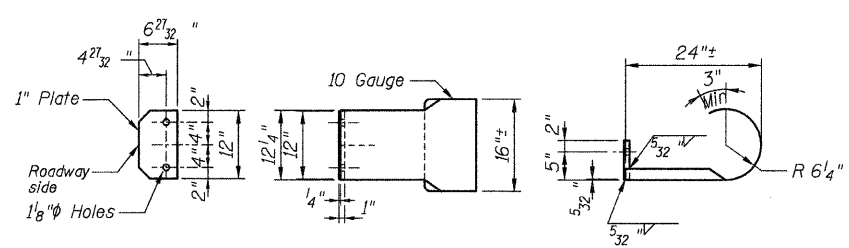
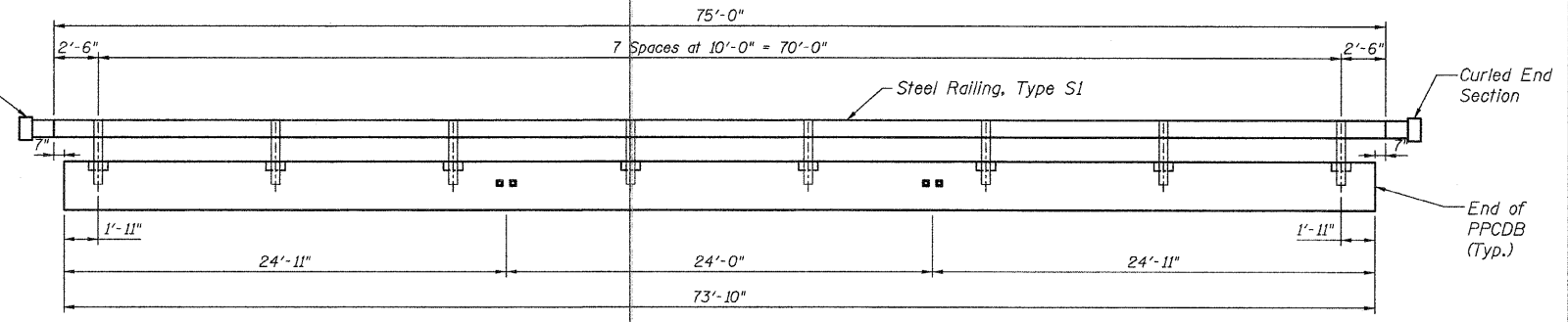


**VIEW A-A
ROUND HEAD BOLT**

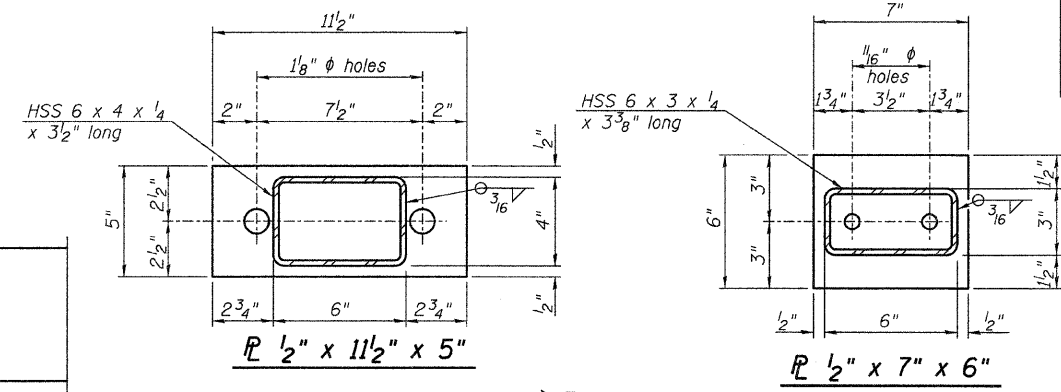


CURLED END SECTION DETAILS



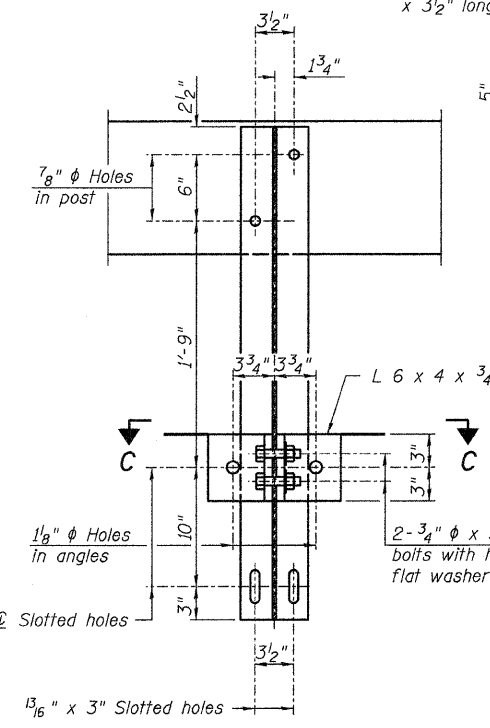
ELEVATION

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.



