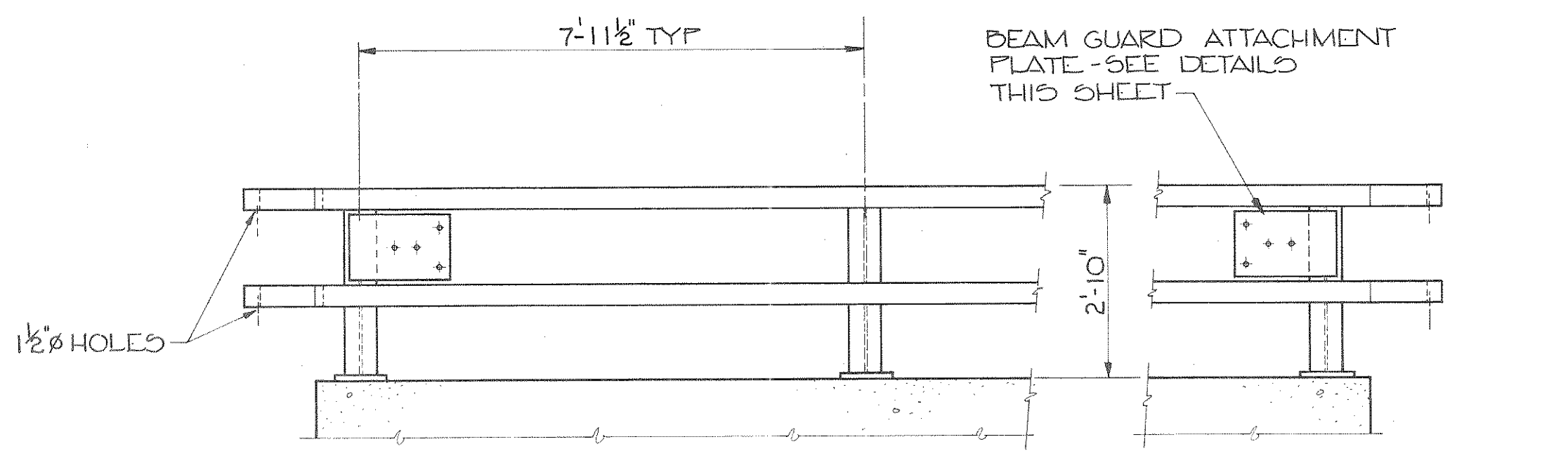
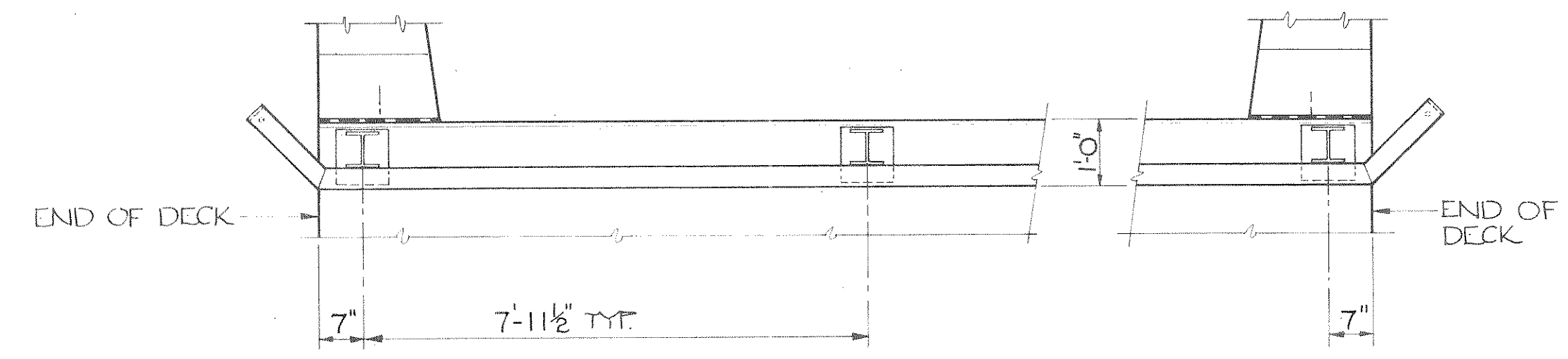


