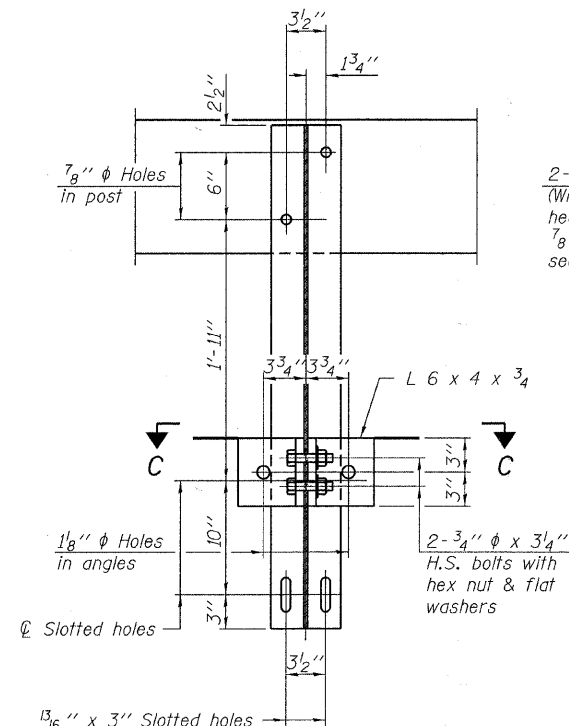
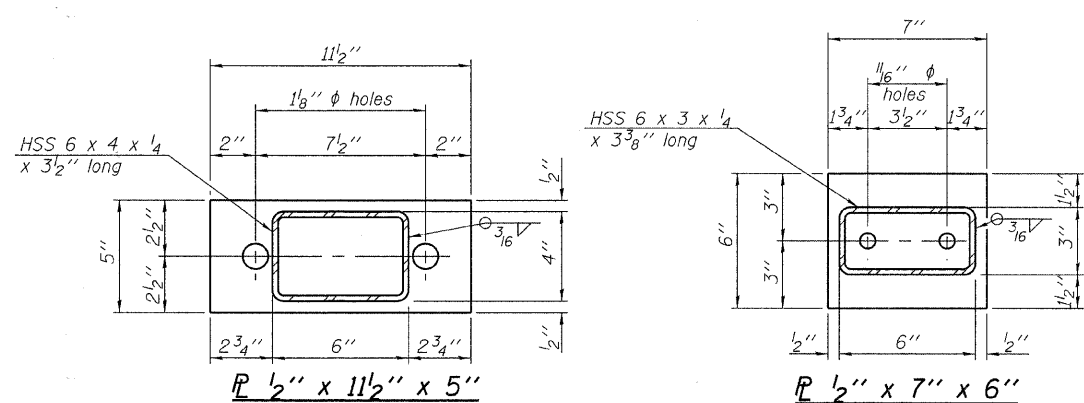
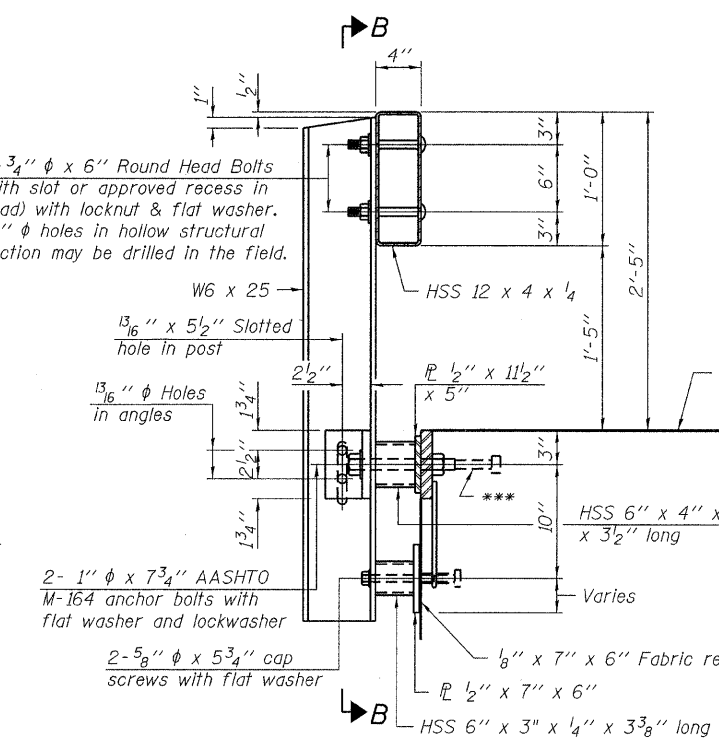


