# CITY OF SAN ANTONIO CONSENT AGENDA INTERDEPARTMENTAL MEMORANDUM PUBLIC WORKS DEPARTMENT EM NO.

TO:

Mayor and City Council

FROM:

Thomas G. Wendorf, P.E., Director of Public Works

THROUGH: Terry M. Brechtel, City Manager

**COPIES:** 

Melissa Byrne Vossmer; Andrew Martin; Louis A. Lendman; Milo D. Nitschke;

File

**SUBJECT:** 

On-Call Construction Materials Testing Services

DATE:

November 14, 2002

#### SUMMARY AND RECOMMENDATIONS

This ordinance accepts the proposals and awards four (4) On-Call Construction Materials Testing Professional Services Agreements in the overall total amount of \$340,599.00 payable to: Raba-Kistner Consultants in the amount of \$77,613.00, Fugro South, Inc. in the amount of \$72,516.00, Drash Consulting Engineers, Inc. in the amount of \$76,445.00, Professional Service Industries, Inc. in the amount of \$83,060.00, and \$30,965.00 for contingency. These agreements will be used on an as-needed basis for various construction materials testing services associated with City Capital Improvement Projects for a term of one year, with an option to extend the agreements for two (2) additional one (1)-year periods upon the approval of the Director of Public Works.

Staff recommends approval of this ordinance.

#### **BACKGROUND INFORMATION**

These on-call professional service agreements provide for the performance of construction materials testing consulting services to insure compliance by the City of San Antonio in its execution of City projects. The consulting services provided by these consulting firms will include construction materials testing during construction of CIP as required by the plans and specifications.

A Request for Qualifications was released for this project on September 4, 2001, with fifteen (15) firms responding. After reviewing and ranking all the respondents, the Architectural and Engineering (A & E) Review Committee met on December 19, 2001 and selected the following five (5) firms to conduct on-site visits:

- Arias & Kezar, Inc.
- Drash Consulting Engineers, Inc.
- Raba-Kistner Consultants, Inc.
- Fugro South, Inc.
- Professional Service Industries, Inc.

Two other projects were advertised for qualifications (Asbestos Environment Services and Non-Asbestos Environmental Services) at the same time and were awarded by the A&E Selection Committee as follows:

- Operational Technologies –awarded an \$80,000 Asbestos Environment Contract (Council approved April 4, 2002)
- KEI Consultants, Ltd. awarded an \$180,000 Environment Consultants Contract (Council approved February 28, 2002)
- Geo-Marine, Inc. Engineering and Environmental Services awarded an \$180,000 Environment Consultants Contract (Council approved February 28, 2002)

Because these firms were awarded the above-mentioned contracts, they were not considered for the materials testing contract in an effort to maintain a level of equity in the distribution of contracts. Although Tierra Testing & Consulting, Inc. ranked high, they were considered non-responsive when arranging a lab tour date and time.

On January 18, 2002, the A & E Committee met and visited with each of the five firms. Each firm was rated based on the consulting firms' qualifications, experience, capabilities to perform services on time, certified/licensed personnel, and lab facilities. Based on these ratings Raba-Kistner Consultants, Inc., Fugro South, Inc., Drash Consulting Engineers, Inc., Professional Service Industries, Inc. were deemed the best-qualified applicants. (The rating sheets for selection of these firms are attached). Due to the volume of work anticipated for these proposed contract periods, City staff recommends the award of multiple construction materials testing professional service contracts. The overall process of scope development, individual fee negotiations, and contract preparation contributed to the delay of awarding these contracts until now.

These contracts will allow the City to reclassify three (3) City Materials Technicians to Construction Inspectors. In turn this will increase the City's capacity to monitor and inspect construction projects and provide for the quality performance of contractors working for the City and City force work.

The term of each On-Call Professional Services Agreement shall be for a period of one (1) year from the date of the fully executed agreement. Two optional one-year periods, upon approval of the Director of Public Works will also be authorized by this ordinance.

#### **POLICY ANALYSIS**

Approval of this ordinance will be consistent with City Council policy to address construction issues in an expeditious manner consistent with plans and specifications.

