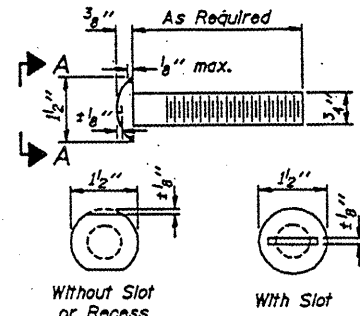
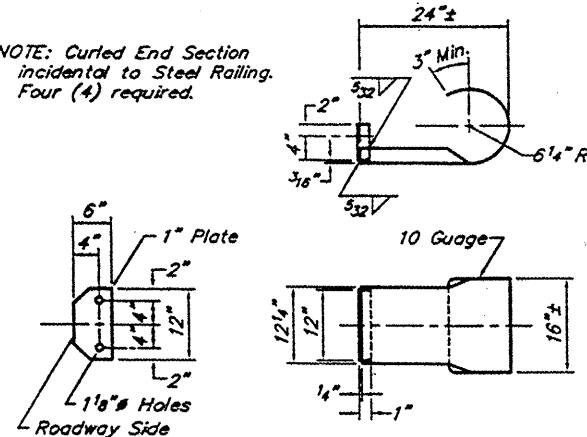


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 21	00-07118-00-BR	PERRY	11	8
PROJECT NO. BROS-145(35)			CONTRACT NO. 99349	



VIEW A-A
ROUND HEAD BOLT

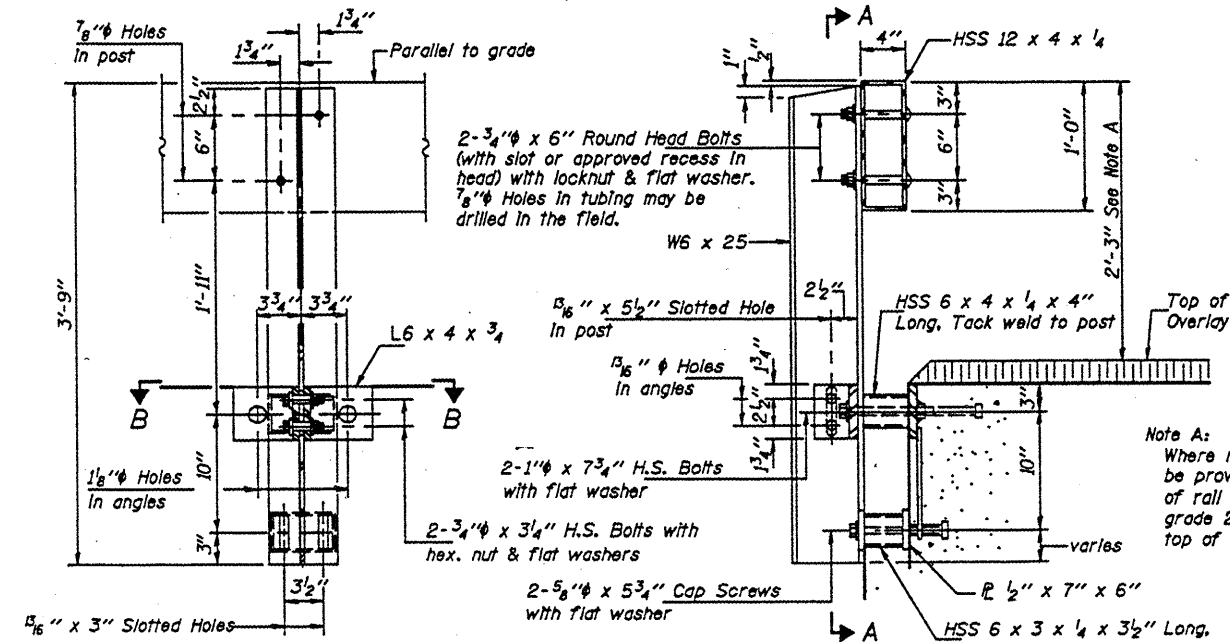
NOTE: Curled End Section incidental to Steel Railing. Four (4) required.



