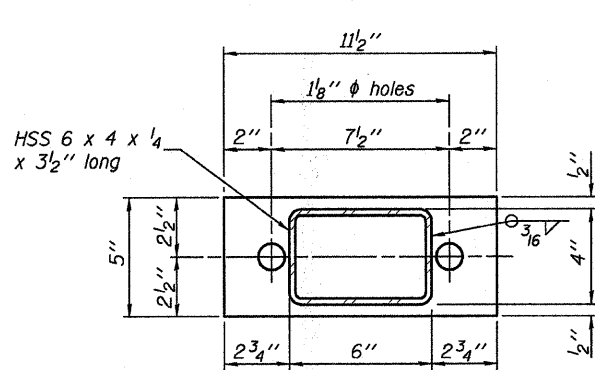
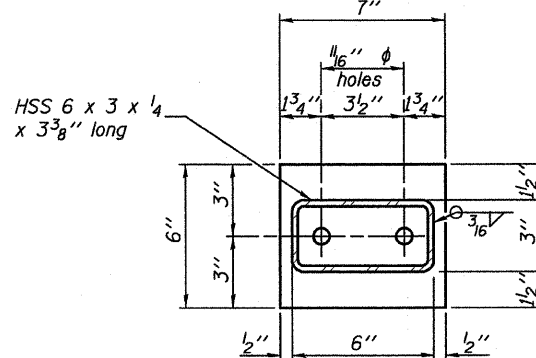


