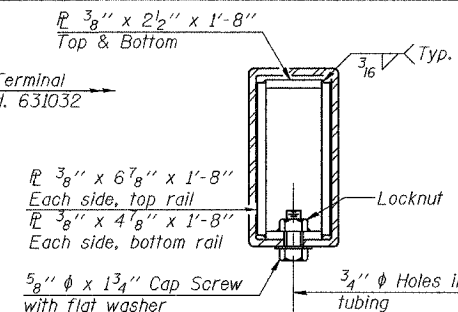
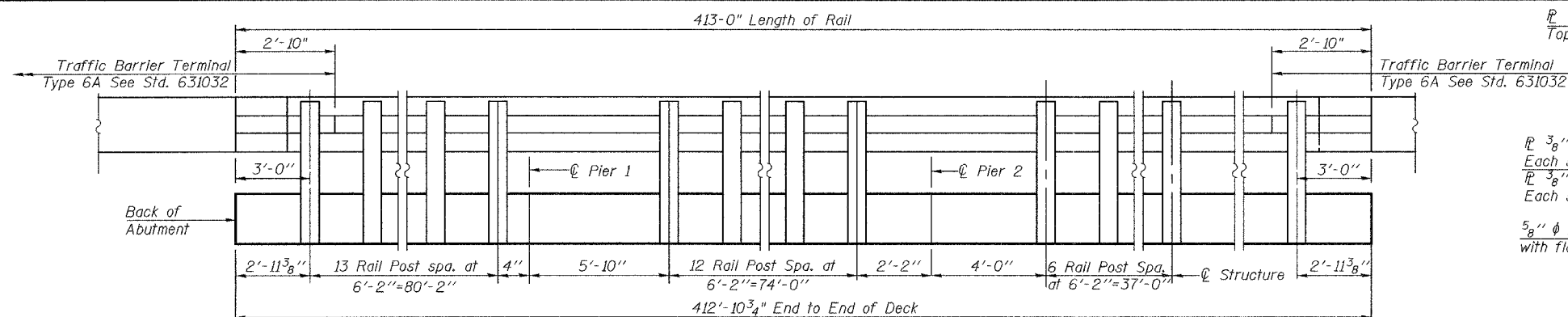
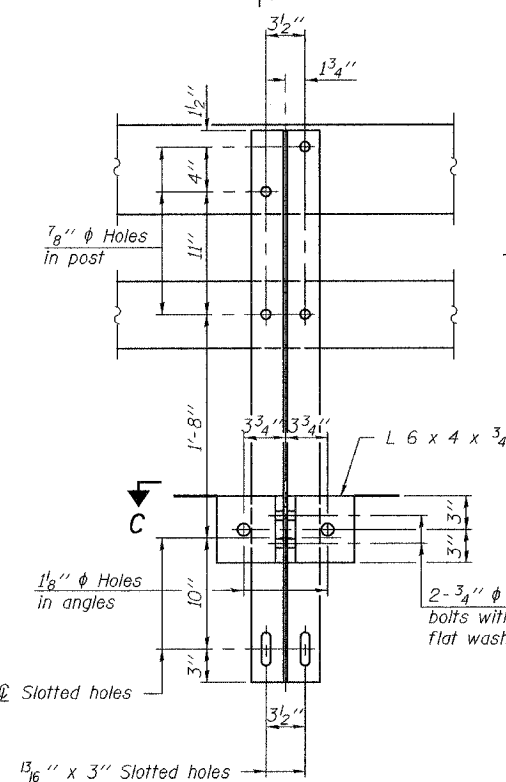


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAS 1732	*	MACOUPIN	22	18	17 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. ROAD PROJECT		

