1. All bar dimensions are out-to-out.
2. Strands N shall be ASTM A416, Grade 250 or 270, 3/8" or larger, stressed to 10,000 lbs. each.
3. Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 2".
4. For slab units with skewed end conditions, the end reinforcement, defined as Bars 4D1, 4D2, 4K, and Y within the limits of the first 2'0", shall be placed parallel to the skewed ends of the slab unit. The next two sets of Bars 4D1 or 4D2 & 4K shall be placed and tied to Strands N and a fully bonded strand in the bottom row. See "SKewed END TREATMENT DETAIL".
5. Bars 4D1, 4D2, 4K, and Y shall be spaced and tied to Strands N and a fully bonded strand in the bottom row. See "SKewed END TREATMENT DETAIL".
6. The Contractor's option, deformed welded wire reinforcement may be used in lieu of Bars 4D and 4K. Submit details to the Engineer for approval.
7. For referenced Dimensions, Angles and Case Numbers, see Table of Variables in Structures Plans.
8. Top surface of the slab units shall be raked transversely to provide a roughened surface with 1/4" amplitude. For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs. before placing the overlay.
9. Cut strands 3" beyond the face of the slab unit.
10. Bars 4D1, 5Y1, & 6Y1 correspond to END 1, and 4D2, 5Y2, & 6Y2 correspond to END 2.

INSTRUCTIONS TO DESIGNER:

1. To limit horizontal splitting forces, the maximum prestress force at the slab unit ends from fully bonded strands must be limited to the following:

<table>
<thead>
<tr>
<th>Slab Unit Type</th>
<th>Max. Bonded Prestress Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; or 15&quot; X Custom Width</td>
<td>910 Kips</td>
</tr>
<tr>
<td>12&quot; or 15&quot; X 48&quot;</td>
<td>1100 Kips</td>
</tr>
<tr>
<td>12&quot; or 15&quot; X 60&quot;</td>
<td>1440 Kips</td>
</tr>
</tbody>
</table>

No losses shall be applied when calculating the Bonded Prestress Force. The reinforcing in the ends of the slabs must not be modified without the approval of the State Structures Design Engineer.

2. Use the same thickness of slab units within each span.
3. If the cross slope of the slab exceeds 3", provide a project specific keeper block design for the low side of the slabs to prevent sliding. See "KEEPER BLOCK DETAILS" on Sheet 3.
4. If the grade of the slab exceeds 3%, provide a project specific design in the Structures Plans to prevent sliding.
5. Avoid placing slab units within the limits of superelevation transitions, because the cross slope for individual adjacent slab units must be constant from begin span to end span. Slight superelevation transitions may be accommodated by increasing the slab overlay thickness across the width of the span.
**2010 Interim Design Standard**

**PEDESTRIAN/BICYCLE RAILING DETAIL**

- **Index No. 820**
- **Description:**
  - Prestressed Slab Units
  - Bars 4P
  - 6" Min. Embedment
  - Anchor Bolt (Provide 9"
  - 6" Total Embedment
  - Prestressed Slab Units

**TRAFFIC RAILING - (CORRAL SHAPE)**

- **Index No. 424**
- **Description:**
  - Bars 4P
  - 6" Min. Embedment
  - Prestressed Slab Units

**BRIDGE PEDESTRIAN/BICYCLE PICKET RAILING**

- **Index Nos. 851 & 861**
- **Description:**
  - Anchor Bolt (Provide 9"
  - 6" Total Embedment
  - Prestressed Slab Units

**RAILING REINFORCING MODIFIED BAR LAYOUT**

- **INDEX NOS. 420 OR 425**

**NOTES:**

1. Bar dimensions shown are out to out.
2. For the other dimensions and angles A and B, see the referenced Index.
3. Adjust the dimension shown for Bars 5V, 5T, 5W, 5X, 4P & 7P as required when the 6" Min. Embedment is thickened to accommodate superelevation transition.
4. The 4"-3/8" (Index No. 421), 3-1/16" (Index No. 423) vertical dimension shown for Bars 5T and 5W is based on a 6" thick deck overlay with a 6" wide raised sidewalk on low side of the deck with a 2% deck cross slope and a counter 2% raised sidewalk cross slope. If the raised sidewalk thickness, width, or cross slope varies from the above amounts, adjust this dimension accordingly to achieve a 2½" embedment (±½") into the slab units. See Structures Plans, Superstructure and Approach Slab Sheets.
5. Air-reinforcement steel at the open joints shall have a 2" minimum cover.
6. Bars 5S may be continuous or spliced at the mid point of the slab unit. Bar splices for Bars 5S shall be a minimum of 2'-0". See Partial Plan View on Sheet 3.
7. Welded Wire Reinforcement is not permitted for Bars 5W (Mod.) on precast slab units.
Joint Detail at Begin/End Bridge

Description

By

Date

By

Date

Description

Stop:
Å
3%

PARTIAL PLAN

PARTIAL ELEVATION

END VIEW

Prestressed Slab Unit

Intermediate Bent Cap

Bent Cap

Preformed Joint Filler

Bearing Pad

Traffic Railing Reinforcement (Typ.)

Const. Joint Permitted

#5 Bars @ 1'-0"

6" Min. Deck Overlay

12" or 15" Prestressed Slab Unit

Preformed Joint Fiber

Expanded Polystyrene

Interim Design Standard

Date

2010

3 of 3

Use keeper blocks on low end of bent caps when cross slope is ≥ 3%.

NOTE:
Deck overlay reinforcing is shown at nominal spacing. See Structures Plans for actual spacing and orientation on skewed bridges.

6½" V-Groove (perpendicular to Gutter Line)

#5 Bars @ 1'-0"

1" @ Foam Backer Rod

Non-Shrink Grout

#5 Bars @ 1'-0"

#5 Bars @ 6"

1/2" Chamfer (Typ.)

6" Min. Deck Overlay

Prestressed Slab Unit or Approach Slab

Traffic Railing Reinforcement (Typ.)

Deck Expansion Joint or 4" Open Joint in Traffic Railing at Interior Bents on Continuous Units.

JOINT DETAIL AT INTERMEDIATE BENTS ON CONTINUOUS UNITS

JOINT DETAIL AT EXPANSION INTERMEDIATE BENTS

JOINT DETAIL AT EXPANSION INTERMEDIATE BENTS

PARTIAL PLAN VIEW OF JOINTS ON SKewed BRIDGES

(EXPANSION JOINT SHOWN, INTERMEDIATE JOINT SIMILAR)

PRESTRESSED SLAB UNITS

DETAILS AND NOTES

TRAFFIC RAILING REINFORCEMENT EMBEDMENT DETAIL

(Bars 5V Shown, Bars 5T, 5X & 5W Similar)