

LEGEND

- ① W6X25 WITH 1/4" ϕ HOLES ON EACH SIDE OF POST 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" X 9/2" X 0'-10", WITH 1/16" X 1/2" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ A325 - 7/8" ϕ 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. USE 1'-2" LONG AT END POSTS AND 1'-0" LONG AT ALL OTHER POST LOCATIONS.
- ④ 1/4" X 8" X 8" FLAT BAR, WITH 15/16" ϕ HOLES FOR ANCHOR BOLTS NO. 3.
- 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" ϕ X 1/2" LONG SHOP WELDED STUDS, WITH HEX. NUT AND 2" WASHERS. FOUR PER POST REQ'D. (TWO REQ'D. AT EACH LOCATION).
- ⑦ PLATE 3/8" X 1'-4" X 1'-8". BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THREE BEAM ATTACHMENTS ONLY. PLACE SYMETRICALLY ABOUT TUBES NO. 5.
- ⑧ 1" ϕ HOLES IN PLATE NO. 7 AND TUBES NO. 5 FOR 7/8" ϕ A325 BOLTS WITH HEX NUTS AND WASHERS.
- ⑨ SQUARE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 3 5/8" .
- ⑩ TS 3 X 3 X .25 X 1'-10" LONG. PROVIDE 1/2" ϕ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 5. PROVIDE 3/8" ϕ X 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

GENERAL NOTES

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

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS. 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.

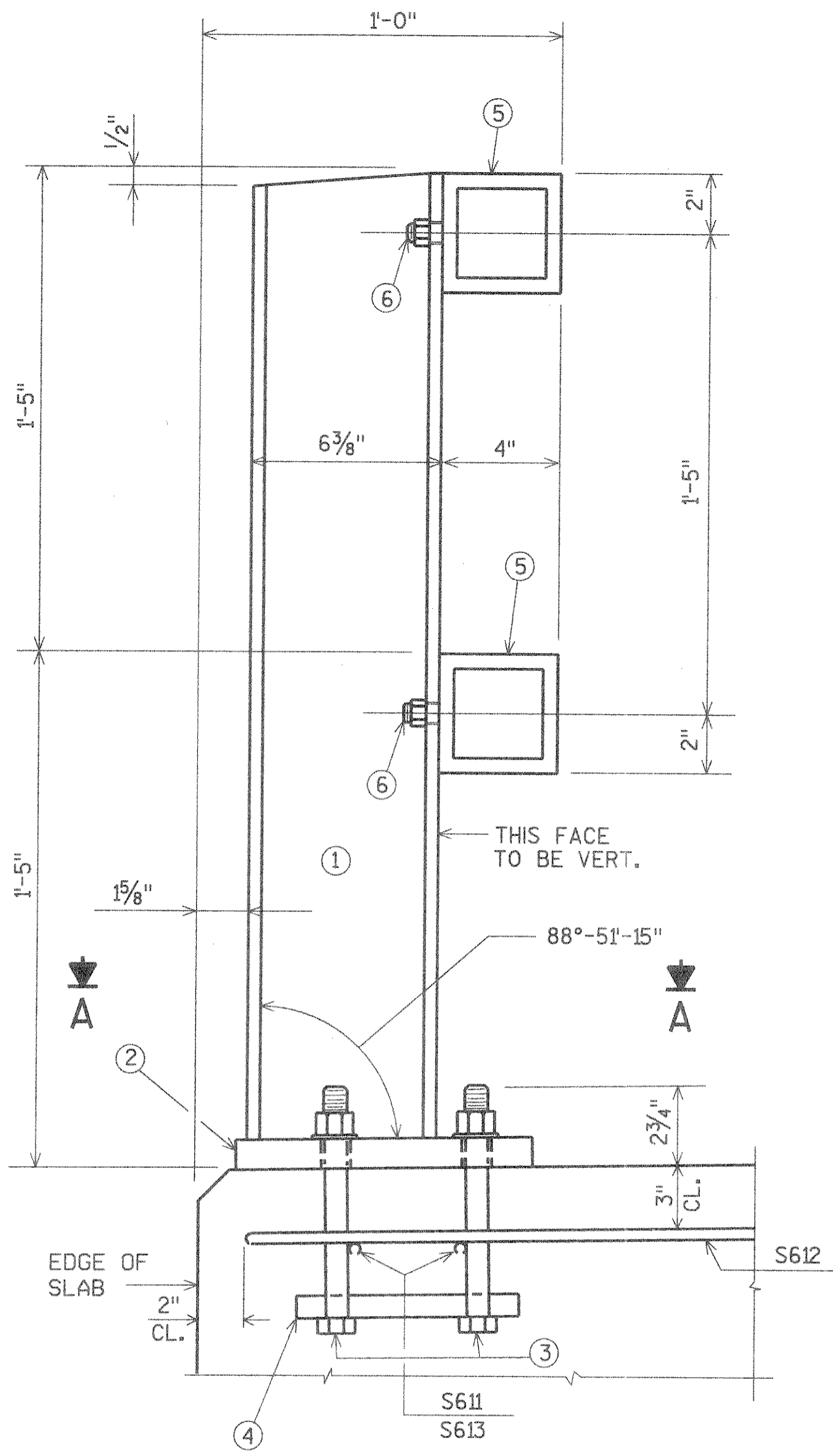
ALL MEMBERS EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING OF NO. 4 IS NOT REQUIRED.