#### FISCAL IMPACT

Funds for these consulting contracts are available from 1999 General Obligation Street and Drainage Bond Funds. As expenses are incurred for materials testing, the expenses will be transferred to the specific project using this service as well as the corresponding funding source from this Geotechnical and Construction Materials Testing Services Project. The Director of Finance is authorized to make the transfers necessary for the \$340,599.00 when the specific projects are identified and assigned by the City Manager. These On-Call Professional Services Agreements are authorized payable as follows:

\$76,445.00	payable to Drash Consulting Engineers, Inc.
\$72,516.00	payable to Fugro South, Inc.
\$83,060.00	payable to Professional Service Industries, Inc.
\$77,613.00	payable to Raba-Kistner Consultants
\$30,965.00	payable for contingency

#### COORDINATION

This request for ordinance has been coordinated with the Finance Department, Office of Management and Budget, and the City Attorney's Office.

#### **SUPPLEMENTARY COMMENTS**

The Discretionary Contracts Disclosure Forms for each of the consulting firms required by the Ethics Ordinance are attached.

#### **ATTACHMENTS**

- 1. Proposal Evaluation Matrix
- 2. Laboratory Facilities Evaluation Matrix
- 3. Raba-Kistner Consultants, Inc. Proposal
- 4. Fugro South, Inc. Proposal
- 5. Drash Consulting Engineers, Inc. Proposal
- 6. Professional Service Industries, Inc., Proposal
- 7. Discretionary Contracts Disclosure Forms, one from each Consultant

Z 10/29/02

Thomas G. Wendorf, P.E.

Director of Public Works

Melissa Byrne Vossmer

Assistant City Manager

Approved:

Terry M. Brechtel

City Manager

# **PROPOSALS EVALUATION**

		25	25	20	10	80	10	5	5	100
Firms for Geotechnical and Construction Materials Testing Services		Personnel Qualifications and Knowledge	Firms' Experience with Similar Services	Capability to Perform Services on Time	Certified / Licensed Personnel	Total Technical Points	Locally Headquartered Business Enterprise	Disadvantaged Business Enterprise (DBE)	Small Business Economic Development Advocacy Policy Compliance	Total Points
1	Arias & Kezar, Inc.	22.67	22.67	17.67	8.67	71.68	10	5	3	89.68
2	Drash Consulting Engineers, Inc.	22.33	23.00	19.00	9.33	73.66	10	0	2	85.66
3	Raba-Kistner Consultants, Inc.	22.67	22.33	16.00	10.00	71.00	10	1	3	85.00
4	Fugro South, Inc.	22.00	22.00	18.00	9.33	71.33	6	2	4	83.33
5	Tierra Testing & Consulting, Inc.	19.00	19.67	15.67	9.00	63.34	10	5	4	82.34
6	Operational Technologies Corporation	22.00	21.67	14.33	10.00	68.00	10	0	3	81.00
7	KEI Consultants, Ltd.	21.33	21.00	14.67	9.67	66.67	10	0	4	80.67
8	Geo-Marine, Inc. Engineering and Environmental Services	20.00	21.00	16.00	9.33	66.33	6	5	3	80.33
9	Professional Service Industries, Inc.	20.00	20.33	15.33	8.33	63.99	10	1	3	77.99
10	AMEC Earth & Environmental, Inc. (formerly AGRA Earth & Environmental, Inc.)	19.67	21.00	13.33	8.67	62.67	6	2	4	74.67
11	Nova Consulting Group, Inc.	19.00	19.33	14.00	8.67	61.00	10	0	2	73.00
12	Earth Tech	19.67	19.67	13.67	9.33	62.34	6	0	3	71.34
13	ATC Associates, Inc.	17.67	19.33	12.33	8.00	57.33	6	2	5	70.33
14	Versar, Inc.	21.00	20.67	12.67	9.33	63.67	6	0	0	69.67
15	Engineering and Fire Investigations, Inc.	17.67	19.33	10.33	8.33	55.66	0	0	3	58.66

# LABORATORY FACILITIES EVALUATION

		25	25	20	10	80	160	20	10	10	200
F	irms for Geotechnical and Construction Materials Testing Services	Personnel Qualifications and Knowledge	Firms' Experience with Similar Services	Capability to Perform Services on Time	Certified / Licensed Personnel	Lab Facilities	Total Technical Points	Locally Headquartered Business Enterprise	Disadvantaged Business Enterprise (DBE)	Small Business Economic Development Advocacy Policy Compliance	Total Points
1	Raba-Kistner Consultants, Inc.	22.67	22.33	16.00	10.00	77.71	148.71	20	2	6	176.71
2	Fugro South, Inc.	22.00	22.00	18.00	9.33	63.43	134.76	12	4	8	158.76
3	Drash Consulting Engineers, Inc.	22.33	23.00	19.00	9.33	57.14	130.80	20	0	4	154.80
4	Professional Service Industries, Inc.	20.00	20.33	15.33	8.33	61.14	125.13	20	2	6	153.13
5	Arias & Kezar, Inc.	22.67	22.67	17.67	8.67	41.71	113.39	20	10	6	149.39

