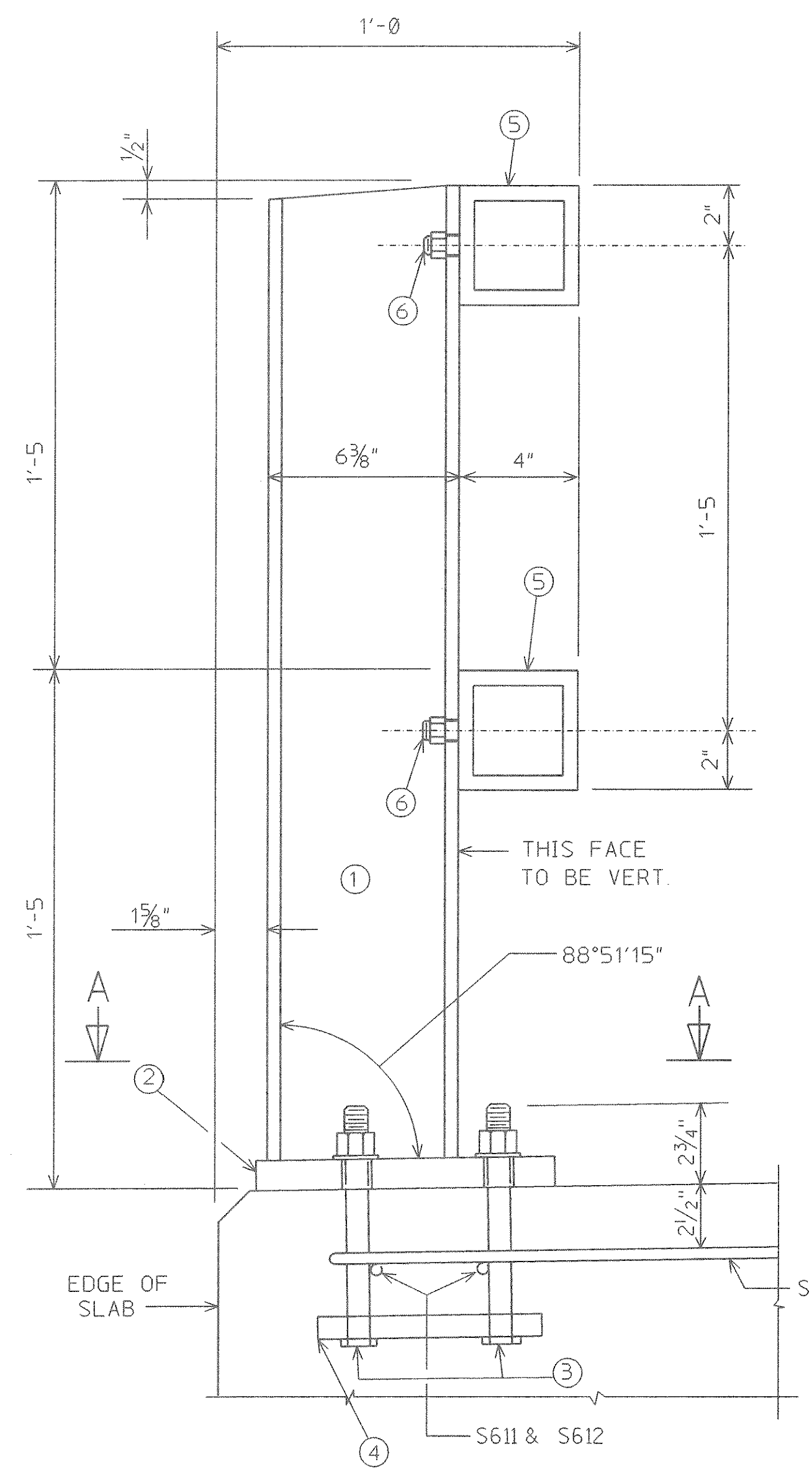
