# Santaquin City Resolution 01-02-2013

## A RESOLUTION OF SANTAQUIN CITY AUTHORIZING A SERVICE AGREEMENT WITH EPIC ENGINEERS FOR GENERAL MATERIALS AND TESTING SERVICES

WHEREAS, the City of Santaguin is a fifth class city of the State of Utah; and

**WHEREAS**, cities in the state of Utah are authorized to enact ordinances, resolutions and policies to promote and protect the health safety and welfare of the community which include the Santaquin City building and inspection codes; and

**WHEREAS**, the Community Development department of Santaquin City is responsible for insuring developer/contractor compliance with city compaction and materials testing standards found within said code; and

**WHEREAS**, it would be a benefit to the Community Development department to have the ability to draw upon the expertise of a certified geotechnical engineering firm with general materials and testing experience on an "as-needed" basis; and

**WHEREAS**, bids for said services were obtained from three testing firms with the low bid submitted by Epic Engineers.

**NOW THEREFORE,** be it resolved by the City Council of Santaquin City to authorize the attached service contract with Epic Engineering for general materials and testing services for a period of one-year.

ADOPTED AND PASSED by the City Council of Santaquin City, Utah, this 2<sup>nd</sup> day of January, 2013.

SANTAQUIN CITY

Attest

January 4,

Susan B. Farnsworth, City Recorder



#### SERVICE AGREEMENT

THIS ENGINEERING SERVICES AGREEMENT (hereinafter referred to as the "Agreement") is entered into in duplicate effective for all purposes and in all respects as of the 4<sup>th</sup> day of December 2012 by and between EPIC ENGINEERING, PC, a Utah Professional Corporation, with its principal place of business located at 50 East 100 South, Heber City, Utah 84032 (hereinafter referred to as "Engineer"); and SANTAQUIN CITY with a principal place of business at 275 West Main Street, Santaquin, Utah 84655 (hereinafter referred to as "Client/Owner").

#### RECITALS

WHEREAS, Engineer is engaged in the business and profession of civil engineering.

WHEREAS, Client/Owner desires to contract with Engineer for certain professional and technical Civil Engineering Services with relation to general civil engineering services on more than one project, each project scope of services and payment of services being separately identified and agreed to as "Project Task Orders".

WHEREAS, Engineer has the necessary expertise and experience to perform the said civil engineering services for Client/Owner, and Engineer is properly qualified and licensed in the State of Utah.

NOW, THERFORE, in consideration of the foregoing, the mutual promises herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending legally to be legally bound, hereby agree as follows:

#### ACREEMENT

- 1. <u>Civil Engineering Services.</u> Client may issue Project Task Order(s) to Engineer in the form attached to this Agreement as Exhibit "A". Subject to the terms of this Agreement, Engineer shall render to Client/Owner professional and technical civil engineering services set forth in Project Task Order(s) accepted by Engineer (the "Services"). In conjunction therewith, Client/Owner shall provide Engineer with all necessary information and documentation for Engineer to perform the services.
- 2. <u>Compensation.</u> Client/Owner shall pay Engineer for the Services in accordance with the Fee Schedule set forth in <u>Exhibit "B"</u>, attached hereto and incorporated herein by this reference (the "Fees"). The provisions of <u>Exhibit "A"</u> and <u>Exhibit "B"</u> shall be subject to all the terms and conditions of this Agreement, and may be added to and/or amended from time to time by mutual written agreement of both parties.
- 3. Independent Contractor Status. It is understood and agreed that Engineer enters this Agreement as, and intends to continue to be, an independent contractor. None of the provisions of this Agreement will be interpreted or deemed to create any relationship between such parties other than that of independent contractors. Nothing contained in the Agreement will be construed to create a relationship of employer and employee, master and servant, principal and agent, or partners or co-venturers between Client/Owner and Engineer, between Client/Owner and any employee of Engineer, or between Engineer and any employee of Client/Owner. Each party agrees that they do not have authority to sign contracts, notes, or obligations, or to make, purchase, acquire, or dispose of any property for or on behalf of the other party, and each party shall only have authority to perform those services specifically described herein.

