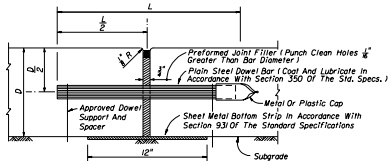
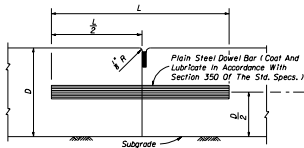


METAL OR PLASTIC CAPS FOR DOWEL BARS

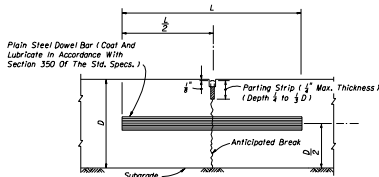


Note: Expansion joints to be placed on approaches to bridges, at street intersections and other locations indicated in detail plans.

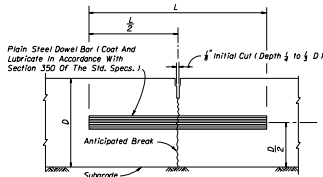
TRANSVERSE EXPANSION JOINT



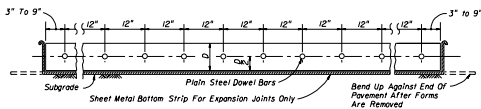
BUTT CONSTRUCTION JOINT TO BE USED AT DISCONTINUANCES OF WORK



TRANSVERSE CONTRACTION JOINT, VIBRO CAST METHOD



TRANSVERSE CONTRACTION JOINT, SAWED METHOD



DOWEL BAR LAYOUT

DOWELS (LENGTH 18")	
Pavement Thickness "D"	Diameter
6"	3/4"
7"	1"
8"	1"
9"	1 1/4"
10"	1 1/4"
2 1/2"	1 1/2"

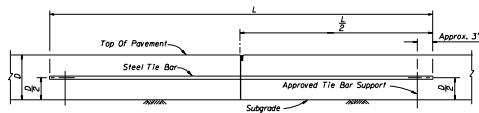
TRANSVERSE JOINTS ARE TO BE SPACED AT A MAXIMUM OF 15'. DOWELS ARE REQUIRED AT ALL TRANSVERSE JOINTS UNLESS OTHERWISE NOTED IN PLANS.

TRANSVERSE JOINTS

Pavement Thickness "D"	MAXIMUM TIE BAR SPACING			
	Distance To Closest Free Edge			
	24'	24'	24'	24'
6"	#4 Bars Length 30"	#5 Bars Length 30"	#4 Bars Length 25"	#5 Bars Length 30"
7"	48"	48"	22"	48"
8"	45"	48"	19"	31"
9"	35"	48"	17"	27"
10"	31"	48"	15"	24"
11"	29"	45"	14"	22"
12"	26"	41"	13"	20"
13"	24"	38"	12"	19"
14"	22"	35"	11"	17"
15"	21"	33"	10"	16"

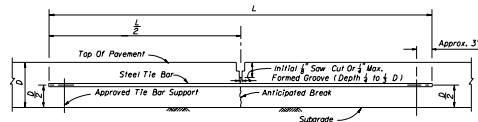
The bars are deformed #4 or #5 reinforcing steel bars meeting the requirements of Section 931 of the Standard Specifications.

When the distance to the closest free edge exceeds 24', provide a standard load transfer tied joint with #4 bars at 24" spacing. This joint can then be considered a free edge for determination of tie bar spacing on other joints.



Note: Tie bar spacing shall not exceed 24" at these joints.

LONGITUDINAL BUTT CONSTRUCTION JOINT



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

LONGITUDINAL LANE-TIE JOINT

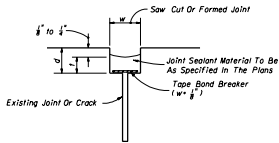
LONGITUDINAL JOINTS

Note: For joint seal dimensions see Sheet 2.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

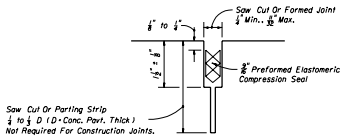
CONCRETE PAVEMENT JOINTS

Drawn By	Checked By	Date	Scale	Project No.	Sheet No.	Approved By
HW	HC	10/77			1 of 4	Burn D. D. D.



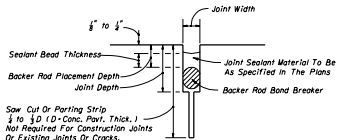
Note: Dimension w will be shown in the plans or established by the Engineer based on field conditions. Dimension d will be constructed so that the shape factor f has a maximum value of 2.0 and a minimum value of 1.0.

