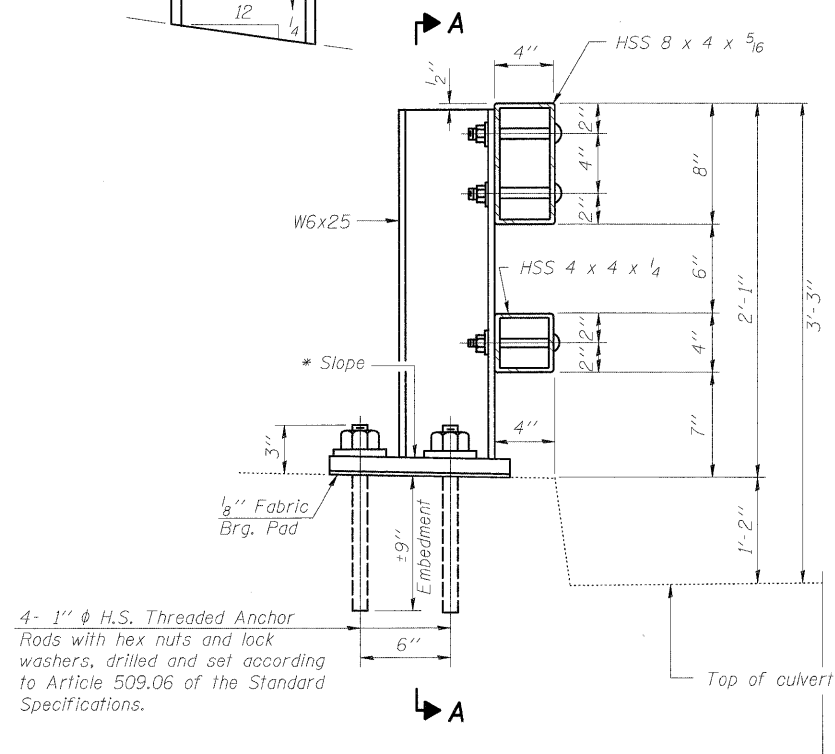
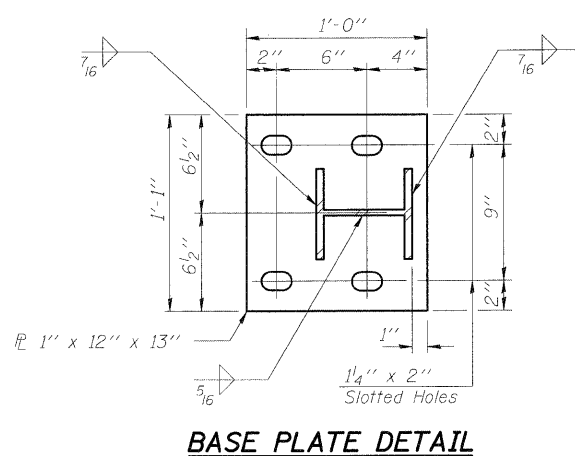


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\* Cut bottom end of post to curb slope.

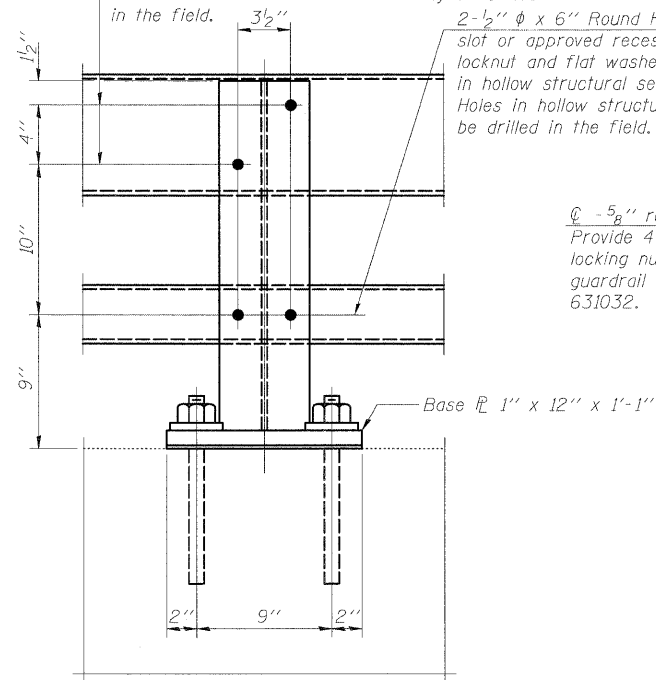


SECTION AT RAIL POST



BASE PLATE DETAIL

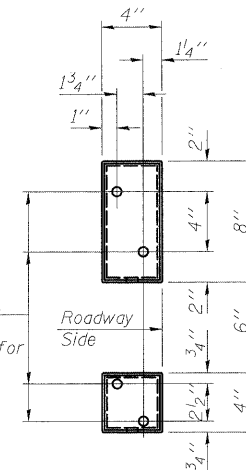
2-3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 7/8"  $\phi$  Holes in tubing and posts. Holes in hollow structural section may be drilled in the field.