GENERAL NOTES

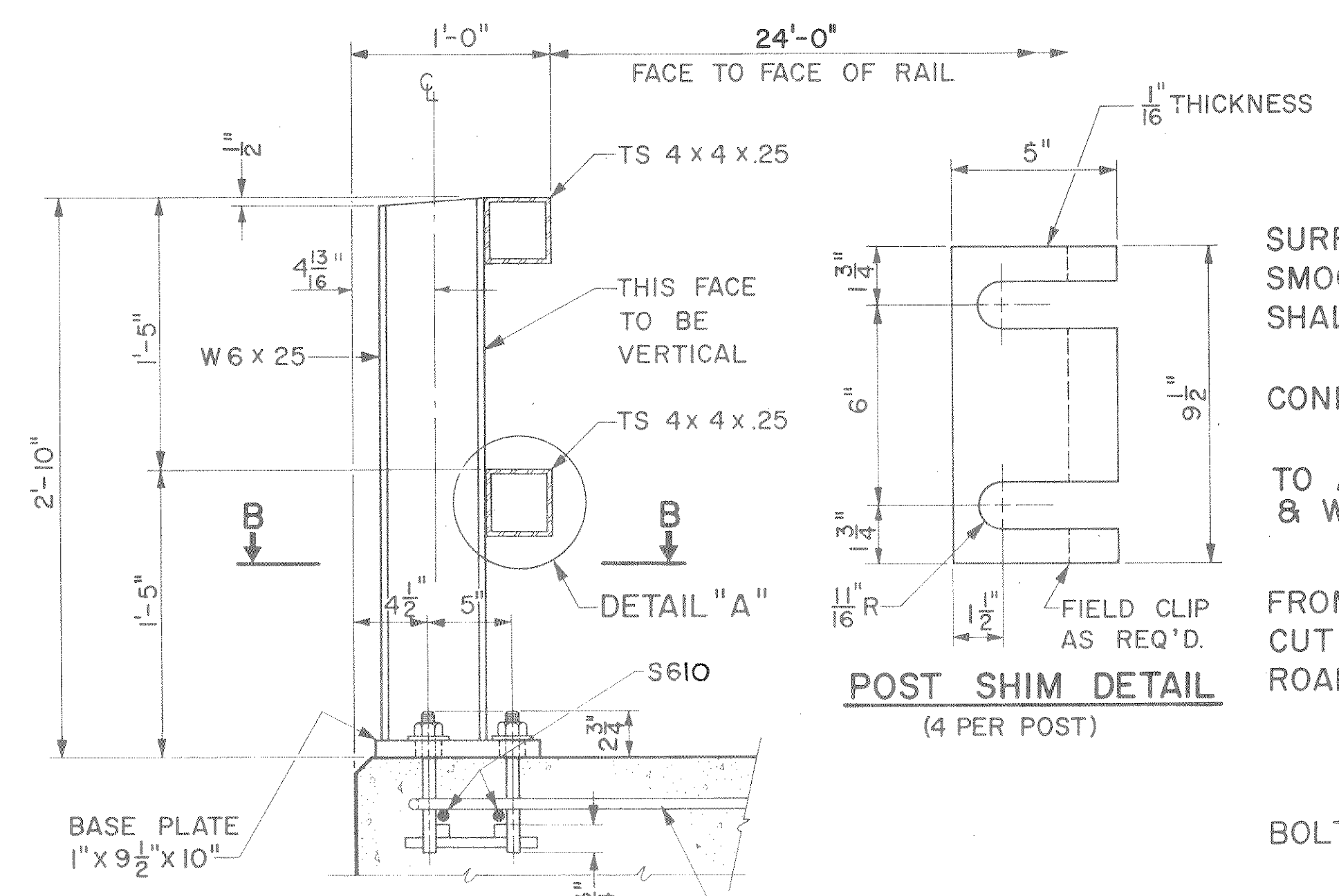
1. BID ITEM SHALL BE 'TUBULAR RAILING, TYPE F'
2. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
3. RAILING SHALL BE 4 x 4 x .25 STRUCTURAL TUBING CONFORMING TO A.S.T.M. DESIGNATION A36.
4. ANCHOR BOLTS SHALL BE 7/8" NOMINAL CONFORMING TO A.S.T.M. A449 WITH 3" THREAD AND HIGH STRENGTH NUTS & WASHERS.
5. POSTS, BASE PLATES AND SHIMS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A36. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST NORMAL TO GRADE LINE.
6. PLACE ANCHOR BOLTS NORMAL TO BASE PLATE.
7. ALL MEMBERS, INCLUDING UPPER 4" OF ANCHOR BOLTS, SHALL BE GALVANIZED AFTER FABRICATION.
8. RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.
9. BEAM GUARD ATTACHMENT MAY BE WELDED TO RAILS AND RAILS MAY BE WELDED TO POSTS.
10. FILL POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
11. CALK EXPOSED OPENINGS BETWEEN SHIMS.
12. STEEL SHIMS SHALL BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.
13. PRIOR TO GALVANIZING ALL STEEL RAILING SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.



