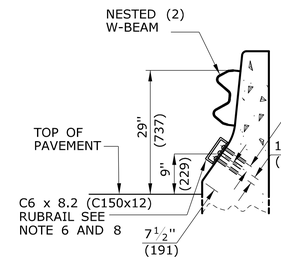
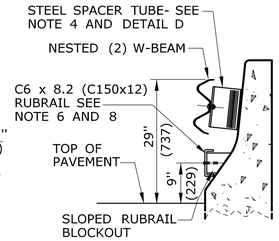
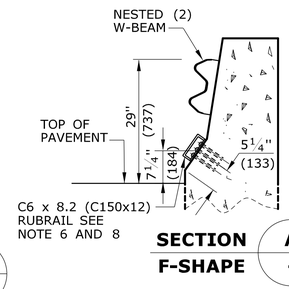


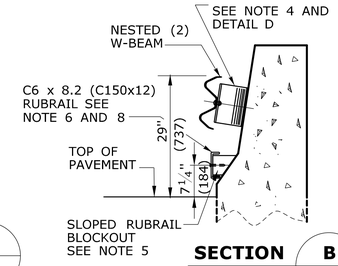
SECTION A JERSEY SHAPE



SECTION B JERSEY SHAPE



SECTION A F-SHAPE



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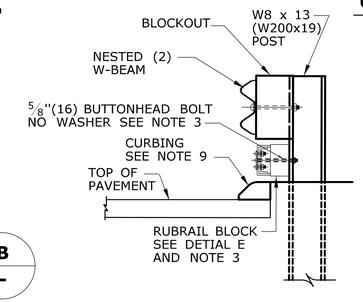
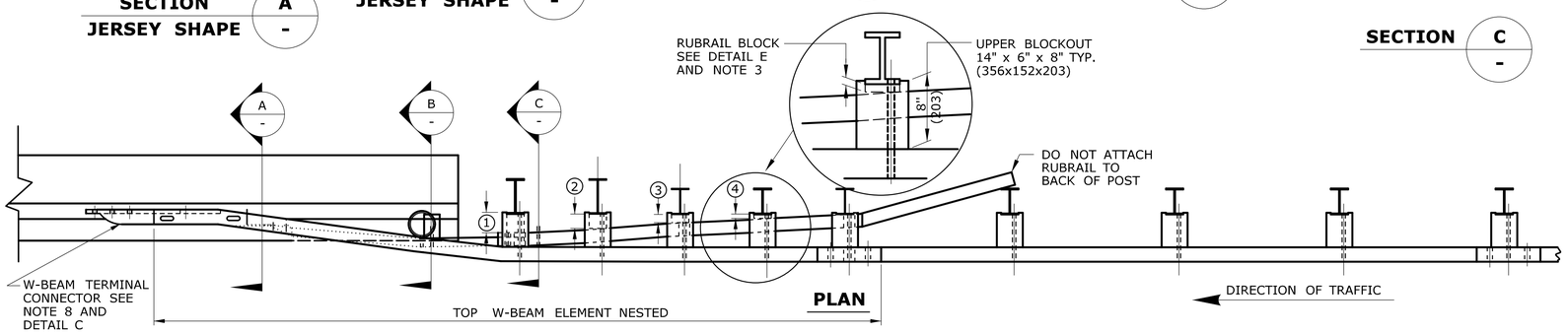


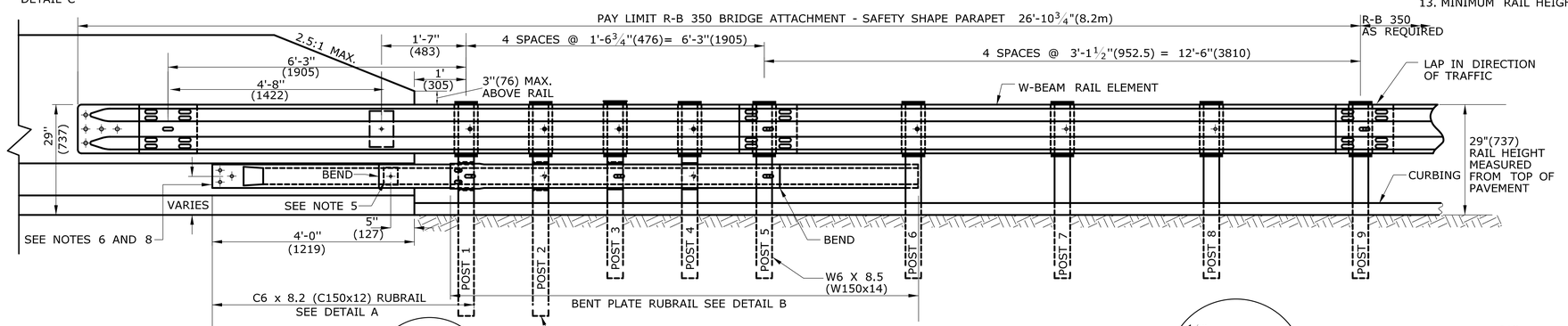
SECTION C



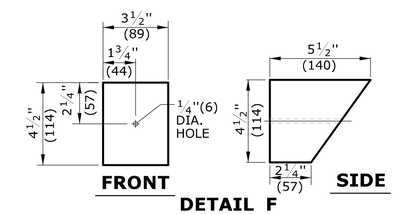
PLAN

GENERAL NOTES:

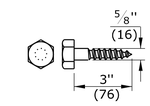
1. THIS R-B 350 GUIDERAIL TRANSITION IS APPROPRIATE FOR CONNECTION AT THE FOLLOWING LOCATIONS:
   (A) JERSEY SHAPE OR F-SHAPE PARAPET OR BARRIER WITH NO ELECTRICAL JUNCTION BOX WITHIN THE LIMITS OF THE ATTACHMENT (APPROXIMATELY 8'(2.44m)).
   (B) BRIDGE PARAPETS RETROFITTED FROM SAFETY WALK TO MODIFIED SAFETY SHAPE WITH NO ELECTRICAL JUNCTION BOX WITHIN THE LIMITS OF THE ATTACHMENT (APPROXIMATELY 8'(2.44m)).
   (C) LEADING AND TRAILING ENDS ON DUAL DIRECTION ROADWAYS.
2. POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
3. RUBRAIL BLOCKOUTS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH 5/8"(16) BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTHS). SECURE BLOCKS 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" (16x114) BUTTONHEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
4. STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6"(152) INSIDE DIAMETER x 9"(229) LONG. ATTACH TUBE TO RAIL ONLY WITH 5/8" x 1 1/4"(16x32) LONG BUTTONHEAD BOLT AND RECTANGULAR PLATE WASHER. TUBE IS NOT ATTACHED TO PARAPET.
5. SEE DETAIL F FOR SLOPED RUBRAIL BLOCKOUT. BLOCKOUT IS ATTACHED TO RAIL ELEMENT ONLY. USE 3/8" x 3"(10x76) LAG BOLT WITH FLAT WASHER.
6. SHOP FABRICATE THE C6 x 8.2 (C150x12) RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE JERSEY SHAPE OR F-SHAPE AND ATTACH FLUSH WITH THE SLOPED TOE OF THE PARAPET OR BARRIER.
7. USE CLASS B TYPE II W-BEAM RAIL ELEMENTS (10 GAUGE) FOR INSTALLATIONS ON EXPRESSWAYS AND RAMPS.
8. ANCHORAGE:
   (A) AT EXISTING PARAPETS OR BARRIERS, RUBRAIL SHALL BE ANCHORED USING THREE 5/8" x 6"(16x152) CHEMICALLY ANCHORED BOLTS WITH WASHERS OR AS DETAILED ON STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE 1/2"(13).
   (B) AT EXISTING PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTOR SHALL BE ANCHORED USING FIVE 7/8" x 12"(22x305) CHEMICALLY ANCHORED BOLTS WITH WASHERS, OR AS DETAILED ON THE STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE 1/2"(13). THE 12"(305) MINIMUM LENGTH OF CHEMICALLY ANCHORED BOLTS SHALL INCLUDE A MINIMUM EMBEDMENT DEPTH OF 10"(254) INTO SUITABLY REINFORCED CONCRETE, OR AS RECOMMENDED BY MANUFACTURER OF BONDING MATERIAL.
   (C) NEW PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTOR AND RUBRAIL SHALL BE ANCHORED AS DETAILED ON THE STRUCTURE PLANS.
9. FOR NEW CONSTRUCTION WHERE CURBING IS NEEDED, USE EITHER 4"(102) BITUMINOUS CONCRETE PARK CURBING OR PRECAST CONCRETE TRANSITION CURBING SET WITH A 4"(102) REVEAL. IF EXISTING CURBING IS GRANITE STONE TRANSITION CURBING, RESET CURB TO A 4"(102) REVEAL OR REMOVE IT AND REPLACE IT WITH 4"(102) CURBING.
10. POSTS 1 AND 2 ARE W8 x 13 (W200x19), 7'-6"(2286) LONG. ALL OTHER POSTS IN TRANSITION ARE W6 x 8.5 (W150x14), 6'(1829) LONG.
11. ADDITIONAL BLOCKOUTS WITH POSTS 1 THROUGH 6 SHOULD BE AVOIDED.
12. FOR SINGLE DIRECTION ROADWAY:
    INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.
    FOR DUAL DIRECTION ROADWAY FOR APPROACHING TRAFFIC:
    INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.
    FOR TRAILING END:
    INSTALL W-BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUIDERAIL ELEMENTS.
13. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" (737) + 1" (25).



