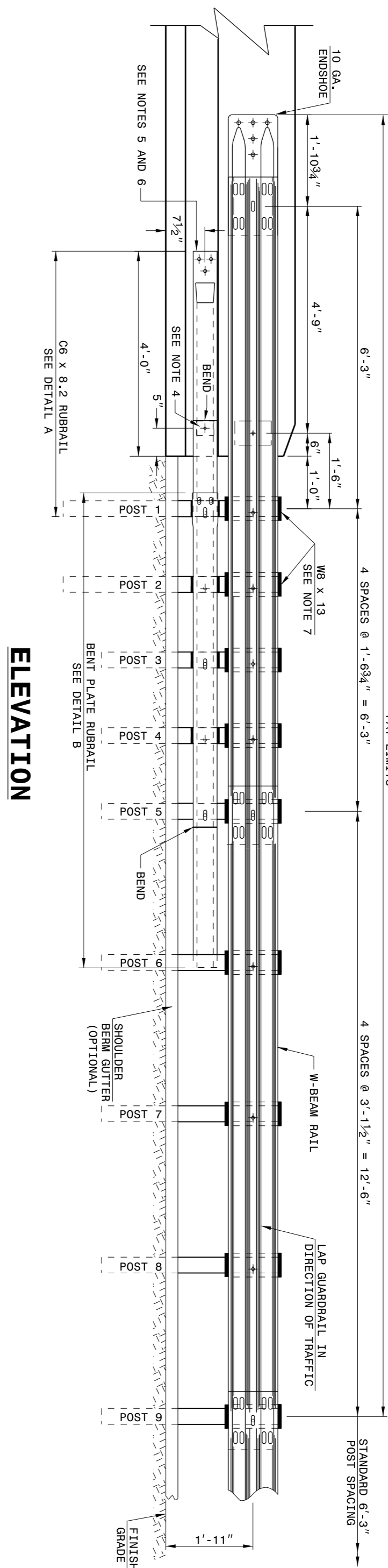
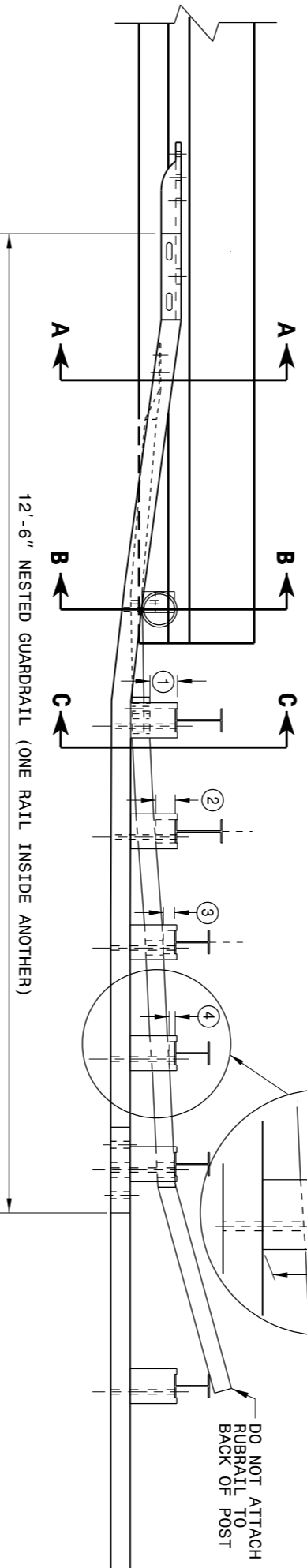


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ELEVATION

- GENERAL NOTES:
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
 - BLOCKOUTS AND RUBRAIL SHALL BE FABRICATED TO FIELD DIMENSIONS AND SHALL BE ATTACHED TO POSTS 2 AND 3. RUBRAIL IS SECURED TO POST 5 WITH A 5/8" x 4 1/2" BUTTWEAD 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 GUARRRAIL ONLY WITH 5/8" x 1 1/4" LONG BUTTWEAD 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.
 - TYPE OF F-PILE GUARRRAIL OR BRIDGE RAIL.
 - ANCHORAGE:
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR RUBRAIL USING THREE 5/8" x 6" CHEMICALLY ANCHORED BOLTS WITH WASHERS. MAXIMUM PROJECTION FOR BOLTS IS 1/2".
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE (SEE STD. DWG. 862.04).
 - THIS RAIL SHALL BE INSTALLED IN THE FIELD AND SHALL BE ANCHORED TO EXISTING BARRIERS (SEE STD. DWG. 857.01).
 - (C) AT NEW BRIDGE RAIL, ANCHOR THE W-BEAM END SHOE AND RUBRAIL AS DETAILED ON THE STRUCTURE PLANS.
 - POSTS 1 AND 2 ARE W8 X 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W8 X 8.5.



