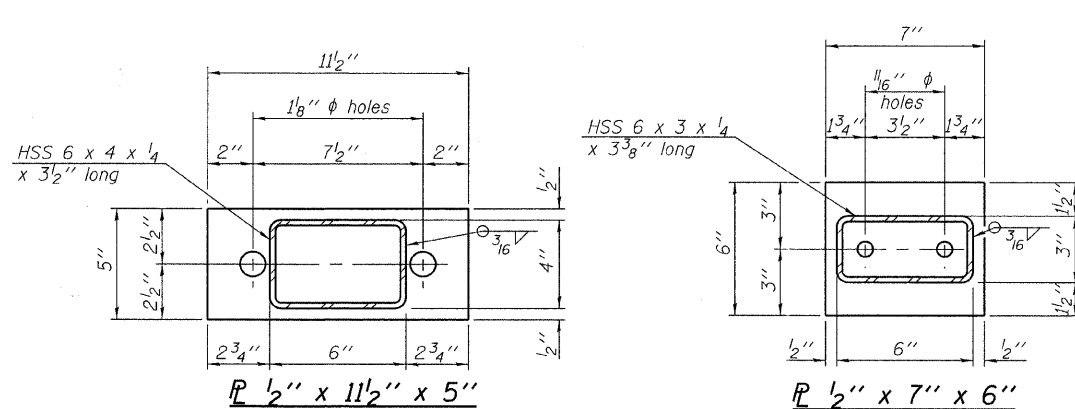
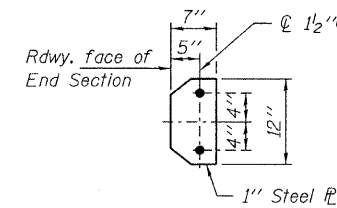


**VIEW A-A
ROUND HEAD BOLT**

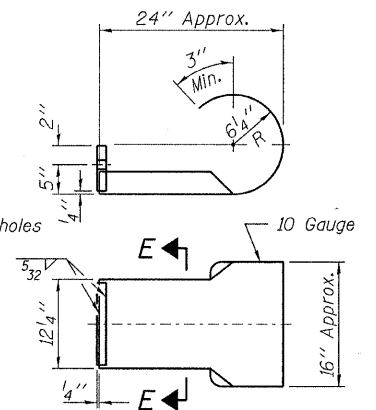


SECTION B-B

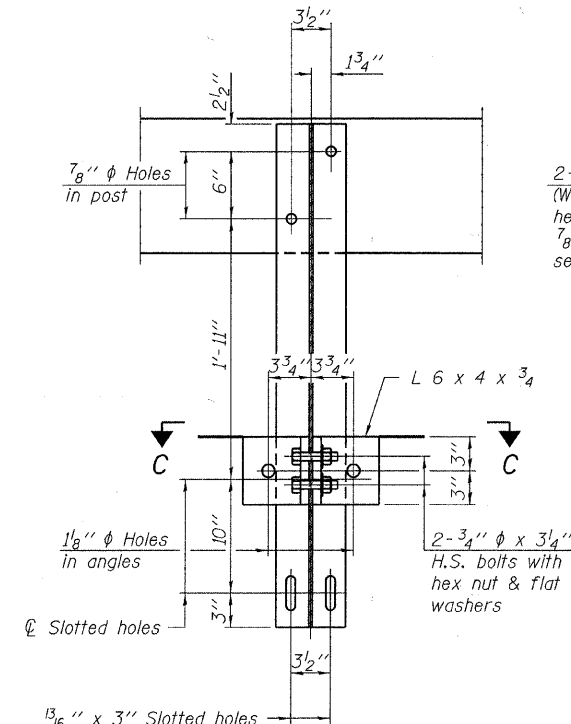
Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)



