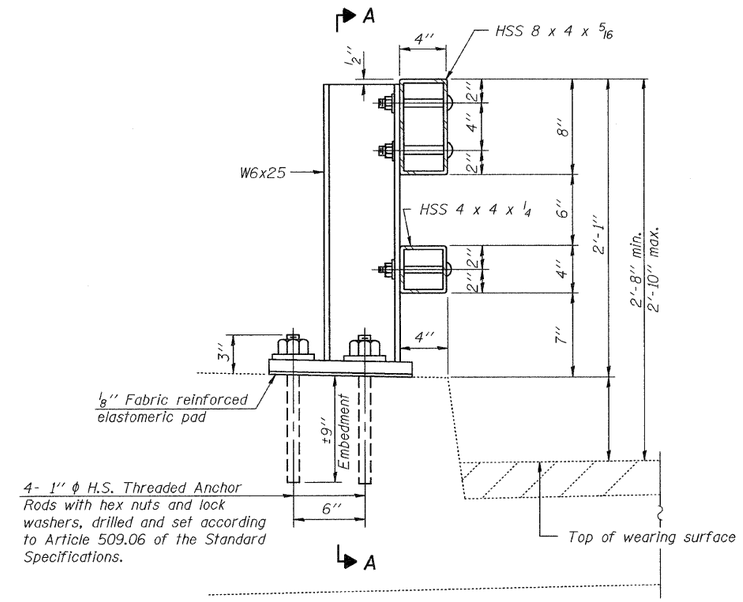
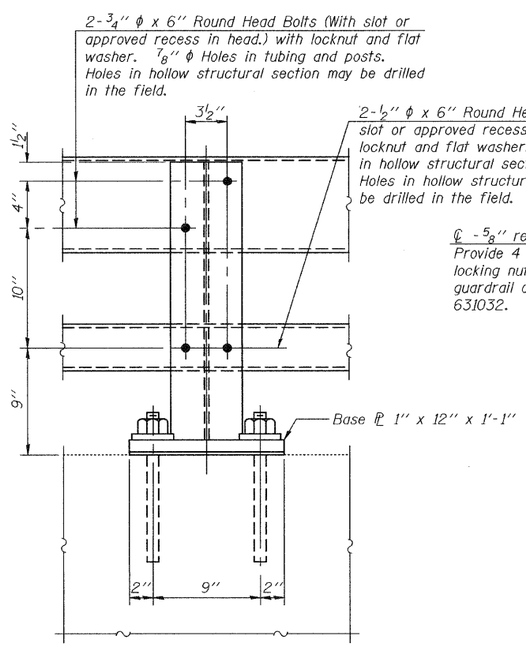
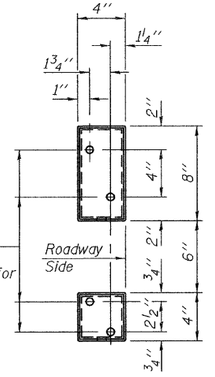
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION AT RAIL POST

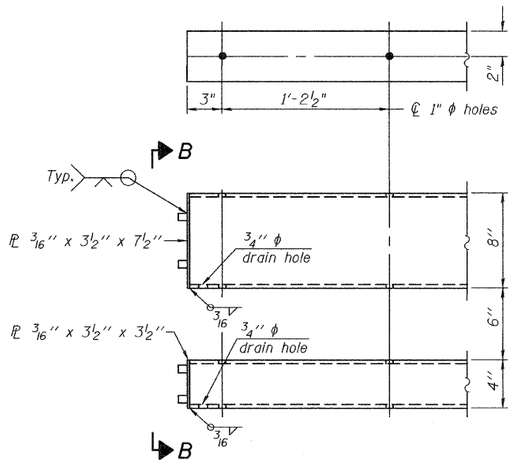


SECTION A-A

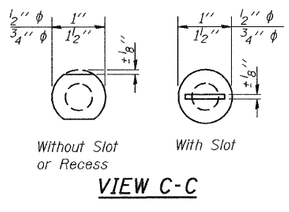


VIEW B-B

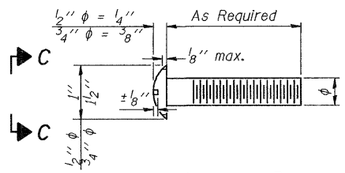
5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



END OF RAIL DETAILS

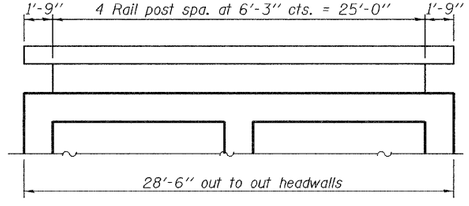


VIEW C-C

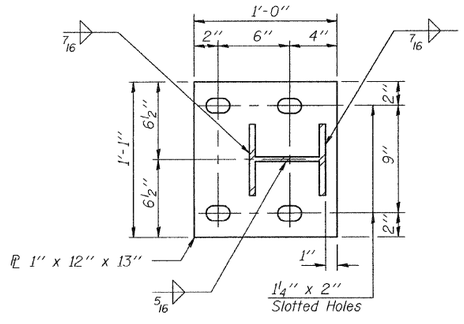


DETAIL OF 1/2" ϕ & 3/4" ϕ ROUND HEAD BOLTS

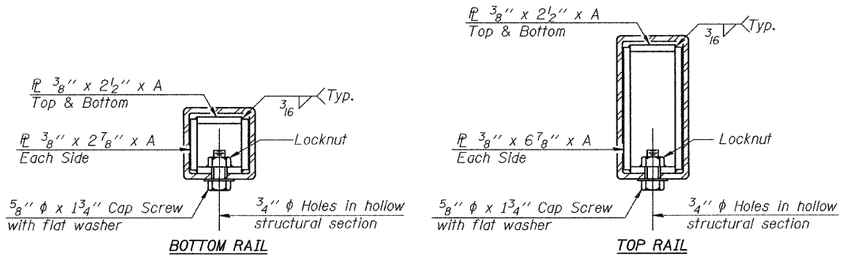
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion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



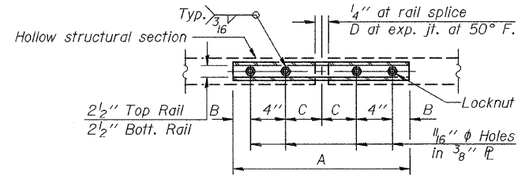
RAIL POST SPACING DETAIL



BASE PLATE DETAIL

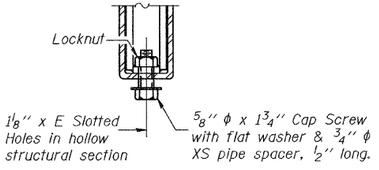


SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE PL TYPICAL

(6'-3" Maximum Post Spacing)



RAIL SPLICE CONNECTION AT EXPANSION JT.

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	57

DESIGNED	Jay D. Edwards
CHECKED	Michael D. Rolape
DRAWN	h.t. duong
CHECKED	JDE/MDR

June 14, 2010
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STEEL RAILING, TYPE 2399
STRUCTURE NO. 073-2007

SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9 SHEETS	841	108B-1	PERRY	27	22
			CONTRACT NO. 78059		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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