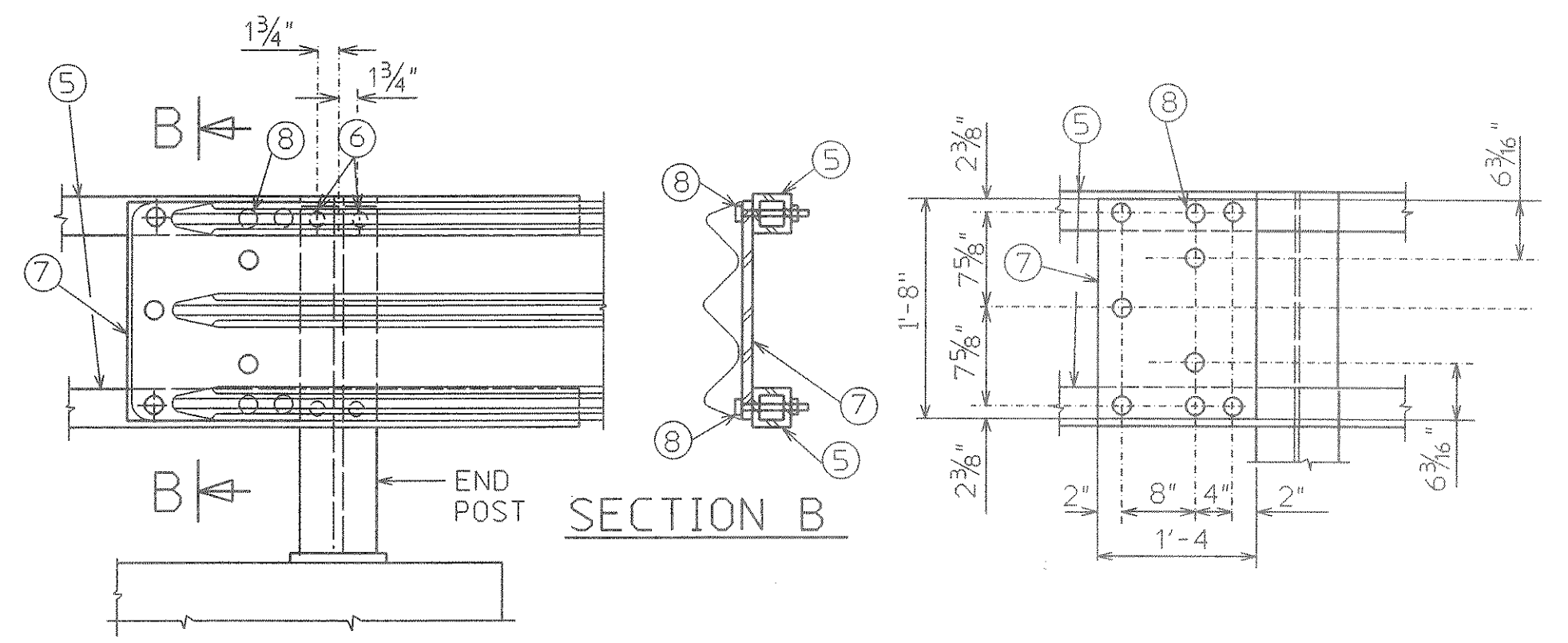


