

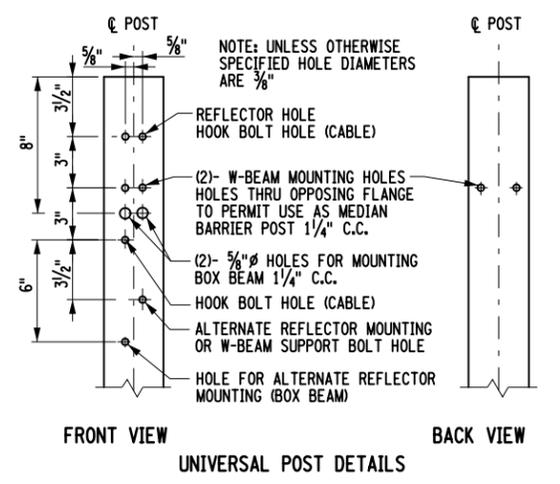
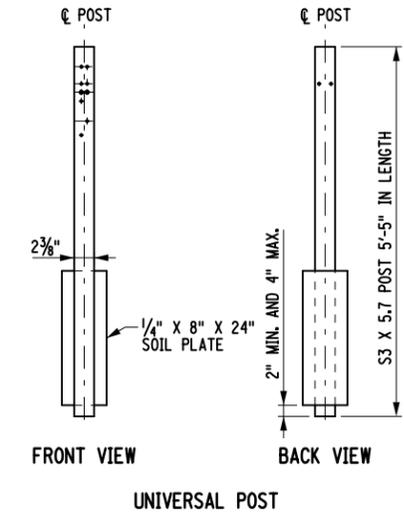
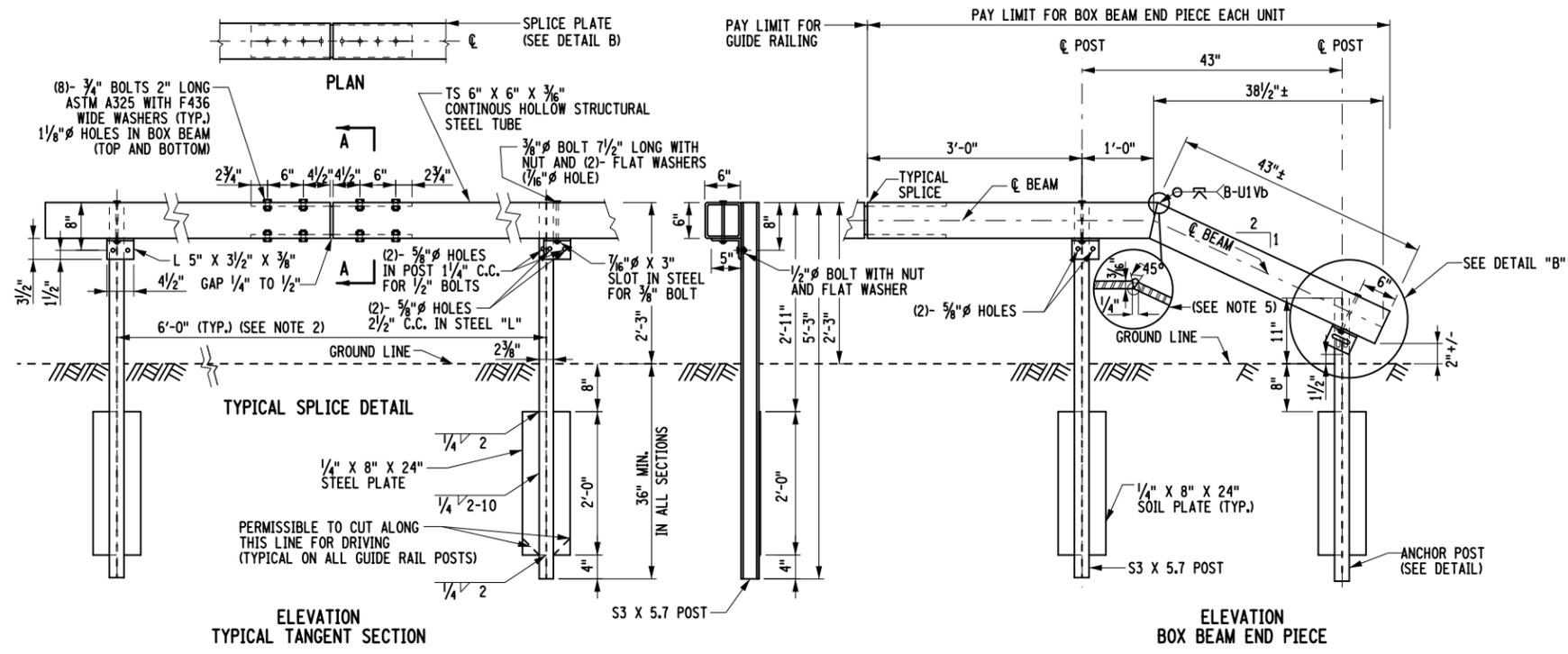
**GENERAL NOTES:**

