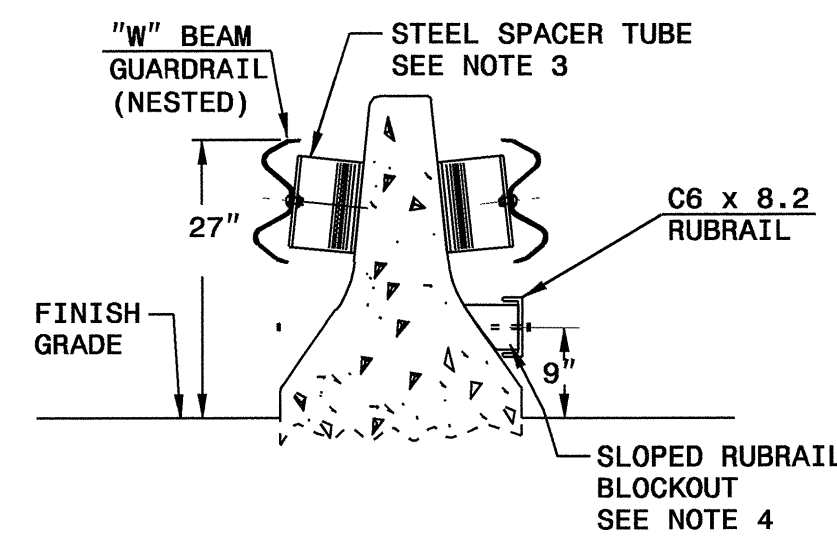
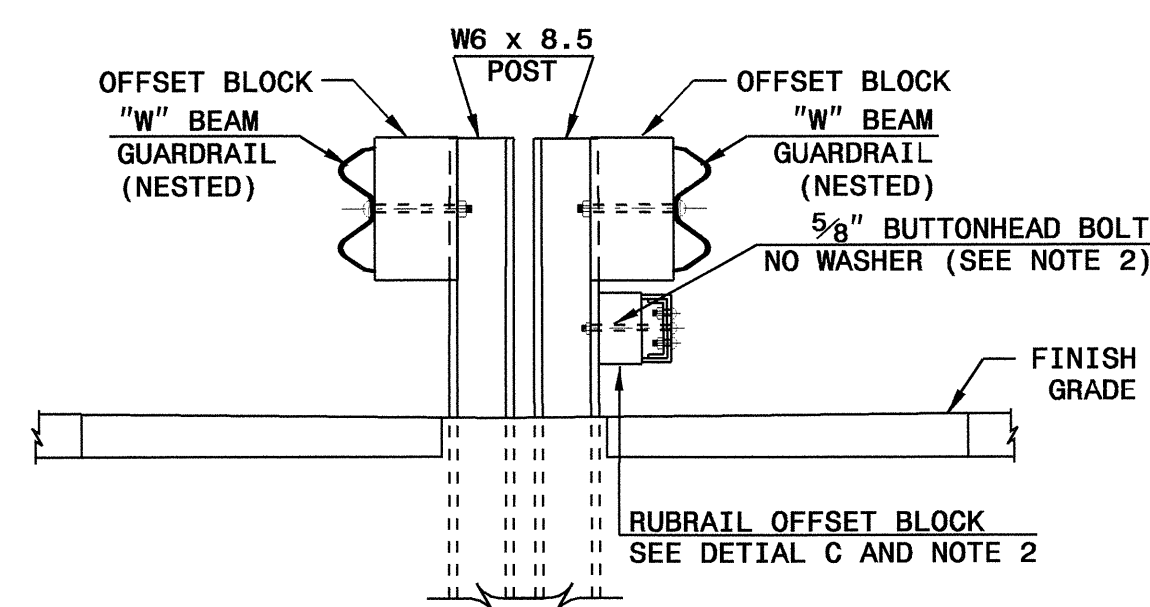


