



Attachment "B"- EXHIBIT "D"

Contract Rates

GEOTECHNICAL ENGINEERING SERVICES

SCHEDULE OF FEES

GEOTECHNICAL ENGINEERING SERVICES

<u>REFERENCE</u>	<u>FIELD SERVICES</u>	<u>RATES</u>
	Soil Boring (Solid Auger, Hollow Stem Auger, and Mud Rotary- Including Sampling)	
	Soil (Existing Ground Surface to 50 ft.)	\$14.00/ft
	Soil (Below 50 ft.)	\$16.50/ft
	Soft Rock	By Quote
	Nx Rock Core	
	Rock Coring	By Quote
	Field Logging Services	
	Engineering Technician	\$ 59.50/hr
	Registered Geologist	\$149.00/hr
	Staff Engineer (E.I.T.)	\$139.50/hr
	Licensed Professional Engineer (P.E.)	\$193.00/hr
	Field Coordination	
	Field Engineer (E.I.T.)	\$139.50/hr
	Engineering Technician (Flagman)	\$ 59.50/hr
	Mobilization	
	Truck-Mounted Rig, Drill Crew and Support	\$286.75/ls
	Field Logger Trip Charge	\$1.00/mile
	(ARDCO 4x4 all terrain rig)	Cost + 15%
	Barge Mobilization and Rental	Cost + 15%
	Other Expenses/Charges	
	Standby Time	\$226.25/hr
	Mileage – Non-Drilling Equipment	\$ 1.00/mile
	Grout/Bentonite Backfill	\$ 6.75/ft
	Dozer/Clearing Cost	Cost + 15%
	Concrete/AC Patch	\$49.00/ea
	Traffic Control – Signs, Barricades, etc.	Cost + 15%
	All Other Outside Expenses	Cost + 15%

<u>REFERENCE</u>	<u>LABORATORY SERVICES</u>	<u>RATES</u>
ASTM D 2217, D 4318	Plasticity Index (Atterberg Limits)	\$102.00/ea.
ASTM D 2216; TxDOT, TEX-103-E	Moisture Content	\$ 12.75/ea
	Shrinkage Limit in Conjunction with Atterberg Limits	
ASTM D 427	a) Volumetric	\$140.75/ea
	b) Linear (TxDOT, TEX-107-E)	\$140.75/ea
ASTM D 422; TxDOT, TEX-101-E; TxDOT, TEX-110-E	Sieve Analysis	
	a)Washed Through No. 40 (Up to 5 Sieves)	\$ 69.00/ea
	b)Washed Through No. 200 (Up to 4 Sieves)	\$114.00/ea
	c) Additional Sieves	\$ 16.00/ea
ASTM D 1140	Amount Finer Than No. 200 Sieve	\$ 69.00/ea

GEOTECHNICAL ENGINEERING SERVICES

SCHEDULE OF FEES

<u>REFERENCE</u>	<u>LABORATORY SERVICES</u>	<u>RATES</u>
ASTM D 854; TxDOT, TEX-108-E	Specific Gravity	\$113.50/ea
ASTM D 422; TxDOT, TEX-110-E	Hydrometer Analysis (Includes Sample Preparation and Grain Size Curve)	\$ 377.75/ea
ASTM D 2166	Unit Dry Weight	\$ 39.50/ea
ASTM 4318	Lime Series	\$ 468.50/ea
ASTM D 2166 ASTM D 1938	Unconfined Compression (Includes Unit Dry Weight) a) Soil Shelby Tube Specimens b) Rock Core Specimens (1) Sawed Specimen Ends	\$ 59.75/ea \$ 64.75/ea \$ 15.00/end
ASTM D 2850	Triaxial Compression Unconsolidated-Undrained, Multistage	\$ 382.00/ea
ASTM D 3080	Direct Shear a) Unconsolidated-Undrained b) Consolidated-Drained (Sand)	\$ 304.00/ea \$ 593.00/ea
ASTM D 2435	Consolidation with Hysteresis Loop (Not Including Specific Gravity)	\$ 944.00/ea
	Corrosivity (pH, chloride, sulfate, resistivity)	\$ 478.50/ea
	pH	\$ 63.00/ea
	Resistivity	\$ 322.50/ea
	Sulfate Content	\$ 108.50/ea
	Chloride Content	\$ 62.50/ea
	Swell Test	
	a) Method "A"	\$ 1,395.50/ea
	b) Method "B"	\$ 245.00/ea
	a) Method "C"	\$ 1,674.75/ea
	b) Modified Method "B"	\$ 217.25/ea

