

HOW TO USE THE FIELD TESTED MATERIALS ACCEPTANCE GUIDE FOR TYPE D OR E PROJECTS ONLY

The use of this guide will only be allowed when specifically called out in Section 00165. 10 (a) of the project Special Provisions. This guide summarizes the testing requirements for various materials used in the construction of ODOT/ Local Agency projects. It indicates what tests must be performed, who must perform them, and how frequently they must be performed. It includes materials which are sampled and tested in the field and materials which are field sampled but sent elsewhere for testing. When a contract requires Quality Control (QC) by the Contractor, samples that must be sent elsewhere for testing are delivered to the Project Manager along with the Sample Data Sheet (Form 734-4000). Examples of this and other test report forms are in Section 3 of this manual.

Materials in this guide are listed in the numerical order of the Standard Specifications and the project special provisions. To find the testing requirements for a particular material, first determine what it will be used for and then refer to the appropriate Specifications Section for that product. For example, to look up testing requirements for aggregate to be used in asphalt concrete paving, refer to Section 00745.

Definitions

SAMPLE SIZES – Refer to Section 4(C) for guidance on material sample sizes, containers, and labeling. Although designed for the ODOT Central Materials Laboratory (ODOT-CML), it is a good guide for samples being sent to any laboratory.

ASPHALT CONCRETE MIX DESIGNS – If the ODOT-CML is preparing the AC mix design, submit samples of the materials shown in Section 4(C) of this manual.

TYPES OF TESTS For TYPE D OR E PROJECTS ONLY

This Section is only to be used on projects where the Special Provisions specifically call out Contractor Quality Control Type D or E. The following types of tests will be performed by the Contractor or Engineer on materials and products required for contract work:

1. **Source Review** – This test type is addressed in Section 4(A) of this Manual. The Engineer will test unprocessed material from an aggregate source, if requested by the Contractor, to provide information about the quality of material. Tests will involve degradation, soundness, and abrasion, but may involve other tests. Favorable test results do not imply that processed material from the source will comply with specifications after it is processed as required for the project.
2. **Product Compliance** – This test type is addressed in Section 4(A) of this Manual. This section shall be complied with except that under Product Compliance the contractor may elect to use the ODOT Central Laboratory or a nationally credited private laboratory approved by the Engineer. The material shall not be incorporated into the project unless Product Compliance tests show favorable results.
3. **Quality Control** – The Contractor will perform quality control testing as described in Section 2 and specified in Section 5 of this Manual or as modified by the Special Provisions or Supplemental Standard Specifications.
4. **Quality Assurance** – The Engineer shall review documentation to assure its accuracy and completeness. The Engineer may elect to have additional testing performed by certified technicians.
5. **Production Control Testing** – Testing performed by the contractor or producer at a rate that assures the provided material meets the quality specified.
6. **Visual** – Visual Inspection: Examination and assessment of construction materials, by **OBSERVATION**, to determine if the materials appear to meet the contract requirements and are acceptable for incorporation into construction projects. Visual inspection, when stated in the contract, is a method generally used by the Project Inspector in lieu of normal sampling and testing of field tested materials as defined in section 00165.00 of the Standard Specifications to document quality. Supporting documentation for visual acceptance is, at a minimum, a field inspection report. Consult the construction contract for other acceptance document requirements.

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00330-EARTHWORK						Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E
(See Sec. 330.16(a)) Soil and Soil/Aggregate Mixtures	Gradation					Contractor Furnished Testing	Requires Signed and Notarized Statement of Compliance From Contractor For All Items Under Section 00300	Review Documentation for Acceptance
Establishing Maximum Density (for Compaction)	Density Curve			T 99	3468	1/Soil type		
Compaction	Bulk Specific Gravity			T 85	3468		Visual	Review Documentation for Acceptance
	Family of Curves			R 75	3468FC			
	Deflection Testing	TM 158			1793S	1 Test per 3 ft. in depth		
	Nuclear Gauge			T 310	1793S	See Table 00330-1 Below	Visual	Review Documentation for Acceptance
	Coarse Particle Correction			T 99	1793S			
	Deflection Testing	TM 158			1793S			

TABLE 00330-1 Frequency of Quality Control Testing

Individual Areas	Under 3500 yd ² or yd ³	Over 3500 yd ² or yd ³
Existing Ground Surface	1 test per 1000 yd ²	1 test per 3000 yd ²
Embankments	1 test per 500 yd ³	1 test per 3000 yd ³
Excavations and Finished Subgrade	1 test per 1000 yd ²	1 test per 3000 yd ²
Gradation	Contractor Furnished Testing	Review Documentation for Acceptance
	1 per Layer	
Deflection Testing	TM 158	1793S
<p>Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>		
Imported Topsoil (See Section 01040.14(b))	Compliance	Contractor Testing 1/Source & 1/Soil type
		4000
		Visual
		Review Documentation for Acceptance

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		
SECTION 00331 - SUBGRADE STABILIZATION Aggregate backfill	Material must meet the requirements of Section 00331.10					Contractor Testing		Review Documentation for Acceptance	
						Contractor Testing	Visual		
						Visual			
Water	Material must meet the requirements of Section 00340					Contractor Testing		Review Documentation for Acceptance	
						Visual			
Compaction	Material must meet the requirements of Section 00331							Review Documentation for Acceptance	
SECTION 00332 - SURFACING STABILIZATION Aggregate Base	Material must meet the requirements of Section 00332.10							Review Documentation for Acceptance	
						Visual	Visual		
Compaction	Material must meet the requirements of Section 00332							Review Documentation for Acceptance	
SECTION 00333 - AGGREGATE DITCH LINING Aggregate	Sampling Reducing Sieve Analysis							Review Documentation for Acceptance	
					T 2 R 76 T 27/T 11		1/Project or 1/Source		Visual

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00344 - TREATED SUBGRADE								
Granular Quicklime	Sieve Analysis Calcium Hydroxide Content in lime			T 27 T 219	4000 4000	Contractor Testing 1/Source	Manufacture Compliance Statement	Review Documentation for Acceptance
Hydrated Lime Calcium Chloride Sodium Chloride	Materials must meet the requirements of Section 00344.10 and Test Results Certificate provided according to Section 00165.35(a)							
Portland Cement Water	Material must meet the requirements of Section 02010							
Establishing Maximum Density (for Compaction)	Material must meet the requirements of Section 00340							
Compaction	Density Curve Maximum Specific Gravity				3468	See Special Provisions and Table 00344-1 Below	Visual	Review Documentation for Acceptance
	Deflection Testing TM 158				1793S			
	Deflection Testing Nuclear Gauge			T 310 T 99	1793S			
	Coarse Particle Correction							
TABLE 00344-1 Frequency of Quality Control Testing								
Individual Areas				Under 3500 yd²		Over 3500 yd²		
Finished Subgrade				1 test per 1000 yd ²		1 test per 3000 yd ²		

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00360 - Drainage Blankets									
Granular Drainage Blanket	Sampling Reducing Gradation			T 2 R 76 T 27/T 11	1792	1/sublot minimum 1/Source per Project	Visual	A sublot equals 1000 Tons	Review Documentation for Acceptance
Sand Drainage Blanket	Sampling Reducing Gradation			T 2 R 76 T 27/T 11	1792				
Establishing Maximum Density (for Compaction)	Density Curve			T 99	3468	1/Source and Type			
	Bulk Specific Gravity			T 85	3468				
Compaction	Deflection Testing	TM 158			1793S	1 Test per 3 ft. in depth	Visual		Review Documentation for Acceptance
	Deflection Testing Nuclear Gauge Coarse Particle Correction	TM 158		T 310 T 99	1793S 1793S	See Table 00360-1 Below			

TABLE 00360-1 Frequency of Quality Control Testing

Individual Areas	Frequency of Quality Control Testing	
	Under 3500 yd ²	Over 3500 yd ²
Existing Ground Surface	1 test per 1000 yd ²	1 test per 3000 yd ²
Finished Surfaces	1 test per 1000 yd ²	1 test per 3000 yd ²

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00390 - RIPRAP PROTECTION								
Fill Material & Riprap	Gradation See 00390.11(c)1					Contractor Furnished Testing	Visual	Review Documentation for Acceptance
	Degradation Soundness Apparent Specific Gravity & Absorption	TM 208		T 104 T 85	4000 1825	Contractor Furnished Testing	Provide History of Passing Tests	
Filter Blanket	Gradation See 00390.13					Contractor Testing When Required	Visual	Review Documentation for Acceptance
Grouted Riprap Sand	Sampling Reducing Sieve Analysis			T 2 R 76 T 27/T 11	1792	1/Project	Visual	
Portland Cement	Soundness Lightweight Pieces			T 104 T 113	4000	Contractor Furnished Testing	Provide History of Passing Tests	Review Documentation for Acceptance
<i>Material must meet the requirements of Section 02010</i>								