FOR REHABILITATION PROJECTS
TAPE BOND BREAKER



Saw Cut Or Parting Strip
 $\frac{1}{4}$ to $\frac{1}{2}$ D (D = Conc. Part. Thick.)
Not Required For Construction Joints.

FOR NEW PROJECTS
PREFORMED ELASTOMERIC COMPRESSION SEAL



Saw Cut Or Parting Strip
 $\frac{1}{4}$ to $\frac{1}{2}$ D (D = Conc. Part. Thick.)
Not Required For Construction Joints
Or Existing Joints Or Cracks.

FOR NEW AND REHABILITATION PROJECTS
BACKER ROD BOND BREAKER

BACKER ROD BOND BREAKER
(CONCRETE - CONCRETE JOINTS)

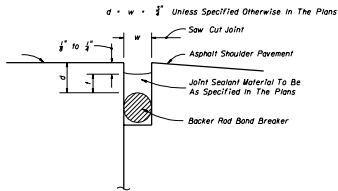
JOINT DIMENSIONS (INCHES)

JOINT WIDTH	SEALANT BEAD THICKNESS	BACKER ROD DIAMETER	MINIMUM JOINT DEPTH	BACKER ROD PLACEMENT DEPTH
$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{8}$	1	$\frac{1}{2}$
$\frac{3}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$1\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{8}$	$1\frac{1}{2}$	$\frac{3}{4}$
$\frac{3}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$1\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{2}$	$\frac{3}{8}$	1	$1\frac{1}{2}$	$\frac{3}{4}$
$\frac{3}{4}$	$\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$\frac{3}{4}$
1	$\frac{3}{8}$	$1\frac{1}{2}$	2	$\frac{3}{4}$
> 1	$\frac{3}{8}$	$1\frac{1}{2} +$	$2 +$	$\frac{3}{4}$

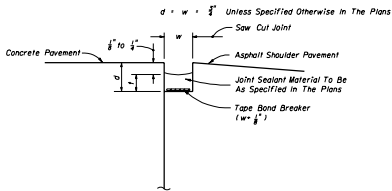
Unless otherwise indicated on the plans the joint width for new construction will be $\frac{1}{2}$ " for construction joints, $\frac{3}{4}$ " for all other joints.

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

CONCRETE - CONCRETE JOINTS



BACKER ROD BOND BREAKER



TAPE BOND BREAKER

FOR NEW AND REHABILITATION PROJECTS:
EITHER TAPE OR BACKER ROD BOND BREAKER REQUIRED;
SHOULDER MUST BE REPAIRED IF PROPER JOINT SHAPE
CAN NOT BE ATTAINED

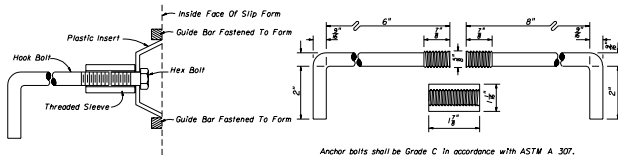
CONCRETE - ASPHALT SHOULDER JOINTS

JOINT SEAL DIMENSIONS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

CONCRETE PAVEMENT JOINTS

DESIGNED BY	DATE	APPROVED BY	
DRAWN BY	DATE	CHECKED BY	DATE
CHECKED BY	DATE	NO.	OF

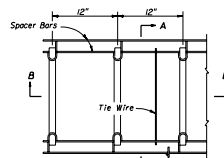


NOTE: After the concrete has set to the extent that the keyway will retain its shape, the hex bolt and plastic insert shall be removed. The remaining portion of the hook bolt assembly shall be installed immediately prior to placing of concrete in the adjacent lane.

ALTERNATE KEYWAY AND HOOK BOLT

STEEL HOOK BOLT ASSEMBLY

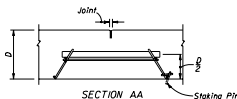
Anchor bolts shall be Grade C in accordance with ASTM A 307. Threaded sleeves shall develop the full strength of the bolt and meet the material and thread requirements of ASTM A 563.



TOP VIEW

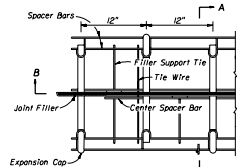


SECTION BB

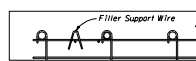


SECTION AA

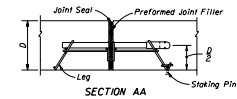
CONTRACTION ASSEMBLY



TOP VIEW



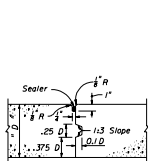
SECTION BB



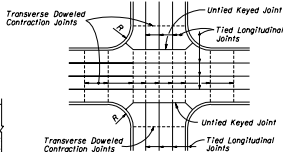
SECTION AA

EXPANSION ASSEMBLY

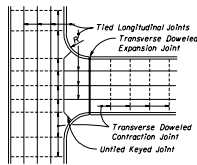
Note: Proprietary contraction and expansion assemblies may be used. Products shall be introduced to the State Construction Office in accordance with section (C) of the Product Evaluation Procedure.



