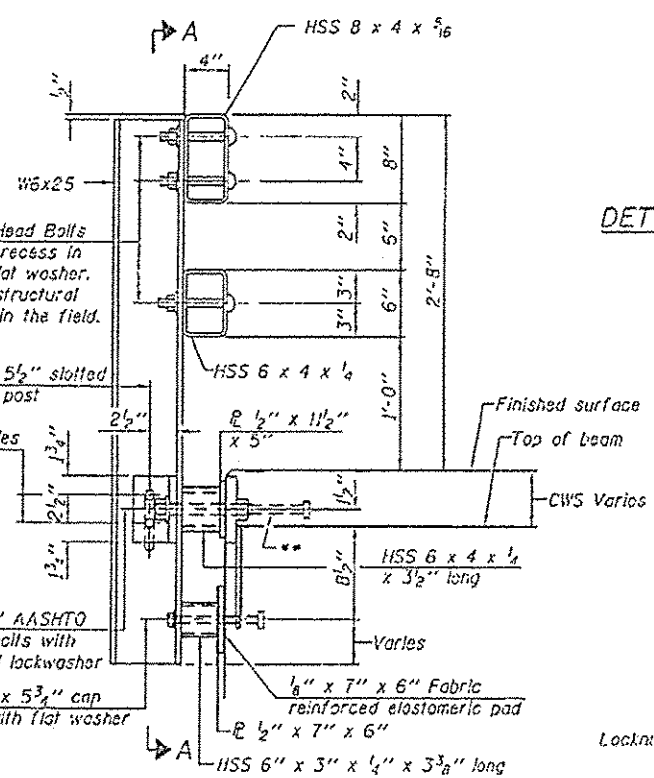
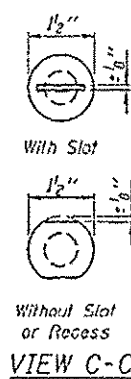
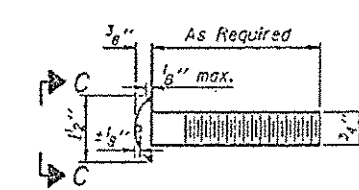


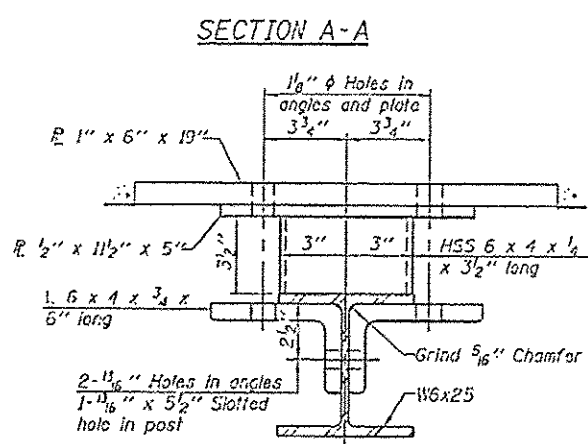
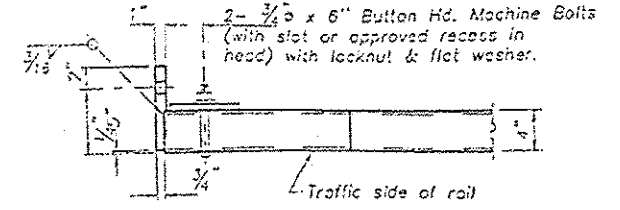
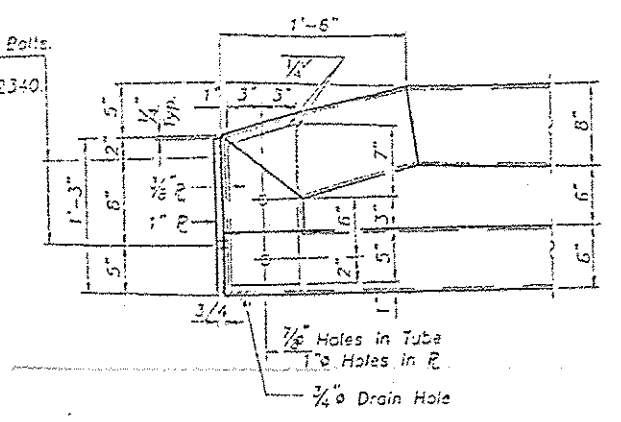
1-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