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL									
TRENCH FOUNDATION -- Excavation below grade only									
Selected general backfill								Requires Signed and Notarized Statement of Compliance From All Contractors For All Items Under Section 00400	Review Documentation for Acceptance
Selected granular backfill	Material must meet the requirements of Section 00330.13						Contractor Furnished Testing		
Selected stone backfill	Material must meet the requirements of Section 00330.14					Visual			
Other approved material	Material must meet the requirements of Section 00330.15								
Establishing Maximum Density	Density Curve			T 99	3468		Visual	Review Documentation for Acceptance	
	Bulk Specific Gravity			T 85	3468		Visual		
	Family of Curves			R 75	3468FC				
	Nuclear Gauge Coarse Particle Correction			T 310 T 99	1793S		1 Test per 300 ft. of Trench		
Compaction							Visual		

Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)								
Bedding								
3/8" - 0	PCC fine aggregate (See Section 02690.30(h))	Sampling Reducing Sieve Analysis		T 2 R 76 T 27/T 11	1792	Contractor Provided Testing	Visual	Review Documentation for Acceptance
Commercial 3/4" - 0 Aggregate						Contractor Provided Testing	Visual	
No. 10 - 0 Sand drainage blanket material (See Section 00360.10)	Sampling Reducing Sieve Analysis			T 2 R 76 T 27/T 11	1792	Contractor Provided Testing	Visual	
Reasonably well graded sand, maximum 3/8" to dust						Contractor Provided Testing	Visual	
Commercial available 3/8"-0 or No.10 - 0 sand						1 per Sublot	Visual	
Continuous cradle of Commercial Grade Concrete						Contractor Provided Testing	Visual	Review Documentation for Acceptance

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)									
Pipe Zone Material									
Flexible Pipe	Use the Listed Material requirements under Bedding								
Rigid Pipe: Aggregate Base 1" - 0 or 3/4" - 0 Aggregate (See Section 02630.10)	Sampling Reducing Sieve Analysis			T 2 R 76 T 27	1792	Contractor Provided Testing	Visual	Review Documentation for Acceptance	
						Contractor Provided Testing	Visual		
Rigid Pipe: Commercial 1" - 0 or 3/4" - 0 Aggregate	Density Curve			(1) T 99	3468	1/Source or Aggregate Gradation	Visual	Review Documentation for Acceptance	
				T 85 T 99	3468				
Establishing Maximum Density (1) Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Bulk Specific Gravity Coarse Particle Correction			T 310	1793B	1 test per 100 ft. of Trench and every 2.0 ft. of Fill	Visual	Review Documentation for Acceptance	
Compaction	Nuclear Gauge								

Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL (CONTINUED)									
Trench Backfill									
Class A Backfill - Native or common Material		Material must meet the requirements of Section 00330.43							
Class B Backfill - 1"-0 or 3/4"-0 Granular Material		Material must meet the requirements of Section 00641							
Class C Backfill - Clean sand with 100% minus 1/4" material									
Class D Backfill - Pit run or bar run material with 3" maximum dimension and well graded from coarse to fine									
Class E Backfill - Controlled Low Strength Material (CLSM)		Material must meet the requirements of Section 00442							
Establishing Maximum Density	Density Curve				(1) T 99	3468		Visual	Review Documentation for Acceptance
	Bulk Specific Gravity				T 85	3468		Visual	
	Family of Curves				R 75	3468FC			
Compaction	Nuclear Gauge Coarse Particle Correction				T 310 T 99	1793S or 1793B		Visual	Review Documentation for Acceptance
<p>(c) Density testing is based on cumulative lineal meters or feet of pipe placement.</p> <p>Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>									

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-734-	Quality Control		Quality Assurance		
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E	
SECTION 00430 - SUBSURFACE DRAINS									
Granular Drain Backfill Material	Sampling Reducing Sieve Analysis	T 2 R 76 T 27	AASHTO	1792	Visual	A Sublot equals 1000 Tons	Review Documentation for Acceptance		
								T 96	Minimum 1 Per Project
Special Filter Material See Section 00430.46(a)	Abrasion Degradation	TM 208		4000					
SECTION 00440 - COMMERCIAL GRADE CONCRETE									
Mixture	Sampling Air Content Density (Unit Weight) Slump Concrete Temperature	TM 2	T 152 T 121 T 119 T 309	3573WS or 4000C	Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance		
								See section 405 for compaction requirements	Contractor Provided Testing
Modifiers									
Admixtures									
Portland Cement									
Structural Items	Strength		T 22 & T 23	4000C		Contractor Provided Testing	Review Documentation for Acceptance		
Except Visual Acceptance Items (See section 00440.14(a))	Strength		T 22 & T 23	4000C		Contractor Provided Testing	Review Documentation for Acceptance		
(^S) 1 Set Represents a minimum of 3 Cylinders									
(^M) Per Mix Design & Source									

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00442 - CONTROLLED LOW STRENGTH MATERIALS (CLSM)								
CLSM Mixture	<i>Mix Proportions Trial Batch Strength</i>							
					T 22 & T 23			
					4000C			1/Project or Source
Modifiers		<i>Material must meet the requirements of Section 02030</i>						
Admixtures		<i>Material must meet the requirements of Section 02040</i>						
Portland Cement		<i>Material must meet the requirements of Section 02010</i>					Manufacturer Compliance Statement	Review Documentation for Acceptance
SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE - INCLUDED WITH SECTION 00405								
Trench Work								
Excavation, bedding, pipe zone and trench backfill		See Section 00405 for pipes less than 72"						
		See Section 00510 for pipes greater than 72"					Contractor Provided Testing	Review Documentation for Acceptance
Concrete Blocks		Material must meet the requirements of Section 00440						

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Assurance			
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E
SECTION 00450 - STRUCTURAL PLATE PIPE, PIPE ARCH AND ARCH								
Commercial Grade Concrete in appurtenances	<i>Material must meet the requirements of Section 00440</i>							
Trench Work								
Excavation and Backfill	<i>Operations must meet the requirements of Section 00510</i>							
Trenches in Unstable Areas								
Granular Structural Backfill	<i>Material must meet the requirements of Section 00510</i>							
Establishing Maximum Density								
⁽¹⁾ Method "A"	Density Curve			⁽¹⁾ T 99	3468 B	Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance
	Bulk Specific Gravity Coarse Particle Correction	TM 223		T 85		Visual	Visual	
Compaction	Nuclear Gauge			T 310	1793 B	Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance
Structure Backfill (Section 00450.46)	<i>Material and Operation must meet the requirements of Section 00510.48(d)</i>							
SECTION 00459 - CAST IN PLACE CONCRETE PIPE								
Concrete	<i>Material must meet the requirements of Section 00540, with acceptance in accordance with Section 00540.17</i>							
Backfill Material	<i>Material must meet the requirements of Section 00405.14 and be incorporated into the project in accordance with Section 00405.46</i>							

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E		
SECTION 00460 - PAVED CULVERT END SLOPES								
Commercial Grade Concrete	Material must meet the requirements of Section 00440				Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance	
SECTION 00470 - MANHOLES, CATCH BASINS AND INLETS								
Commercial Grade Concrete	Material must meet the requirements of Section 00440							
Base Drain Backfill	Material must meet the requirements of Section 00470.17				Contractor Provided Testing	Visual	Review Documentation for Acceptance	
Excavation, Backfill and Foundation Stabilization	Material must meet the requirements of Section 00405							
SECTION 00480 - DRAINAGE CURBS								
Commercial Grade Concrete	Material must meet the requirements of Section 00440				Contractor Provided Testing	Visual	Review Documentation for Acceptance	
Dense Graded HMAC Mixture Level 2, (1/2")	Material must meet the requirements of Section 00744							

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES								
Commercial Grade Concrete		Material must meet the requirements of Section 00440						
High Early Strength Concrete		Material must meet the requirements of Section 00440, but cement contents adjusted according to 00490.11					Contractor Provided Testing	Visual
Backfill Operations		Backfill Excavations according to section 405						
Filling Abandoned Pipes, Manholes and Catch Basins (See section 00490.44)								
Backfill Operations (Roadway)		Material must meet the requirements of Section 2630						
Establishing Maximum Density (¹) Method "A"	Density Curve			(¹) T 99			Contractor Provided Testing	Visual
	Bulk Specific Gravity Coarse Particle Correction	TM 223		T 85				
Compaction	Nuclear Gauge			T 310			1 Test per 100 ft. and every 1.5' of Fill	Visual
Backfill Operations Landscaped or Unimproved Roadways		Material must meet the requirements of Section 00330.13					Contractor Provided Testing	Visual
Top 1.0' of Backfill Region		Material must meet the requirements of Section 00330.11						
SECTION 00495 - TRENCH RESURFACING								
Resurfacing Materials		See Section 00495.40 for Material Requirements					Contractor Provided Testing	Visual

