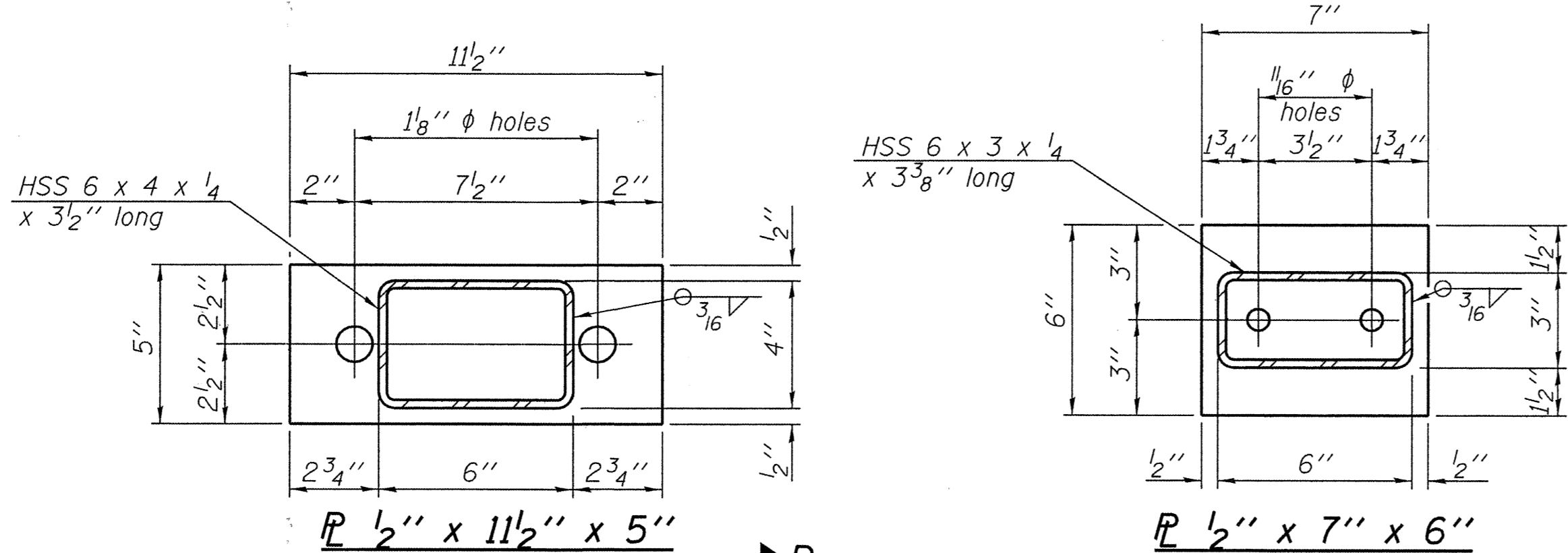
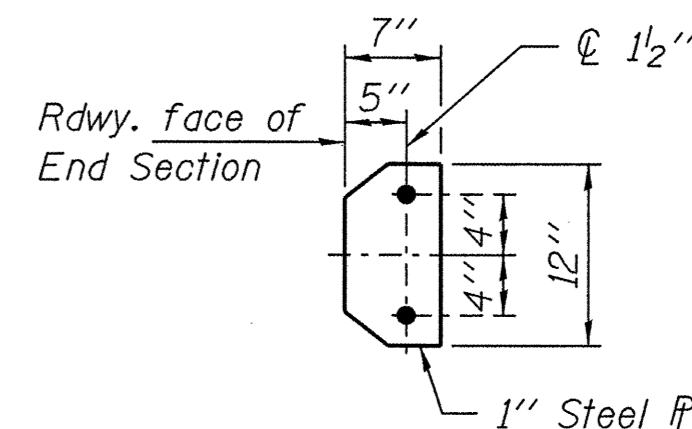