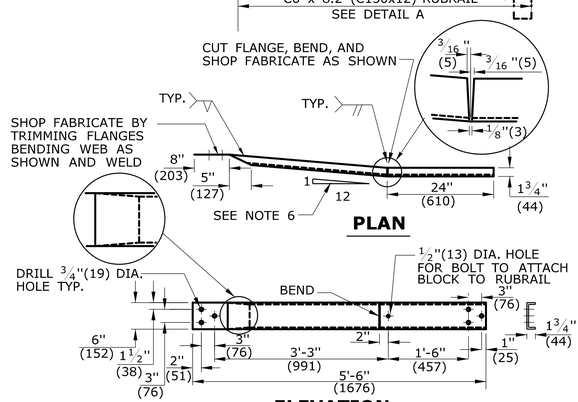
ELEVATION



DETAIL F SLOPED RUBRAIL BLOCKOUT



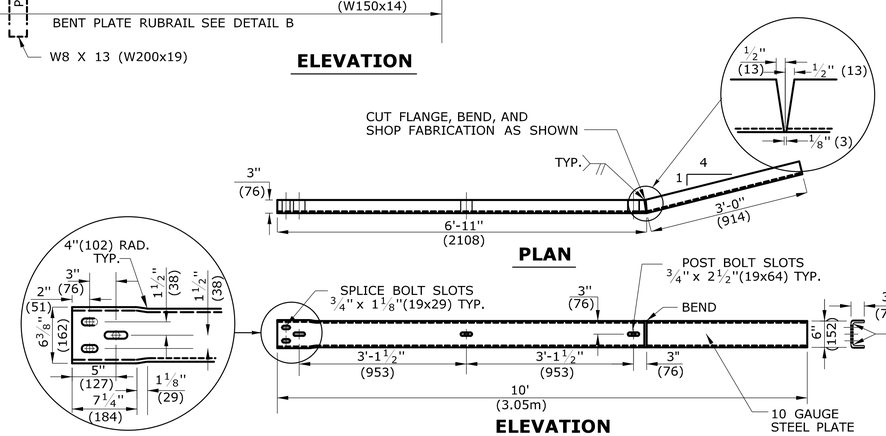
DETAIL G LAG BOLT



PLAN

ELEVATION

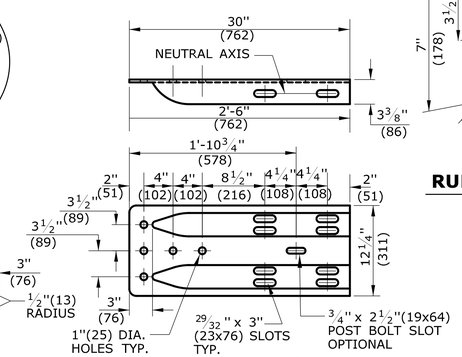
DETAIL A - C6 x 8.2 (C150x12) RUBRAIL



PLAN

ELEVATION

DETAIL B BENT PLATE RUBRAIL

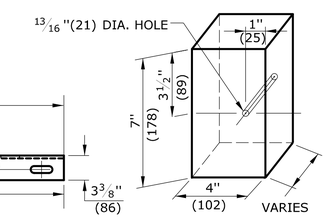


DETAIL C

W-BEAM TERMINAL CONNECTOR

CLASS B TYPE II

SEE NOTE 12

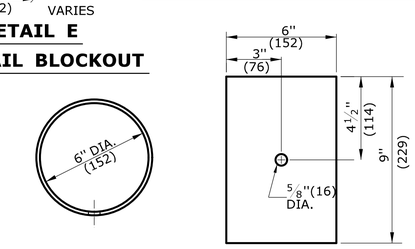


DETAIL E

RUBRAIL BLOCKOUT

RUBRAIL BLOCKS 7"(178) HIGH x 4"(102) WIDE		
POST	THICKNESS	BOLT LENGTH
1	4 1/4"(108)	9"(229)
2	3 1/4"(83)	5"(127)*
3	2"(51)	6"(152)
4	1"(25)	3"(76)*

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



DETAIL D

STEEL SPACER TUBE

SEE NOTE 4

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED NOTE 8 FOR USE OF CHEMICAL ANCHORS AND PAY ITEM CHANGED TO SAFETY SHAPE.
-	-	-
-	-	-
-	-	-
-	-	-

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/10/2011

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD_JUNE2011.dgn Model: 41 - HW-910_06

SUBMITTED BY: NAME/DATE/TIME:
Digitally signed by Leo Fontaine
DN: c=US, o=Connecticut, l=Newington, ou=Department of Transportation, email=Leo.Fontaine@ct.gov, o=State of Connecticut, cn=Leo Fontaine
Date: 2011.05.18 11:55:15 -04'00'

APPROVED BY: NAME/DATE/TIME:
James H. Norman
2011.06.09 15:14:22 -04'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

R-B 350 BRIDGE ATTACHMENT TO SAFETY SHAPE PARAPET

STANDARD SHEET NO.:

HW-910_06