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

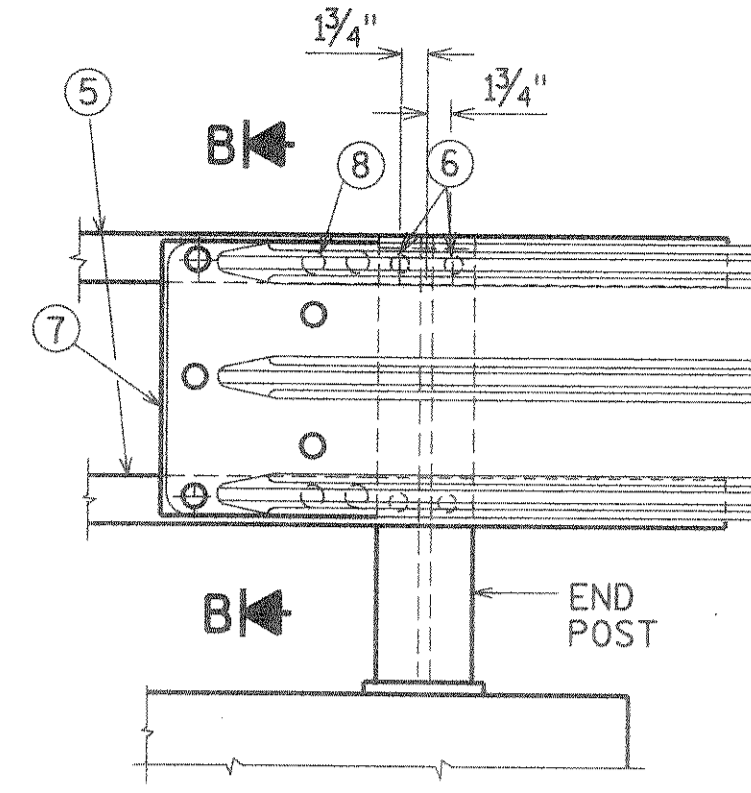
ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

