

REVISIONS TO MATERIALS SAMPLING GUIDE January 1, 2015 Edition

Section 2, Asphaltic Materials			
Page 2-2, Material 2) Asphalt, Emulsified Anionic and Cationic			
		Field Personnel	
			Removed – receipt
			Added – dilution
Section 3, Asphaltic Concrete			
Table of Contents, Material 3) Asphaltic Concrete Types OGFC CRM, OGFC, GGCRM, LC, RLC, SLX, SRM			
		Asphaltic Concrete Types OGFC CRM, OGFC, GGCRM, LC, RLC, SLX, SRM	
			Added – SRM
Page 3-1, Material 3) Asphaltic Concrete Types OGFC CRM, OGFC, GGCRM, LC, RLC, SLX, SRM			
		Material	
			Added – SRM
Section 9, Grading			
Page 9-1, Material 1) Embankment (Cohesive and Granular), Moisture Density			
		Field Personnel	
			Removed – for
			Removed – 1,000 feet
			Added – 500 cubic yards or fraction thereof
Page 9-1, Material 1) Embankment (Cohesive and Granular), Gradation (If Specified)			
		Field Personnel	
			Removed – 1,000 feet
			Added – 500 cubic yards or fraction thereof
Section 10, Compaction – Subgrade (Cohesive Soils)			
Page 10-1, Material 1) Subgrade Compaction and Subgrade Re-construction			
		Field Personnel	
			Removed – each 1,000 feet or less
			Added – every 1,500 square yards or fraction thereof
			Removed – each 1,000 feet or less
			Added – every 1,500 square yards or fraction thereof

			Added – and every 750 square yards for each shoulder
Section 11, Compaction – Stabilized Portion of Granular Subgrade			
	Page 11-1, Material 1) Stabilized Portion of Granular Subgrade, Moisture Density		
	Field Personnel		
			Removed – each 1,000 feet or less
			Added – every 1,500 square yards or fraction thereof
	Page 11-1, Material 1) Stabilized Portion of Granular Subgrade, Quality & Gradation (If Specified)		
	Field Personnel		
			Removed – Each fifth station
			Added – every 1,000 square yards or fraction thereof
	Central Lab Personnel		
			Removed – each mile
			Added – every 5,000 square yards
Section 12, Foundation Course (Crushed Concrete, Aggregate-D, and Bituminous)			
	Page 12-3, Material 6) Foundation Course		
	Field Personnel		
			Removed – each 1,000 feet or less
			Added – every 1,500 square yards or fraction thereof
			Removed – each 1,000 feet or less
			Added – every 1,500 square yards or fraction thereof
Section 13, Granular Base, Granular Fill, Granular Backfill, Sand Blanket and MSE Walls			
	Page 13-4, Material 6) Granular Base, Granular Fill, Granular Backfill and Sand Blanket, Moisture Density		
	Field Personnel		
			Removed – for each 1,000 feet or less
			Added – every 500 cubic yards or fraction thereof
	Page 13-4, Material 6) Granular Base, Granular Fill, Granular Backfill and Sand Blanket, Gradation (If Specified)		
	Field Personnel		
			Removed – Each fifth station for gradation
			Added – Every 750 cubic yards or fraction thereof
	Central Lab Personnel		
			Removed – each mile
			Added – every 3,750 cubic yards or fraction thereof

	Page 13-5, Material 7) Stabilized Portion of Granular Base, Granular Fill, Granular Backfill and Sand Blanket, Moisture Density	
	Field Personnel	
		Removed – for each 1,000 feet or less
		Added – every 500 cubic yards or fraction thereof
	Page 13-5, Material 7) Stabilized Portion of Granular Base, Granular Fill, Granular Backfill and Sand Blanket, Gradation (If Specified)	
	Field Personnel	
		Removed – Each fifth station for gradation
		Added – Every 750 cubic yards or fraction thereof
	Central Lab Personnel	
		Removed – each mile
		Added – every 3,750 cubic yards or fraction thereof
Section 15, Portland Cement Concrete for Pavement, Base Course, Pavement Patching		
	Page 15-1, Material 3) Class R Aggregate	
	Field Personnel	
		Added – Project personnel will randomly select one contractor's split sample (30 pounds) for each 3,000 ton or fraction thereof, for central lab.
		Removed – and
		Removed – testing sample size and
	Page 15-4, Material 13) Welded Steel Wire Fabric	
	Manufacturer Certified Tests Required	
		Removed – No
		Added – Yes
Section 16, Portland Cement Concrete for Structures, Culverts and Miscellaneous Construction		
	Page 16-1, Material 3) Class R Aggregate	
	Field Personnel	
		Added – Project personnel will randomly select one contractor's split sample (30 pounds) for each 3,000 ton or fraction thereof, for central lab.
		Removed – and
		Removed – testing sample size and
	Page 16-5, Material 14) Welded Steel Wire Fabric	
	Manufacturer Certified Tests Required	

			Removed – No
			Added – Yes
Section 18, Fence, Handrail, and Barrier Rail Materials			
	Page 18-1, Material 2) Chain Link		
		Sample Required	
			Removed – spools
			Added – rolls
	Page 18-1, Material 3) Right of Way		
		Sample Required	
			Removed – spools
			Added – rolls
	Page 18-1, Material 4) Woven Wire		
		Sample Required	
			Removed – spools
			Added – rolls
	Page 18-1, Material 5) Welded Wire Fabric		
		Item or Group	
			Removed – 6
			Added – 5
		Sample Required	
			Removed – spools
			Added – rolls
	Page 18-1, Material 6) Handrail and Barrier Rail		
		Item or Group	
			Removed – 5
			Added – 6
Section 25, Miscellaneous Materials			
	Table of Contents, Material 8, Detectable Warning Panel		
		Detectable Warning Panel	
			Added – Detectable Warning Panel
	Table of Contents, Material 19, High Friction Surface Treatment		
		High Friction Surface Treatment	
			Added -- High Friction Surface Treatment

