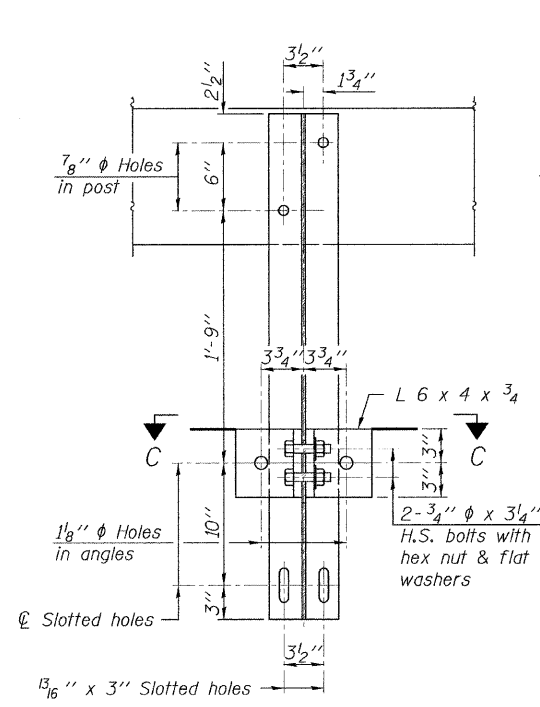
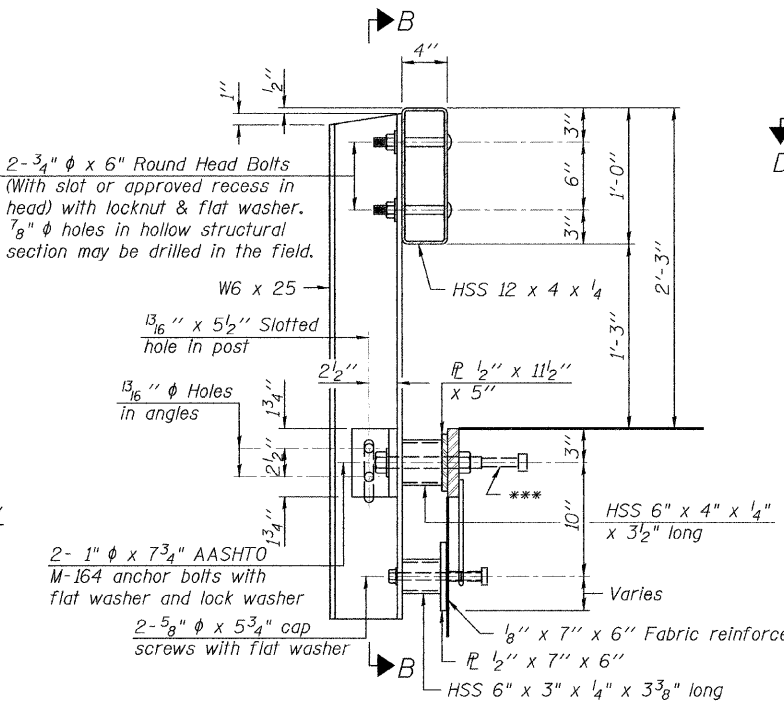