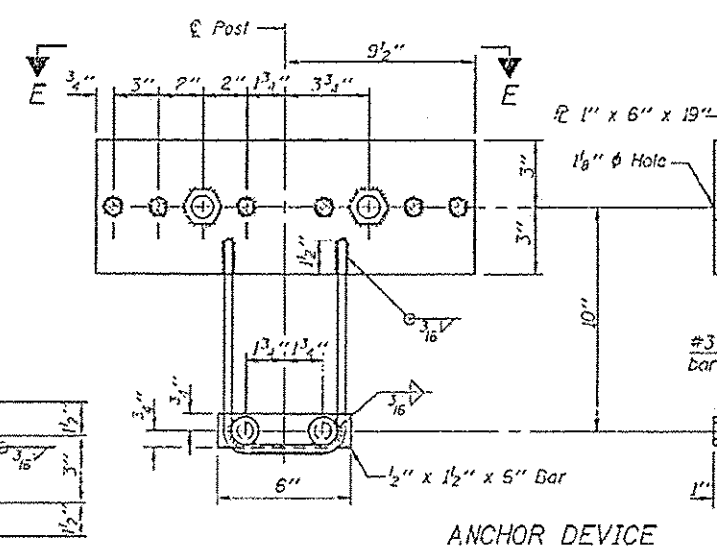
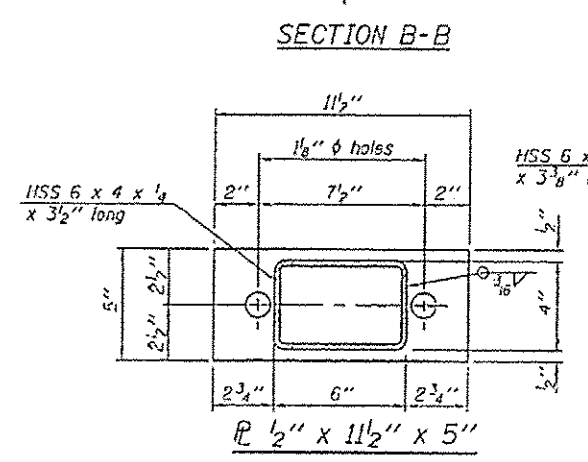
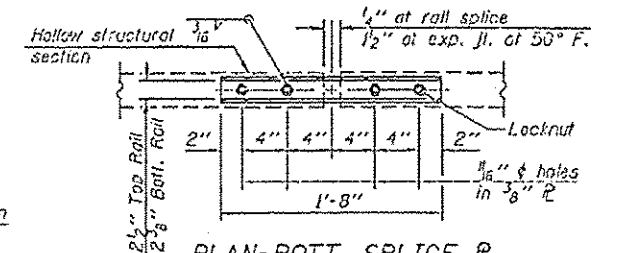
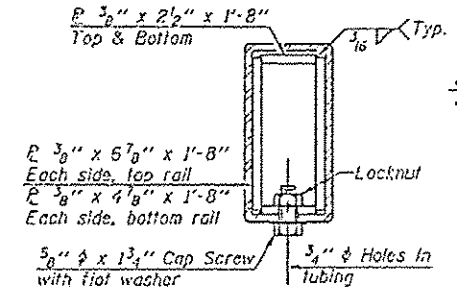
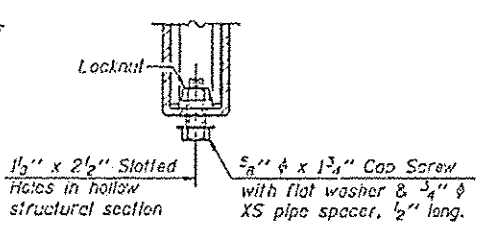
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



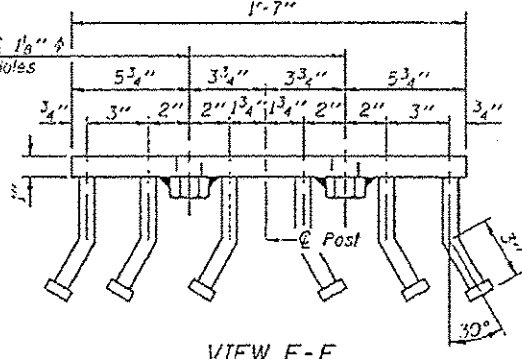
1/8" ϕ Holes for 1" x 4" Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 2340.



RAIL SPLICE CONNECTION AT EXPANSION JT.



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



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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	70

R-34CWS 7-1-10 (6'-3" Maximum Post Spacing) (5" minimum to 7/8" maximum CWS thickness)