

LABORATORY INSPECTION INFORMATION REQUEST

This information will assist in the processing of laboratory inspections. The inspection is a two-man day comprehensive review that includes review of the quality system, verification of test equipment, and observation of test procedures performed. Please complete and return to:

Commander
U.S. Army Engineer Research and Development Center
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GENERAL LABORATORY INFORMATION

Date of Request: _____ E-Mail Address: _____

Laboratory Name: _____

Laboratory Location: _____

Telephone Number: (____) _____ FAX Number: (____) _____

Mailing Address: _____

Name and Title of Point of Contact: _____

AREA OF INSPECTION DESIRED: Please check the appropriate areas for which this inspection is requested and complete the questionnaire below.

Aggregates ____ **Bituminous** ____ **Concrete** ____ **Masonry** ____ **Rock** ____ **Soil** ____

LABORATORY QUALITY ASSURANCE QUESTIONNAIRE (ASTM C 1077-16, C 1093-15, D 3666-13, D 3740-12, E 329-14)

Quality System	Yes	No	Accreditation Programs (if Yes, list date)	Yes	No
Quality Manual			AASHTO Accreditation Program – (AMRL)		
Proficiency Sample Programs: Aggregate			AMRL Accreditation Date -		
Bituminous			AASHTO Accreditation Program – (CCRL)		
Concrete			CCRL Accreditation Date -		
Masonry					
Soil			Inspections (if Yes, list date)		
Certified Technicians (if Yes, list number)			US Army Corps of Engineers		
American Concrete Institute (ACI)			AASHTO Materials Reference Laboratory (AMRL)		
National Institute for Certification in Engineering Technologies (NICET)			Cement and Concrete Reference Laboratory (CCRL)		

U.S. Army Corps of Engineers Information

District Contact: _____ Telephone: (____) _____

NOTE: The U.S. Army Corps of Engineers Materials Testing Center (MTC) does not certify nor does it provide any accreditation to laboratories. The MTC conducts inspections to validate the capability of a laboratory to perform specific tests as required by contract with the U.S. Army Corps of Engineers.

Revised: 04 October 2016

Aggregate Inspection Checklist

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by AMRL or CCRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	Test Procedure	No.	Check	AMRL/CCR Inspection
REQUIRED TESTS PER ASTM C 1077-16				
ASTM C 117-13	Material Finer than 75 :µm (No. 200) Sieve	A1		
ASTM C 127-15	Specific Gravity & Absorption in Coarse Aggregate	A2		
ASTM C 128-15	Specific Gravity & Absorption in Fine Aggregate	A3		
ASTM C 136-14	Sieve Analysis of Aggregates	A4		
OPTIONAL TESTS PER ASTM C1077-16				
ASTM C 29-16	Unit Weight and Voids in Aggregate	A5		
ASTM C 40-11	Organic Impurities	A6		
ASTM C 70-13	Surface Moisture in Fine Aggregate	A7		
ASTM C 87-10	Effects of Organic Impurities on Mortar Strength	A8		
ASTM C 88-13	Sulfate Soundness	A9		
ASTM C 123-14	Lightweight Particles	A10		
ASTM C 131-14	Los Angeles Abrasion Resistance on Small-Size Coarse Aggregate	A11		
ASTM C 142-10	Clay Lumps	A12		
ASTM C 227-10	Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar)	A13		
ASTM C 295-12	Petrographic Examination	A14		
ASTM C 441-11	Effectiveness of Mineral Admixtures or GBFS on Preventing	A15		
ASTM C 535-16	Los Angeles Abrasion Resistance on Large Size Coarse Aggregate	A11		
ASTM C 566-13	Total Moisture Content	A16		
ASTM C 586-11	Alkali Reactivity of Carbonate Rocks (Rock Cylinder Method)	A17		
ASTM C 641-09	Staining Materials in Lightweight Aggregates	A18		
ASTM C 702-11	Reducing Samples to Testing Size	A19		
ASTM C 1105-08	Length Change Due to Alkali-Carbonate Reaction	A20		
ASTM C 1138-12	Abrasion Resistance of Concrete (Underwater Method)	A21		
ASTM C 1260-14	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)	A22		
ASTM C 1293-08 (15)	Length Change Alkali-Silica Reaction	A23		
ASTM D 75-14	Sampling	A24		
ASTM D 546-10	Sieve Analysis of Mineral Filler	A25		
ASTM D 2419-14	Sand Equivalent Value	A26		
ASTM D 3744-11	Aggregate Durability Index	A27		
ASTM D 4791-10	Flat or Elongated Particles	A28		
ASTM D 5821-13	Percentage of Fractured Particles in Coarse Aggregate	A29		
CRD-C 104-80	Fineness Modulus	A4		
CRD-C 119-91	Flat and Elongated Particles	A28		
CRD-C 130-89	Scratch Hardness	A30		
CRD-C 171-94	Percentage of Crushed Particles in Aggregate	A31		

