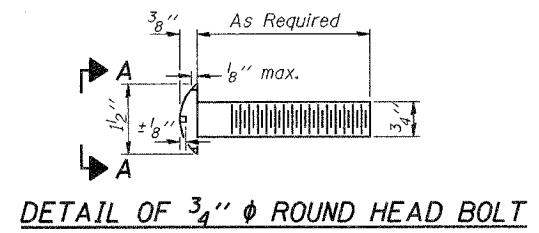


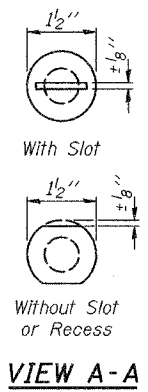
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 681	I16BR-1	FORD	37	18
STA.	TO STA.		ILLINOIS FED. AID PROJECT	
			DWG. NO. 6 OF 15	

CONTRACT NO. 66561

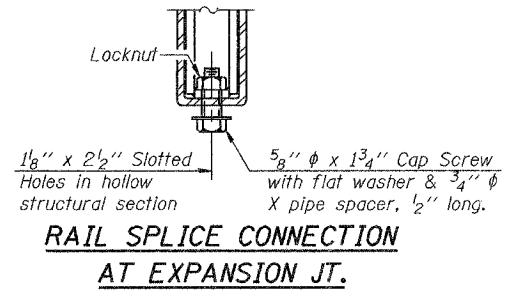
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



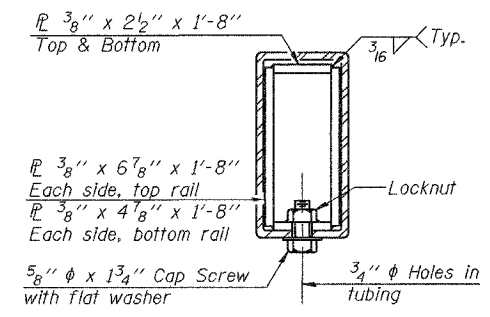
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



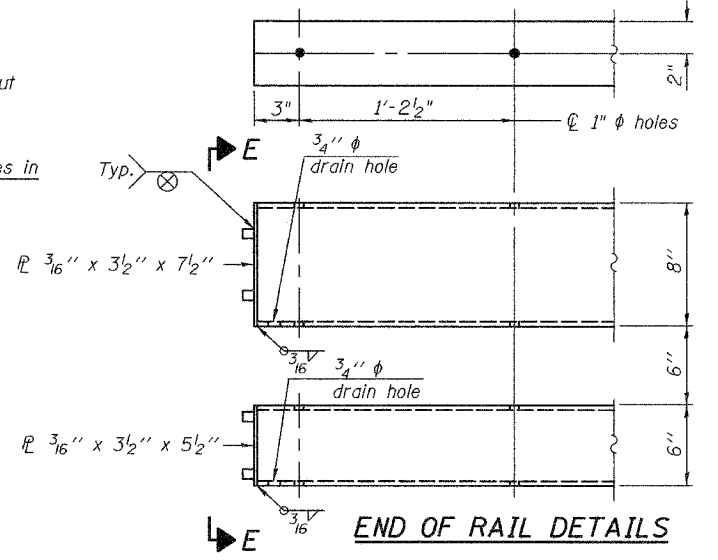
VIEW A-A



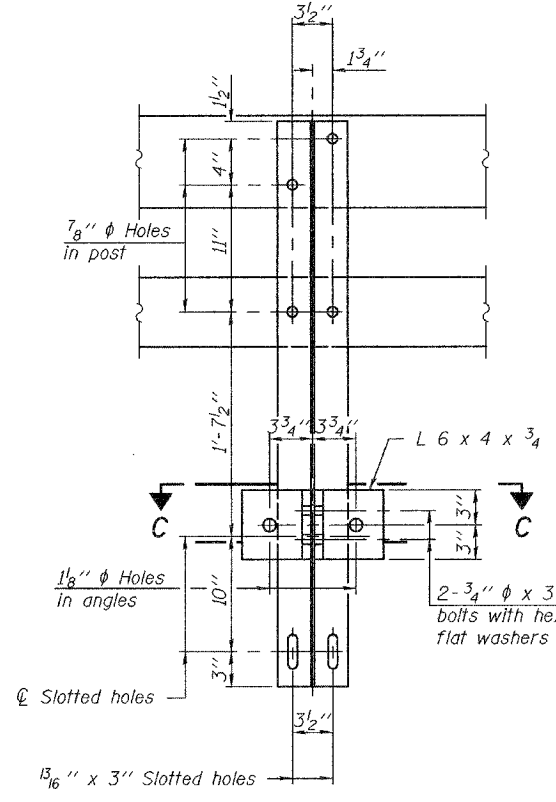
RAIL SPLICE CONNECTION
AT EXPANSION JT.