PLAN

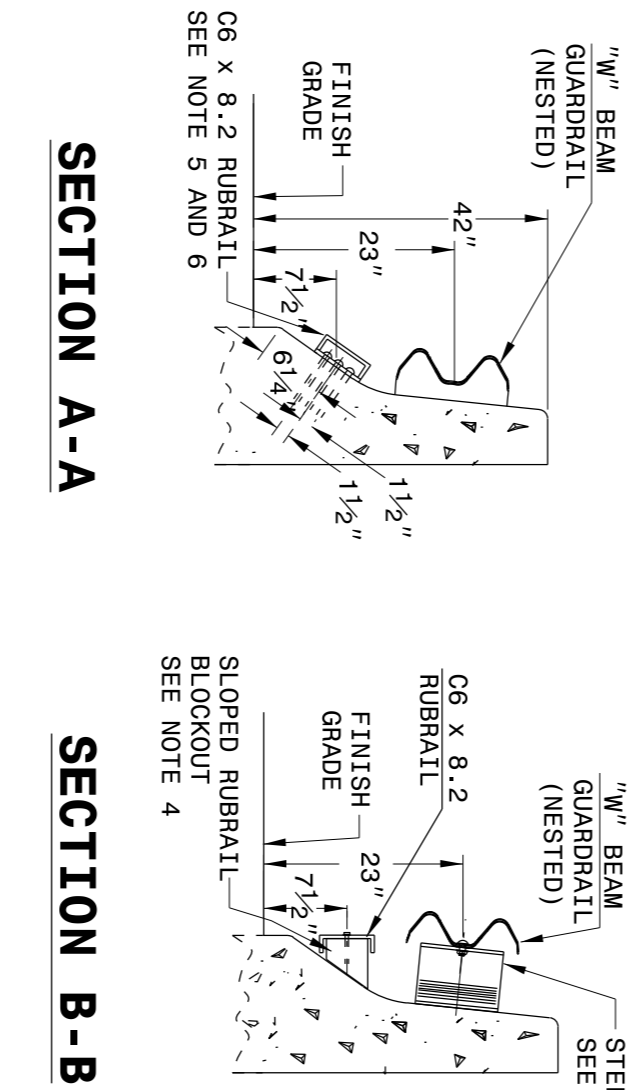
ENGLISH DETAIL DRAWING FOR
GUARRRAIL ANCHOR UNIT
FOR F-SHAPE BARRIER

ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARRRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

SHEET 4 OF 7
862D03

SHEET 4 OF 7
862D03

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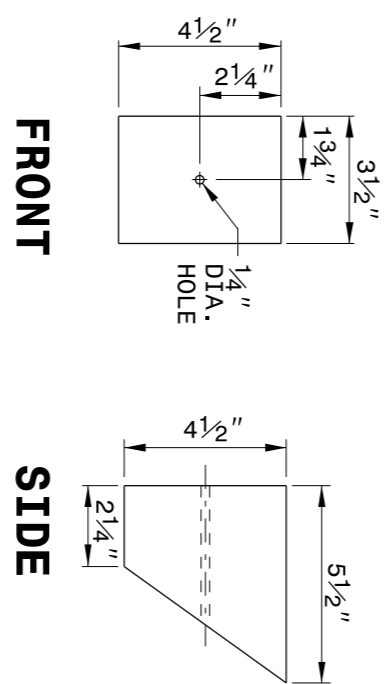


