

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>AC Concrete</u>		
437	Asphalt Binder, Cutback Asphalt & Emulsified Asphalt	October 18, 2011
	Appendix A	October 18, 2011
	Appendix B	October 18, 2011
	Appendix C	April 30, 2002
	Appendix D	October 17, 2006
438	Inspection & Acceptance of High Performance Bituminous Premix	October 19, 2004
	Appendix A	October 18, 2005
	Appendix B	October 19, 2010
491.15	Release Agents for Bituminous Materials	October 19, 2010
	Appendix A	October 18, 2011
491.16	Anti-strip Agents for Cutback Asphalt	October 17, 2006
	Appendix A	October 19, 2010
500	Asphaltic Terminology	October 19, 2010
501	Equations & Example Calculations	October 19, 2010
502	Approved Safety Edge Devices	October 18, 2011
504	Cold-In-Place Hot Mix Asphalt (HMA) Recycling	October 20, 2009
	Appendix A	October 21, 2008
	Appendix B	October 21, 2008
505	Reclaimed Asphalt Pavement for HMA Mixtures	October 18, 2011
	Appendix A	April 20, 2010
	Appendix B – NEW ISSUE	October 18, 2011
506	Recycled Asphalt Shingle Suppliers	October 18, 2011
	Appendix A	October 18, 2011
	Appendix B	October 19, 2010
	Appendix C	October 19, 2010
	Appendix D	October 19, 2010
	Appendix E – NEW ISSUE	October 18, 2011
507	Moisture Sensitivity Testing of Asphalt Mixtures	October 18, 2011

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>AC Concrete (Continued)</u>		
508	Hot Mix Asphalt (HMA) Plant Inspection	October 19, 2004
	Appendix A	April 20, 2004
	Appendix B	April 15, 2003
509	Tank Measurement & Asphalt Cement Content Determination	April 15, 2008
510	Method of Design of Hot Mix Asphalt Mixes	October 18, 2011
	Appendix A	October 18, 2011
	Appendix B	April 15, 2003
	Appendix C	October 19, 2010
511	Control of Hot Mix Asphalt Mixtures	October 18, 2011
	Appendix A	October 17, 2006
	Appendix B	April 18, 2006
	Appendix C	April 18, 2006
	Appendix D	October 21, 2008
512	Hot Mix Asphalt (HMA) Paving History	October 19, 2004
	Appendix A	October 18, 2005
514	Correlation of Field Density for Hot Mix Asphalt (HMA) Paving	October 19, 2004
T101M	Aggregate Delivery Conversion Table (Metric Units)	October 18, 2005
T101C	Aggregate Delivery Conversion Table (Customary Units)	October 18, 2005
T102M	Temperature Volume Corrections For Asphaltic Materials (Metric Units)	October 18, 2005
T102C	Temperature Volume Corrections For Asphaltic Materials (Customary Units)	October 18, 2005
T103M	Temperature Volume Corrections For Asphaltic Materials (Metric Units)	October 18, 2005
T103C	Temperature Volume Corrections For Asphaltic Materials (Customary Units)	October 18, 2005
T104	Gauging Table For Horizontal Cylindrical Tanks	October 18, 2005
T105	Outage of Horizontal Cylindrical Tanks	October 18, 2005
T108	Table C1 Temperature Volume Corrections For Emulsified Asphalt	October 18, 2005
T108A	Temperature Volume Corrections For Diluted Emulsified Asphalt	October 18, 2005

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>PC Concrete</u>		
383	Testing the Strength of Portland Cement Concrete Using The Maturity Method	October 18, 2011
	Appendix A	October 20, 2009
384	Measuring Paver Vibrator Frequency	October 20, 2009
526	Portland Cement Concrete Pavement History	April 30, 2002
527	Paving Plant Inspection	October 18, 2011
	Appendix A	October 18, 2011
	Appendix B	October 20, 2009
	Appendix C	April 20, 2010
	Appendix D	October 19, 2010
528	Structural Concrete Plant Inspection	October 18, 2011
529	Portland Cement (PC) Concrete Proportions	April 19, 2011
530	Quality Management & Acceptance of PC Concrete Pavement	April 20, 2010
	Appendix A	April 18, 2006
531	Test Method For Combining Aggregate Gradations	October 19, 2004
532	Aggregate Proportioning Guide for PC Concrete Pavement	October 18, 2011
	Appendix A	April 15, 2003
534	Mobile Mixer Inspection	April 17, 2007
	Appendix A	April 17, 2007
401	Hydraulic Cements	October 20, 2009
	Appendix A	October 18, 2011
	Appendix B	April 15, 2008
	Appendix C	October 20, 2009
402	Corrosion Inhibitors for Portland Cement Concrete	October 17, 2006
	Appendix A	October 18, 2011

