Art. 420.09

Engineer. The tining device shall be operated so as to a produce a pattern of grooves, 1/8 to 3/16 in. (3 to 5 mm) deep and 1/10 to 1/8 in. (2.5 to 3.2 mm) wide across the pavement. The tining device shall be operated at a 1:6 skew across the pavement for facilities with a posted speed limit of 55 mph or greater. The tining pattern shall not overlap or leave gaps between successive passes. No other operation will be permitted with this equipment. Separate passes will be required for the turf dragging operation and the tining operation.

Center to Center Spacings of Metal Comb Tines					
in. (mm) (read spacings left to right)					
1 5/16 (34)	1 7/16 (36)	1 7/8 (47)	2 1/8 (54)	1 7/8 (48)	
1 11/16 (43)	1 1/4 (32)	1 1/4 (31)	1 1/16 (27)	1 7/16 (36)	
1 1/8 (29)	1 13/16 (46)	13/16 (21)	1 11/16 (43)	7/8 (23)	
1 5/8 (42)	2 1/16 (52)	15/16 (24)	11/16 (18)	1 1/8 (28)	
1 9/16 (40)	1 5/16 (34)	1 1/16 (27)	1 (26)	1 (25)	
1 1/16 (27)	13/16 (20)	1 7/16 (37)	1 1/2 (38)	2 1/16 (52)	
2 (51)	1 3/4 (45)	1 7/16 (37)	1 11/16 (43)	2 1/16 (53)	
1 1/16 (27)	1 7/16 (37)	1 5/8 (42)	1 5/8 (41)	1 1/8 (29)	
1 11/16 (43)	1 3/4 (45)	1 3/4 (44)	1 3/16 (30)	1 7/16 (37)	
1 5/16 (33)	1 9/16 (40)	1 1/8 (28)	1 1/4 (31)	1 15/16 (50)	
1 5/16 (34)	1 3/4 (45)	13/16 (20)	1 3/4 (45)	1 15/16 (50)	
2 1/16 (53)	2 (51)	1 1/8 (29)	1 (25)	11/16 (18)	
2 1/16 (53)	11/16 (18)	1 1/2 (38)	2 (51)	1 9/16 (40)	
11/16 (17)	1 15/16 (49)	1 15/16 (50)	1 9/16 (39)	2 (51)	
1 7/16 (36)	1 7/16 (36)	1 1/2 (38)	1 13/16 (46)	1 1/8 (29)	
1 1/2 (38)	1 15/16 (50)	15/16 (24)	1 5/16 (33)		

Hand tining or tining with a mechanically operated comb combined with the curing equipment specified in Article 1101.09 will be permitted where the Specifications permit hand finishing or vibratory screeds, one lane construction up to 16 ft (5 m) wide, gaps, projects with a net length of 1/2 mile (800 m) or less, and where the production rate on any paving day will be less than 1,500 cu yd (1200 cu m) per day. A foot bridge shall be provided for the hand tining operation for all pavement over 12 ft (3.6 m) wide, unless it can be demonstrated to the satisfaction of the Engineer that an alternate texturing operation produces satisfactory results.

(2) Type B. Type B final finish shall be obtained by the use of a single artificial turf drag. The artificial turf shall conform and be operated according to the requirements for Type A finish, except this device shall be attached to a separate piece of equipment used expressly for the texturing operation.

420.10 Surface Tests. The finished surface of the pavement shall be tested for smoothness according to Article 407.09, except as follows:

The finished surface of the pavement shall be tested for smoothness once the pavement has attained a flexural strength of 550 psi (3800 kPa) or a compressive strength of 3000 psi (20,700 kPa).

Membrane curing damaged during testing shall be repaired as directed by the Engineer at no additional cost to the Department.

No further texturing for skid resistance will be required for areas corrected by grinding. Protective coat shall be reapplied to ground areas according to Article 420.18 at no additional cost to the Department.

SMOOTHNESS ASSESSMENT SCHEDULE (PCC)				
High-Speed Mainline Pavt. Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavt. Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less		+\$1200.00		
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$950.00		
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$600.00		
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$750.00		

420.11 Removing Forms. Forms may be removed from freshly placed concrete which has set for at least 12 hours, except auxiliary forms used temporarily in widened areas. Forms shall be removed carefully avoiding damage to the pavement. After the forms have been removed, the sides of the slab shall be cured as outlined in one of the methods indicated in Article 1020.13.

Any honeycombed or porous areas shall be corrected as directed by the Engineer. Effective surface drainage shall be provided and maintained to prevent the accumulation of water along the edges of the pavement. Underwash along the edges shall be prevented, where grades are such as to cause this action, by placing earth against the edges to the full height of the slab.

420.12 Sealing Joints. Joints shall be sealed, as shown on the plans, before the pavement is opened to traffic, including construction traffic, and as soon after the curing period as feasible. Poured joint sealing material shall be placed when the air temperature in the shade is 50 °F (10 °C) or higher, unless approved by the Engineer.

Just prior to sealing, each joint shall be thoroughly cleaned of all foreign material, including membrane curing compound, and the joint faces shall be clean and surface dry when the seal is applied. Material for seal applied hot shall be stirred during heating to prevent localized overheating. The sealing material shall be applied to each joint opening according to the details shown on the plans or as directed by the Engineer, without spilling on the exposed concrete surfaces.