GEOTECHNICAL ENGINEERING AND REPORTING SERVICES

Principal Engineer (P.E.)	\$ 235.75 to 396.50/hr
Licensed Professional Engineer (P.E.)	\$ 153.00 to 261.50/hr
Staff Engineer, E.I.T.	\$ 121.50 to 209.50/hr
Registered Geologist	\$ 149.00/hr
Draftsman	\$ 98.25/hr
Outside Professional Services	Cost + 15%
Additional Insured	\$ 281.25/ea
Secretarial	\$ 61.75 to 105.00/hr
Vehicle Travel Charge	\$ 1.00/mile

NOTE: Geotechnical engineering services costs will be computed based on the above referenced field, laboratory, and personnel and equipment unit rates once specific project(s) and related scope of service(s) have been identified. The fee schedule presented in this attachment is subject to an annual 4% increase to reflect the increases in costs in the provision of the services.

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

ASPHALTIC CONCRETE				
REFERENCE	FIELD SERVICES			UNIT RATES
ASTM D 75	Sampling Raw Materials of Composite Mix Technician Time	5QT00	\$	59.50 /hr
Asphalt Institute Manual	Asphaltic Plant Observation - To Verify Aggregate Size and Quality, Batch Weights and Temperature Technician Time	5Q401	\$	72.00 /hr
Asphalt Institute Manual	Asphaltic Site Observation - To Observe Preparation, Laydown Operations, Asphaltic Concrete Temperatures, Mat Thickness and Mat Density Determination Technician Time	5Q419	\$	72.00 /hr
ASTM D 2950	Nuclear Density Test with Inspection	5Q0R5	\$	19.75 /ea
	Nuclear Density Test	5Q0M0	\$	25.50 /ea
	Coring (See Coring Fee Schedule)			
REFERENCE	LABORATORY SERVICES			UNIT RATES
ASTM D 2172; TxDOT, TEX-210-F	Extraction Test, Bitumen Content, Aggregate Sieve Analysis and Laboratory Density of Asphaltic Concrete	5UBMH	\$	345.25 /ea
ASTM D 2172; TxDOT, TEX-210-F	Extraction Test, Bitumen Content Only	5UBMF	\$	176.75 /ea
Hveem, TxDOT, TEX-206-F; Marshall, ASTM D 1559	Molding Specimens Hveem or Marshall	5UBW3	\$	77.50 /set
TxDOT, TEX-207-F;	Laboratory Density Test	5UBJ0	\$	77.50 /set
ASTM D 2726	a) Molded Specimen	5UBW3	\$	77.50 /set
	b) Asphalt Core (Technician Time)	5Q411	\$	59.50 /hr
	Laboratory Core Density	5X129	\$	25.75 /ea
Hveem, TxDOT, TEX-208-F; Marshall, ASTM D 1559	Stability Test Hveem or Marshall (Hand Compactor) Hveem (Gyro Compactor)	5UB6L 5UB6Q	\$	82.75 /set 105.00 /set
Asphalt Institute Manual and TxDot; Mix Designs	Corp of Engineers or FAA TxDOT Quality Control/Quality Assurance TxDOT CMHB TxDOT Calibration Mix and Pans TxDOT Black Base Design, Item 345	2QWZW 2QWZX 2UKV0 2WC1N 2WC1P	\$	2,675.00 /ea 2,675.00 /ea 3,800.00 /ea 447.00 /ea 2,000.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