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>PC Concrete (Continued)</u>		
403	Chemical Admixtures for Concrete	October 18, 2011
	Appendix A	October 18, 2011
	Appendix B	October 18, 2011
	Appendix C	October 18, 2011
	Appendix D	October 19, 2010
	Appendix E	October 18, 2011
	Appendix F	October 18, 2011
	Appendix G	October 18, 2011
405	White Pigmented Curing Compound In Bulk Storage	April 19, 2011
436.01	Inspection & Acceptance of Poured Joint Sealers	April 30, 2002
	Appendix A	April 15, 2008
436.02	Inspection & Acceptance of Elastomeric Joint Seals	October 19, 2004
	Appendix A	April 20, 2004
436.03	Inspection & Acceptance of Resilient Expansion Joint Filler	October 19, 2004
	Appendix A	October 18, 2011
436.04	Inspection & Acceptance of Backer Rod for Contraction Joints	April 20, 2004
	Appendix A	April 17, 2007
	Appendix B	April 17, 2007
436.05	Inspection & Acceptance of Flexible Foam Expansion Joint Fillers	October 19, 2004
	Appendix A	October 20, 2009
436.06	Inspection & Acceptance of Tire Buffings for Filling Expansion Joints	April 20, 2004
	Appendix A	October 16, 2007
491.14	Inspection & Acceptance of Ground Granulated Blast Furnace Slag (GGBFS)	October 16, 2007
	Appendix A	October 18, 2011
491.17	Fly Ash	October 19, 2010
	Appendix A	April 19, 2011
	Appendix B	April 15, 2008
T214A	Reciprocals for Batch Weight Calculations	April 18, 2006
T215A	W-W1 Table for Pycnometer Moisture Determination	October 19, 2004

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>Field Sampling & Testing</u>		
203	Consultation Provided by Materials Personnel On Construction Projects	April 20, 2004
204	Inspection of Construction Project Sampling & Testing	October 19, 2010
204 Apdxs.	Appendix A (US)	October 19, 2010
	Appendix A (Metric)	October 19, 2010
	Appendix B	October 16, 2007
	Appendix C (US)	October 17, 2006
	Appendix C (Metric)	October 17, 2006
	Appendix D (US)	October 17, 2006
	Appendix D (Metric)	October 17, 2006
	Appendix E (US)	October 18, 2011
	Appendix E (Metric)	April 21, 2009
	Appendix F (US)	October 19, 2010
	Appendix F (Metric)	October 19, 2010
	Appendix H (US)	October 18, 2011
	Appendix H (Metric)	October 19, 2010
	Appendix I	October 18, 2011
	Appendix K (US)	October 20, 2009
	Appendix L (US)	October 17, 2006
	Appendix L (Metric)	October 17, 2006
	Appendix M	April 19, 2011
	Appendix P	April 15, 2008
	Appendix T	April 19, 2011
	Appendix U (US)	October 17, 2006
	Appendix U (Metric)	October 17, 2006
	Appendix V (US)	October 17, 2006
	Appendix V (Metric)	October 17, 2006
	Appendix W	October 19, 2010
	Appendix X	October 19, 2010
	Appendix Z	October 18, 2011
205	Quality Assurance Program for Construction Overview & Description	April 15, 2008
206	Nuclear Test Equipment	October 20, 2009
	Appendix B	April 20, 2004
	Appendix D	October 18, 2011
	Appendix E	October 18, 2011
207	Independent Assurance Program for Construction Overview & Description	October 16, 2007
	Appendix A	October 16, 2007

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>Field Sampling & Testing (Continued)</u>		
208	Materials Laboratory Qualification Program	October 19, 2010
	Appendix A	October 17, 2006
	Appendix B	October 19, 2010
	Appendix C	October 16, 2007
213	Technical Training & Certification Program	October 20, 2009
	Appendix A	April 15, 2008
	Appendix B	October 18, 2005
	Appendix C	October 20, 2009
	Appendix D	October 20, 2009
216	Guidelines for Validating Certified Testing Results	October 19, 2010
	Appendix A	October 21, 2008
301	Aggregate Sampling & Minimum Size of Samples for Sieve Analysis	October 18, 2011
302	Sieve Analysis of Aggregates	October 18, 2011
305	Field Method to Determine Percentage of Fractured Particles in Coarse Aggregate Gravels	April 20, 2004
306	Determining Amount of Material Finer Than the No. 200 (75 µm) Sieve in Aggregate	October 18, 2011
307	Determining Specific Gravity of Aggregate	April 19, 2005
308	Determining Free Moisture & Absorption of Aggregates	October 19, 2004
309	Determining Standard Proctor Moisture Density Relationship of Soils	October 19, 2010
310	Determining Modified Proctor Moisture Density Relationship of Soils	October 19, 2004
311	Method of Sampling Aggregate from the Roadway	April 20, 2004
315	Method of Making, Protecting, Curing & Testing Concrete Cylinders	October 19, 2010
316	Flexural Strength of Concrete	October 20, 2009
	Appendix A	October 21, 2008
	Appendix B	October 21, 2008
317	Slump of Hydraulic Cement Concrete	April 19, 2011

