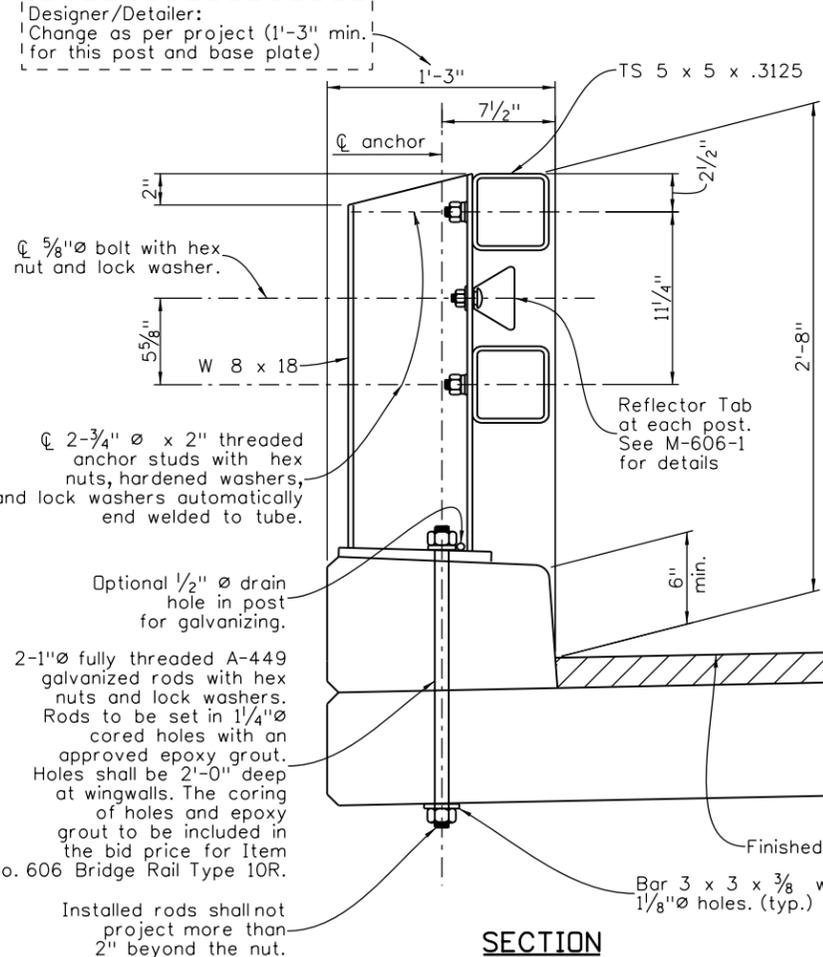


Type 3G or 3H Transition.
(See Roadway Quantities)
The height of the Transition will vary to match bridge rail and roadway guardrail:
1" when bridge deck has a 3" overlay, 2" when bridge deck has a 2" silica fume overlay and 4" when bridge deck does not have an overlay.

RAIL PANEL AT TERMINAL SECTION

(See Roadway plans for ends not attached to Guard Rail.)



