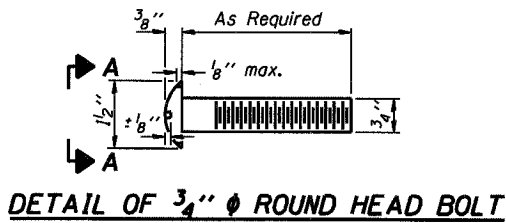


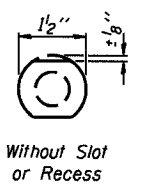
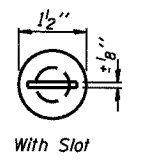
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 10
F.A.P. 778	4BR-1	HARDIN	69	55	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

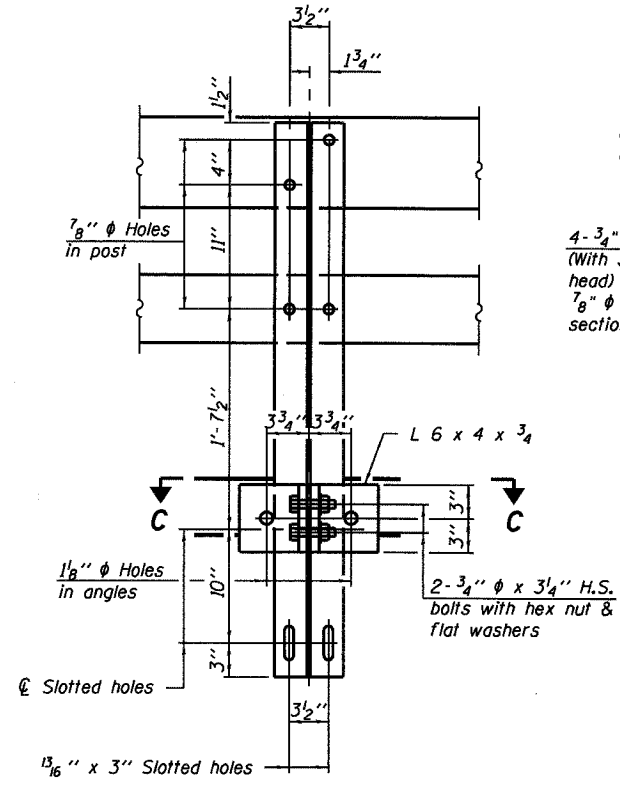
Contract #78023



DETAIL OF 3/4"  $\phi$  ROUND HEAD BOLT



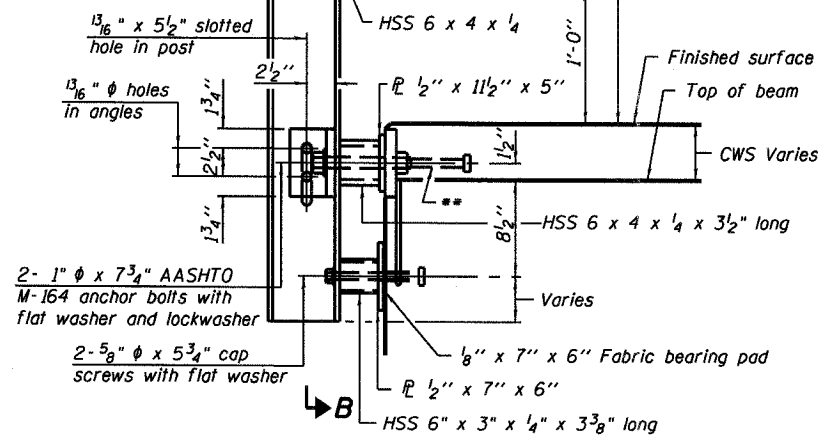
VIEW A-A



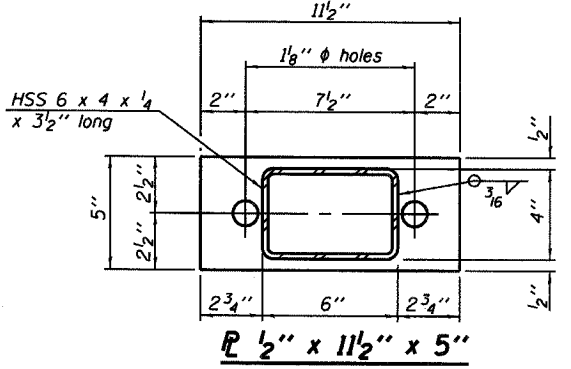