1. POST SPACING SHALL BE 6'-0" EXCEPT WHERE REDUCED POST SPACING IS INDICATED ON THE CONTRACT PLANS. POSTS ARE CONNECTED TO RAIL AT 6'-0" SPACING. WHEN 36" OR 24" REDUCED POST SPACING IS REQUIRED, PAYMENT FOR ADDITIONAL POSTS ASSOCIATED WITH REDUCED POST SPACING WILL BE MADE UNDER EITHER THE PAY ITEM FOR BACKUP POSTS FOR GUIDE RAIL OR THE PAYMENT FACTORS SPECIFIED IN CONTRACT DOCUMENTS.
2. SEE BRIDGE PLANS FOR GUIDE RAIL DETAILS, POST SPACING AND PAY ITEMS FOR TRANSITIONS AND CONNECTIONS TO BRIDGE RAIL.
3. THE LINE OF BOX BEAM GUIDE RAIL, WHEN COMPLETED, SHALL PRESENT A SMOOTH AND PLEASING GRADE LINE IN BOTH HORIZONTAL AND VERTICAL PLANES. BOX BEAM WITH RADIUS OF 720'-0" OR LESS SHALL BE SHOP WORKED TO THE REQUIRED CURVATURE. PAYMENT FOR SUCH CURVED LENGTHS SHALL BE MADE UNDER THE APPROPRIATE ITEM.
4. THE END MAY BE EXTENDED BY ONE 18'-0" STRAIGHT SECTION, PLACED BETWEEN THE CURVED SECTION AND THE END PIECE, TO MOVE THE END CLOSER TO THE EDGE OF THE CLEAR ZONE. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE ITEM.
5. BACKUP MAY REMAIN IN PLACE.
6. THE RAIL MOUNTING HEIGHT OF ALL GUIDE RAIL OR MEDIAN BARRIER PLACED BEHIND CURB (REGARDLESS OF THE CURB HEIGHT OR SPEED) SHALL BE MEASURED FROM THE PAVEMENT SURFACE WHEN THE OFFSET IS 12" OR LESS AND TO THE GROUND SURFACE UNDER THE FACE OF THE RAIL WHEN THE OFFSET IS GREATER.
7. FOR DESIGN SPEEDS UNDER 50 MPH THE POINT OF REDIRECTION WILL BE AT THE POINT OF TANGENCY.