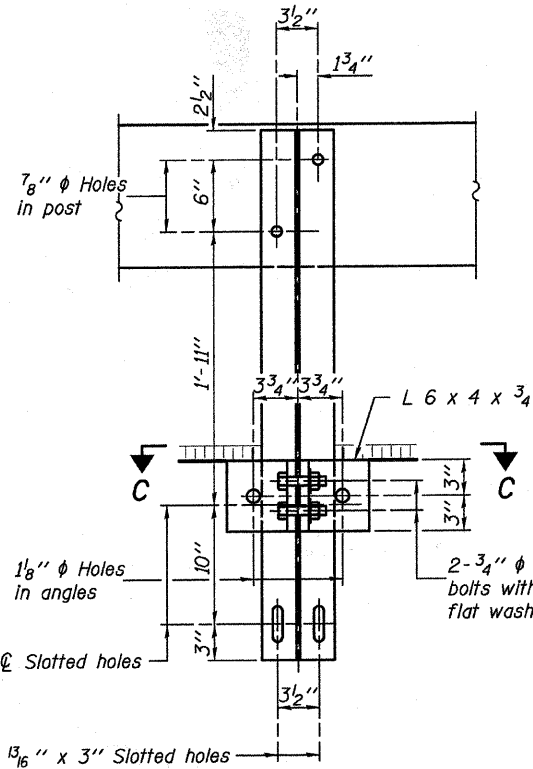
**VIEW A-A  
ROUND HEAD BOLT**



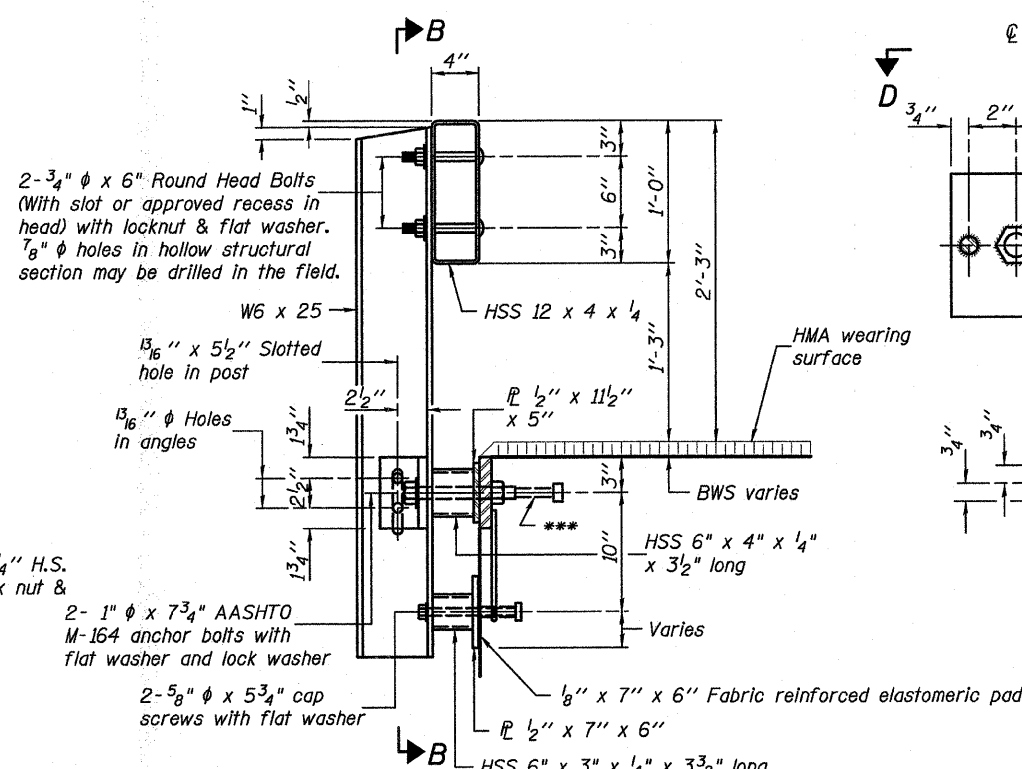
**1/2" x 11 1/2" x 5"**



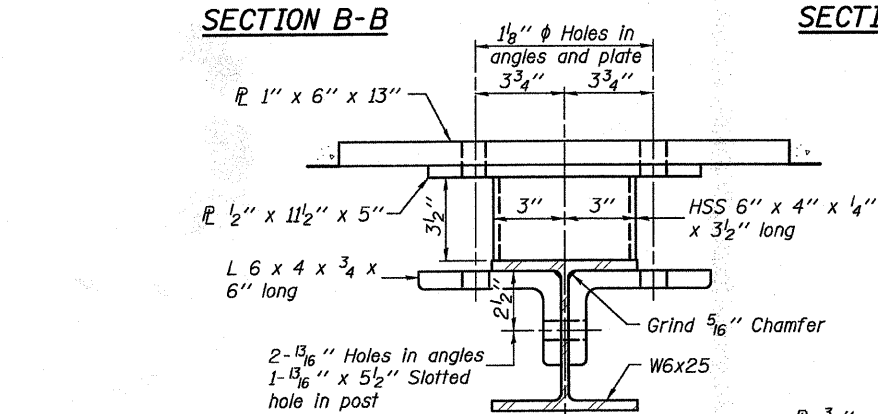
**1/2" x 7" x 6"**



**SECTION B-B**



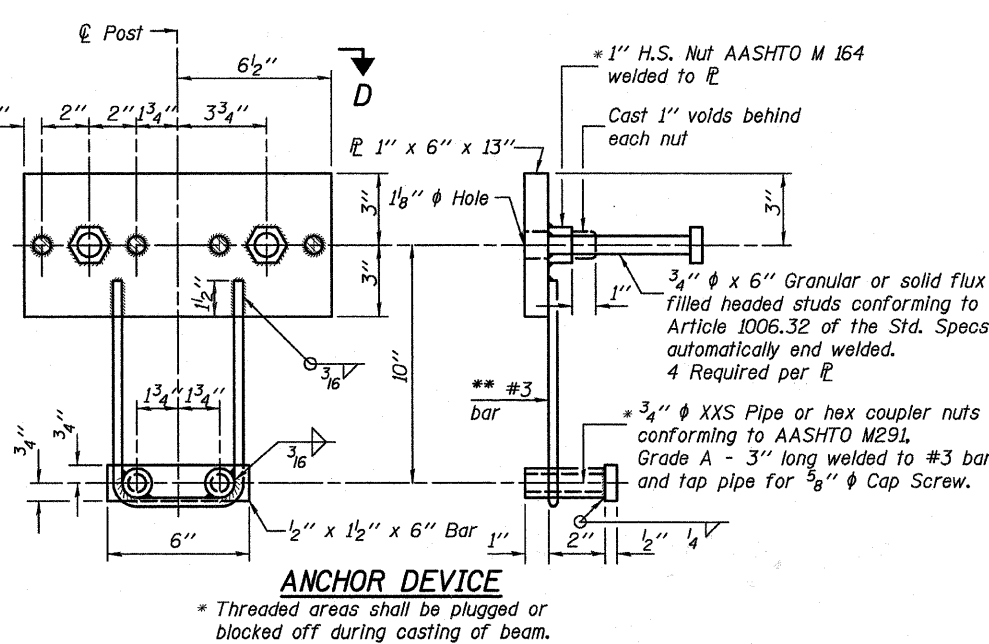
**SECTION AT RAILING POST**



**SECTION C-C**

DESIGNED	K.M.M.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

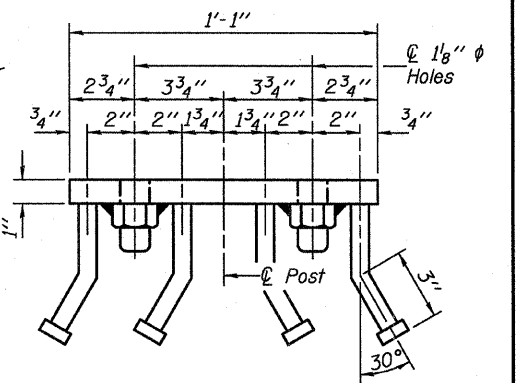
**R-23A** 10-1-08 (10'-9" Maximum Post Spacing)



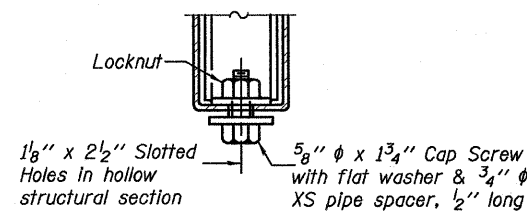
**ANCHOR DEVICE**

\* Threaded areas shall be plugged or blocked off during casting of beam.