**LEGEND**

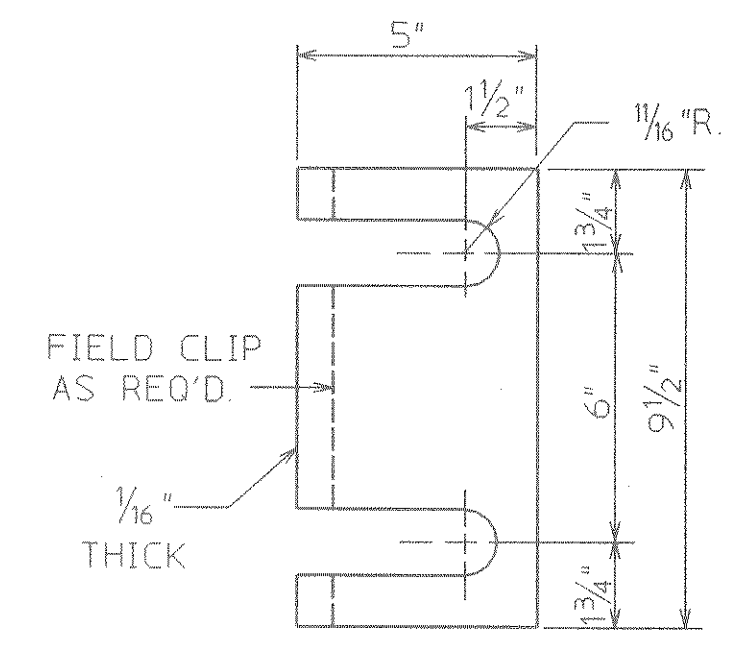
- ① W6x25 WITH 1/4" DIA HOLES ON EACH SIDE OF POST FLANGE FOR STUD NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1"x9 1/2"x0'-10", WITH 1/16" x 1 1/2" SLOTTED HOLES FOR ANCHOR BOLTS NO 3 WELD TO NO 1 AS SHOWN.
- ③ A325 - 7/8" DIA. HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 4 REQ'D PER POST THREAD 3" AND PLACE NORMAL TO PLATE NO 2 CHAMFER TOP OF BOLTS BEFORE THREADING
- ④ 1/4" X 8" X 8" FLAT PLATE WITH 5/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3. AND 5" DIA. CENTER PUNCHED HOLE.
- ⑤ TS 4x4x 25 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A501 OR A500 GRADE B. ATTACH TO NO. 1 WITH STUDS NO. 6.
- ⑥ 5/8" DIA x 1 1/2" LG SHOP WELDED STUDS, WITH HEX NUT AND 2" WASHERS 4 PER POST REQ'D (2 REQ'D. AT EACH LOCATION)
- ⑦ PLATE 3/4"x1'-4"x1'-8". REQUIRED AT THRIE BEAM ATTACHMENTS ONLY.
- ⑧ 1" DIA HOLES IN PLATE NO. 7 AND TUBES FOR 7/8" DIA A325 BOLTS W/HEX NUTS AND WASHERS.
- ⑨ SQUARE SLEEVE FABRICATED FROM 1/4" PLATE PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 3 13/32".
- ⑩ TS 3x3x 25x(2'-4" AT ABUT.) & (1'-10" AT FIELD JOINTS) LONG PROVIDE 1/2" DIA SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 5. PROVIDE 3/8" DIA x 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.



