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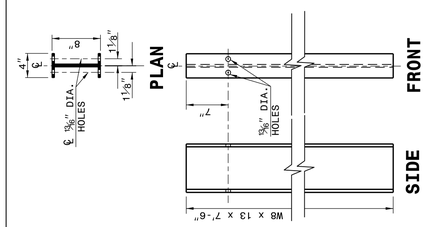
PROJECT REFERENCE NO.	SHEET NO.
B-5304	2C-14

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

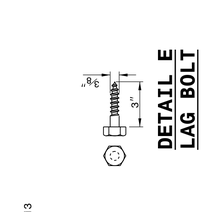
SHEET 5 OF 7
862D03



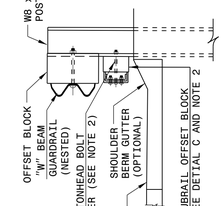
PLAN

SIDE **FRONT**

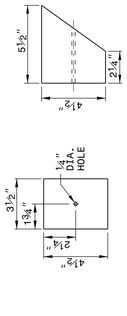
DETAIL F STEEL POST
"W8 X 13 X 7'-6"



DETAIL E
LAG BOLT

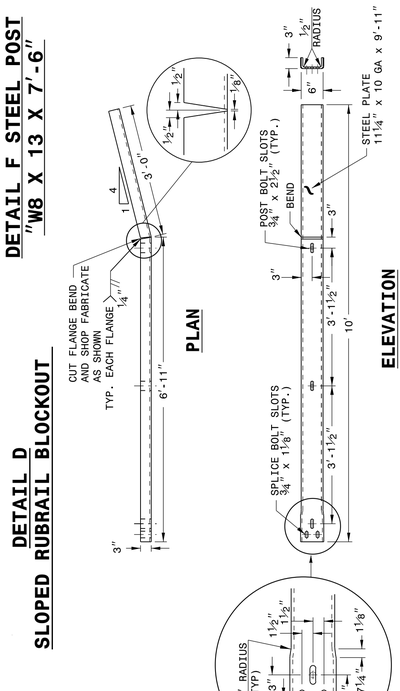


SECTION C-C



FRONT **SIDE**

DETAIL D
SLOPED RUBRAIL BLOCKOUT



PLAN

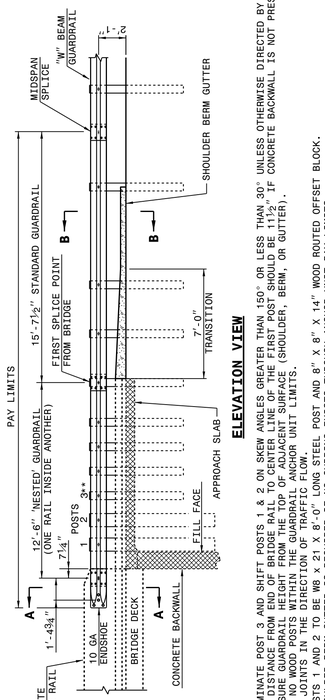
ELEVATION
DETAIL B
BENT PLATE RUBRAIL

GUARDRAIL ANCHOR UNIT TYPE B-77

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

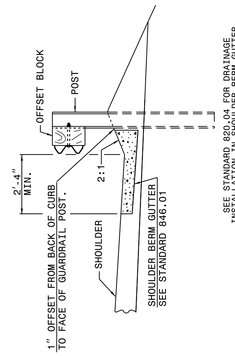
SHEET 6 OF 7
862D03



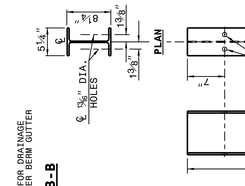
ELEVATION VIEW

NOTE:
**ELIMINATE POST 3 AND SHIFT POSTS 1 & 2 ON SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
-REMOVE POST 3 AND SHIFT POSTS 1 & 2 EQUALLY FROM CENTER LINE OF BRIDGE END SECTION. IF CONCRETE BACKWALL IS NOT PRESENT.
-MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE. (SHOULDER, BERM, OR GUTTER).
-USE NO WOOD POSTS WITHIN THE GUARDRAIL ANCHOR UNIT LIMITS.
-LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
-POSTS 1 AND 2 TO BE W8 X 21 X 8'-0" LONG STEEL POST AND 8" X 14" WOOD ROUTED OFFSET BLOCK.
-SHOULDER BERM GUTTER IS REQUIRED IF NO CURBING EXISTS THROUGH ANCHOR UNIT LIMITS.
-ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE AS SHOWN IN STANDARD 862.04

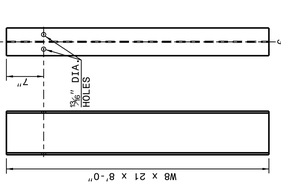
SECTION A-A



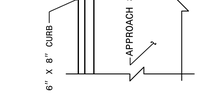
SECTION B-B



"W8 X 21 X 8'-0" STEEL POST



PLAN VIEW

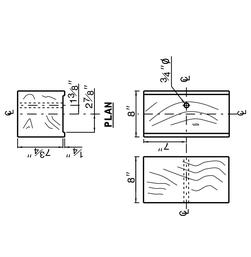


TRANSITION APPROACH SLAB CURB TO SHOULDER BERM GUTTER

SECTION C-C
APPROACH SLAB CURB

SECTION D-D
SHOULDER BERM GUTTER

GUARDRAIL ANCHOR UNIT TYPE B-83



8"X 8"X 14" ROUTED
WOOD OFFSET BLOCK

STATE OF NORTH CAROLINA
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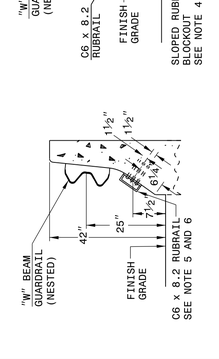
ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

SHEET 6 OF 7
862D03

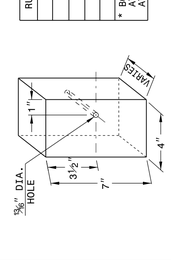


SECTION B-B

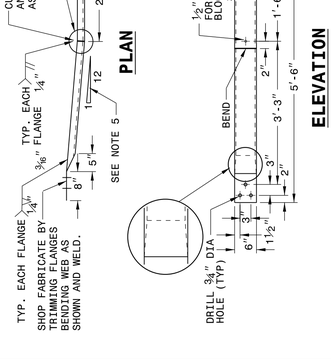
RUBRAIL BLOCKS 7" HIGH x 4" WIDE			
POST	THICKNESS	BOLT LENGTH	
①	4¼"	9"	
②	3¼"	5" *	
③	2"	6" *	
④	¾"	3" *	

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

SECTION A-A



DETAIL C
RUBRAIL BLOCKOUT



PLAN

ELEVATION
DETAIL A
C6 x 8.2 RUBRAIL

GUARDRAIL ANCHOR UNIT TYPE B-83

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton
DocuSigned by: 9/27/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: J HOWERTON DATE: 06-22-12
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

27-JUN-2017 10:59
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