



City Planning and Development

3rd PARTY MATERIALS TESTING MANUAL



CITY PLANNING & DEVELOPMENT DEPARTMENT
DEVELOPMENT SERVICES - LAND DEVELOPMENT DIVISION
City of Kansas City, Missouri

Implementation of
Public Works Department Materials Testing Requirements
Ordinance 150411 adopted June 14, 2015

INTRODUCTION

The Public Works Department adopted revisions to APWA Sections 2200, 2300, and 5200 on June 14, 2015 in Ordinance 150411. The updated sections referenced Public Works materials testing requirements. Since then, the City Planning and Development Department have been working with the Public Works Department on the implementation requirements for the new testing requirements, as it pertains to Land Development permits. This manual is intended to supplement and clarify the implementation of the testing requirements. The manual will outline the 3rd PARTY Materials Testing Program. It will clarify the procedure for testing and reporting and define the duties and responsibilities of the Permittee and 3rd PARTY Materials Testing Agency. The 3rd PARTY Materials Testing Manual in no way relieves any permittee from the proper performance of work according to contracts, plans and specifications and applicable City Standards.

QUESTIONS

For Technical questions regarding testing frequency, type of tests to conduct, etc... please contact the Public Works Materials Lab Manager.

Public Works Materials Lab Manager
4721 Coal Mine Road
Kansas City, MO 64130
Telephone: 816-513-4701
Fax: 816-513-4717

For procedural question regarding when to submit test results, who to send results to, etc... please contact City Planning & Development – Land Development Division – Inspection/Permitting Section Head.

City Planning & Development
Land Development Division
Inspection/Permitting Section Head
414 East 12th Street, 5th Floor
Kansas City, MO 64106
Telephone: 815-513-1500 Option 3
Fax: 816-513-2548

If the Lab Manager or the Inspection Section Head is not available, please contact 816-513-1500 Option 3 and ask for the Inspection Staff.

If the Inspection staff is not available, the following individual may be contacted at (816) 513-1500 Option 3: Land Development Division Manager.

GENERAL EXPECTATIONS

- The permittee is responsible for notifying the 3rd PARTY Materials Testing Agency of all work that requires materials testing and ensures that testing has occurred and passed prior to concealment or final placement.
- City Planning & Development Land Development Division reserves the right to require additional materials testing if any materials test fails or upon visual inspection of the work that does not appear to be in compliance with City Standards.
- If work has started without a required Land Development Division permit being issued, where materials tests have already been performed, Land Development Division reserves the right to have the material removed and replaced with material that has been visually inspected, tested and verified as passing the required materials test standards.
- Some testing may be performed prior to the permit being issued when beneficial to design compliance with materials specifications and when necessary to promote efficient construction processes. (e.g. Earthwork testing to obtain proctors of the material being used for embankment and/or subgrade.)
- During visual inspection of the work, Land Development identifies that the work does not meet the City Material Specification Standards or does not follow the Public Works Department Materials Testing Requirements, Land Development Division may require additional inspections, require additional materials tests, etc., to ensure compliance with the City's adopted Standards and Specifications are being met.

CLASSIFICATION OF WORK REQUIRING 3RD PARTY MATERIALS TESTING

The requirement for 3rd PARTY Materials Testing outlined in this manual shall apply to the following types of work.

EARTHWORK

Materials Verification - Verification of materials for use within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2100.

Excavation - All excavation within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2100.

Fill - All fill within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2100.

Subgrade - All subgrade within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

Trench - Backfill of trench excavations within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2600.

UNTREATED COMPACTED AGGREGATE

Materials Verification - Verification of materials for use within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

Placement - Compaction and Moisture content within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

CONCRETE

Approved Supplier Plant Verification - Approve Supplier Plant Verification for use within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

Concrete Paving and Pavement Repairs – All concrete paving and pavement repairs within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

Concrete Sidewalks/Driveways/Curbs/Non-Structural – All Concrete sidewalks, driveways, and non-structural within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200 and 2300.

Concrete-Structural – All structural concrete within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2700.

HOT MIX ASPHALT

Approved Supplier Plant Verification – All approved supplier plant verification for use on projects within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

Paving Operation – All paving operations within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2200.

PRECAST AND PRESTRESSED CONCRETE PRODUCTS

Approved Supplier Plant Verification – All approved supplier plant verification for use on projects within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2500 and 2600.

