

**NOTES**

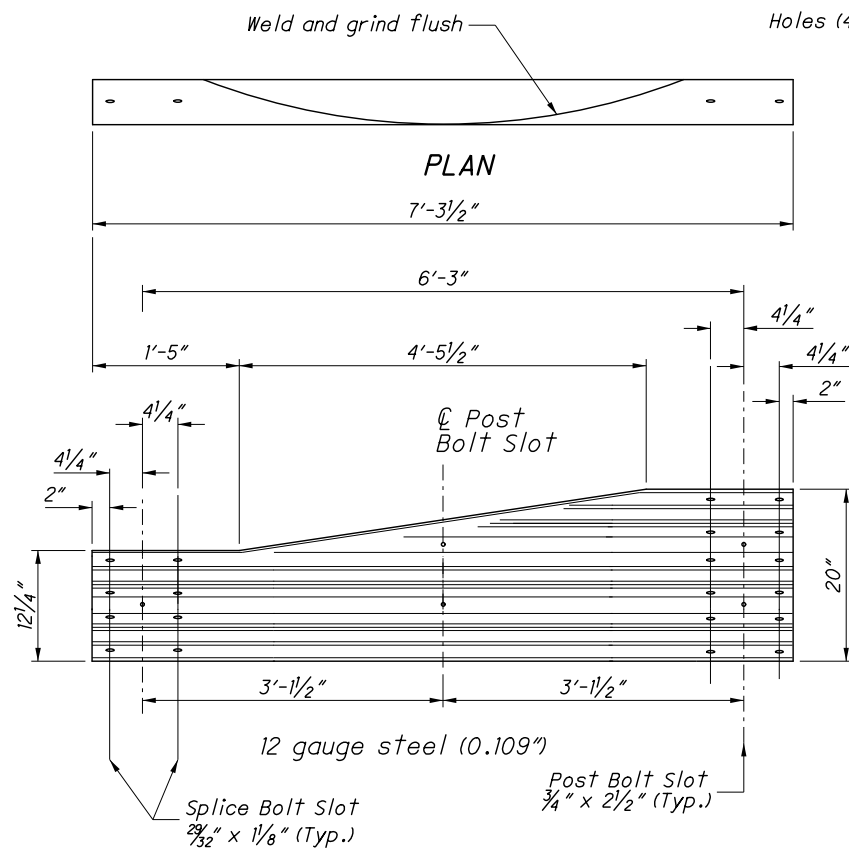
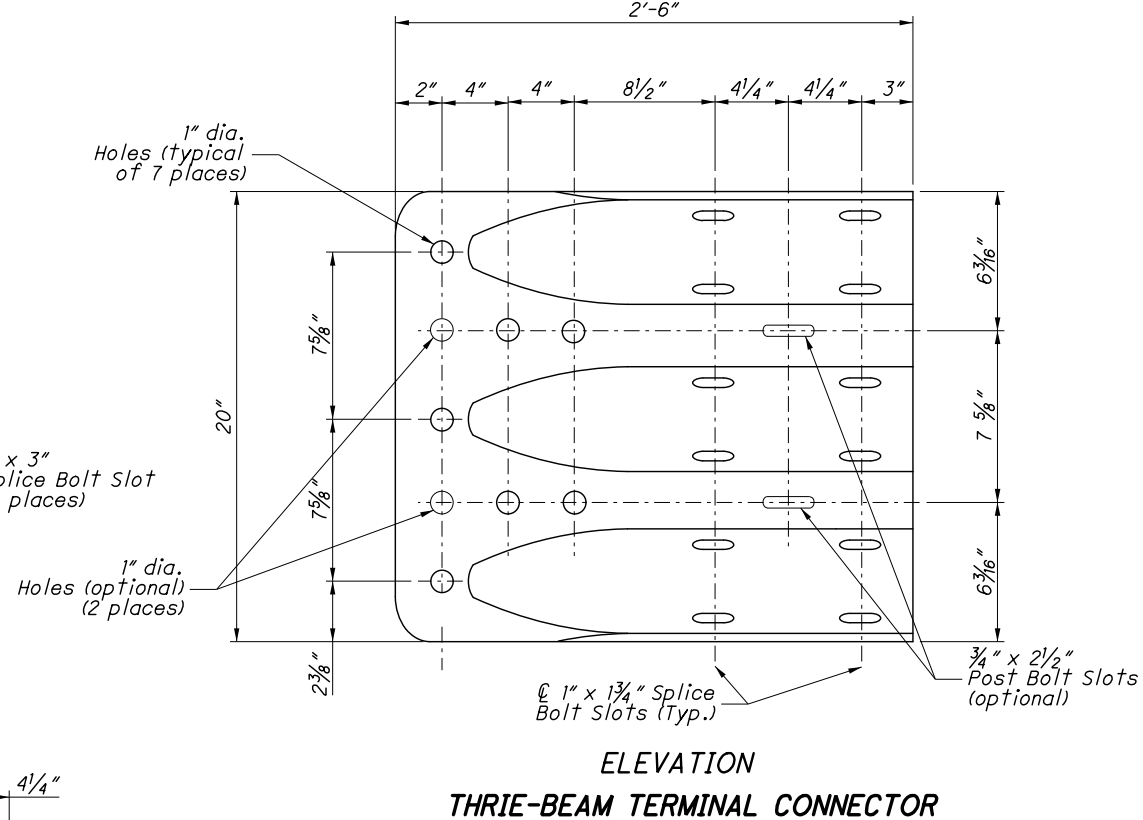
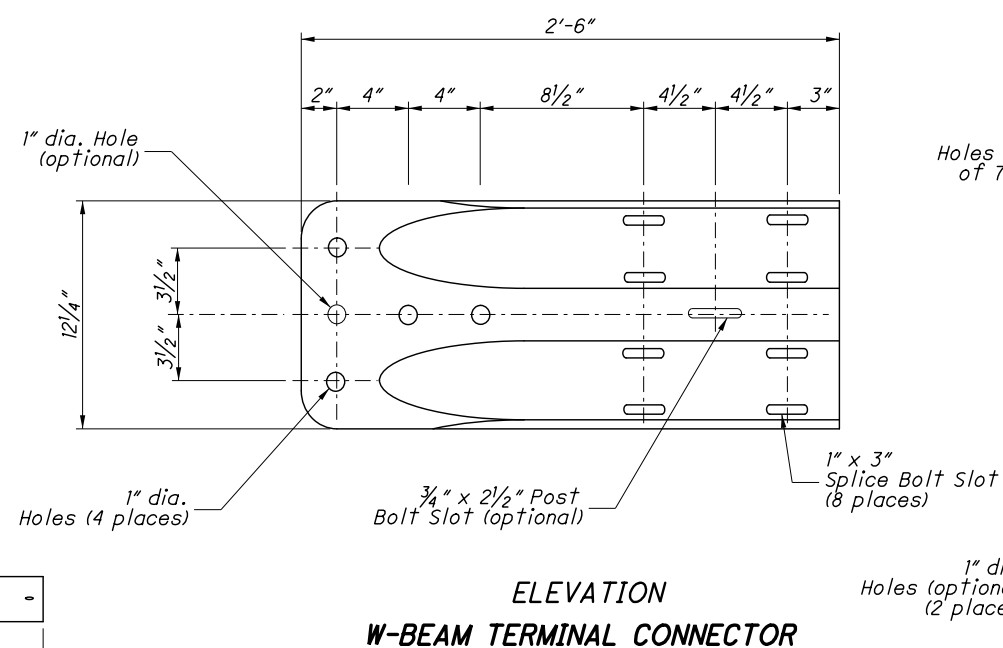
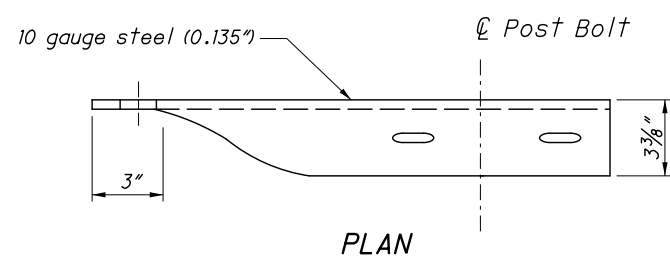
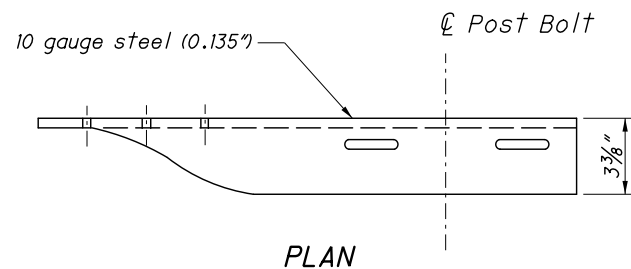
**GENERAL:** Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.