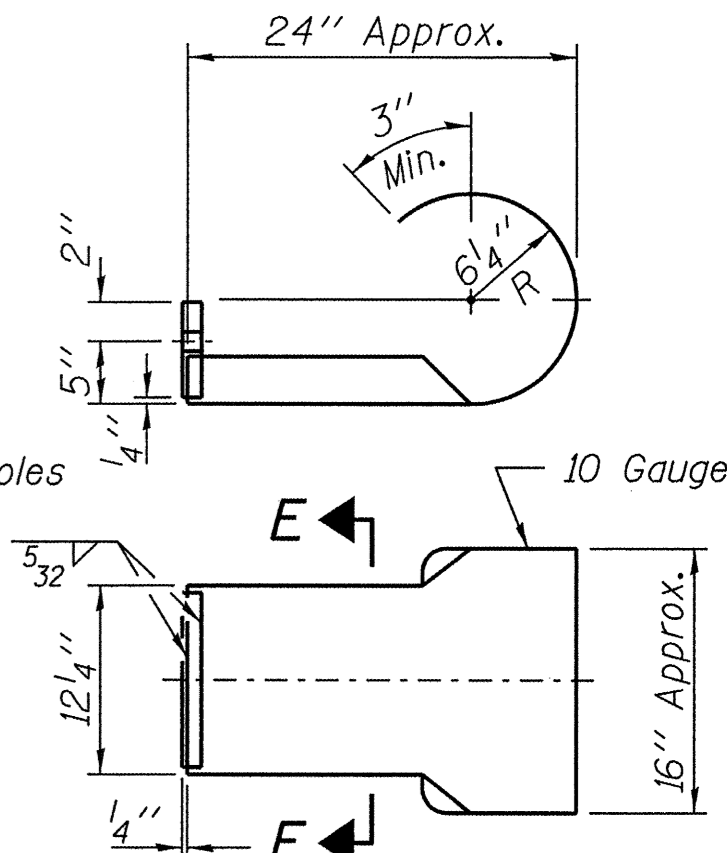
**VIEW A-A
ROUND HEAD BOLT**



Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)