- 4. <u>Limitation of Liability.</u> Engineer maintains professional liability insurance to protect the Client/Owner from any negligent acts, errors, or omissions on the part of Engineer. Notwithstanding the existence of professional liability insurance, the total aggregate of Engineer's liability to all parties related to this Agreement shall not exceed (a) thirty thousand dollars (\$30,000), or (b) the total amount of the Fees, whichever is less. IN NO EVENT WILL ENGINEER BE LIABLE TO CLIENT/OWNER FOR CONSEQUENTIAL, INDIRECT, SPECIAL, OR INCIDENTAL DAMAGES ARISING OUT OF ENGINEER'S PERFORMANCE UNDER THIS AGREEMENT.
- Ownership. All tracings, survey notes, electronic files, methods, developments, know-how, inventions, and/or improvements, whether or not patentable or subject to copyright protection, other documents, as instruments of service, and all related materials that are developed by Engineer in connection with the performance of the Services, are and shall remain the property of Engineer, except where these documents are required by law to become public property. Client/Owner agrees to hold harmless, indemnify, and defend Engineer, its consultants, agents, and employees against all damages, claims, expenses, and losses arising out of any re-use of the plans and specifications without the written authorization of Engineer.
- 6. <u>Term of Agreement.</u> Subject to the provisions for termination contained herein, this Agreement and the association hereunder shall commence on the effective date hereof and shall continue for one year. Upon the expiration of this Agreement, this Agreement may be renewed upon such terms and conditions as mutually agreed to by the Engineer and Client/Owner.
- 7. <u>Termination.</u> Either party may terminate this Agreement at any time and for any reason or no cause by giving the other party a thirty (30) day written notice in accordance with the notice provisions set forth herein. In the event of termination, Engineer shall be paid for all Services, including all costs and expenses, rendered to the date or termination. Engineer shall return all Client/Owner materials to Client/Owner.
- 8. Rights and Remedies. The rights and remedies of any of the parties hereto shall not be exclusive. In general, the respective rights and obligations hereunder shall be enforceable by specific performance, injunction, or other equitable remedy, but nothing herein contained is intended to or shall limit or affect any rights at law or by statute or otherwise of any party aggrieved as against the other party for a breach or threatened breach of any provisions hereof, it being the intention of this Paragraph to make clear the agreement of the parties that the respective rights and obligations of the partied hereunder shall be enforceable in equity as well as to law or otherwise.

#### 9. General Provisions.

- A. Costs and Expenses of Enforcement. In the event of the failure of either party to comply with any provisions of this Agreement, the defaulting party shall pay any and all costs and expenses, including reasonable attorney's fees arising out of or resulting from such default (including any incurred in connection with any appeal), incurred by the injured party in enforcing its rights and remedies, whether such right or remedy is pursued by filing a lawsuit or otherwise.
- B. Severability. In the event that any condition, covenant, or provision herein contained is held to be invalid or void by any court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall in no way affect any other covenant or condition herein contained. If such condition, covenant, or provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.
- C. <u>Entire Agreement.</u> This Agreement sets forth the entire agreement between the parties and supersedes all prior agreements, whether written or verbal. No promises, representations, warranty, or covenant not included in this Agreement has been or is relied upon by the parties to this Agreement.
- D. <u>Covenants and Conditions.</u> Each provision of this Agreement performable by either party shall be deemed to be both a covenant and a condition.

- E. <u>Assignment.</u> This Agreement shall be binding to the benefit of the parties and their respective heirs, personal representatives, successors, legal representatives, and assigns; provided that this provision shall not be construed as permitting assignment, substitution, delegation, or other transfer of rights or obligations by each party without the prior written consent of the other party.
- F. <u>Headings.</u> The headings to the various Sections and Paragraphs of this Agreement are for convenience and ease of reference only and do not define, limit, augment, or describe the scope, content, or intent of this Agreement or any part or parts of this Agreement.
- G. <u>Notices</u>. All notices given under any of the provisions of this Agreement must be in writing and shall be deemed to have been given by either registered or certified mail, return receipt requested, postage prepaid, addressed to the party or person intended as follows:

"Engineer"

Epic Engineering, PC 50 East 100 South Heber City, Utah 84032 Tel: (435) 654-6600 Fax: (435) 654-6622

"Client/Owner"

Santaquin City
Mayor James E. DeGraffenried
275 West Main Street
Santaquin, Utah 84655
Mailing Address
City, State Zip
Tel: (801) 754-3211

Tel: (801) 754-3211 Fax: (801) 754-1620

Cell:

Email: jdegraffenried@santaquin.org

Any party may, by notice given at any time or from time to time, require subsequent notices to be given to another individual person, whether a party, officer, or representative, or to a different address, or both. Notices given before actual receipt of notice of change shall not be invalidated by the change.

