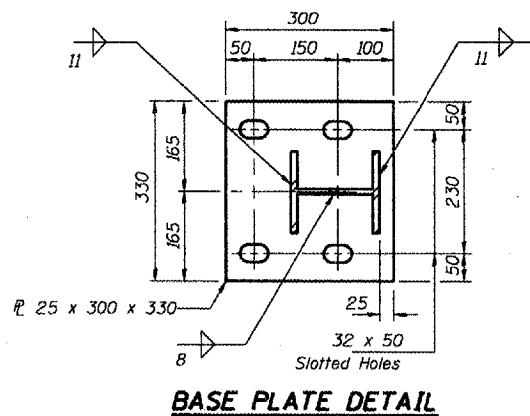
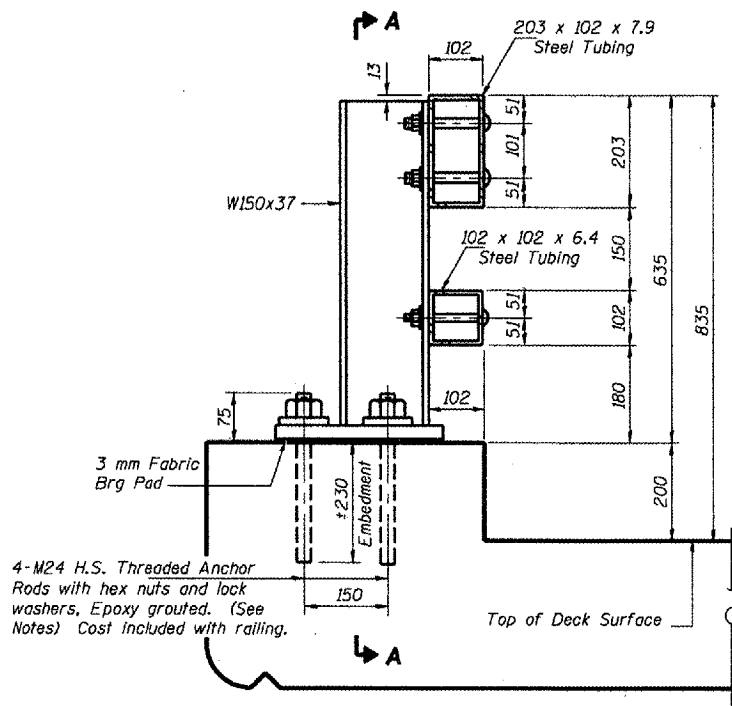


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

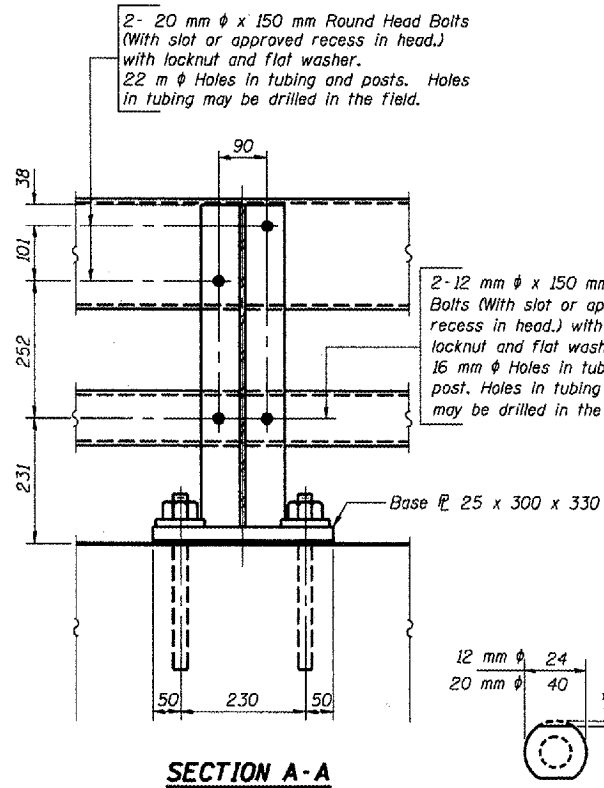
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL	SHEET NO.
F.A.P. 317	44B1BR	PEORIA	31	28	9 SHEETS
FED. ROAD DIST. NO. 7		OWNER	FED. AID PROJECT		
Contract No. 68217					



