CONCRETE PAVEMENT JOINTS

**METAL OR PLASTIC CAPS FOR DOWEL BARS**

- **Plain Steel Dowel Bar (Coat and Lubricate in Accordance with Section 350 of the Std. Specs.)**
- **Plain Steel Dowel Bar (Coat and Lubricate in Accordance with Section 350 of the Std. Specs.)**
- **Metal or Plastic Cap**
- **Sheet Metal Bottom Strip In Accordance with Section 351 Of the Standard Specifications**

**TRANSVERSE EXPANSION JOINT**

- **Parting Strip (W Max. Thickness)**
- **Formed Groove (Depth 4" to 8" D)**
- **Anticipated Break**
- **Top of Pavement Steel Tie Bar**
- **Approved Tie Bar Support**

**TRANSVERSE CONTRACTION JOINT, VIBRO CAST METHOD**

- **Sheet Metal Bottom Strip For Expansion Joints Only**
- **Bend Up Against End Of Pavement After Forms Are Removed**

**TRANSVERSE CONTRACTION JOINT, SAWED METHOD**

- **Dowel Bar Layout**

**DOWELS (LENGTH 18")**

<table>
<thead>
<tr>
<th>Pavement Thickness (in.)</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; - 8&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>9&quot; - 10&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>11&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

**LONGITUDINAL BUTT CONSTRUCTION JOINT TO BE USED AT DISCONTINUANCES OF WORK**

- **Top Of Pavement Steel Tie Bar**
- **Approved Tie Bar Support**
- **Anticipated Break**

**LONGITUDINAL LANE-TIE JOINT**

- **Top of Pavement Steel Tie Bar**
- **Approved Tie Bar Support**
- **Anticipated Break**

Note: Slabs poured simultaneously. Tie bars may be inserted in the plastic concrete by means approved by the Engineer.

**LONGITUDINAL JOINTS**

- **Plain Steel Dowel Bars**

**TRANSVERSE JOINTS ARE TO BE SPACED AT A MAXIMUM OF 15'. DOWELS ARE REQUIRED AT ALL TRANSVERSE JOINTS UNLESS OTHERWISE NOTED IN PLANS.**

**TRANSVERSE JOINTS**

Note: For joint seal dimensions see Sheet 2.
**Concrete-Pavement Joints**

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**CONCRETE-CONCRETE JOINTS**

- **Joint Sealant Material**
  - Tape Bond Breaker
  - Preformed Elastomeric Compression Seal

- **Sealant Bead Thickness**
  - 8" to 10" (w + t) (w = Conc. Pavt. Thick.)

**Joint Dimensions (Inches)**

<table>
<thead>
<tr>
<th>Joint Width</th>
<th>Joint Thickness (Bead)</th>
<th>Backer Rod Dia</th>
<th>Minimum Joint Depth</th>
<th>Backer Rod Placement Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1/2</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>4</td>
<td>1/2</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>6</td>
<td>1/2</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>8</td>
<td>1/2</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
</tbody>
</table>

**Note:**
- Dimension d will be shown in the plans or established by the Engineer based on field conditions.
- Dimension w will be constructed so that the shape factor w/t has a maximum value of 2.0 and a minimum value of 1.0.

- **For New and Rehabilitation Projects:**
  - Backer Rod Bond Breaker
  - Tape Bond Breaker

**Concrete-Asphalt Shoulder Joints**

- **Joint Seal Dimensions**
  - Construction joints: w = 3" ± 1"
  - Saw Cut Joint: 6" to 8.5" (w + t) (w = Conc. Pavt. Thick.)
  - Not Required for Construction Joints.

**Description:**
- Construction of Joint Sealant Material to be as specified in the plans.
- Joint Sealant Material to be Tape Bond Breaker or Crack Existing Joint Saw Cut or Formed Joint.

**Joint Sealant Material**
- Compression Seal: Preformed Elastomeric
- Joint Sealant Material: As Specified in the Plans
- Joint Sealant Material: Tape Bond Breaker
- Joint Sealant Material: Backer Rod Bond Breaker

**Points to Note:**
- Shoulder must be repaired if proper joint shape cannot be attained.
- For rehabilitation projects the joint width will be shown on the plans or established by the Engineer based on field conditions.

**Field Conditions:**
- Dimension d will be constructed so that the shape factor w/t has a maximum value of 2.0 and a minimum value of 1.0.

- **For New and Rehabilitation Projects:**
  - Backer Rod Bond Breaker
  - Tape Bond Breaker

**Note:**
- Dimension d will be shown in the plans or established by the Engineer based on field conditions.
- Dimension w will be constructed so that the shape factor w/t has a maximum value of 2.0 and a minimum value of 1.0.

**For Rehabilitation Projects:**
- Tape Bond Breaker
- Backer Rod Bond Breaker

**Concrete-Pavement Joints**

**Index No.:** 305  **Sheet No.:** 2 of 4  **FDOT 2014 DESIGN STANDARDS**

*07/01/00 07/01/00 07/01/00*
CONCRETE PAVEMENT JOINTS

ALTERNATE KEYWAY AND HOOK BOLT

STEEL HOOK BOLT ASSEMBLY

ANCHOR BOLTS
Anchor bolts shall be Grade C in accordance with ASTM A 307.

Threaded sleeves shall develop the full strength of the bolt and meet the material and thread requirements of ASTM A 363.

NOTES
1. Longitudinal joints will not be required for single lane pavement 14' or less in width. For entrance and exit ramp joint details, see Sheet 4.

2. Arrangement of longitudinal joints are to be as directed by the Engineer.

3. All manholes, meter boxes and other projections into the pavement shall be boxed-in with 1' preformed expansion joint material.

EXPANSION ASSEMBLY
Note: Proprietary contraction and expansion assemblies may be used. Products shall be introduced to the State Construction Office in accordance with section (C) of the Product Evaluation Procedure.
CONCRETE PAVEMENT JOINTS

2-THRU LANES WITH SINGLE LANE ENTRANCE RAMP

2-THRU LANES WITH SINGLE LANE EXIT RAMP

3-THRU LANES WITH AUXILIARY LANE AND 2-LANE EXIT RAMP

CONCRETE PAVEMENT JOINTS

FDOT 2014
DESIGN STANDARDS

* 13' with tied Concrete Shoulders or 14' with Asphalt Shoulders.

Note: On single lane ramps, longitudinal joint to be constructed along centerline of ramp.