### DESIGN NOTES:
- Designed according to AASHTO LRFD Bridge Design Specifications.
- Prestress losses for the designed beams have been calculated for a relative humidity of 50%.
- Optional designs must likewise conform.

### FABRICATION NOTES:
- Provide Class H concrete.
- Use low relaxation strands, each pretensioned to 75 percent of fpu.
- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

### DESIGN REQUIREMENTS:
- Locations of strands as per Item 424.4.2.2.4.

### NON-STANDARD STRAND PATTERNS PATTERN:

#### DESIGNED BEAMS (STRAIGHT STRANDS)

<table>
<thead>
<tr>
<th>STRUCTURE</th>
<th>SPAN NO.</th>
<th>BEAM NO.</th>
<th>BEAM TYPE</th>
<th>NON-STANDARD PATTERN</th>
<th>STRAND ARRANGEMENT AT 1/4 OF BEAM</th>
<th>TOTAL</th>
<th>N#</th>
<th>TENSION</th>
<th>STRESS</th>
<th>END</th>
<th>DESIGNATED LENGTH</th>
<th>LOCATION</th>
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#### OPTIONAL DESIGN

<table>
<thead>
<tr>
<th>STRAND ARRANGEMENT AT 1/4 OF BEAM</th>
<th>PATTERN</th>
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</thead>
<tbody>
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</table>

#### NON-STANDARD STRAND PATTERNS

- Provide low relaxation strands, each pretensioned to 75 percent of fpu.
- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

Full-length debonded strands are not permitted in positions A and B. Strand debonding must comply with Item 424.4.2.2.4. Optional designs must likewise conform.

Tension = 0.24 f'ci
Compression = 0.65 f'ci

- Optional designs must likewise conform.
- Based on the following allowable stresses (ksi):
  - Tension = 0.24 f'ci
  - Compression = 0.65 f'ci

- Based on the following allowable stresses (ksi):

- Optional designs must likewise conform.

- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

- Optional designs must likewise conform.

**Prestressed Concrete Slab Beams (Non-Standard Spans)**

- Provide low relaxation strands, each pretensioned to 75 percent of fpu.
- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

- Optional designs must likewise conform.

**Prestressed Concrete Slab Beams (Non-Standard Spans)**

- Provide low relaxation strands, each pretensioned to 75 percent of fpu.
- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

- Optional designs must likewise conform.

**Prestressed Concrete Slab Beams (Non-Standard Spans)**

- Provide low relaxation strands, each pretensioned to 75 percent of fpu.
- Full-length debonded strands are not permitted in positions A and B.
- Strand debonding must comply with Item 424.4.2.2.4.

1. Locate a strand in each "A" position.
2. Place strands symmetrically about the vertical centerline of beam.
3. Space strands as equally as possible across the entire width of the beam.

- Optional designs must likewise conform.