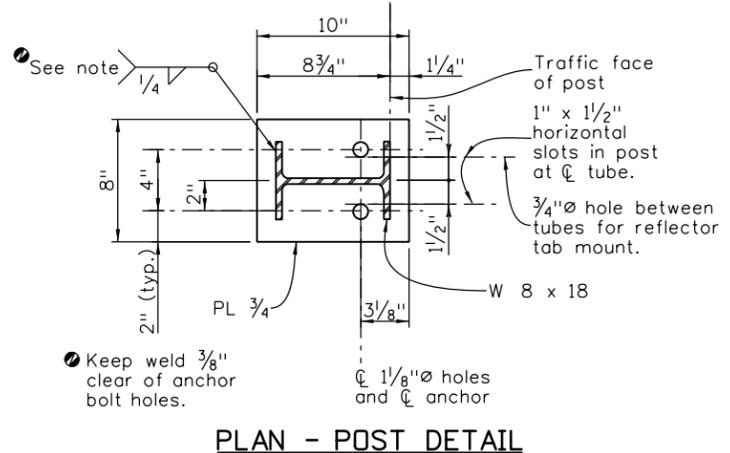
RAIL PANEL AT EXPANSION DEVICE

ELEVATION - BRIDGE RAIL

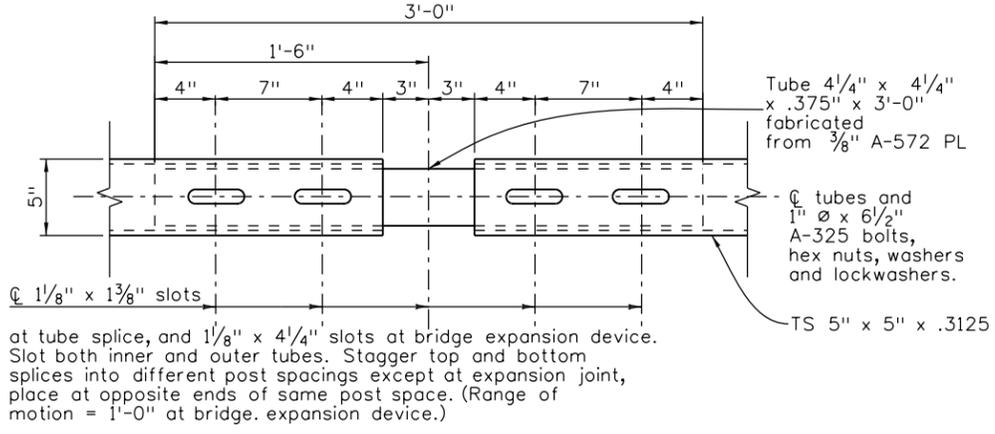
* Designer/Detailer:
8" min. and 1'-2" max. preferred. However, check existing bridge(s) for skew, expansion joint, and wingwall details at the end of the curbs and adjust this dimension as necessary. If there is insufficient room for the first 3G guardrail post, shown above, off the end of the bridge, then extend bridge rail tubes beyond the end of the curb. Do not change the 2'-5 1/2" shown above. This will move the first 3G post away from the curb.

RAIL PANEL ON WING TRANSITION SECTION

(See roadway plans for ends requiring attachment to guardrail.)



PLAN - POST DETAIL



PLAN - TUBE SPLICE

NOTES:

All tubes shall be ASTM A-500 Grade B.
All posts and base plates shall be ASTM A-572 Grade 50.
All other steel shall be ASTM A-36 unless otherwise noted.

The above material and all anchor bolts and miscellaneous bolts, nuts, and washers shall be galvanized after fabrication in accordance with Section 509. Concrete, reinforcing steel, and structural steel elements shall conform to the requirements of Sections 601, 602 and 509, respectively.

The tubes shall be shop bent or fabricated to fit horizontal curve when radius is less than 1,500 feet.

Tubes shall be continuous over not less than two posts.

The centerline of the tube splice shall be 1'-8" minimum and 2'-6" maximum from the centerline of the posts.

All bolts that have lock washers shall be tightened to snug only.

Posts shall be perpendicular to the longitudinal roadway grade.

One or more 10'-0" post spacings may be reduced (6'-8" min.) in order to maintain dimensions from the end of the rail and expansion joints.

Payment will be made under Item 606, Bridge Rail Type 10R for all posts, base plates, backing plates, anchor bolts, miscellaneous bolts, nuts, washers, tubes, tube expansion devices, tube splices, end plates, cored holes, grout, and reflector tabs.

Prior to fabrication of this item, three sets of working drawings which comply with the requirements of Section 105, shall be submitted to the Engineer for information only.

Structural Steel:
AASHTO M-183 (ASTM A-36) $f_y = 36,000$ psi
AASHTO M-223 (ASTM A-572) Grade 50 $f_y = 50,000$ psi
Cold formed ASTM A-500 Grade B $f_y = 46,000$ psi

For additional details see next rail sheets.

INFORMATION ONLY

Description	Unit	Per Lin. Ft.
Structural Steel (Galvanized)	Lb	45.8

Design		Detail		Quantities	
INITIAL	DATE	INITIAL	DATE	INITIAL	DATE
XXX	MM/YY	XXX	MM/YY	XXX	MM/YY
Designed By	Checked By	Designed By	Checked By	Quantities By	Checked By

Print Date: \$DATE\$
File Name: Sheet_B-606-10R.dgn
Horiz. Scale: NTS Vert. Scale: As Noted
Staff Bridge Branch - Unit 022X Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
4201 East Arkansas Avenue
Room 107
Denver, CO 80222
Phone: 303-757-9309 FAX: 303-757-9197
Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

BRIDGE RAIL TYPE 10R REPLACEMENT RAIL

Designer: XXXXXXXX Structure X-XX-XX
Detailer: XXXXXXXX Numbers X-XX-XX
Sheet Subset: BRIDGE Subset Sheets: BXX of XXX

Project No./Code
Project Number
Code
Sheet Number