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

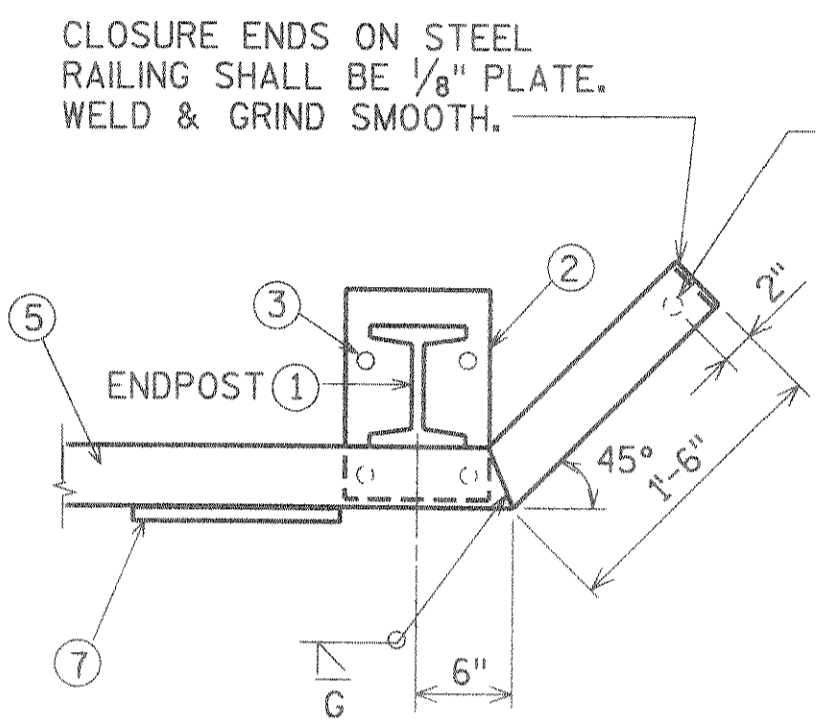
PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.



