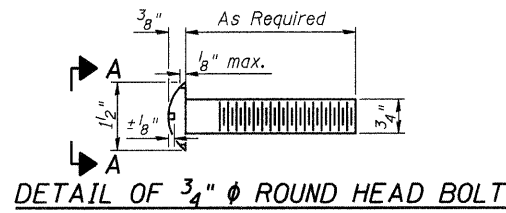
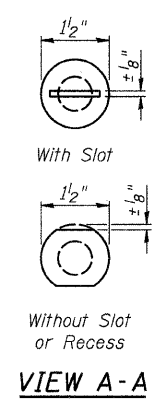


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

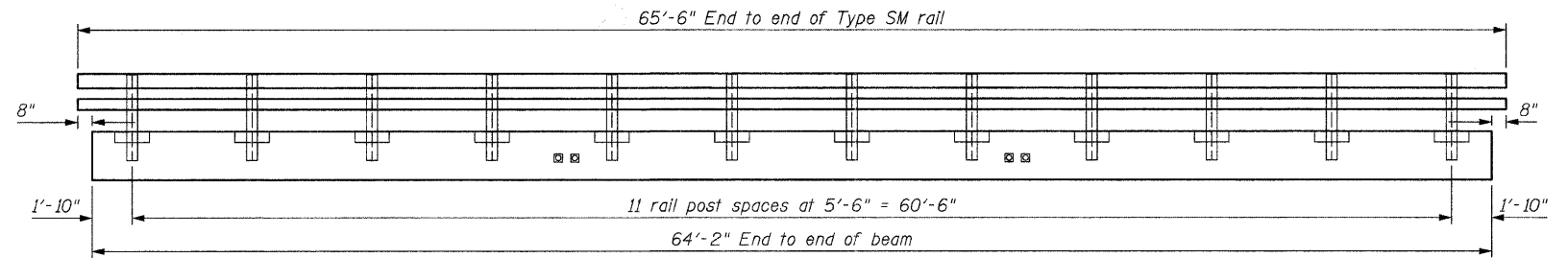


DETAIL OF 3/4" ϕ ROUND HEAD BOLT

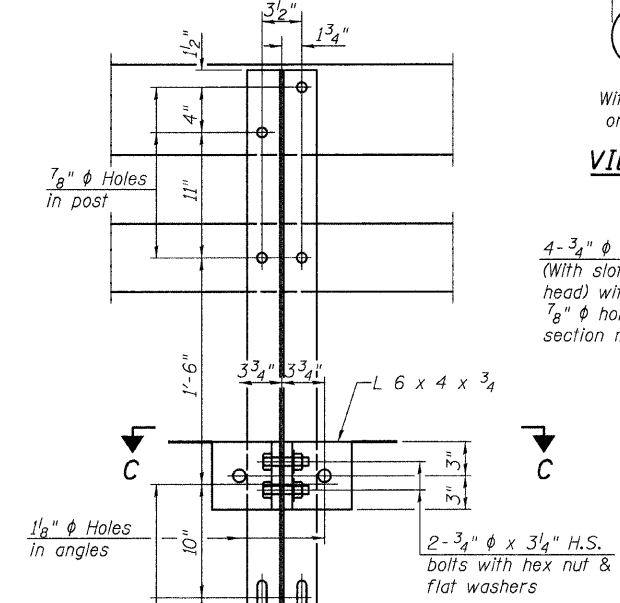


VIEW A-A

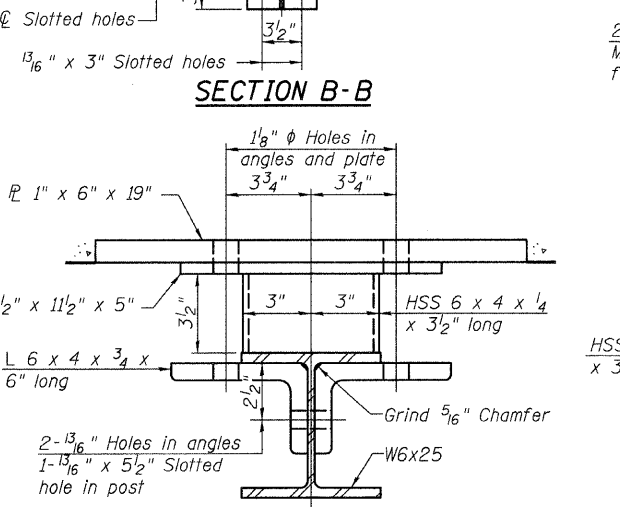
4-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head) with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.