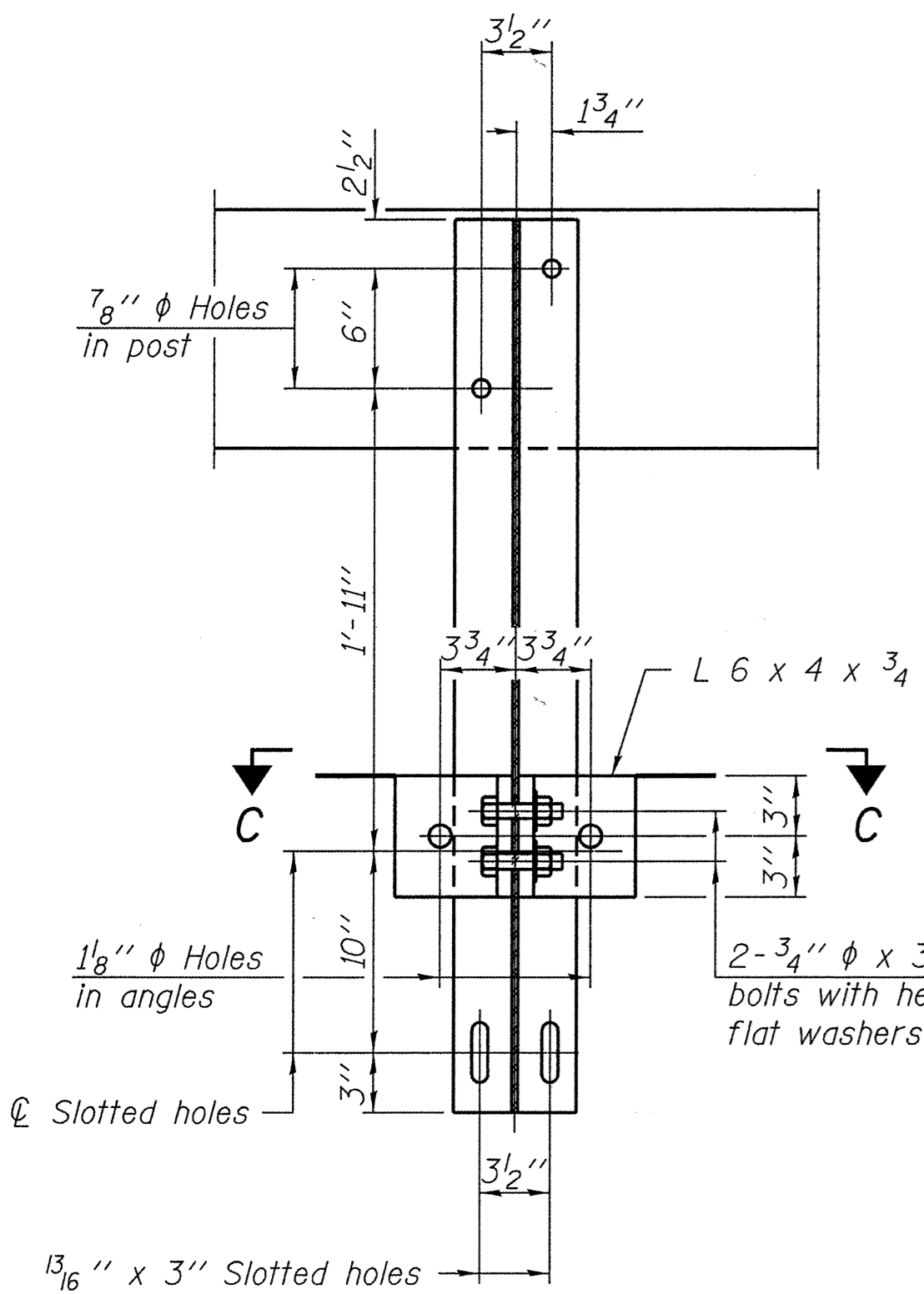


SECTION E-E CURLED END SECTION DETAILS

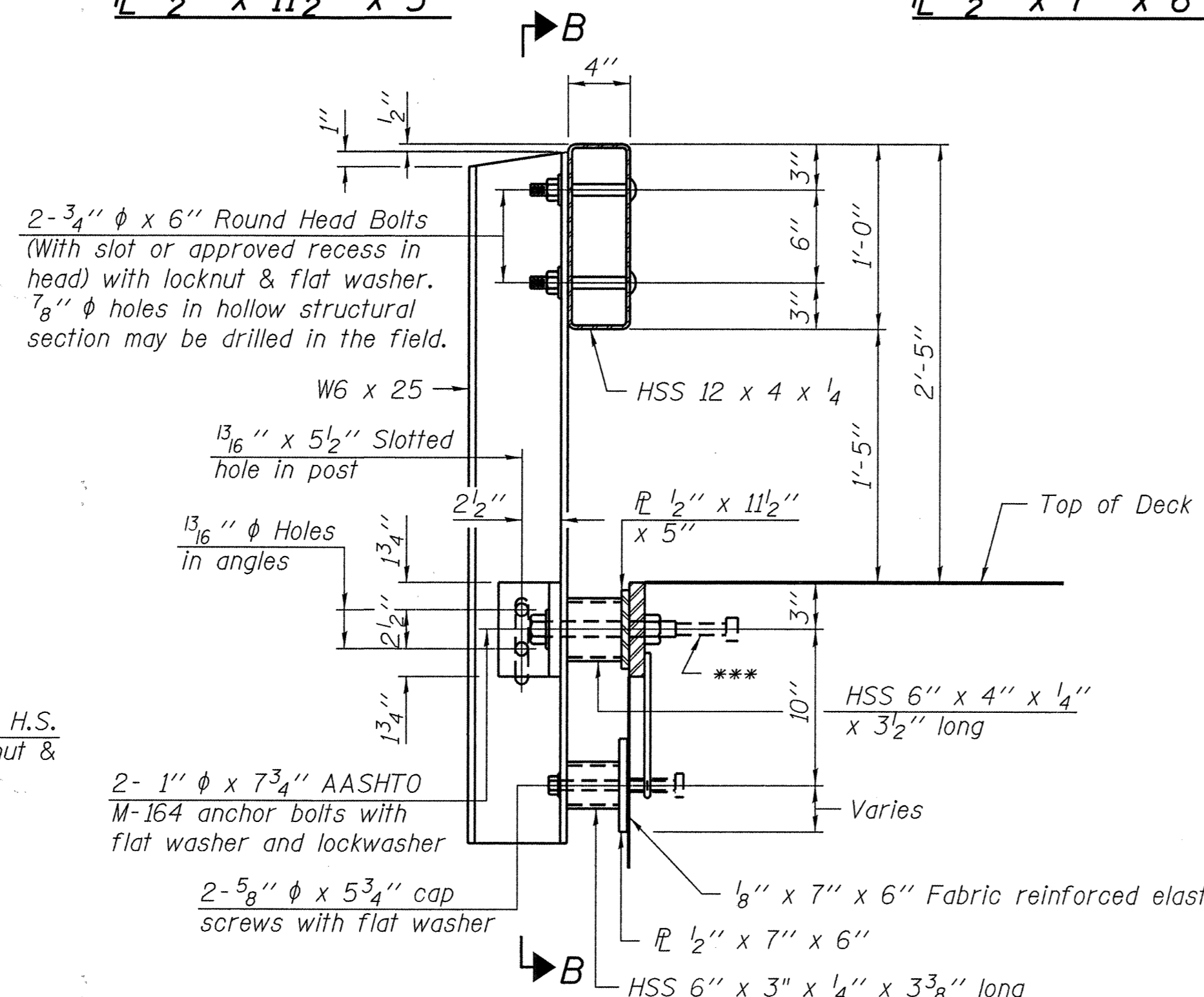


Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
All steel rail elements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

