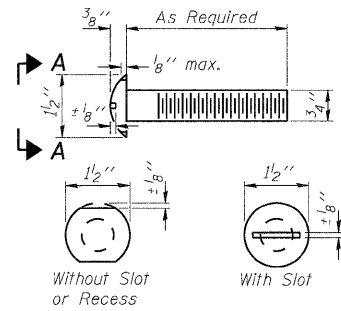
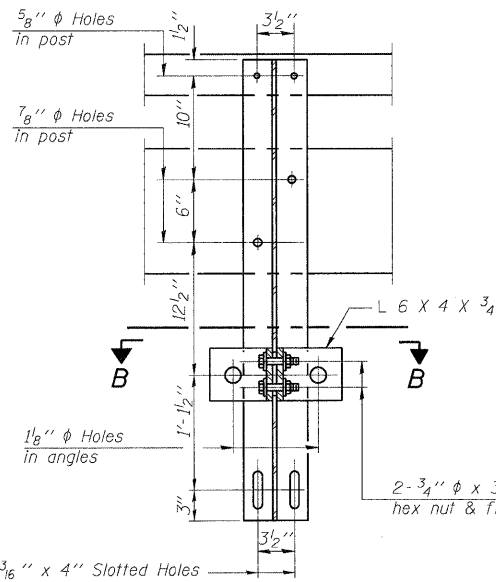


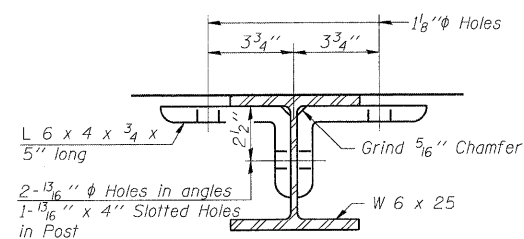
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



**VIEW A-A
ROUND HEAD BOLT**



SECTION A-A



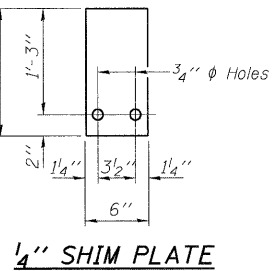
SECTION B-B

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

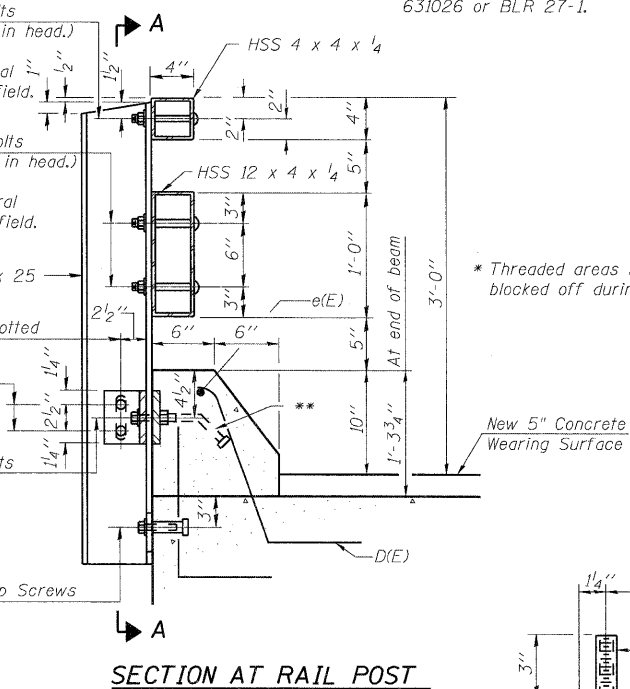
2-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head.)
with locknut & flat washer
7/8" ϕ Holes in hollow structural
section may be drilled in the field.