Prestressed Bridge Beams or Other Major Structural Members – All Prestressed bridge beams or other major structural members for use on projects within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2700.

Manholes, Catch Basins, Pipe of Routine Manufacture – All manholes, catch basins, and pipe for use on projects within the public Right-of-Way (R/W) shall be in accordance with KCMO/APWA 2500 and 2600.

Precast concrete appurtenances certifications – All Precast concrete appurtenances certifications for use on projects within the public Right-of-Way (R/W) shall be in accordance with Public Works Department Materials Testing Requirements.

Precast concrete special items of uncommon manufacture or not of a common inventory stock or Items of common manufacture that are modified for other than standard pipe openings – All Precast concrete special items of uncommon manufacture or not of a common inventory stock or Items of common manufacture that are modified for other than standard pipe openings for use on projects within the public Right-of-Way (R/W) shall be in accordance with Public Works Department Materials Testing Requirements.

EXCEPTIONS:

1. Work of a Minor Infrastructure as approved by the Land Development Division.
2. Material testing services that has been contracted by the permittee with Public Works Materials Testing Lab.

3RD PARTY MATERIAL TESTING AGENCY

a. APPROVAL OF 3RD PARTY MATERIALS TESTING AGENCIES

The project owner shall retain the services of a qualified 3rd PARTY Materials testing agency to test the applicable work. Under no circumstances shall these services be provided by an agency retained or engaged by owner to perform construction. No individual or agency under the direct employment of or affiliated with the contractor(s) are allowed to serve as the 3rd PARTY Materials Testing Agency. The construction permit applicant is not allowed to serve as the 3rd PARTY Materials Testing Agency. A qualified 3rd PARTY Materials Testing agency is one that has been approved by the Department of Public Works as outlined in this manual.

For approved 3rd PARTY Materials Testing Agency list contact the Public Works Department. For information on the requirements of the 3rd Party Testing Agency see Appendix B & C. Public Work's testing lab is also considered a 3rd Party certified testing lab, and may be contracted to perform testing.

b. Notification of Responsible 3rd Party Testing Agency

Prior to the preconstruction meeting, each approved 3rd PARTY Materials Testing agency performing testing shall submit a letter to the Land Development Division, which states the following:

1. The project name, address and Land Development project number.
2. The works for which they have formally been retained, by the project owner, to test.

SUBMITTAL OF REQUIRED DOCUMENTS

a. WHO PROVIDES REPORT

1. Permittee provides all reports to Land Development Division (LDD).
 - I. Testing labs submit reports to Permittee and Permittee submits to LDD.

b. WHERE AND HOW TO REPORT

By e-mail from the Permittee as follows:

To: {Land Development Inspector}

Cc: kevin.scott@kcmo.org, Denise.Smith@kcmo.org

Subject: Materials Testing Results for Project Name, Permit Number

{The email shall include all copies of the materials testing reports, material changes, and any other documentation.}

C. WHEN TO REPORT

- 2. Every two (2) weeks
 - I. From issuance date.
 - II. Or, from date established at preconstruction meeting.
- 3. When test results indicated fail.
- 4. When directed by Inspector.

d. CONTENTS OF REPORT

- 5. Testing results on forms provided in this manual.
- 6. Initial test and retest results, remediation, and results for additional test required by the Inspector.
- 7. A Compiled Final Testing Report only upon request by Inspector
- 8. A brief summary of the work performed during the reporting time frame.
- 9. Discrepancies which were resolved and/or corrected.
- 10. All applicable test results.

PROCEDURAL REQUIREMENTS

a. PRECONSTRUCTION MEETING

After issuance of a permit, a preconstruction meeting shall be scheduled by the Land Development Inspector if necessary to review project schedule, phasing of work, notification procedures, and to establish materials test reporting dates due to unique circumstances of the project. A preconstruction meeting may be held on-site or at City Hall, and may also be held for purposes other than related to 3rd PARTY Material Testing schedules.

b. AVAILABILITY OF CONSTRUCTION PLANS

The permittee shall ensure that copies of the City reviewed plans and specifications, and the EOR-reviewed shop drawings, are provided to the approved, certified, 3rd PARTY testing lab and CPD-DS-LDD prior to the start of the affected work.