See CMS 606 for guardrail specifications not covered on these drawings.

Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Thrie-Beam Transition sections.

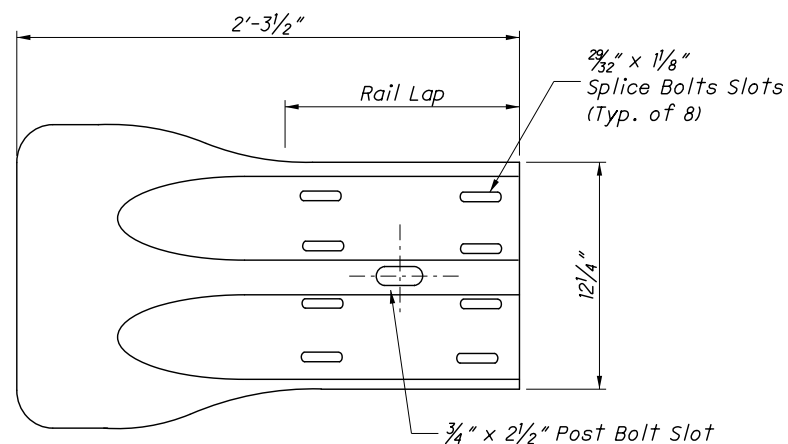
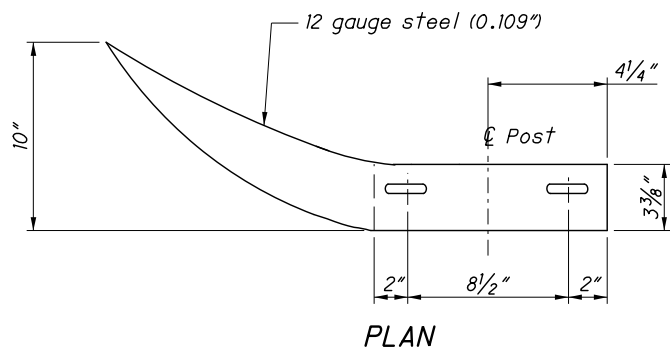
**RAIL ELEMENTS:** W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with 3/4" x 2 1/2" post bolt slots on 6'-3" centers regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

**RAIL SPLICES:** Lap splices between two rail elements or between a rail and terminal connector in the direction of traffic. Lap the buffer or flared end sections in the direction of traffic.

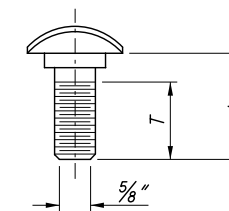


**ELEVATION  
TYPE 2 TRANSITION SECTION  
(Asymmetric W to Thrie-Beam)**

For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.



**ELEVATION  
W-BEAM FLARED END SECTION**



GUARDRAIL BOLT (For Post and Splice Bolts)		
L	T min.	Bolt Use
18" (Standard Rail)	4"	Type 5: WP/WB, PB
26" (Barrier Rail)		
10"	4"	Type 5: SP/WB, PB
1 1/4"	1 1/8"	Splice Bolt

WP = Wood Post      WB = Wood Blockout  
SP = Steel Post      PB = Plastic Blockout

Longer Bolt may be needed for round Wood Post larger than 8" dia.

DESIGN FILE: \\projects\88767\roadway\sheets\PIS\_GR-1.1.dgn  
MODELNAME: Sheet  
WORKSTATION: goodnig  
DATE: 8/28/2014