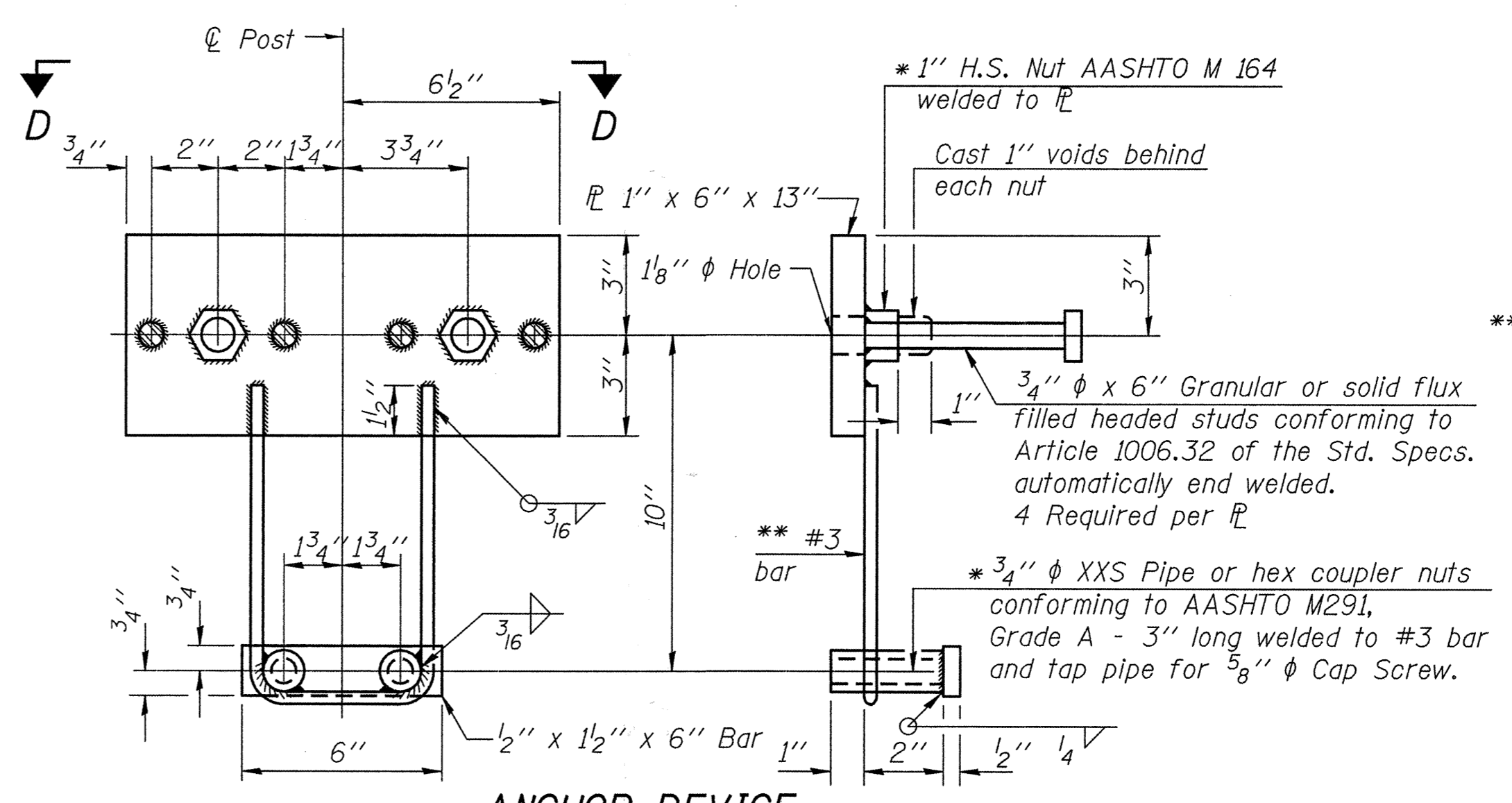
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