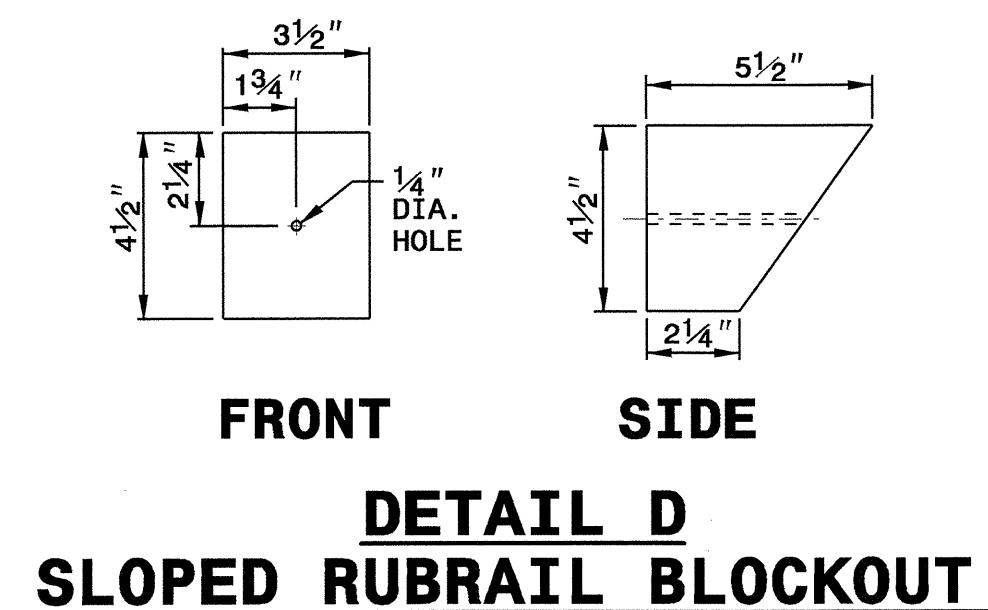
SECTION A-A



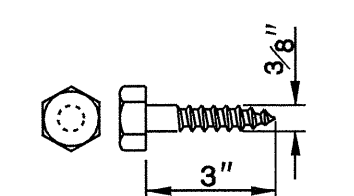
SECTION B-B



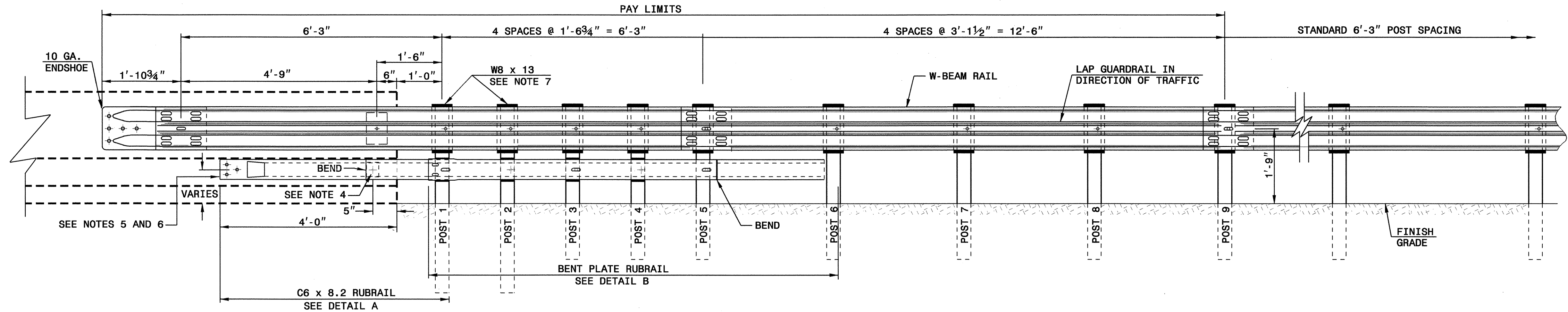
SECTION C-C



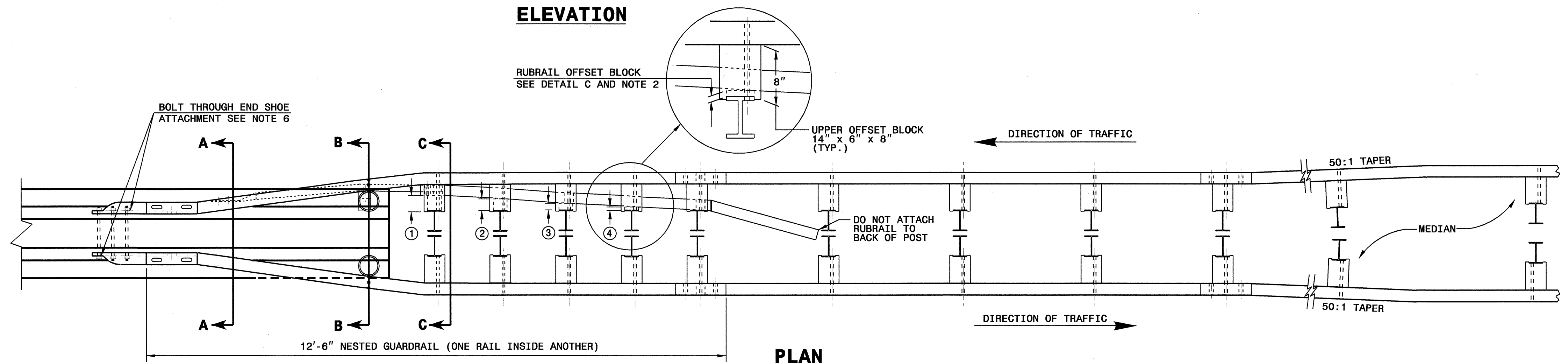
**DETAIL D
SLOPED RUBRAIL BLOCKOUT**



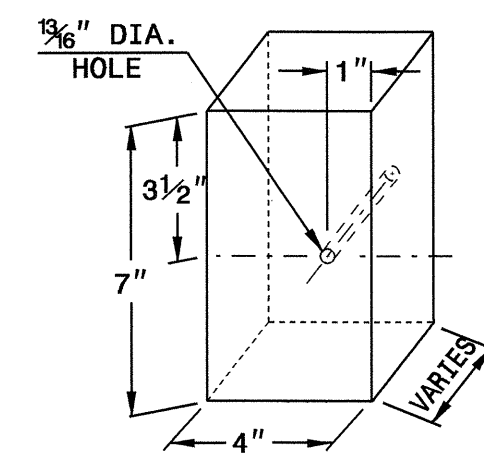
