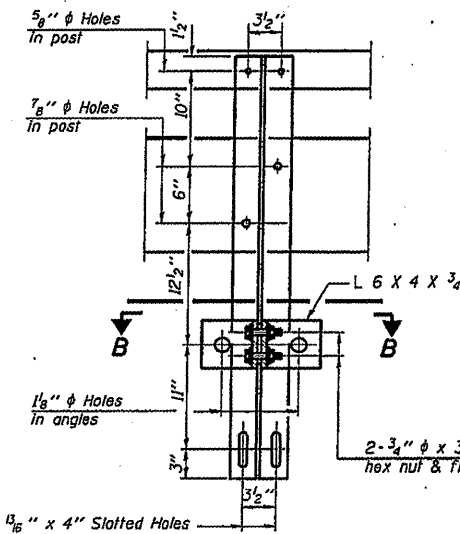
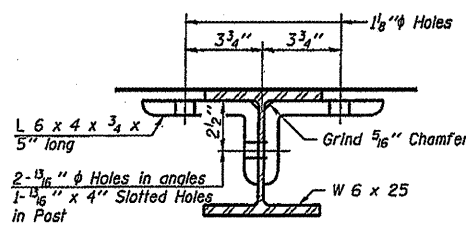


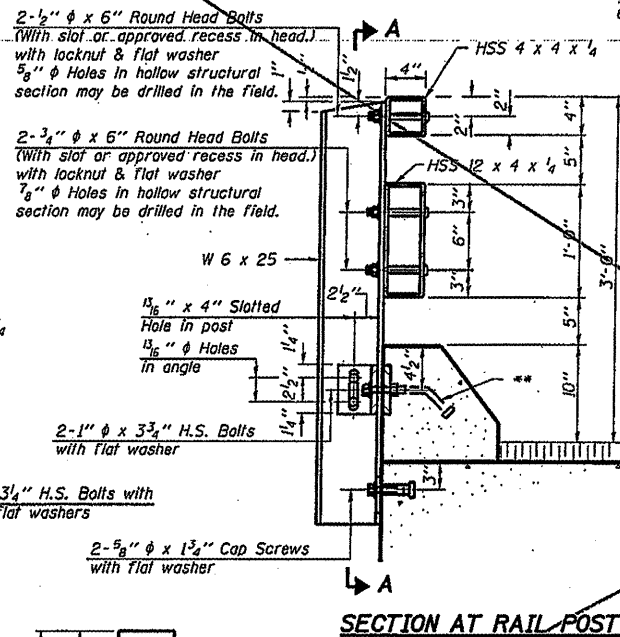
**VIEW A-A  
ROUND HEAD BOLT**



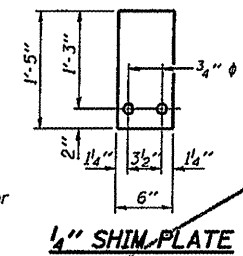
**SECTION A-A**



**SECTION B-B**



**SECTION AT RAIL POST**



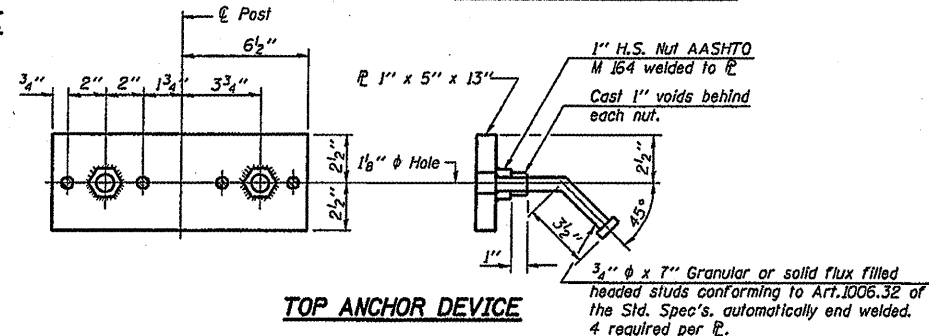
**1/4\"/>**

1/8"  $\phi$  Holes for 1"  $\phi$  x 4" Round Head Bolts  
Provide 2 flat washers & locknuts for guard rail connection shown on Hwy. Std. 631026 or BLR 27-1.

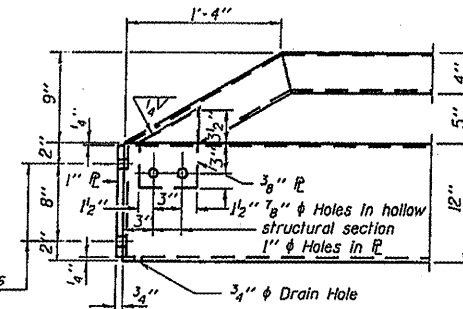
\* Threaded areas shall be plugged or blocked off during casting of beam.

\* 3/4"  $\phi$  (nominal I.d.) XXS Pipe or Hex Coupler Nuts conforming to AASHTO M291, Grade A - 3" long. Tap pipe for 5/8"  $\phi$  Cap Screw

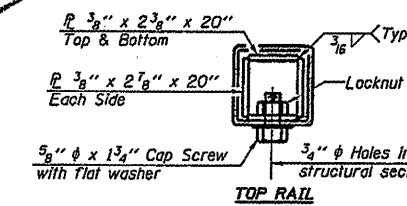
**BOTTOM ANCHOR DEVICE**



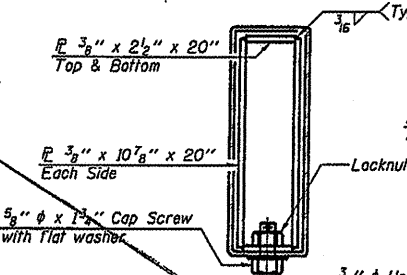
**TOP ANCHOR DEVICE**



**END OF RAIL DETAILS**



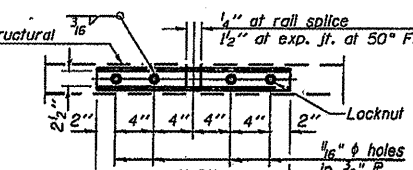
**TOP RAIL**



**BOTTOM RAIL**

**SECTIONS AT RAIL SPLICE**

**RAIL SPLICE CONNECTION AT EXPANSION JT.**



**PLAN-BOTT. SPLICE P TYPICAL**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type T-1	Foot	

**STEEL RAILING, TYPE T-1  
STRUCTURE NO.**

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'-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type T-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.

R-24A

11-1-09 (9'-6" Maximum Post Spacing)

FILE NAME =	USER NAME = laughtinr1	DESIGNED =	REVISED =
ct:\pwwork\pwwork\LAUGHTINR1\183217\072209-shs-detailed.dgn		DRAWN =	REVISED =
PLOT SCALE = 18.0000' / IN.		CHECKED =	REVISED =
PLOT DATE = Mar-19-2018 11:34:55AM		DATE =	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
510	120 GUARDRAIL-1	HANCOCK	7	7

CONTRACT NO. 72D59