- H. <u>Time.</u> Time is of the essence of each term, provision, condition, and covenant of this Agreement.
- I. <u>Counterparts.</u> This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.
- J. Gender and Number. The singular number includes the plural whenever the context so indicates. The neuter gender includes the feminine and masculine, the masculine includes the feminine and neuter, and the feminine includes the masculine and neuter, and each includes corporation, limited liability company, partnership, sole proprietor, or other legal entity when the context so requires. The word "person" means person or persons or other entity or entities or any combination of persons and entities.
- K. Governing Law, Dispute Resolution, Jurisdiction, and Venue. The laws of the State of Utah will govern the validity, performance, and the enforcement of this Agreement. Any controversy or claim arising out of or relating to this Agreement will be settled in the following manner: (a) senior executives representing each of Engineer and Client/Owner will meet to discuss and attempt to resolve the controversy or claim in good faith; (b) if the controversy or claim is not resolved as contemplated by clause (a), Engineer and Client/Owner will, by mutual consent and in good faith, select an independent third party to mediate such controversy or claim, provided that such mediation will not be binding upon any of the parties; and (c) if such controversy or claim is not resolved as contemplated by clauses (a) or (b), the parties will have such rights and remedies as are available under this Agreement or, if and to the extent not provided for in this

Agreement, are otherwise available. Jurisdiction and venue for the enforcement of this Agreement shall be found exclusively in the courts of Wasatch County, State of Utah, each of the parties irrevocably submits to the exclusive jurisdiction of each such courts in any proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of any proceeding shall be heard and determined only in any such court and agrees not to bring any proceeding arising out of or relating to this Agreement in any other court.

- L. Waiver. Unless otherwise indicated herein, failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement, or to exercise any right or remedy consequent upon a breach thereof, shall not constitute a waiver of any such breach of any other covenant, agreement, term, or condition. Any party, by notice delivered in the manner provided in this Agreement, may, but shall be under no obligation to waive any of its rights and any conditions to its obligation hereunder, or any duty, obligation, or covenant of any other party. No waiver shall affect or alter the remainder of this Agreement, but each and every covenant, agreement, term, and condition shall continue in full force with respect to any other then existing or subsequently occurring breach. To be effective a waiver must be signed by both parties hereto.
- M. <u>Modification and Amendment.</u> This Agreement may be amended or modified only by an instrument in writing signed by all the parties hereto.
- N. <u>Exhibits.</u> The provisions of any Exhibit "A" and Exhibit "B" shall be subject to all the terms and conditions of this Agreement, and may be amended from time to time by only by written agreement of both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement effective the date and year set forth above.

"Engineer" "Client/Owner"

Epic Engineering, PC Santaquin City

A Utah Professional Corporation

By: July

Korey C. Walker, P.E.

President

Date: 12-11L

James E. DeGraffenried

Mayor

Date: 12/12

#### **EXHIBIT "A"**

#### PROJECT TASK ORDER NO. 001

SANTAQUIN CITY requests EPIC ENGINEERING, PC to perform civil engineering services under the terms of the existing general engineering services agreement on this the 4th day of December 2012 for the following scope of work: GENERAL MATERIALS AND TESTING SERVICES FOR PROJECTS IN SANTAQUIN CITY The end results or product associated with this scope of work will include the following (if applicable): TESTING SERVICES WILL BE PERFORMED AS REQUESTED BY THE CITY AND RESULTS FOR THE SCHEDULED TESTING WILL BE PROVIDED TO THE CITY. A MINIMUM OF 24 HOURS NOTICE IS REQUESTED FOR SCHEDULING OF TESTING SERVICES. The proposed scope of work will be completed within \_\_\_\_N/A\_\_ business days (if applicable) after Epic Engineering P.C. has received this signed contract. Engineering fees associated with the work will (check one): ☐ A) be performed for a lump sum of \$ B) be billed at an hourly rate, as set forth in Exhibit "B" to the Engineering Services Agreement, not to exceed \$ ■ C) be performed at the existing hourly rate as set forth in Exhibit "B" to the Engineering Services Agreement. IN WITNESS WHEREOF, the parties have executed this Project Task Order effective the date and year set forth above. "Client/Owner" "Engineer" Epic Engineering, PC Santaquin City A Utah Professional Corporation Korey C. Walker, P.E. James E. DeGraffenried Mayor President Incorporated