**DETAIL E
LAG BOLT**



ELEVATION



PLAN



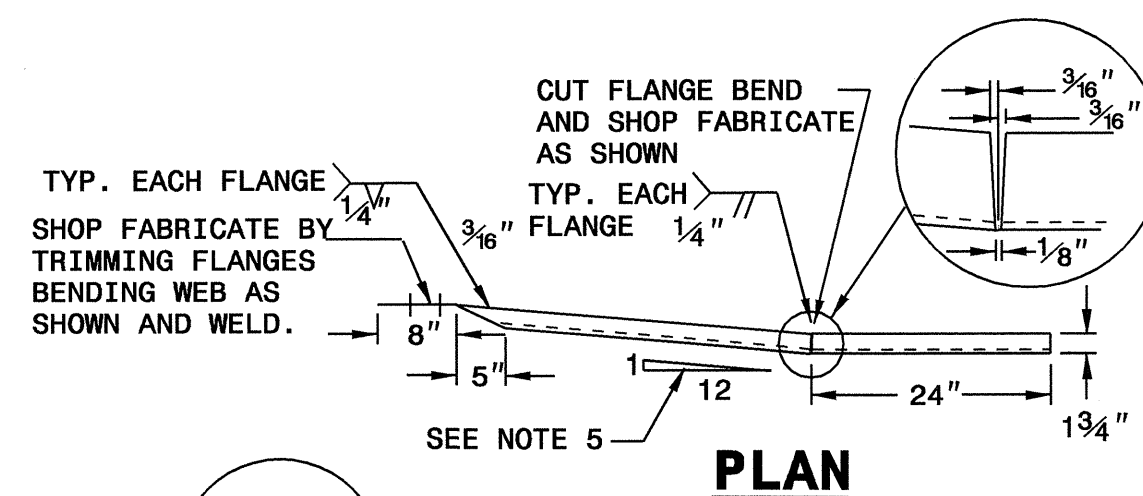
RUBRAIL BLOCKS 7" HIGH x 4" WIDE		
POST	THICKNESS	BOLT LENGTH
①	4 1/4"	9"
②	3 1/4"	5" *
③	2"	6"
④	1"	3" *

* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST. RUBRAIL NOT ATTACHED TO BLOCK.