ASPHALTIC CONCRETE (Continued)				
REFERENCE	LABORATORY SERVICES		UNIT RATES	
TxDOT, TEX-200-F; ASTM C 136	Sieve Analysis of Aggregate	5UB4B	\$	71.00 /ea
TxDOT, TEX-203-F; ASTM D 2419	Sand Equivalent Test	5UPL0	\$	109.00 /ea
AASHTO TP 33	Fine Aggregate Angularity	5WCNC	\$	69.00 /ea
ASTM D 4791-95	Flat and Elongated Particles	5UB6B	\$	69.00 /ea
TxDOT, TEX-201-F; ASTM C 127	Specific Gravity (Coarse or Fine Aggregate)	5UB5B	\$	58.50 /ea
TxDOT, TEX-201-F; ASTM C 127	Absorption (Coarse or Fine Aggregate)	5UBAB	\$	84.75 /ea
TxDOT, TEX-411-A; ASTM C 88	Sulfate Soundness (Time and Test)			
	Preparation Time	2U002	\$	66.00 /hr
	a) Magnesium - 5 Cycle	2UB3S	\$	618.00 /ea
	b) Sodium - 5 Cycle	2UB3T	\$	618.00 /ea
ASTM C 131; ASTM C 535	Los Angeles Abrasion Test (Time and Test)			
	Los Angeles Abrasion Test (Small or Large Coarse Aggregate)	2UQR0	\$	309.00 /ea
Asphalt Inst. SP-2 TxDOT, Item 3066 AASHTO PP 28-95	Superpave TM Mix Design (Includes Aggregate, Specific Gravity and Sieve Analysis) (Does Not Include TSR)	2VREA	\$	8,267.75 /ea
TxDOT, TEX-227-F; ASHTO T 209; ASTM D 2041	Maximum Theoretical Specific Gravity (Rice Gravity)	5UBS0	\$	126.00 /ea
TxDOT, TEX-226-F; AASHTO T 283; ASTM D 4867	Moisture Sensitivity Test (Tensile Strength Ratio Test)			
	with Freeze/Thaw	2VRE0	\$	717.00 /ea
	without Freeze/Thaw	2VRD0	\$	559.25 /ea
TxDOT, Item 3157	Cold Processed - Recycled Paving Material (RPM)			
	Mixture Design	2UB6S		Upon Request
	Mixture Verification (QC) Strength, Stability (Hveem, Modified Marshall)	2UB6R	\$	1,054.75 /set
TxDOT, TEX-126-E	Molding and Strength	2UB61	\$	513.00 /set
TxDOT, TEX-208-F (Modified)	Molding and Hveem	5UB62	\$	194.75 /set

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

BUILDING ENVELOPE				
REFERENCE	CONSULTING SERVICES			UNIT RATES
	Senior Architect			\$ 206.00 /hr
	Senior Business Envelope Consultant			\$ 144.25 /hr
	Senior Project Manager			\$ 134.00 /hr
	Business Envelope Consultant			\$ 118.50 /hr
	Intern Architect			\$ 97.75 /hr
	Business Envelope Observer			\$ 92.75 /hr
	Business Envelope Technician			\$ 82.50 /hr
	Secretarial			\$ 61.75 /hr
BLAST MONITORING				
REFERENCE	FIELD SERVICES			UNIT RATES
USBM	The Following Rates Include Travel Time Charges and Technician Time Charges			
	Hourly Rate	5Q437		\$ 85.50 /hr
	If Frequency Analysis is Required, R-K Needs to be Notified at Least 3-Days in Advance of Blast Monitoring			
	Seismic Equipment Rental (Minimum of 1 Per Month)			
	Technician Time	Q437		\$ 85.50 /hr
	Materials Engineer	TS		\$ 175.00 /hr

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

CEMENT TREATED BASE / SUBGRADE				
REFERENCE	FIELD SERVICES			UNIT RATES
PCA	Sampling Raw Materials for Mix Verification Technician Time	5QT00	\$	59.50 /hr
	Sampling Contractor Processed Material Technician Time	5QT00	\$	59.50 /hr
REFERENCE	LABORATORY SERVICES			UNIT RATES
PCA	Molding Controlled Processed Material	5VST5	\$	95.90 /ea
PCA	Unconfined Compressive Strength Testing	5VSGR	\$	43.00 /ea
ASTM D 559; ASTM D 560	Durability (2 Specimens Per Set) (Percent Loss in 12 Cycles) Wet Dry/Freeze Thaw	2VS90	\$	772.50 /set
TxDOT, TEX-120-E	Cement Series Curve Determination including Five Atterberg Limits	2VSRS	\$	593.50 /ea
	<u>Mix Design</u>			
PCA TxDOT, TEX-120-E	Mix Design - Cement Treated Base (Does Not Include Durability)	2VSRR	\$	1,653.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

