

LEGEND

- ① W 6 X 25 WITH 1/4" DIA. HOLES ON EACH SIDE OF POST FLANGE FOR STUD (6). CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1" X 9 1/2" X 10" WITH 1/16" X 1/2" SLOTTED HOLES FOR ANCHOR BOLTS (3). WELD TO (1) AS SHOWN.
- ③ A 449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION ANCHOR BOLT 7/8" DIA. X 1'-3" LONG AT BRIDGE END POSTS AND 10" LONG AT ALL OTHER POST LOCATIONS. (MIN. YIELD OF 92 K.S.I. AND ELONGATION OF 14%) WITH A 325 NUT AND WASHER. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE (2).
- ④ BAR 3/4" SQ. X 8" LONG. WELD TO ANCHOR BOLTS (3).
- ⑤ TS 4 X 4 X .25 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A36. ATTACH TO (1) WITH STUDS (6).
- ⑥ 5/8" DIA. X 1/2" LG. SHOP WELDED STUDS, WITH HEX. NUT AND 2 WASHERS. 4 PER POST. (2 REQ'D. AT EACH LOCATION).
- ⑦ SQUARE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE 'SLIDING FIT' WITH A MINIMUM OUT TO OUT DIMENSION OF 3 13/32".
- ⑧ TS 3 X 3 X .25 X 1'-10" LONG. PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF (5). PROVIDE 3/8" DIA. X 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.
- ⑨ PLATE 3/4" X 1'-0" X 1'-6". WELD TO END RAIL POST AS SHOWN IN DETAIL. REQUIRED AT BEAM GUARD ATTACHMENTS ONLY.
- ⑩ 1" DIA. HOLES IN PLATE (9) FOR 7/8" DIA. A 325 BOLTS W/HEX NUTS AND WASHERS.

GENERAL NOTES

BID ITEM SHALL BE "TUBULAR RAILING TYPE 'F'" WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.

POSTS BASE PLATES (2) SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH. STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MEMBERS INCLUDING UPPER 4" OF (3) SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE (2) WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER SEAL BOTTOM EDGES OF PLATE (2) TO DECK.

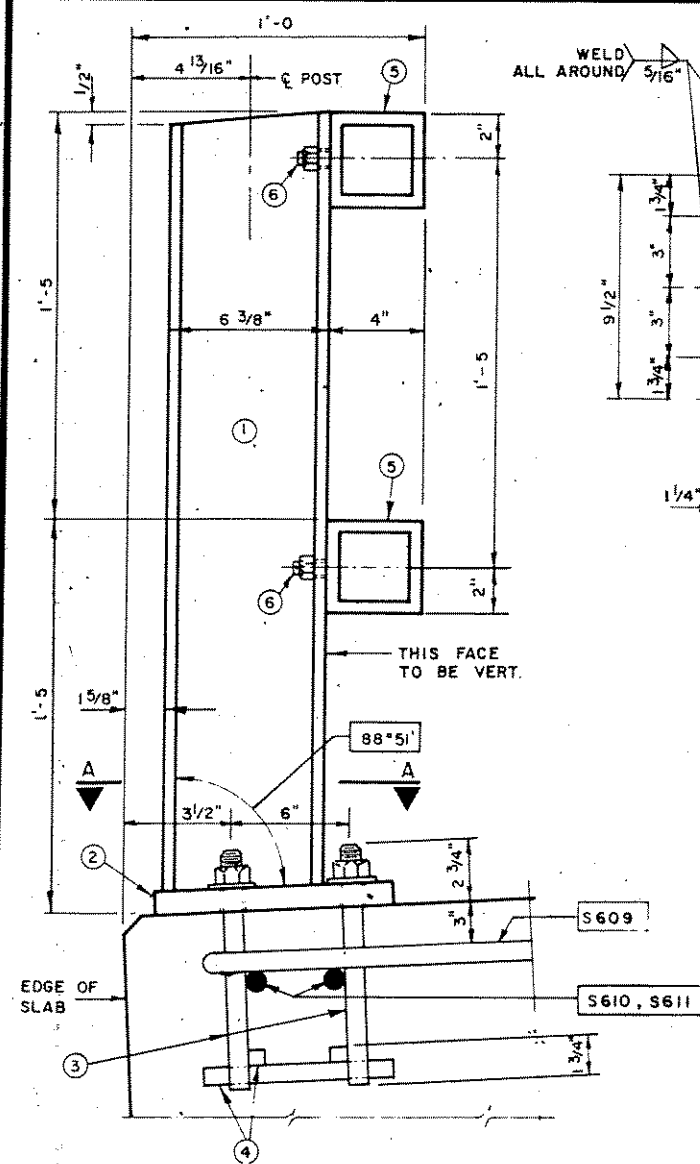
ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M DESIGNATION A36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