	<b>STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION</b>
U.S. CUSTOMARY STANDARD SHEET	
<b>BOX BEAM GUIDE RAIL (SHEET 1 OF 4)</b>	
APPROVED JUNE 21, 2011 /S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER DESIGN (ACTING)	ISSUED UNDER EB 11-013  606-04

EFFECTIVE DATE: 01/12/2012

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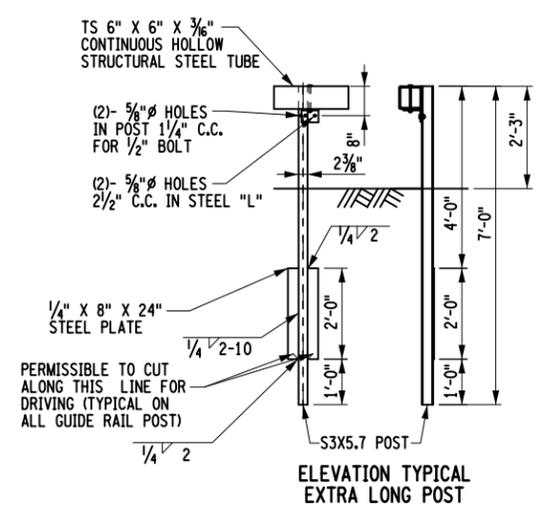
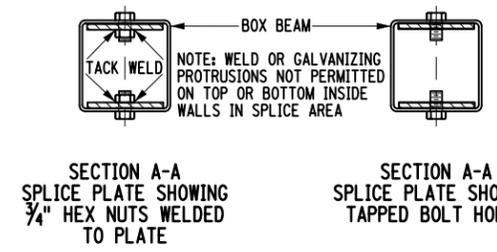
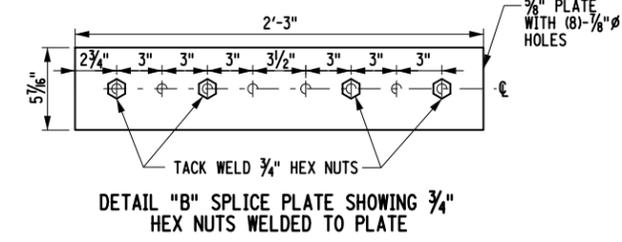
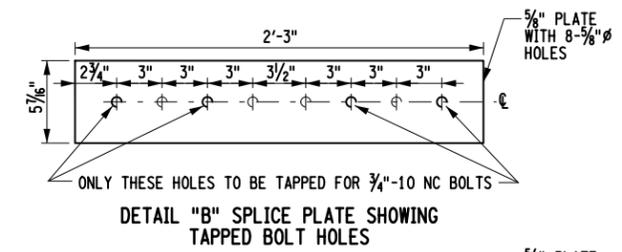


