**DESIGN NOTES:**

- Designed in accordance with AASHTO LRFD Bridge Design Specifications. 
- Prestress classes for the designed beams have been calculated for a relative humidity of 60 percent. Optional designs must likewise conform.
- Prestress losses for the designed beams have been calculated for a relative humidity of 60 percent. Optional designs must likewise conform.
- Designed in accordance with AASHTO LRFD Bridge Design Specifications.

**FABRICATION NOTES:**

- Provide Class H concrete.
- Use low relaxation strands, each pre-tensioned to 75 percent of fpc.
- Where shown on this sheet, the Fabricator has the option of furnishing either the designed beam or an approved optional beam design. All optional design brackets and shop drawings must be signed, sealed and dated by a Professional Engineer registered in the State of Texas.
- Locate a strand in each "1" position.
- Prestress classes for the designed beam as row as possible on the 2" grid system unless a standard stand pattern is indicated (Row 2.5", Row 2.6", etc.). Pre-tensioned within a row as follows:
  1) Locate a strand in each "1" position.
  2) Place strand symmetrically about vertical centerline of box. 
  3) Space strands as equally as possible across the entire width. 
  4) Strands debonding must comply with Item 424.4.2.2.4.

**Additional Notes:**

- When shown on this sheet, the Fabricator has the option of furnishing either the designed beam or an approved optional beam design. All optional design brackets and shop drawings must be signed, sealed and dated by a Professional Engineer registered in the State of Texas.
- Provide Class H concrete.

**Table: Designed Beams (Straight Strands)**

<table>
<thead>
<tr>
<th>Length</th>
<th>Beam Type</th>
<th>Span</th>
<th>Beam Type</th>
<th>Pattern</th>
<th>Strand No.</th>
<th>Size</th>
<th>Strength (ksi)</th>
<th>Bottom</th>
<th>Compliance</th>
<th>Strands</th>
<th>Size</th>
<th>Strength (ksi)</th>
<th>Bottom</th>
<th>Compliance</th>
<th>Strands</th>
<th>Size</th>
<th>Strength (ksi)</th>
<th>Bottom</th>
<th>Compliance</th>
<th>Strands</th>
</tr>
</thead>
<tbody>
<tr>
<td>US LBD</td>
<td>28' Rdwy</td>
<td>5&quot; Slab</td>
<td>14</td>
<td>5B34</td>
<td>28' Rdwy</td>
<td>5&quot; Slab</td>
<td>14</td>
<td>5B34</td>
<td>28' Rdwy</td>
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<td>14</td>
<td>5B34</td>
</tr>
</tbody>
</table>

**Diagram:**

- TxDOT 5B34 BOX BEAM
- Designed in accordance with AASHTO LRFD Bridge Design Specifications.
- Prestress classes for the designed beams have been calculated for a relative humidity of 60 percent. Optional designs must likewise conform.
- Prestress losses for the designed beams have been calculated for a relative humidity of 60 percent. Optional designs must likewise conform.
- Designed in accordance with AASHTO LRFD Bridge Design Specifications.