SECTION B-B

SECTION C-C

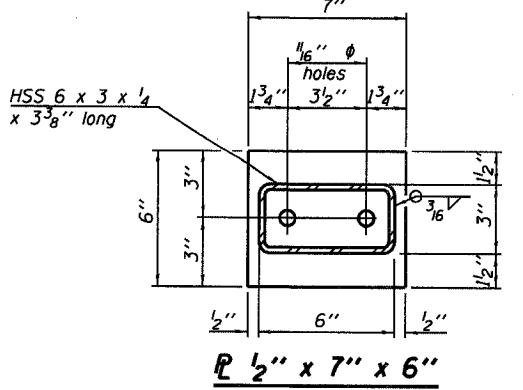
4-3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8"  $\phi$  holes in hollow structural section may be drilled in the field.



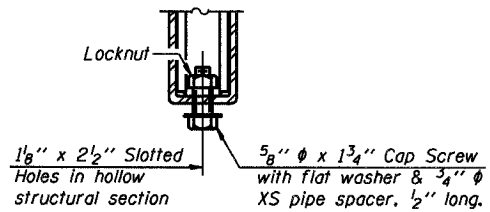
SECTION AT RAIL POST



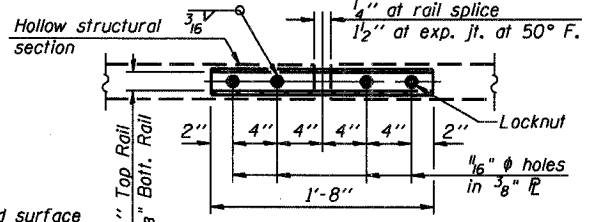
SECTION AT RAIL POST



SECTION AT RAIL POST

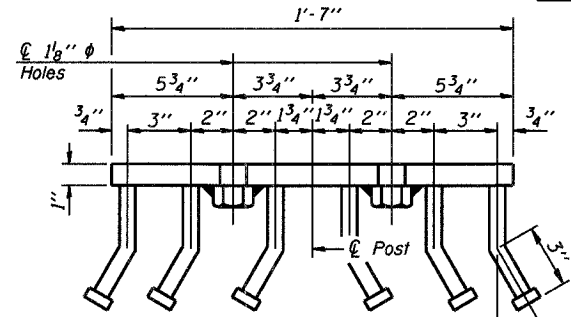


RAIL SPLICE CONNECTION AT EXPANSION JT.