PARTIAL ELEVATION

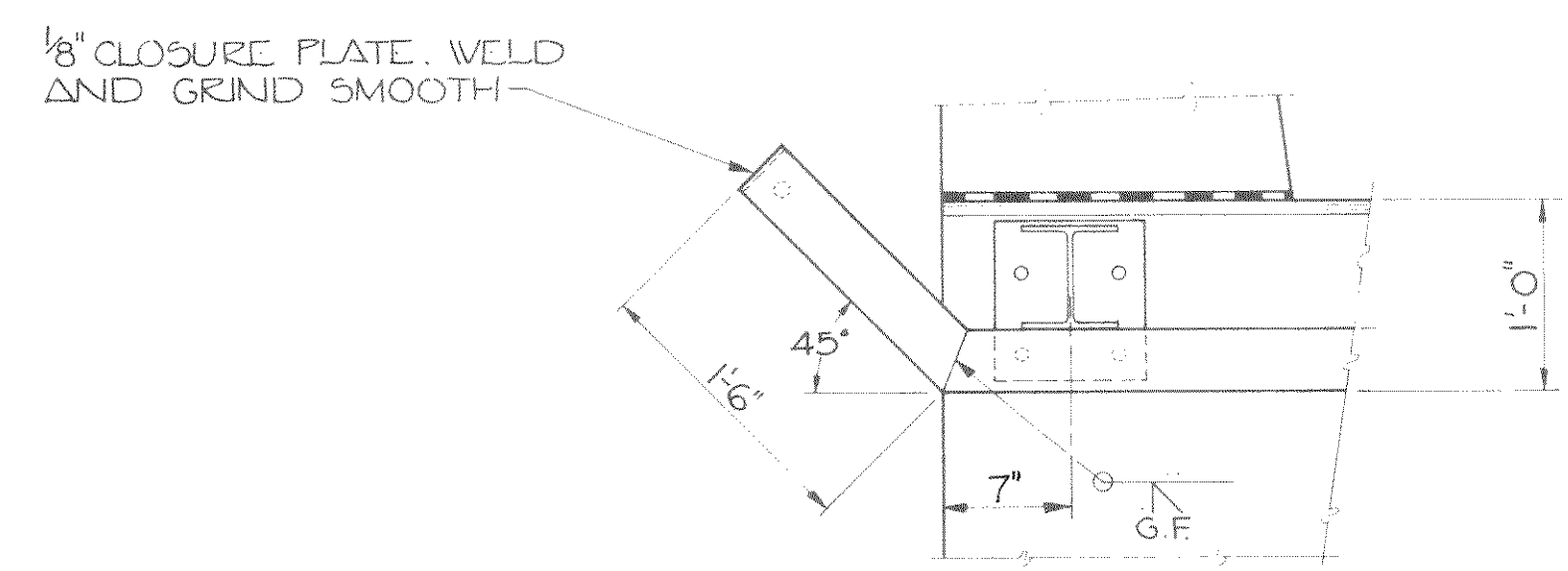


PARTIAL PLAN



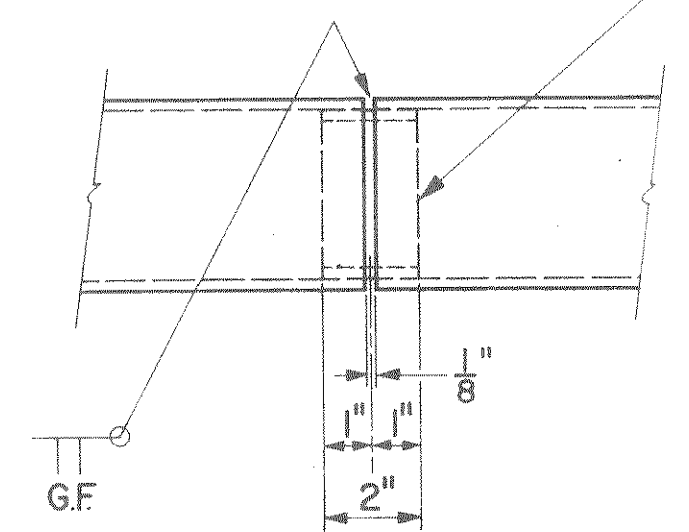
SECTION A

POST SHIM DETAIL
(4 PER POST)



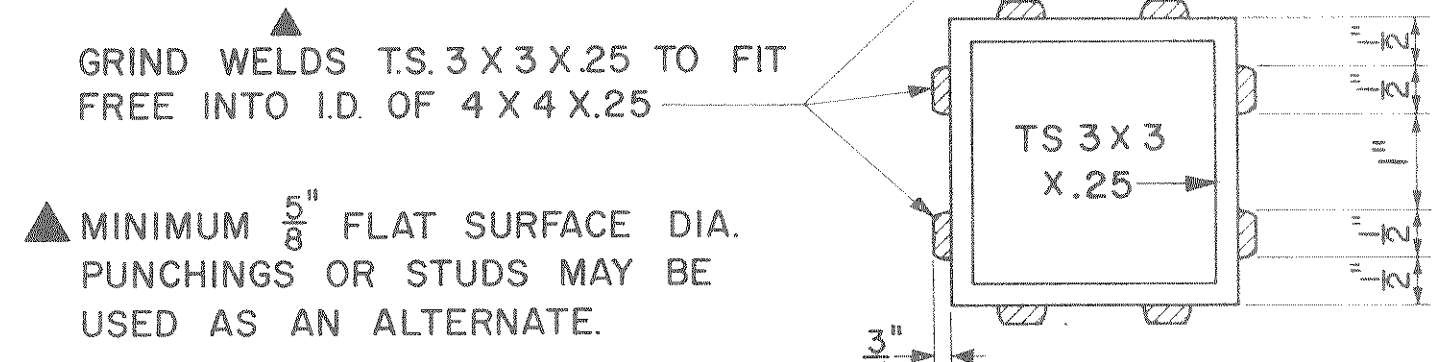
END POST DETAIL