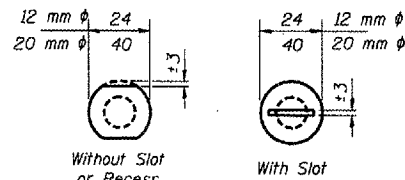
BASE PLATE DETAIL



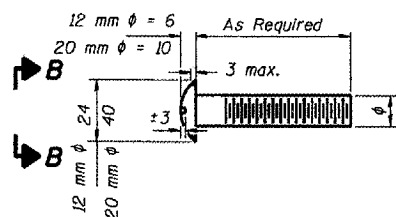
SECTION AT RAIL POST



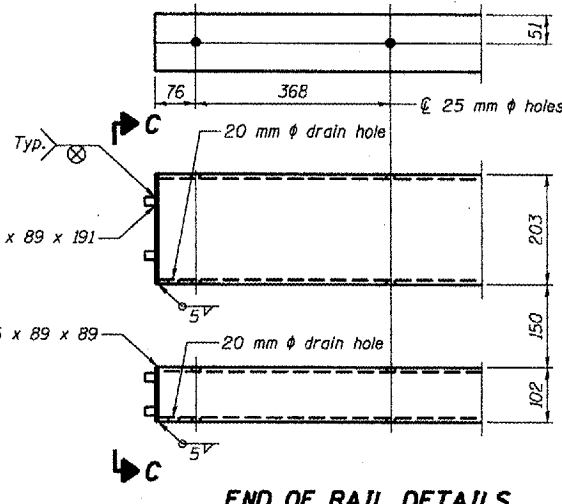
SECTION A-A



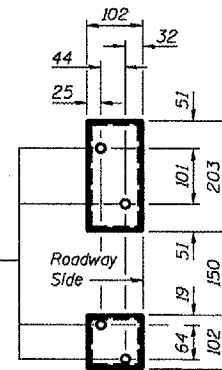
VIEW B-B



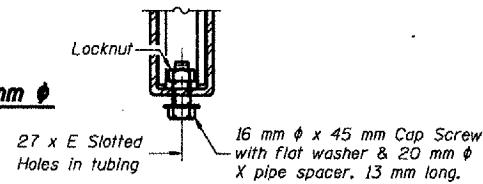
DETAIL OF 12 mm & 20 mm ROUND HEAD BOLTS



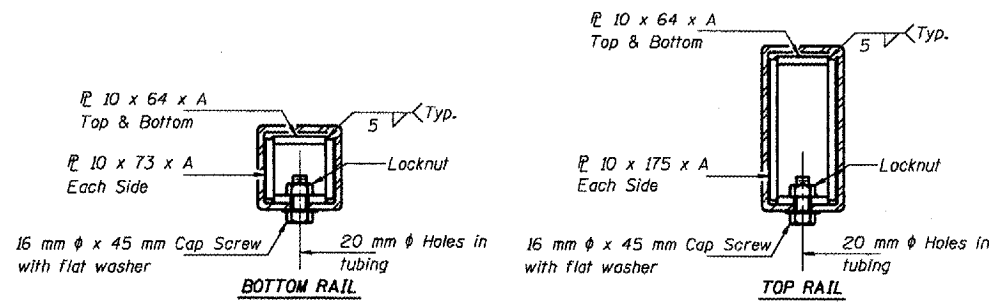
END OF RAIL DETAILS



VIEW C-C

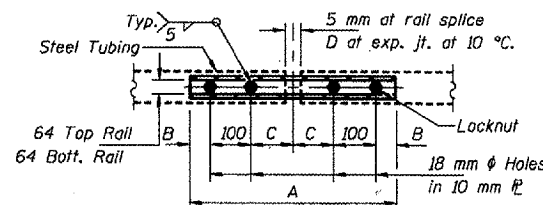


RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTIONS AT RAIL SPLICE

(1.90 m Maximum Post Spacing)



PLAN-BOTT. SPLICE TYPICAL

NOTES

Follow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing and shall meet the longitudinal CVN requirements of 20 N m at 18 °C.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250 except posts shall conform to AASHTO M 270M, Grade 345.
Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A 307 except that threaded rods, nuts and washers shall conform to AASHTO M 164M.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices and anchor rods 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 meter STEEL RAILING, TYPE 2399
All field drilled holes shall be coated with an approved zinc rich paint before erection.
Posts shall not be located closer than 400 mm to an existing bridge expansion joint or end of bridge.
STEEL RAILING, TYPE 2399 expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
Provide one 3 mm and two 1.6 mm steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
Expansion joint width shall be "D" at 10 °C and shall be adjusted for other temperatures according to Article 503.10(c) of the Standard Specifications.
The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
Nuts for 24 mm diameter threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional 1/2 turn.
All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	m	17

SPLICE DIMENSIONS

T	D	A	B	C	E
≤100	65	500	50	100	65
>100 ≤ 165	95	610	65	140	90
> 165 ≤ 230	125	710	90	165	230
>230 ≤ 330	175	860	115	215	280
Rail Splice	5	500	50	100	—

T = Total movement at expansion joint as shown on the design plans.

DESIGNED	
CHECKED	
DRAWN	RD
CHECKED	BG
DATE	AUGUST 31, 2004

Illinois Fire Registration No. 04-00533

Stanley Consultants Inc.
150 West Higgins Road, Suite 130, Chicago, Illinois 60637-2801
www.stanleygroup.com

**STEEL BRIDGE RAIL CURB MOUNTED
WHEELER ROAD OVER
DRY RUN CREEK
FAP RTE 317 SECTION (44B)BR
PEORIA COUNTY
STA 30+168.363
STRUCTURE NUMBER 072-2034**

*****FILENAME*****
*****DATE*****