Bituminous Inspection Checklist

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by AMRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	Test Procedure (ASTM D 3666-13)	No.	Check	AMRL Inspection
ASTM D 5-13	Penetration	B1		
ASTM D 36-14	Softening Point	B2		
ASTM D 70-09	Density of Semi-Solid Bituminous Mat'ls (Pycnometer Method)	B3		
ASTM D 139-12	Float Test	B4		
ASTM D 140-16	Sampling Bituminous Materials	B5		
ASTM D 242-09 (14)	Mineral Filler for Bituminous Paving Mixtures	B6		
ASTM D 243-14	Penetration Residue	B7		
ASTM D 244-09	Emulsified Asphalts	B8		
ASTM D 402-14	Distillation of Cut-Back Asphalts	B9		
ASTM D 979-15	Sampling Bituminous Paving Mixtures	B10		
ASTM D 1074-09	Compressive Strength	B11		
ASTM D 1075-11	Effect of Water on Compressive Strength	B12		
ASTM D 1188-07 (15)	Bulk Specific Gravity & Density Using Coated Samples	B13		
ASTM D 1461-11	Moisture or Volatile Distillates in Bituminous Paving Mixtures	B14		
ASTM D 1560-15	Resistance to Deformation & Cohesion by Hveem	B15		
ASTM D 1561-13	Preparation by CA Kneading Compactor	B16		
ASTM D 1754-09 (14)	Effect of Heat & Air by Thin Film Oven	B17		
ASTM D 1856-09 (15)	Recovery of Asphalt by Abson	B18		
ASTM D 2041-11	Theoretical Maximum Specific Gravity & Density (Rice)	B19		
ASTM D 2042-15	Solubility by Trichloroethylene	B20		
ASTM D 2170-10	Kinematic Viscosity	B21		
ASTM D 2171-10	Viscosity by Vacuum Capillary Viscometer	B22		
ASTM D 2172-11	Quantitative Extraction	B23		
ASTM D 2726-14	Bulk Specific Gravity and Density	B24		
ASTM D 2872-12	Effect of Heat & Air on Moving Film by Rolling Thin Film Oven	B25		
ASTM D 2950-14	Density of Bituminous Concrete in Place by Nuclear Methods	B26		
ASTM D 3142-11	Density of Liquid Asphalts by Hydrometer	B27		
ASTM D 3203-11	Percent Air Voids	B28		
ASTM D 3289-08	Density by Nickel Crucible	B29		
ASTM D 3665-12	Random Sampling of Construction Materials	B30		
ASTM D 4125-10	Asphalt Content by Nuclear Method	B31		
ASTM D 4867-09 (14)	Effect of Moisture	B32		
ASTM D 5404-12	Asphalt Recovery by Rotary Evaporator	B33		
ASTM D 5444-15	Mechanical Size Analysis of Extracted Aggregate	B34		
ASTM D 6307-10	Asphalt Content of Hot-Mix Asphalt by Ignition Method	B35		
ASTM D 6926-10	Preparation of Bituminous Specimens using Marshall	B36		
ASTM D 6927-15	Marshall Stability and Flow of Bituminous Mixtures	B37		
CRD-C 650-95	Density and Percent Voids	B38		