c. TESTING LAB RESPONSIBILITIES

It is the approved, certified, 3rd PARTY testing lab technician’s responsibility to review the City reviewed plans thoroughly and sufficiently in advance of construction to establish that adequate information is available to conduct the required Materials Testing and tests. All errors and/or omissions in the reviewed plans that create any form of uncertainty or ambiguity shall be resolved through the EOR.

d. PERMITTEE RESPONSIBILITIES

The permittee is responsible for notifying the approved, certified, 3rd PARTY testing agency as necessary when the work is ready for Materials Testing. It is the responsibility of the permittee to verify that all work requiring Materials Testing is inspected and/or tested prior to concealment.

e. USE OF ATTACHED FORMS

The permittee's Materials Testing Lab shall provide reports on the forms located in Appendix D. The form shall be completed in detail and shall be signed by the Materials Testing Lab technician or an approved, certified, 3rd PARTY Testing Lab. Any non-conforming items shall be brought to the immediate attention of the Permittee and noted on the Daily Report form. For digital copies of the forms please contact Marty Ambriz in the Public Works Material Testing Lab.

The report shall indicate discrepancies if the item remains unresolved by the Engineer of Record, or shall indicate changes if the resolution by the Engineer of Record has been submitted to the City.

f. RETEST AND CORRECTIONS

Material where the Test fails shall be removed, replaced, and retested and the Daily Report updated accordingly. The retest results shall meet the adopted specifications, or this procedure shall be repeated until the specification is met. Inability to meet the specifications after repeated attempts to correct shall be cause for work stoppage and assessment of site conditions or materials supplies and the Permittee shall notify the Inspector of the proposed remedy before restarting work. Failed tests results in the Daily Report shall be accompanied by the corrective action and retest result indicating pass, or the City reserves the right to require removal and replacement of materials meeting the adopted specifications.

g. IMPLEMENTATION

Effecting all new permit applications received after April 15, 2016. Also applies to existing permit applications prior to April 15, 2016 that do not have permits issued prior to close of business day June 15, 2016.

Separate Minor Infrastructure permit work (as defined by Chapter 64 Section 4 of the Code of Ordinances) for repairs or removal and when not part of a Major Infrastructure street improvement or development permit will not be required to provide testing as indicated in DPW "Materials Testing & Inspection Lab Procedure" document.

Major Infrastructure projects including road improvement and grading, curbs, and sidewalks (commercial, residential subdivision, etc.) are required to have the providing Testing Reports as indicated herein and in accordance with DPW "Materials Testing & Inspection Lab Procedure" document.

ADA ramps at the street intersection are maintained by DPW and are not exempt from these requirements.

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Appendix A
STANDARD DEFINITIONS

INSPECTOR – Land Development Inspector assigned to the project or their replacement or inspection supervisor.

TESTING REQUIREMENTS – See revised APWA Section 2200, 2300, and 5200 and Public Works Department Materials Testing Requirements” document available for download at [Materials Testing Requirements](#)

(This link is a reference link to Public Works website. If this link does not open the document, please contact Public Works for instruction on the new location of this document on their website.)

Appendix B
PREQUALIFIED TESTING LABORATORY QUALITY MANAGEMENT PLAN

1.1 Introduction

1.1.1 The purpose of the Prequalified Testing Laboratory Policy is to establish the procedures for becoming prequalified as a testing laboratory for the Kansas City, Missouri Public Works Department (KCMO PW). The policy is to assure KCMO PW that all prequalified testing laboratories are capable of performing material tests in a fair and accurate manner. Only prequalified testing laboratories will be accepted for use on KCMO PW projects.

1.2 Prequalification for Testing Laboratories

1.2.1 Applicants shall submit to the Materials Engineer, a letter requesting that they be designated as a prequalified testing laboratory. The letter shall include the following:

1.2.1.1 Proof that the testing laboratory is currently meeting the requirements of a prequalified testing laboratory as outlined in section 1.3 of this document.

1.2.1.2 Name and phone number of the Quality Control Manager (QCM) at the laboratory who may be contacted for scheduling of inspections and general information.

1.2.1.3 Signature of a representative having legal authority to bind the company.

1.2.2 The Testing Laboratory agrees to:

1.2.2.1 Meet or exceed all applicable KCMO PW Standards and Specifications, ASTM and AASHTO specifications.

1.2.2.2 Make available to the Materials Engineer, or representative, all records required by section 1.3 of this document when requested.