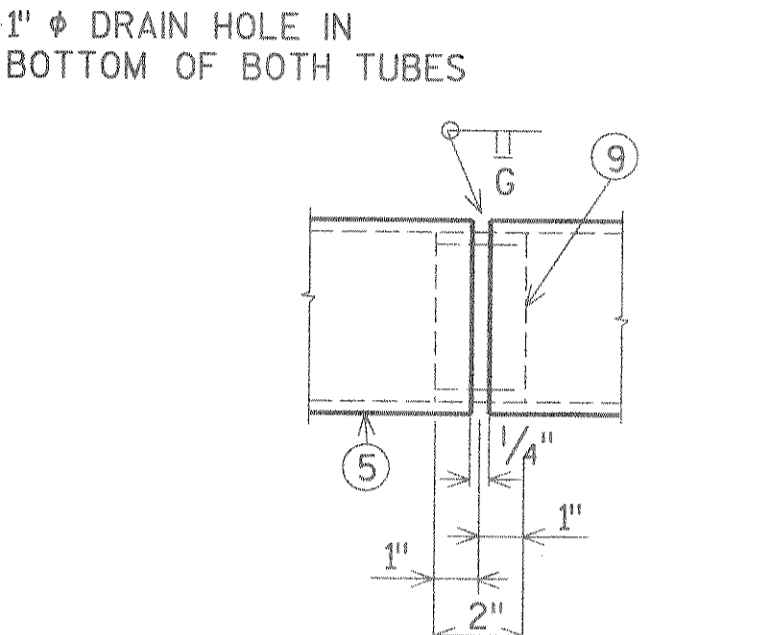
SECTION THRU RAILING



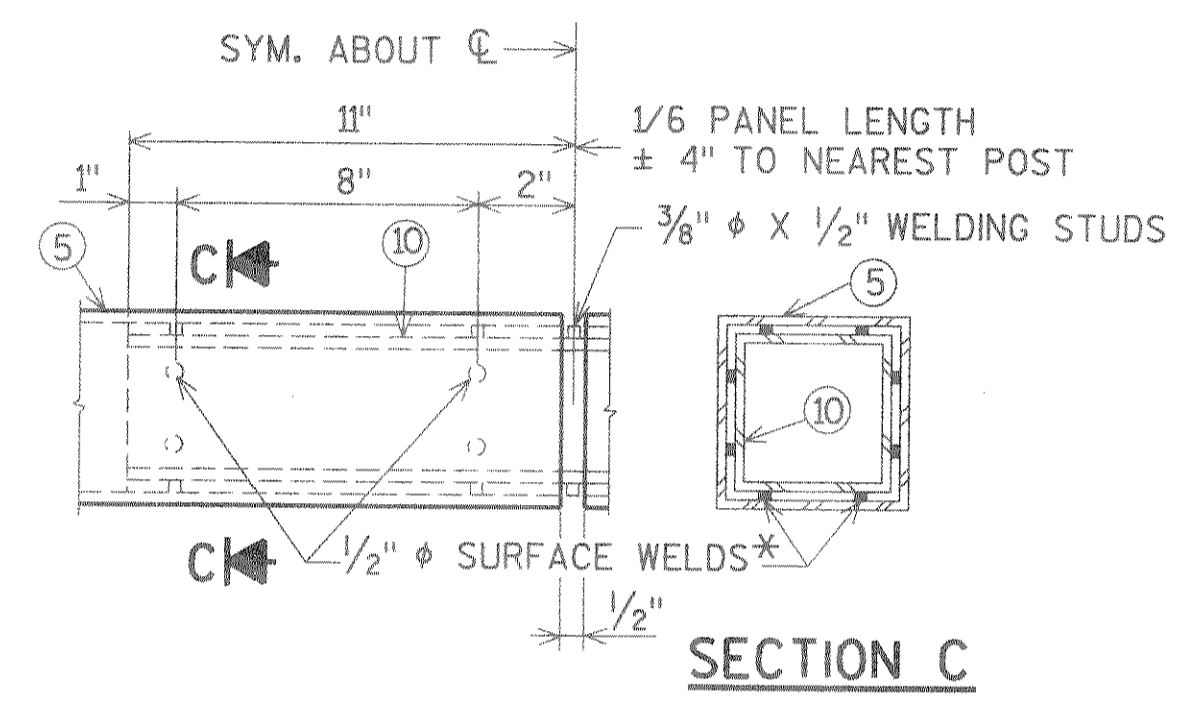
**DETAIL AT END POST
(THREE BEAM RAIL ATTACHMENT)**