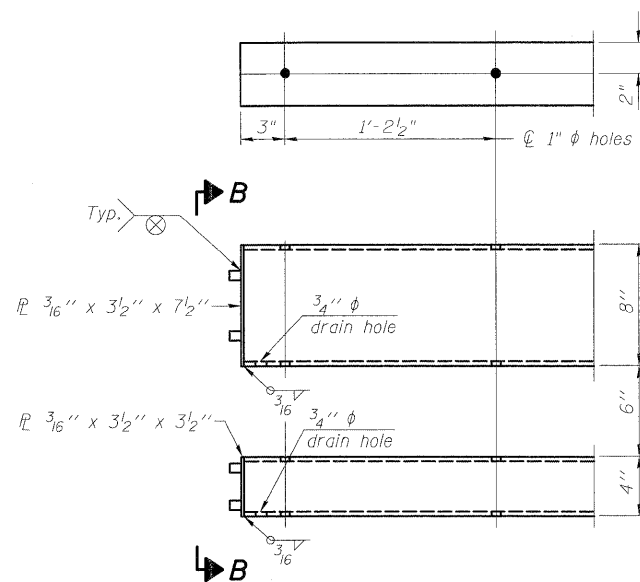
SECTION A-A

2-1/2"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut and flat washer. 5/8"  $\phi$  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.



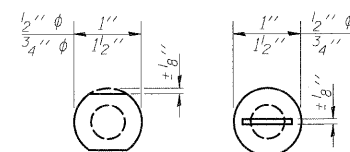
VIEW B-B



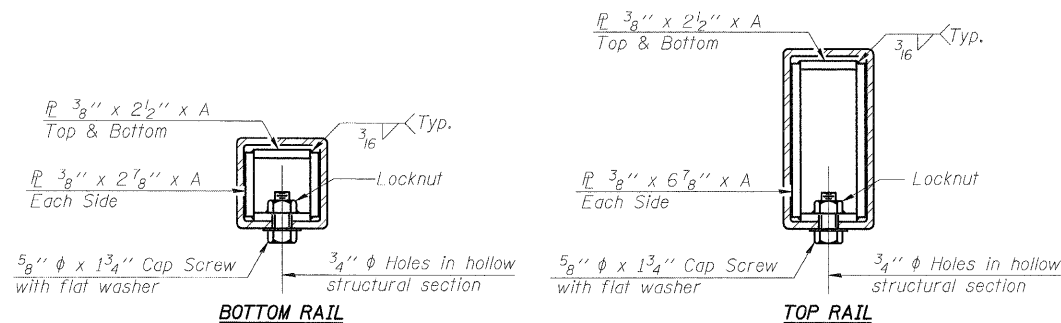
END OF RAIL DETAILS

Notes:

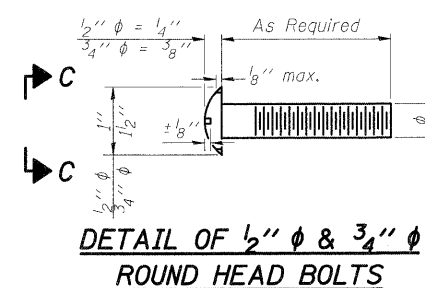
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
- Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion 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.



VIEW C-C



SECTIONS AT RAIL SPLICE



DETAIL OF 1/2"  $\phi$  & 3/4"  $\phi$  ROUND HEAD BOLTS

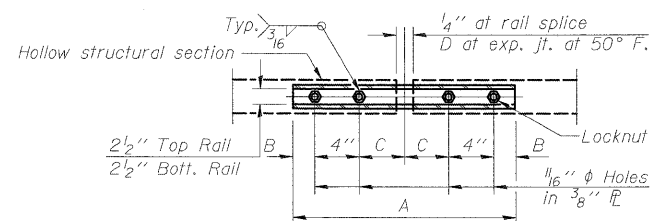
SPLICE DIMENSIONS

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	4"	1'-8"	2"	4"	—

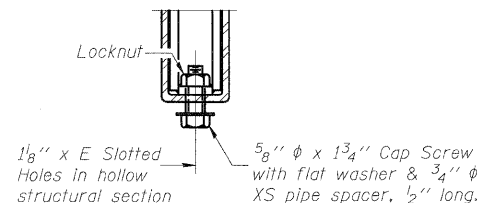
T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	20



PLAN-BOTT. SPLICE R TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

DESIGNED	VP
CHECKED	CL
DRAWN	VP
CHECKED	SP

R-31

10-1-08

(6'-3" Maximum Post Spacing)

**SINGH**  
SINGH & ASSOCIATES, INC.  
CONSULTING ENGINEERS

300 W. ADAMS ST.  
CHICAGO, IL 60606  
TEL: (312) 629-0240  
FAX: (312) 629-8449

SHEET NO.  
SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(99-1&2)AC-3	WILL	524	326
Sta. 8007+25 (E. Frontage Rd.)		CONTRACT NO. 60C31		
FED. RD. DIST. NO. 1		ILLINOIS FED. AID PROJECT		

SB-03A

FINAL