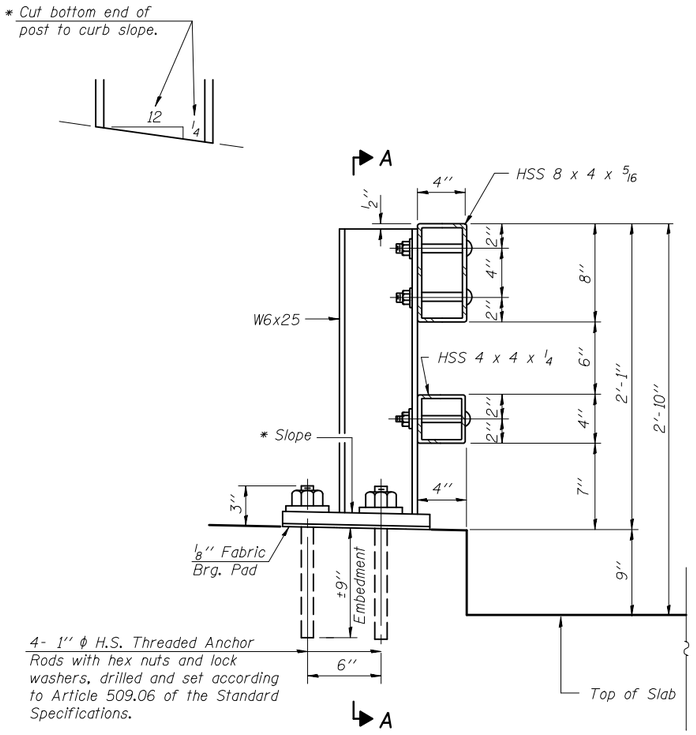
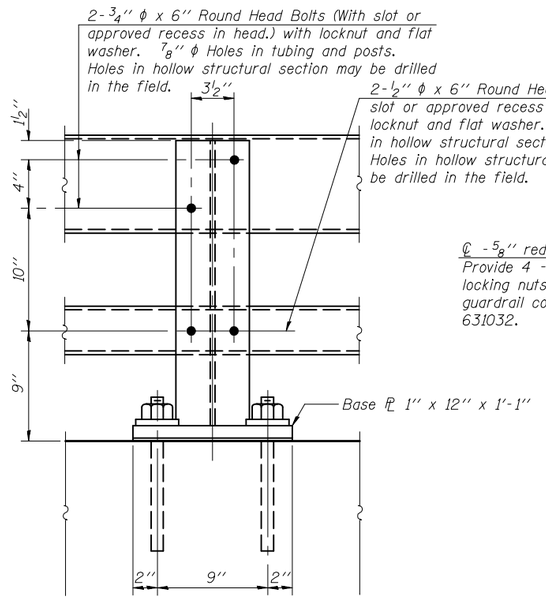
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 323	145BR-1	DOUGLAS	39	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