# Travel Time and Trip for this group of Services is based upon a trip within a radius of 0 to less than 20 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	238.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	171.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	61.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	136.50
2B	Atterberg Limits Determination	Each	61.00
3	Sieve Analysis (with sampling and travel charges)	Each	139.50
ЗА	Sieve Analysis	Each	64.00
4	Field Density Tests (1-3 Per Set)	Set	133.00
5	Field Density Tests (each additional on same call out)	Each	28.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	146.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	89.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	37.00
7	Pick-up Concrete Test Specimens	Each	75.50
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charges)	Set	310.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	253.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	218.50
9A	L.A. Abrasion Test	Each	143.00
10	Standby Time	Hour	37.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	435.50
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	360.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	150.50
12A	Welded Wire Fabric - Gauge thickness	Each	75.00
13	Brick Testing (with sampling and travel charges)	Each	120.50
13A	Brick Testing	Each	45.00
14	Slurry Seal (field measurement of slurry seal application)	Each	125.50
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	150.50
15A	Fence Post and Rails (weight and coating thickness)	Each	75.00
16	Inspection/Stamping Precast Manufacture	Each	188.00
17	Sample Charge	Each	94.00

# Travel Time and Trip for this group of Services is based upon a trip within a radius of 20 to less than 40 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	275.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	171.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	61.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	176.50
2B	Atterberg Limits Determination	Each	61.00
3	Sieve Analysis (with sampling and travel charges)	Each	179.50
ЗА	Sieve Analysis	Each	64.00
4	Field Density Tests (1-3 Per Set)	Set	169.00
5	Field Density Tests (each additional on same call out)	Each	28.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	186.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	89.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	37.00
7	Pick-up Concrete Test Specimens	Each	115.50
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charges)	Set	350.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	253.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	258.50
9A	L.A. Abrasion Test	Each	143.00
10	Standby Time	Hour	37.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	475.50
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	360.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	190.50
12A	Welded Wire Fabric - Gauge thickness	Each	75.00
13	Brick Testing (with sampling and travel charges)	Each	160.50
13A	Brick Testing	Each	45.00
14	Slurry Seal (field measurement of slurry seal application)	Each	165.50
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	190.50
15A	Fence Post and Rails (weight and coating thickness)	Each	75.00
16	Inspection/Stamping Precast Manufacture	Each	228.00
17	Sample Charge	Each	134.00



# **ALKALI-SILICA REACTIVITY**

Raba Kistner Consultants, Inc. 12821 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 699-9090 • FAX (210) 699-6426 A2LA Accreditation Nos. 34.01 and 34.03 www.rkci.com

REFERENCE	LABORATORY SERVICES		
ASTM C 1260	Potential Alkali Reactivity of Aggregate Mortar Bar Method Fine Aggregate Coarse Aggregate	\$	450.00/ea 625.00/ea
ASTM C 1260	Concrete Mix Design Initial MixSubsequent Mixes with the same Aggregates		625.00/ea 450.00/ea
ASTM C 1012	Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solut	ion	1,100.00/ea
ASTM C 227	Potential Alkali Reactivity of Cement-Aggregate Combinations  Mortar Bar Method	garing distribution of the second of the sec	450.00/set
ASTM C 1293	Concrete Aggregates by Determination of Length Change of Concrete Due to Alkali-Silica Reaction		1,400.00/ea
ASTM C 441	Effectiveness of Mineral Admixtures or Ground Blast Furnace Slag in Preventing Excessive Expansion of Concrete Due to Alkali- Silica Reaction		450.00/mix

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# APARTMENT STRUCTURAL OBSERVATION

#### FIELD SERVICES

Shear Wall Anchorages	\$ 52.00/hr
Shear Wall Hurricane Straps	52.00/hr
Shear Wall Nailing Patterns	52.00/hr /
Interior and Exterior Shear Walls	52.00/hr
Roof Trusses	52.00/hr
Floor Truss Framing	52.00/hr
Letter of Certificate of Occupancy	200.00/lump sum