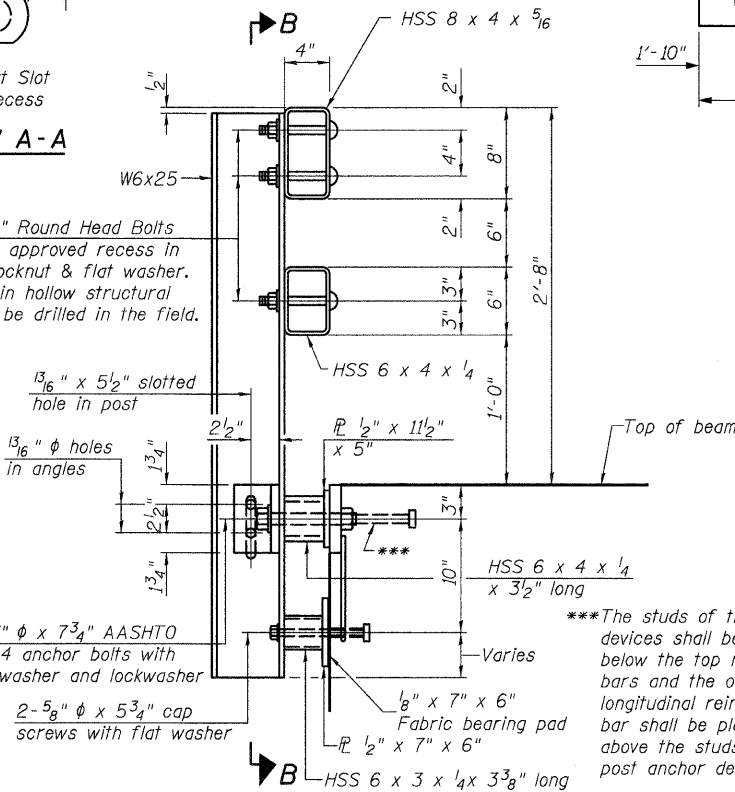
RAIL POST SPACING



SECTION B-B

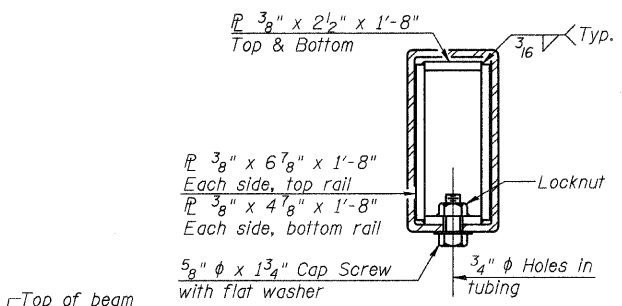


SECTION C-C



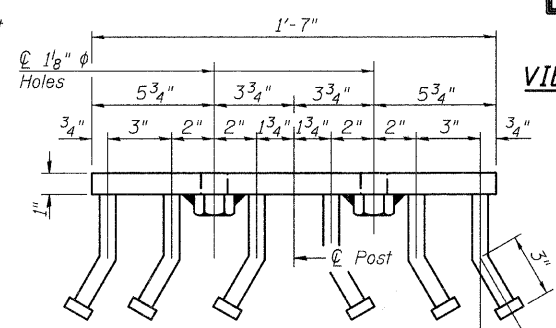
SECTION AT RAIL POST

***The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

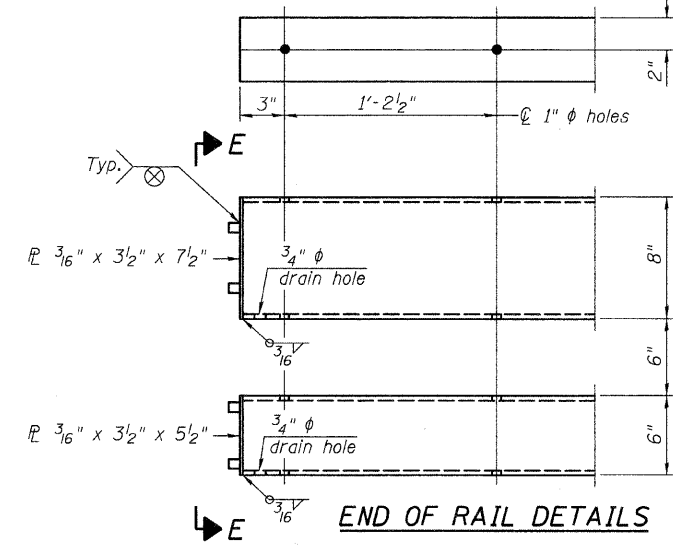


SECTION AT RAIL SPLICE

5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032

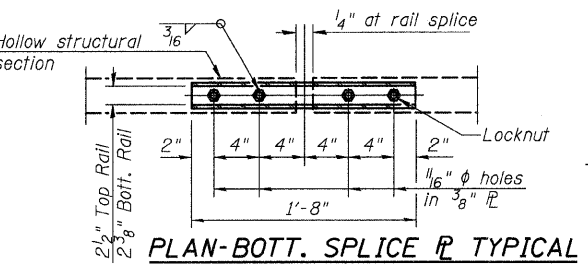


VIEW D-D

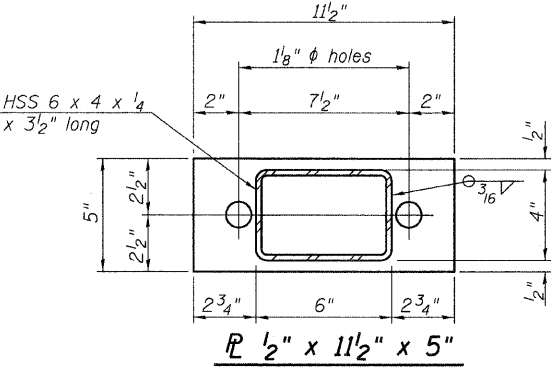


END OF RAIL DETAILS

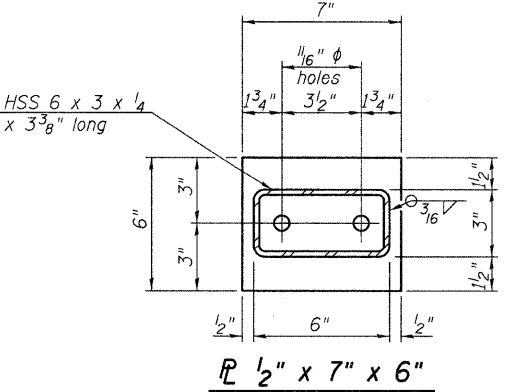
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.



