**Section A-A**

**TxDOT**

**Option A:** Welded connection option

**Option B:** Bolted connection option

**Plan at Bearings 12"**

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**Introduction**

- **Optional Plate Girder**: Rolled Beam or Optional Plate Girder
- **Diaphragm Elevation**: See Detail "A" & "B"
- **Connection Plate and Bearing Stiffener Details**: Plate or Bearing Stiffener (See Table)
- **Stud Connector Detail**: Clip weld as req'd
- **Drip Plate Details**: Seal at fascia side of exterior beams.

**Options**

- For #24x4 diaphragm members, cut and chip 1" of diaphragm as required to clear stiffener/connection plate.
- At least shall have one hardened washer ears. Notes are 1/2" x 1 1/2". Below to form with welded connection type.
- All welds shall be of complete fusion. See Steel Beam Span sheets for spacing.

**General Notes**

- Bearing Stiffeners required only for optional plate girders, not fascia side of exterior girders.
- For exterior beam of unpainted weathering steel only. For bridges on flat grades.
- The Fabricator shall determine the stud height based on the requirements shown except that the studs shall not be less than 5" in height.
- Studs shall be electric arc welded to the flanges with complete fusion, see Steel Beam Span sheets for spacing.
- Place only plate 3' from low bearing or 3' from each bearing for bridges on flat grades.
- For exterior beams of unpainted weathering steel only.
- Required only for bearings of optional plate girders.

**Optional Bent Plate**

**Diaphragm Section**

**Table of Diaphragm Data**

<table>
<thead>
<tr>
<th>Beam Size</th>
<th>Diaphragm Width</th>
<th>Diaphragm Height</th>
<th>&quot;N&quot;</th>
<th>Spaces</th>
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<td>18</td>
<td>4</td>
<td></td>
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<td>C15-33</td>
<td>12/6</td>
<td>12</td>
<td>3</td>
<td></td>
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</tbody>
</table>

**Diaphragm Elevation**

- **Skewed Beam End Detail**
- **Stud Connector Detail**

**Connection Plate and Bearing Stiffener Details**

- Cut both flanges parallel to sides of members where required to strip, then cut one flange for exterior beam.
- Brass or galvanized screws or bolts for exterior beam.
- Cut diaphragm on connection plate as req'd.

**General Notes**

- Details shown on this sheet are applicable for use only with the Steel Beam Standard Designs shown on Standards SBSD-24, SBSD-28 and SBSD-30.
- See Steel Beam Span sheets for location of diaphragms and location of bearing stiffeners and/or connection plates.

**Steel Beam**

**Miscellaneous Details**

- HL93 Loading

**TxDOT**