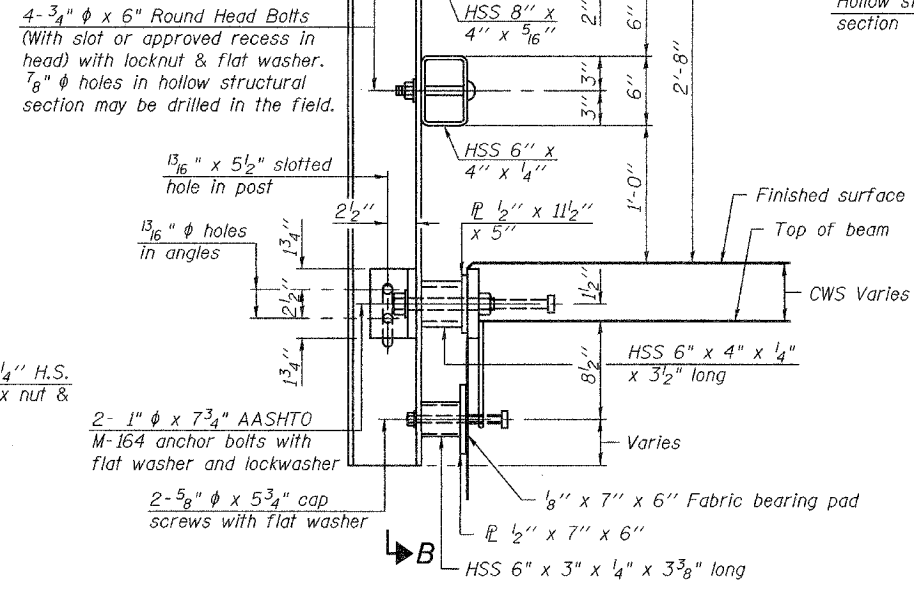
SECTION AT
RAIL SPLICE



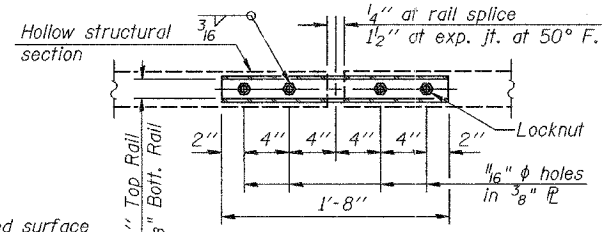
END OF RAIL DETAILS



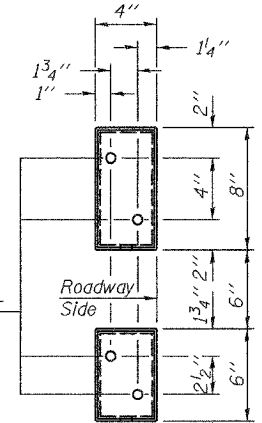
SECTION B-B



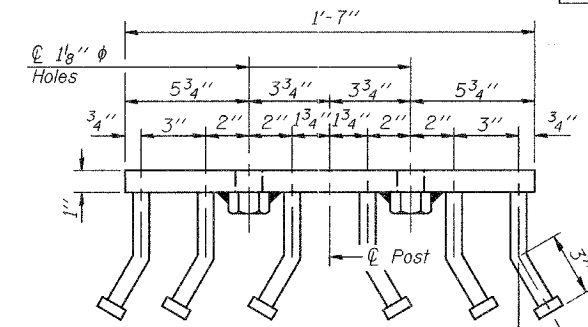
SECTION AT RAIL POST



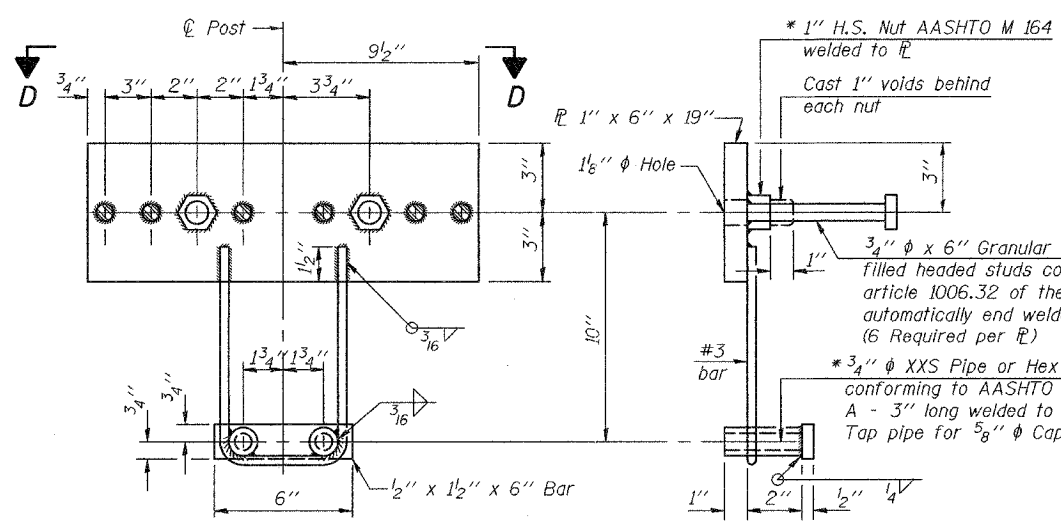
PLAN-BOTT. SPLICE P
TYPICAL



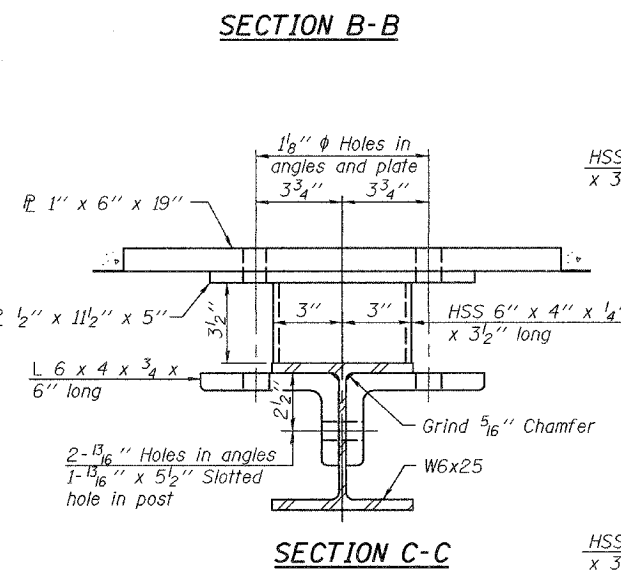
VIEW E-E



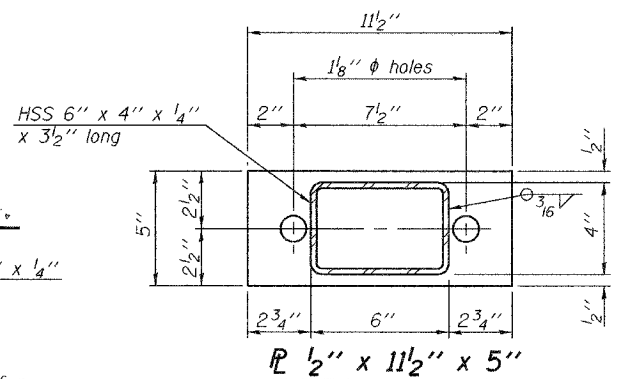
VIEW D-D



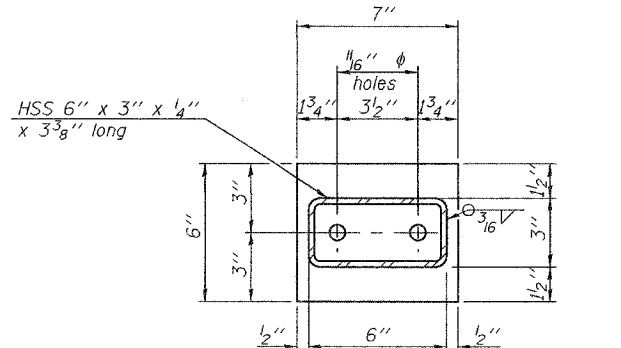
ANCHOR DEVICE



SECTION C-C



SECTION AT RAIL POST



SECTION AT RAIL POST

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 spllices, 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 Bridge Rail, Type SM.

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 Bridge Rail, Type SM.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	205

**TYPE SM
STEEL BRIDGE RAIL**
IL 116 OVER KELLY CREEK
FAP ROUTE 681 - SECTION I16BR-1
FORD COUNTY
STATION 60+53.00
STRUCTURE NO. 027-0044

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	6/05
DRAWN BY:	CJG	6/05
CHECKED BY:	ELH	10/05
APPROVED BY:	RDP	10/05

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

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