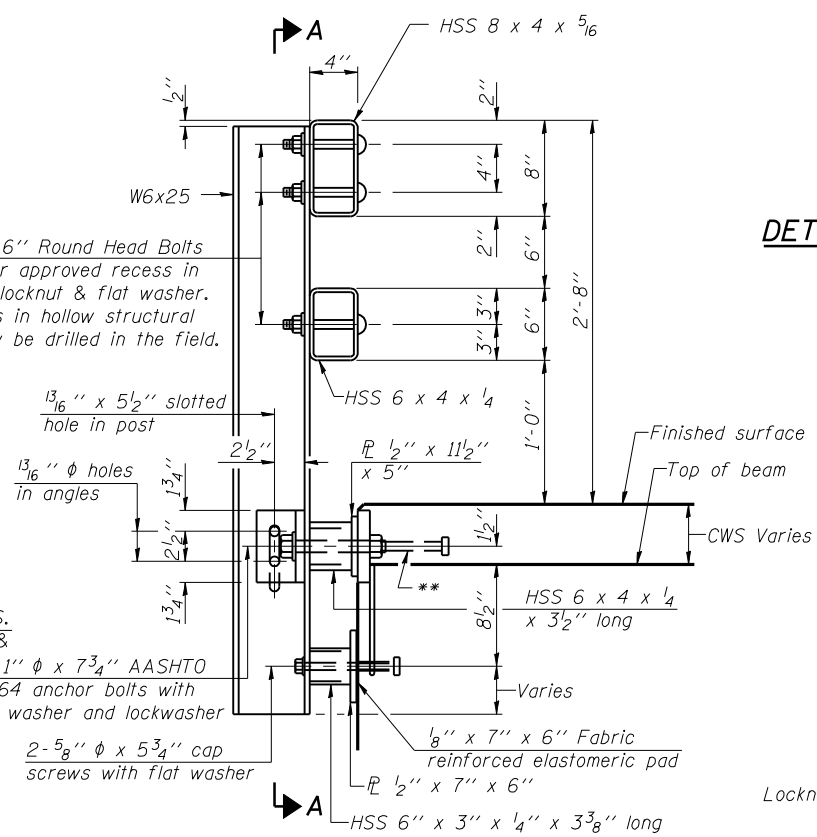
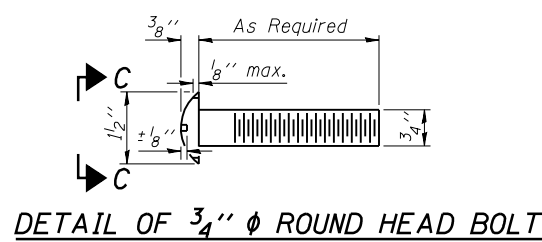


SECTION A-A

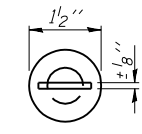
4- 3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