SECTION A-A

SECTION B-B

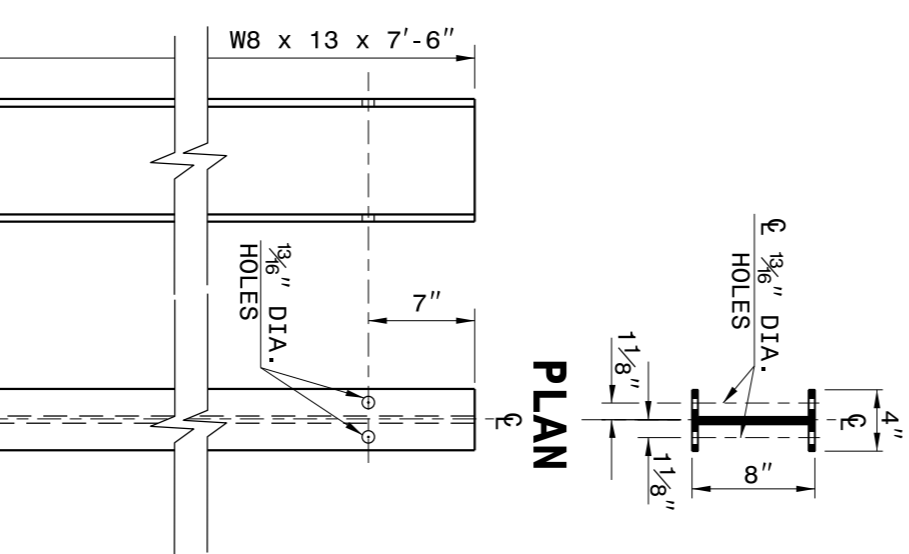
RUBRAIL BLOCKS 7" HIGH X 4" WIDE		
POST	THICKNESS	BOLT LENGTH
(1)	4 1/4"	9"
(2)	3 1/4"	5" *
(3)	2"	6"
(4)	1"	3" * *