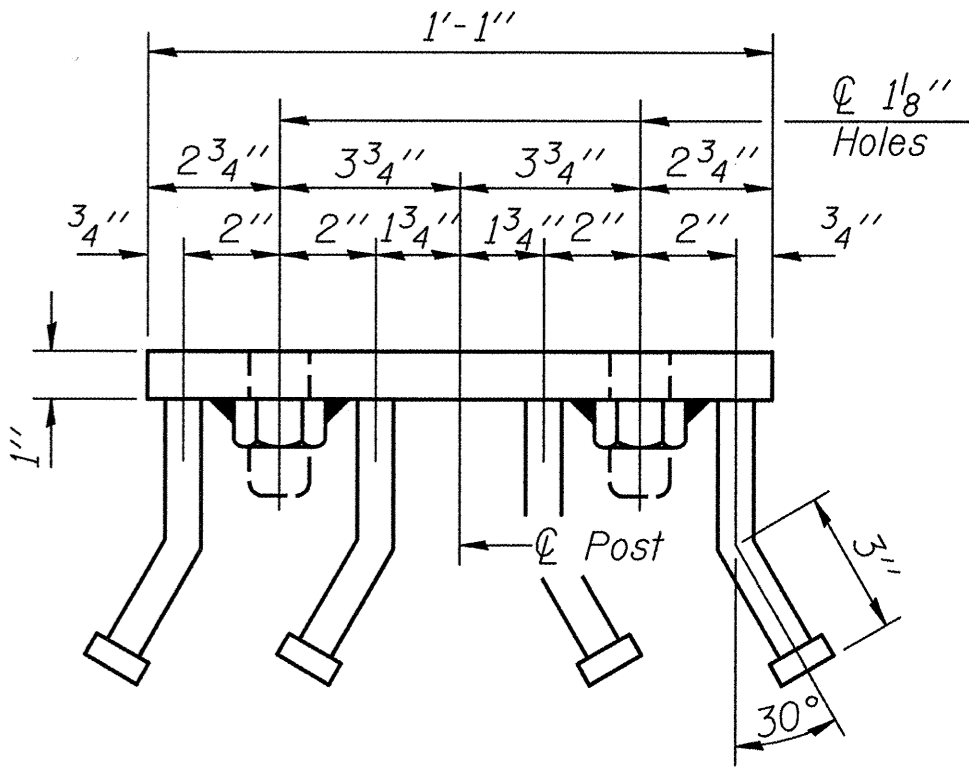
SECTION B-B



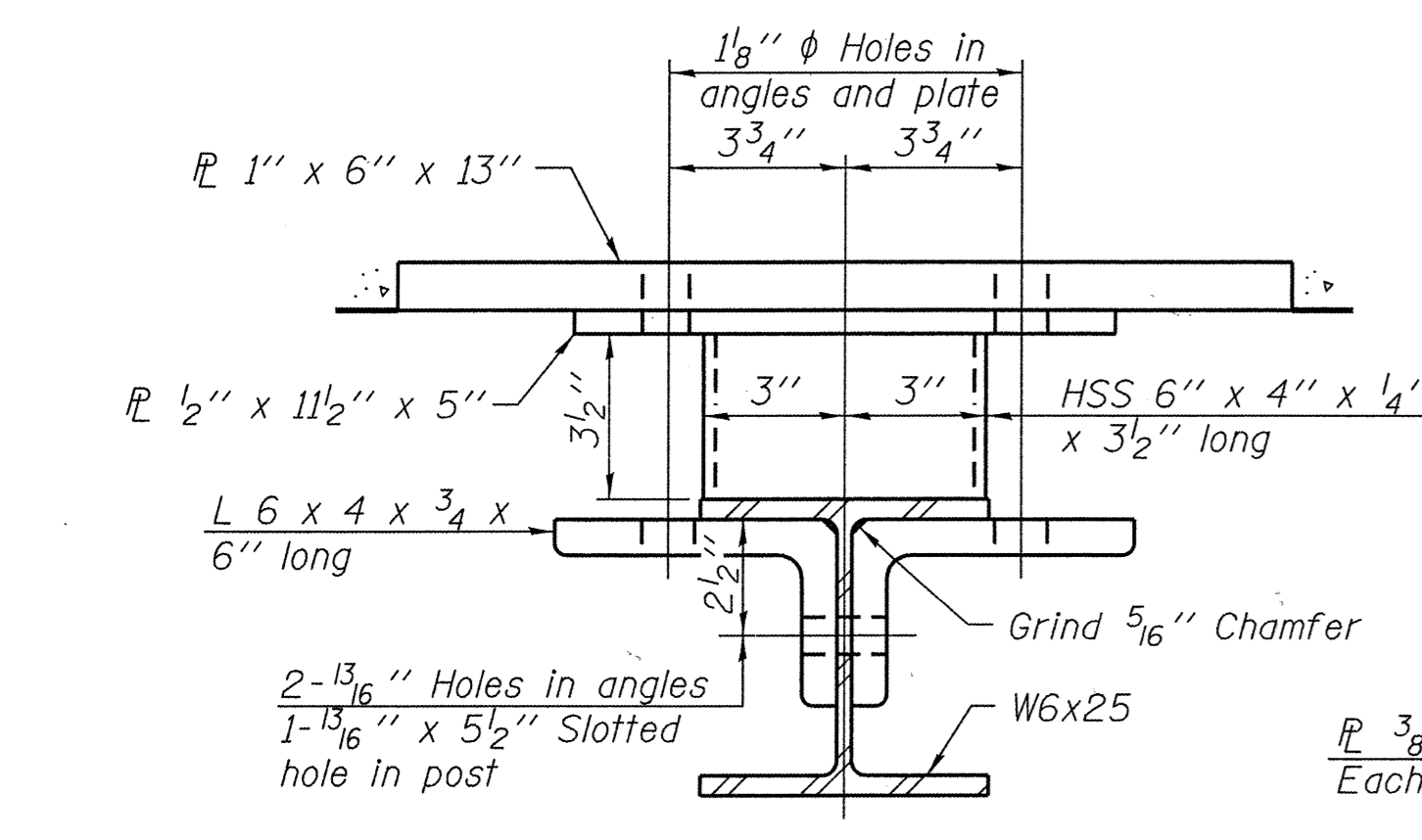
SECTION AT RAILING POST