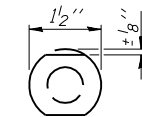
SECTION AT RAIL POST



DETAIL OF 3/4" ϕ ROUND HEAD BOLT

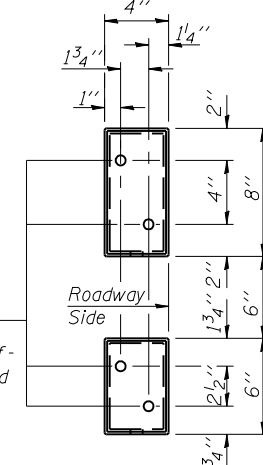


VIEW C-C

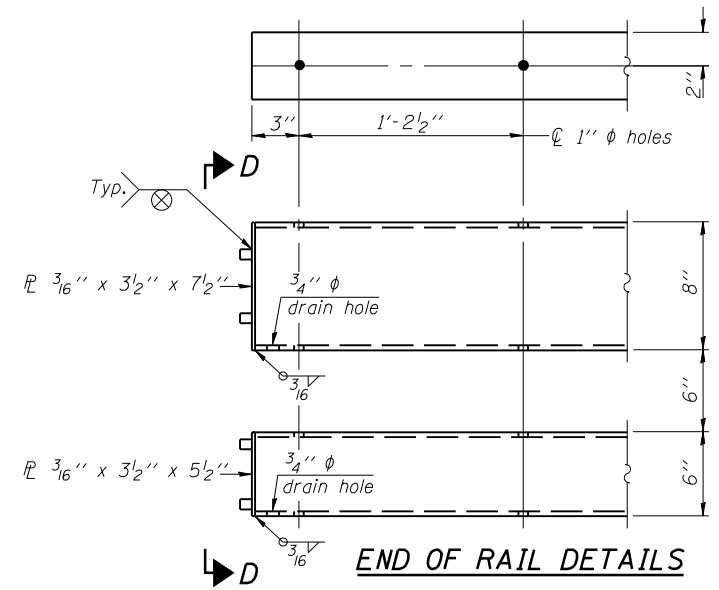


VIEW C-C

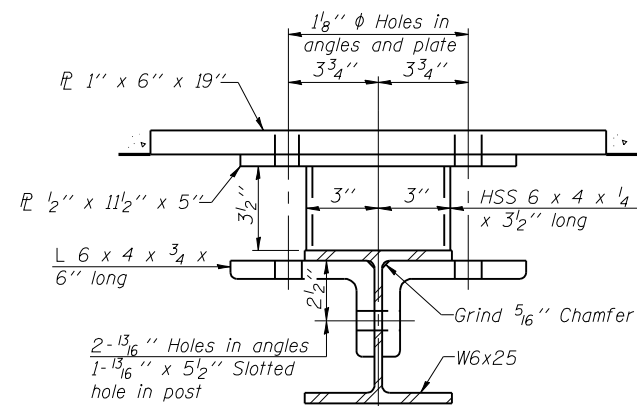
4- 5/8" reduced base welded studs. Provide 4- 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



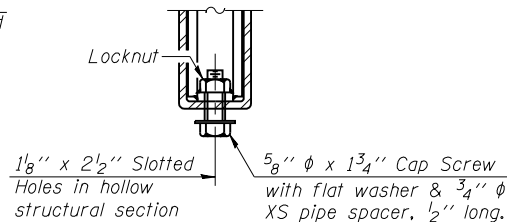
VIEW D-D



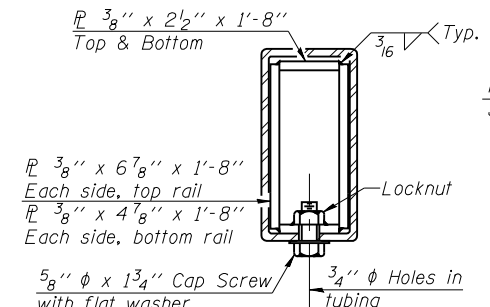
END OF RAIL DETAILS



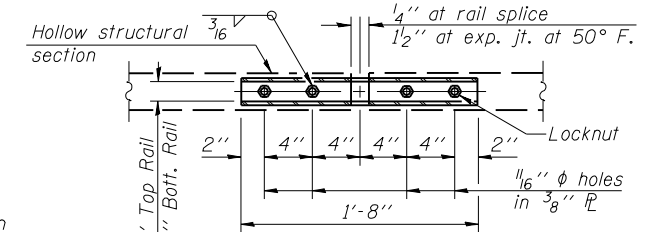
SECTION B-B



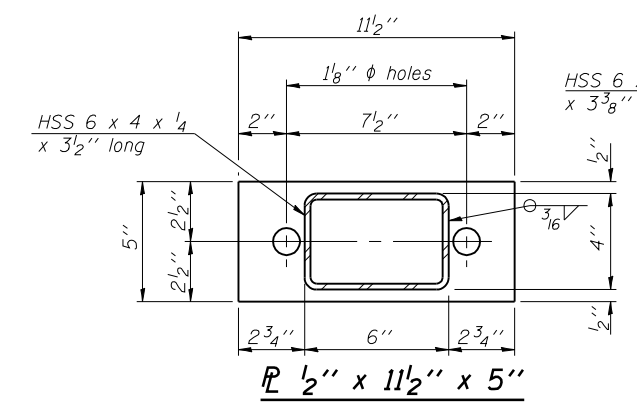
RAIL SPLICE CONNECTION AT EXPANSION JT.