2-3/4" ϕ x 3/4" H.S. Bolts with
hex nut & flat washers

2-5/8" ϕ x 1 3/4" Cap Screws
with flat washer

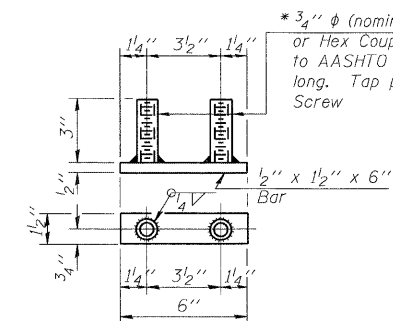


1/4" SHIM PLATE

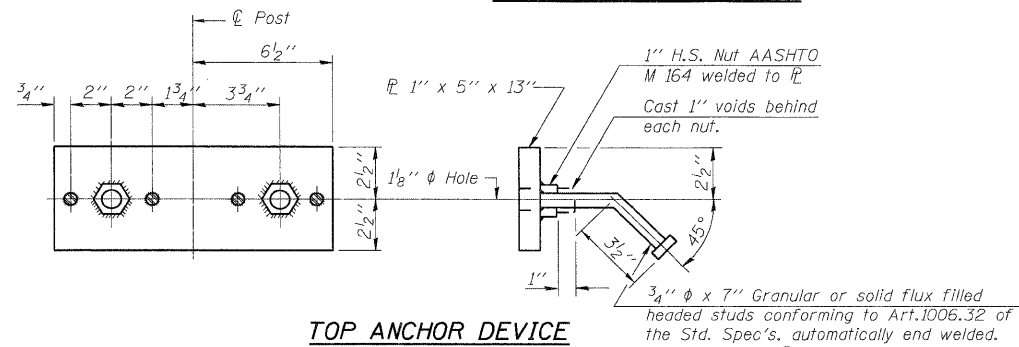


SECTION AT RAIL POST

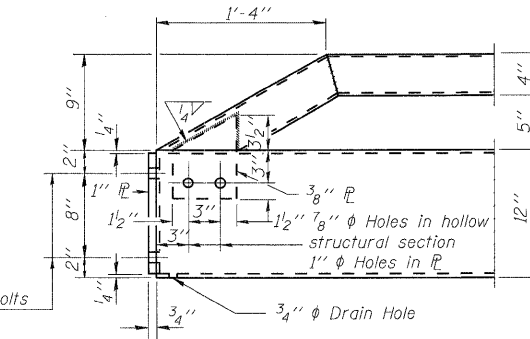
1/8" ϕ Holes for 1" ϕ x 4" Round Head Bolts
Provide 2 flat washers & locknuts for
guard rail connection shown on Hwy. Std.
631026 or BLR 27-1.



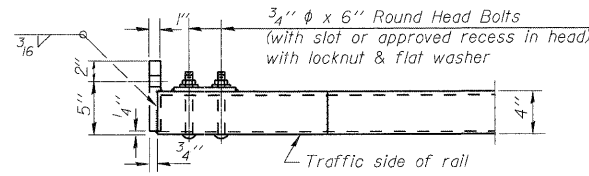
BOTTOM ANCHOR DEVICE



TOP ANCHOR DEVICE



END OF RAIL DETAILS



1/8" ϕ x 2 3/8" x 20"
Top & Bottom

1/8" ϕ x 2 7/8" x 20"
Each Side

5/8" ϕ x 1 3/4" Cap Screw
with flat washer

TOP RAIL

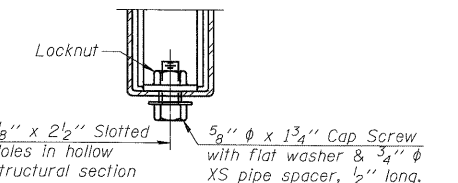
1/8" ϕ x 2 1/2" x 20"
Top & Bottom

1/8" ϕ x 10 7/8" x 20"
Each Side

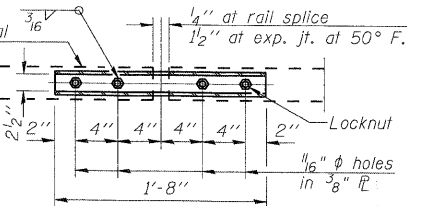
5/8" ϕ x 1 3/4" Cap Screw
with flat washer

BOTTOM RAIL

SECTIONS AT RAIL SPLICE



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE R
TYPICAL**

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type T-1	Foot	227

DESIGNED -	SLV
CHECKED -	DJB
DRAWN -	SLV
CHECKED -	DJB

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**STEEL RAILING, TYPE T-1
STRUCTURE NO. 049-0059**

SHEET NO. S9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF S20 SHEETS	303	136 B-1	LAKE	43	24
D-91-290-09			CONTRACT NO. 60F93		
FED. ROAD DIST. NO. -		ILLINOIS	FED. AID PROJECT		