January 4, 1932

#### EXHIBIT "B"

In consideration of the above Civil Engineering Service, Client/Owner shall pay Engineer compensation on a time basis in accordance with the following Fee Schedule:

Construction Management Staff	Rate
Project Engineer	\$93.00
Inspector (10-15 years)	\$57.00
Material Technician	\$54.00*
Field Technician	\$48.00
Clerical /Reporting	\$47.00

<sup>\*</sup>Denoted Hourly Rate is included in the Materials Testing Rate

Materials Testing	Rate
Cylinder Breaks (3 Minimum)	\$13.50
Cast Concrete Cylinders	\$22.00
Concrete Air Test	\$0.00*
Concrete Slump Test	\$0.00*
Concrete Yield	\$0.00*
Gradation	\$54.00
Liquid Limit	\$27.00
Plastic Index	\$27.00
Soil Classification	\$38.00
Flats & Elongated Test	\$54.00
Unit Weight	\$27.00
Density Test	\$0.00*
Wear Test (LA Rattler)	\$108.00
T-99 Proctor	\$121.50
T-180 Proctor	\$121.50
Specific Gravity - Course	\$54.00
Specific Gravity - Fine	\$54.00
Rices Specific Gravity on Asphalt	\$ 67.50
Absorption	\$ 54.00
Percolation	Hourly
Briquettes (Set of 3)	\$128.25
Asphalt Gyro Pucks	\$300.00
Asphalt Burnoff with Gradation	\$120.00
Specific Gravity of Cores	\$54.00
Sand Equivalent Test	\$67.50
Corés	
A. Concrete	Hourly
B. Asphalt (4 Minimum)	Hourly

\*Denoted Tests are included in Hourly Fee

Indirect Expenses (Trip Charge)RateField Technician (Full Trip/Partial)\$34.00/\$17.00Inspector – 10-15 Years (Full/Partial Trip)\$30.00/\$15.00

(Fee Schedule applicable through December 31, 2013)

<u>Costs and Expenses.</u> In addition to the compensation to Engineer as set forth in the above Fee Schedule, Engineer, from time to time, may be required to advance funds and pay costs and expenses on behalf of Client/Owner. Engineer shall not be liable for the costs, expenses, or funds so advanced in Client/Owner's behalf. Engineer shall be entitled to reimbursement for the same by Client/Owner upon billing with Client/Owner's approval. The costs and expenses may include, but are not limited to, all out-of-pocket costs, long-distance telephone charges, fax charges, copying charges, and travel expenses.

<u>Payment of Services, Costs, and Expenses.</u> Client/Owner shall pay Engineer each month, within fifteen (15) days of the billing date, for all services, costs, and expenses billed to Client/Owner by Engineer. Client/Owner consents to Engineer's withdrawal and immediate termination of this Agreement should the account become delinquent.

<u>Interest Charges.</u> Client/Owner further agrees to pay interest at the rate of one and one-half percent (1½%) interest per month on any and all unpaid balances of services, costs, and expenses, if such amounts are not paid in full within fifteen (15) days of the billing date.

<u>Default and Remedies.</u> Failure of Client/Owner to make payment when due, or to observe or perform any of the terms hereunder, shall be considered a default and breach. In the event of default, the entire outstanding amount due hereunder shall be immediately due and payable by Client/Owner to Engineer. Furthermore, in the event of default, Engineer may pursue any and all remedies available at law or in equity.

Costs and Attorney Fees. In the event of default, Client/Owner shall pay any and all costs of collection, including attorney's fees, legal expenses, and other lawful collection costs, in addition to all other sums due hereunder, which are incurred by Engineer in collecting the indebtedness due hereunder whether with or without lawsuit.

IN WITNESS WHEREOF, the parties have executed this Project Task Order effective the date and year set forth above.