SECTION E-E

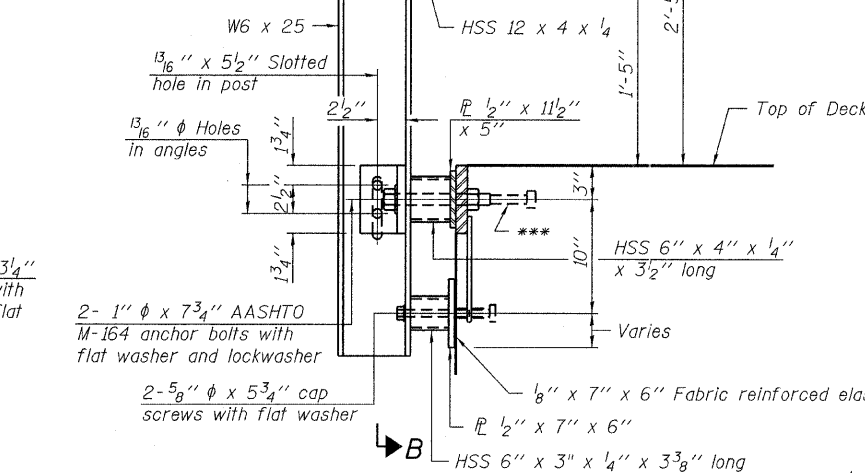


CURLED END SECTION DETAILS

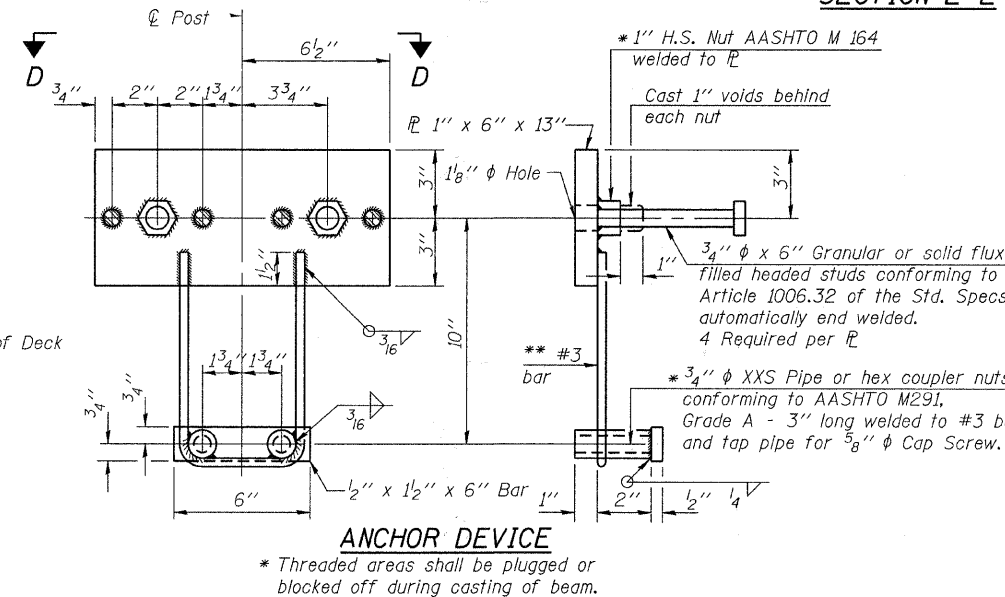


SECTION C-C

2- 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.