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>Field Sampling & Testing (Continued)</u>		
318	Air Content of Freshly Mixed Concrete by Pressure	October 19, 2010
320	Method of Sampling Compacted Asphalt Mixtures	April 19, 2005
321	Method of Test For Compacted Density of Hot Mix Asphalt (HMA)(Displacement Method)	April 15, 2003
322	Sampling Uncompacted Hot Mix Asphalt	April 21, 2009
323	Method of Sampling Asphaltic Materials	April 15, 2003
324	Determining the Moisture Content Of Rap for Use in HMA	October 20, 2009
325	Compacting Asphalt Concrete by the Marshall Method	October 18, 2005
325G	Method of Test for Determining the Density of Hot Mix Asphalt (HMA) Using the Superpave Gyratory Compactor (SGC)	October 18, 2011
326	Determining the Density of Undisturbed Soil Cores By Displacement	October 19, 2004
327	Sampling Freshly Mixed Concrete	October 18, 2011
328	Making, Protecting & Curing Concrete Flexural Strength Field Specimens	October 19, 2010
330	Vacuum Extraction of Bitumen in Paving Mixtures	October 17, 2006
331	Mechanical Analysis of Extracted Aggregate	October 19, 2004
334	Determining Moisture Content & Density of Soils, Bases & Subbases with a Nuclear Gauge	October 18, 2011
336	Methods of Reducing Aggregate Field Samples to Test Samples	October 18, 2011
337	Method To Determine the Thickness of Completed Courses of Base, Subbase, & Hot Mix Asphalt	April 15, 2003
338	Determining Asphalt Binder Content& Gradation of Hot Mix Asphalt (HMA) by the Ignition Method	October 21, 2008
339	Determining the Amount of Silt in Fine Aggregate	October 19, 2004

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>Field Sampling & Testing (Continued)</u>		
340	Weight per Cubic Foot, Yield, & Air Content (Gravimetric) Of Concrete	October 18, 2011
341	Determining Pavement & Bridge Ride Quality	April 21, 2009
342	Determining Moisture in Rock Salt	October 17, 2006
344	Determining the Amount of Shale in Fine Aggregate	October 19, 2004
345	Determining the Amount of Shale in Coarse Aggregate	October 19, 2004
346	Locating, Drilling & Evaluating Portland Cement Concrete Pavement Cores	October 19, 2010
	Appendix A	April 20, 2010
	Appendix B	April 19, 2005
347	Measuring Length of Drilled Concrete Cores	October 19, 2010
348	Performing the Sieve Test on Emulsified Asphalts	October 21, 2003
349	Determining Compatibility of Rapid-Setting Asphalt Emulsions & Aggregates	April 19, 2005
350	Determining Maximum Specific Gravity of Hot Mix Asphalt (HMA) Mixtures	April 21, 2009
	Appendix A	October 21, 2003
351	Determining Asphalt Binder Content in Hot Mix Asphalt (HMA) Mixtures by Calculation	October 17, 2006
	Appendix A	October 19, 2004
357	Preparation of Hot Mix Asphalt (HMA) Mix Samples for Test Specimens	October 19, 2004
358	Determining Plastic Density of Portland Cement Concrete With a Nuclear Gauge	October 18, 2011
360	Determining Percent Residue of Emulsified Asphalt	October 17, 2006
362	Determining the Cover over Steel in Bridge Decks	October 17, 2006
365	Determining Particle Charge of Cationic Emulsified Asphalts	October 17, 2006
366	Determining the Adequacy of Test Sieves	October 16, 2007

VOLUME II
Table of Contents

IM No.	Title	Effective Date
<u>Field Sampling & Testing (Continued)</u>		
368	Determining Amount of Clay Lumps & Friable Particles Coarse Aggregate	April 17, 2007
369	Determining Specific Gravity of Asphalt Binder	October 17, 2006
370	Determining Coating & Stripping of Bitumen-Aggr. Mixtures	October 17, 2006
372	Determining Amount of Chert, Shale, Iron Oxide & Coal In Coarse Aggregate	October 17, 2006
373	Determining Concentration of Calcium Chloride Solutions By Hydrometer	October 21, 2008
374	Determining Presence of Anti-Strip Agent in Cutback Asphalt (Rapid Field Test)	October 17, 2006
375	Determining Flow of Grout Mixtures (Flow Cone Methods)	April 21, 2009
376	Testing Presence of Moisture-Proof Coating on Glass Beads	October 18, 2005
377	Determining Weight (Mass) of Ditch & Slope Protection Mats	October 18, 2005
380	Vacuum-Saturated Specific Gravity & Absorption of Combined or Individual Aggregate Sources	October 19, 2004
381	Appendix A Determining The Moisture Content – NEW ISSUE of Aggregate and Recycled Materials For Use In HMA	April 19, 2005 April 20, 2010
382	Determining Relative Humidity With a Sling Psychrometer	October 18, 2005
385	Temperature of Freshly Mixed Concrete	April 17, 2007
386	Determining Retroreflectivity of Durable Pavement Markings	October 19, 2004
389	Method of Test Slump Flow and Visual Stability Index of SCC	April 21, 2009
390	Method of Test Static Segregation of Hardened SCC Cylinders	April 21, 2009
525	Designing Flowable Mortar	April 21, 2009