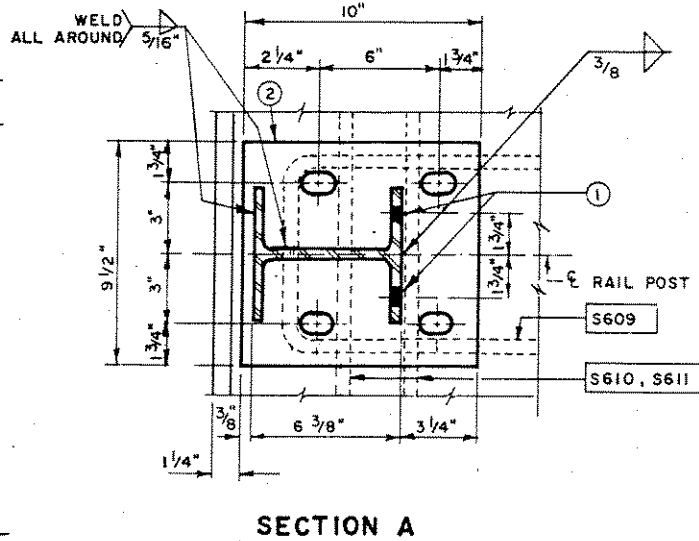
PRIOR TO GALVANIZING, ALL STEEL RAILING SHALL BE GIVEN A NO 6 COMMERCIAL BLAST CLEANING BY S.S.P.C SPECIFICATIONS. BLAST CLEANING IS NOT REQUIRED FOR COLD FORMED TUBING (5), EXCEPT TO REMOVE WELDING SLAG AND IMPERVIOUS SUBSTANCES.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF POST BASE.

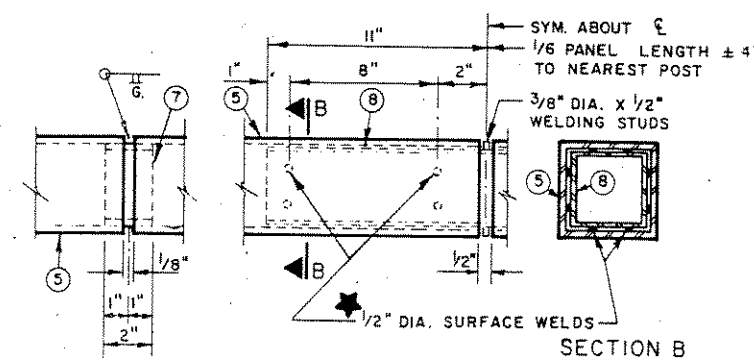
WELD WITH E70 ELECTRODES.



