**DEPARTMENT OF TRANSPORTATION**

**STATE OF MINNESOTA**

**B311 CURVED PLATE BEARING ASSEMBLY**

**NOTES:**
- **DETAIL NO.**
  - **SIZE**
  - **LOCATION**
  - **TYPE**
  - **ASSY.**

<table>
<thead>
<tr>
<th>ASSEMBLY</th>
<th>LOCATION</th>
<th>BEAM SIZE</th>
<th>BEARING PAD SIZE</th>
<th>STEEL PLATES</th>
<th>LAMINATES</th>
<th>SHAPE FACTOR</th>
<th>BEARING PLATE SIZE</th>
<th>CURVED PLATE SIZE</th>
<th>ASSY. HEIGHT</th>
<th>RESTRAINT PATTERN</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB, M, &amp; MN</td>
<td>12&quot; x 24&quot;</td>
<td>1/4&quot;</td>
<td>1/4&quot;</td>
<td>8.0</td>
<td>14&quot;</td>
<td>1/2&quot;</td>
<td>4/5&quot;</td>
<td>26&quot;</td>
<td>1/2&quot;</td>
<td>A-1</td>
</tr>
<tr>
<td>MW</td>
<td>16&quot; x 36&quot;</td>
<td>1/4&quot;</td>
<td>1/4&quot;</td>
<td>7.4</td>
<td>18&quot;</td>
<td>1/2&quot;</td>
<td>4/5&quot;</td>
<td>38&quot;</td>
<td>1/2&quot;</td>
<td>A-2</td>
</tr>
<tr>
<td>MH</td>
<td>12&quot; x 30&quot;</td>
<td>1/4&quot;</td>
<td>1/4&quot;</td>
<td>8.6</td>
<td>14&quot;</td>
<td>1/2&quot;</td>
<td>4/5&quot;</td>
<td>32&quot;</td>
<td>1/2&quot;</td>
<td>A-3</td>
</tr>
</tbody>
</table>

**TABLE**
- **NOTES:**
  - PROVIDE ELASTOMERIC MATERIALS AND PAD CONSTRUCTION PER SPEC. 3741.
  - PROVIDE STEEL PLATES PER SPEC. 3306.
  - PROVIDE PINTLES PER SPEC. 3309.
  - GALVANIZE STRUCTURAL STEEL BEARING ASSEMBLY AFTER FABRICATION PER SPEC. 3394, EXCEPT AS NOTED.
  - PAYMENT FOR BEARING ASSEMBLY INCLUDES ALL MATERIAL ON THIS DETAIL.
  - THE MINIMUM SIZE OF BEARING PAD IS 12" X 24" FOR RB, M, & MN SHAPES, 16" X 36" FOR MW SHAPES, 12" X 30" FOR MH SHAPES.
  - FOR PARAPET AND SEMI-INTEGRAL ABUTMENT BRIDGES ON GRADES EXCEEDING 3%, MODIFY THIS DETAIL TO PROVIDE A TAPERED BEARING PLATE PER DETAIL B308.
  - FOR NOTE 4, INCLUDE B307 AND MODIFY AS NECESSARY.

**DESIGN DATA:**
- MAX. FACTORED SHEAR RESISTANCE: - 50.3 KIPS PER 1/2" DIA. PINTLE

**REVISED**
- DECEMBER 20, 2018

**STATE BRIDGE ENGINEER**
- Kevin Weston

**STATE OF MINNESOTA**

**DEPARTMENT OF TRANSPORTATION**

**CURVED PLATE BEARING ASSEMBLY**
- (PRESTRESSED CONCRETE BEAMS)
- (EXPANSION)