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		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		
SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL									
Soils, Soil/Aggregate Mixtures and Graded Aggregates						A Sublot equals 1000 Tons			
Granular Structure Backfill (See Section 02630.10)	Sampling Reducing (¹) Sieve Analysis Fracture (Method 1) Sand Equivalent			T 2 R 76 T 27 T 335 T 176	1792	1/Sublot (Minimum 1/Project)		Requires Signed and Notarized Statement of Compliance From Contractor For All Items Under Section 00500	Review Documentation for Acceptance
Product Compliance	Abrasion Degradation	TM 208		T 96	4000	Contractor Provided Testing		Minimum 1 per Project	
Establishing Maximum Density	Density Curve			(²) T 99	3468	1/Soil type or Aggregate Gradation		Visual	
⁽²⁾ Method "A" & ODOT TM 223 for Dense Graded Base Aggregate	Bulk Specific Gravity			T 85	3468				Review Documentation for Acceptance
	Coarse Particle Correction			T 99					
Compaction	Nuclear Gauge			T 310	1793B	Min of 1 per lift		Visual	
<p align="center">Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>									

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL (CONTINUED)								
Soils, Soil/Aggregate Mixtures and Graded Aggregates								
Granular Wall Backfill (See Section 02630.11)	Sampling Reducing (1) Sieve Analysis Fracture (Method 2)			T 2 R 76 T 27 T 335	1792	1/Sublot (Minimum 1/Project)	Contractor Provided Testing	Review Documentation for Acceptance
Product Compliance	Abrasion Degradation	TM 208		T 96	4000	Contractor Provided Testing	Minimum 1 per Project	Review Documentation for Acceptance
(2) Compaction	(2) Deflection Testing	TM 158			1793B	1/Sublot (Minimum 1/Project)	Visual	Review Documentation for Acceptance
Note: Compaction must meet the requirements of section 00330.43c Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.								

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MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00512 - DRILLED SHAFTS								
Aggregate Production						A Sublot equals 1000 Mg or 1000 Tons		
(1) QAE may waive after 5 sublots/shifts	Sampling Reducing			T 2 R 76				Review Documentation for Acceptance
	(2)(3)(4) Sieve Analysis			T 27/T 11	1792	Contractor Provided Testing	Contractor Provided Testing	
	(4) Fineness Modulus			T 27/T 11				
	(1)(3) Wood Particles			T 176				
(2) Perform a minimum of 3 tests, QL's required	(4) Sand Equivalent	TM 225						
	Soundness			T 104	4000			
(3) Coarse Aggregate (See Section 02690.20)	Abrasion			T 96				
	Degradation	TM 208			4000	Contractor Provided Testing	Contractor Provided Testing	
	Lightweight Pieces Organics			T 113 T 21				
(4) Fine Aggregate (See Section 02690.30)	(3) Dry Rodded Unit Weight			T 19	1825 1825C			
	(3)(4) Bulk Specific Gravity & Absorption			T 84 & T 85	1825	Minimum of 1 per Project	Minimum of 1 per Project	
Portland Cement Modifiers Admixtures		Materials must meet the requirements of Section 02001.10				Manufacture Compliance Statement		
Drilling Slurry		Slurry material must meet the requirements of Section 00512.14 & 00512.43(g)				Contractor Provided Testing		
Grout		Material must meet the requirements of Section 02080				Manufacture Compliance Statement		Review Documentation for Acceptance
Mixing Water		Material must meet the requirements of Section 02020				Manufacture Compliance Statement		

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(Revised November 2017)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Assurance				
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E		
SECTION 00512 - DRILLED SHAFTS (CONTINUED)										
Portland Cement Concrete	Sampling Slump Concrete Temperature Density (Unit Weight) Yield Water/Cement Ratio	TM 2	T 119 T 309 T 121 T 121 T 121	3573WS or 4000C	(M) (S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.	(M) (S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.	Review Documentation for Acceptance			
									T 22/23	4000C
(S) 1 Set Represents a minimum of 3 Cylinders										
(M) Per Mix Design & Source										

TABLE 00512-1 Frequency of Quality Control Testing

Minimum frequencies per Class of concrete based on daily production records.	
Production	Frequencies
0 to 100 yd ³ on a single day	1 Set each day
Quantity Over 100 yd³	
100 to 600 yd ³ on a single day	1 Set per each 100 yd ³ or portion thereof
over 600 yd ³ on a single day	1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00540 - CONCRETE BRIDGES								
Aggregate Production	Sampling Reducing							
(1) QAE may waive after 5 sublots/shifts	(2)(3)(4) Sieve Analysis			T 2				
	(4) Fineness Modulus			R 76				
(2) Perform a minimum of 3 tests	(1)(3) Wood Particles			T 27/T 11	Contractor Provided Testing	Contractor Provided Testing		Review Documentation for Acceptance
	(4) Sand Equivalent	TM 225		T 27/T 11				
(3) Coarse Aggregate (See Section 02690.20)	Soundness			T 176				
	Abrasion			T 104				
(4) Fine Aggregate (See Section 02690.30)	Degradation	TM 208		T 96	Minimum 1 per Project	Minimum 1 per Project		
	Lightweight Pieces			T 113				
	Organics			T 21				
	(3) Dry Rodded Unit Weight			T 19				
	(3)(4) Bulk Specific Gravity & Absorption			T 84 & T 85	Contractor Provided Testing Minimum 1 per Project	Contractor Provided Testing Minimum 1 per Project		
Portland Cement								
Modifiers								
Admixtures								
Mixing Water								
				Materials must meet the requirements of Section 02001.10		Manufacture Compliance Statement		Review Documentation for Acceptance
				Material must meet the requirements of Section 02020				

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00540 - CONCRETE BRIDGES (CONTINUED)								
Portland Cement Concrete	Sampling Air Content Slump Concrete Temperature Density (Unit Weight) Yield Water/Cement Ratio		TM 2	T 152 T 119 T 309 T 121 T 121 T 121	3573WS or 4000C	(M) (S) Test at minimum frequencies according to table 00540-1. Review specs.	(M) (S) Test at minimum frequencies according to table 00540-1. Review specs.	Review Documentation for Acceptance
(S) 1 Set Represents a minimum of 3 Cylinders					4000C			
(M) Per Mix Design & Source								
TABLE 00540-1 Frequency of Quality Control Testing								
Minimum frequencies per Class of concrete based on daily production records.								
Production			0 to 100 yd ³ on a single day			1 Set each day		
Quantity Over 100 yd³			100 to 600 yd ³ on a single day			1 Set per each 100 yd ³ or portion thereof		
			over 600 yd ³ on a single day			1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00556 - MULT-LAYER POLYMER CONCRETE OVERLAY								
Aggregate Production								
Product Compliance	Sampling Reducing Sieve Analysis			T 2 R 76 T 27	1792	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
	Moisture Content			T 255/265	1792	Material must meet the requirements of section 00556. 10		
	Absorption Abrasion Loss Mohs Hardness Scale			T 84 T 327	4000	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
Polymer Resin	Material must meet the requirements of section 00556. 10							
								Review Documentation for Acceptance

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00559 - SILICA FUME AND LATEX MODIFIED CONCRETE OVERLAYS								
Aggregate Production								A Sublot equals 500 Tons. A minimum one per shift, whichever results in the greatest sampling frequency. (For preproduced aggregates, 1 shift shall mean 500 Tons.)
(1) QAE may waive after 5 sublots/shifts	Sampling Reducing			T 2 R 76	1792	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
(2) Perform a minimum of 3 tests, QL's required	(2)(3)(4) Sieve Analysis (4) Fineness Modulus (4) Sand Equivalent			T 27/T 11 T 27/T 11 T 176	1792	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
(3) Coarse Aggregate (See Section 02690.20 & 00559.10)	(1)(3) Elongated Pieces TM 229 (1)(3) Wood Particles				1792	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
(4) Fine Aggregate (See Section 02690.30 & 00559.10)	Abrasion Degradation Soundness Lightweight Pieces Organics	TM 208		T 96 T 104 T 113 T 21	4000	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
	(3) Dry Rodded Unit Weight			T 19	1825 1825C	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
	(3)(4) Bulk Specific Gravity & Absorption			T 84 & T 85	1825	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
Portland Cement Modifiers Admixtures		Materials must meet the requirements of Section 02001.10						
Mixing Water		Material must meet the requirements of Section 02020						