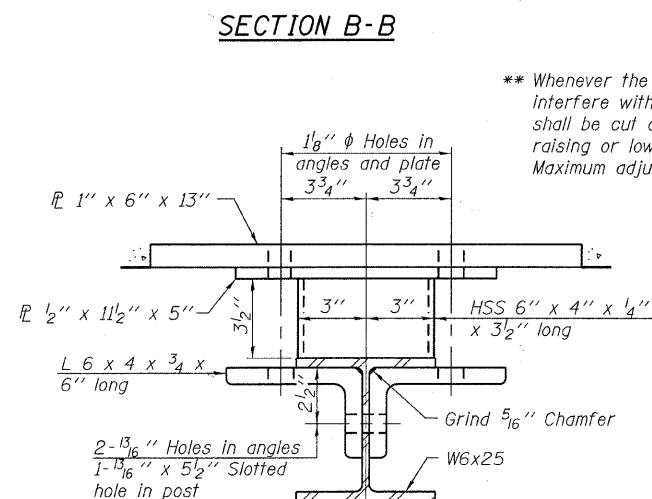


SECTION AT RAILING POST



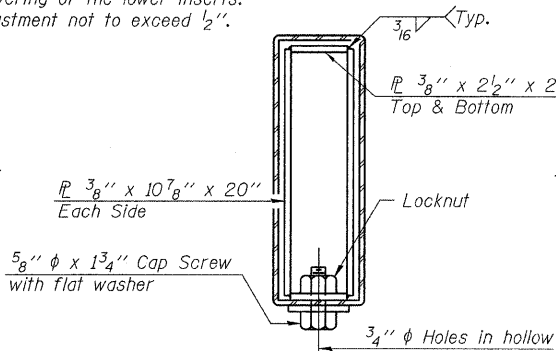
ANCHOR DEVICE

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 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.

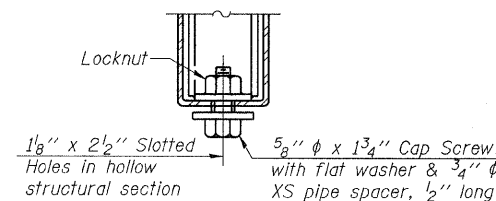


SECTION C-C

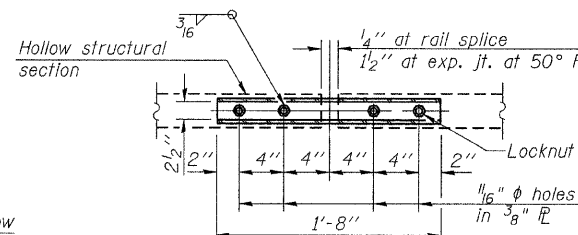
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



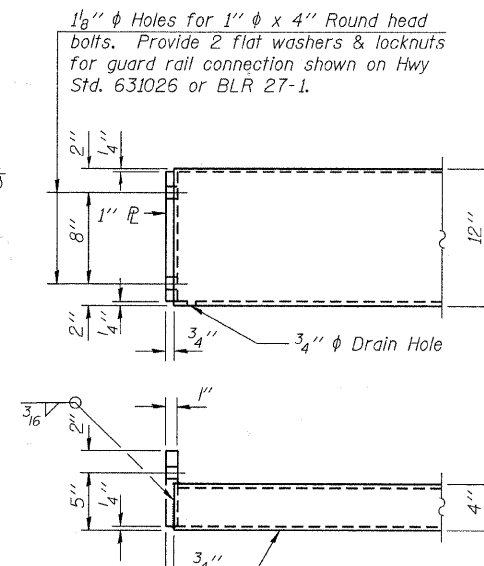
SECTIONS AT RAIL SPLICE



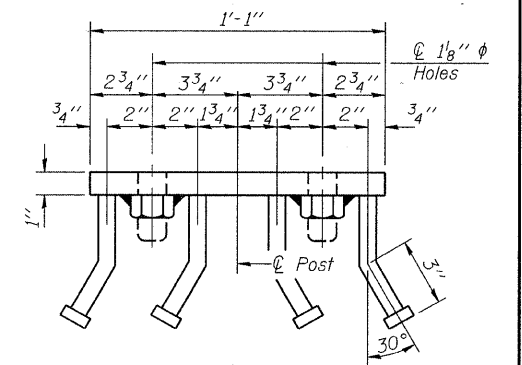
**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE P
TYPICAL**



**STEEL RAILING, TYPE S-1
END OF RAIL DETAILS**



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	86

R-23A

7-1-10

(10'-9" Maximum Post Spacing)

FILE NAME = 100059-sh1-brsidge.dgn	USER NAME =	DESIGNED - D.W.T.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
200 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62701	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L31 PE / SE CORP. 184.000599	PLOT DATE = 5/23/2011	CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS
EDWARDS COUNTY HIGHWAY DEPARTMENT**

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 024-3139**

SHEET NO. 5 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25	09-02117-00-BR	EDWARDS	13	9
ROAD DISTRICT #2			CONTRACT NO. 95661	
ILLINOIS FED. AID PROJECT				