"Engineer" "Client/Owner"

Epic Engineering, PC
A Utah Professional Corporation

By:

Korey C. Walker, P.E.
President

Date: 12911

"Client/Owner"

Santaquin City

Santaquin City

Date: 21213



DATE: December 7, 2012

TO: Mayor James DeGraffenried and City Council FROM: Jared Shepherd, Infrastructure Inspector

RE: Consulting Services for Materials and Field Testing

#### Background

The Community Development Department is continually looking for ways to improve its process of development review and construction inspection. We are evaluating training and equipment needs and realize we need a better way to evaluate compliance with city compaction and materials standards. As per the Santaquin City ordinance, §11-8-2 the city can contract with an independent testing company for compaction and materials testing. Section 11-8-2 reads as follows:

### 11-8-2: TESTING AND INSPECTION FEES:

All inspection and testing, as provided and detailed within this title, shall be paid for by the developer. Payment of said fees shall be in the form of a cash bond or irrevocable letter of credit, completed and provided prior to the recording of the subdivision plat and the installation of any infrastructure, in the amount of seven percent (7%) of the estimate of installation costs for the infrastructure. The city shall establish a file for each subdivision plat to monitor and track the inspection and testing progress of the subdivision, see section 11-13-1, exhibit D, of this title. Each inspection shall be scheduled by the developer through the community development department and performed by city personnel and materials testing shall be conducted by personnel of the independent organization with which the city has contracted to perform such testing.

#### Recommendation

We contacted Three (3) companies to get bids for materials testing services (see attached). After reviewing the submitted information, we feel that the Council should contract with EPIC Engineering for material testing services.

#### **City Cost:**

None. Testing services are on an as-needed basis with all testing expenses to be paid for by the appropriate developer.



# Earthtec Engineering, Inc.

133 North 1330 West Orem, Utah - 84057 Phone (801) 225-5711 Fax (801) 225-3363 1596 W. 2650 S. #108 **Ogden, Utah - 84401** Phone (801) 399-9516 Fax (801) 399-9842

#### SANTAQUIN CITY SPECIAL FEE SCHEDULE INSPECTION AND MATERIAL TESTING SERVICES EFFECTIVE 12/01/12

FILL CONTROL		
Field Technician (From 7AM to 5PM)	per hour	\$40.00
Field Technician (From 5PM to 7AM)	per hour	56.00
Overtime, Holidays, Weekends.	per hour	56.00
Density Tests	per test	N/A
Modified Proctor (ASTM D 1557)	per test	120.00
Standard Proctor (ASTM D 698)	per test	100.00
	1	
CONCRETE TESTING		
Special Inspection (ICC Chapter 17/Re-Bar)	per hour	\$50.00
Overtime, Holidays, Weekends.		72.50
Lab Technician	*	40.00
Field Technician (From 7AM to 5PM)	[2] 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	40.00
Field Technician (From 5PM to 7AM)		56.00
Overtime, Holidays, Weekends.		56.00
Compressive Strength of Cylinders	*	12.00
Coring	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Equipment Charge		15.00
Labor		40.00
Compressive Strength		12.00
Compressive Strength	per core	12.00
ASPHALT TESTING		
Field Technician (From 7AM to 5PM)	per hour	\$40.00
Field Technician (From 5PM to 7AM)		56.00
Overtime, Holidays, Weekends.		56.00
Field Density Tests		N/C
Core Sampling		IVIC
Equipment Charge, no tests	11 d 10 d 11 d 11 d 11 d 11 d 11 d 11 d	15.00
Labor		40.00
Core Thickness/Density	The second secon	28.00
Extraction and Gradation	*	185.00
Field Marshall (1 pt)	ㅎ 5. 이용, 1 등 1 등 1 등 1 등 1 등 1 등 1 등 1 등 1 등 1	100.00
Control of the second discourse of the second control of the secon		150.00
Rice Density	per test	130.00
MACONDY TESTING		
MASONRY TESTING Special Impaction (ICC Chapter 17)	nor hour	\$50.00
Special Inspection (ICC Chapter 17)		72.50
Overtime, Holidays, Weekends.		15.00
Compressive Strength of Grout		
Compressive Strength of Mortar	and the state of the state of the second and the second and the second s	15.00
Compressive Strength of Prisms	per test	68.00
ENGINEERING CONSULTATION		
Staff Engineer/Geologist	per hour	\$80.00
Project Engineer	1 4 시간에 하게 되었는 경우 1 전 1 전 1 전 1 전 1 전 1 전 1 전 1 전 1 전 1	90.00
Principal Engineer		120.00
Engineering Review		98.00
(Based on 5% of Technician Time)	1	
# second-reducer Windows Middle Control Contro		
Transportation	per mile	\$ 0.55 per mile
Secretarial Time	-	35.00

Prices are subject to change without notice.