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00559 - SILICA FUME AND LATEX MODIFIED CONCRETE OVERLAYS (CONTINUED)								
SFC AND LMC	Sampling Air Content Slump Concrete Temperature Density (Unit Weight) Yield W/C Ratio	TM 2	T 152 T 119 T 309 T 121 T 121 T 121	3573WS or 4000 C	A subplot equals 1 set of tests per 50 yd ³	Contractor Quality Control Type D	Contractor Quality Control Type E	Quality Assurance
Latex Modified Concrete	Fine Aggregate Moisture		T 255 / T 265	1792		Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance
	Mixer Calibration							
^(M) Per Mix Design & Source	Strength		T 22 & T 23	4000C		^(M) ^(S) 1 Set Cylinders per 50yd ³ Minimum 1 set/shift	^(M) ^(S) 1 Set Cylinders per 50yd ³ Minimum 1 set/shift	Review Documentation for Acceptance
^(S) 1 Set Represents a minimum of 3 Cylinders								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE					(Revised November 2017)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance		
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E			
SECTION 00596A - MECHANICALLY STABILIZED EARTH RETAINING WALLS										
Aggregate Production										
Gabion Basket Fill (Product Compliance) (See Section 00390.11(b))	Degradation Soundness Apparent Specific Gravity & Absorption Gradation	TM 208		T 104 T 85	4000 1825	Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project		Minimum 1 per Project	Project Manager Type D & E	Review Documentation for Acceptance
						Contractor Provided Testing	1/Sublot (Minimum 1/Project)			
							Visual			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-1792	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00596A - MSE RETAINING WALLS								
Aggregate Production								
MSE Granular Wall Backfill (Product Compliance) (Also reference 02630.10)	Abrasion Degradation Sieve Analysis Plasticity Index pH Resistivity Organic Content	TM 208		T96 T 11 T 90 T 289 T 288 T 267	4000 4000	Contractor Provided Testing	Minimum 1 per Project	Review Documentation for Acceptance
A Sublot Equals or 2000 Tons								
MSE Granular Wall Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Sand Equivalent Fracture (Method 1)			T 2 R 76 T 27 T 176 T 335	1792 1792	1/Sublot (Minimum 1/Project) 1/5 Sublots	Visual Visual	Review Documentation for Acceptance
Placement								
Establishing Maximum Density (²) Method A	Density Curve Bulk Specific Gravity			(²) T 99 T 85	3468 3468	1/Aggregate Gradation/Per Source	Visual	Review Documentation for Acceptance
Compaction	Coarse Particle Correction Nuclear Gauge Deflection Testing	TM 223 TM 158		T 310	1793B	1/100 yd ³ (Minimum 1/day)	Visual	Review Documentation for Acceptance
					1793B	1 per layer	Visual	
<p style="text-align: center;">Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)										
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance									
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E								
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS																
Aggregate Production																
Gravel Leveling Pads Backfill (See Section 02630.10)	Abrasion Degradation	TM 208	T 96	4000	Contractor Provided Testing	Minimum 1 Per Project	Review Documentation for Acceptance	A Sublot equals 1000 Tons Minimum 1/Project								
								Sampling Reducing Sieve Analysis Sand Equivalent Fracture (Method 1)	T 2 R 76 T 27 T 176	1792	1/Sublot	Visual	Review Documentation for Acceptance			
														1792	1/5 Sublots	Visual
								Soundness Abrasion Degradation Lightweight Pieces	TM 208	T 104 T 96 T 113	4000	Contractor Provided Testing	Minimum 1 Per Project	Review Documentation for Acceptance		
A Sublot equals 1000 Tons																
⁽³⁾ Modular Block Core and Drainage Backfill (Product Compliance)	Sampling Reducing ⁽²⁾ Sieve Analysis ⁽¹⁾ Wood Particles Fracture (Method 2) Elongated Pieces	TM 225 TM 229	T 2 R 76 T 27/T 11 T 335	1792 1792	1/Sublot (Minimum 1 Per Project)	Visual	Review Documentation for Acceptance									
								A Sublot equals 1000 Tons								
								A Sublot equals 1000 Tons								
⁽²⁾ Perform a minimum of 3 tests, QL's required Pipe Drain Backfill (Product Compliance) (See Section 00430.11)	Abrasion Degradation Sieve Analysis	TM 208	T 96 T 27	4000 4000	Contractor Provided Testing	Minimum 1 Per Project Visual	Review Documentation for Acceptance									
								A Sublot equals 1000 Tons								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS								
Aggregate Production								
Gabion Basket Fill (Product Compliance) (See Section 00390.11(b))	Degradation Soundness Apparent Specific Gravity & Absorption Gradation	TM 208		T 104 T 85	4000	Contractor Provided Testing	Minimum 1 Per Project	Review Documentation for Acceptance
					1825	1/Sublot	Visual	
Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-734-	Quality Control		Quality Assurance		
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS									
Aggregate Production									
Retaining Wall Granular Backfill (Product Compliance) (Also reference 02630.10)	Abrasion Degradation Sieve Analysis Plasticity Index	TM 208	T 96 T 11 T 90	4000 4000	Contractor Provided Testing	Minimum 1 Per Project	Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project		
							Review Documentation for Acceptance		
A Sublot Equals 2000 Tons									
Retaining Wall Granular Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Sand Equivalent Fracture (Method 1)		T 2 R 76 T 27 T 176	1792	1/Sublot (Min. 1 Per Project)	Visual	Review Documentation for Acceptance		
							Review Documentation for Acceptance		
							Review Documentation for Acceptance		
Placement	Establishing Maximum Density (²) Method A		(2) T 99 T 85	3468 3468	1/Aggregate Gradation/Per Source	Visual	Review Documentation for Acceptance		
							Review Documentation for Acceptance		
							Review Documentation for Acceptance		
							Review Documentation for Acceptance		
Compaction	Coarse Particle Correction Nuclear Gauge Deflection Testing	TM 223 TM 158	T 310	1793B 1793B	1/100 yd ³ (Minimum 1/day)	Visual Visual	Review Documentation for Acceptance		
							Review Documentation for Acceptance		
Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00596C - CAST-IN-PLACE CONCRETE RETAINING WALLS								
Aggregate Production								
Pipe Drain Backfill (Product Compliance) (See Section 00430.11)	Abrasion Degradation	TM 208	T 96	4000	Contractor Provided Testing	Minimum 1 Per Project	Review Documentation for Acceptance	
					1/Sublot	Visual		
					Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project			
Retaining Wall Granular Backfill	Abrasion Degradation Sieve Analysis Plasticity Index	TM 208	T 96 T 11 T 90	4000 4000	Contractor Provided Testing	Minimum 1 Per Project	Review Documentation for Acceptance	
					Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project			
					A Sublot Equals 2000 Tons			
Retaining Wall Granular Backfill (¹) Perform a minimum of 3 tests, QL's required	Sampling Reducing (¹) Sieve Analysis Fracture (Method 1)		T 2 R 76 T 27 T 335	1792 1792	1/Sublot	Visual	Review Documentation for Acceptance	
					1/5 Sublots	Visual		
					Testing Frequency for Product Compliance per Source 1/5000 Tons Minimum 1/Project			

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E
SECTION 00596C - CAST-IN-PLACE CONCRETE RETAINING WALLS								
Placement								
Retaining Wall Granular Backfill								
Establishing Maximum Density (¹) Method A	Density Curve			(¹) T 99	3468			Review Documentation for Acceptance
	Bulk Specific Gravity			T 85	3468	1/Aggregate Gradation/Per Source	Visual	
Compaction	Coarse Particle Correction		TM 223					Review Documentation for Acceptance
	Nuclear Gauge			T 310	1793B	1/100 yd ³ (Minimum 1/day)	Visual	
	Deflection Testing		TM 158		1793B	1 per layer	Visual	
<p>Contractor must demonstrate, by compaction testing or acceptable visual means, that the material, equipment, and process used for compaction achieves the specification requirements. If the material, equipment, or process changes, or if other conditions indicate a non-specification product, the Contractor must re-demonstrate that specification requirements are being achieved.</p>								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00635 - GRID-ROLLED AGGREGATE SUBBASE								
Aggregate Subbase Grading (See 00635.10)	Abrasion		T 96		4000	Contractor Provided Testing		Review Documentation for Acceptance
	Sampling Reducing Sieve Analysis Sand Equivalent		T 2 R 76 T 27 T 176		1792	Contractor Provided Testing	Requires Signed and Notarized Statement of Compliance From Contractor For All Items Under Section 00600	Review Documentation for Acceptance