Revised January 2002



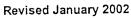
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# **ASPHALT EMULSION**

REFERENCE	LABORATORY SERVICES	
Emulsion Testing		
ASTM D 88	Viscosity, Saybolt\$	60.00/ea
ASTM D 244	Storage Stability	128.00/ea
ASTM D 244	Cement Mixing	80.00/ea
ASTM D 244	Sieve Test	46.00/ea
ASTM D 244	Demulsibility	78.00/ea
ASTM D 244	Particle Charge	70.00/ea
ASTM D 244	Residue by Evaporation	48.00/ea
ASTM D 86	Residue by Distillation	161.00/ea
Tests on Emulsion	Residue:	
ASTM D 113	Ductility\$	95.00/ea
ASTM D 5	Penetration	60.00/ea
ASTM D 2042	Solubility in Trichloroethane	100.00/ea
ASTM D 139	Float Test	95.00/ea





**ASTM D 139** 



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## **ASPHALTIC CONCRETE**

REFERENCE	FIELD SERVICES		
ASTM D 75	Sampling Raw Materials of Composite Mix Technician Time	 \$	37.00/hr
Asphalt Institute Manual	Asphaltic Plant Observation - To Verify Aggregate Size and Quality, Batch Weights and Temperature  Technician Time		42.00/hr
Asphalt Institute Manual	Asphaltic Site Observation - To Observe Preparation, Laydown Operations, Asphaltic Concrete Temperatures, Mat Thickness and Mat Density Determination Technician Time		42.00/hr
ASTM D 2950	Nuclear Density Test with Inspection  Nuclear Density Test		12.00/ea 18.00/ea
	Coring (See Coring Fee Schedule)		
REFERENCE	LABORATORY SERVICES		
ASTM D 2172; TxDOT, TEX-210-F	Extraction Test, Bitumen Content and Aggregate Sieve Analysis of Asphaltic Concrete	 	145.00/ea
ASTM D 2172; TxDOT, TEX-210-F	Extraction Test, Bitumen Content Only		100.00/ea
	Asphaltic Concrete Extraction; Bitumen Content and Aggregates; Sieve Analysis of Asphaltic Concrete; Molding Specimens (Hveem or Marshall); Laboratory Density (Molded Specimen); Stability Test (Hveem); and Maximum Theoretical Specific Gravity (Rice Gravity)		360.00/set
Hveem, TxDOT, TEX-206-F; Marshall, ASTM D 1559	Molding Specimens  Hveem or Marshall  Superpave (2 per set)		46.00/set 94.00/set
TxDOT, TEX-207-F; ASTM D 2726	Laboratory Density Test		46.00/set 46.00/set 37.00/hr 56.00/set
Hveem, TxDOT, TEX-208-F; Marshall, ASTM D 1559	Stability Test  Marshall  Hveem		44.00/set 57.00/set
Asphalt Institute Manual and TxDOT; Mix Designs	Corp of Engineers or FAA		1,456.00/ea 1,456.00/ea 2,070.00/ea 243.00/ea 1,092.00/ea
TxDOT, TEX-200-F; ASTM C 136	Sieve Analysis of Aggregate		30.00/ea

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# ASPHALTIC CONCRETE (Continued)

REFERENCE	LABORATORY SERVICES			
TxDOT, TEX-203-F; ASTM D 2419	Sand Equivalent Test		\$ 64	4.00/ea
AASHTO TP 33	Fine Aggregate Angularity		38	8.00/ea
ASTM D 4791-95	Flat and Elongated Particle		38	8.00/ea
TxDOT, TEX-201-F; ASTM C 127	Specific Gravity (Coarse or Fine Aggregate)		3(	0.00/ea
TxDOT, TEX-201-F; ASTM C 127	Absorption (Coarse or Fine Aggregate)		1	8.00/ea
TxDOT, TEX-411-A; ASTM C 88	Sulfate Soundness (Time and Test) Preparation Time		36	7.00/hr 8.00/ea 8.00/ea
ASTM C 131; ASTM C 535	Los Angeles Abrasion Test (Time and Test)  Los Angeles Abrasion Test (Small or Large Coarse Aggregate)	<b></b>	14	3.00/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)		4,50	0.00/ea
TxDOT, TEX-227-F; AASHTO T 209; ASTM D 2041	Maximum Theoretical Specific Gravity (Rice Gravity)	•••••	6	8.00/ea
TxDOT, TEX-226-F; AASHTO T 283; ASTM D 4867	Moisture Sensitivity Test (Tensile Strength Ratio Test) with Freeze/Thaw			0.00/ea 6.00/ea
TxDOT, Item 3157	Cold Processed – Recycled Paving Material (RPM) Mixture Design		As Requ	uested 5.00/set
TxDOT, TEX-126-E (Modified)	Molding and Strength	•••••	28	0.00/set
TxDOT, TEX-208-F (Modified)	Molding and Hveem	•••••	10	6.00/set
ASTM D 1559	Molding and Marshall		10	0.00/set
TxDOT, TEX-103-E	Molded Moisture Content		1	0.00/ea
TxDOT, TEX-110-E ASTM D 422	Sieve Analysis Blended Materials thru No. 40 Sieve		4	5.00/ea