SLEEVE - FABRICATED FROM 1/4" PLATE PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIM. OF 3 13/32"



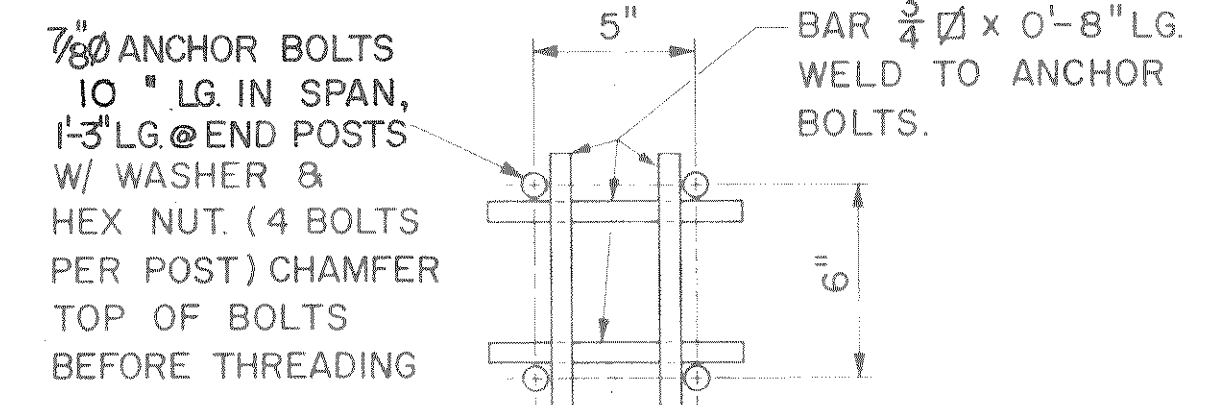
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS



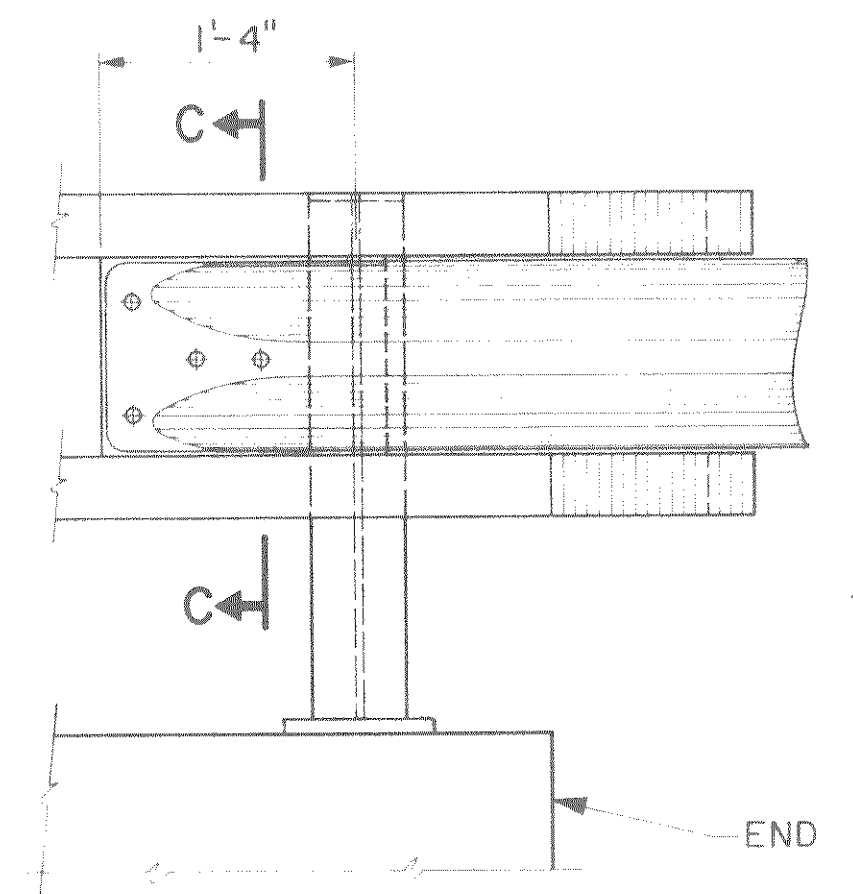
SECTION THRU SLEEVE

GRIND WELDS TS. 3 X 3 X .25 TO FIT FREE INTO I.D. OF 4 X 4 X .25
MINIMUM 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