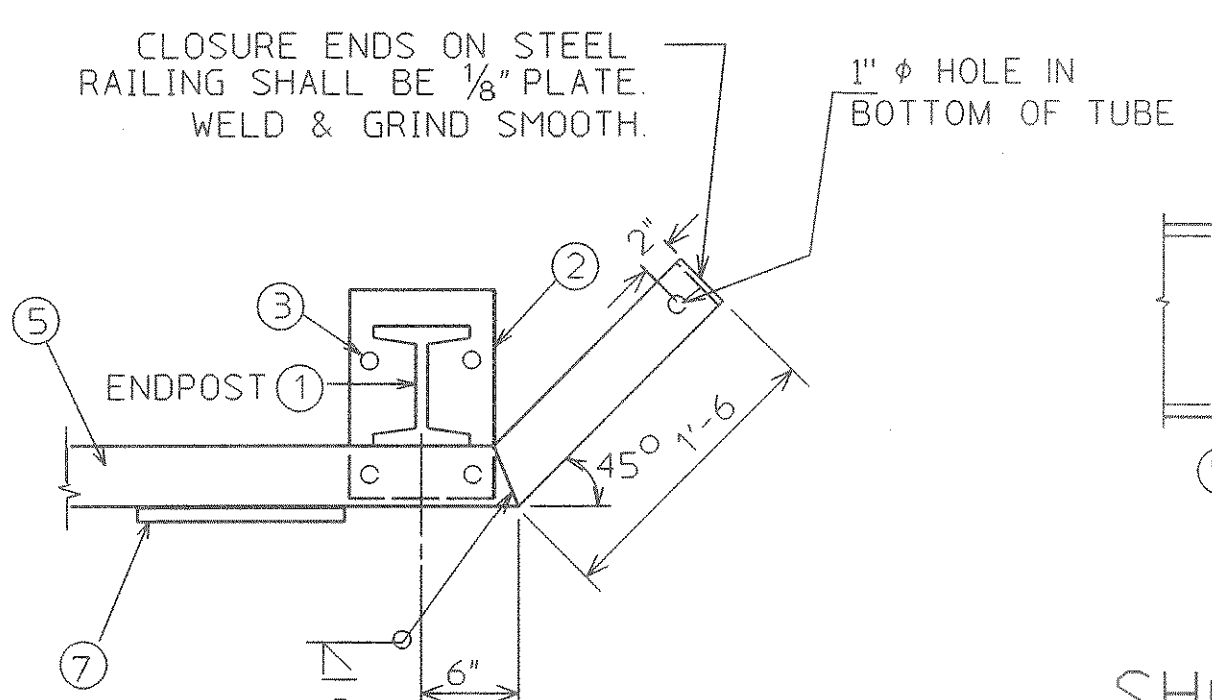
**SECTION THRU RAILING**



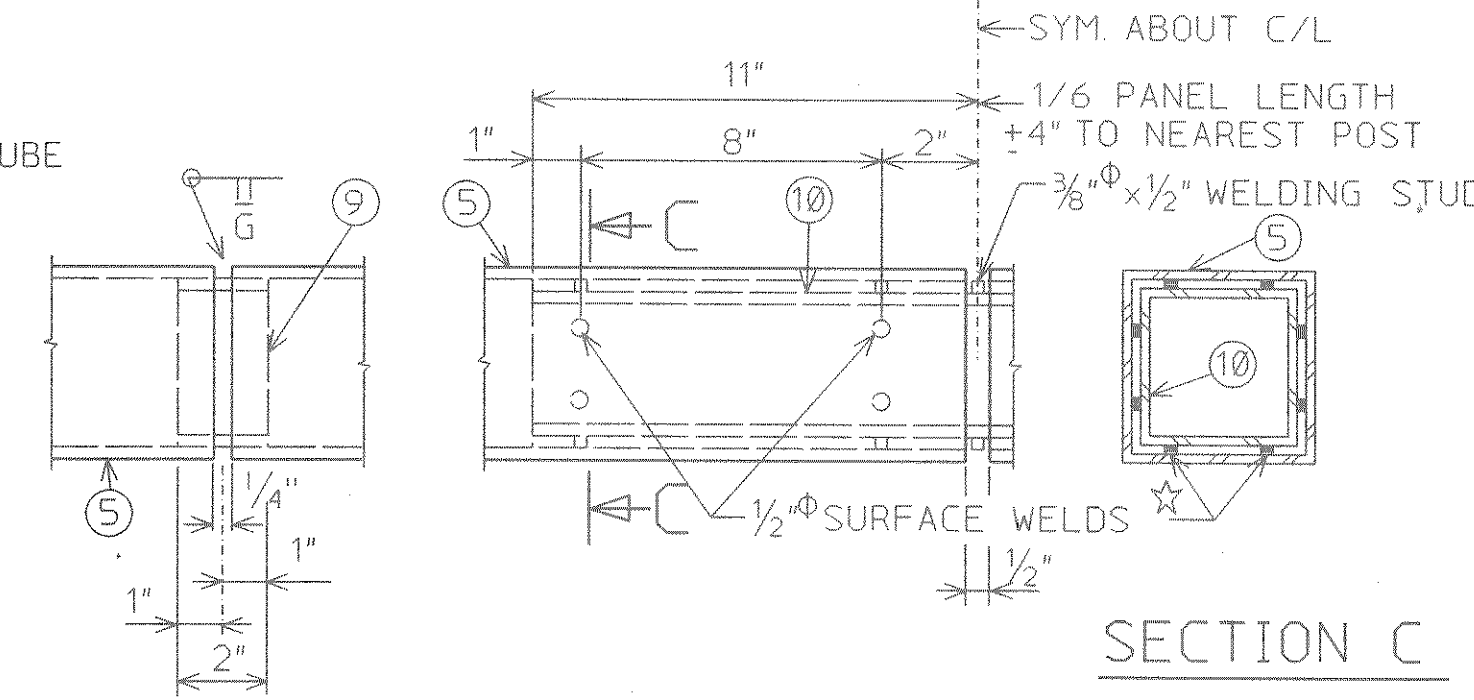
**DETAIL AT END POST**  
(THRIE BEAM RAIL ATTACHMENT)



