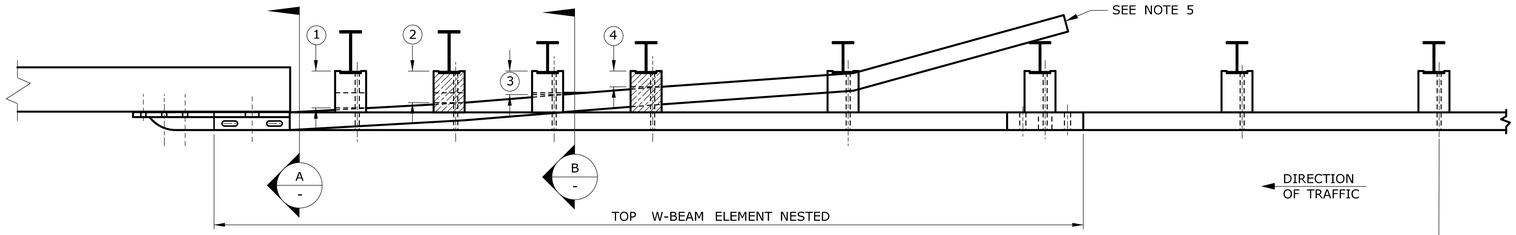
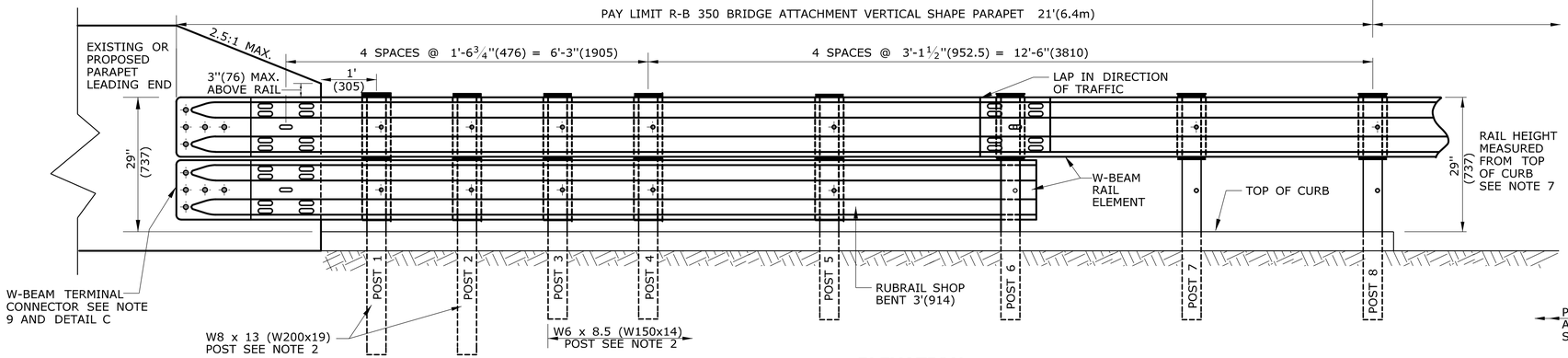
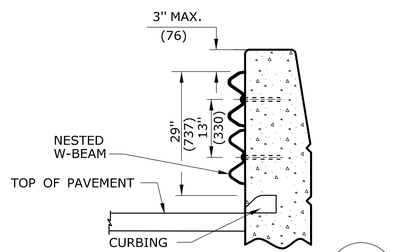