Concrete Inspection Checklist

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by CCRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	Test Procedure	No.	Check	CCRL
REQUIRED TESTS PER ASTM C 1077-16				
ASTM C 31-15	Making and Curing Test Specimens in the Field	C1		
ASTM C 39-16	Compressive Strength of Cylindrical Specimens	C2		
ASTM C 138-16	Unit Weight and Air Content by Gravimetric	C3		
ASTM C 143-15	Slump	C4		
ASTM C 172-14	Sampling	C5		
ASTM C 173-16	Air Content by Volumetric ***required if C231 not performed***	C6		
ASTM C 231-14	Air Content by Pressure ***required if C173 not performed***	C7		
ASTM C 1064-12	Temperature of Concrete	C8		
OPTIONAL TESTS PER ASTM C 1077-16				
ASTM C 42-13	Drilled Cores and Sawed Beams	C9		
ASTM C 78-16	Flexural Strength by Third Point Loading	C10		
ASTM C 157-08 (14)	Length Change of Concrete and Mortars	C11		
ASTM C 174-16	Concrete Thickness by Drilled Cores	C12		
ASTM C 192-16	Making and Curing Test Specimens in Laboratory	C13		
ASTM C 215-14	Fundamental Frequencies of Concrete	C14		
ASTM C 232-14	Bleeding of Concrete	C15		
ASTM C 293-16	Flexural Strength by Center Point Loading	C16		
ASTM C 341-13	Length Change of Drilled or Sawed Concrete	C17		
ASTM C 403-08	Time of Setting by Penetration Resistance	C18		
ASTM C 418-12	Abrasion Resistance by Sand Blasting	C19		
ASTM C 457-12	Air-Void System by Microscopic Determination	C20		
ASTM C 469-14	Static Modulus of Elasticity and Poisson's Ratio	C21		
ASTM C 470-15	Molds for Forming Concrete Test Cylinders Vertically	C22		
ASTM C 490-11	Apparatus for Length Change of Cement Paste, Mortar, & Concrete	C23		
ASTM C 495-12	Compressive Strength of Lightweight Insulating Concrete	C24		
ASTM C 496-11	Splitting Tensile Strength	C25		
ASTM C 511-13	Moist Cabinets, Moist Rooms, Water Storage Tanks	C26		
ASTM C 512-15	Creep of Concrete in Compression	C27		
ASTM C 567-14	Unit Mass of Structural Lightweight Concrete	C28		
ASTM C 597-16	Pulse Velocity Through Concrete	C29		
ASTM C 617-15	Capping Cylindrical Specimens	C30		
ASTM C 642-13	Density, Absorption, and Voids	C31		
ASTM C 666-15	Freezing & Thawing Concrete Specimens	C32		
ASTM C 672-12	Scaling Resistance by Deicing Chemicals	C33		
ASTM C 779-12	Abrasion Resistance of Horizontal Surfaces	C34		
ASTM C 803-03 (10)	Penetration Resistance of Hardened Concrete	C35		
ASTM C 805-13	Rebound Number of Hardened Concrete	C36		
ASTM C 823-12	Examination and Sampling Hardened Concrete in Construction	C37		

Concrete Inspection Checklist Continued

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by CCRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	OPTIONAL TESTS PER ASTM C 1077-16	No.	Check	CCRL
ASTM C 856-14	Petrographic Examination of Hardened Concrete	C38		Inspection
ASTM C 873-15	Compressive Strength of Cast in Place Cylinders	C39		
ASTM C 876-15	Half-Cell Potentials of Uncoated Reinforcing Steel	C40		
ASTM C 900-15	Concrete Pullout Strength	C41		
ASTM C 918-13	Early Age Compression Test	C42		
ASTM C 944-12	Abrasion Resistance by Rotating-Cutter Method	C43		
ASTM C 1040- 16	Density of Concrete by Nuclear Method	C44		
ASTM C 1074-11	Estimating Concrete Strength by Maturity Method	C45		
ASTM C 1084-10	Portland Cement Content of Hardened Concrete	C46		
ASTM C 1152-04 (12)	Acid-Soluble Chloride in Concrete	C47		
ASTM C 1202-12	Electrical Indication of Concrete to Resist Chloride Ion	C48		
ASTM C 1218-15	Water-Soluble Chloride in Concrete	C49		
ASTM C 1231-15	Unbonded Caps	C50		
CRD-C 114-97	Soundness by Freezing and Thawing of Concrete	C51		