ELEVATION TYPICAL TANGENT SECTION

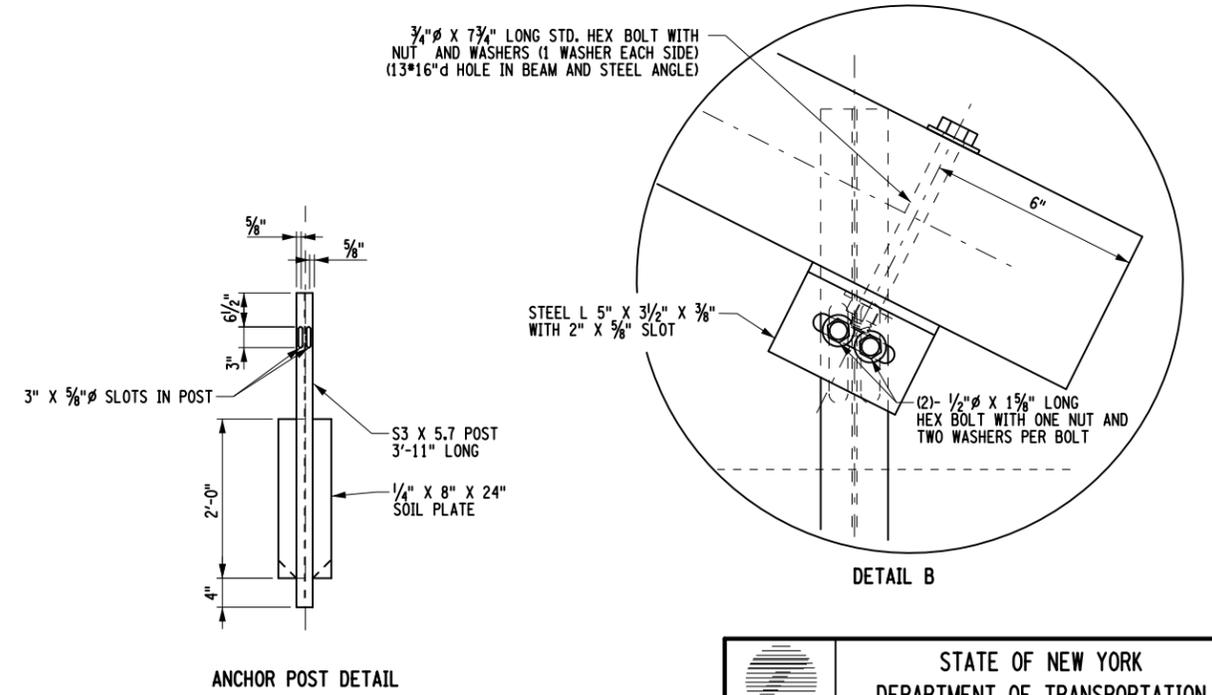
ELEVATION BOX BEAM END PIECE

UNIVERSAL POST

UNIVERSAL POST DETAILS



ELEVATION TYPICAL EXTRA LONG POST



ANCHOR POST DETAIL

STATE OF NEW YORK  
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

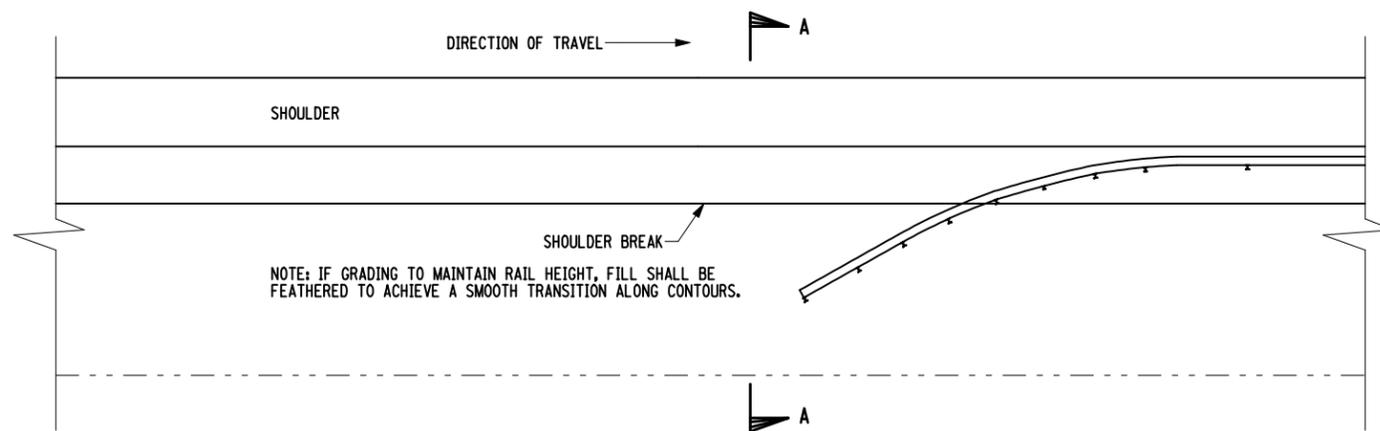
BOX BEAM GUIDE RAIL  
(SHEET 2 OF 4)

APPROVED JUNE 21, 2011 ISSUED UNDER EB 11-013  
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER DESIGN (ACTING)  
606-04