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



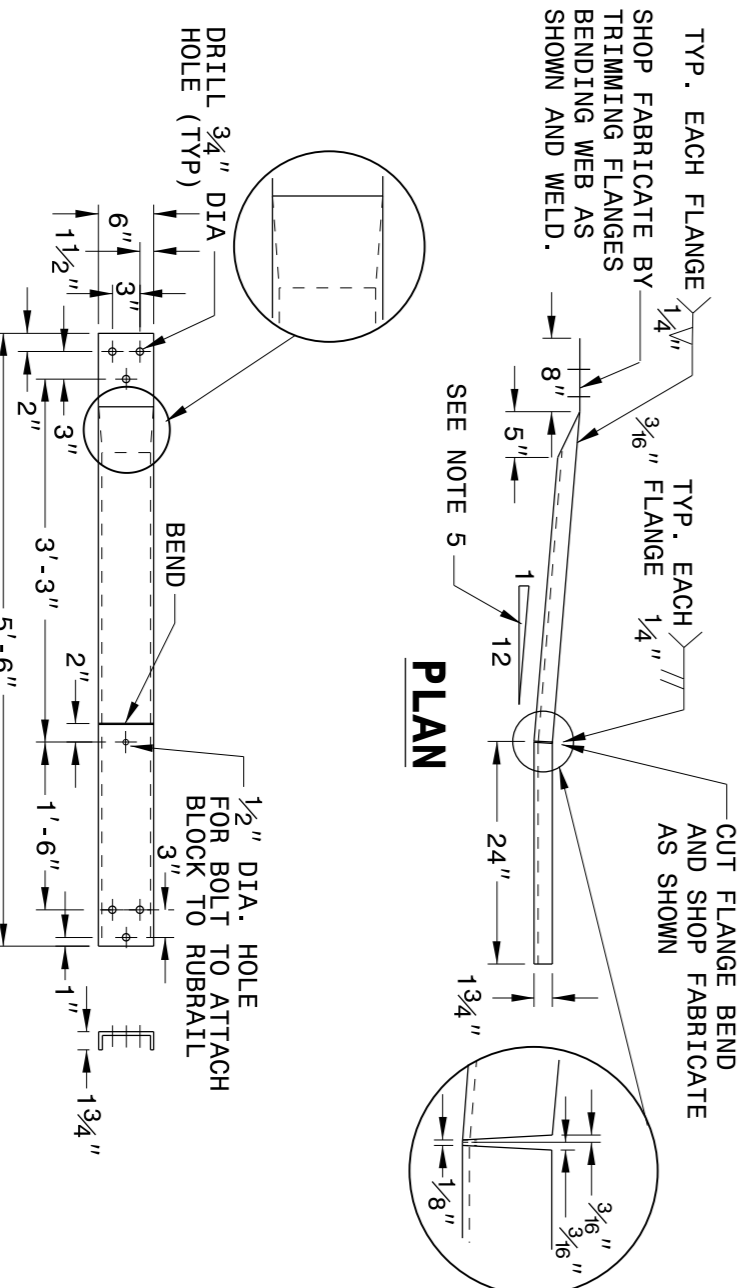
SECTION C-C

DETAIL E
LAG BOLT

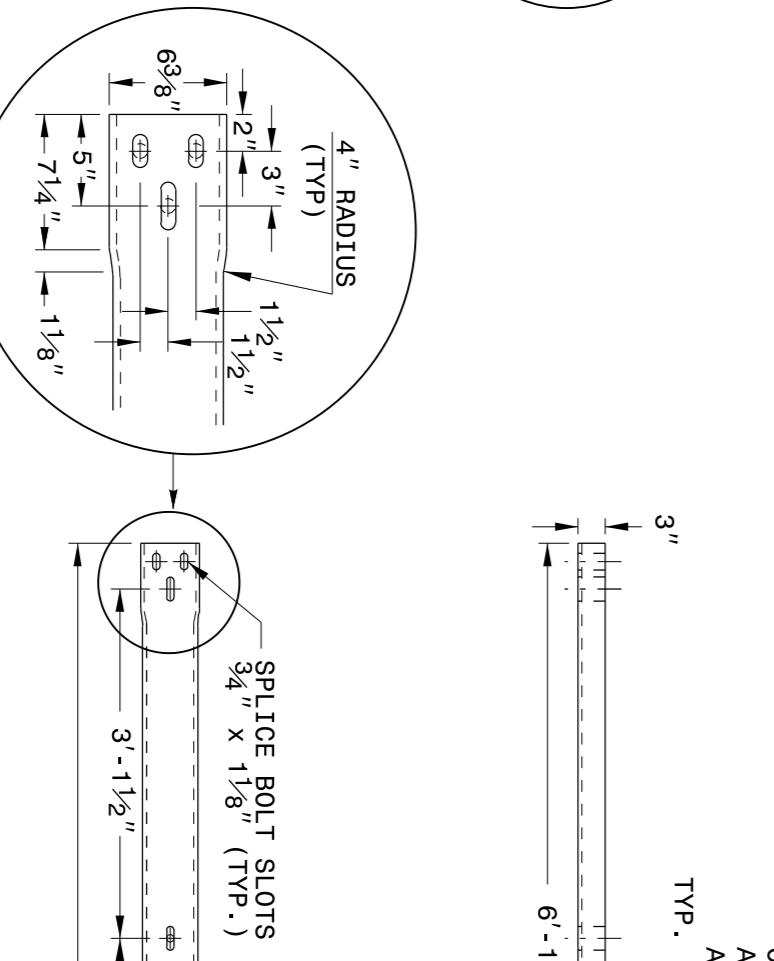


DETAIL F
STEEL POST
W8 X 13 X 7'-6"

DETAIL G
STEEL PLATE
11 1/4" X 10 GA X 9'-11"



DETAIL C
RUBRAIL BLOCKOUT



DETAIL D
SLOPED RUBRAIL BLOCKOUT

DETAIL A
ELEVATION

DETAIL B
ELEVATION

DETAIL E
ELEVATION

DETAIL A
ELEVATION

C6 X 8.2 RUBRAIL

BENT PLATE RUBRAIL

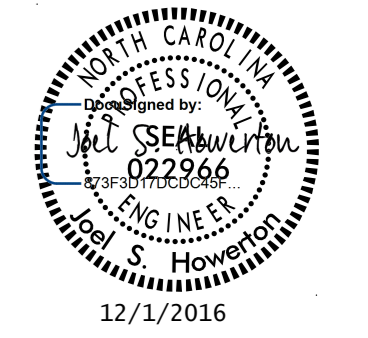
ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARRRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

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SHEET 5 OF 7
862D03

SHEET 5 OF 7
862D03

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\$\$\$\$\$TIME\$\$\$\$\$



CONTRACT STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

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