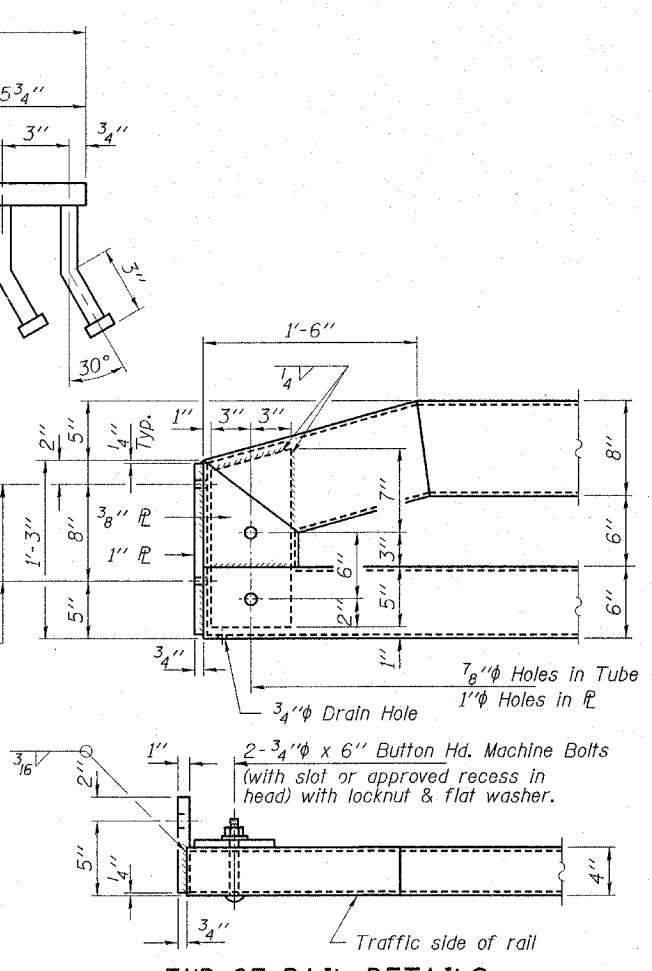
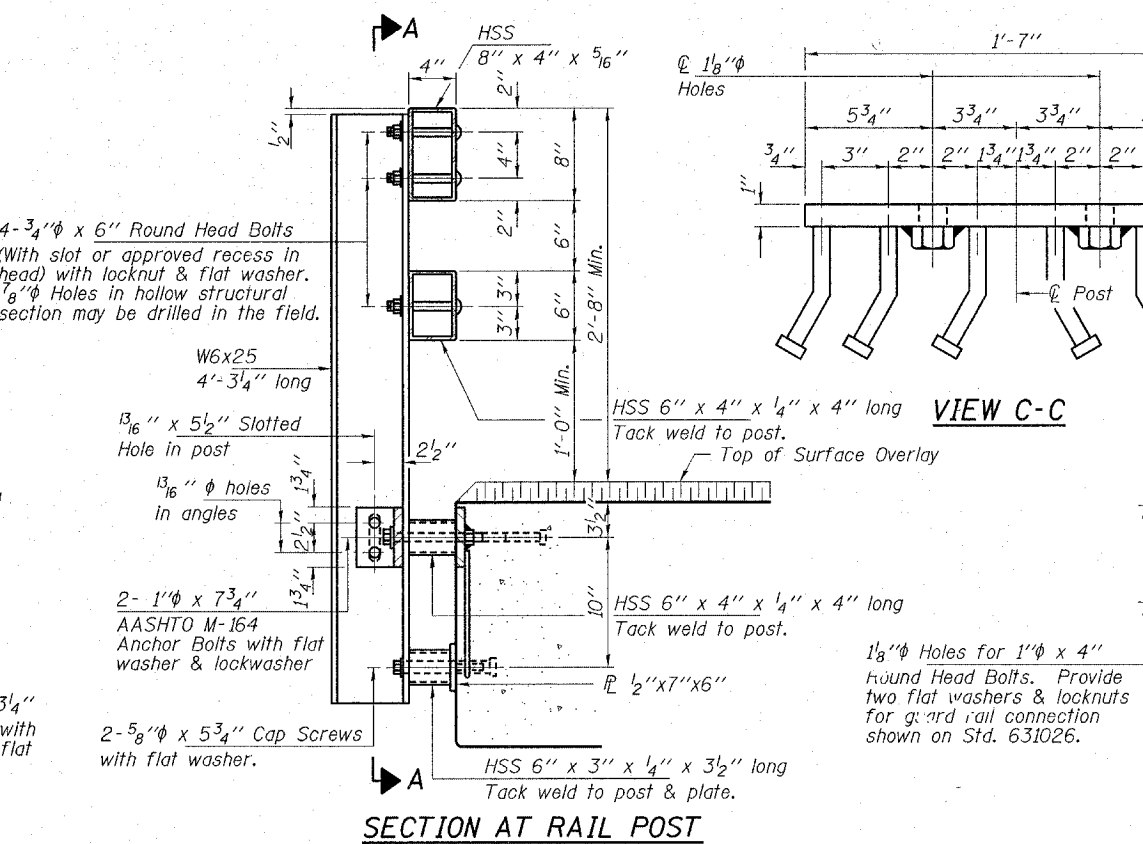
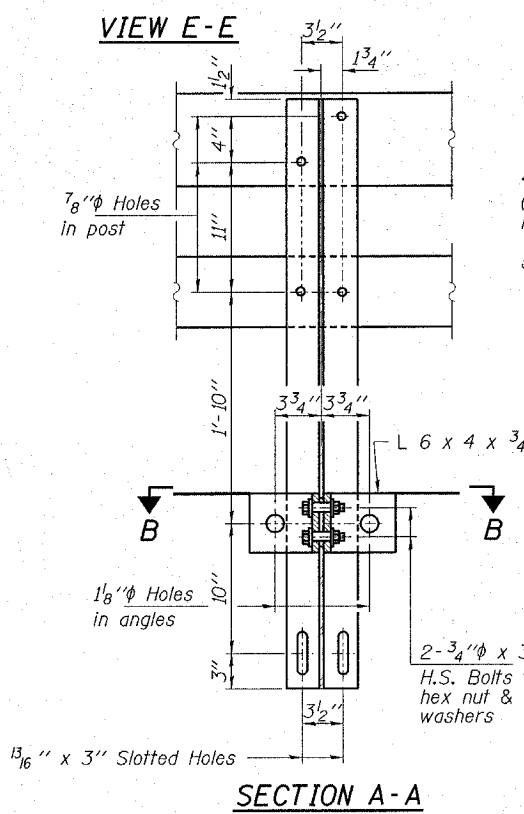
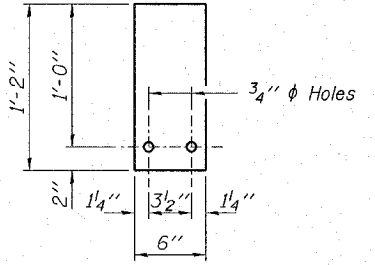