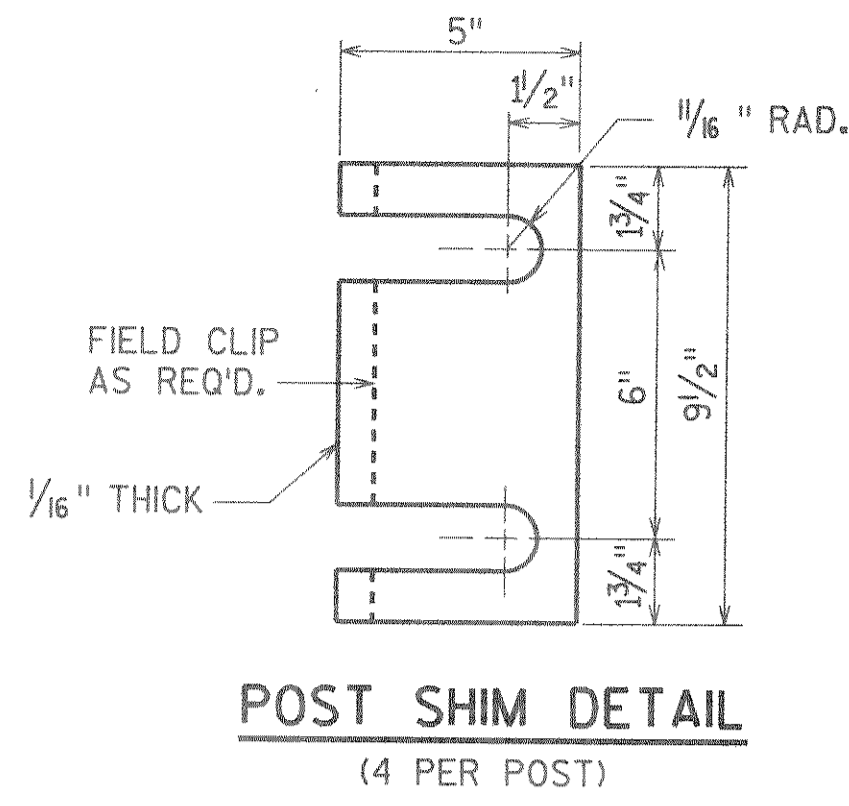
DETAIL FOR END POSTS



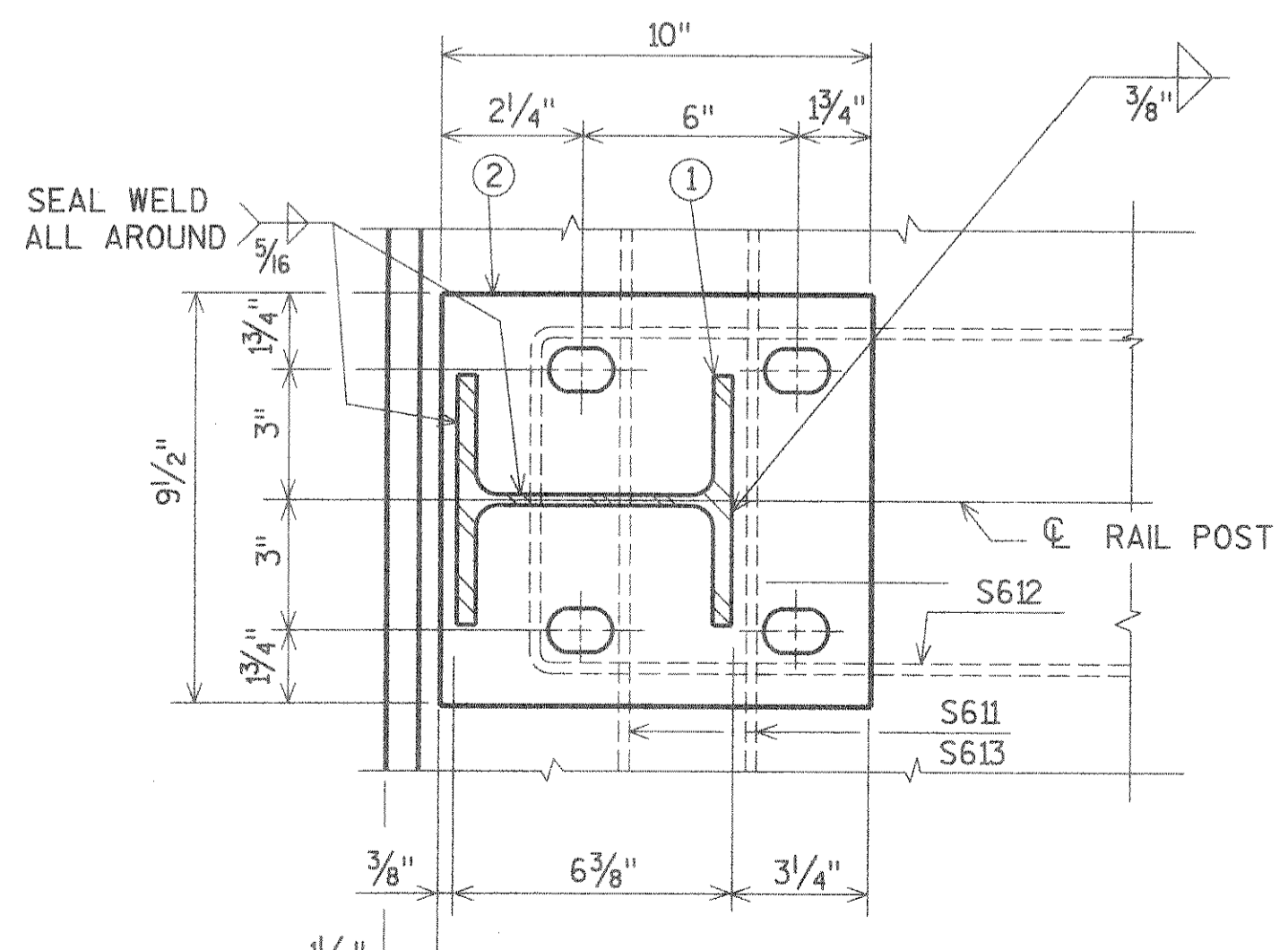
**SHOP RAIL
SPLICE DETAIL**
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