What is the capacity of the compression testing machine(s)? _____

How many ranges are associated with the test machine(s)? _____

Rock Inspection Checklist

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by AMRL or CCRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	Test Procedure (ASTM D 3740-12)	No.	Check	AMRL/CCRL Inspection
ASTM D 2845-08	Pulse Velocity and Ultrasonic Elastic Constants	R1		
ASTM D 2936-08	Direct Tensile Strength of Intact Rock Core	R2		
ASTM D 3967-08	Tensile Strength, Splitting (Brazilian) Method	R3		
ASTM D 4435-13	Rock Bolt Anchor Pull Test	R4		
ASTM D 4543-08	Preparing Rock Core Specimens and Determining Tolerances	R5		
ASTM D 4644-08	Slake Durability of Shales and Weak Rocks	R6		
ASTM D 5312-12 (13)	Durability of Rock to Freezing and Thawing	R7		
ASTM D 5313-12 (13)	Durability of Rock to Wetting and Drying	R8		
ASTM D 5607-08	Laboratory direct Shear Tests on Rock Under Constant Normal	R9		
ASTM D 5731-08	Point Load Index	R10		
ASTM D 5878-08	Rock-Mass Classification for Engineering Purposes	R11		
ASTM D 7012-14	Compressive Strength & Elastic Moduli of Rock Core Specimens	R12		
CRD-C 144-92	Resistance of Rock to Freezing and Thawing	R7		
CRD-C 148-69	Expansive Breakdown on Soaking in Ethylene Glycol	R13		
CRD-C 169-97	Resistance of Rock to Wetting and Drying	R8		

Soils Inspection Checklist

Please mark the test methods to be validated during this inspection to include the laboratory's full capabilities. Mark the last column if a test method has been previously inspected by AMRL within the past two years.

If a test method is not listed, add your required test method at the bottom of the checklist:

Test Method	Test Procedure (ASTM D 3740-12)	No.	Check	AMRL Inspection
ASTM D 558-11	Moisture-Density of Soil-Cement	S1		
ASTM D 559-15	Wetting & Drying Soil-Cement	S2		
ASTM D 560-15	Freezing & Thawing Soil-Cement	S3		
ASTM D 698-12	Compaction Characteristics by Standard Effort	S4		
ASTM D 854-14	Specific Gravity of Soils	S5		
ASTM D 1140-14	Material Finer than 75 :m (No. 200) Sieve	S6		
ASTM D 1556-15	Density & Unit Weight by Sand Cone	S7		
ASTM D 1557-12	Compaction Characteristics by Modified Effort	S8		
ASTM D 1883-14	CA Bearing Ratio (CBR)	S9		
ASTM D 2166-13	Unconfined Compressive Strength	S10		
ASTM D 2167-15	Density & Unit Weight by Rubber Balloon	S11		
ASTM D 2168-10	Calibration of Laboratory Mechanical-Rammer Soil Compactors	S12		
ASTM D 2216-10	Water Content	S13		
ASTM D 2435-11	One-Dimensional Consolidation Properties	S14		
ASTM D 2487-11	Classification of Soils	S15		
ASTM D 2488-09	Description & Identification of Soils (Visual-Manual Procedure)	S16		
ASTM D 2850-15	Unconsolidated, Undrained Strength in Triaxial Compression	S17		
ASTM D 2937-10	Density by Drive Cylinder Method	S18		
ASTM D 2974-14	Moisture, Ash, & Organic Matter of Peat & Other Organic Soils	S19		
ASTM D 3080-11	Direct Shear Test in Consolidated Drained Conditions	S20		
ASTM D 4220-14	Preserving & Transporting Samples	S21		
ASTM D 4253-14	Maximum Index Density by Vibratory Table	S22		
ASTM D 4254-14	Minimum Index Density	S23		
ASTM D 4318-10	Liquid & Plastic Limits & Plasticity Index	S24		
ASTM D 4546-14	One-Dimensional Swell or Settlement Potential	S25		
ASTM D 4643-08	Determination of Water Content of Soil by Microwave Oven	S26		
ASTM D 4767-11	Consolidated-Undrained Triaxial Compression	S27		
ASTM D 5084-10	Hydraulic Conductivity using a Flexible Wall Permeameter	S28		
ASTM D 6913-03 (09)	Particle-Size Distribution of Soils Using Sieve Analysis	S29		
ASTM D 6938-15	Density and Water Content by Shallow Depth Nuclear Method	S30		