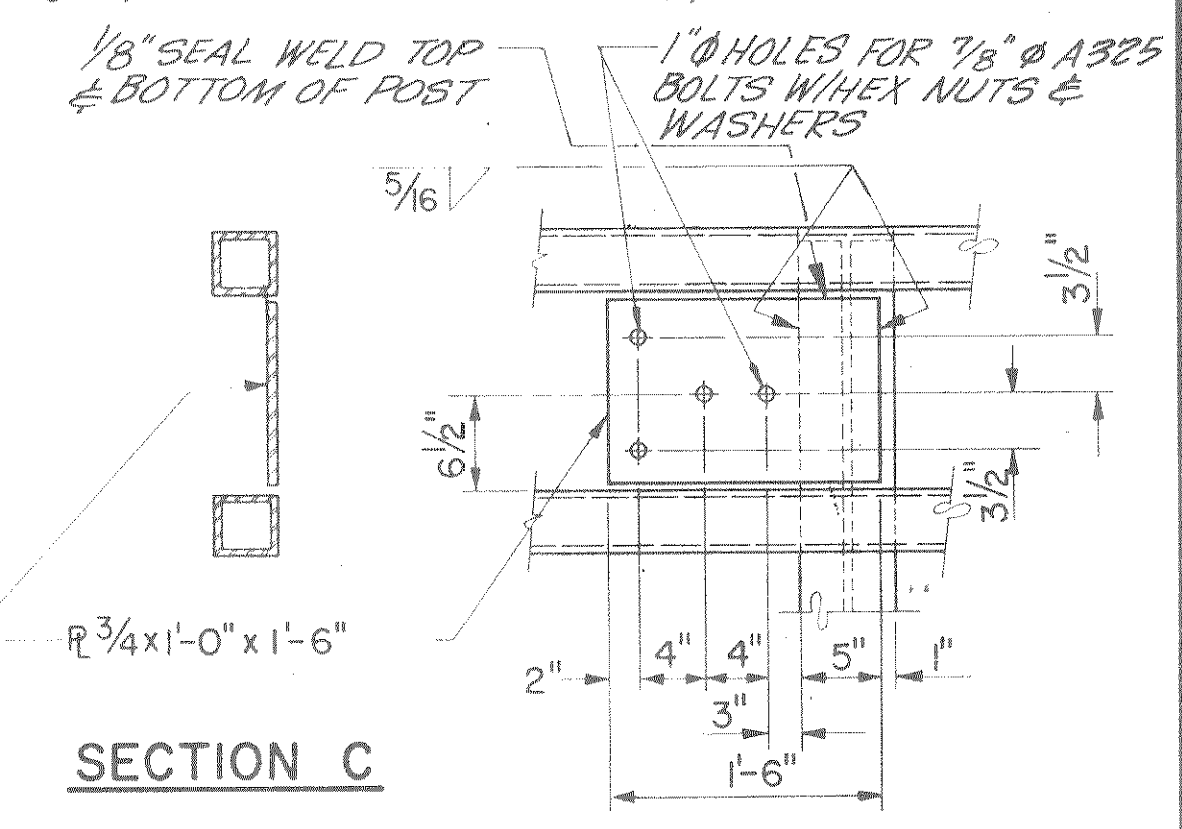


ANCHOR BOLT DETAILS

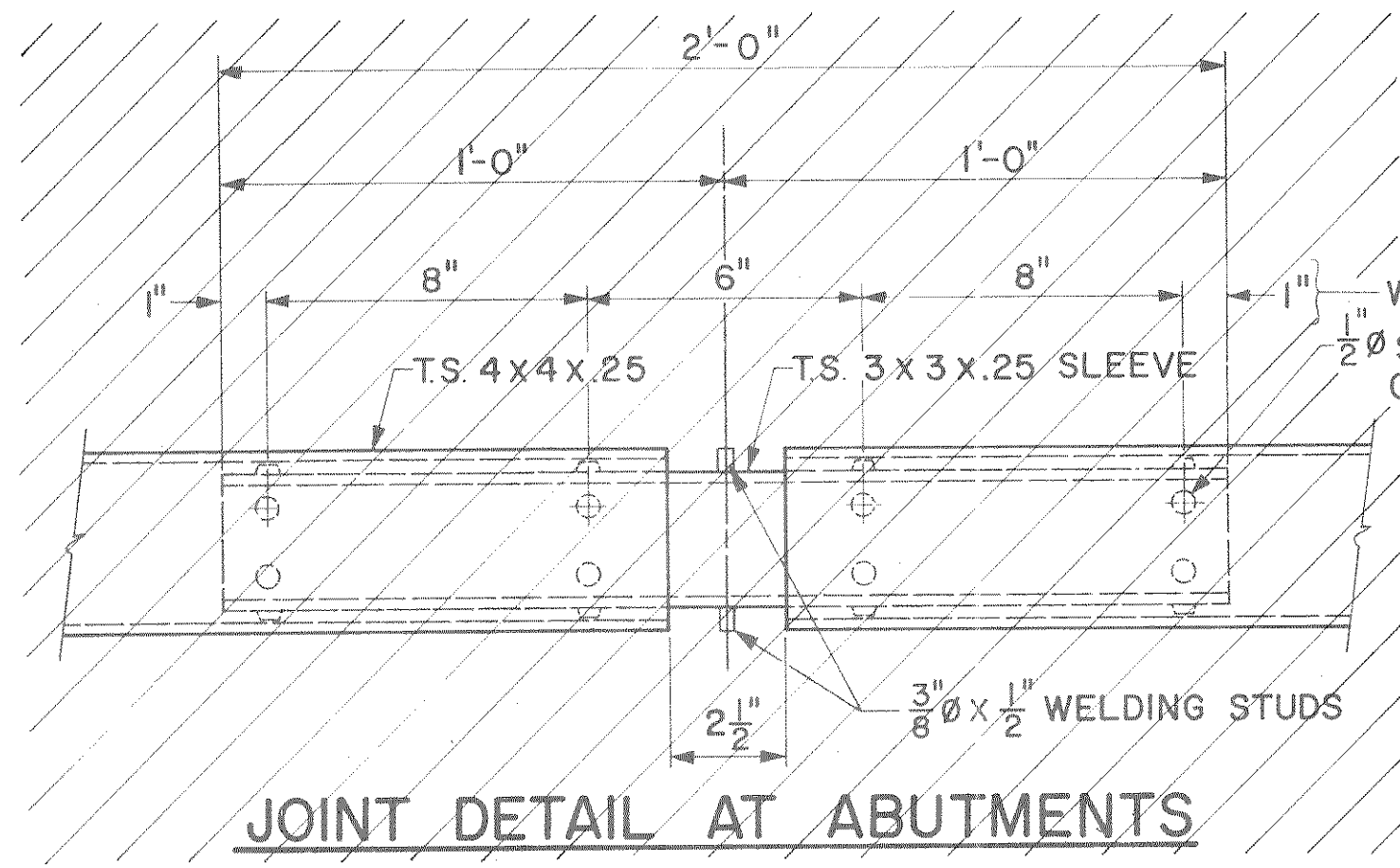
7/8" ANCHOR BOLTS 10" LG. IN SPAN, 1'-3" LG. @ END POSTS W/ WASHER & HEX NUT. (4 BOLTS PER POST) CHAMFER TOP OF BOLTS BEFORE THREADING



