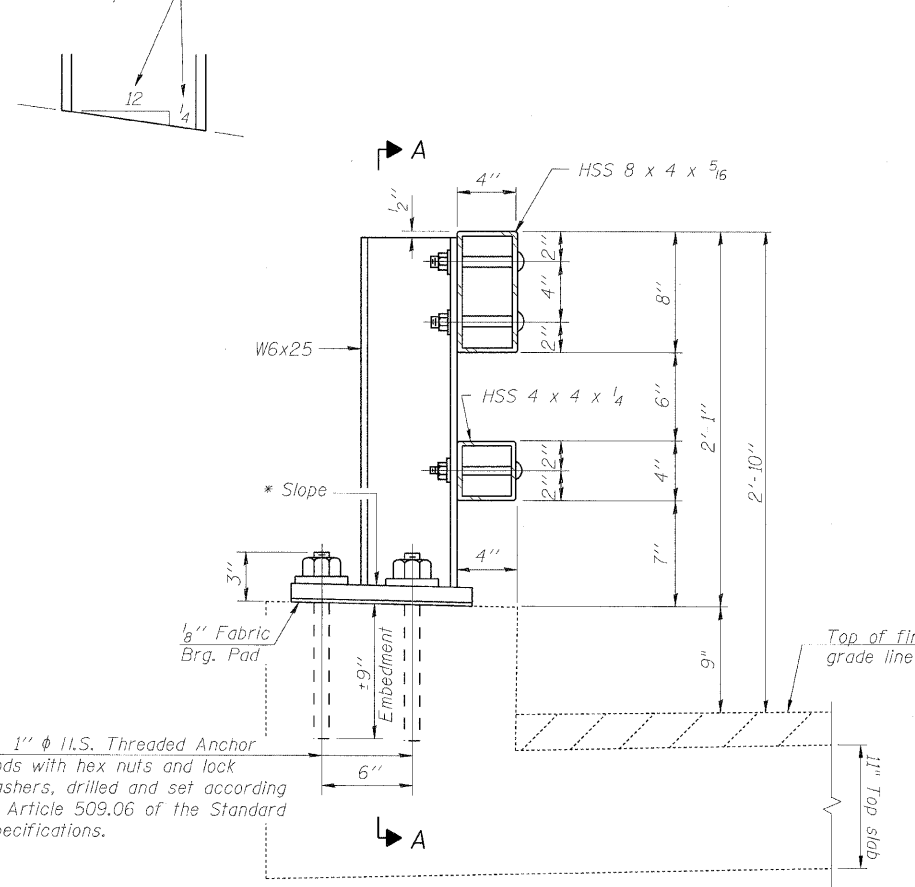


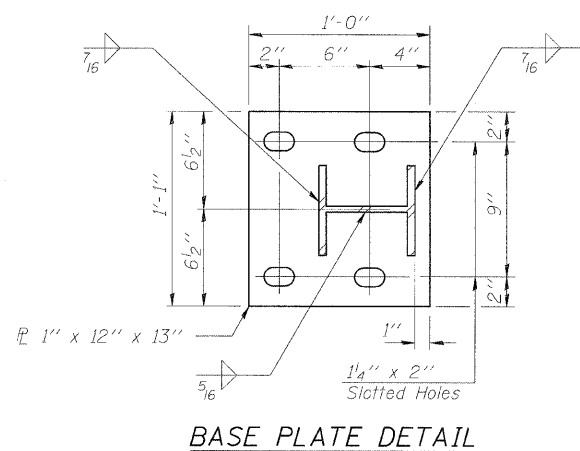
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Cut bottom end of post to curb slope.