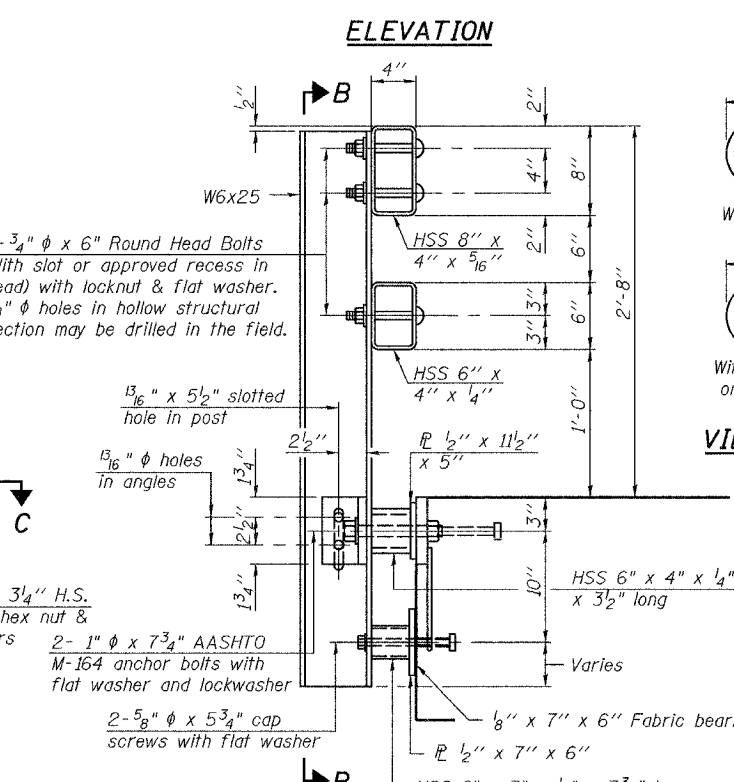
*01-00081-00-BR



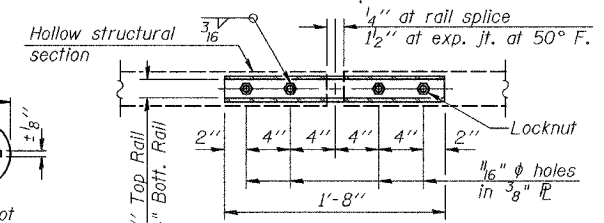
SECTION AT RAIL SPLICE



SECTION B-B

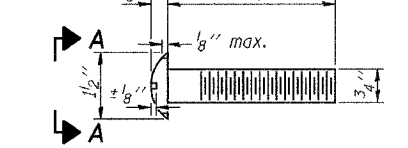


SECTION AT RAIL POST

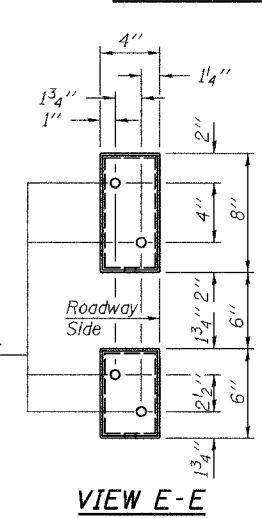


PLAN-BOTT. SPLICE TYPICAL

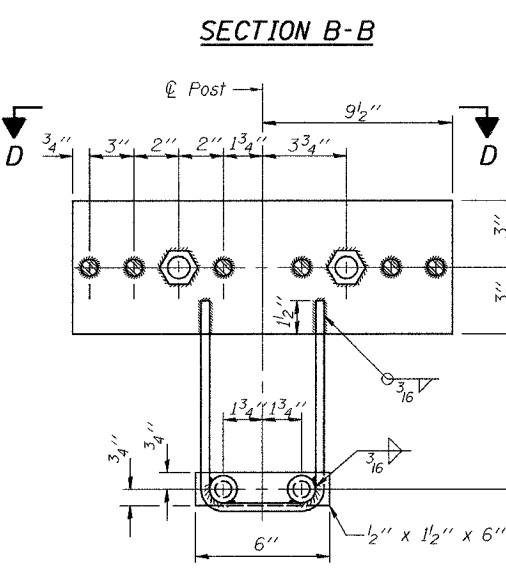
VIEW A-A



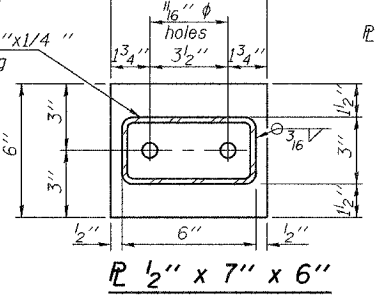
DETAIL OF 3/4" phi ROUND HEAD BOLT



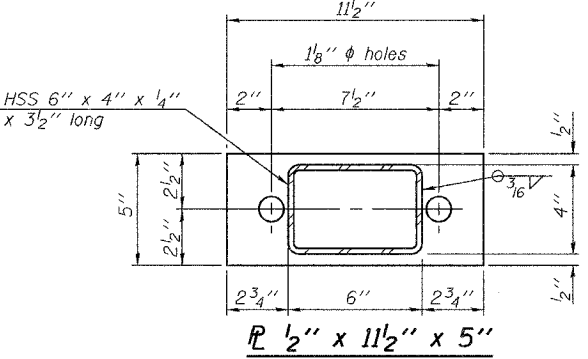
VIEW E-E



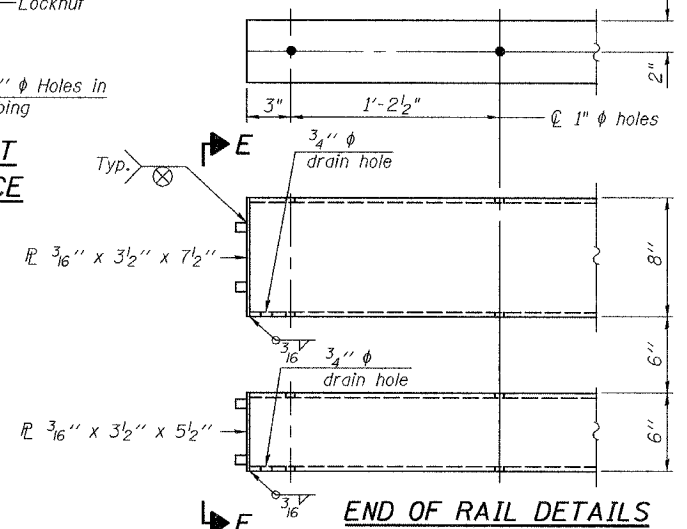
ANCHOR DEVICE



SECTION C-C



VIEW D-D



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 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" phi 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" phi 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" phi 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	826

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SHEET TITLE	
TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED	
PROJECT	PROJECT NO.
FAS ROUTE 1732 (COUNTY ROUTE 11)	04081
SECTION 01-00081-00-BR	SCALE
MACOUPIN COUNTY	DATE
STATION 167+61.06	07/01/06
STRUCTURE NUMBER 059-3331	DRAWN BY
	TFG
	CHECKED BY
	ML/MCB
DRAWING NO.	
COOMBE-BLOXDORF P.C.	15
Engineers / Land Surveyors	
Springfield, Illinois	
Design Firm License No. 184-002703	OF 17 SHTS

PLOT DATE = 07/07/2006
 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = TFC