CONCRETE					
REFERENCE	FIELD SERVICES			UNIT RATES	
ASTM C 31; ASTM C 172; ASTM C 143	Sampling Concrete to Conduct Slump Tests, Measure Concrete Temperature, Cast Test Specimens and Transport Test Specimens to Laboratory Next Day				
	Technician Time	5QT00		\$	59.50 /hr
	Pick-Up of Test Specimens	5Q055		\$	59.50 /hr
	Standby Time	5Q600		\$	59.50 /hr
ASTM C 39; ASTM C 617	Cylinder Compressive Strength Testing and Reporting (In Conjunction with Sampling)				
	a) 6x12 or 4x8 - Normal Weight or Lightweight Structural (Minimum of 4)	5QFXE		\$	18.50 /ea
	b) 3x6 - Lightweight Insulating Cellular (Minimum of 6 - Includes Two Dry Densities)	5QNL0		\$	34.25 /ea
	c) "Hold" Cylinder (Additional Charge)	5QGP0		\$	12.75 /ea
	d) "Strip" Cylinder (Additional Charge)	5QGY0		\$	16.50 /ea
	e) Compressive Strength – 2"x2" Cubes (Min. of 3)	5QFXG		\$	22.00 /ea
	f) Compressive Strength – Grout Prizms (Min. of 3)	5QFXG		\$	22.00 /ea
	g) Dry Density - Concrete Cylinder	5QGMH		\$	62.50 /ea
ASTM C 78	Flexural Strength Testing and Reporting (In Conjunction with Sampling Beams)	5QMXC		\$	54.50 /ea
	Air Content (In Conjunction with Sampling)				
ASTM C 231	a) Pressure	5QBT0		\$	35.00 /ea
ASTM C 173	b) Volumetric	5QB40		\$	46.00 /ea
AASHTO T 199	c) Chase	5QBE0		\$	21.50 /ea
ASTM C 138	Unit Weight	5QX00		\$	40.00 /ea
ASTM C 143	Additional Slump Test	5QGWA		\$	27.75 /ea
ACI 311; ACI 304	Concrete Plant Observation - To Observe and Record Aggregate Types, Batch Weights, Concrete Consistency and Mixing Time				
	Technician Time	5Q422		\$	71.50 /hr
ACI 311; ACI 304	Concrete Site Observation - To Record the Consistency of Concrete, Verify and Adjust Slump within Project Specifications and Sample for Test Specimens				
	Technician Time	5Q422		\$	71.50 /hr
REFERENCE	LABORATORY SERVICES			UNIT RATES	
ACI 211.1	Hardrock Concrete Mix Design Calculations and Proportioning to Include Six Confirmatory Cylinders (Physical Properties Not Included)	5VUR0		\$	417.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

CONCRETE (Continued)				
REFERENCE	LABORATORY SERVICES		UNIT RATES	
ACI 211.1 (303.R)	Architectural Mix Design	2VAR0	\$	461.50 /ea
ACI 211.2	Lightweight Structural Mix Design	2VLR0	\$	433.50 /ea
ASTM C 270	Masonry Mortar Mix Design Including Six Cubes and Water Retention (Physical Properties Not Included)	2VMVT	\$	461.50 /ea
ASTM C 1202	Chloride Ion Permeability	2QAOA	\$	370.75 /set
ASTM C 39	Cylinder Compressive Strength Testing and Reporting F.O.B. Cylinders to Our Laboratory	5VGGK	\$	38.75 /ea
ASTM C 496	Splitting Tensile Strength of Concrete Cylinders Tensile Test	2VT5B	\$	123.75 /ea
ASTM C 666	Freeze-Thaw Test	5VGLV	\$	508.75 /set
ASTM C 469	Determination of Young's Modulus of Elasticity (Time, Test and Set-Up)	2VGJB	\$	103.00 /ea
ASTM C 803	Windsor Probe (includes Surface Preparation)	2VGLW	\$	66.00 /hr
ASTM C 805	Schmidt Rebound Number	5VGLX	\$	120.50 /hr
ASTM C 157	Length Change of Mortar or Concrete	5VGNN	\$	1,030.00 /set