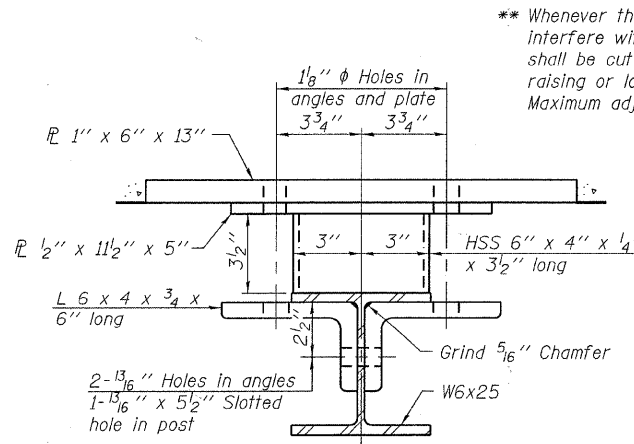
**VIEW A-A  
ROUND HEAD BOLT**



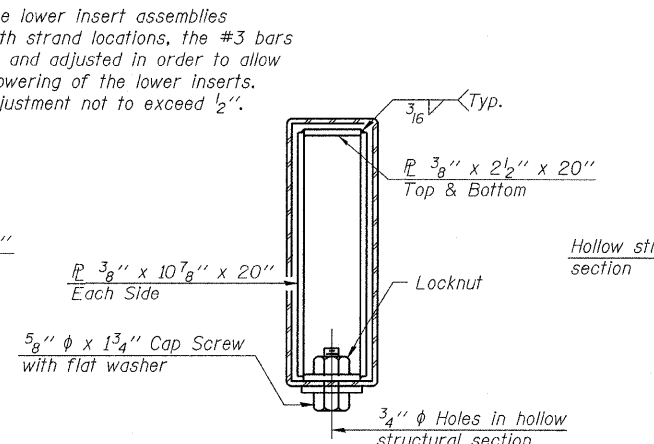
**SECTION C-C**



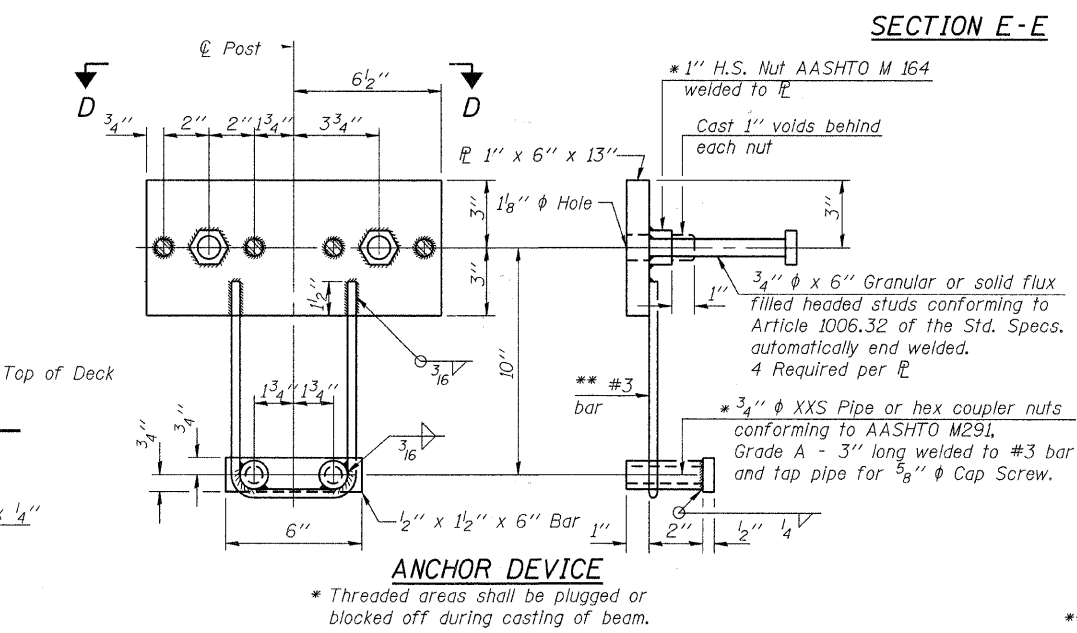
**SECTION AT RAILING POST**



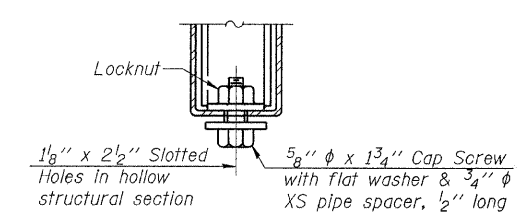
**SECTION C-C**



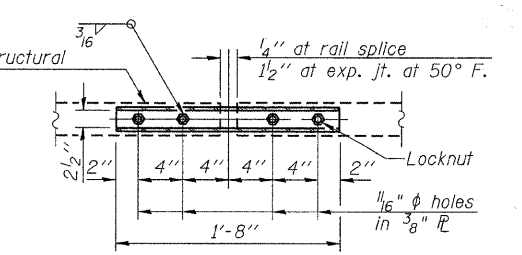
**SECTIONS AT RAIL SPLICE**



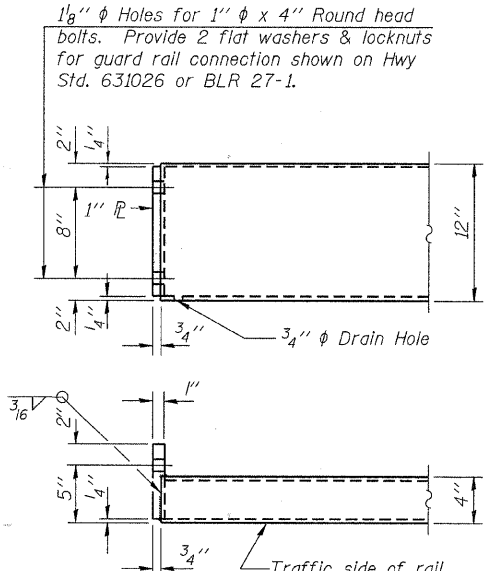
**ANCHOR DEVICE**



**RAIL SPLICE CONNECTION  
AT EXPANSION JT.**

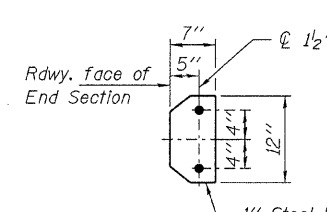


**PLAN-BOTT. SPLICE  
TYPICAL**

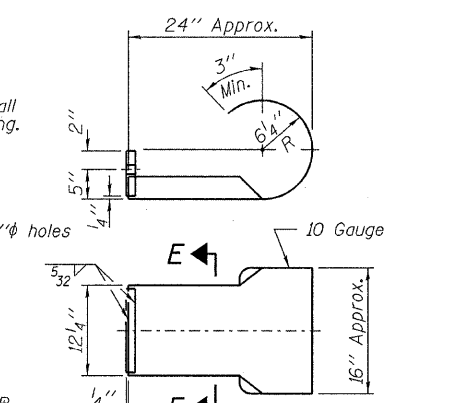


**END OF RAIL DETAILS**

Note: Cost of curled end sections shall be included with the Steel Railing. (2 Required)



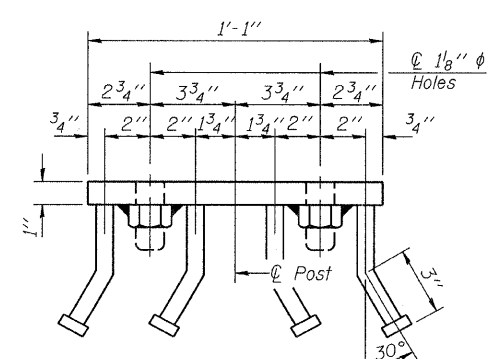
**SECTION E-E**



**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.



**VIEW D-D**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	145

R-23A 7-1-10 (10'-9" Maximum Post Spacing)

FILE NAME =	USER NAME =	DESIGNED - V.J.H.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
1305 STEVENSON DRIVE, SUITE 201		DRAWN - D.A.B.	REVISED -
SPRINGFIELD, ILLINOIS 62703		CHECKED - D.T.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM			
15 1/2 P.E. & E.CORP. 154.000089			

STATE OF ILLINOIS  
CRAWFORD COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE S-1  
STRUCTURE NO. 017-3058  
SHEET NO. 7 OF 12 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12	08-00091-00-BR	CRAWFORD	16	11
CONTRACT NO. 95649				
ILLINOIS FED. AID PROJECT				