ANCHOR DEVICE

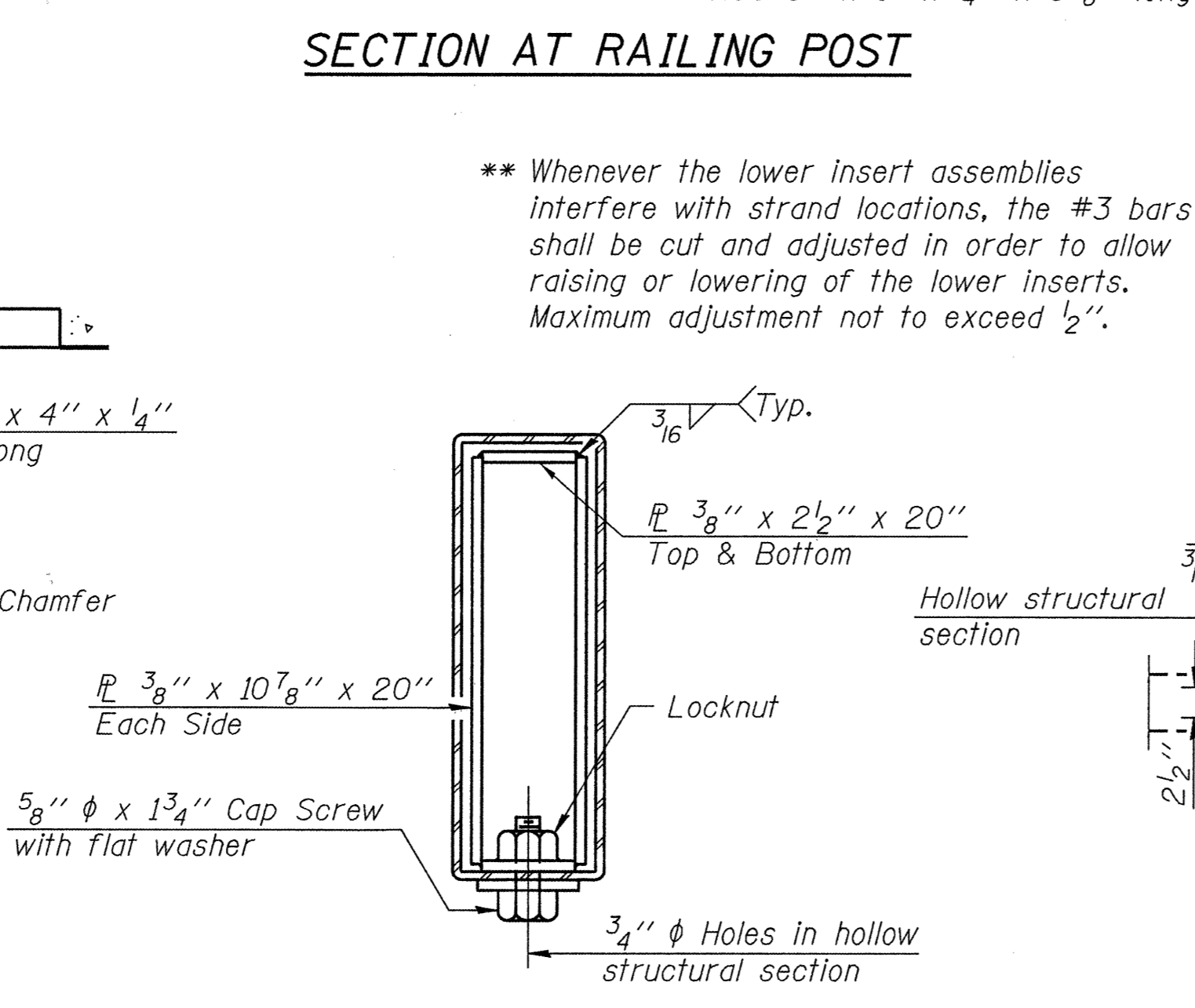


VIEW D-D

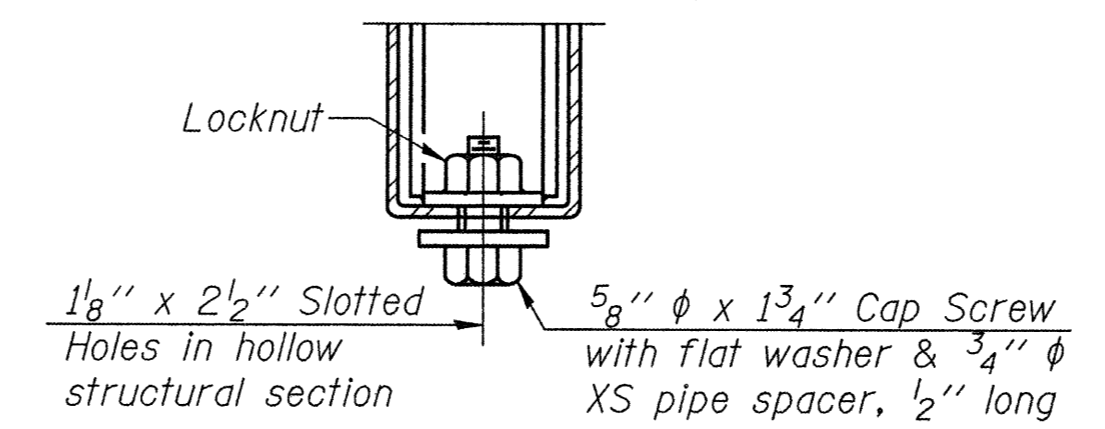