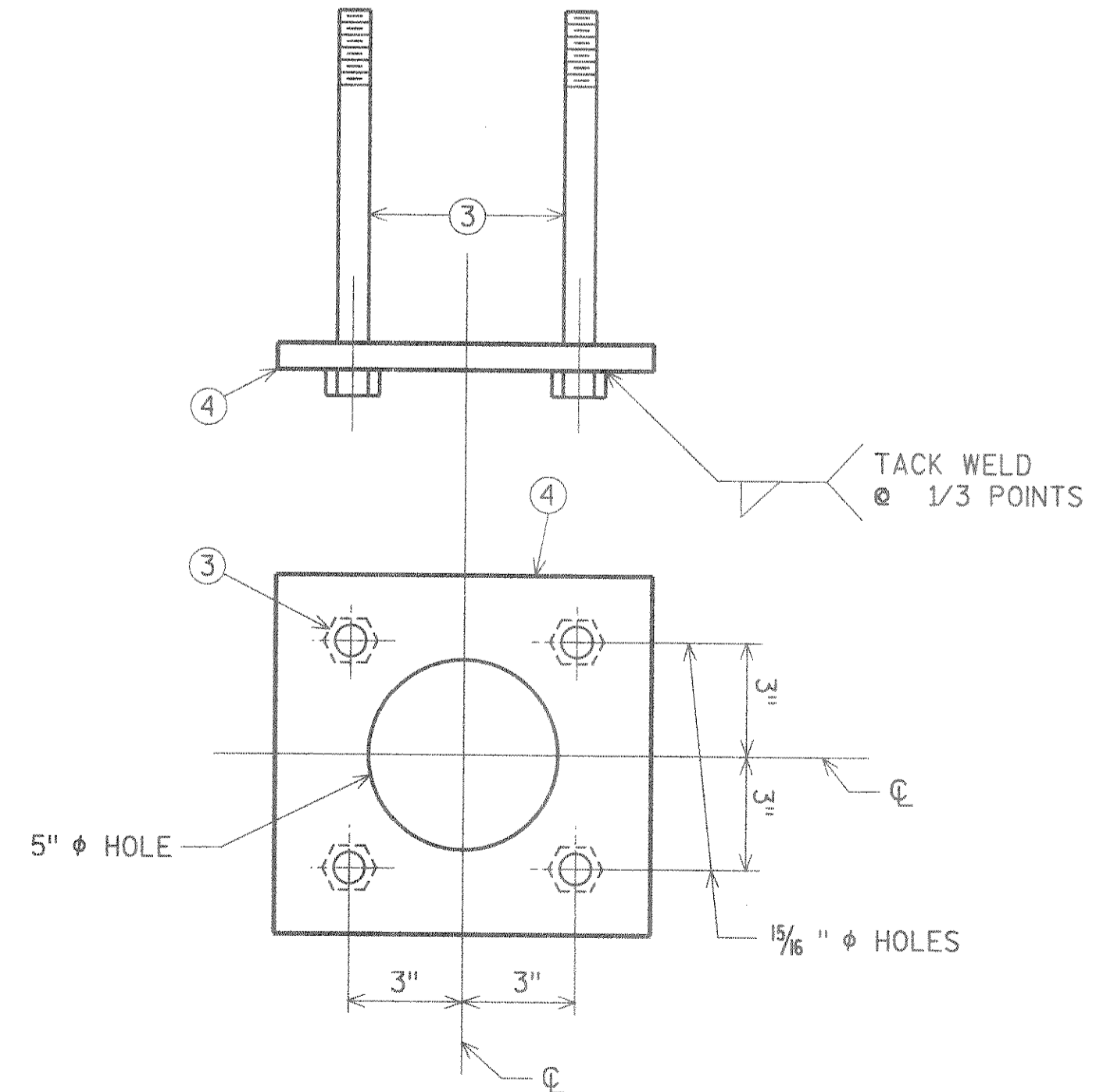
**FIELD ERECTION
JOINT DETAIL**
*MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



POST SHIM DETAIL
(4 PER POST)



SECTION A



ANCHORAGE DETAIL

PEN TABLE = collgbr.tbl
 DATE OF PLOT = 01/21/94
 DESIGN FILE IS /usr/work/ttbrldge/5020sup.dgn
 DGN LEVELS ON = 1-63

REF NC
REFLC

REFERENCE FILES
REF NB
REFLN

REF NA
REFLA

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

No.	Date	Revision	By
PLANS PREPARED BY			
AYRES Engineers/Architects Planners/Surveyors ASSOCIATES Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-35-125			
Const. Spec.	1989	Drawn By CLS	Plans Checked C.B.M.
TUBULAR RAILING TYPE 'F'			SHEET 7 OF 7