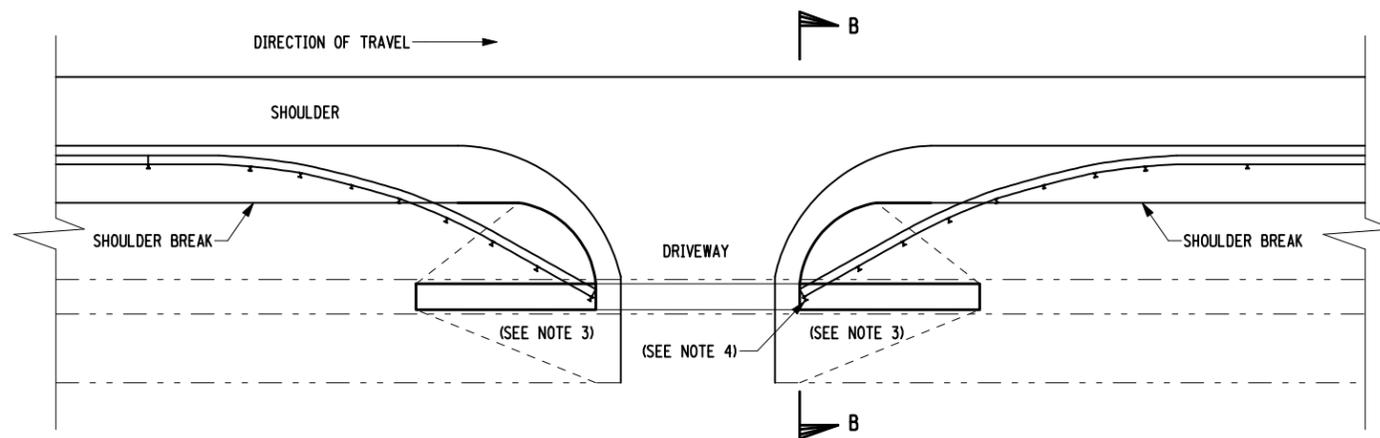
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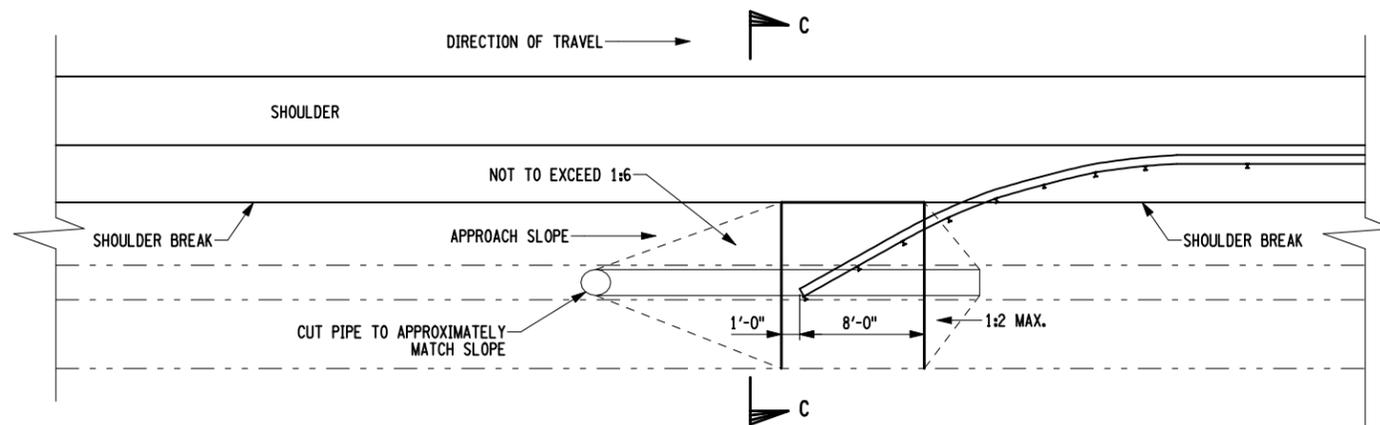