SECTION C-C

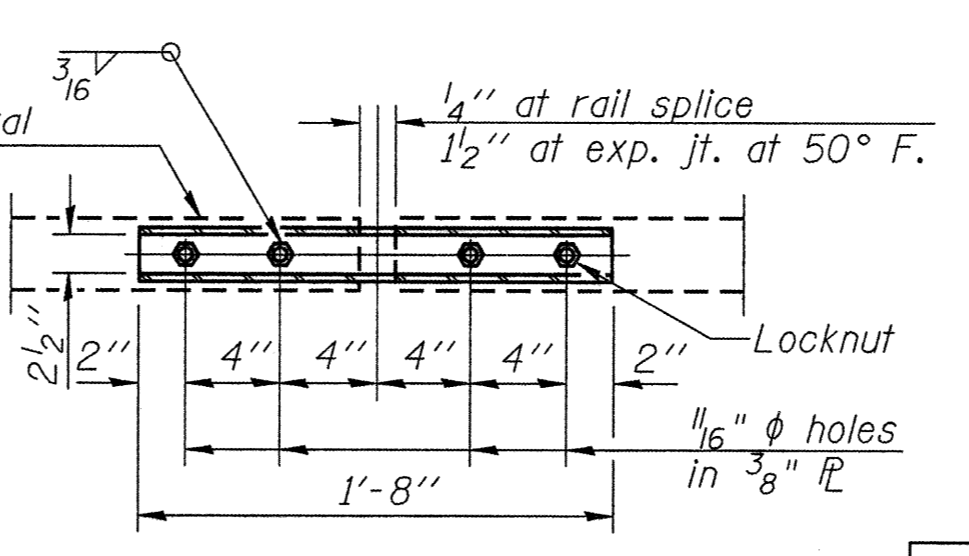
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.