1.2.2.3 Submit to a minimum of one Materials Section inspection per year in order to maintain certification as a prequalified testing laboratory.

1.2.3 Notification of acceptance as a Prequalified Testing Laboratory will be made in writing by the Materials Engineer.

1.2.4 Send all documentation and correspondence to the address listed below.

Materials Laboratory

4721 Coal Mine Road

Kansas City, MO 64130

Phone Number: (816) 513-4701

Fax Number: (816) 513-4717

1.3 Materials Section Inspection Program

1.3.1 Acceptance as a Prequalified Testing Laboratory:

1.3.1.1 Description: A prequalified testing laboratory will adhere to the guidelines set forth in section 1.3 of this document. Suppliers will pass a Materials Section inspection prior to acceptance as a prequalified testing laboratory. Each prequalified testing laboratory will be subject to a minimum of one Materials Section plant inspection per year. Failure to meet one or more of the requirements listed in sections 1.3.3 and 1.3.4 may result in an accelerated inspection program. Any additional failures to meet these minimum requirements will result in

the suspension of the laboratory as a prequalified testing laboratory until all documented deficiencies are corrected. The testing laboratory may be reinstated, as a prequalified testing laboratory, after a mandatory Materials Section review of the supplier's QC program.

1.3.2 Testing Laboratory Quality Control Policies and Procedures:

1.3.2.1 Description: Provide adequate training to familiarize all personnel with the company's QC procedures and provide each access to a copy of the company QC Policy Statement, and QC Manual which includes, at a minimum, the criteria set forth in this document.

1.3.2.2 Commentary: The ultimate success in achieving a quality testing is heavily dependent upon the company's and employee's commitment and the employee's understanding of the company's QC procedures.

1.3.3 Testing Laboratory Requirements:

1.3.3.1 QC Procedures:

- a) Develop, periodically review and update as necessary, a company QC policy statement and manual. The QC Manual must be approved by the Materials Engineer prior to acceptance as a prequalified supplier.
- b) Provide necessary training and certifications for all personnel and ensure that certifications are kept current. All personnel shall have ready access to the latest company QC Manual.
- c) Conduct meetings with the QCM, a minimum of once every six months to review the company's QC procedures, discuss possible changes and implement any procedural changes.
- d) The QCM or designated representative shall review and evaluate the QC techniques of all personnel once every twelve months to assure compliance with Materials Section guidelines and certification procedures.
- e) Submit to a minimum of one inspection, each year, by a Materials Section Inspector.
- f) Address and document each deficiency noted in the Materials Section inspection reports (see section 1.3.5) and conduct monthly follow-up meetings for a period of three (3) months to assure compliance.

1.3.3.2 Required QC Records:

- a) Supplier will participate in proficiency testing at a frequency consistent with their QC guidelines. The testing laboratory shall maintain records of all proficiency testing.
- b) Maintain a written employee training and orientation policy in the company files.
- c) Maintain records of all employee certifications and tests that they are qualified to conduct. These records should be for the full employment timeframe for each employee and updated as trainings and certifications are renewed.
- d) Keep copies of the laboratory's QC Policy Statement and QC Manual on file.
- e) Comprehensive report signed by the QCM, which details the laboratory response and follow-up to each specified deficiency documented during a Materials Section inspection (see section 1.3.5).

1.3.3.3 Responsible Person(s): QCM.

1.3.4 Equipment Certification Requirements:

1.3.4.1 QC Requires

- a) Maintain certification and calibration of all testing equipment as per ASTM and AASHTO Specifications.

b) Any broken or malfunctioning equipment must be removed from service immediately and replaced with new or repaired/recertified equipment.

c) Maintain file of all equipment certifications listed in section 1.3.4.1.

1.3.4.2 Responsible Person: QCM.

1.3.5 Materials Section Inspector Guidelines:

1.3.5.1 Prequalification Inspection: The Materials Section inspector will make an inspection visit at the request of the testing laboratory. At that time the inspector will check the laboratory in accordance with the requirements of this document. Upon completion of the inspection the Materials Engineer will grant the laboratory one of the following:

a) Certification as a prequalified testing laboratory.

b) Noncompliance as a prequalified testing laboratory. The Materials Section inspector will submit a written report to the laboratory outlining all deficiencies observed during the inspection process. The laboratory is required to address all deficiencies noted in the Materials Section inspector's report, at which time the laboratory may request another prequalification inspection.