**POST SHIM DETAIL**  
(4 PER POST)

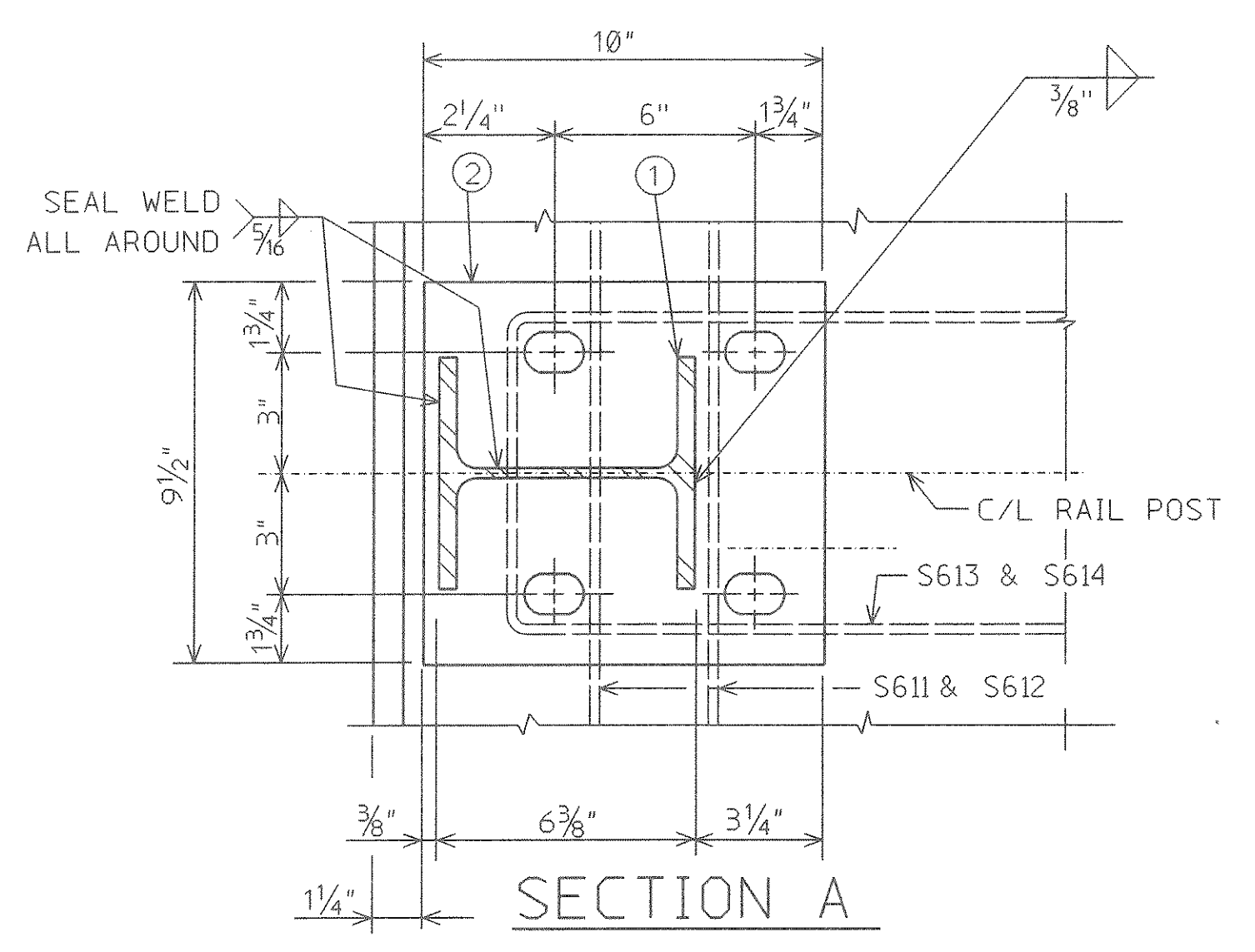


**END DETAIL**

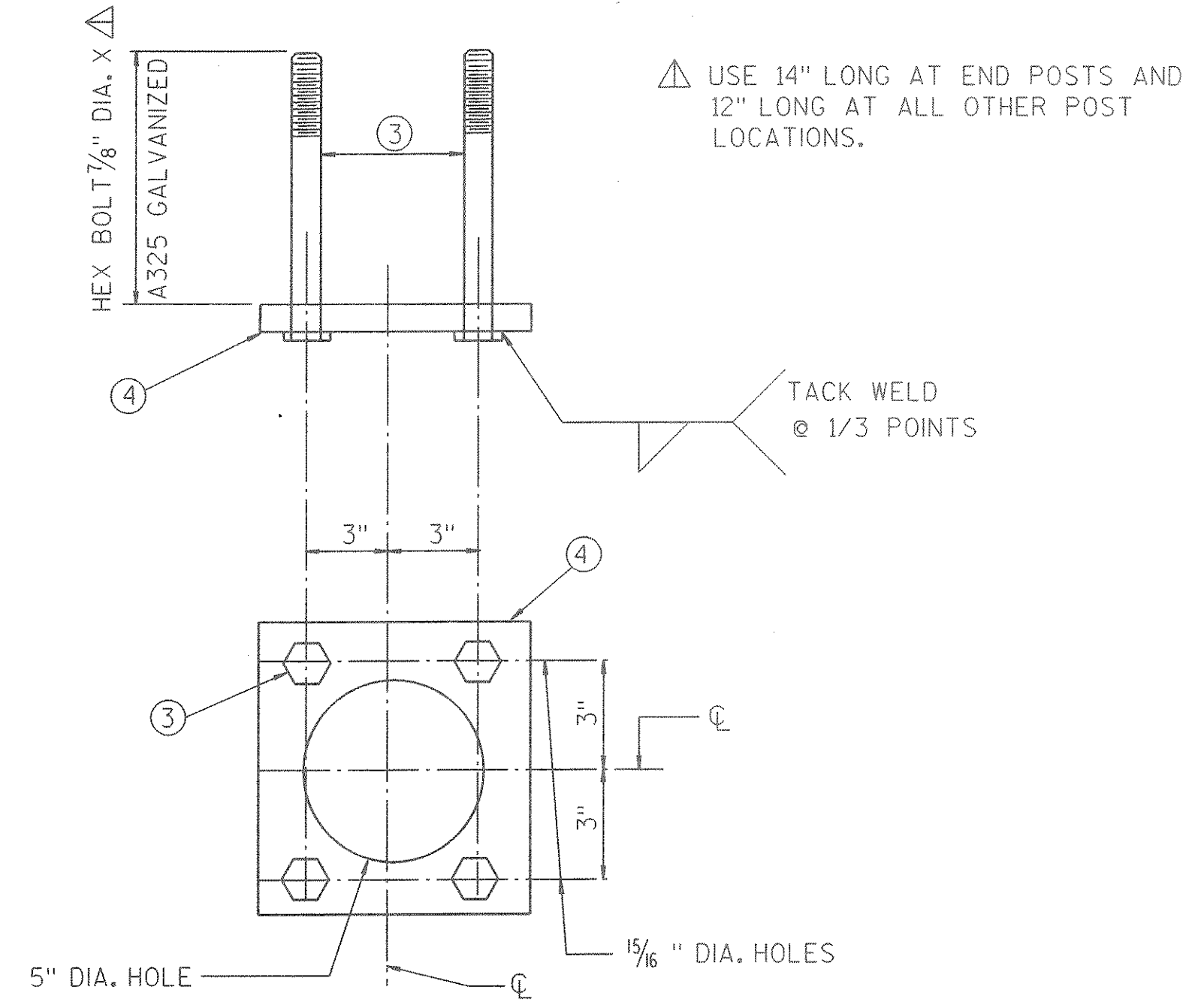


**SHOP RAIL SPLICE DETAIL**  
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

**FIELD ERECTION JOINT DETAIL**  
★ MIN 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



**SECTION A**



**ANCHORAGE DETAIL**

**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, NO 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 ANCHORAGE ASSEMBLIES SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE A36 UNLESS NOTED OTHERWISE.

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

PRIOR TO GALVANIZING, ALL STEEL RAILING MEMBERS 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.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-35-129			
CONST. SPEC.	1989	DRAWN BY NJA	PLANS CK'D CJB
TUBULAR RAILING TYPE 'F'			SHEET 7 OF 7