**FLARING OPTION 1 FOR TYPE IIA BOX BEAM GUIDE RAIL**  
(SEE NOTE 4 SHEET 1 OF 4)

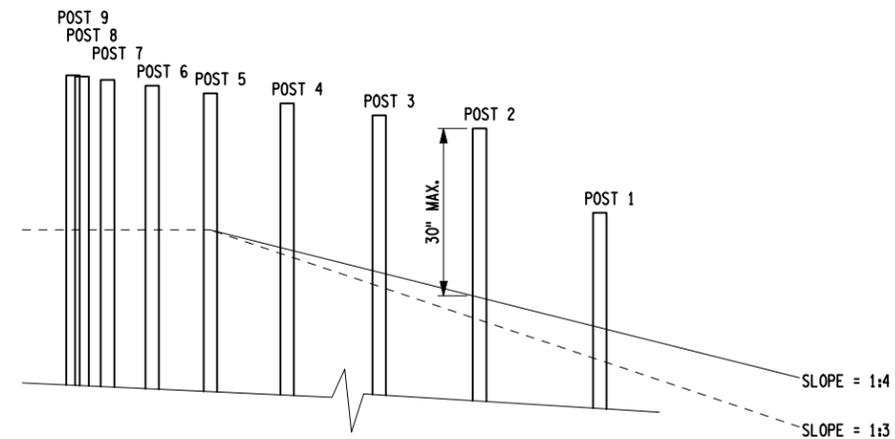


**FLARING OPTION 2 FOR TYPE IIA BOX BEAM GUIDE RAIL**  
(SEE NOTE 4 SHEET 1 OF 4)



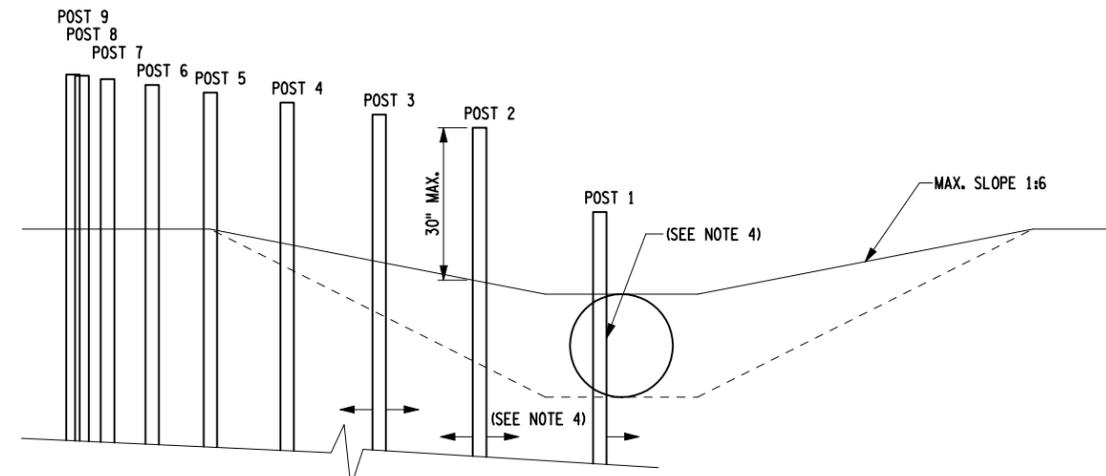
**FLARING OPTION 3 FOR TYPE IIA BOX BEAM GUIDE RAIL**  
(SEE NOTE 4 SHEET 1 OF 4)

TYPICAL PIPE LENGTHS	
DITCH DEPTH	PIPE LENGTH
2'-0"	25'-0"
2'-6"	29'-0"
3'-0"	33'-0"
4'-0"	40'-0"