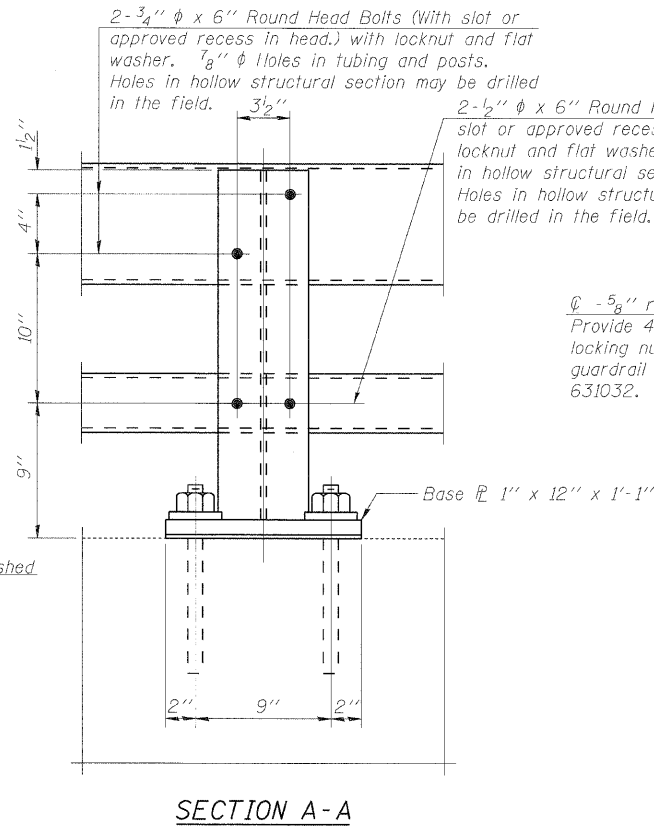


4- 1" ϕ I.I.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

SECTION AT RAIL POST



BASE PLATE DETAIL

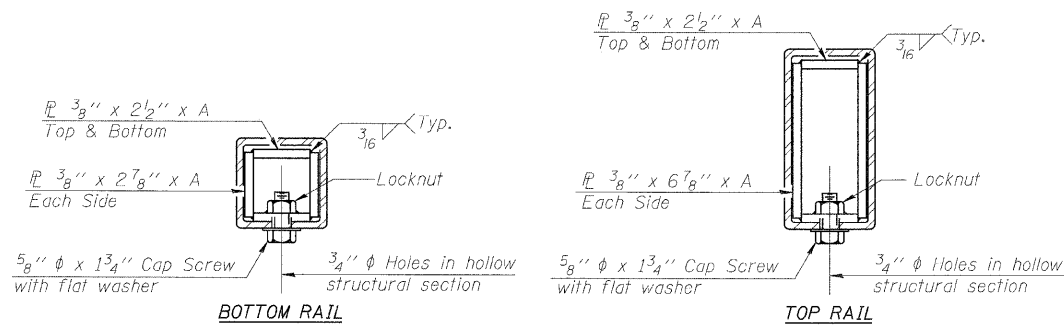


SECTION A-A

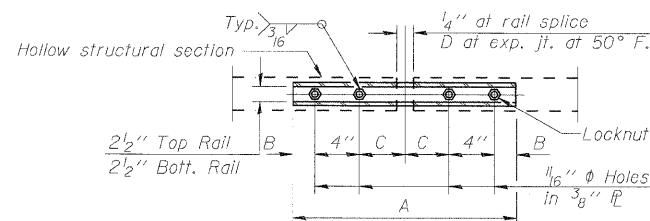
2- 3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 7/8" ϕ Holes in tubing and posts. Holes in hollow structural section may be drilled in the field.

2- 1/2" ϕ x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 5/8" ϕ Holes in hollow structural section and post. Holes in hollow structural section may be drilled in the field.

4- 5/8" reduced base welded studs. Provide 4- 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



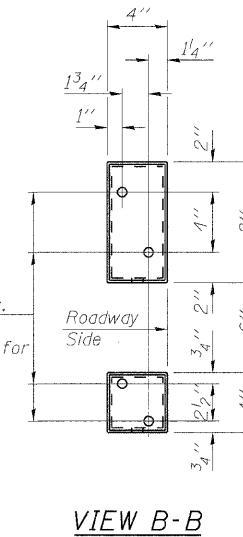
SECTIONS AT RAIL SPLICE



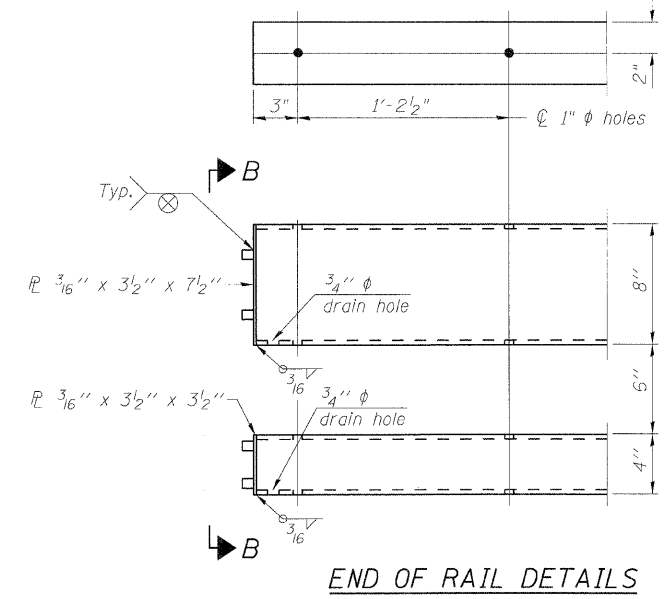
PLAN-BOTT. SPLICE TYPICAL

RAIL SPLICE CONNECTION AT EXPANSION JT.

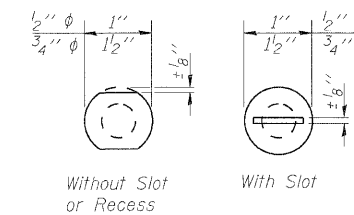
MID-AMERICA ENGINEERING SERVICES



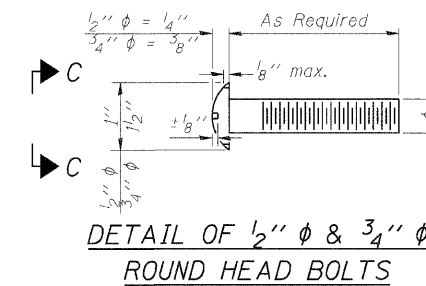
VIEW B-B



END OF RAIL DETAILS



VIEW C-C



DETAIL OF 1/2" ϕ & 3/4" ϕ ROUND HEAD BOLTS

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.
Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
Steel Bridge Rail 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 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	171

STEEL RAILING, TYPE 2399
STRUCTURE NO: 082-2044

DESIGNED - KRG
CHECKED - MJK
DRAWN - GSJ
CHECKED - MJK

(6'-3" Maximum Post Spacing)

SHEET NO. 13	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15 SHEETS	600	60-(30,31,128)-1	St. Clair	399	254
STRUCTURE NO: 082-2044			CONTRACT NO. 76830		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					