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)			Same Frequency for all Tests (Minimums)						
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance						
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E	Project Manager Type D & E				
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS													
Aggregate Production	Abrasion								Contractor Provided Testing	Submit Required Documentation	Review Documentation for Acceptance		
Aggregate Subbase Grading (See 00641.10(b))	Sampling Reducing Sieve Analysis Sand Equivalent			T 96	4000				Contractor Provided Testing	Submit Required Documentation	Review Documentation for Acceptance		
												T 2 R 76 T 27 T 176	1792
Aggregate Base and Shoulders	Abrasion Degradation	TM 208			4000				Minimum 1 per Project	Submit Required Documentation	Review Documentation for Acceptance		
Grading Aggregate Base (See 02630) Aggregate Shoulder (See 02640) Open Graded Aggregate Base (See 02630.11) (1) Perform at least 3 tests (2) May be waived by QAE	Sampling Reducing (1) Sieve Analysis (2) Sand Equivalent			T 2 R 76 T 27 T 176	1792				Contractor Provided Testing	Submit Required Documentation	Review Documentation for Acceptance		
												T 335	1792
PLACEMENT													
Aggregate Base Plant Mix Applications Only Aggregate (Mixture)	Sampling Reducing Moisture			T 2 R 76 T 255 & T 265 (3) T 99	1792				1/Sublot or minimum 1 per day	Visual	Review Documentation for Acceptance		
Establishing Maximum Density & Optimum Moisture (Mix Design) (3) Method A Compaction	Density Curve Coarse Particle Correction Bulk Specific Gravity	TM 223		T 85	3468				Each Size Per Source	Visual	Review Documentation for Acceptance		
(D) (Individual tests must meet Specification)	Deflection Testing Nuclear Gauge	TM 158		T 310	1793B 1793B				1 per Sublot (D) 5 Tests Per Sublot	Visual Visual	Review Documentation for Acceptance Review Documentation for Acceptance		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2017)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS (Continued)									
Placement									
Aggregate Subbase									
Compaction	Deflection Testing	TM 158			1793 B	1 per Layer	Visual		Review Documentation for Acceptance

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)							
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance						
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E					
SECTION 00680 - STOCKPILED AGGREGATES													
Aggregate Base and Shoulders (See Section 00641)	Abrasion Degradation	TM 208		T 96	4000	Minimum 1 per Source/Project	Visual	Review Documentation for Acceptance					
					A Sublot equals 2,000 Tons								
					1792	Contractor Provided Testing	Visual	Review Documentation for Acceptance					
					1792	1/5 Sublots	Visual						
Aggregate (Sanding Aggregate)	Sampling Reducing Sieve Analysis (3) Cleaness Value	TM 227		T 2 R 76 T 27	1792	Contractor Provided Testing	Visual	Review Documentation for Acceptance					
					A Sublot equals 1000 Tons								
					4000	Minimum 1 per Source/Project	Visual						
					4000	1/5 Sublots & Start of Production	Visual	Review Documentation for Acceptance					
(3) May be waived by QAE	Abrasion Degradation Lightweight Pieces	TM 208		T 96 T 113	4000	Minimum 1 per Source/Project	Visual						
					4000								
					1792	1/5 Sublots & Start of Production	Visual	Review Documentation for Acceptance					
					1792								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)											
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance									
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E										
SECTION 00680 - STOCKPILED AGGREGATES (CONTINUED)																	
Emulsified AC Aggregate Aggregate Production (See Sections 00705, 00706, 00710, 00711, 00712 and 00715) (1) QAE may waive after 5 sublots/shifts (2) QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated (3) May be waived by QAE (4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production	Abrasion Degradation Soundness Lightweight Pieces Sampling Reducing (5) Fracture (1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleaness Value Dry Rodded Unit Weight	TM 208 TM 225 TM 229 TM 227	T 96 T 104 T 113 T 2 R 76 T 335 T27/T 11 T 19	4000 4000 1792 1792 1825 1825C	A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency	Minimum 1 per Source/Project Contractor Provided Testing Start of production and when changes in aggregate occurs	Visual Visual Visual	Review Documentation for Acceptance Review Documentation for Acceptance									
									Aggregate (Other)								
									Use sampling and testing frequencies required for proposed end product use								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		
SECTION 00705 - ASPHALT PRIME COAT and EMULSIFIED ASPHALT FOG COAT									
Aggregate Cover Material									
Aggregate Production	Sampling Reducing Sieve Analysis		T 2 R 76 T 27		1792		Provide Process Control	Review Documentation for Acceptance	
Asphalt Prime and Fog Coat	Compliance		R 66		4000		Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance	
SECTION 00706 - EMULSIFIED ASPHALT SLURRY SEAL SURFACING									
Aggregate Production									
Emulsified Asphalt Cement Emulsified Asphalt Polymer Modified Emulsion	Sampling Reducing Sieve Analysis		T 2 R 76 T 27/T 11		1792		Provide Process Control	Review Documentation for Acceptance	
Additives Mineral Filler	Compliance				4000		Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance	
Material must meet the requirements of Section 00706.13									
Mixture									
Material must meet the requirements of Section 00706.16									
Visual									
Review Documentation for Acceptance									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)						
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance					
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E	Project Manager Type D & E			
SECTION 00711 - PRE-COATED AGGREGATE ASPHALT SURFACE TREATMENT												
Aggregate Production												
<p>Abrasion</p> <p>Degradation</p> <p>Soundness</p> <p>Lightweight Pieces</p> <p>Sampling</p> <p>Reducing</p> <p>⁽⁵⁾ Fracture</p> <p>⁽²⁾ Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated</p> <p>⁽³⁾ May be waived by QAE</p> <p>⁽⁴⁾ Not required for Dry Key Material</p> <p>⁽⁵⁾ 1/5 Sublots & Start of Production</p> <p>Asphalt Cement (Emulsion)</p>	<p>TM 208</p> <p>TM 225</p> <p>TM 229</p> <p>TM 227</p>	<p>T 96</p> <p>T 104</p> <p>T 113</p> <p>T 2</p> <p>R 76</p> <p>T 335</p> <p>T27/T 11</p> <p>T 19</p> <p>R 66</p>	<p>4000</p> <p>4000</p> <p>1792</p> <p>1792</p> <p>1825</p> <p>1825C</p> <p>4000</p>	A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency								
				Contractor Provided Testing		Contractor Provided Testing Minimum 1 per Project		Review Documentation for Acceptance				
				1 per Sublot		Visual		Review Documentation for Acceptance				
				Start of production and when changes in aggregate occurs		Visual		Review Documentation for Acceptance				
				Provide Suppliers Certificate of Compliance		Provide Suppliers Certificate of Compliance		Review Documentation for Acceptance				
				Preproduced Aggregate								
				Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:								
				1. Continuing production records meeting the above requirements of Section 00711.10 and 711.15, Aggregate Production.								
				2. Furnish records of testing for the entire stockpile according to Section 00711.10 and 711.15 Aggregate Production except change the sampling frequency to the following:								
				a. One Per 5 sublots means "One Set of Tests Per 2500 Tons".								
b. One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.												
c. Provide one stockpile sample for each set of tests required above.												