1.3.5.2 Maintenance of Prequalification Status: The Materials Section inspector will make a minimum of one inspection per year. At that time the inspector will check the laboratory in accordance with the requirements of this document. Upon completion of the inspection the Materials Engineer will grant the laboratory one of the following:

a) Certification as a prequalified testing laboratory.

b) Noncompliance as a prequalified testing laboratory. The Materials Section inspector will submit a written report to the laboratory outlining all deficiencies observed during the inspection process. The laboratory is required to address all deficiencies noted in the Materials Section inspector's report within 30 days, at which time the laboratory may request another prequalification inspection. If the laboratory is found to be in noncompliance a second time, they will be removed as a prequalified laboratory until they are recertified.

1.3.5.5 Materials Section Inspector Check List:

a) Examine the plants QC policy statement and manual.

b) Review the availability of QC policy statement and manual to employees.

c) Review employee training and certification records.

d) Interview the person(s) responsible for QC policies and procedures.

e) Examine equipment certification and calibration records.

f) Inspect testing equipment for damage and ensure all equipment is in good repair.

g) Verify proficiency testing is being done and records are being maintained.

1.3.5.5 Responsible Person: Materials Section Inspector.

Appendix C PREQUALIFIED TESTING LABORATORY MINIMUM TECH REQUIREMENTS

3RD PARTY MATERIALS TESTING & INSPECTION LABORATORY -- MINIMUM TECHNICAL REQUIREMENTS									
CONCRETE		ASPHALT		AGGREGATES		SOILS SUBGRADE & AGGREGATE SUBBASE		ASPHALT PAVEMENTS	
FIELD	LAB	PAVEMENTS	AGGREGATES	AGGREGATES	SOIL	PAVEMENT	INDEX	INDEX	INDEX
CONCRETE FIELD	CONCRETE STRENGTH	BINDING/TEST TECHNIQUE	AGGREGATE TECHNIQUE	AGGREGATE TECHNIQUE	DENSITY	PAVEMENT INDEX	PAVEMENT INDEX	PAVEMENT INDEX	PAVEMENT INDEX
ASTM C 172	SAMPLING FRESH CONCRETE								
AASHTO T 141	SAMPLING FRESH CONCRETE								
ASTM C 1064	TEMP OF FRESH CONCRETE								
ASTM C 143	SLUMP								
AASHTO T 119	SLUMP								
ASTM C 231	AIR CONTENT								
AASHTO T 152	AIR CONTENT								
ASTM C 31	MAKING TEST SPECIMENS								
AASHTO T 23	MAKING TEST SPECIMENS								
MODOT TM20	MAKING TEST SPECIMENS								
	AIR, SURFACE OR BITUMINOUS MIX TEMP								
	ASTM C 42	DRILLED CORES							
	AASHTO T 24	DRILLED CORES							
	ASTM C 174	DRILLED CORE LENGTH							
	AASHTO T 148	DRILLED CORE LENGTH							
	ASTM C 617	CAPPING							
	AASHTO T 231	CAPPING							
	ASTM C 39	STRENGTH (CYLINDRICAL)							
	AASHTO T 22	STRENGTH (CYLINDRICAL)							
	ASTM D 140	SAMPLING BITUMEN							
	AASHTO T 40	SAMPLING BITUMEN							
	ASTM D 979	SAMPLING WIKES							
	AASHTO T 168	SAMPLING WIKES							
	AASHTO R 470	REDUCING SAMPLES							
	AASHTO T 329	MOISTURE CONTENT BY OVEN							
	MODOT TM 54	AC% BY NUKE							
	AASHTO T 166	BULK SG (COMPACTED)							
	AASHTO T 311	BULK SG (COMPACTED)							
	ATM D 3203	%AIR VOIDS (COMPACTED)							
	AASHTO T 269	%AIR VOIDS (COMPACTED)							
	MODOT TM20	AIR, SURFACE OR BITUMINOUS MIX TEMP							
	AASHTO T 308	AIR, SURFACE OR BITUMINOUS MIX TEMP							
	ASTM D 75	%BINDER (IGNITION)							
	AASHTO T 2	SAMPLING							
	ASTM C 702	SAMPLING							
	AASHTO T 248	SAMPLE REDUCTION							
	ASTM C 117	SAMPLE REDUCTION							
	AASHTO T 11	200 (WASH)							
	ASTM C 136	SIEVE ANALYSIS							
	AASHTO T 27	SIEVE ANALYSIS							
	ASTM C 566	%MOISTURE (DRYING)							
	AASHTO T 255	%MOISTURE (DRYING)							
	MODOT TM 71	DELETERIOUS							
	ASTM D 4791	FLAT & EDGANTIED							
	AASHTO T 265	MOISTURE							
	AASHTO T 99	MOISTURE-DENSITY							
	MODOT TM 40	ONE-POINT MOISTURE-DENSITY							
	AASHTO T 310	DENSITY/MOISTURE NUKE							
	MODOT TM 35	MOISTURE OFFSET (NUKE)							
	MODOT TM 79	MOISTURE							
	AASHTO T 89	DRY PREP DISTURBED FOR PARTICLE SIZE ANALYSIS							
	AASHTO T 90	LL							
	AASHTO T 209	PL							
	AASHTO T 312	TERMO MAX SG & DENSITY							
	AASHTO T 308	DENSITY (GYRATORY)							
	AASHTO R 30	%BINDER (IGNITION)							
		SUPERPAVE/VOLUMETRICS, E							