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

CONCRETE AGGREGATES				
<u>REFERENCE</u>	<u>FIELD SERVICES</u>			<u>UNIT RATES</u>
ASTM D 75; TxDOT, TEX-400-A	Sampling Concrete Aggregates Technician Time	5QT00	\$	59.50 /hr
<u>REFERENCE</u>	<u>LABORATORY SERVICES</u>			<u>UNIT RATES</u>
ASTM C 566	Moisture Content	5UQV0	\$	12.75 /ea
ASTM C 29;	Unit Weight (Coarse or Fine)			
	a) Loose	5UH9N	\$	50.75 /ea
	b) Rodded	5UH9N	\$	50.75 /ea
ASTM C 127; ASTM C 128; TxDOT, TEX-201-F	Specific Gravity (Coarse or Fine)	5UB5B	\$	58.25 /ea
ASTM C 123	Lightweight Particles (Plus Cost of Materials)	5UBMI	\$	80.75 /test
	Absorption			
ASTM C 127;	a) Normal Weight Aggregate (Coarse or Fine)	5UHAQ	\$	35.25 /ea
ASTM C 128; TxDOT, TEX-201-F	b) Lightweight Aggregate (Coarse)	5UHAP	\$	35.25 /ea
ASTM C 136; TxDOT, TEX-401-A	Sieve Analysis (Dry) for ASTM C 33 Specification			
	a) Coarse, Per Sample	5UH4J	\$	62.50 /ea
	b) Fine, Per Sample	5UH4K	\$	71.50 /ea
ASTM C 117; TxDOT, TEX-406-A	Amount Finer Than No. 200 (Decantation)	5UH17	\$	69.00 /ea
ASTM C 131; ASTM C 535	Los Angeles Abrasion (Time and Test)	2UQR0	\$	309.00 /ea
ASTM C 88; TxDOT, TEX-411-A	Sulfate Soundness (Time and Test)			
	Preparation Time	2U002	\$	66.00 /hr
	a) Magnesium - 5 Cycle	2UB3S	\$	618.00 /ea
	b) Sodium - 5 Cycle	2UB3T	\$	618.00 /ea
ASTM C 117; ASTM C 29; ASTM C 127;	Physical Properties of Aggregates - Includes Decantation, Rodded Unit Weight, Specific Gravity, Absorption, Sieve Analysis and Moisture Content (Per Aggregate Type and Size)			
ASTM C 128;	Conducted in Conjunction with Concrete Mix Design	5VGR3	\$	19.00 /ea
ASTM C 136; ASTM C 566;	Conducted Separate from Concrete Mix Design	5VG03	\$	259.25 /ea
TxDOT, TEX-406-A; TxDOT, TEX-404-A; TxDOT, TEX-201-F; TxDOT, TEX-401-A				

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
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CORING				
REFERENCE	FIELD SERVICES			UNIT RATES
ASTM C 42; ACI 318	Technician Time and Equipment			
	a) One Man	5Q412	\$	71.25 /hr
	b) Two Men	5Q413	\$	123.00 /hr
	c) Reinforcing Steel Detector	5QK0N	\$	45.00 /day
	d) Coring Rig	5QKJY	\$	138.00 /day
	e) Generator	5QK0Z	\$	115.75 /day
	Bit Wear			
	a) Limestone Aggregate	5QD0L	\$	5.25 /in.-in
	b) Quartz Aggregate (River Gravel)	5QDU0	\$	6.25 /in.-in
REFERENCE	LABORATORY SERVICES			
ASTM C 42	Sawed Ends for Compressive Strength Tests			
	a) Limestone Aggregate	2UL20	\$	1.50 /sq.in
ASTM C 39; ASTM C 42; ASTM C 174; ASTM C 617	Compressive Strength of Concrete Cores Includes Measurements, Capping and Testing	5QFXF	\$	29.25 /ea
	Report Photographs			Cost +15%
	Laboratory Air-Dried Unit Weight	5QXAF	\$	20.75 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

