<table>
<thead>
<tr>
<th>STRAND ARRANGEMENT</th>
<th>PATTERN</th>
<th>DEPRESSED STRAND PATTERN</th>
<th>CONCRETE</th>
<th>OPTIONAL DESIGN</th>
<th>LOAD RATING</th>
</tr>
</thead>
<tbody>
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**DESIGN NOTES:**

- Designed according to AASHTO LRFD Bridge Design Specifications, load rating using Load and Resistance Factor Design (LRFD) according to AASHTO LRFD Bridge Specifications.
- Optional designs must likewise conform.
- Provide Grade 60 reinforcing steel bars.
- Use conventional casting, each profession is constructed to 75 percent of full HL93.
- When shown on this sheet, the fabricator has the option of furnishing either the designed girder or an approved optional design. All optional design parameters shall be agreed, sealed and dated by a Professional Engineer registered in the State of Texas.
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**FABRICATION NOTES:**

- Provide Grade 60 reinforcing steel bars.
- Use conventional casting, each profession is constructed to 75 percent of full HL93.
- When shown on this sheet, the fabricator has the option of furnishing either the designed girder or an approved optional design. All optional design parameters shall be agreed, sealed and dated by a Professional Engineer registered in the State of Texas.

**DEPRESSED STRANDS:**

- Locate strands for the designed girder as low as possible on the fabricator must take an approved crack width provided the decreased spacing results in no less than 0.003" of calculated residual camber equal to or greater than that of the designed girder. When shown on this sheet, the fabricator has the option of furnishing either the designed girder or an approved optional design. All optional design parameters shall be agreed, sealed and dated by a Professional Engineer registered in the State of Texas.
<table>
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<tr>
<th>Structure</th>
<th>Designed Girders</th>
<th>Depressed Strand Pattern</th>
<th>Concrete</th>
<th>Optional Design</th>
<th>Load Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>32' Roadway</td>
<td>Type Tx54 Girders</td>
<td>24.5</td>
<td>13 Spa at 2&quot;</td>
<td>1.041</td>
<td>7.860</td>
</tr>
<tr>
<td>32' Roadway</td>
<td>Type Tx62 Girders</td>
<td>34.5</td>
<td>13 Spa at 2&quot;</td>
<td>1.041</td>
<td>7.860</td>
</tr>
</tbody>
</table>

**Non-Standard Strand Patterns**

- Standard TAR
- Optional designs must likewise conform.

**Based on the following allowable stresses (ksi):**
- Compression = 0.65 Fc
- Tension = 0.24 \( \sqrt{f'c} \)

**Effective Stress Factor (EFS) for Live Load:**
- 3" (Type)
- 3" (Type)

**Distribution Factors:**
- 1.2 for Tensile (Top) Stress
- 1.3 for Compressive (Bottom) Stress
- 1.5 for Compressive (Top) Stress

**Minimum 28 Day Compressive Strength:**
- F'c (Service I) = 50 ksi
- F'c (Service III) = 54 ksi

**Service Load Factors:**
- 1.2 for Compressive Stress
- 1.3 for Tensile Stress
- 1.5 for Compressive (Top) Stress

**Material Properties:**
- f'c = 4500 psi
- f'cu = 6500 psi
- f'cu (Top) = 6000 psi
- f'cu (Bottom) = 5100 psi

**Design Considerations:**
- Standard TAR
- Optional designs must likewise conform.