			Added – A. Aggregate
			Added – B. Polymer Binder Resin
		Page 25-1, Material 8) Detectable Warning Panel	
		Item or Group	
			Added – 8) Detectable Warning Panel
		Sample Required	
			Added – No
		Approved Products List	
			Added – Yes
		Manufacturer Certified Tests Required	
			Added – No
		Manufacturer Certification of Compliance Required	
			Added – No
		Location of Additional Information	
			Added – -----
		Page 25-2, Material 13) Prestressed Steel Wire Strand	
		Manufacturer Certified Tests Required	
			Removed – No
			Added – Yes
		Page 25-2, Material 19) High Friction Surface Treatment	
		Item or Group	
			Added – 19) High Friction Surface Treatment
		Sample Required	
			Added – -----
		Approved Products List	
			Added – -----
		Manufacturer Certified Tests Required	
			Added – -----
		Manufacturer Certification of Compliance Required	
			Added – -----
		Location of Additional Information	
			Added – -----
		Page 25-2, Material 19) High Friction Surface Treatment, A) Aggregate	
		Item or Group	
			Added – A) Aggregate

		Sample Required
		Added – Yes, 60 lb sample taken by field personnel
		Approved Products List
		Added – No
		Manufacturer Certified Tests Required
		Added – No
		Manufacturer Certification of Compliance Required
		Added – Yes
		Location of Additional Information
		Added – Section 27, Note 27
Page 25-2, Material 19) High Friction Surface Treatment, B) Polymer Binder Resin		
		Item or Group
		Added – B) Polymer Binder Resin
		Sample Required
		Added – Yes, 16 oz sample of lot used on project
		Approved Products List
		Added – No
		Manufacturer Certified Tests Required
		Added – Yes
		Manufacturer Certification of Compliance Required
		Added – Yes
		Location of Additional Information
		Added – Section 27, Note 27
Section 27, Notes		
		Table of Contents,
		High Friction Surface Treatment
		Added – Note 27) High Friction Surface Treatment
Page 27-3, Note 4, Quality Tests of Aggregates		
		Added – For verification testing for sand-gravel aggregate, the sand equivalent test is required for all dry pits.
Page 27-9, Note 27, High Friction Surface Treatment		
		Added – These materials are accepted on the basis of Manufacturer Certified Tests and Certificates of Compliance.

		<p>Aggregate:</p> <ul style="list-style-type: none"> The Certificate of Compliance must cite the Aluminum Oxide (Al₂O₃) content for calcined bauxite. <p>Polymer Binder Resin:</p> <ul style="list-style-type: none"> The Manufacturer Certified Tests will require independent laboratory tests meeting the conditions of Table 1, Physical Requirements of the Polymer Binder Resin System; found in the special provisions. The Certificate of Compliance must include product, lot number, and expiration date. The material properties shall meet the conditions of Table 1, Physical Requirements of the Polymer Binder Resin System; found in the special provisions. The Certificate of Compliance must be signed by a company representative. Fourier Transform Infrared Spectrophotometry (FTIR) spectra is required from the manufacturer.
Section 28, Quality Assurance Program for Construction Materials		
Page 28-A-6, Table A1, Test Methods for Qualification of Sampling and Testing Personnel		
	Concrete Plant Technician	
		Removed – and
		Added – and aggregate sampling and testing
		Added – for NDOR employees (one-time training)
		Removed – of
		Added – and all contractor
		Added -- NDOR Employees – Lifetime; Contractor and Consultant Employees – 5 years
	Technicians are Certified Proficient in	
		Reordered – NDR T 506, Determination of the Free Moisture Content of Aggregates and NDR S01, Method of Sampling Portland and Interground/Blended Cements
Page 28-A-7, Table A1, Test Methods for Qualification of Sampling and Testing Personnel		
	Concrete Field Inspector/General Handling of Concrete	
		Removed – This course has been prepared to cover batching and mixing, transporting, handling, placing and finishing concrete, and curing of concrete. At the conclusion of the session, the participant will have knowledge and current reference materials needed for placement of concrete.
		Added – The Portland Concrete Paving Inspection (131122) course is web-based and has been prepared by FHWA-NHI to cover Portland cement concrete paving materials and properties, project

			plans, safety, equipment, paving process, role of the inspector, paving activities, and urban paving.
		Training Coordinated By:	
			Removed – NDOR Materials & Research/LTAP
			Added – FHWA-NHI
	Page 28-A-8, Table A1, Test Methods for Qualification of Sampling and Testing Personnel		
		Portland Cement Sampler - Technicians are Certified Proficient in	
			Added – NDR S01
Section 29, Policies, Policy 4, Acceptance Policy for Portland Cement and Intergruond/Blended Cements			
	Page 29-9, Approved Products List		
			Added – Option 1
			Added – paragraph
			Added – paragraph
			Added – paragraph
	Page 29-10, Approved Products List		
			Added – Option 2
			Added – 1. Portland and blended cements maybe accepted with the approval of the Portland Cement Concrete Engineer and a signed reciprocity agreement with another highway state agency. The Portland cement or blended cement must meet NDOR specifications.
	Page 29-11, Sampling From Bulk Shipment Railroad Car, Truck, or Batch Plant Silo:		
			Added – NDR S01
	Page 29-12, Quality Assurance of Intergruond/Blended Cement		
			Removed – Flowchart for Quality Assurance of Intergruond/Blended Cements on the Approved Products List
			Added – Flowchart for Quality Assurance of Intergruond/Blended Cements on the Approved Products List