SECTION D THRU RAILING



SECTION A

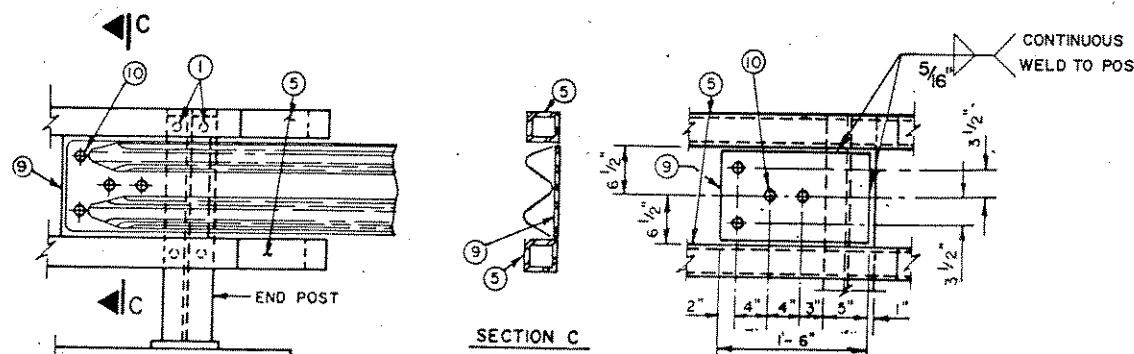


SHOP RAIL SPLICE DETAIL

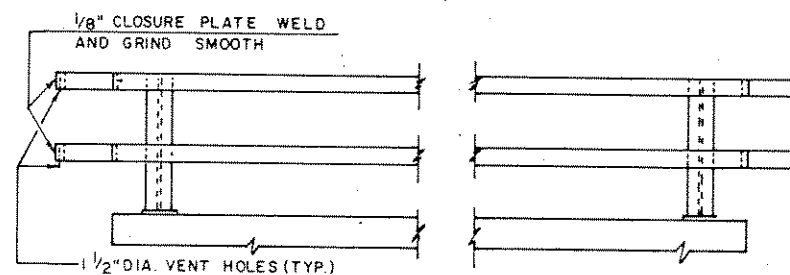
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

FIELD ERECTION JOINT DETAIL

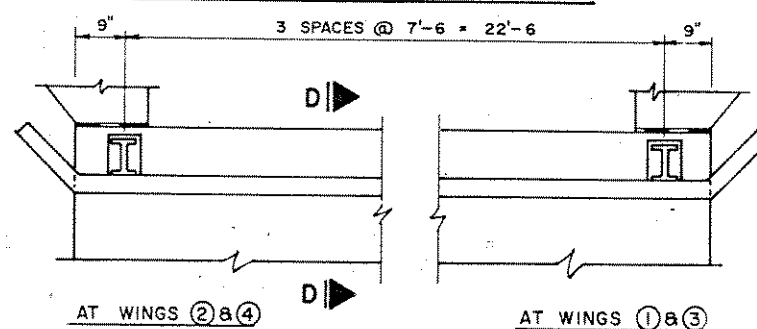
★ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



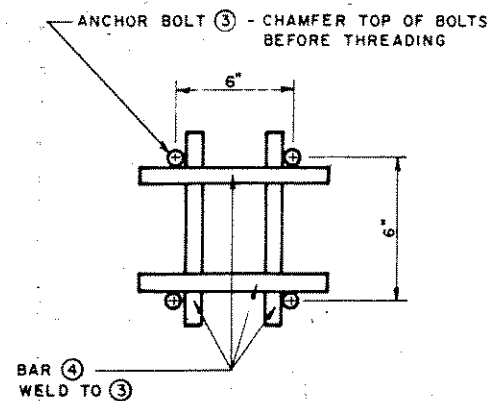
DETAIL AT END POSTS



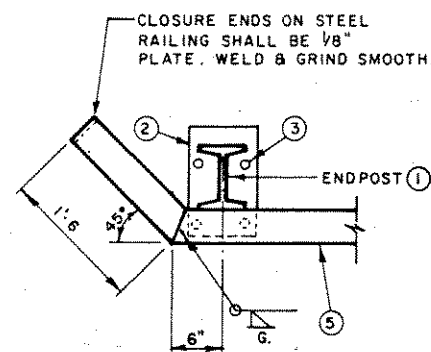
PART ELEVATION OF RAILING



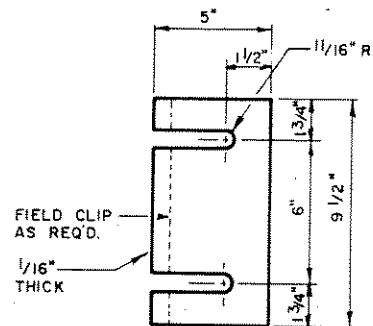
PART PLAN OF RAILING



ANCHOR BOLT DETAIL



RAIL END DETAIL



POST SHIM DETAIL
(4 PER POST)

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-108			
Const. Spec.	WI 89	Drawn By	RLR
		Plans Checked	PAC
TUBULAR STEEL RAILING TYPE 'F'			SHEET 7 OF 7
			X82780