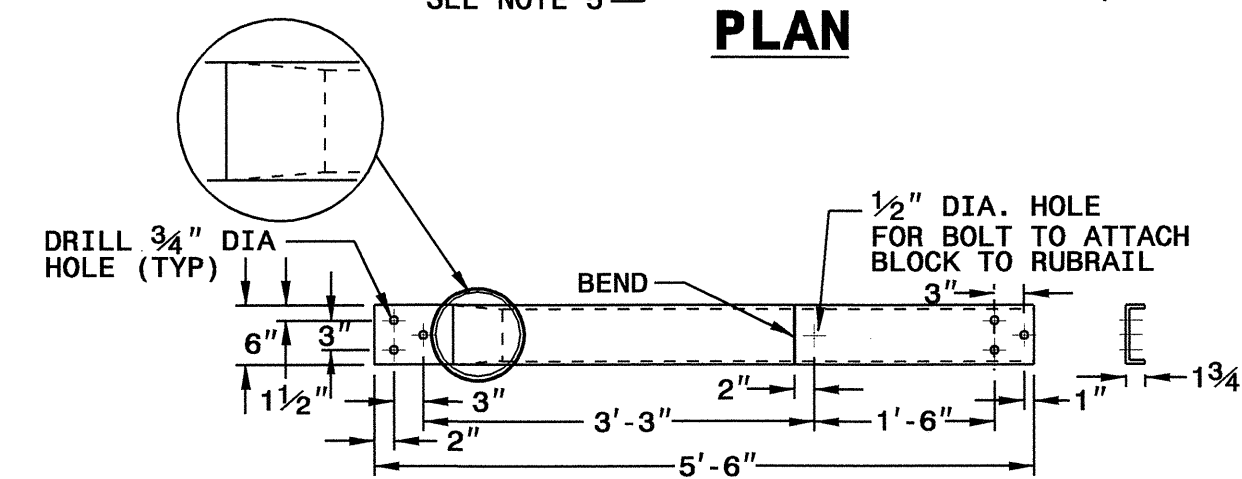
**DETAIL C
RUBRAIL BLOCKOUT**

GENERAL NOTES:

- APPROACH END OF ANCHOR UNIT HAS RUBRAIL. POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
- RUBRAIL BLOCKOUTS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH 5/8" BUTTONEAD BOLTS (SEE CHART FOR BOLT LENGTHS). SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5 WITH A 5/8" x 4 1/2" BUTTONEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
- STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" INSIDE DIAMETER x 9" LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH 5/8" x 1 1/4" LONG BUTTONEAD BOLT AND RECTANGULAR PLATE WASHER.
- SEE DETAIL D FOR SLOPED RUBRAIL BLOCKOUT. BLOCKOUT IS ATTACHED TO RAIL ELEMENT ONLY. USE 3/8" x 3" LAG BOLT WITH FLAT WASHER.
- SHOP FABRICATE THE C6x8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE JERSEY SHAPE AND ATTACH FLUSH WITH THE SLOPED TOE OF THE BARRIER.
- ANCHORAGE:
 - AT NEW OR EXISTING BARRIERS, RUBRAIL SHALL BE ANCHORED USING THREE 5/8" x 6" CHEMICALLY ANCHORED BOLTS WITH WASHERS. MAXIMUM PROJECTION FOR BOLTS SHALL BE 1/2".
 - AT NEW OR EXISTING BARRIERS, THE W-BEAM END SHOE SHALL BE ANCHORED USING FIVE 7/8" CHEMICALLY ANCHORED THREADED RODS WITH NUTS AND WASHERS. MAXIMUM PROJECTION FOR THREADED RODS SHALL BE 1/2". THE W-BEAM END SHOE SHALL BE INSTALLED BEHIND THE NESTED W-BEAM ELEMENTS.
- POSTS 1 AND 2 ARE 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE 6'-0".