Appendix D



KANSAS CITY, MISSOURI PUBLIC WORKS DEPARTMENT
CAPITAL PROJECTS DIVISION MATERIALS LABORATORY
 Report of Atterberg Limits (Suitability), Proctor and (-)#200 Sieve Fraction Lab No.: _____

Project No.: _____ Grant No.: _____ Date: _____
 Project Name: _____
 Inspector: _____ Contractor: _____

Placement Location: _____
 Source Location: _____
 Material Description: _____

Atterberg Limits: LL (%): _____ PL (%): _____ PI (%): _____
(= < 40) (= < 25)

Fraction Passing #200 Sieve (%): _____ **Natural Moisture, NM (%):** _____

Soils Classification: _____ **Suitability:** (per KCMO-PW Technical Specification 2102.2.b.)

USCS: _____ **AASHTO:** _____ **Pass** **Fail**

<p>Natural Moisture (NM) Content</p> <p>Tare No.: <input type="text"/></p> <p>Wet Wt. + Tare (g): <input type="text"/></p> <p>Dry + Wt. + Tare (g): <input type="text"/></p> <p>Tare (g): <input type="text"/></p>	<p>Plastic Limit</p> <p>Tare No.: <input type="text"/></p> <p>Wet Wt. + Tare (g): <input type="text"/></p> <p>Dry + Wt. + Tare (g): <input type="text"/></p> <p>Tare (g): <input type="text"/></p>	<p>Liquid Limit</p> <p>Tare No.: <input type="text"/></p> <p>Wet Wt. + Tare (g): <input type="text"/></p> <p>Dry + Wt. + Tare (g): <input type="text"/></p> <p>Tare (g): <input type="text"/></p> <p>Blows (N): <input type="text"/></p>
<p>Fraction Passing #200</p> <p>Tare No.: <input type="text"/></p> <p>Weight at NM+Tare (g): <input type="text"/></p> <p>Dry Washed Wt+Tare (g): <input type="text"/></p> <p>Tare (g): <input type="text"/></p>		

PROCTOR DATA

Test Method: ASTM-D698 ASTM-D1557
 Mold Wt. (g): _____ Max. Dry Density (pcf): _____ Opt. Moisture (%): _____

Trial No.	1	2	3	4	5	Curve No.:
Mold+Soil (g)						
Tare No.						
Wet Wt. + Tare (g)						
Dry + Wt. + Tare (g)						
Tare (g)						
Moisture (%)						
Wet. Density (pcf)						
Dry Density (pcf)						

Technician: _____ Organization: _____



KANSAS CITY, MISSOURI PUBLIC WORKS DEPARTMENT
CAPITAL PROJECTS DIVISION MATERIALS LABORATORY
Concrete Test Report

Lab No.: _____

Project No.: _____ Grant No.: _____ Date: _____
 Project Name: _____
 Inspector: _____ Contractor: _____

Plant : _____ Location : _____

Mix Design (id): _____ Design Strength (psi): _____

 Mix Design (per cu.ft.)