FLY ASH					
REFERENCE	LABORATORY SERVICES			UNIT RATES	
ASTM C 311	Moisture Content	2UQV0		\$	15.50 /ea
ASTM C 311	Loss of Ignition	2WCU0		\$	44.25 /ea
ASTM C 311	Available Alkalies	2WCE0		\$	129.00 /ea
ASTM C 430	Fineness, No. 325 Sieve Analysis	2WCN9		\$	80.25 /ea
ASTM C 311	Soundness, Autoclave	2WCD0		\$	288.50 /ea
ASTM C 311	Pozzolanic Activity; Portland Cement	2WCXF		\$	492.25 /ea
ASTM C 311	Pozzolanic Activity; Lime	2WCXR		\$	207.00 /ea
ASTM C 311	Increase of Drying Shrinkage of Mortar Bar	2WCKU		\$	376.00 /ea
ASTM C 618	ASTM C 618 Chemical Analysis	2WCCG		\$	477.00 /ea
ASTM C 618	ASTM C 618 Physical Analysis	2WCCW		\$	1,160.00 /ea
ASTM C 595	Water-Soluble Fraction	2WC5E		\$	56.75 /ea
ASTM C 188	Specific Gravity	2UK50		\$	80.25 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

GROUND PENETRATING RADAR (GPR) SERVICES				
REFERENCE	FIELD SERVICES			UNIT RATES
ASTM D 6432	The following Rates Include Travel Time Charges and Technical Time Charges			
	Hourly Rate	Q80J	\$	127.75 /hr
	GPR Equipment	QQ80M	\$	535.75 /day
	Materials Engineer	TS	\$	175.00 /hr

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

LIME				
REFERENCE	FIELD SERVICES			UNIT RATES
National Lime Association	Continuous Observation to Monitor and Record Equipment Functions, Specific Gravity of the Lime Slurry and Observation of Stabilization Location and Depth			
	Technician Time	5Q402		\$ 74.75 /hr
REFERENCE	LABORATORY SERVICES			UNIT RATES
ASTM D 422; TxDOT, TEX-101-E, Pt. II	Sieve Analysis of Pulverized Materials for Gradation Compliance	5UQ4X		\$ 83.75 /ea
ASTM D 4318; TxDOT, TEX-112-E	Lime Series Curve Determination Including Five Atterberg Limits	5VSPN		\$ 502.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

PORTLAND CEMENT				
REFERENCE	LABORATORY SERVICES			UNIT RATES
ASTM C 183	Standard Method of Sampling Hydraulic Cement	2U005	\$	60.75 /hr
ASTM C 109	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50mm Cube Specimen)	2Q403	\$	31.00 /ea
ASTM C 185	Air Content of Hydraulic Cement Mortar	2WHAU	\$	70.00 /ea
ASTM C 266; ASTM C 191	Time of Setting of Hydraulic Cement by Gillmore/Vicat Needles	2WHIN	\$	76.25 /ea
ASTM C 151	Autoclave Expansion of Portland Cement	2WHD0	\$	275.00 /ea
ASTM C 187	Normal Consistency of Hydraulic Cement	2WHWH	\$	70.00 /ea
ASTM C 188	Specific Gravity of Hydraulic Cement	2UR50	\$	80.25 /ea
ASTM C 430	Fineness of Hydraulic Cement by the No. 325 Sieve	2WCN9	\$	80.25 /ea
ASTM C 451	Early Stiffening of Portland Cement (Paste Method)	2WHM0	\$	70.00 /ea
ASTM C 114	Chemical Analysis	2WHBG	\$	505.00 /ea
ASTM C 91	Water Retention of Masonry Cement	2WH52	\$	129.00 /ea
ASTM C 150	Chemical Analysis	2WHBG	\$	505.00 /ea
	Physical Analysis	2WHBW	\$	1,005.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