KEYED JOINT



JOINT LAYOUT AT THRU INTERSECTION



JOINT LAYOUT AT 'T' INTERSECTIONS

NOTES

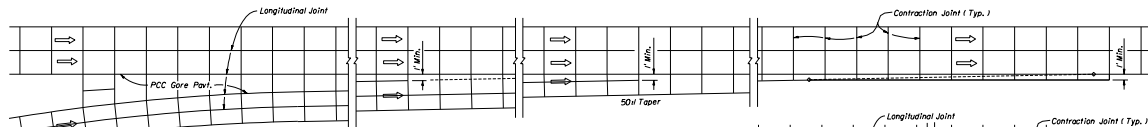
1. Longitudinal joints will not be required for single lane pavement 14' or less in width. For entrance and exit ramp joint details, see Sheet 4 of 4.
2. Arrangement of longitudinal joints are to be as directed by the Engineer.
3. All manholes, meter boxes and other projections into the pavement shall be boxed-in with 1/2" preformed expansion joint material.

JOINT ARRANGEMENT

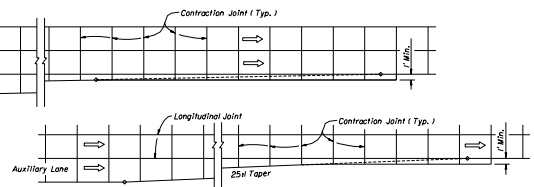
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

CONCRETE PAVEMENT JOINTS

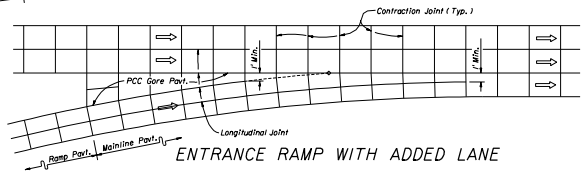
Revised	Date	Approved By	 STATE PAVEMENT DESIGN ENGINEER
Designed By	1987-07-07		
Drawn By	1987-07-06	Checked By	
Checked By	1987-07-07	00	



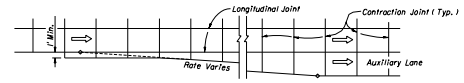
2-THRU LANES WITH SINGLE LANE ENTRANCE RAMP



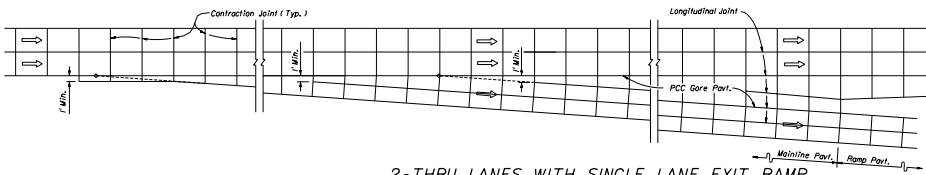
ENTRANCE TAPER WITH AUXILIARY LANE



ENTRANCE RAMP WITH ADDED LANE

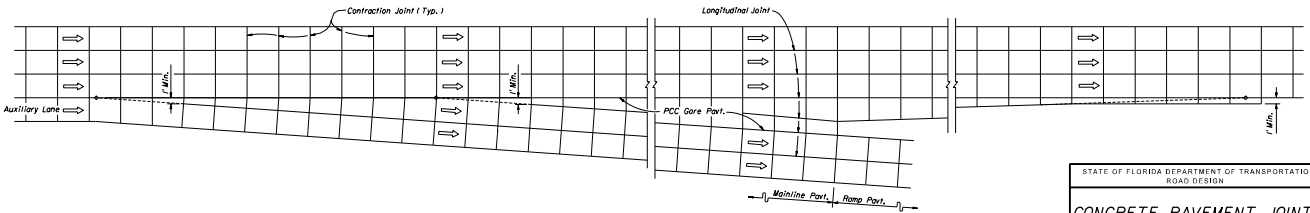


EXIT TAPER WITH AUXILIARY LANE



2-THRU LANES WITH SINGLE LANE EXIT RAMP

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




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

JOINT LAYOUT AT ENTRANCE AND EXIT RAMP TERMINALS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

CONCRETE PAVEMENT JOINTS

Revised	Date	Approved By	
Designed By	10/10/77	11/72	 STATE HIGHWAY DESIGN ENGINEER
Drawn By	MBT	11/75	
Checked By	WBC	11/77	
Scale	AS SHOWN	DATE	