Material	Source	Weight	Volume
Cement :	_____	_____ lbs	_____ cu.ft.
Pozzolan :	_____	_____ lbs	_____ cu.ft.
Sand :	_____	_____ lbs	_____ cu.ft.
Rock :	_____	_____ lbs	_____ cu.ft.
Chem. Admixture :	_____	_____ fl.oz/cwt	
Air Entraining :	_____	_____ fl.oz/cwt	
Water :	_____	_____ lbs	_____ cu.ft.
W/C Ratio :	_____		_____ cu.ft.
		Air (%):	
		(min)	(max)

Results Total: _____ cu.ft.

Specimen Mark						
Location or Station						
Date Made						
Date Tested						
Age in Days				28	28	28
Load at Failure (lbs)						
Comp. Strength (psi)						
Fracture Type						
Avg. PSI @ 28 days				Pass: _____	Fail: _____	

Batch Time: _____	<u>Fracture Types</u>				
Sample Time: _____	<p>Cone (a)</p>	<p>Cone and Split (b)</p>	<p>Cone and Shear (c)</p>	<p>Shear (d)</p>	<p>Columnar (e)</p>
Truck # : _____					
Ticket # : _____					
Entrained Air (%) : _____					
Slump (in) : _____					
Concrete Temp (°F) _____					
Ambient Temp (°F) _____					
Density (pcf) : _____					

REMARKS:

Field Technician: _____ Organization: _____
 Lab Technician: _____ Organization: _____



KANSAS CITY, MISSOURI PUBLIC WORKS DEPARTMENT
CAPITAL PROJECTS DIVISION MATERIALS LABORATORY

Field Compaction Test Report

Lab No.: _____

Project No.: _____
 Project Name: _____
 Inspector: _____

Grant No.: _____

Date: _____

Contractor: _____

- CONSTRUCTION PHASE:
- TRENCH / EXCAVATION BACKFILL 90
 - EMBANKMENT FILL 90
 - ROADWAY AGGREGATE SUBBASE 95
 - ROADWAY SOILS SUBGRADE (TOP 6" BELOW PVMT) 95
 - ROADWAY PAVEMENT - AC BASE TYPES 1,2,5 95
 - ROADWAY PAVEMENT - AC SURFACE TYPES 2,3,4,5,6 96

MATERIAL TYPE: SOIL AGGREGATE ASPHALT

Maximum Density (pcf): Optimum Moisture (%): _____ (min-max) (3.0) 2.0

Test Number	1	2	3	4	5	6	7
Re-Test (✓)							
Station							
Offset from C/L (ft) (L or R)							
Elevation or Depth Below FG							
Mode (BS or DT)							
Depth (in)							
Wet Density (pcf)							
Dry Density (pcf)							
FILL % Compaction							
Moisture (%)							

Pass: _____ Fail: _____

Gauge Model: _____ Serial No: _____

Standard Counts:

Density	Moisture

REMARKS:

Technician: _____

Organization: _____

**Appendix E
APPROVAL STAMP**

Plan File No. _____

**REVIEWED FOR CODE
COMPLIANCE**

City Planning and Development
Development Services
Land Development Division

Site Disturbance
Private Grading
Public Grading
Street Design
Sanitary Sewers
Storm Drainage
Street Lighting
Material Testing

By: _____
REVIEWER

DATE: _____

City Planning &
Development Department
KANSAS CITY, MISSOURI

**CONSTRUCTION PERMIT
MUST BE SECURED
WITHIN ONE YEAR OF
REVIEW**

SE20 T _____

Appendix F
ACKNOWLEDGEMENT FORM

CITY OF FOUNTAINS
HEART OF THE NATION



KANSAS CITY
MISSOURI

City Planning & Development Department

Development Services

Land Development Division

**5th Floor, City Hall
414 East 12th Street
Kansas City, Missouri 64106**

(816) 513-2551

**Fax: (816) 513-2548
www.kcmo.org/codes**

ACKNOWLEDGEMENT FORM

You are the principle, employee, representative, or agent with signatory rights for Owner/Developer, and are an approved, certified, 3rd Party testing lab.

You have completely read this document in its entirety – and agree to comply with this document.

You acknowledge that you have been given a copy of LDD Approved Construction Plans.

Owner/Developer:

Name of Development Company

Signature

Print

Testing Agency:

Name of Agency

Signature

Print

Date:
