

CHAPTER 8

HOT MIX ASPHALT (HMA) PAVEMENT, BASES, AND SUBBASES

8.00	TABLES AND REPORT FORMS	8-1
8.01	TABLES FOR BITUMINOUS MATERIALS AND HMA CONSTRUCTION	8-1
8.02	REPORT FORMS	8-1
	Form Identification and Use	8-1
8.10	ACCEPTANCE AND TESTING	8-2
8.11	FIELD TESTS AND CERTIFICATION OF MATERIALS	8-2
	Asphalt Materials	8-2
	Aggregates	8-2
8.12	RESPONSIBILITY AND DOCUMENTING HMA MIXTURE PROPORTIONING CHANGES	8-3
	Adjusting Asphalt Binder Contents	8-3
	Documenting Corrective Action for Noncomplying Air Voids Test on Specimens Taken from Constructed Pavement	8-4
	Adjusting Aggregate Proportions	8-4
	Filler/Bitumen Ratio	8-5
8.13	DENSITY CONTROLS FOR HMA CONSTRUCTION	8-5
	Uncompacted HMA Samples	8-5
	Compacted HMA Samples	8-6
	Procedures for Construction of Test Strips	8-8
	Resolving Density-Void Conflicts	8-11
8.14	TESTING FOR SMOOTHNESS	8-12
	Use of Straightedge and Rolling Surface Checker	8-12
8.15	CHECKING TRANSVERSE JOINTS FOR SMOOTHNESS	8-13
8.20	MEASUREMENTS AND PAYMENT COMPUTATIONS	8-14
8.21	ASPHALT BINDER	8-14
	Tank Measurement and Asphalt Binder Content Determination	8-14
	Measuring Asphalt Binder for Small Quantities	8-15
	Asphalt Binder Quantities and Pay Adjustments	8-15
8.22	TARGET VALUES FOR ASPHALT BINDER CONTENT IN JOB MIXES	8-15
8.23	WEIGHING OF HMA MATERIALS	8-16

8.30	EQUIPMENT USE AND INSPECTION	8-17
8.31	INSPECTION AT HMA PLANTS	8-17
8.32	INSPECTING THE MIXING TIME OF HMA PLANTS	8-18
8.40	GENERAL CONSTRUCTION	8-19
8.41	UNSTABLE SUBGRADES AND SUBBASES	8-19
	Locating Unstable Areas	8-19
	Determining Cause	8-19
	Overdepth Aeration and Recompression	8-19
	Special Treatments	8-20
8.42	STAKING METHOD FOR HMA PAVEMENTS	8-20
8.43	GUIDELINE STRINGS AND EDGE ALIGNMENT	8-20
8.44	LONGITUDINAL JOINTS	8-21
8.45	TACK COATS USING EMULSIONS	8-21
	For Dilution	8-21
	Application Rate for Diluted Emulsion	8-21
	Sample for Compliance	8-22
	Measurement for Pay	8-22
	Settlement of Diluted Emulsions	8-22
8.50	BASE, INTERMEDIATE, AND SURFACE COURSES	8-23
8.51	HMA WEDGE CONSTRUCTION FOR SUPERELEVATION OF CURVES	8-23
	Automatic Slope Control	8-23
	Placement of Wedge	8-24
	Sequence of Placement	8-24
8.52	LAYING WIDTHS FOR HMA	8-25
8.53	SPREAD RATES FOR HMA BASE, INTERMEDIATE, AND SURFACE COURSES	8-25
8.54	HMA RESURFACING ON CITY STREETS	8-26
	Preliminary Layout	8-26
	Construction	8-27
	Thickness Taper at Curb Line	8-28
	Extending Paver Width	8-28
8.55	COLD WEATHER HMA CONSTRUCTION	8-28
	Temperature Determination for Placing HMA and Liquid Bitumens	8-29
8.56	RELEASE AGENTS AND SOLVENTS	8-29

8.60	RUMBLE STRIPS IN HMA SHOULDERS	8-30
8.61	CONSTRUCTION CONSIDERATIONS – MILLED RUMBLE STRIPS	8-30
8.62	CONSTRUCTION CONSIDERATIONS – ROLLED RUMBLE STRIPS	8-30
8.70	INSPECTOR'S GUIDE - HMA PAVING & RESURFACING	8-33
	Additional Requirements for Interstate Projects	8-35
	Additional Requirements for Full-Depth Paving	8-35
	Additional Requirements for Winter Shutdown	8-35
8.80	USE OF SPECIAL EQUIPMENT	8-36
	Material Transfer Vehicles	8-36
	Other Material Transfer Vehicles	8-36
	Mat Smoothness Machine	8-38
	Windrow Pick-up Equipment	8-38