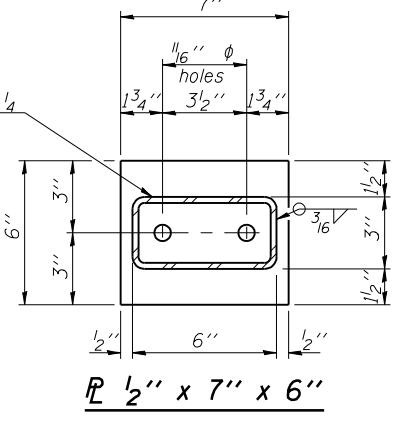
SECTION AT RAIL SPLICE



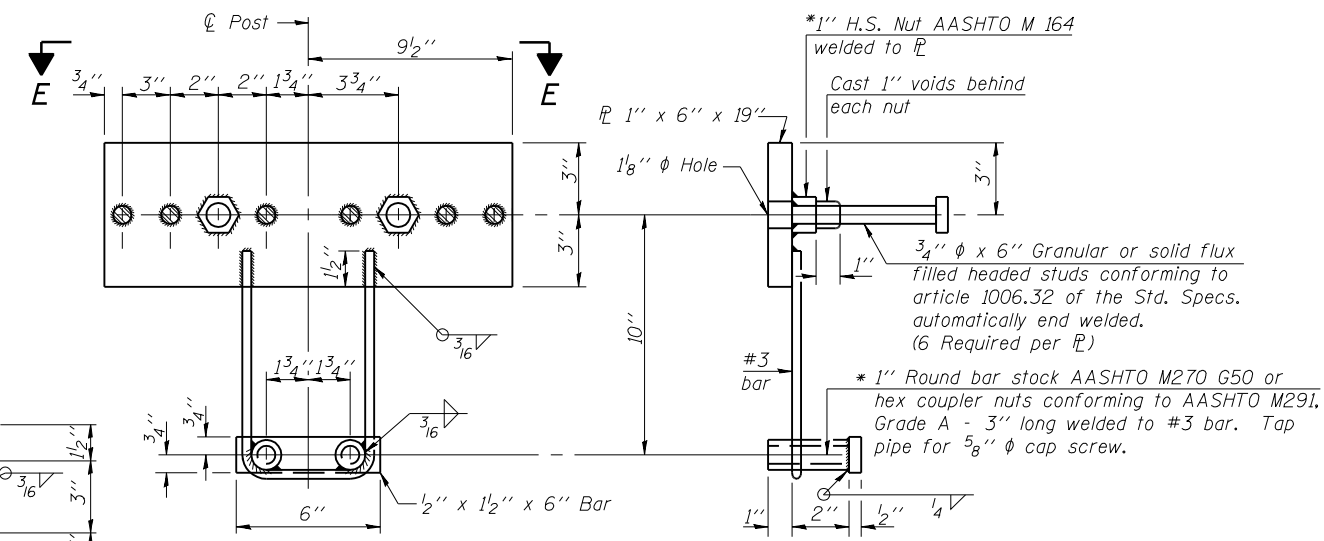
PLAN-BOTT. SPLICE TYPICAL



SECTION B-B

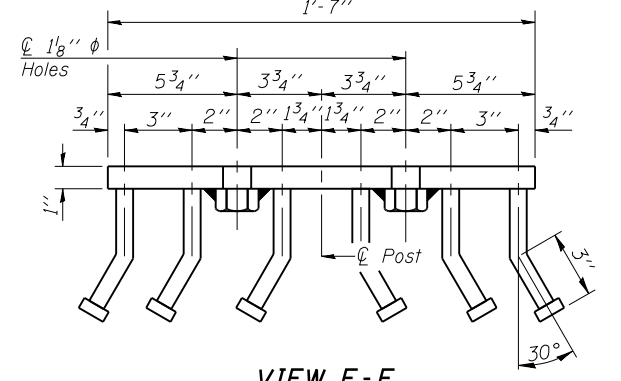


SECTION B-B



ANCHOR DEVICE

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



VIEW E-E

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.
 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	294

R-34CWS

7-1-10

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



USER NAME =	DESIGNED - MTH	REVISED -
FILE NAME =	CHECKED - TBP	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

DESIGNED - MTH	REVISED -
CHECKED - TBP	REVISED -
DRAWN - AJF	REVISED -
CHECKED - MTH	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE STRUCTURE NO. 011-3362

SHEET NO. 7 OF 16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	11-13	CHRISTIAN	437	241
				CONTRACT NO. 72961

ILLINOIS FED. AID PROJECT