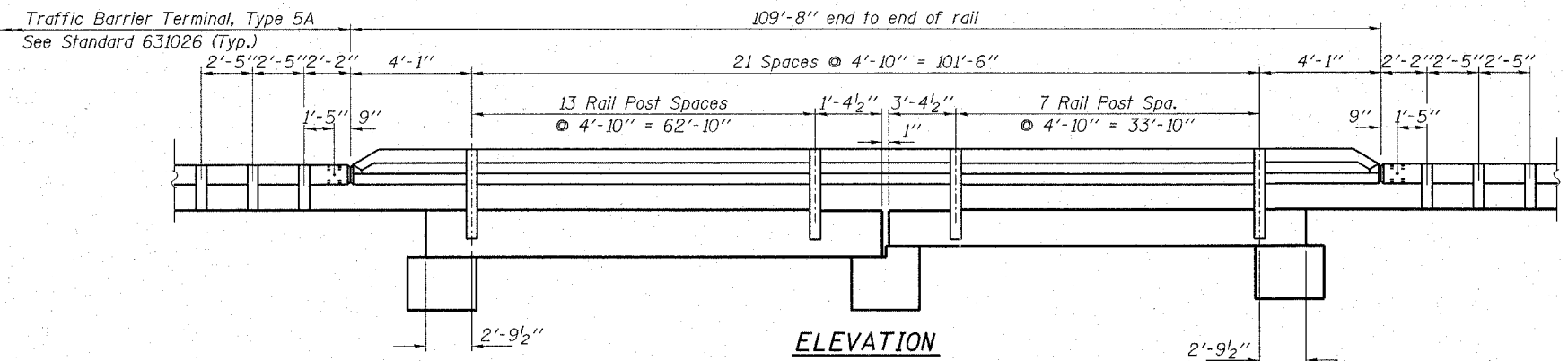
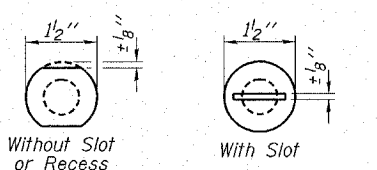
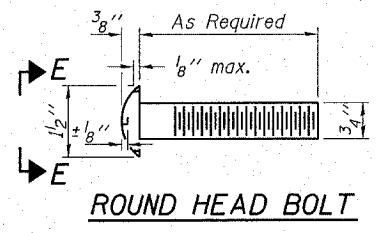


ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.S. 712	02-00104-00-BR	FAYETTE	21	1
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 95469



**NOTES**

Hollow structural sections shall conform to the requirements of A.S.T.M. 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 A.A.S.H.T.O. M-270 Grade 36 except posts and angles shall conform to A.A.S.H.T.O. M-270 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. M-164.

All bolts, nuts, cap screws, washers and lockwashers shall be galvanized according to A.A.S.H.T.O. M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.S.T.M. A-111 and A.A.S.H.T.O. M-385. Galvanized rail shall not be painted.

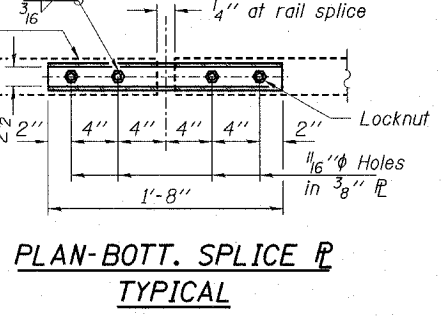
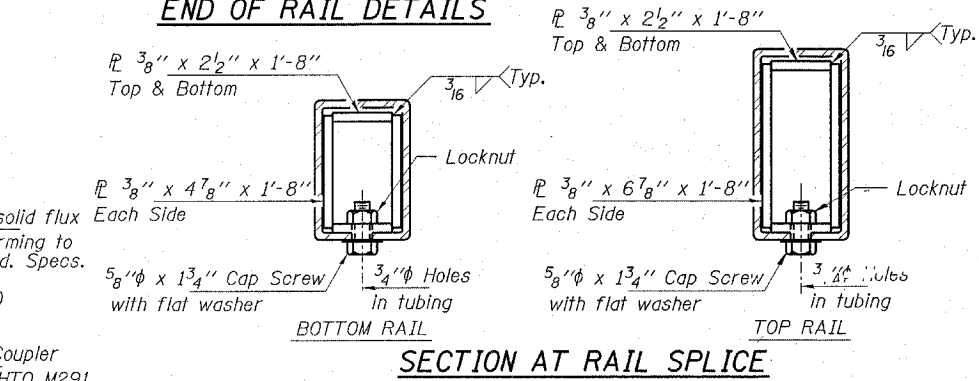
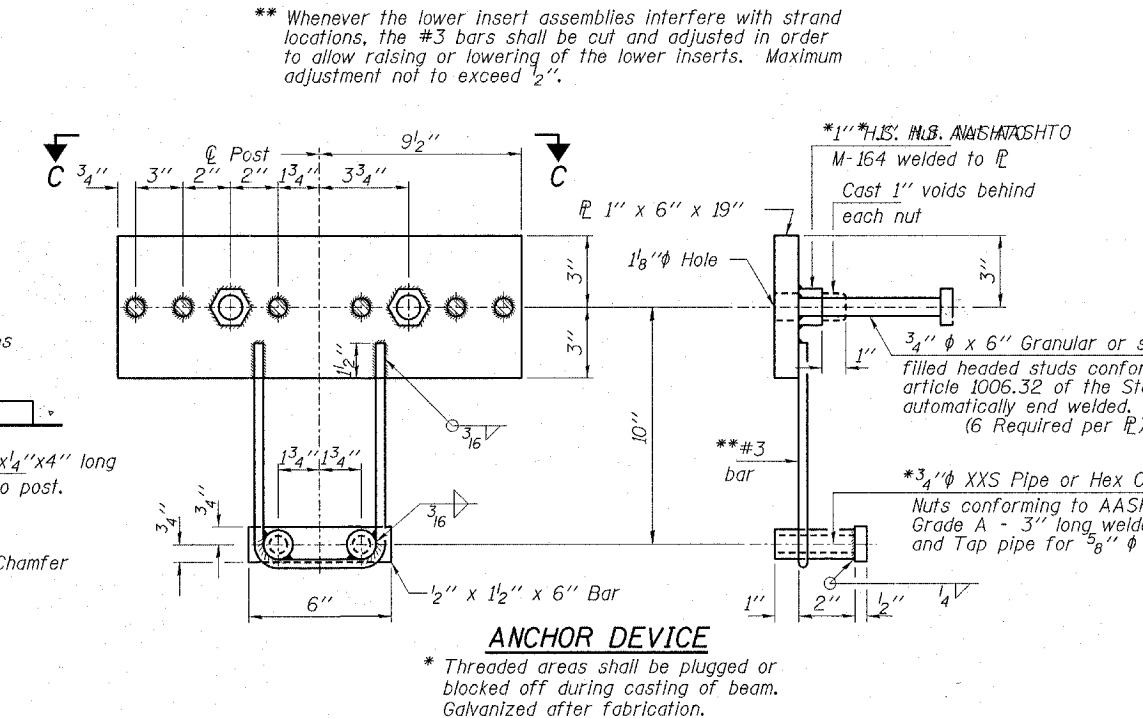
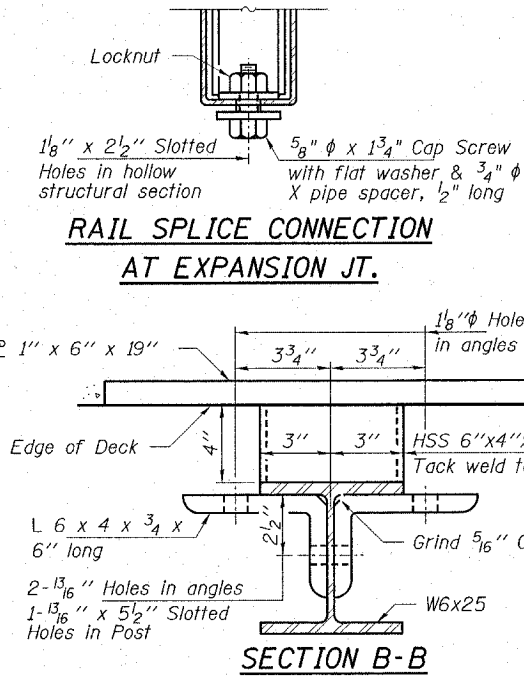
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for STEEL BRIDGE RAIL, TYPE SM.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The 1/2 inch x 7 inch x 6 inch plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/2 inch fabric bearing pads between the plates and concrete.