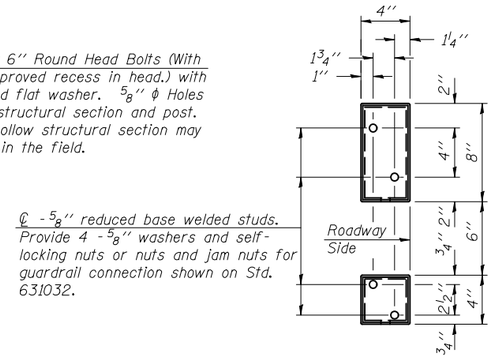
SHEET NO. 8
10 SHEETS

Contract #70393



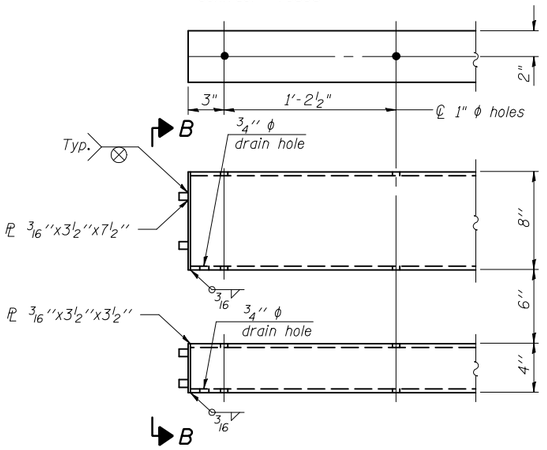


SECTION A-A

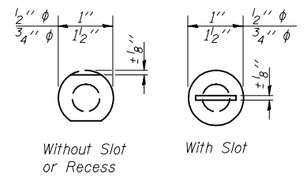


℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

VIEW B-B



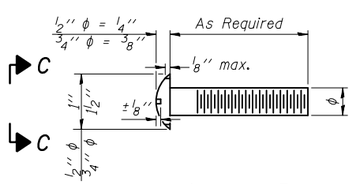
END OF RAIL DETAILS



Without Slot or Recess

With Slot

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.

BILL OF MATERIAL

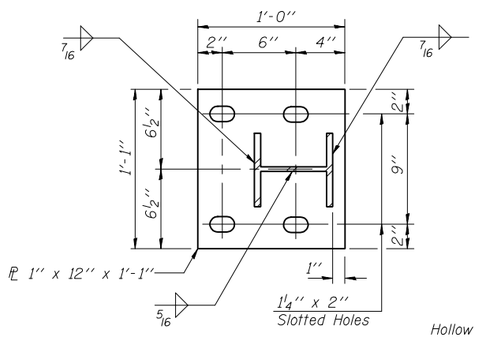
Item	Unit	Quantity
Steel Railing, Type 2399	Foot	93

SPLICE DIMENSIONS

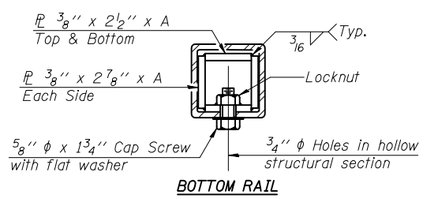
T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4"≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2"≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9"≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

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

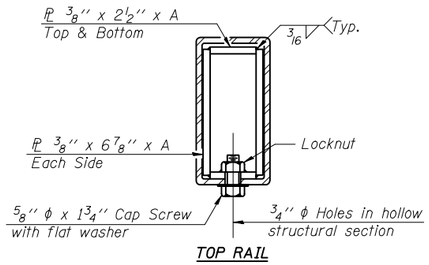
SECTION AT RAIL POST



BASE PLATE DETAIL

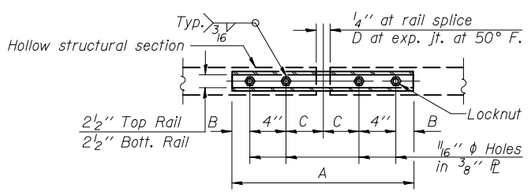


BOTTOM RAIL



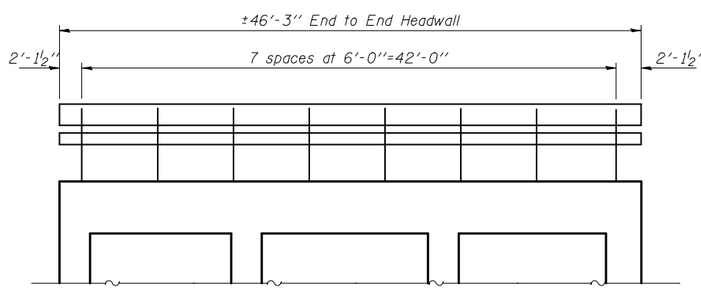
TOP RAIL

SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE PL TYPICAL

(6'-3" Maximum Post Spacing)



RAIL POST SPACING
(Dim. along skew)

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE: STEEL RAILING, TYPE 2399

PROJECT: US 36 OVER HACKETT BRANCH
FAP RTE 323 SECTION 145 BR-1
DOUGLAS COUNTY
STATION 150+50
STRUCTURE NUMBER 021-2026

PROJECT NO. 03020
SCALE
DATE 06/05/07
DRAWN BY TFG/CFC
CHECKED BY CME/KS/MCB
DRAWING NO. 8 OF 10 SHTS

COOMBE-BLOXDORF P.C.
Engineers/Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

PLOT DATE = 10/6/2008
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