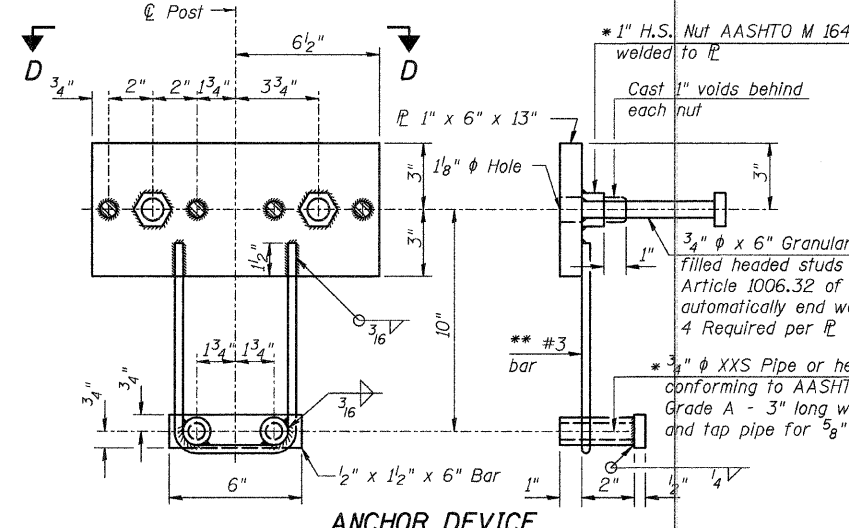
P 1/2" x 11 1/2" x 5"

P 1/2" x 7" x 6"



SECTION B-B

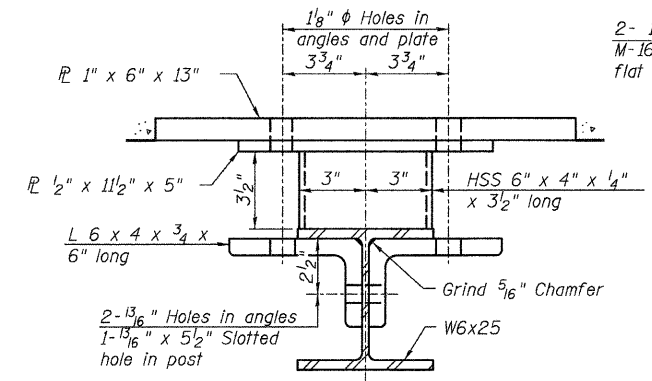
2- 3/4" φ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" φ holes in hollow structural section may be drilled in the field.



ANCHOR DEVICE

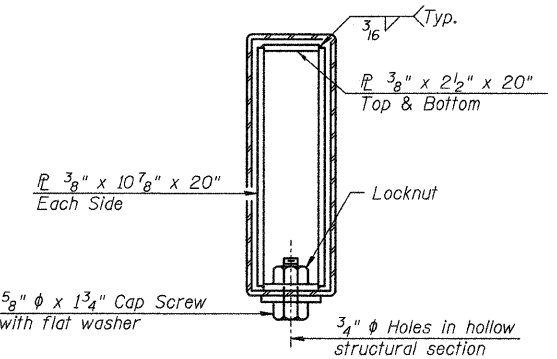
* Threaded areas shall be plugged or blocked off during casting of beam.

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 S1.
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.

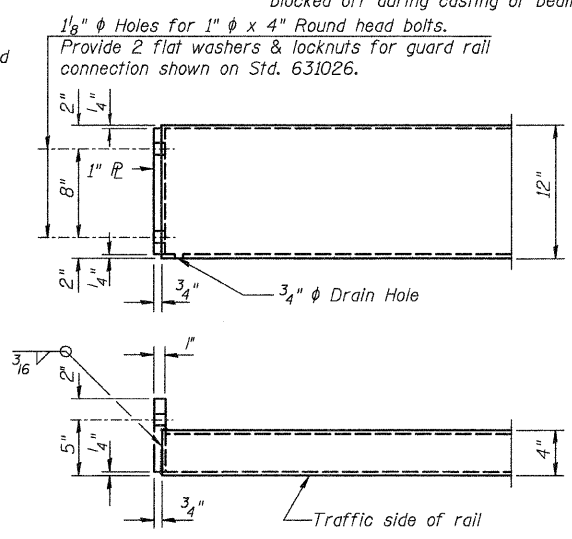


SECTION C-C

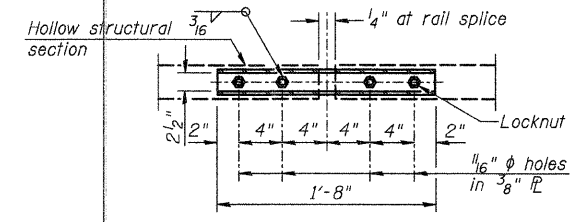
SECTION AT RAILING POST



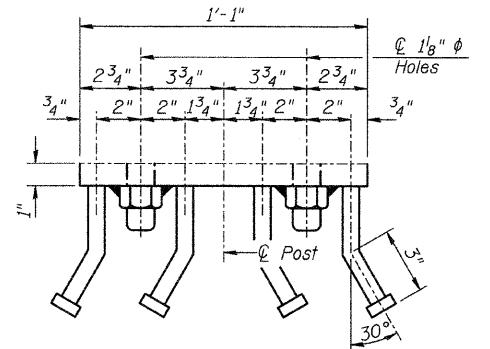
SECTIONS AT RAIL SPLICE



END OF RAIL DETAILS



PLAN-BOTT. SPLICE P TYPICAL



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	150

**STEEL RAILING, TYPE S1 DETAILS
STRUCTURE NO. 013-3237**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 19	07-01116-00-BR	CLAY	11	7
CONTRACT NO. 95651				
ILLINOIS FED. AID PROJECT				

03/30/2011 RAAI #50410