PORTABLE CONCRETE BARRIER (PCB) As shown is not to be used on bridge deck edges, or similar drop-off, the only suitable barrier in this situation is a 32" PCB as detailed on Structural Engineering's Standard Drawing PCB-91 or approved alternatives as posted on the Office of Roadway Engineering's website.

50" TRANSITION SECTION Only segments shown on SCD RM-4.2, or approved impact attenuators, may be attached to the 32" side of a 50" transition section. Do not connect an impact attenuator to a 50" barrier end.

HINGE AND REINFORCING BARS: The 3/8" hinge bars may be ASTM A 36. Reinforcing steel shall meet the requirements of CMS 559 (ASTM A 615 Grade 60). Wire mesh shall meet CMS 709.30. Block steel is permitted.

Connecting hardware Galvanizes bolts, washers and hex nuts after fabrication per CMS 711.02 and meeting the requirements of CMS 711.09, except that the rotational capacity test specified in ASTM A 325 shall be waived.

Hinge bars, connecting pin and cross section details on this side (except for bar placement) as per SCD RM-4.2.

Wire fabric installed as shown on Sheet 2, and cut to shape of top taper. See REINFORCING BAR LIST for X502 and X503 details (Sheet 2).

Lifting slot permitted.

LEGEND:
- 1" radius or ¼" chamfer, all top and end corners.
- Permissible 10" radius.
- Permissible 1" radius.

ELEVATION 50° BARRIER SECTION

Hinge bars, connecting pin and cross section details on this side (except for bar placement) as per SCD RM-4.2.

ELEVATION 50° TRANSITION SECTION

Hinge bars, connecting pin and cross section details on this side (except for bar placement) as per SCD RM-4.2.

Wire fabric installed as shown on Sheet 2, and cut to shape of top taper. See REINFORCING BAR LIST for X502 and X503 details (Sheet 2).

NOTES

GENERAL: See CMS 552 for additional information. The minimum design strength of the concrete is 4,000 psi, and will meet the requirements of CMS 499.

PORTABLE CONCRETE BARRIER (PCB) As shown is not to be used on bridge deck edges, or similar drop-off, the only suitable barrier in this situation is a 32" PCB as detailed on Structural Engineering's Standard Drawing PCB-91 or approved alternatives as posted on the Office of Roadway Engineering's website.

50" TRANSITION SECTION Only segments shown on SCD RM-4.3, or approved impact attenuators, may be attached to the 32" side of a 50" transition section. Do not connect an impact attenuator to a 50" barrier end.

HINGE AND REINFORCING BARS: The 3/8" hinge bars may be ASTM A 36. Reinforcing steel shall meet the requirements of CMS 559 (ASTM A 615 Grade 60). Wire mesh shall meet CMS 709.30. Block steel is permitted.

CONNECTING HARDWARE: Galvanizes bolts, washers and hex nuts after fabrication per CMS 711.02 and meeting the requirements of CMS 711.09, except that the rotational capacity test specified in ASTM A 325 shall be waived.

HANDLING DEVICES: Such devices may be used in lieu of the lifting slot for moving the barrier. They may be of any design sufficient to handle the weight of the section being lifted. No handling devices shall protrude from the surface of the barrier when in place.

MARKING: All barrier segments are to be marked as shown, where XX indicates the year cast. Permanently impress these marking on the barrier using a minimum of 2 inch high lettering.

On the top of each barrier segment, including the transition section, permanently mark a unique identification as to its manufacturer. And somewhere on the barrier, permanently mark the day and month the barrier was manufactured.

REFLECTORIZATION: Install barrier reflectors in accordance with Roadway Engineering Standard Drawing MT-101.70, when specified in the plans.

PAYMENT: This barrier is paid for in feet as ITEM 662 - Portable Barrier, 50" and ITEM 662 - PORTABLE CONCRETE BARRIER (PCB): As shown is not to be used on bridge deck edges, or similar drop-offs. The only suitable barrier in this situation is a 32" PCB as detailed on Structural Engineering's Standard Drawing PCB-91 or approved alternatives as posted on the Office of Roadway Engineering's website.

Barrier sections meeting this standard and cast before January 1, 2020, may continue to be used until December 31, 2029, provided the barrier section remains in conformance with the most current version of the Quality Standards for Temporary Traffic Control Devices and Acceptable Determination Methods for Vehicles.
Hinge Bar Details

Bar loop can be easily inserted through Hinge Bar before Nut is tightened onto Bolt. It is catergorized 2H/DH. The assembly requires two F436 1/4" flat washer with an ID of 1/4" and an OD of 2.5". The thickness is 0.156" and the flat washer is hot dipped galvanized.

Connecting Pin is a 1 3/4" diameter by 43" Grade 5 galvanized high strength steel bolt, with 3" of threads. Each bolt passes through eight hinge bar loops - four on each segment.

The assembly also requires one 1 3/4"-7 heavy hex nut. The nut is hot dipped galvanized and waxed and is coldrolled steel.

Connecting Pin Assembly

Welded Wire Fabric, 6 x 6 x 22.9 x 22.9

WWF Elevation

Showing mesh before bending

Reinforcing Bar List

<table>
<thead>
<tr>
<th>Mark</th>
<th>Bar Type</th>
<th>Bar Length</th>
<th>Shape</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>X504</td>
<td></td>
<td>11'-6&quot; to 13'-6&quot;</td>
<td>Str.</td>
<td>3</td>
</tr>
<tr>
<td>X505</td>
<td></td>
<td>5'-4&quot;</td>
<td>Str.</td>
<td>3</td>
</tr>
<tr>
<td>X503</td>
<td></td>
<td>5'-4&quot;</td>
<td>Str.</td>
<td>2</td>
</tr>
</tbody>
</table>

WWF Section

Showing mesh bent to shape

Joint Connection Detail

Section A-A

Closed Joint

Barriers shall initially be placed close together so that bolts can be easily inserted through hinge bar loop.

Normal Operation

Barriers shall be fully open before the Nut is tightened onto Bolt.

Joint Connection Detail

Section A-A

2" concrete notch radius

1 1/4" Hinge Bar Inside radius of 2"

Washer

Connecting Pin

Barrier segment