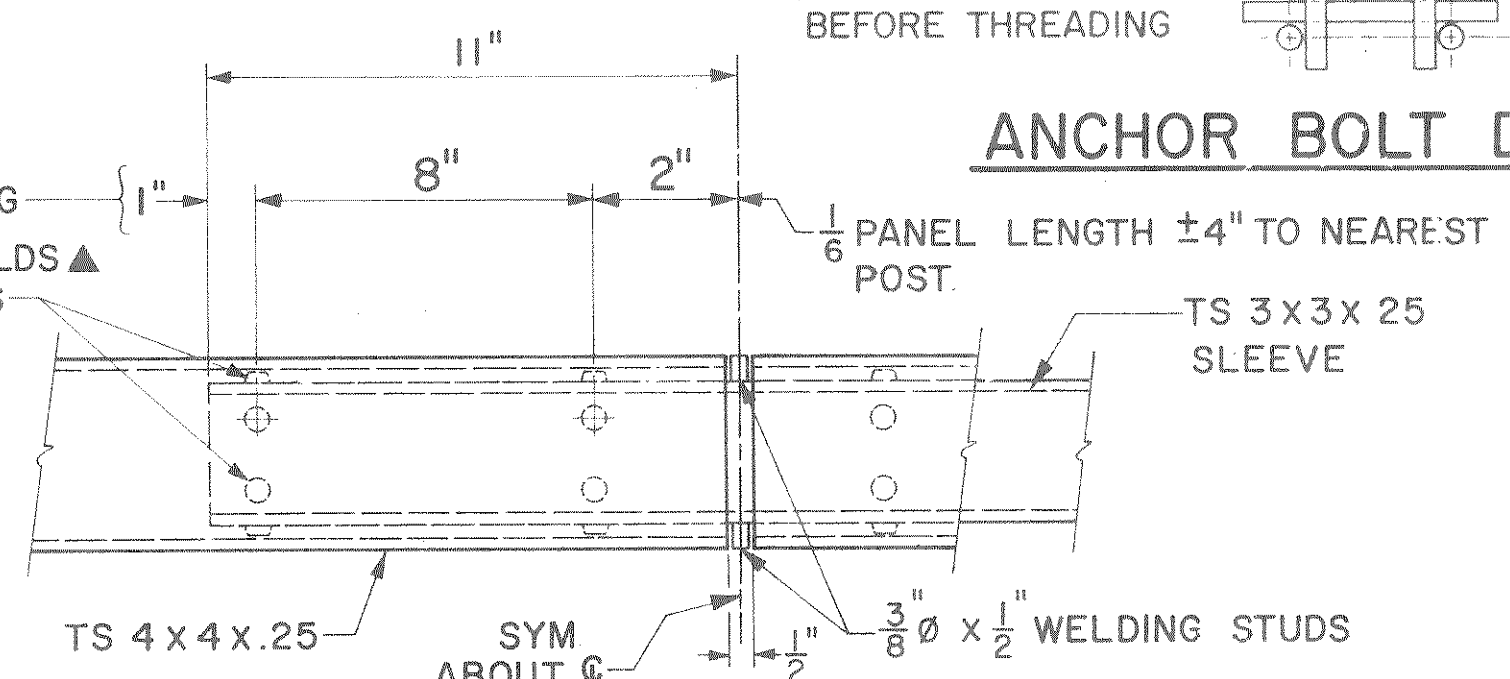
DETAIL AT END POST
(BEAM GUARD RAIL ATTACHMENT)