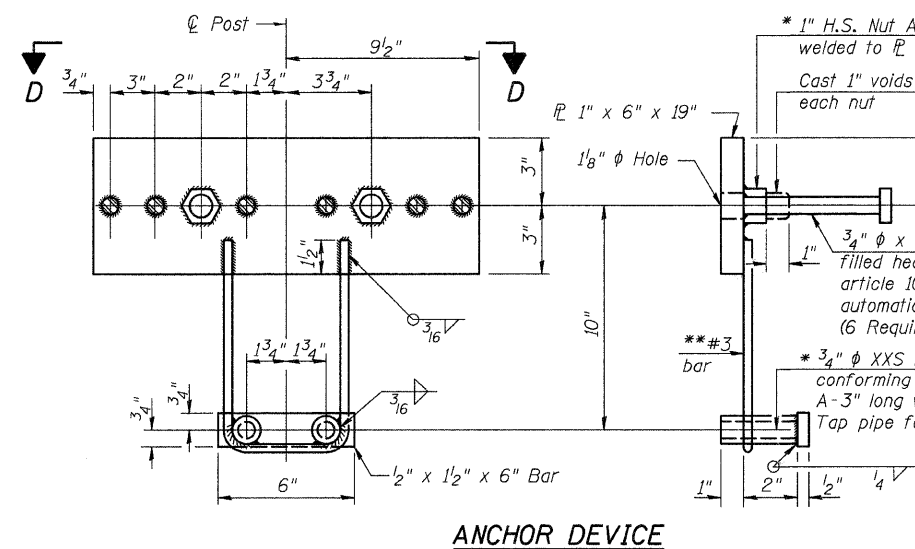
PLAN-BOTT. SPLICE P TYPICAL



L 1/2" x 11 1/2" x 5"



L 1/2" x 7" x 6"



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	131

STEEL RAILING, TYPE SM DETAILS
STRUCTURE NO. 017-3059

SHEET NO. 4	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	696	08-00092-00-BR	CRAWFORD	10
CONTRACT NO. 95598					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

10/21/2009 RAAI #51009

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

R-34

10-1-08 (6'-3" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)