**General Notes:**

1. **Length of Piece Shall Be Cut At:**
   - Box beam shall be shop curved on end or offset of the required curvature. Payment shall be made under the appropriate item.

2. **Rib Spacing 6'-0" Type:**
   - Box beam 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.

3. **Backup May Remain In Place:**
   - 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.

4. **For Design Speeds Under 50 MPH the Point of Redirection Will Be At the Point of Tangency:**

**Elevation Typical Layout:**

- Box beam guide rail, when completed, shall present a smooth and pleasing curve line in both horizontal and vertical planes. Box beam used shall be of 720'-0" or less. When moved to the required curvature, payment for such curved lengths shall be made under the appropriate item.

**Plan View:**

- When a type I or type IIA termination is used, payment will be made as per the standard pay factors.

**Typical Type I End Assembly:**

- Box beam shall be shop curved on end or offset of the required curvature. Payment shall be made under the appropriate item.

**Terminal End Piece:**

- Box beam shall be shop curved on end or offset of the required curvature. Payment shall be made under the appropriate item.

**Detail "A" - Plan View:**

- Box beam shall be shop curved on end or offset of the required curvature. Payment shall be made under the appropriate item.
GENERAL NOTES ON SHEET 1 OF 4

1. Posts 2 and 4 shall be extra long posts. Posts 3, 5, 6, 7, 8, and 9 shall be standard length.
2. Posts 2 and 4 shall be fastened to the rail using detail "A".
3. For side slopes 1:5 or flatter, the 18' of curved box beam may be provided in a curved portion of a 24' or 36' piece. Otherwise, an 18' section is to be spliced at the point of tangency.
4. The drawing indicates the terminal installed on level ground. When installed over a slope or cliff, the terminal end should be placed with the equivalent of approximately the end effort to express the terminal force.
5. Posts 3, 5, and 7 shall not be connected to any beam guide rail.
6. For design speeds under 50 mph the point of redirection will be at the point of tangency.

NOTE A: DETAIL A

Type IIA Notes:
- Posts 2 and 4 shall be extra long posts. Posts 3, 5, 6, 7, 8, and 9 shall be standard length.
- Posts 2 and 4 shall be fastened to the rail using detail "A".
- For side slopes 1:5 or flatter, the 18' of curved box beam may be provided in a curved portion of a 24' or 36' piece. Otherwise, an 18' section is to be spliced at the point of tangency.
- The drawing indicates the terminal installed on level ground. When installed over a slope or cliff, the terminal end should be placed with the equivalent of approximately the end effort to express the terminal force.
- Posts 3, 5, and 7 shall not be connected to any beam guide rail.
- For design speeds under 50 mph the point of redirection will be at the point of tangency.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
U.S. CUSTOMARY STANDARD SHEET
ISSUED UNDER EB 11-013
APPROVED JUNE 21, 2011
EFFECTIVE DATE: 01/12/2012

FRONT ELEVATION
POST 2 AND 4

SIDE ELEVATION
POST 2 AND 4

BRACKET DETAILS
POST 1

BRACKET DETAILS
POSTS 2 AND 4

POSTS 2 AND 4 CONNECTION DETAIL "DETAIL A"
SEE NOTES 1 AND 2

EXISTING GROUND

TYPES OF NOTES:
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- For design speeds under 50 mph the point of redirection will be at the point of tangency.
SECTION "A-A" - OPTION 1: ON MILD FILL SLOPE
1. Extend terminal end 1'-0" to 6' before trimming posts or space between posts 1 and 2. If slope from shoulder break to 2" or more above grade, use post and slope 1:4 or flatter, no additional grading is required.
2. Terminal may be placed on a steeper slope if grading is provided to limit rail height to 30" or less.

SECTION "B-B" - OPTION 2: DRIVEWAY EMBANKMENT
SEE NOTE 3
1. Top of fill
2. Cut pipe to approximately match slope.
3. Extend culvert a minimum of 4'-0" past guide rail for grading.
4. Depress terminal end 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.
5. Terminal may be placed on steeper slopes if grading is provided to limit rail height to 30" or less.

SECTION "C-C" - OPTION 3: LOCALIZED DITCH FILLING
SEE NOTE 4
1. 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.
2. Terminal end may be increased to place post 1 beyond pipe.
3. Post 2 may be moved up to 1'-6" along rail, moving closer to road to avoid driveway pipe.
4. Post 3 may be relocated along rail between posts 2 and 4 to avoid driveway pipe.

TYPICAL PIPE LENGTHS
<table>
<thead>
<tr>
<th>DITCH DEPTH</th>
<th>PIPE LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'-0&quot;</td>
<td>8'-0&quot;</td>
</tr>
<tr>
<td>4'-0&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>6'-0&quot;</td>
<td>4'-0&quot;</td>
</tr>
</tbody>
</table>

GENERAL NOTES ON SHEET 1 OF 4
NOTE: IF GRADING TO MAINTAIN RAIL HEIGHT, FILL SHALL BE FEATHERED TO ACHIEVE A SMOOTH TRANSITION ALONG CONTOURS.