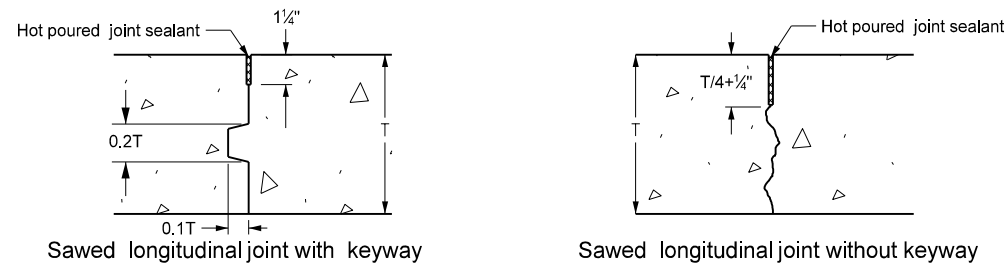


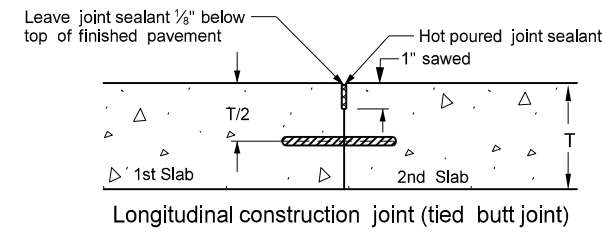
LONGITUDINAL JOINT DETAILS

D-550-2

UNTIED JOINTS

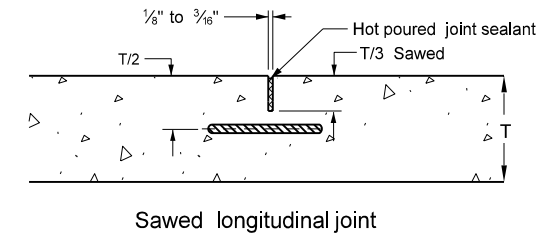
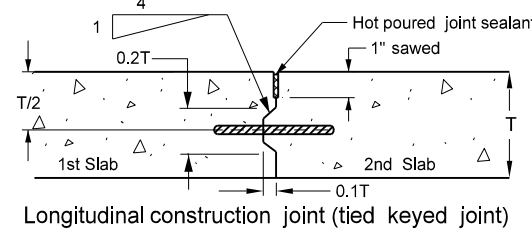
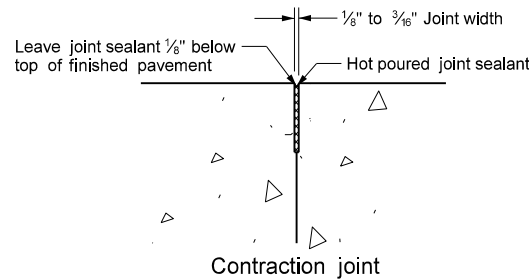


TIED JOINTS



Notes:

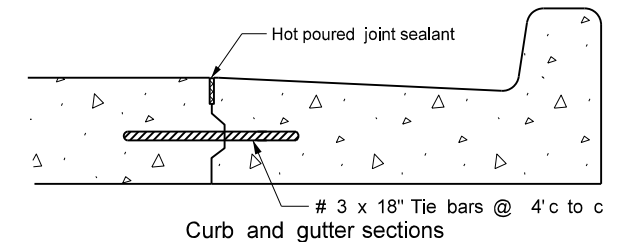
1. Provide hot poured joint sealant meeting the requirements of Section 826.02A.2 of the Standard Specifications.
2. Include all costs of the longitudinal joint and seal in the price bid for the PCC pavement.
3. Do not place tie bars within 18 inches of a transverse skewed joint.
4. Use Grade 40 steel for tie bars installed bent and later straightened.
5. Increase the tie bar spacing up to 10%, when necessary to facilitate construction.
6. Place tie Bars at a 48 inch maximum spacing.
7. A "Warp" joint is a sawed joint or a construction joint with a keyway.
8. A "Butt joint" is a construction joint with no keyway.



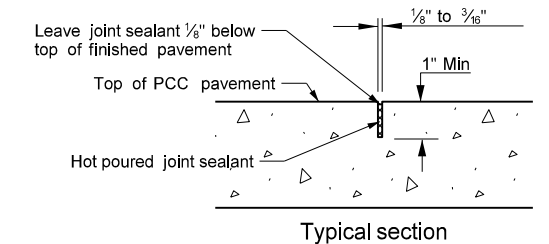
TIEBAR SPACINGS (In)

BAR SIZE
GRADE STEEL
BAR LENGTH
JOINT TYPE
PVTM THICKNESS
DIST TO FREE EDGE (FT)

BAR SIZE GRADE STEEL BAR LENGTH JOINT TYPE PVTM THICKNESS DIST TO FREE EDGE (FT)		# 3 BAR		# 4 BAR				# 5 BAR				# 6 BAR					
		GRADE 40		GRADE 60		GRADE 40		GRADE 60		GRADE 40		GRADE 60		GRADE 40		GRADE 60	
		24"	30"	24"	36"	30"	42"	36"	48"								
6"	WARP																
	BUTT	48	37	48	48	48	48	48	48	48	48	48	48	48	48	48	48
8"	WARP	48	39	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	42	27	48	42	48	48	48	48	48	48	48	48	48	48	48	48
8 1/2"	WARP	48	37	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	39	26	44	39	48	48	48	48	48	48	48	48	48	48	48	48
9"	WARP	48	35	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	37	24	48	37	48	48	48	48	48	48	48	48	48	48	48	48
9 1/2"	WARP	48	33	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	35	25	48	35	48	48	48	48	48	48	48	48	48	48	48	48
10"	WARP	47	31	48	47	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	33	24	48	33	48	48	48	48	48	48	48	48	48	48	48	48
10 1/2"	WARP	45	30	48	45	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	32	24	48	32	48	48	48	48	48	48	48	48	48	48	48	48
11"	WARP	43	28	48	43	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	30	24	46	30	48	48	48	48	48	48	48	48	48	48	48	48
11 1/2"	WARP	48	41	48	41	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	29	24	44	29	48	48	48	48	48	48	48	48	48	48	48	48
12"	WARP	39	26	48	39	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	27	24	42	27	48	48	48	48	48	48	48	48	48	48	48	48
12 1/2"	WARP	38	25	48	38	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	27	24	40	27	48	48	48	48	48	48	48	48	48	48	48	48
13"	WARP	36	24	48	36	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	25	24	38	25	48	48	48	48	48	48	48	48	48	48	48	48
13 1/2"	WARP	35	24	48	35	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	25	24	37	25	48	48	48	48	48	48	48	48	48	48	48	48
14"	WARP	34	24	48	34	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	24	24	35	24	48	48	48	48	48	48	48	48	48	48	48	48
14 1/2"	WARP	32	24	48	32	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	32	24	34	24	48	48	48	48	48	48	48	48	48	48	48	48
15"	WARP	31	24	47	31	48	48	48	48	48	48	48	48	48	48	48	48
	BUTT	33	24	33	24	48	48	48	48	48	48	48	48	48	48	48	48



JOINT SEALER DETAILS



NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-15-2010	
REVISIONS	
DATE	CHANGE
10/23/2012	Expanded Tie Bar Table
03/16/2016	Updated Jt Details & notes
10/25/2019	Corrected "Typo" in Note 3

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