

Table of Contents

<i>Chapter I</i>	<i>Introduction</i>	<i>1-1</i>
<i>Chapter II</i>	<i>Mix Properties</i>	
	<i>Stability</i>	<i>2-1</i>
	<i>Density</i>	<i>2-1</i>
	<i>Workability</i>	<i>2-2</i>
	<i>Flexibility</i>	<i>2-2</i>
	<i>Durability</i>	<i>2-2</i>
	<i>Impermeability</i>	<i>2-3</i>
	<i>Fatigue Resistance</i>	<i>2-3</i>
	<i>Skid Resistance</i>	<i>2-4</i>
	<i>Smoothness</i>	<i>2-4</i>
	<i>Asphalt Binder Content</i>	<i>2-5</i>
	<i>Air Voids</i>	<i>2-5</i>
	<i>Voids in the Mineral Aggregate (VMA)</i>	<i>2-6</i>
<i>Chapter III</i>	<i>Equipment</i>	
	<i>Brooms</i>	<i>3-1</i>
	<i>Tack Distributor</i>	<i>3-1</i>
	<i>Trucks</i>	<i>3-2</i>
	<i>Paver</i>	<i>3-3</i>
	<i>Rollers</i>	<i>3-4</i>
	<i>Windrow Pickup Elevator</i>	<i>3-5</i>
	<i>Material Transfer Vehicle (MTV)</i>	<i>3-6</i>
	<i>Mat Smoothness Machine</i>	<i>3-7</i>
<i>Chapter IV</i>	<i>Role of the Inspector</i>	
	<i>Description</i>	<i>4-1</i>
	<i>Important Documents</i>	<i>4-2</i>
	<i>Duties Typically Performed</i>	<i>4-4</i>
<i>Chapter V</i>	<i>Traffic Control</i>	
	<i>Flagger</i>	<i>5-1</i>
	<i>Standards</i>	<i>5-3</i>

<i>Plan Notes and Detail Plan Sheets</i>	5-4
<i>Traffic Control Devices</i>	5-5
<i>Monitoring and Documentation</i>	5-7
<i>Noncompliance</i>	5-8
<i>Accidents</i>	5-9

Chapter VI ***Preparation of Grade and Base***

<i>Cleaning and Preparation of Base</i>	6-1
<i>Base Repair</i>	6-1
<i>Base Widening</i>	6-2
<i>Application of Tack Coat</i>	6-3
<i>Treatment of Fixtures</i>	6-4
<i>Fabric Reinforcement</i>	6-4
<i>Scarification</i>	6-5
<i>Heater Scarification</i>	6-6
<i>Cold In-Place Recycling</i>	6-7
<i>Slab Fracturing Processes</i>	6-9
<i>Special Backfill</i>	6-12
<i>Modified Subbase</i>	6-13
<i>Unstable Subgrades and Subbases</i>	6-14

Chapter VII ***Mix Delivery, Placement, and Compaction***

<i>Truck Unloading</i>	7-1
<i>Dimensions</i>	7-3
<i>String Line</i>	7-4
<i>Edge Alignment</i>	7-4
<i>Wedge, Leveling, and Strengthening Courses</i>	7-5
<i>Paver Speeds and Plant Production</i>	7-6
<i>Paver Operations</i>	7-7
<i>Runouts</i>	7-8
<i>Transverse Joints and Runouts</i>	7-9
<i>Longitudinal Joints</i>	7-10
<i>Hand Spreading</i>	7-12
<i>Compaction</i>	7-12
<i>Roller Operations</i>	7-15
<i>Classes of Compaction</i>	7-16
<i>Checking Roller Coverage</i>	7-18

Chapter VIII **Limitations and Miscellaneous Operations**

Public Convenience and Safety 8-1
Mat Surface Conditions 8-2
Surface Temperature 8-3
Mat Cooling 8-3
Mix Temperature 8-4
Calendar Dates 8-5
Haul Roads 8-6
Milled Shoulder Rumble Strips 8-6
Granular Shoulders 8-8
Winter Shutdown 8-9
Tickets, Quantities, and Yield 8-11
Contractor Sampling 8-12
Coring 8-13
Smoothness Testing 8-15

Chapter IX **Problems and Solutions**

Segregation 9-1
Tack Coat Application 9-5
Flushing or Bleeding 9-6
Tender Mixes 9-7
Mix Pickup 9-8
Roller Marks 9-9
Wavy Surface 9-9
Reflective Bumps 9-10
Cracking 9-11
Rutting 9-13
Crushing Aggregate 9-14
Longitudinal (Centerline) Joints 9-14
Screed Marks / Mat Texture 9-17
Mat Problem Trouble-Shooting 9-18

Chapter X **Appendix**

Superpave (Gyratory Mix Design) Discussion 10-1
Factors Influencing Compaction 10-3
Mat Problem Trouble-Shooting Guide 10-4
Asphalt Terminology 10-5