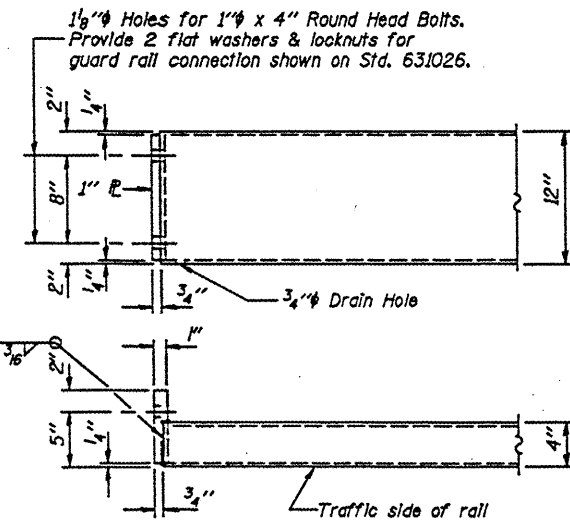
CURLLED END SECTION DETAILS

NOTES

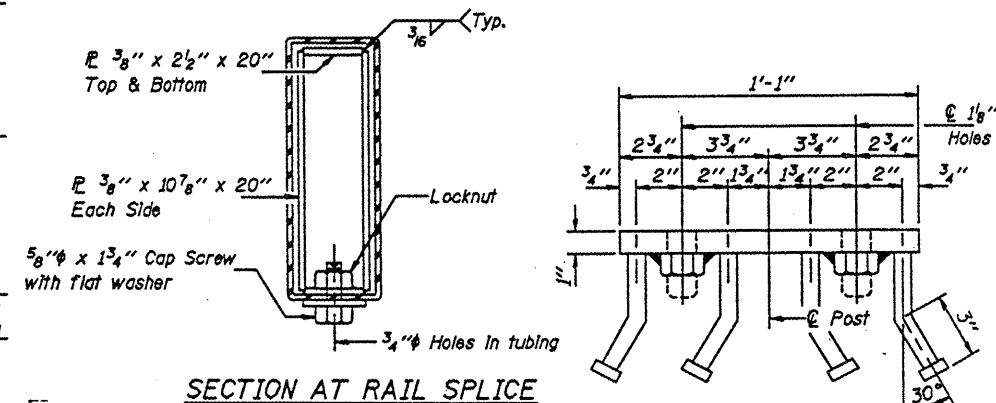
Hollow structural steel tubing shall conform to the requirements of ASTM designation A500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft.-lbs. at 0° F.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270 Grade 50.
 Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A307 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 and 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 shall be paid for at the contract unit price per foot for STEEL RAILING, TYPE S1.
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 The 1/2" x 7" x 6" plates that come in contact with concrete shall either receive two coats of asphalt paint conforming to Section 1060.07 Type II, or 1/8" fabric bearing pads shall be placed between the plates and concrete.
 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 (1)(2) of the Standard Specifications. The 1" 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" cap screws in bottom of posts shall be tightened to a snug fit only.
 The maximum allowable rail post spacing shall be 10'-6". The rail post spacing shown elsewhere in the plans is based on the allowable spacing for another type of rail. When this type of rail is used, the number of posts may be decreased and the post spacing increased to provide equal post spaces of 10'-6" or less.