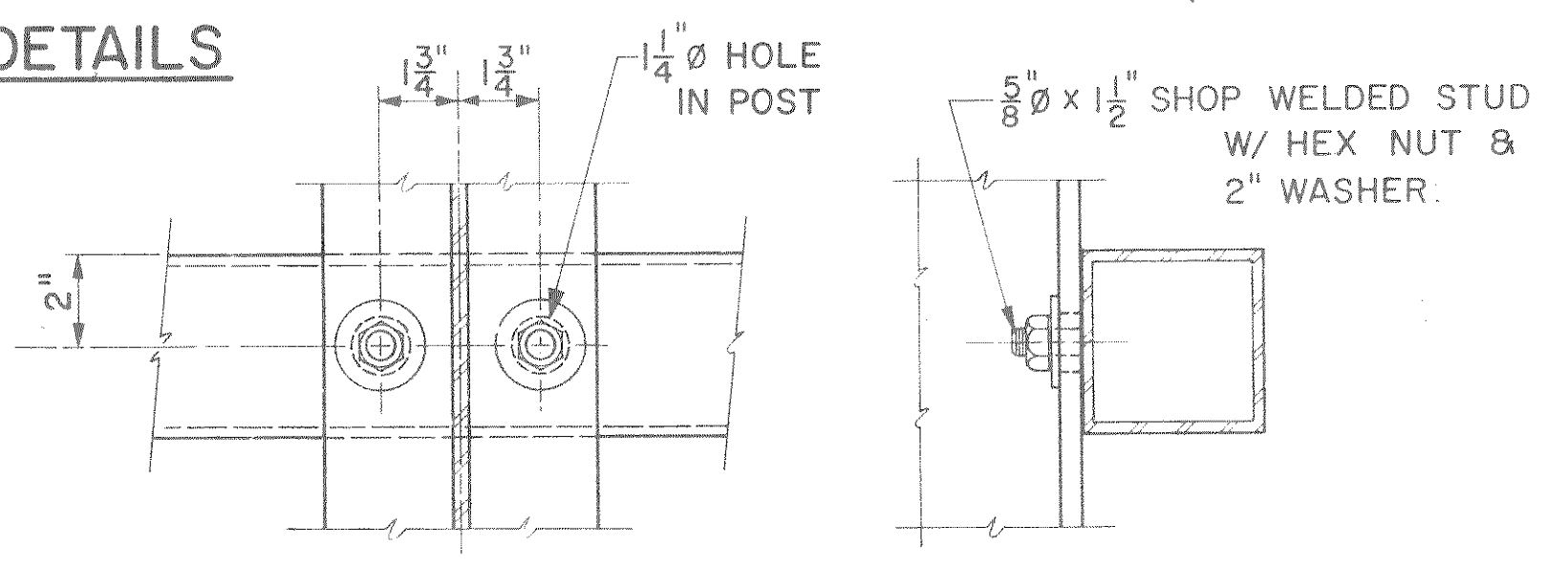
NOTE: BEAM GUARD RAIL ATTACHMENT TO BE INCLUDED IN BID ITEM FOR RAILINGS.



JOINT DETAIL AT ABUTMENTS



FIELD ERECTION JOINT DETAIL



DETAIL "A"

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-89			
Const. Spec.	WIS. '81	Drawn By	S.R.L.
		Plans Checked	L.M.D.
TUBULAR RAILING TYPE "F"			SHEET 6 OF 6
			X77536