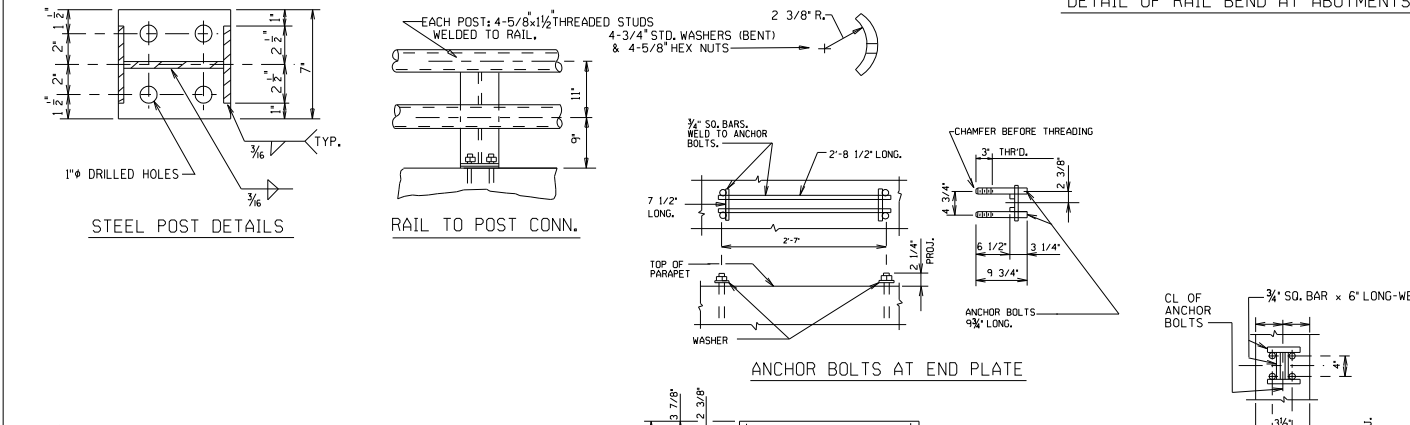


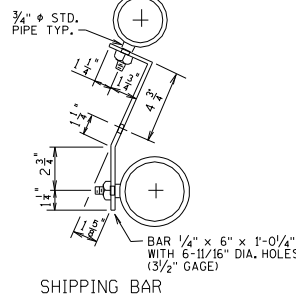
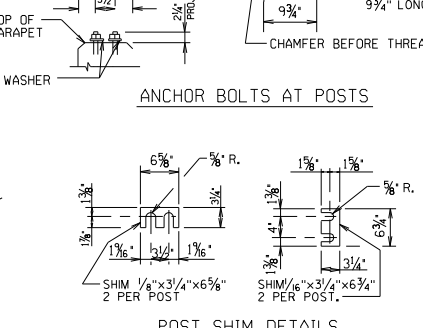
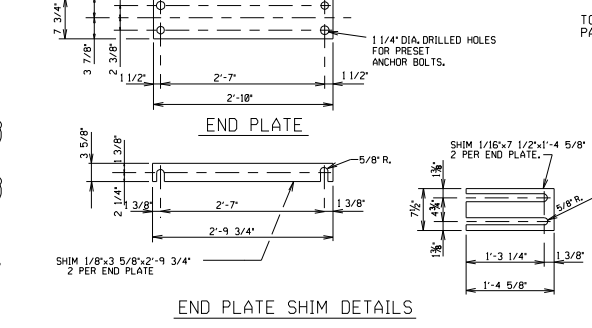
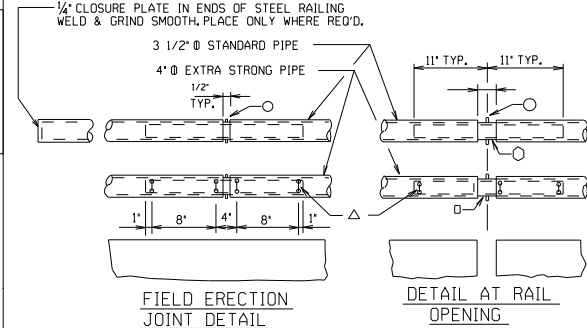
GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE H B..." WHICH INCLUDES ALL ITEMS SHOWN.
- THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF 5/8".
- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 3/2" OF ANCHOR BOLTS.
- CLOSURE ENDS ON STEEL RAILING SHALL BE 1/4" PLATE. WELD AND GRIND SMOOTH.
- RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.
- RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.
- ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.
- SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.
- FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709, GRADE 36.
- ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.
- RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.
- ALL SLEEVE DETAILS SAME AS "FIELD ERECTION JOINT DETAIL" UNLESS SHOWN OTHERWISE.

DETAIL OF RAIL BEND AT ABUTMENTS



- 5/8" x 3/8" WELDED STUDS
- 3" φ STD. PIPE x 1'-10" LONG
- 3" φ EXTRA STRONG PIPE x 1'-10" LONG
- △ 1" CIRCUMF. GRIND BEADS SO THAT 1/2" φ WELD BEADS AT 1/3 PTS. ON PIPE SLEEVE FITS FREELY IN THE I.D. OF 4" φ EXTRA STRONG PIPE.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE			
DRAWN BY		FLANS Cxb.	
TUBULAR RAILING TYPE "H" (STEEL)			SHEET --