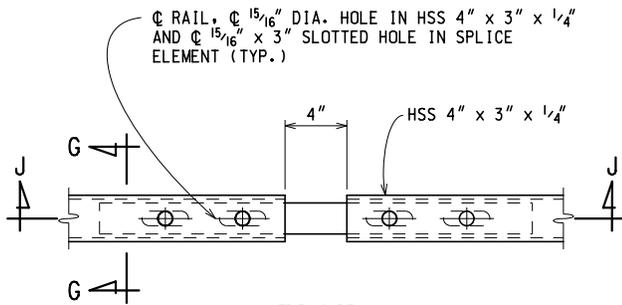
HSS 4" x 3" x 1/4"



SECTION F-F

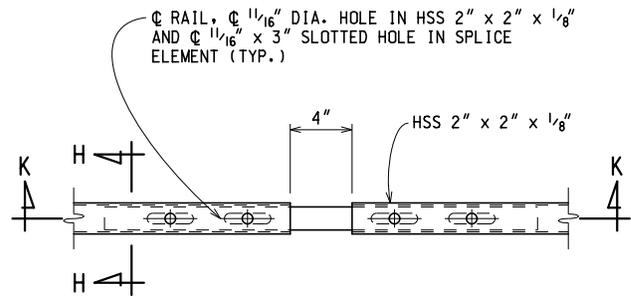
HSS 2" x 2" x 1/8"

FIXED SPLICE DETAILS



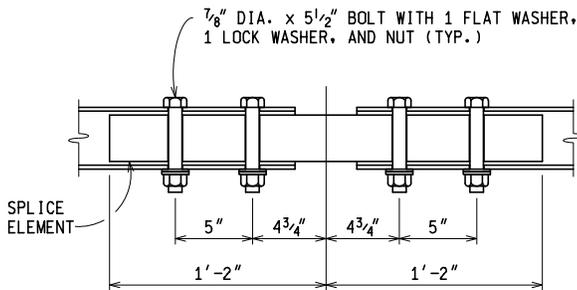
PLAN

HSS 4" x 3" x 1/4"



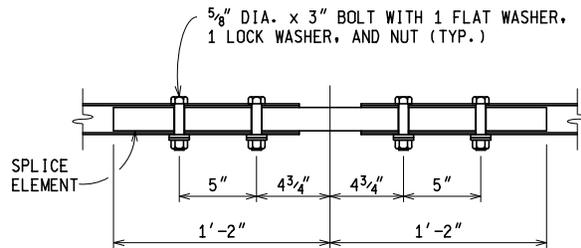
PLAN

HSS 2" x 2" x 1/8"



SECTION J-J

HSS 4" x 3" x 1/4"



SECTION K-K

HSS 2" x 2" x 1/8"

EXPANSION SPLICE DETAILS

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

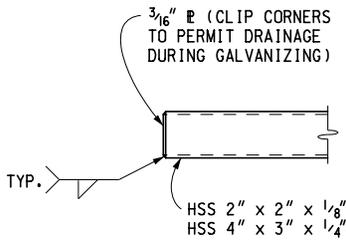
**BRIDGE RAILING,
AESTHETIC PARAPET TUBE**

F.H.W.A. APPROVAL

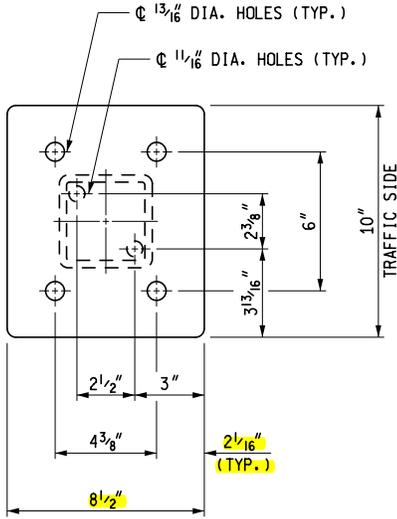
11-27-2013
PLAN DATE

B-25-H

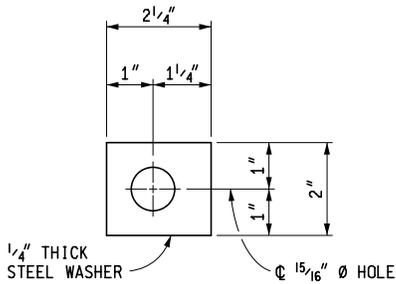
SHEET
5 OF 6



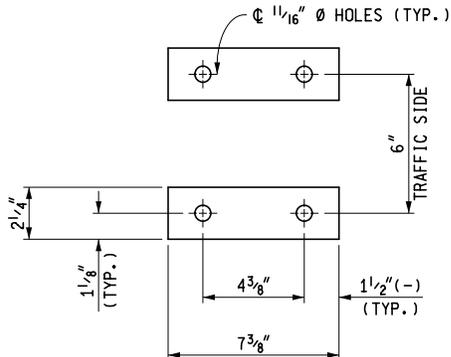
END OF RAIL



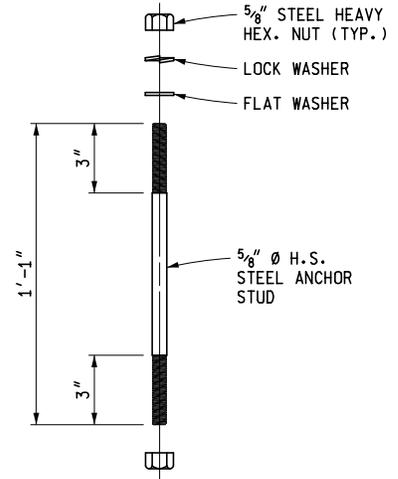
EXTERIOR BASE PLATE



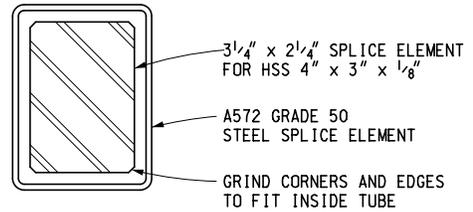
DETAIL A



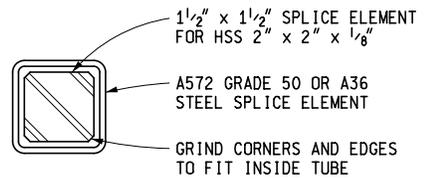
EMBEDDED ANCHOR STUD PLATES



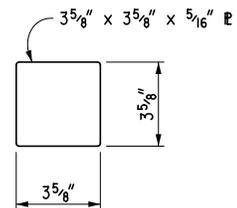
ANCHOR STUD DETAIL



SECTION G-G



SECTION H-H



POST COVER PLATE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

BRIDGE RAILING,
AESTHETIC PARAPET TUBE

F.H.W.A. APPROVAL

11-27-2013
PLAN DATE

B-25-H

SHEET
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