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance		
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00711 - PRE-COATED AGGREGATE ASPHALT SURFACE TREATMENT (CONTINUED)									
Mixture Acceptance									
Meter Method	Readings backed by Tank Measure & Production Records Daily	TM 321 (1) TM 322			2277	1/Sublot or Min. 1/Day	Production Control Testing	Review Documentation for Acceptance	
⁽¹⁾ Required at start of production and if meters fail to meet specification	Cold Feed Moisture		T 255/265		2043 and 2401	Daily Production	Production Control Testing		
Plant Discharge Moisture	Asphalt Mix Moist.		T 329		2277	1/Sublot or Min. 1/Day	Production Control Testing		
Asphalt Cement	Compliance		R 66		4000	1/50 Tons Submit All	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance	
A sublot equals 500 Tons. A minimum 1 per shift, whichever results in the greatest sampling frequency									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		Project Manager Type D & E
SECTION 00712 - DRY KEY EMULSIFIED ASPHALT SURFACE TREATMENT									
Aggregate Production									
(1) QAE may waive after 5 sublots/shifts (2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated (3) May be waived by QAE (4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production Asphalt Cement (Emulsion)	Abrasion Degradation Soundness Lightweight Pieces Sampling Reducing (5) Fracture (1) Wood Particles (1)(4) Elongated Pieces (2) Sieve Analysis (3) Cleanness Value Dry Rodded Unit Weight Compliance	TM 208		T 96 T 104 T 113 T 2 R 76 T 335 T 27/T 11 T 19 R 66	4000	Contractor Provided Testing	Contractor Provided Testing Minimum 1 per Project	Review Documentation for Acceptance Review Documentation for Acceptance Review Documentation for Acceptance	
					4000				
					1792		1 per Sublot		Visual
					1792		Start of production and when changes in aggregate occurs		Visual
					1825 1825C		Provide Suppliers Certificate of Compliance		Provide Suppliers Certificate of Compliance
Preproduced Aggregate									
Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:									
1. Continuing production records meeting the above requirements of Section 00712.10 and 712.15, Aggregate Production.									
2. Furnish records of testing for the entire stockpile according to Section 00712.10 and 712.15 Aggregate Production except change the sampling frequency to the following:									
a. One Per 5 sublots means "One Set of Tests Per 2500 Tons".									
b. One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.									
c. Provide one stockpile sample for each set of tests required above.									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Assurance			
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E
SECTION 00715 - MULTIPLE APPLICATION EMULSIFIED ASPHALT SURFACE TREATMENT								
Aggregate Production								
(1) QAE may waive after 5 sublots/shifts (2) Perform at least 3 tests (QL's required), QAE may waive wet sieve after 5 sublots/shifts if a correlation to dry sieve can be demonstrated (3) May be waived by QAE (4) Not required for Dry Key Material (5) 1/5 Sublots & Start of Production	Abrasion	TM 208		T 96	4000	Contractor Provided Testing	Contractor Quality Control Type E	Review Documentation for Acceptance
	Degradation				4000			
	Soundness	TM 225 TM 229		T 104 T 113	1792	1 per Sublot	Visual	Review Documentation for Acceptance
	Lightweight Pieces							
	Sampling							
	Reducing	TM 227		T 2 R 76 T 335	1825 1825C	Start of production and when changes in aggregate occurs	Visual	Review Documentation for Acceptance
	(5) Fracture							
	(1) Wood Particles	TM 227		T 19	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance
	(1)(4) Elongated Pieces							
	(2) Sieve Analysis	TM 227		R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance
(3) Cleaness Value								
Dry Rodded Unit Weight	TM 227		R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance	
Compliance								
Asphalt Cement (Emulsion)								
Preproduced Aggregate								
Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:								
1. Continuing production records meeting the above requirements of Section 00715.10 and 715.15, Aggregate Production.								
2. Furnish records of testing for the entire stockpile according to Section 00715.10 and 715.15 Aggregate Production except change the sampling frequency to the following:								
a. One Per 5 sublots means "One Set of Tests Per 2500 Tons".								
b. One Per sublot means "One Set of Tests Per 500 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.								
c. Provide one stockpile sample for each set of tests required above.								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance		
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E	Project Manager Type D & E
SECTION 00720 - COLD IN-PLACE RECYCLED ASPHALT CONCRETE PAVEMENT (CIR)									
SECTION 00721 - COLD RECYCLED EMULSIFIED ASPHALT CONCRETE PAVEMENT (CRP)									
Asphalt Cement (Emulsified Recycling Agent)	Compliance	R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance		
Water	Material must meet the requirements of Section 00340.10			Visual	Visual	Review Documentation for Acceptance			
Aggregate Production Choke Aggregate (See 00705)	Sampling Reducing Sieve Analysis	T 2 R 76 T 27	1792	Provide Process Control	Provide Process Control	Visual	Review Documentation for Acceptance		
								A Sublot equals 1000 Tons	
SECTION 00725 - HOT IN-PLACE RECYCLED (HIR) ASPHALT CONCRETE PAVEMENT									
<i>The type of recycling agent will be listed in the Special Provisions</i>									
Recycling Agent (See 00745.11)	Compliance	R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance		
Recycling Agent	Compliance	R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance		
Asphalt Concrete Mixture	New Asphalt Concrete mixture will meet the requirements of Section 00744			Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance		
SECTION 00730 - ASPHALT TACK COAT									
Tack	Compliance	R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance		

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00735 - EMULSIFIED ASPHALT CONCRETE PAVEMENT								
Aggregate production	Abrasion Degradation Soundness Lightweight Pieces	TM 208		T 96 T 104 T 113	4000	Contractor Provided Testing Minimum 1 per Project	Contractor Quality Control Type E	Review Documentation for Acceptance
					4000			
					A Sublot equals 1000 Tons. A minimum one per shift, whichever results in the greatest sampling frequency. (For preproduced aggregates, 1 shift shall mean 1000 Tons)			
⁽¹⁾ May be waived by QAE ⁽²⁾ QAE may waive after 5 sublots/shifts	Sampling Reducing Sieve Analysis ⁽¹⁾ Cleanness Value Fracture ⁽²⁾ Elongated Pieces ⁽²⁾ Wood Particles	TM 227 TM 229 TM 225		T 2 R 76 T 27/T 11 T 335	1792	1/Sublot & Start of Production	Visual	Review Documentation for Acceptance
					1792			
					Provide Process Control			
Choke Aggregate	Sieve Analysis			T 27	1792	Visual	Visual	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Contractor Quality Control Type D	Contractor Quality Control Type E
SECTION 00735 - EMULSIFIED ASPHALT CONCRETE PAVEMENT (CONTINUED)									
Mixture Acceptance							A Sublot equals 1000 Tons of Mixture		
% Emulsified Asphalt (¹) Required at start of production and if meters fail to meet specification	Sampling Reducing Sieve Analysis Moisture Content			T 2 R 76 T 27/T 11 T 255	2277 2277	Provide Process Control	Visual	Review Documentation for Acceptance	
	Meter Backed by Tank Measure Daily	TM 321 (¹) TM 322			2401 & 2043	Daily Production	Visual		
	Compliance			R 66	4000	Provide Suppliers Certificate of Compliance	Provide Suppliers Certificate of Compliance	Review Documentation for Acceptance	
SECTION 00740 - COMMERCIAL ASPHALT CONCRETE PAVEMENT (CACP)									
	See Specifications when Testing is Required by Agency					Provide Process Control	Visual	Review Documentation for Acceptance	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC)								
Aggregate Production								
(1) QAE may waive after 5 sublots/shifts	Soundness Abrasion Degradation Lightweight Pieces Plasticity Index	TM 208		T 104 T 96 T 113 T 90	4000	Contractor Provided Testing Minimum 1 per Project	Contractor Quality Control Type E	Review Documentation for Acceptance
					4000			
(2) Not required for ATPB Mix (3) Coarse Agg (+ No. 4) (4) Fine Agg (- No. 4)	Sampling Reducing (3)(4) Sieve Analysis (1)(4) Sand Equivalent			T 2 R 76 T 27/T 11 T 176	1792	1/Sublot & Start of Production	Contractor Provided Testing	Review Documentation for Acceptance
	(1)(2)(3) Elongated Pieces TM 229 (3)(4) Fracture (Method 2) (1)(2)(3) Wood Particles TM 225			T 335	1792	1/5 Sublots & Start of Production	Contractor Provided Testing	Review Documentation for Acceptance
Preproduced Aggregate								

Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:

1. Continuing production records meeting the above requirements of Section 00743.10 Aggregate Production.
2. Furnish records of testing for the entire stockpile according to Section 00743.10 Aggregate Production except change the sampling frequency to the following:
 - a. One Per 5 sublots means "One Set of Tests Per 5000 Tons".
 - b. One Per sublot means "One Set of Tests Per 1000 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.
 - c. Provide one stockpile sample for each set of tests required above.

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)									
Mixture Acceptance - PAC with RAP									
Gradation									
Ignition method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.			
Ignition method	Sampling Reducing			T 168 R 47		1/Sublot or Min. 1/Day			Review Documentation for Acceptance
(Residual aggregate from AASHTO T 308)	Sieve analysis			T 30	2277	1/Sublot or Min. 1/day			
Asphalt Content									
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.			
Ignition Method	Sampling Reducing			T 168 R 47		1/Sublot or Min. 1/day			Review Documentation for Acceptance
Meter Method	Asphalt Content			T 308	2277				
	Readings backed by Tank measure & Production Records Daily	TM 321 (1) TM 322			2277	1/Sublot or Min. 1/day			
⁽¹⁾ Required at start of production and if meters fail to meet specification					2043 and 2401	Daily Production			Production Control Testing
<u>Meter Method is required for PAC even when acceptance is by Ignition Method</u>									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance				
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D		Contractor Quality Control Type E			
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)											
Mixture Acceptance - PAC without RAP											
Gradation								A Sublot equals 1000 Tons			
Cold Feed Method	Sampling Reducing Sieve Analysis			T 2 R 76 T 27/T 11	2277	Production Control Testing	Review Documentation for Acceptance	1/Sublot or Min. 1/Day		Production Control Testing	
								1/JMF & Each Calendar Year.			
								1/Sublot or Min. 1/Day			
Ignition method	Calibrate Incinerator	(1) TM 323		T 168 R 47	2327IC	Production Control Testing	Review Documentation for Acceptance	1/JMF & Each Calendar Year.		Production Control Testing	
Ignition method	Sampling Reducing					Production Control Testing		1/Sublot or Min. 1/Day		Production Control Testing	
(1) Not required if Asphalt Content Accepted by Meter Method	Sieve analysis			T 30	2277	Production Control Testing	Review Documentation for Acceptance	1/Sublot or Min. 1/day		Production Control Testing	
(Residual aggregate from AASHTO T 308)								1/Sublot or Min. 1/day			
Asphalt Content								A Sublot equals 1000 Tons			
Ignition Method	Calibrate Incinerator	TM 323		T 168 R 47	2327IC	Production Control Testing	Review Documentation for Acceptance	1/JMF & Each Calendar Year.		Production Control Testing	
Ignition Method	Sampling Reducing					Production Control Testing		1/Sublot or Min. 1/day		Production Control Testing	
(2) Required at start of production and if meters fail to meet specification	Asphalt Content			T 308	2277	Production Control Testing	Review Documentation for Acceptance	1/Sublot or Min. 1/day		Production Control Testing	
Meter Method	Readings backed by Tank measure & Production Records Daily	TM 321 (2) TM 322			2277	Production Control Testing	Review Documentation for Acceptance	1/Sublot or Min. 1/day		Production Control Testing	
<u>Meter Method is required for PAC even when acceptance is by Ignition Method</u>					2043 and 2401	Production Control Testing	Review Documentation for Acceptance	Daily Production		Production Control Testing	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) (CONTINUED)									
Mixture Acceptance - PAC with and without RAP									
Mix Design Verification Testing									
	Cold Feed Moisture			T255/T265	2277	1/Sublot or Min. 1/Day	Production Control Testing		Review Documentation for Acceptance
Plant Discharge Moisture	Asphalt Mix Moist.			T 329	2277	1/Sublot or Min. 1/Day	Production Control Testing		Review Documentation for Acceptance
(1) applicable	(1) RAP Moisture			T 329	2277	1/Sublot or Min. 1/Day	Production Control Testing		Review Documentation for Acceptance
	Readings backed by Tank measure & Production Records Daily	TM321 (2) TM 322			2401 & 2043	Daily Production	Production Control Testing		Review Documentation for Acceptance
Asphalt Cement	Compliance			R 66	4000	1/Sublot See Section 4C	Provide Suppliers Certificate of Compliance		Review Documentation for Acceptance
(2) Required at start of production and if meters fail to meet specification									