**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.

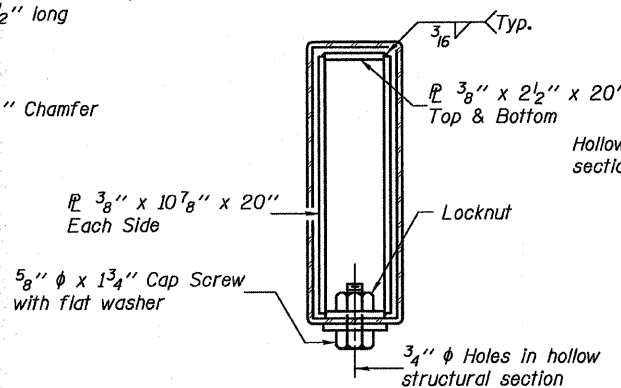


**VIEW D-D**

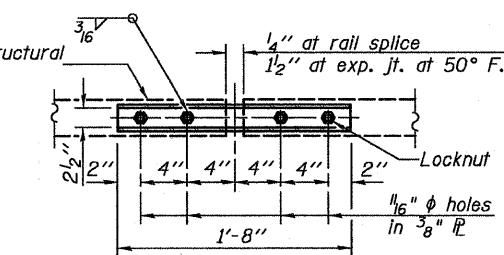


**RAIL SPLICE CONNECTION  
AT EXPANSION JT.**

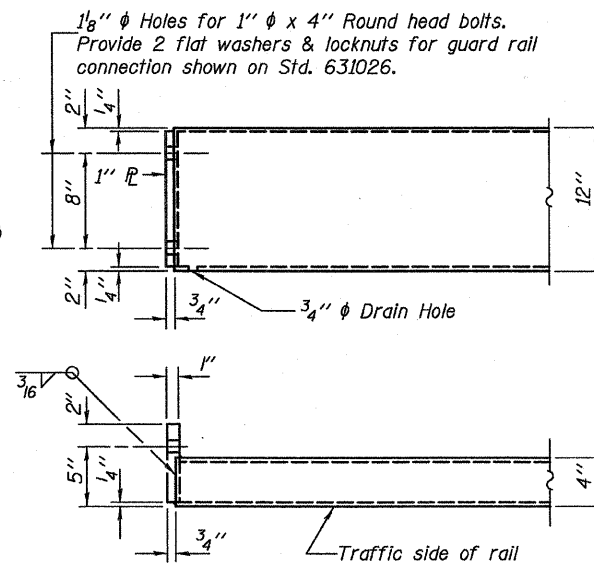
\*\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



**SECTIONS AT RAIL SPLICE**



**PLAN-BOTT. SPLICE AT  
TYPICAL**



**END OF RAIL DETAILS**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	264

**STEEL RAILING, TYPE S-1**

SHEET NO.	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	137	03-10115-00-BR	CLINTON	15	11
10 SHEETS			S.N. 014-4055		CONTRACT NO. 97374
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	