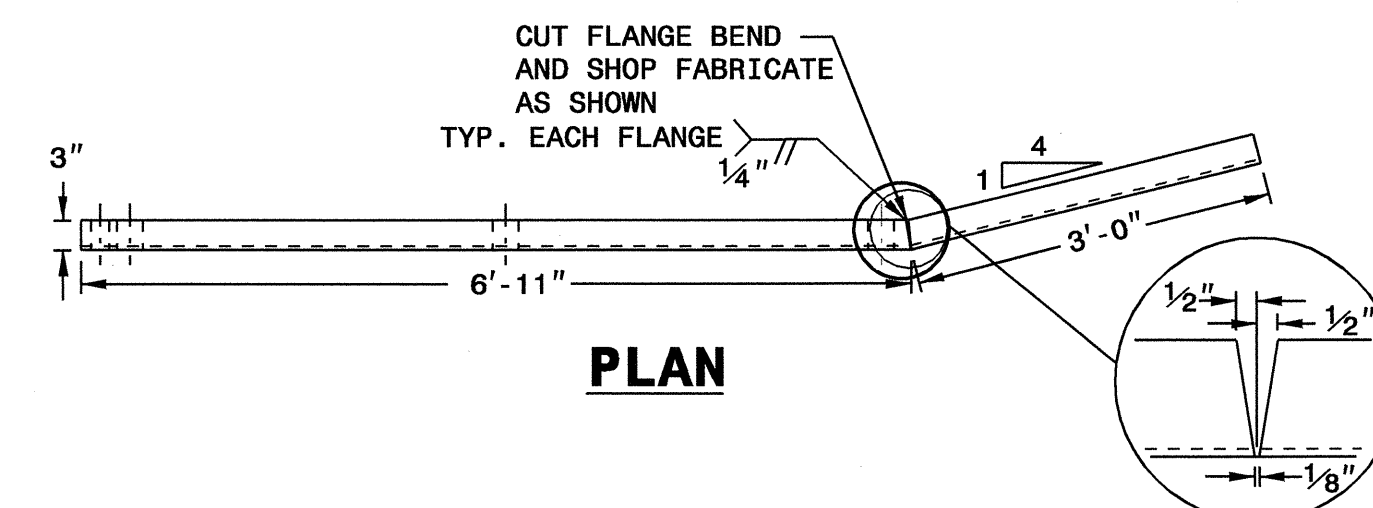


PLAN

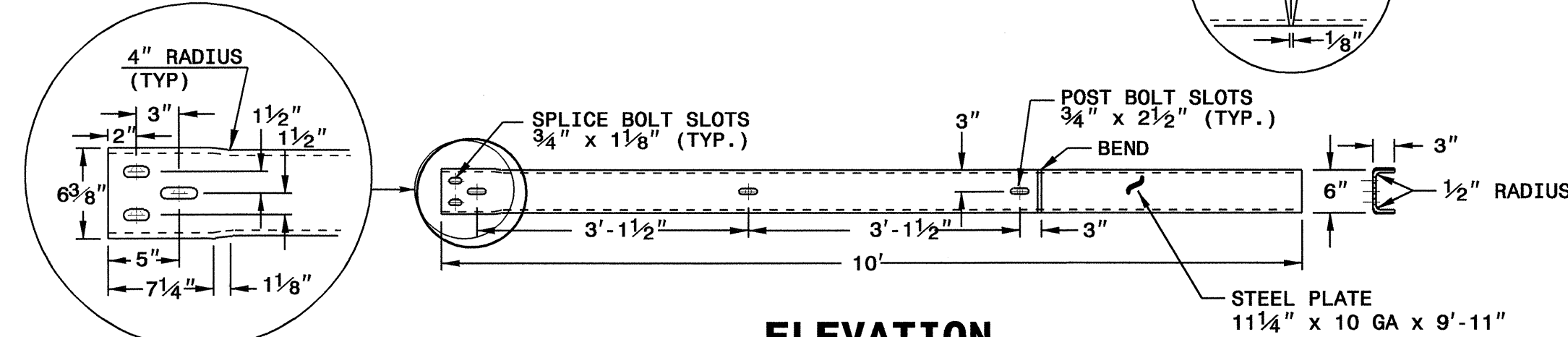


ELEVATION

**DETAIL A
C6 x 8.2 RUBRAIL**



PLAN



ELEVATION

**DETAIL B
BENT PLATE RUBRAIL**



**DESIGN SERVICES UNIT
STANDARDS AND SPECIAL DESIGN**
Office 919-250-4128 FAX 919-250-4119

**GUARDRAIL ANCHOR UNIT
NJ-25 TYING TO
CONCRETE BARRIER**

ORIGINAL BY: E.E. WARD DATE: 5-5-03
MODIFIED BY: DATE:
CHECKED BY: DATE: 7-03
FILE SPEC: .

I:\JUL-2003\14130\W:\Special\details\standards\stand\862stds\vn\j25.dgn
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