PLAN

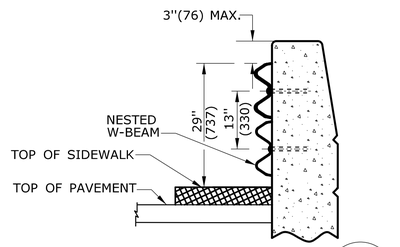


ELEVATION



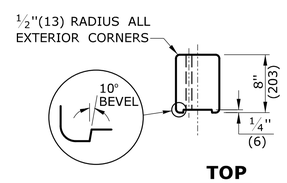
SECTION A -

WITH CURBING

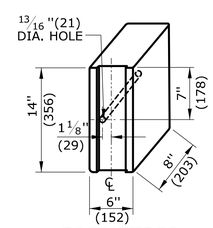


SECTION A -

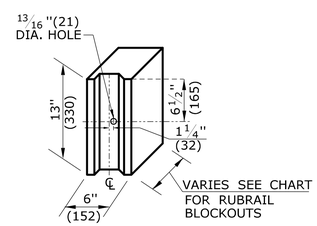
WITH SIDEWALK



TOP

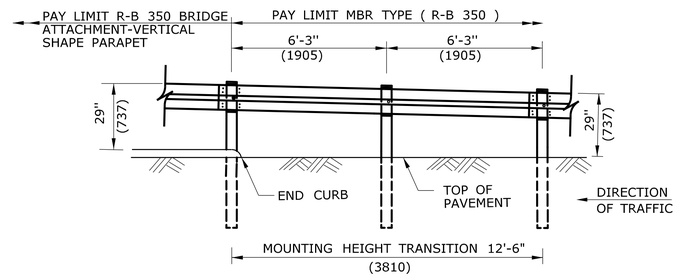


ISOMETRIC



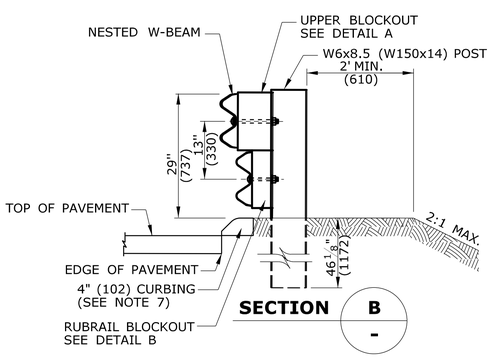
DETAIL B

RUBRAIL BLOCKOUT



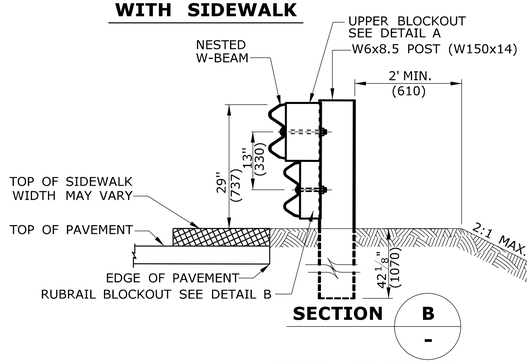
DETAIL D

HEIGHT TRANSITION



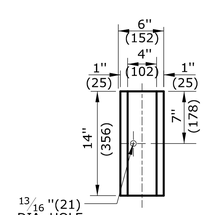
SECTION B -

WITH CURBING



SECTION B -

WITH SIDEWALK

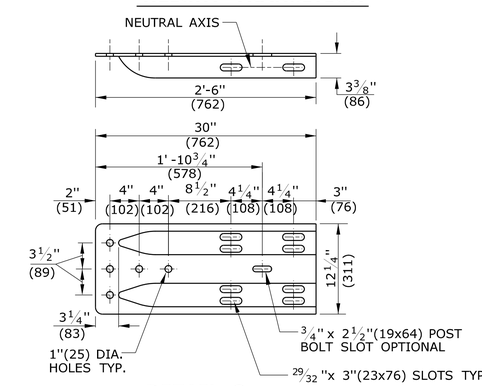


FRONT

DETAIL A

UPPER BLOCKOUT

RUBRAIL BLOCKOUTS 13"(330)HIGH x 6"(152)WIDE		
POST	THICKNESS	BOLT LENGTH
1	7"(178)	9"(229)
2	6"(152)	8"(203)
3	4½"(114)	6"(152)
4	3"(76)	5"(127)