1435 WEST 820 NORTH PROVO UT 84601

801-374-5771 Provo 801-521-5771 Salt Lake City 801-374-5773 Fax

www.rbgengineering.com

## Professional Services Fee Schedule

# STAFF Principal Engineer......\$ 130.00 / h

Dringing Engineer	•	130.00 / 60
Principal Engineer		130.00 / hr
Professional Engineer III	\$	120.00 / hr
Professional Engineer II/Geologist II	\$	95.00 / hr
Professional Engineer I	\$	80.00 / hr
Staff Engineer/Geologist	\$	75.00 / hr
Professional Land Surveyor	\$	115.00 / hr
Draftsperson II	\$	80.00 / hr
Draftsperson I	\$	55.00 / hr
Sr. Geotechnical Technician/Lab Manager .	\$	80.00 / hr
Special Inspector (ACI/ICBO)	\$	55.00 / hr
Materials Technician II	\$	55.00 / hr
Materials Technician I	\$	40.00 / hr
GPS/Robotic Total Station Survey	\$	120.00 / hr
Drill Rig + 2-Person Crew	\$	160.00 / hr
Clerical	\$	50.00 / hr

#### DIRECT EXPENSES

Support Vehicle		
2-wheel drive	\$ 40.	00 / day
4-wheel drive	\$ 50.	00 / day
Mileage/Time	\$ 0.	50 / mile +staff
Per diem	\$ 75.	00 / day*
*may vary subject to location		

Other direct expenses will be billed cost plus 15%.

Minimum time charge is 1 hour. Cancellations without notice will be billed at minimum time or total time traveled, whichever is greater. Overtime charges will be billed for work over 40 hours per week, on weekends, or on holidays at client's request at an additional staff rate of 25% more. A maximum of three copies/reports will be provided. Additional copies will be charged at cost plus 15%.

#### FIELD AND LABORATORY TESTS

Soll and Aggregate		
Atterberg Limits	40.00	
California Bearing Ratio (CBR)		
3-point	250.00	
1-point \$	100.00	
Consolidation	75.00	
Direct Shear Test (Mohr Envelope) \$	250.00	
Dispersive Clay (Pinhole)	100.00	
Dry Rodded Unit Weight \$	40.00	
Flat and Elongated \$	50.00	
Fractured Face \$	50.00	
Hydrometer (Particle-Size Analysis) \$	75.00	
In-Place Density (Compaction)		
Dry Density and Moisture	5.00	+staff
Sand Cone	15.00	+staff
Los Angeles (LA) Abrasion	150.00	
Moisture-Density Relationship (Proctor)		
4-5 points \$	100.00	
1-point verification \$	35.00	
Moisture-Density Determination \$	20.00	
Permeability \$	75.00	
pH Determination \$	15.00	
Resistivity	40.00	
Sand Equivalent \$	50.00	
Sieve Analysis (Gradation)		
1-inch minus \$		
3-inch minus \$	65.00	
6-inch minus	85.00	
Slake Durability	50.00	
Sodium Soundness	200.00	
Specific Gravity and Absorption		
Sulfate and Chloride	55.00	

Triaxial	Shear

Unconsolidated Undrained	
Unsaturated (per point)	\$ 100.00
Consolidated Undrained	
with Pore Pressure (per point)	\$ 250.00
Multi-Stage (3-point)	\$ 600.00
Unconfined Compressive Strength	
Soil	\$ 45.00
Rock	\$ 55.00

#### Asphalt (Bituminous)

Asphalt Core (up to 6" deep)	\$ 20.00 +sta
Extraction (Percent Oil)	
ASTM D 6307	\$ 50.00
ASTM D 2172	\$ 100.00
Field Marshall	\$ 90.00
Gyratory	\$ 70.00
Rice, 2-test average	\$ 80.00
Sieve Analysis	\$ 40.00

#### **Concrete and Masonry**

Compressive Strength	
Cylinders, set of 4 (includes Slump/Air)	\$ 45.00 +staff
Cylinders (each, delivered)	\$ 12.50
Concrete Core	\$ 25.00 +staff
Concrete Beam (Flexural Strength)	\$ 20.00 +staff
Grout, set of 3	\$ 45.00 +staff
Mortar, set of 3	\$ 30.00 +staff
Prism, set of 3	\$ 75.00 +staff
Sieve Analysis, 1-inch minus	\$ 40.00 +staff

Testing rates not listed are available upon request.