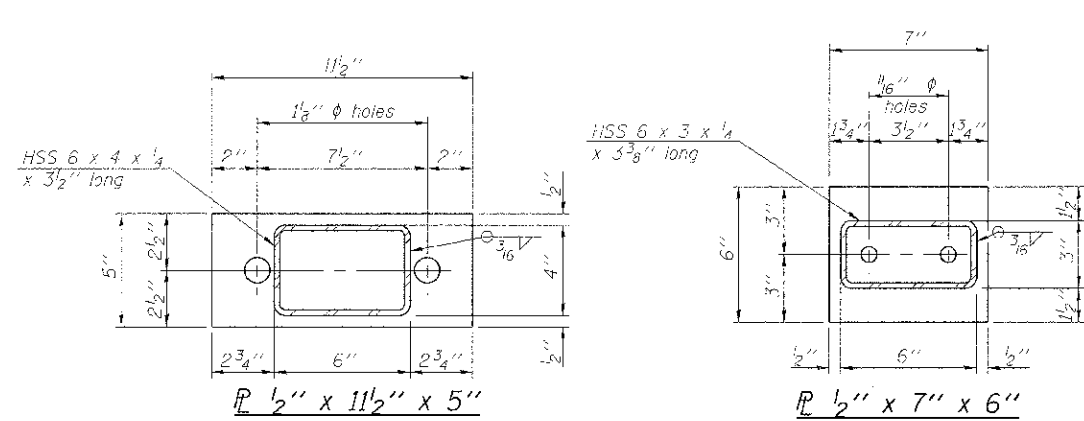
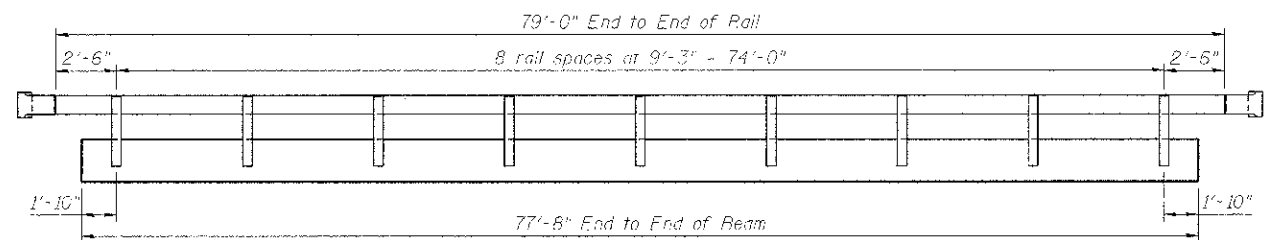


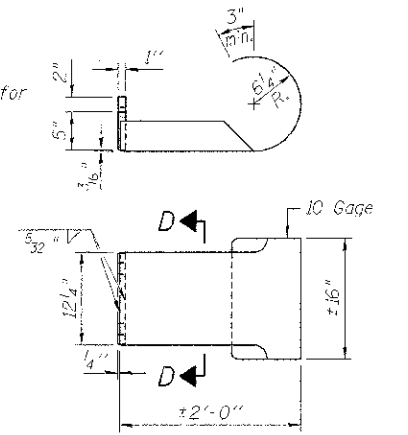
VIEW A-A  
ROUND HEAD BOLT



ELEVATION VIEW



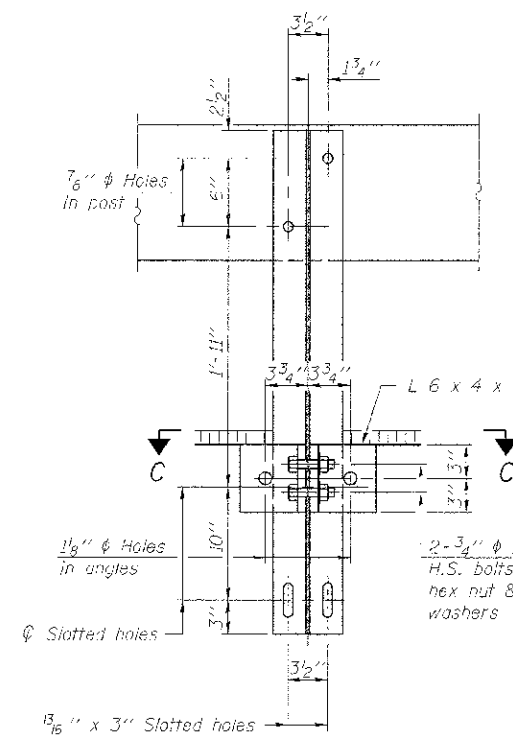
SECTION D-D



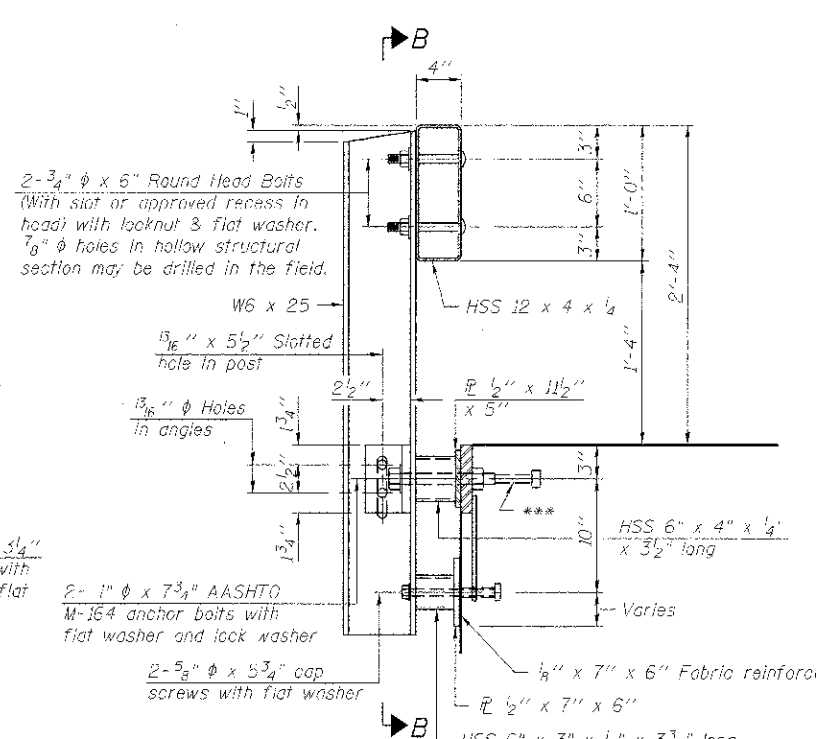
CURLLED END SECTION DETAILS  
\*\*\*\*(4 required)

**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.

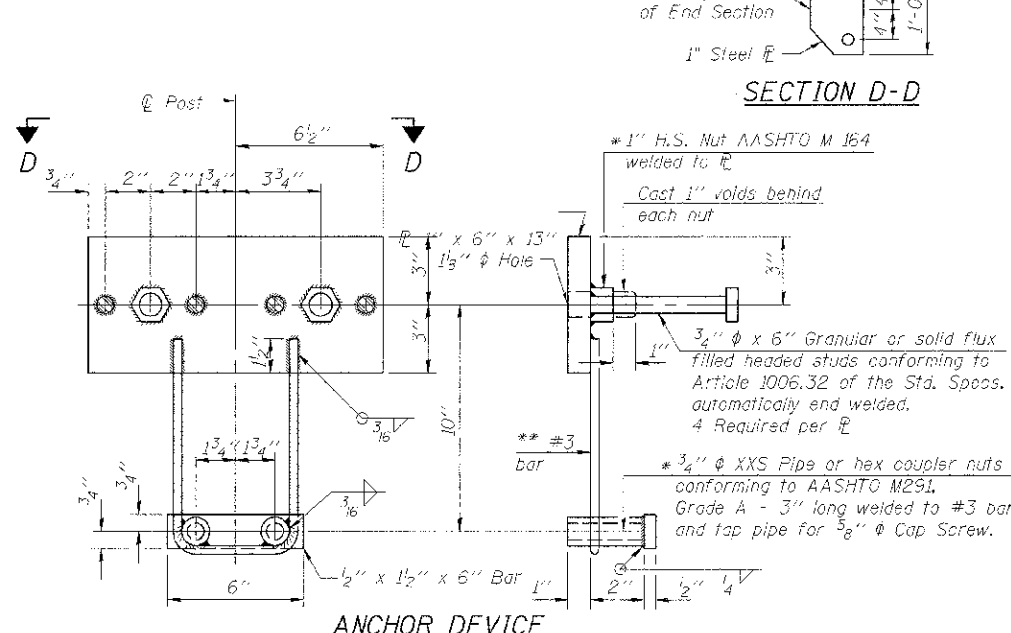
\*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.  
\*\*\*\* Cost of Curled End Sections to be included with Steel Railing, Type S1.



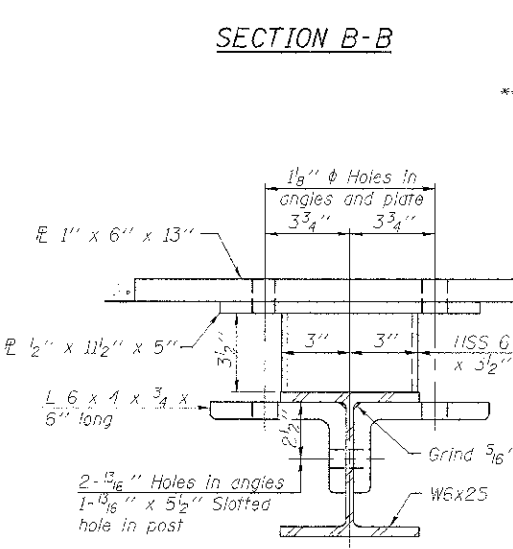
SECTION B-B



SECTION AT RAILING POST

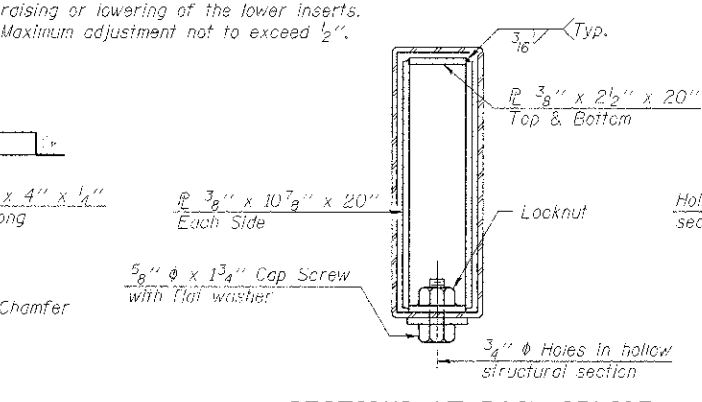


ANCHOR DEVICE

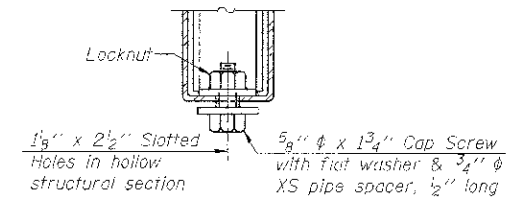


SECTION C-C

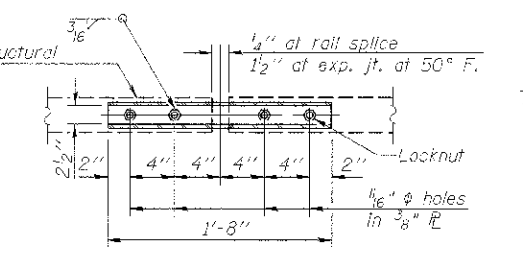
\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2\".



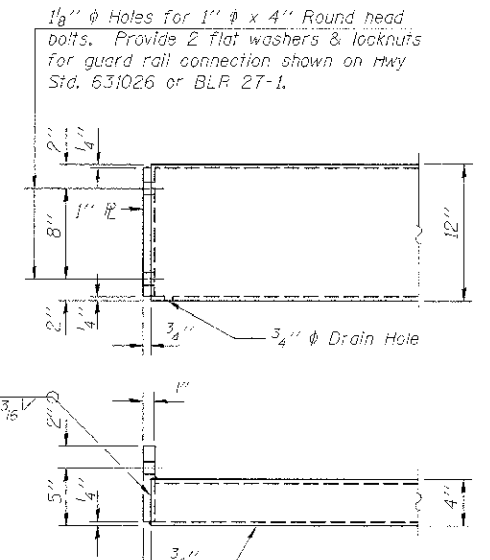
SECTIONS AT RAIL SPLICE



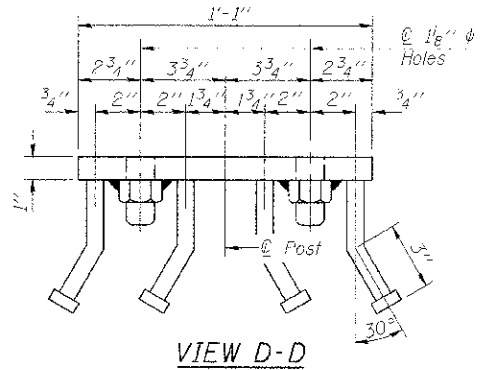
RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE @ TYPICAL



END OF RAIL DETAILS



VIEW D-D

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S1	Foot	158

FILE: S:\PROJECTS\2022\1003012\_Bureau\TRAC\DESIGN\STRUCT\Drawings\0003012\_S-1\_Pail.dwg

**WILLET HOFMANN & ASSOCIATES INC.**  
19701 WOODBURN AVENUE, SUITE 100  
BOSTON, MA 02124  
TEL: 617-552-3311 FAX: 617-552-3312

DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - PDL	REVISED -
CHECKED - BKC	REVISED -

**BUREAU COUNTY**  
**T.R. 46 (350 E. ST.) OVER W. FORK SPOON RIVER**  
**STATION 20+00**

**STEEL RAILING, TYPE S-1 DETAILS**  
**STRUCTURE NO. 006-4263**  
STRUCTURAL SHEET NO. 7 OF 9

W.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
46	11-18103-00-BR	BUREAU	18	13
W-HA# 1003012		CONTRACT NO. 87531		
ILLINOIS FED. AID PROJECT ER05-CCL10901				