**CONCRETE PAVEMENT JOINTS**

**DESCRIPTION:**

**REVISION OF DESIGN STANDARDS**

- **2016**
- **305**

**TRANVERSE EXPANSION JOINT**

- **L/2**
- **D/2**
- **L/2**
- **D/2**

**METAL OR PLASTIC CAPS FOR DOWEL BARS**

- **Plain Steel Dowel Bar**
- **Metal**
- **Plastic**

**DOWELS (LENGTH 18")**

<table>
<thead>
<tr>
<th>Diameter</th>
<th>L/2</th>
<th>D/2</th>
<th>Longitudinal Butt Construction Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4</td>
<td>2&quot;</td>
<td>2&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>#5</td>
<td>1&quot;</td>
<td>1&quot;</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

- **Approved Tie Bar Support**

**LONGITUDINAL BUTT CONSTRUCTION JOINT**

- **Initial 3/16" Saw Cut Or 3/32" Max.**
- **Formed Groove (Depth 1/16 to 1/32")**

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

**LONGITUDINAL JOINTS**

**LONGITUDINAL LANE-TIE JOINT**

- **Provide a standard load transfer tied joint with #4 bars 25" in length at 24" or #5 bars 30" in length at 30" spacing.**

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

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

- **Anticipated Break**

**METAL OR PLASTIC CAPS FOR DOWEL BARS**

- **Plain Steel Dowel Bar**
- **Metal**
- **Plastic**

**DOTLINES-1015-REVISED-07/01/13**

**LAST REVISION:** 07/01/13

**DESCRIPTION:**

**INDEX NO.**

**SHEET NO.** 1 of 4

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

**Concrete-Concrete Joints**

- Joint Sealant Material To Be As Specified In The Plans
- Tape Bond Breaker

**Concrete-Asphalt Shoulder Joints**

- Joint Sealant Material To Be As Specified In The Plans
- Backer Rod Bond Breaker

**Joint Dimensions (Inches)**

<table>
<thead>
<tr>
<th>Joint Width</th>
<th>Sealant Bead Thickness</th>
<th>Backer Rod Dia.</th>
<th>Minimum Joint Depth</th>
<th>Backer Rod Placement Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; to 8&quot;</td>
<td>4&quot;</td>
<td>4&quot;</td>
<td>1&quot;</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>5/8&quot;</td>
<td>5/8&quot;</td>
<td>5/8&quot;</td>
<td>1/5&quot;</td>
<td>1/5&quot;</td>
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<td>1&quot;</td>
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<tr>
<td>1-1/2&quot;</td>
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<td>1-1/2&quot;</td>
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<td>1-1/2&quot;</td>
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<tr>
<td>&gt;2&quot;</td>
<td>&gt;2&quot;</td>
<td>&gt;2&quot;</td>
<td>&gt;2&quot;</td>
<td>&gt;2&quot;</td>
</tr>
</tbody>
</table>

Unless otherwise indicated on the plans the joint width for new construction will be 1/2" for construction joints, 5/8" for all other joints.

For rehabilitation projects the joint width will be shown on the plans or established by the Engineer based on field conditions.

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

**Joint Seal Dimensions**

- **Concrete-Concrete Joints**
- **Concrete-Asphalt Shoulder Joints**

**Revision**

- **Version:** 2016
- **Design Standards**
- **Concrete Pavement Joints**

**Index No.:** 305

**Sheet No.:** 2 of 4
ALTERNATE KEYWAY AND HOOK BOLT

STEEL HOOK BOLT ASSEMBLY

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 563.

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 ½" 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.

JOINT ARRANGEMENT

TOP VIEW

SECTION AA

SECTION BB

SECTION CC

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