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#### **BLAST MONITORING**

FIELD SERVICES			
The Following Rates Include Travel Time Charges and Technician Time Charges Hourly Rate		\$	52.00/hr
			Cost +15% 52.00/hr
Computer Review of Blast Records for Frequency Analysis			32.00/record
This Method is Preferable in Most Circumstances but Especially Where Litigation against Blaster is Anticipated. Additional Information on Request.			
	The Following Rates Include Travel Time Charges and Technician Time Charges Hourly Rate  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  Computer Review of Blast Records for Frequency Analysis This Method is Preferable in Most Circumstances but Especially Where Litigation against Blaster is Anticipated.	The Following Rates Include Travel Time Charges and Technician Time Charges Hourly Rate  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  Computer Review of Blast Records for Frequency Analysis  This Method is Preferable in Most Circumstances but Especially Where Litigation against Blaster is Anticipated.	The Following Rates Include Travel Time Charges and Technician Time Charges

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# **BRICK**

Raba Kistner Consultants, Inc. 12821 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 699-9090 • FAX (210) 699-6426 A2LA Accreditation Nos. 34.01 and 34.03 www.rkci.com

REFERENCE	LABORATORY SERVICES		
ASTM C 67	Compressive Strength Preparation Time	\$	37.00/hr
	Saw Cut (If Required)  Compressive Strength Testing of Standard Size Specimens		0.80/sq.in. 21.00/ea
	Initial Rate of Absorption (Lab)		95.00/ea 28.00/ea
	Absorption Test		185.00/ea
	Freeze/Thaw		350.00/set 275.00/set
	Efflorescence		125.00/set
	Breaking Load		150.00/set

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## **BUILT-UP ROOFING**

REFERENCE	FIELD SERVICES	
	Observation by Materials Technician during Installation Including Verification of Materials, Asphalt Application Rates, Proper Lapping of Felt Material, Proper Insulation and Quantity of Aggregate	\$ 42.00/hr
REFERENCE	LABORATORY SERVICES	
ASTM D 3617	Sample Testing and Analysis Including Determining Number of Felt Paper Plies, Weight of Interply Layers of Bituminous Material, Weight of Flood Coat and Weight of Aggregate Surface Materials, and Photographs of Each Item (Sampling by Others)  a) New Roofs Prior to Application of Flood Coat and Aggregate Surfacing	\$ 328.00/sample
ASTM D 2829	b) Existing Roofs	
	ROOF SURVEYS	
	Nuclear Gauge In-Place Moisture Measurements at 10-ft. Centers	\$ 42.00/hr 42.00/hr
	Roof Layout with Moisture Readings	







#### CEMENT TREATED BASE

REFERENCE	FIELD SERVICES		
PCA	Sampling Raw Materials for Mix Verification Technician Time		\$ 37.00/hr
	Sampling Contractor Processed Material Technician Time	·	37.00/hr
REFERENCE	LABORATORY SERVICES		
PCA	Molding Controlled Processed Material		\$ 28.00/ea
PCA	Unconfined Compressive Strength Testing		24.00/ea
ASTM D 599; ASTM D 560	Durability (2 Specimens Per Set) (Percent Loss in 12 Cycles) Wet Dry/Freeze Thaw		450.00/set
PCA; TxDOT, TEX-120-E; ASTM D 558	Mix Design - Cement Treated Base (Does Not Include Durability)		\$ 891.00/ea