DETAIL C

W-BEAM TERMINAL CONNECTOR

CLASS B TYPE II

SEE NOTE 11

GENERAL NOTES:

1. THIS R-B 350 GUIDERAIL TRANSITION IS APPROPRIATE FOR CONNECTION AT THE FOLLOWING LOCATIONS:
   (A) WHEN ANY SAFETY SHAPE (F-SHAPED OR JERSEY SHAPE) PARAPET HAS AN ELECTRICAL JUNCTION BOX WITHIN 8' (2438) OF THE END OF THE PARAPET, THE END OF THE PARAPET SHALL BE MODIFIED OR TRANSFORMED TO A VERTICAL SHAPE PRIOR TO GUIDERAIL ATTACHMENT.
   (B) VERTICAL WALL OR ABUTMENT FACE.
   (C) VERTICAL CONCRETE PARAPET WITH SIDEWALK.
   (D) VERTICAL FACE FOR LEADING AND TRAILING ENDS ON DUAL DIRECTION ROADWAYS.
2. 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.
3. POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR LOWER RUBRAIL.
4. RUBRAIL BLOCKOUTS FOR POSTS 1 THROUGH 4 ARE ATTACHED TO POST AND RAIL WITH A ⅝" (16) BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTH). RUBRAIL ONLY IS ATTACHED TO POST 5 WITH A ⅝" x 1¼" (16 x 32) BUTTONHEAD BOLT.
5. THE RUBRAIL MAY BE SHOP BENT IN THE LAST 3' (914) TO FACILITATE INSTALLATION. DO NOT ATTACH RUBRAIL TO BACK OF POST 6.
6. USE CLASS B (10 GAUGE) TYPE II W-BEAM RAIL ELEMENTS FOR INSTALLATIONS ON EXPRESSWAYS AND RAMPS.
7. FOR THIS APPLICATION WHEN CURBING IS USED, R-B 350 RAIL HEIGHT MUST BE MEASURED FROM THE TOP OF CURBING TO THE TOP OF RAIL. SEE DETAIL D FOR HEIGHT TRANSITION.
8. 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. THE PREFERRED CURBING FOR HIGH SPEED ROADWAYS (≥45 MPH (72kph)) IS 4" (102). HOWEVER, ON LOW SPEED ROADWAYS (<45 MPH (72kPH)) A 6" (152) CURBING MAY BE USED. ADJUST RAIL HEIGHT AS REQUIRED.
9. ANCHORAGE:
   (A) AT EXISTING PARAPETS EACH W-BEAM TERMINAL CONNECTOR SHALL BE ANCHORED USING FOUR ⅞" x 12" (22 x 305) CHEMICALLY ANCHORED BOLTS WITH WASHERS OR AS DETAILED ON STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE ½" (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 THE MANUFACTURER OF BONDING MATERIAL.
   (B) FOR NEW PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTORS SHALL BE ANCHORED AS DETAILED ON THE STRUCTURE SHEETS.
10. ADDITIONAL BLOCKOUTS WITH POSTS 1 THROUGH 6 SHOULD BE AVOIDED.
11. 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.
12. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" (737) ± 1" (25).

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

REV.	DATE	REVISION DESCRIPTION
1	6/11	REVISED NOTE 9 FOR USE OF CHEMICAL ANCHORS

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: 42 - HW-910_07

SUBMITTED BY: NAME/DATE/TIME:
Digitally signed by Leo Fontaine
DN: c=US,st=Connecticut,l=Newington,ou=Department of Transportation,email=Leo.Fontaine@ct.gov,o=State of Connecticut,cn=Leo Fontaine
Date: 2011.05.18 11:56:08 -04'00'

APPROVED BY: NAME/DATE/TIME:
James H. Norman
2011.06.09 15:14:46 -04'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET

STANDARD SHEET NO.: HW-910_07