The 3/4 inch diameter high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Art. 505.04(f)(3) of the Standard Specifications. The 1 inch diameter 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 inch diameter cap screws in bottom of posts shall be tightened to a snug fit only.

For multi-span bridges, sufficient 1/4 inch x 6 inch x 1'-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing.



**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	220

**HLR**

Rice, Berry and Associates  
A Division of Hampton, Lenzini and Renwick, Inc.  
Civil & Structural Engineers  
3085 Stevenson Drive  
Suite 201  
Springfield, Illinois 62703  
217-546-3400

Account Number 12-34-0002-1  
Date: 03/13/06  
P.O. Box 1036  
DuQuoin, Illinois 62832  
618-790-4637

DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.T.M.

**RAILING DETAILS**  
**SECTION 02-00104-00-BR**  
**F.A.S. 712 / C.H. 24**  
**FAYETTE COUNTY**  
**STR. NO. 026-3431 / STATION 102+50**

\*\* 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 2".

\*1" H.S. H.L.B. A.A.S.H.T.O. M-164 welded to P  
Cast 1" voids behind each nut

\*3/4" XXS Pipe or Hex Coupler  
Nuts conforming to AASHTO M291, Grade A - 3" long welded to #3 bar and Tap pipe for 5/8" diameter Cap Screw.

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