SOILS					
REFERENCE	FIELD SERVICES			UNIT RATES	
ASTM D 75	Sampling Subgrade, Fill or Base				
	Technician Time	5QT00		\$	59.50 /hr
	In-Place Moisture-Density Tests				
	Technician Time	5QT00		\$	59.50 /hr
ASTM D 2922	Nuclear Density	5Q0M0		\$	25.50 /ea
ASTM D 2167; ASTM D 1556	Volumetric Density (Sand Cone or Balloon)	5QUM0		\$	96.25 /ea
	Fill and Embankment Observation - Testing for Compliance with the Project Specifications to Verify Proper Moisture and Compaction Conditions in Order to Produce a Quality Fill and Uniform Workmanship (Time, Test and Mileage)				
	Technician Time (Hourly Rate)	5QT00		\$	59.50 /hr
	Proof Rolling Observation	5QT04		\$	59.50 /hr
ASTM D 2922	Nuclear Density Tests with Observation	5Q0R0		\$	20.00 /ea
REFERENCE	LABORATORY SERVICES			UNIT RATES	
ASTM D 2216; TxDOT, TEX-103-E	Moisture Content	5UQV0		\$	12.75 /ea
	Atterberg Limits				
ASTM D 4318	a) ASTM or TxDOT (TEX-104, TEX-105-E, TEX-106-E)	5VRBG		\$	102.00 /ea
	Shrinkage Limit in Conjunction with Atterberg Limits				
ASTM D 427	a) Volumetric	5WK2T		\$	140.75 /ea
	b) Linear (TxDOT, TEX-107-E)	5WK2T		\$	140.75 /ea
ASTM D 422; TxDOT, TEX-101-E; TxDOT, TEX-110-E	Sieve Analysis				
	a) Washed Through No. 40 (Up to 5 Sieves)	5WKR5		\$	69.00 /ea
	b) Washed Through No. 200 (Up to 4 Sieves)	5WKR4		\$	114.00 /ea
	c) Additional Sieves	5WKR8		\$	16.00 /ea
ASTM D 1140	Amount Finer Than No. 200 Sieve	5WKR8		\$	69.00 /ea
	Moisture-Density Relationship				
	Preparation Time	5U001		\$	63.75 /hr
	Corrosivity (pH, Chlorides, Sulfate, Resistivity)	UH6P		\$	478.50 /ea
	pH	UH5J		\$	63.00 /ea
	Resistivity	UH5L		\$	322.50 /ea
	Sulfate Content (colorimetric method)	UKF3		\$	108.50 /ea
	Chloride Content			\$	62.50 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

SOILS (Continued)				
REFERENCE	LABORATORY SERVICES			UNIT RATES
ASTM D 698; ASTM D 1557	ASTM	5VRSF	\$	279.75 /ea
AASHTO T 99; AASHTO T 180	AASHTO	5VRSF	\$	279.75 /ea
TxDOT, TEX-113-E; TxDOT, TEX-114-E	TxDOT	5VRSQ	\$	332.00 /ea
MIL STD CE 55A	Corps of Engineers	5VRSQ	\$	332.00 /ea
ASTM C 131; ASTM D 535	Los Angeles Abrasion (Time and Test)	2UQR0	\$	309.00 /ea
ASTM D 1883	California Bearing Ratio - Short Method; Includes Moisture-Density Relationship and Three Test Specimens	5VRF1	\$	1,094.25 /set
	Each Additional Specimen	5VRFD	\$	252.75 /ea
TxDOT, TEX-117-E	TxDOT Triaxial – Short Method; Includes Moisture-Density Relationship and Up to Six Test Specimens			
	Part I	2VR62	\$	1,837.50 /set
	Part II	5VR63	\$	1,650.00 /ea
	Each Additional Specimen	2VR6D	\$	207.00 /ea
ASTM D 854; TxDOT, TEX-108-E	Specific Gravity	5UQ50	\$	113.50 /ea
ASTM D 422; TxDOT, TEX-110-E	Hydrometer Analysis (Includes Sample Preparation and Grain Size Curve)	5WKRQ	\$	377.75 /ea
ASTM D 2166	Unit Weight	5WML0	\$	39.50 /ea
TxDOT, TEX-116-E	Wet Ball Mill	5WK60	\$	287.00 /ea
TxDOT, TEX-107-E	Shrinkage Limit	5WK2T	\$	141.00 /ea
	Water Content and Visual Classification	5W050	\$	17.50 /ea
	Unconfined Compression (includes unit dry weight)			
	a) Soil Shelby Tube Specimens	5VP7L	\$	59.75 /ea
	b) Rock Core Specimens	5VN7L	\$	64.75 /ea
	(1) Sawed Specimen Ends	5UL21	\$	15.00 /end
	Triaxial Compression			
	a) Unconsolidated-Undrained, Per Specimen	2W046	\$	110.00 /ea
	b) Unconsolidated-Undrained, Multistage	2WF46	\$	382.00 /ea
	Direct Shear			
	a) Unconsolidated-Undrained	2WKI6	\$	304.00 /ea