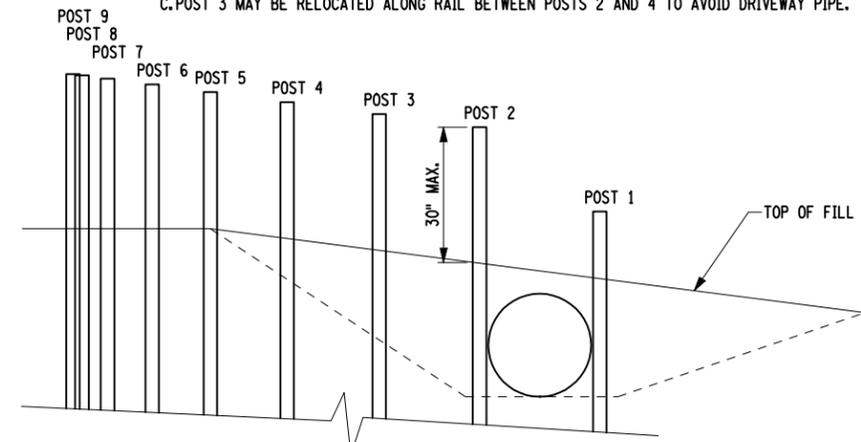
**SECTION "A-A" - OPTION 1 : ON MILD FILL SLOPE**

- DEPRESS TERMINAL END BY 12" AND FASTEN TO POSTS BEFORE TIGHTENING BOLTS ON SPLICE BETWEEN POSTS 8 AND 9. IF THE SLOPE FROM SHOULDER BREAK BEGINS 2'-0" OR MORE BEHIND GUIDE RAIL RUN AND IS 1:4 OR FLATTER, NO ADDITIONAL GRADING IS REQUIRED.
- TERMINAL MAY BE PLACED ON STEEPER SLOPES IF GRADING IS PROVIDED TO LIMIT RAIL HEIGHT TO 30" OR LESS.



**SECTION "B-B" - OPTION 2 : DRIVEWAY EMBANKMENT**

- EXTEND CULVERT A MINIMUM OF 4'-0" PAST GUIDE RAIL FOR GRADING.
- DEPRESS TERMINAL BY 12" BEFORE TIGHTENING BOLTS ON SPLICE BETWEEN POSTS 8 AND 9. IF THE SLOPE FROM SHOULDER BREAK IS 1:4 OR FLATTER, NO ADDITIONAL GRADING IS REQUIRED.
- POST 1 SHALL BE POSITIONED AT OR BELOW SHOULDER BREAK OF DRIVEWAY.
- DO NOT DRIVE POST THROUGH PIPE. TO AVOID POST HITTING DRIVEWAY PIPE:  
A. TERMINAL FLARE MAY BE INCREASED TO PLACE POST 1 BEYOND PIPE.  
B. POST 2 MAY BE MOVED UP TO 1'-6" ALONG RAIL, MOVING CLOSER TO ROAD TO AVOID DRIVEWAY PIPE.  
C. POST 3 MAY BE RELOCATED ALONG RAIL BETWEEN POSTS 2 AND 4 TO AVOID DRIVEWAY PIPE.



**SECTION "C-C" - OPTION 3 : LOCALIZED DITCH FILLING**

- WHEN TERMINAL MUST FLARE ACROSS A DEEP DITCH AND NO LATERAL EMBANKMENT IS NEAR, A PIPE SHALL BE SET IN THE DITCH AND AN EMBANKMENT CONSTRUCTED AT THE TERMINAL.  
A. THE APPROACH SLOPE SHALL HAVE A MAXIMUM STEEPNESS OF 1:6.  
B. THE FILL SHALL BE SUFFICIENT TO LIMIT GUIDE RAIL HEIGHT TO NO MORE THAN 30".  
C. IF A BACK SLOPE IS ACCESSIBLE AT THE CORRECT HEIGHT, THE BOX BEAM END PIECE SHOULD BE ELIMINATED AND A TYPE O ENDING USED.

 <b>STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION</b>	
U.S. CUSTOMARY STANDARD SHEET	
<b>BOX BEAM GUIDE RAIL (SHEET 4 OF 4)</b>	
APPROVED JULY 2, 2010	ISSUED UNDER EB 10-022
/S/ RICHARD W. LEE, P.E. FOR THE DEPUTY CHIEF ENGINEER (DESIGN)	<b>606-04</b>

EFFECTIVE DATE: 01/06/2011