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)				Same Frequency for all Tests (Minimums)						
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			Quality Assurance					
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E						
SECTION 00744 - ASPHALT CONCRETE PAVEMENT														
Aggregate Production											Provide Process Control	Visual	Review Documentation for Acceptance	
Mixture Acceptance														
Gradation											A Sublot equals 1000 Tons			
Ignition method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	Production Control Testing		Review Documentation for Acceptance					
Ignition method	Sampling Reducing			T 168 R 47		1/Sublot or Min. 1/Day	Production Control Testing							
(Residual aggregate from AASHTO T 308)	Sieve analysis			T 30	2277	1/Sublot or Min. 1/Day	Production Control Testing		Review Documentation for Acceptance					
Asphalt Content											A Sublot equals 1000 Tons			
Ignition Method	Calibrate Incinerator	TM 323			2327IC	1/JMF & Each Calendar Year.	Production Control Testing		Review Documentation for Acceptance					
Ignition Method	Sampling Reducing			T 168 R 47		1/Sublot or Min. 1/day	Production Control Testing							
	Asphalt Content			T 308	2277									
Mix Design Verification Testing											A Sublot equals 1000 Tons			
Plant Discharge Moisture	Asphalt Mix Moist.			T 329	2277	1/Sublot								
Maximum Density Test G _{mm}	Max. Specific Gravity MAMD	TM 305		T 209	2050	1st Sublot Daily or Min. 1/Day	Production Control Testing		Review Documentation for Acceptance					

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2017)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM	Same Frequency for all Tests (Minimums)		
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Quality Assurance
SECTION 00744 - ASPHALT CONCRETE PAVEMENT (CONTINUED)								
Compaction	Nuclear Density			T 355	1793A	(D) Average 10 tests per Sublot or Min. 10/Day, See Section 00744.49	Production Control Testing	Review Documentation for Acceptance

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control			
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE								
Aggregate Production ⁽¹⁾ QAE may waive after 5 sublots/shifts ⁽²⁾ Perform a minimum of 3 tests QL's required ⁽³⁾ Coarse Agg (+ No. 4) ⁽⁴⁾ Fine Agg (- No. 4) Note: Sample Aggregate before Lime Treatment	Soundness Abrasion Degradation Lightweight Pieces Plasticity Index	TM 208		T 104 T 96 T 113 T 90	4000	Contractor Provided Testing Minimum 1 per Project A Sublot equals 1000 Tons. A minimum one per shift whichever results in the greatest sampling frequency	Contractor Provided Testing Minimum 1 per Project	Review Documentation for Acceptance
					1792			
					1792			
					1792			
					4000			
					1792			
					4000			
					1792			
					4000			
					1792			
RAS Production (Reclaimed Asphalt Shingles)	Sieve Analysis Deleterious Materials Sampling Reducing Sieve Analysis Deleterious Materials	TM 335		T 27 T 2 R 76 T 27	4000	Contractor Provided Testing 1/500 Tons 1 / 50 Tons	Contractor Provided Testing	Review Documentation for Acceptance
					1792			
					4000			
					1792			
Preproduced Aggregate								
Compliance of aggregates produced and stockpiled before the award date or notice to proceed of this contract will be determined by the following:								
1. Continuing production records meeting the above requirements of Section 00745.10 Aggregate Production.								
2. Furnish records of testing for the entire stockpile according to Section 00745.10 Aggregate Production except change the sampling frequency to the following:								
a. One Per 5 sublots means "One Set of Tests Per 5000 Tons".								
b. One Per sublot means "One Set of Tests Per 1000 Tons" with a minimum of 3 sets of Sieve Analysis tests per project.								
c. Provide one stockpile sample for each set of tests required above.								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE					(Revised November 2017)			Same Frequency for all Tests (Minimums)					
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Contractor Quality Control Type E	Quality Assurance				
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Project Manager Type D & E						
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)													
Mixture Acceptance - ACP Without RAP											A Sublot equals 1000 Tons		
Gradation													
Ignition method	Calibrate Incinerator	TM 323			2327IC		1/JMF & Each Calendar Year.						
Ignition method	Sampling Reducing		T 168 R 47				1/Sublot					Review Documentation for Acceptance	
(Residual aggregate from AASHTO T 308)	Sieve analysis		T 30		2277		1/Sublot						
Asphalt Content													
Asphalt Content											A Sublot equals 1000 Tons		
Ignition Method	Calibrate Incinerator	TM 323			2327IC		1/JMF & Each Calendar Year.						
Ignition Method	Sampling Reducing		T 168 R 47				1/Sublot or Min. 1/day					Review Documentation for Acceptance	
	Asphalt Content		T 308		2277								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance			
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		Project Manager Type D & E		
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)											
Mixture Acceptance - ACP Without RAP											
Mix Design Verification Testing											
Fabrication	Gyratory Specimen	TM 326			2050GV						
Maximum Density Test	Max. Specific Gravity			T 209	2050	1/Sublot & according to Section 00745.16 (b)-1-d	Production Control Testing			Review Documentation for Acceptance	
Determination of G_{mb}	Bulk Specific Gravity			T 166	*5068 *2560 *5069						
Stripping Susceptibility	Tensile Strength Ratio			T 283	2050tsr	1/JMF See Section 00745.16 (b)-1-f	Production Control Testing			Review Documentation for Acceptance	
*Cat-II complete & submit as required, See Section 745.16(b)											
Plant Discharge Moisture	Asphalt Mix Moist.			T 329	2277	1/Sublot				Review Documentation for Acceptance	
Maximum Density Test G_{mm}	Max. Specific Gravity MAMD	TM 305		T 209	2050	1st Sublot Daily or Min. 1/Day	Production Control Testing			Review Documentation for Acceptance	
Performing Control Strip	Control Strip	TM 306			2084 *5069 1793A	Develop Rolling Pattern See Specs. (D) Average 5 tests per Sublot or Min. 1/Day, See Section 00745.49 (b)-2	Production Control Testing			Review Documentation for Acceptance	
Compaction	Nuclear Density			T 355							
Asphalt Cement	Compliance			R 66	4000	1/Sublot See Section 4C	Provide Suppliers Certificate of Compliance			Review Documentation for Acceptance	
(D) See T 355 Yellow sheet for Density Test Locations											