SECTION A-A

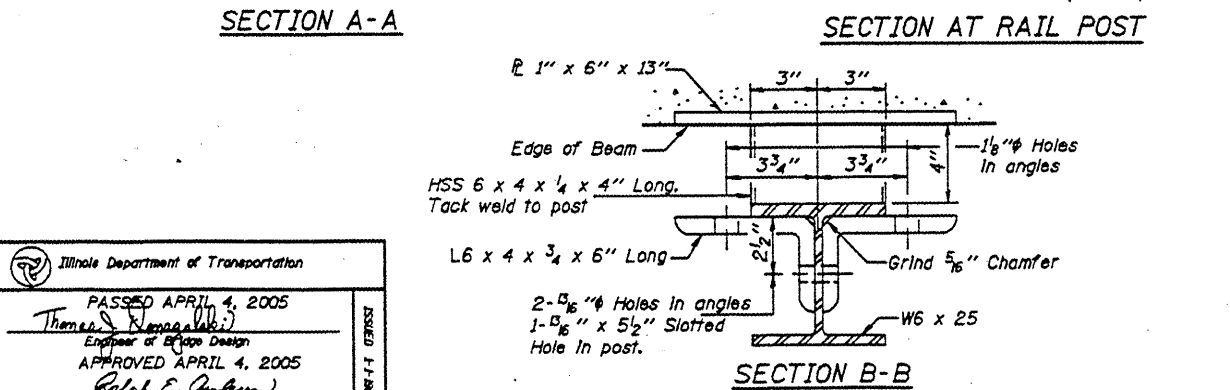


END OF RAIL DETAILS

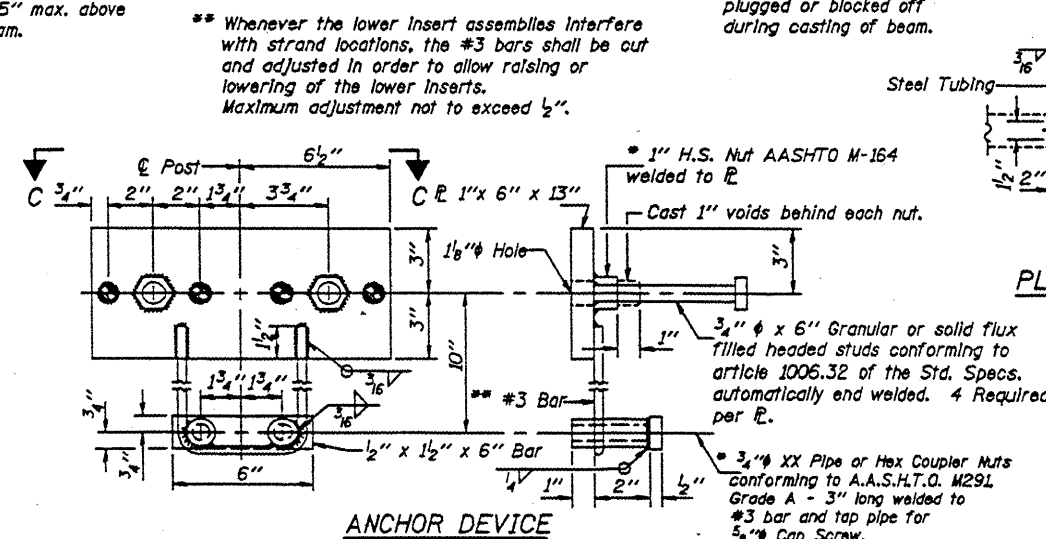


SECTION AT RAIL SPLICE

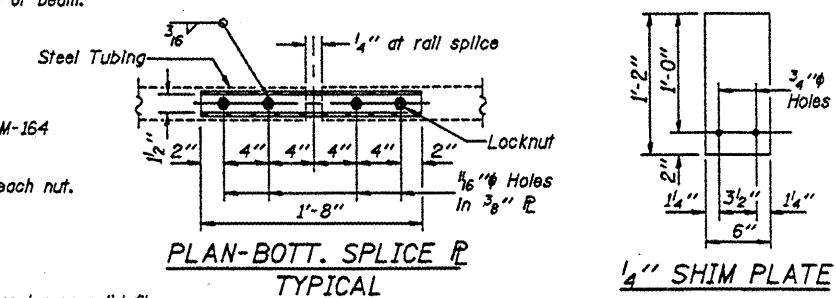
VIEW C-C



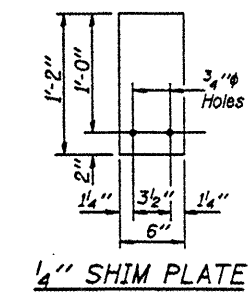
SECTION B-B



ANCHOR DEVICE



PLAN-BOTT. SPLICE R
TYPICAL



1/4\"/> SHIM PLATE

Illinois Department of Transportation
 PASSED APRIL 4, 2005
 Theresa S. Rosen (P.E.)
 Engineer of Bridge Design
 APPROVED APRIL 4, 2005
 Ralph E. (P.E.)
 Engineer of Bridge and Structures

STEEL RAILING, TYPE S-1
 STANDARD CR-TS1