THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
ALINE NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS IN THE PAVEMENT STRUCTURE). WHEN POSSIBLE, WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS.
USE 90° ANGLES WHEN POSSIBLE.
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

GENERAL NOTES

STANDARD INTERSECTION

APPROACH TO MEDIAN

LARGE RIGHT TURN

SKewed INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PAVEMENT DEPTH AND JOINT SPACING TABLE

<table>
<thead>
<tr>
<th>PAVEMENT DEPTH (IN)</th>
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<tbody>
<tr>
<td>6 1/2</td>
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</tr>
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<td>1'</td>
</tr>
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THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.
**GENERAL NOTES**

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION H15.

**LEGEND**

- - - - - POTENTIAL DOWELED EXPANSION JOINT
- - - - - DOWELED JOINT
- - - - - TIED JOINT

**STANDARD INTERSECTION**

**SKEWED INTERSECTION**

**STATE OF WISCONSIN**

DEPARTMENT OF TRANSPORTATION

**CONCRETE PAVEMENT**

STEEL REINFORCEMENT
**GENERAL NOTES**

1. Use dowels to expansion joints on side roads at intersections (to isolate the side road from the through street) if the side road is concrete pavement and greater than 300 feet in length.
2. Space contraction joints in accordance with SDD 13C4, 13C11 or 13C13.
3. Locate construction joints a minimum of 6 feet from the nearest contraction joint and align parallel to contraction joints.
4. Construction joints can be formed or sawed.
5. If joint is formed, provide a 1/4" radius.
6. Anchor tie bars into drilled holes with an epoxy.

**TIE BAR TABLE**

<table>
<thead>
<tr>
<th>PAVEMENT DEPTH (D)</th>
<th>TIE BAR SIZE</th>
<th>TIE BAR LENGTH (L)</th>
<th>MAX. TIE BAR SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 10 ft.</td>
<td>NO. 4</td>
<td>36&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>&gt; 10 ft.</td>
<td>NO. 5</td>
<td>36&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td></td>
<td>NO. 4</td>
<td>30&quot;</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

* Substitute bent bars at longitudinal joints when equipment limitations during construction warrant (e.g. auxiliary lanes or turn lanes).

**CONCRETE PAVEMENT JOINT TYPES**

**EXPANSION JOINTS**

**DOWELED TRANSVERSE**

**UNTIED - LONGITUDINAL**

**UNDOWELED TRANSVERSE**

**TIED LONGITUDINAL**

**CONTRACTION JOINTS**

**TIE BAR - SEE TABLE FOR SIZE AND SPACING**

**DOWELED TRANSVERSE**

**TIED TRANSVERSE**

(for use on non-doweled pavements only)

**CONSTRUCTION JOINTS**

**TIED LONGITUDINAL TO EXISTING**
USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.


PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.

ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

GENERAL NOTES

1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.


4. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.

5. ALIGNED TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.
GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"

USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMMODATE TRACKING OF OVERSIZED / OVERWEIGHT VEHICLES.

TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.

CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.

CONCRETE CURB & GUTTER (TYP.)
TIE TO PAVEMENT

BACK OF CURB (TYP.)
FLANGE OF CURB (TYP.)

CONCRETE CURB & GUTTER TIED TO CIRCULATORY ROADWAY, NOT TIED TO TRUCK APRON

EXPANSION JOINT

CONCRETE CURB & GUTTER TIED TO TRUCK APRON

1" EXPANSION JOINT MATERIAL CONFORMING TO ASTM D8139

CONCRETE CURB AND GUTTER

VERTICAL FACE CONCRETE CURB

THICKNESS VARIES SEE PLAN

CONCRETE SPLITTER ISLAND
THICKNESS VARIES
SEE PLAN

SEE DETAIL "E" (TYP)

DETAIL 'E'
EXPANSION JOINT DETAIL FOR VERTICAL CURB AT A SPLITTER ISLAND

TRUCK APRON NOT TIED TO BACK OF OUTSIDE CURB

1% MAX.
GENERAL NOTES
1. Construct dowelled expansion joint on the side road of an intersection if the side road is concrete pavement and greater than 300 feet in length. Align expansion joint with the edge of radius.
2. Provide tied joint at the flange of scab on curb if scab on curb and gutter is use.

LEGEND
- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- DIRECTION OF TRAFFIC

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVER WIDTH CHANGES.

* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED.

STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

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References:

FDM 14-10-5
FDM 14-10-35

Bid items associated with this drawing:

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<tr>
<th>ITEM NUMBER</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>320.0100 - 0199</td>
<td>Concrete Base (inch)</td>
<td>SY</td>
</tr>
<tr>
<td>320.0300 - 0399</td>
<td>Concrete Base HES (inch)</td>
<td>SY</td>
</tr>
<tr>
<td>415.0060 - 0199</td>
<td>Concrete Pavement (inch)</td>
<td>SY</td>
</tr>
<tr>
<td>415.1080 - 1199</td>
<td>Concrete Pavement HES (inch)</td>
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Standardized Special Provisions associated with this drawing:

<table>
<thead>
<tr>
<th>STSP NUMBER</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>415-020</td>
<td>Concrete Pavement Joint Layout</td>
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Other SDDs associated with this drawing:

SDD 8D1  Concrete Curb, Concrete Curb & Gutter and Ties
SDD 13C1  Concrete Pavement Longitudinal Joints and Ties
SDD 13C4  Urban Non-Doweled Concrete Pavement
SDD 13C11 Rural Doweled Concrete Pavement
SDD 13C13 Urban Doweled Concrete Pavement

Design Notes:
Always include sheets "a", "b", "c", "d" and "f" together in plan sets. Sheet "e" is only needed if the project includes a roundabout. For unique project circumstances that are not covered in this set of SDDs, the contractor shall review the joint layout plan with the engineer.

Contact Person:

Peter Kemp (608) 246-5393