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				FORM 734- (Revised November 2017)		Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	Quality Assurance	
		ODOT	WAQTC				AASHTO	Contractor Quality Control Type D
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)								
Mixture Acceptance - ACP Without RAP								
Mix Design Verification Testing								
Meter Method	Readings backed by Tank Measure & Production Records Daily	TM 321 (1) TM 322			2277	1/Sublot or Min. 1/Day	Production Control Testing	Review Documentation for Acceptance
(1) Required at start of production and if meters fail to meet specification	Cold Feed Moisture		T 255/265		2277	1/Sublot or Min. 1/Day	Production Control Testing	Review Documentation for Acceptance
Lime	Material must meet the requirements of Section 2090							
Latex	See Special Provisions for Latex Requirements							
Lime or Latex Treatment of Aggregate (Stockpile OR Mixture Production)	(3) % Hydrated Lime	TM 321 (1) TM 322			2277	1/Sublot	Production Control Testing	Review Documentation for Acceptance
(3) See JMF for Details	Readings backed by Tank Measure & Production Records Daily				2043 and 2401	Daily Production	Production Control Testing	Review Documentation for Acceptance
Smoothness	Certification of Profiler Equipment Determining Profile Index Determining International Roughness Index	TM 769 TM 770 TM 772				See Special Provisions	Production Control Testing	Review Documentation for Acceptance
Meter Method is required for ACP even when acceptance is by Ignition Method								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD		FORM 734-	Quality Control		Quality Assurance		
		ODOT	WAQTC		AASHTO	Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)									
Mixture Acceptance - ACP With RAP									
A Sublot equals 1000 Tons									
Gradation									
Ignition method	Calibrate Incinerator	TM 323			2327IC				
Ignition method	Sampling Reducing Sieve analysis			T 168 R 47 T 30					Review Documentation for Acceptance
(Residual aggregate from AASHTO T 308)					2277				
Asphalt Content									
A Sublot equals 1000 Tons									
Ignition Method	Calibrate Incinerator	TM 323			2327IC				
Ignition Method	Sampling Reducing Asphalt Content			T 168 R 47 T 308					Review Documentation for Acceptance
RAP Percentage	Meter Method	TM 321 (1) TM 322			2277				
⁽¹⁾ Required at start of production and if meters fail to meet specification	RAP Moisture Cold Feed Moisture			T 329 T255/T265	2277				Review Documentation for Acceptance
<u>Meter Method is required for ACP even when acceptance is by Ignition Method</u>	Readings backed by Tank measure & Production Records Daily	TM 321 (1) TM 322			2401 & 2043				Review Documentation for Acceptance

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)				Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance			
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		Project Manager Type D & E		
SECTION 00745 - ASPHALT CONCRETE PAVEMENT - STATISTICAL ACCEPTANCE (CONTINUED)											
Mixture Acceptance - ACP With RAP											
Mix Design Verification Testing											
Fabrication	Gyratory Specimen	TM 326			2050GV						
Maximum Density Test	Max. Specific Gravity		T 209		2050	1/Sublot & according to Section 00745.16 (b)-1-d	Production Control Testing			Review Documentation for Acceptance	
Determination of G_{mb}	Bulk Specific Gravity		T 166		*5068						
					*2560						
Stripping Susceptibility	Tensile Strength Ratio		T 283		*5069						
*Cat-II complete & submit as required, See Section 745.16(b)					2050tsr	1/JMF See Section 00745.16 (b)-1-f	Production Control Testing			Review Documentation for Acceptance	
Plant Discharge Moisture	Asphalt Mix Moist.		T 329		2277						
Maximum Density Test G_{mm}	Max. Specific Gravity MAMD	TM 305	T 209		2050	1st Sublot Daily or Min. 1/Day	Production Control Testing			Review Documentation for Acceptance	
Performing Control Strip	Control Strip	TM 306	T 355		2084	Develop Rolling Pattern See Specs.					
Compaction	Nuclear Density				*5069						
					1793A	(D) Average 5 tests per Sublot or Min. 1/Day, See Section 00745.49 (b)-2	Production Control Testing			Review Documentation for Acceptance	
Asphalt Cement	Compliance		R 66		4000		Provide Suppliers Certificate of Compliance			Review Documentation for Acceptance	
(D) See T 355 Yellow sheet for Density Test Locations											

A Sublot equals 1000 Tons

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		Project Manager Type D & E
SECTION 00754 - PLAIN CONCRETE PAVEMENT REPAIR									
SECTION 00755 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT									
SECTION 00756 - PLAIN CONCRETE PAVEMENT									
SECTION 00758 - CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR									
Aggregate Production									
⁽¹⁾ QAE may waive after 5 sublots/shifts	Sampling Reducing ^{(2),(3),(4)} Sieve Analysis ⁽⁴⁾ Fineness Modulus ⁽⁴⁾ Sand Equivalent			T 2 R 76 T 27/T 11	1792 1792		Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance
⁽²⁾ Perform a minimum of 3 tests, QL's required				T 176	1792		Contractor Provided Testing	Contractor Provided Testing	Review Documentation for Acceptance
⁽³⁾ Coarse Aggregate (See Section 02690.20)	^{(1),(3)} Wood Particles ⁽³⁾ Fracture (Method 2) ^{(1),(3)} Elongated Pieces	TM 225 TM 229		T 335	1792 1792		Contractor Provided Testing 1/5 Sublots & Start of Production	Contractor Provided Testing	Review Documentation for Acceptance
⁽⁴⁾ Fine Aggregate (See Section 02690.30)	Abrasion Degradation Soundness Lightweight Pieces Organics	TM 208		T 96 T 104 T 113 T 21	4000 4000		Minimum 1 per Project	Contractor Provided Testing	Review Documentation for Acceptance
	⁽³⁾ Dry Rodded Unit Weight ^{(3),(4)} Bulk Specific Gravity & Absorption			T 19 T 84 & T 85	1825 1825C 1825		Start of production and when changes in aggregate occurs	Contractor Provided Testing	Review Documentation for Acceptance

A Sublot equals 1000 Tons

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)			Same Frequency for all Tests (Minimums)		
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Quality Assurance	
SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS									
Placement Evaluation "Retroreflectivity"									
In-Place Procedure evaluates Durable and High Performance Pavement Markings	Evaluation of Retroreflectivity Using Hand-Operated Instrument	TM 777			4101 thru 4105	See Special Provisions and Test Procedure for Testing Frequency	Visual	Review Documentation for Acceptance	

FIELD TESTED MATERIALS ACCEPTANCE GUIDE				(Revised November 2017)		Same Frequency for all Tests (Minimums)			
MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control		Quality Assurance	
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E		
SECTION 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS									
Aggregate Production									
(1) QAE may waive after 5 sublots/shifts (2) Perform a minimum of 3 tests, QL's required (3) Coarse Aggregate (See Section 02690.20) (4) Fine Aggregate (See Section 02690.30)	Sampling Reducing							Review Documentation for Acceptance	
	(2)(3)(4) Sieve Analysis	T 2							
	(4) Fineness Modulus	T 27/T 11			1792	Contractor Provided Testing	Contractor Provided Testing		
	(1)(3) Wood Particles	T 27/T 11							
	(4) Sand Equivalent	T 176			1792				
	Soundness								
	Abrasion	T 104			4000		Contractor Provided Testing		
	Degradation	T 96				Contractor Provided Testing	Contractor Provided Testing		
	Lightweight Pieces	T 113			4000				
	Organics	T 21							
(3) Dry Rodded Unit Weight	T 19			1825			Minimum of 1 per Project		
(3)(4) Bulk Specific Gravity & Absorption	T 84 & T 85			1825C			Minimum of 1 per Project		
				1825					
Portland Cement	Materials must meet the requirements of Section 02001.10							Manufacture Compliance Statement	Review Documentation for Acceptance
Modifiers									
Admixtures									
Drilling Slurry	Slurry material must meet the requirements of Section 00921.14 & 00921.43(g)							Contractor Provided Testing	
Grout	Material must meet the requirements of Section 02080							Manufacture Compliance Statement	
Mixing Water	Material must meet the requirements of Section 02020								

FIELD TESTED MATERIALS ACCEPTANCE GUIDE

(Revised November 2017)

Same Frequency for all Tests (Minimums)

MATERIAL AND OPERATION	DESCRIPTION OF TEST	TEST METHOD			FORM 734-	Quality Control			Quality Assurance
		ODOT	WAQTC	AASHTO		Contractor Quality Control Type D	Contractor Quality Control Type E	Project Manager Type D & E	
SECTION 00921 - MAJOR SIGN SUPPORT DRILLED SHAFTS									
Portland Cement Concrete									
	Sampling Slump	TM 2	T 119 T 309 T 121 T 121 T 121	3573WS or 4000C	(M) (S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.	(M) (S) 1 per Shaft and Test at minimum frequencies according to table 00512-1. Review specs.			Review Documentation for Acceptance
	Concrete Temperature								
	Density (Unit Weight) Yield								
	Water/Cement Ratio								
	Strength								
TABLE 00512-1 Frequency of Quality Control Testing									
<i>Minimum frequencies per Class of concrete based on daily production records.</i>									
		<u>Production</u>			<u>Frequencies</u>				
		0 to 100 yd ³ on a single day			1 Set each day				
		<u>Quantity Over 100 yd³</u>							
		100 to 600 yd ³ on a single day			1 Set per each 100 yd ³ or portion thereof				
		over 600 yd ³ on a single day			1 Set per each 200 yd ³ or portion thereof after reaching 600 yd ³				

(S) 1 Set Represents a minimum of 3 Cylinders

(M) Per Mix Design & Source