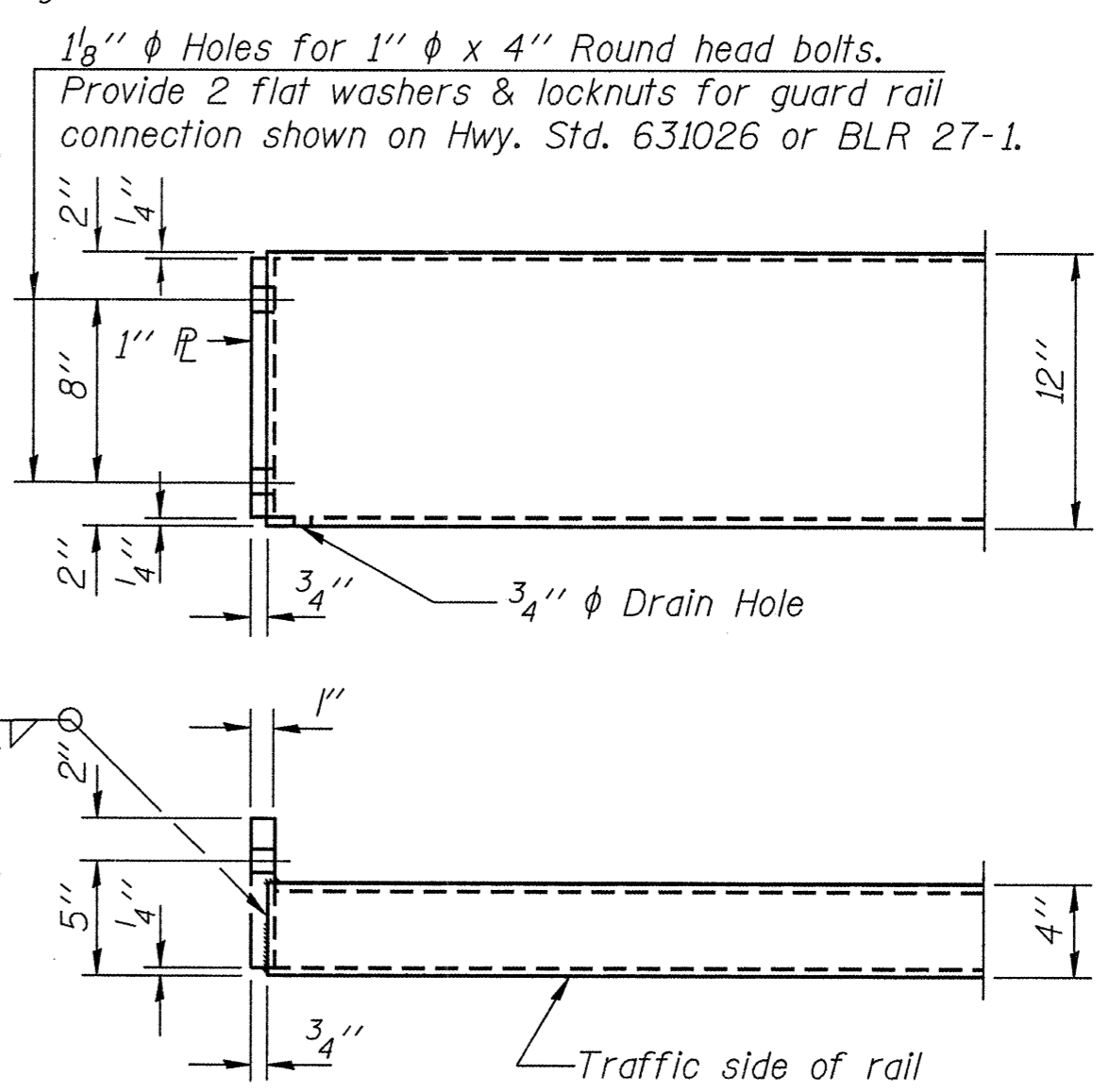
SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE PL TYPICAL



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	84

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 013-3235**

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

R-23A

11-1-09 (10'-9" Maximum Post Spacing)

HAMPTON, LENZINI AND RENWICK, INC.
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HLR
184.000959
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION
PROJECT NUMBER: 09.0128 DATE: 02/18/10

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
363	06-11129-00-BR	CLAY	16	13
STANFORD ROAD DISTRICT		CONTRACT NO. 95621		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BROS-025(061)	