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

STEEL						
REFERENCE						
AISC		FIELD SERVICES		UNIT RATES		
	Observation - Fabrication Shop or Field Erection					
AWS D1.1	Certified Welding Inspector	TS		\$	136.25 /hr	
	Technician Time	5Q423		\$	75.75 /hr	
	Weldment Observation					
AISC	Certified Welding Inspector	TS		\$	136.25 /hr	
	Technician Time/Certified Associate Welding Inspector	5Q424		\$	77.25 /hr	
	Bolt Torque Testing					
CRSI; ASTM A 615	Technician Time	5Q423		\$	76.75 /hr	
	<u>Reinforcing Steel</u>					
CRSI, ACI 318	Sampling for Subsequent Lab Testing					
	Technician Time	5QK5N		\$	59.50 /hr	
	Placement and Cross-Section Observation					
	Materials Engineer	5Q425		\$	193.00 /hr	
PTI; ACI 318	Technician Time	5Q423		\$	75.75 /hr	
	<u>Pre-Tensioning Strands/Post-Tensioning Tendons</u>					
	Placement and Stressing Observation					
	Materials Engineer	5Q425		\$	193.00 /hr	
AWS D1.1; ASME Sec. IX	Technician Time	5Q423		\$	75.75 /hr	
	<u>Welders Tests</u>					
	Witness Qualification Welding					
		2QZ00		\$	145.00 /hr	
	Qualification Welding Coupons					
AWS D1.1	a) 3/8-in. Coupon				Cost +15%	
	b) 1-in. Coupon				Cost +15%	
	Guided Bend Tests					
AWS D1.1	Bend Tests	5QWC0		\$	37.75 /ea	
	Set-Up Charge, Per Day	2QJS0		\$	72.75 /day	
	Tensile Tests (Test and Set-Up)					
	Tensile Tests					

CONSTRUCTION MATERIALS ENGINEERING AND TESTING
SCHEDULE OF FEES

BASIC CHARGE				
1. A Vehicle travel charge (refer to "Zone Chart" above) will be assessed for round trip travel from our office to the project site, material supplier, etc. and back to our office.				
2. Service charges are based on the hourly rates stated herein and will be assessed from the time the Engineer or Technician leaves our office until he/she returns from the project site.				
3. Any engineering and/or technician services provided on Saturday and all work in excess of "Normal" work hours, as stated herein, Monday through Friday, will be charged at an overtime rate of 1.5 times the appropriate hourly rate. Our total cost of services is based upon the assumption that most services will be provided during "normal" work hours. Providing an excessive amount of services during days and/or hours requiring overtime rates may significantly increase the total cost of services shown herein.				
4. "Normal" work hours are between 7:00 a.m. and 6:00 p.m., including travel time to and from the site unless stated otherwise. Overtime charges will be assessed after eight (8) continuous hours of services rendered during "normal" work hours.				
5. Minimum of 2 hours billing per visit to project site.				
6. A ten (10) percent project management and administration cost will be added to all invoices.				
7. Our opinion of probable cost for each proposal to be submitted is based upon an estimate of the construction materials engineering and testing services required to meet the project requirements. Because the general contractor has control over the project and determines the means and methods used to build/construct the project, our proposed scope of services is an estimate. On the basis of the general contractor's schedule, potential retesting of non-compliance items, weather related issues, the actual total services and fees may be higher or lower than the estimates in our proposal. R-K will keep you CLIENT apprised of our billing in comparison to our opinion of probable cost (project budget) over the life of the project. All tests noted as retests of previously non-complaint areas will be billed to the CLIENT. R-K will invoice these tests separately to allow CLIENT to segregate the charges from our normal charges. This will allow CLIENT to back charge the general contractor as necessary. CLIENT will be responsible for payment of all services rendered by R-K for the project				
8. R-K will utilize the on-site initial field curing facilities provided by the contractor. The cost of providing and maintaining these initial curing facilities is not included in our proposal.				