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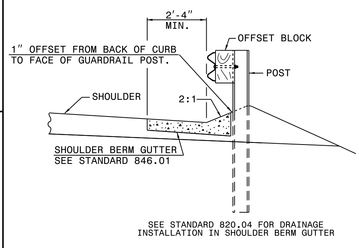
jhowerton AT CSD-242595

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

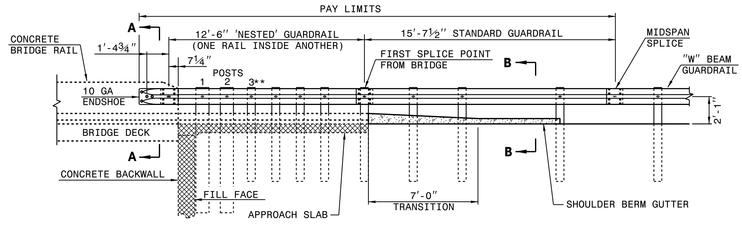
ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

SHEET 6 OF 7
862D03

SECTION A-A

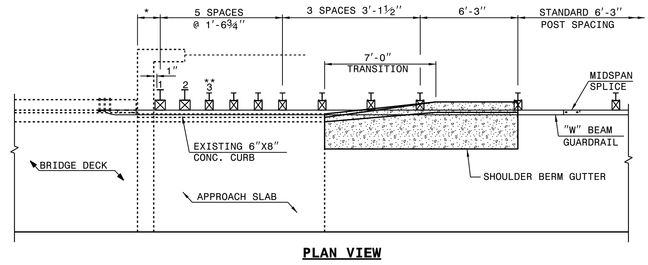


SECTION B-B

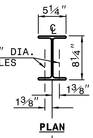


ELEVATION VIEW

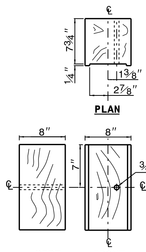
NOTE:
**ELIMINATE POST 3 AND SHIFT POSTS 1 & 2 ON SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
*THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11½" IF CONCRETE BACKWALL IS NOT PRESENT.
-MEASURE GUARDRAIL HEIGHT FROM THE TOP 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 8" X 14" WOOD ROUTED OFFSET BLOCK.
-SHOULDER BERM GUTTER IS REQUIRED IF NO CURBING EXISTS THROUGH ANCHOR UNIT PAY LIMITS.
-ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE AS SHOWN IN STANDARD 862.04



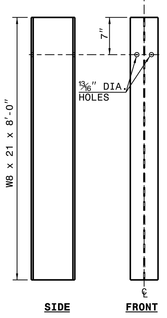
PLAN VIEW



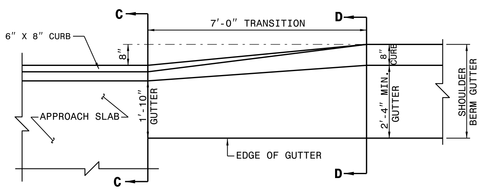
PLAN



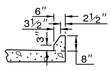
8"X 8"X 14" ROUTED WOOD OFFSET BLOCK



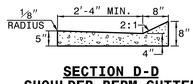
"W8 X 21 X 8'-0" STEEL POST



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

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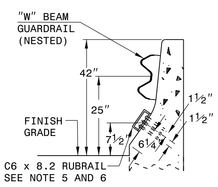
STRUCTURE ANCHOR UNITS
GUARDRAIL ANCHOR UNIT TYPE B-83

SHEET 6 OF 7
862D03

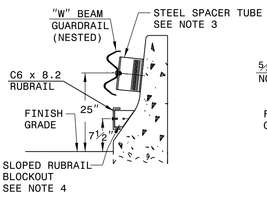
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

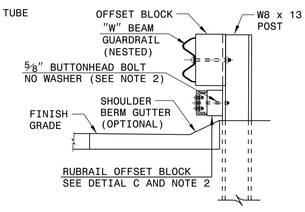
SHEET 5 OF 7
862D03



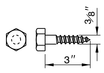
SECTION A-A



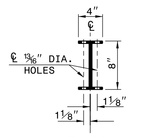
SECTION B-B



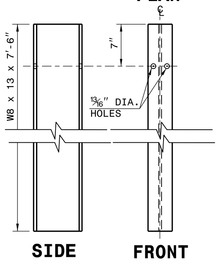
SECTION C-C



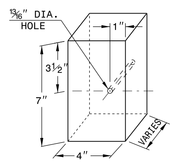
DETAIL E LAG BOLT



PLAN



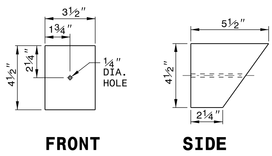
DETAIL F STEEL POST "W8 X 13 X 7'-6"



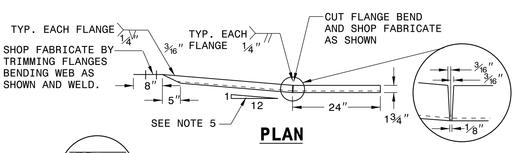
DETAIL C RUBRAIL BLOCKOUT

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

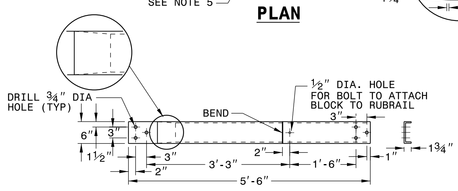
* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST. RUBRAIL NOT ATTACHED TO BLOCK.



DETAIL D SLOPED RUBRAIL BLOCKOUT

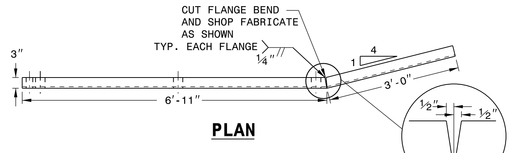


PLAN



ELEVATION

DETAIL A C6 x 8.2 RUBRAIL



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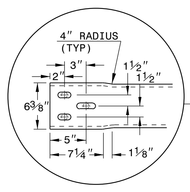

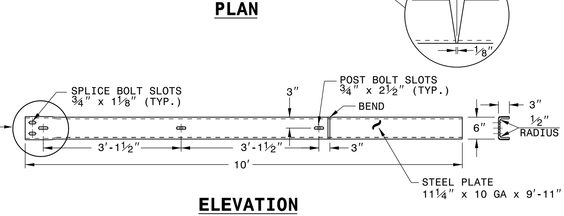

ELEVATION

DETAIL B BENT PLATE RUBRAIL

GUARDRAIL ANCHOR UNIT TYPE B-77

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

SHEET 5 OF 7
862D03

SEE TITLE BLOCK

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

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER
DocuSigned by: 6/14/2017

PROJECT REFERENCE NO. U-5719
SHEET NO. 2C-16