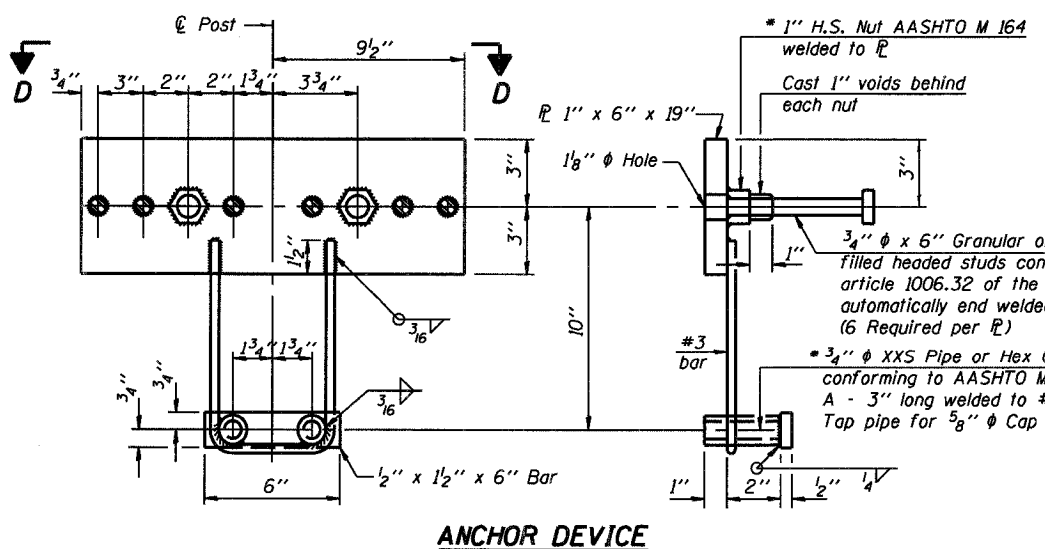


PLAN-BOTT. SPLICE R TYPICAL

5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032

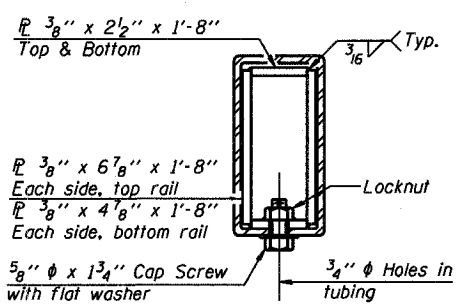


VIEW D-D

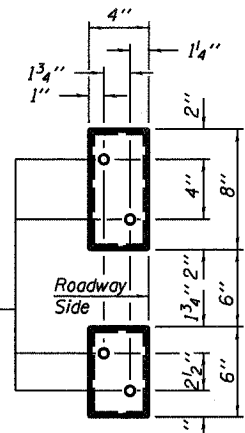


ANCHOR DEVICE

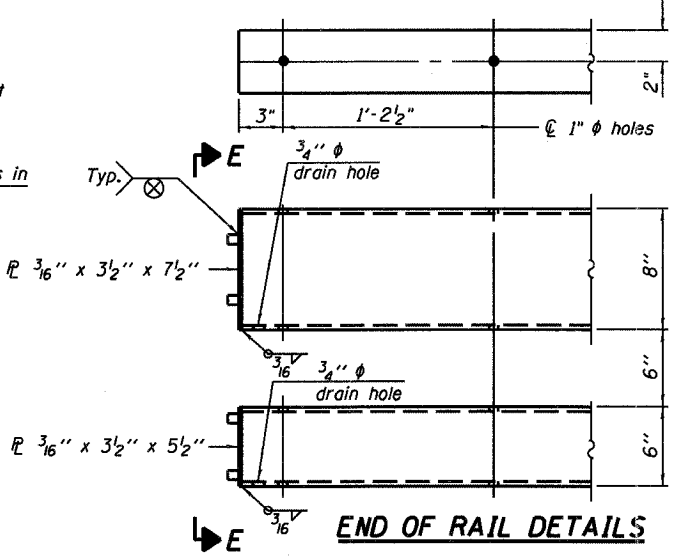
\* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



SECTION AT RAIL SPLICE



VIEW E-E



END OF RAIL DETAILS

Notes:  
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.  
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.  
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.  
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.  
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.  
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Railing, Type SM.  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
The 1"  $\phi$  high strength bolts used to connect the 6" x 4" x " angles to the post shall be tightened according to the Article 505.04(f)(X2) of the Standard Specifications. The 1"  $\phi$  high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional turn. The 5/8"  $\phi$  cap screws in bottom of the post shall be tightened to snug fit only.  
See Sheet No. 8 of 12 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	75

STEEL RAILING, TYPE SM  
WITH CONCRETE WEARING SURFACE  
ILL. ROUTE 34 OVER HOBBS CREEK  
F.A.P. ROUTE 778 SECTION 4BR-1  
HARDIN COUNTY  
STATION 1021+80.00  
STRUCTURE NO. 035-0008



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

R-34CWS

11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 7'8" maximum CWS thickness)