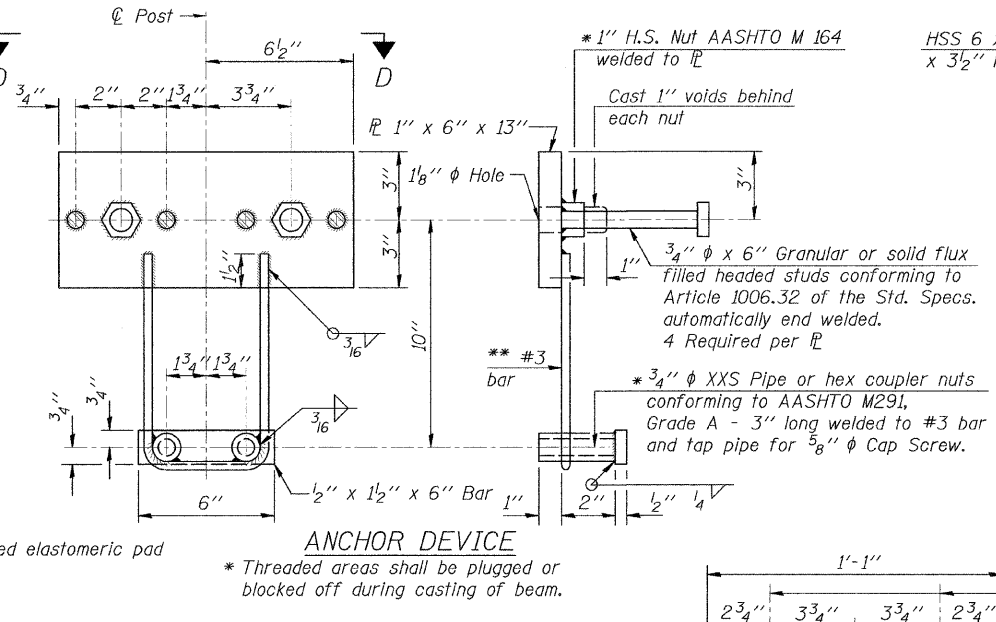
VIEW A-A
ROUND HEAD BOLT



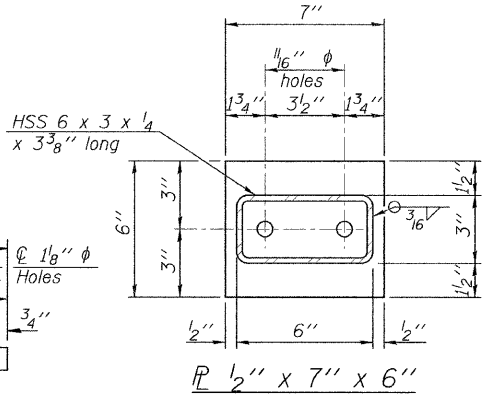
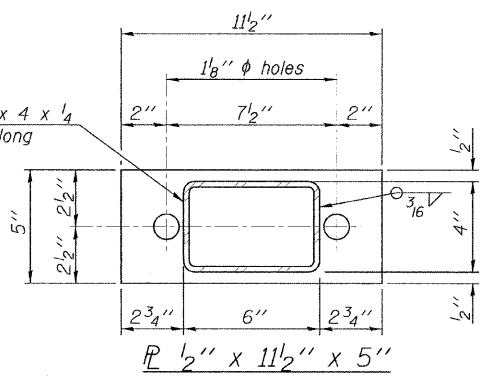
SECTION B-B



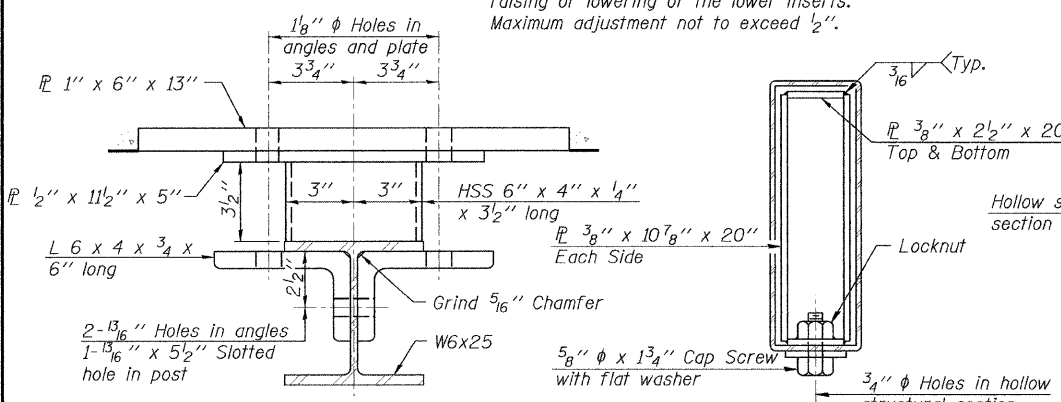
SECTION AT RAILING POST



ANCHOR DEVICE

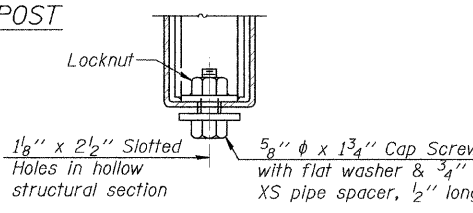


** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

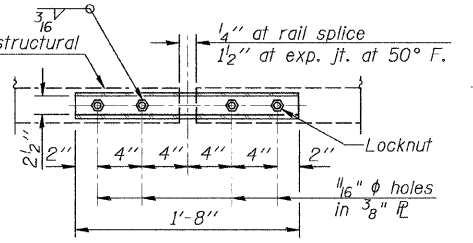


SECTION C-C

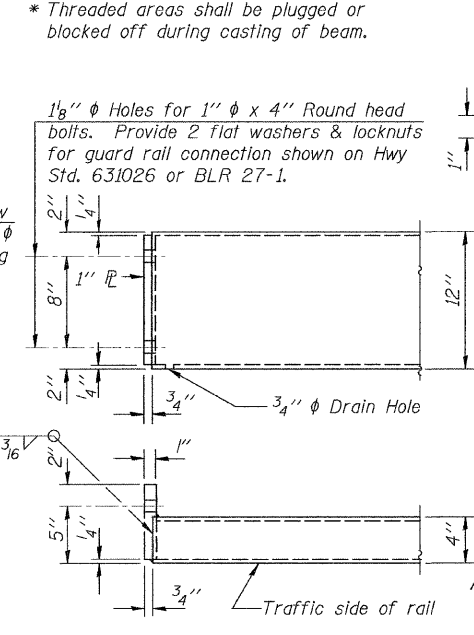
SECTIONS AT RAIL SPLICE



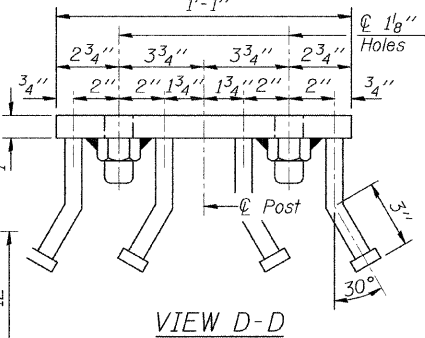
RAIL SPLICE CONNECTION
AT EXPANSION JT.
TYPICAL



PLAN-BOTT. SPLICE



END OF RAIL DETAILS



VIEW D-D

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.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	138

R-23A

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

FILE NAME =	USER NAME =	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL
62703 Phone: (217)544-8033 IL Design Firm
No. 184-001907

STEEL RAILING, TYPE S-1
STRUCTURE NO. 065-3127

SHEET NO. 4 OF 6 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1	11-00063-00-BR	MENARD	15	9

CONTRACT NO. 9 3 5 7 3
ILLINOIS FED. AID PROJECT