# CHEMICAL ADMIXTURE

REFERENCE	LABORATORY SERVICES		ŕ
ASTM C 494	Residue on Oven Drying	\$	28.00/ea
ASTM C 494	pH		13.00/ea
ASTM C 494	Specific Gravity by Hydrometer		13.00/ea
ASTM C 403	Setting Time by Hydraulic Penetrometer		89.00/ea
ASTM C 494	Admixture Certification Program		Upon Request
ASTM C 260	Admixture Certification Program		Upon Request

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#### CONCRETE

Raba Kistner Consultants, Inc. 12821 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 699-9090 • FAX (210) 699-6426 A2LA Accreditation Nos. 34.01 and 34.03 www.rkci.com

REFERENCE	FIELD SERVICES		
ASTM C 31; ASTM C 172; ASTM C 143	Sampling Concrete to Conduct Slump Test, Measure Concrete Temperature, Cast Test Specimen and Transport Test Specimen to Laboratory Next Day Technician Time		\$ 37.00/hr 37.00/hr 37.00/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)		13.00/ea 18.00/ea 8.00/ea 10.00/ea 17.00/ea 35.00/ea
ASTM C 78	Flexural Strength Testing and Reporting (In Conjunction with Sampling Beams)		38.00/ea
ASTM C 231 ASTM C 173 AASHTO T 199	Air Content (In Conjunction with Sampling) a) Pressure		25.00/ea 29.00/ea 13.00/ea
ASTM C 138	Unit Weight		22.00/ea
ASTM C 143	Additional Slump Test		17.00/ea
ACI 311; ACI 304	Concrete Plant Observation - To Observe and Record Aggregate Types, Batch Weights, Concrete Consistency and Mixing Time Technician Time		42.00/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		42.00/hr
REFERENCE	LABORATORY SERVICES		
ACI 211.1	Hardrock Concrete Mix Design Calculations and Proportioning to Include Six Confirmatory Cylinders (Physical Properties Not Included)	erici Serici Silverya e	\$ 230.00/ea
ACI 211.1 (303.R)	Architectural Mix Design		252.00/ea
ACI 211.2	Lightweight Structural Mix Design	*********	237.00/ea
ASTM C 270	Masonry Mortar Mix Design Including Six Cubes and Water Retention (Physical Properties Not Included)	<u> </u>	252.00/ea
ASTM C 1202	Chloride Ion Permeability		200.00/set

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# **CONCRETE** (Continued)

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REFERENCE	LABORATORY SERVICES	
ASTM C 39	Cylinder Compressive Strength Testing and Reporting F.O.B. Cylinders to Our Laboratory	\$ 21.00/ea
ASTM C 496	Splitting Tensile Strength of Concrete Cylinders Tensile Test	35.00/ea
ASTM C 666	Freeze-Thaw Test	350.00/set
ASTM C 469	Determination of Young's Modulus of Elasticity (Time, Test and Set-Up)	63.00/ea
ASTM C 803	Windsor Probe (Includes Surface Preparation)	65.00/hr
ASTM C 805	Schmidt Rebound Number	65.00/hr

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# Raba Kistner Consultants, Inc. 12821 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 699-9090 • FAX (210) 699-6426 A2LA Accreditation Nos. 34.01 and 34.03

# **CONCRETE AGGREGATES**

REFERENCE	FIELD SERVICES	www.rkci.com
ASTM D 75; TxDOT, TEX-400-A	Sampling Concrete Aggregates Technician Time\$	37.00/hr
REFERENCE	LABORATORY SERVICES	
ASTM C 566	Moisture Content\$	10.00/ea
ASTM C 29; TxDOT, TEX-404-A	Unit Weight (Coarse or Fine)  a) Loose	26.00/ea 26.00/ea
ASTM C 127; ASTM C 128; TxDOT, TEX-201-F	Specific Gravity (Coarse or Fine)	30.00/ea
ASTM C 123	Lightweight Particles (Plus Cost of Materials)	45.00/test
ASTM C 127; ASTM C 128; TxDOT, TEX-201-F	Absorption  a) Normal Weight Aggregate (Coarse or Fine)  b) Lightweight Aggregate (Coarse)	18.00/ea 21.00/ea
ASTM C 136; TxDOT, TEX-406-A	Sieve Analysis (Dry) for ASTM C 33 Specification  a) Coarse, Per Sample  b) Fine, Per Sample	35.00/ea 39.00/ea
ASTM C 117; TxDOT, TEX-406-A	Amount Finer Than No. 200 (Decantation)	28.00/ea
ASTM C 131; ASTM C 535	Los Angeles Abrasion (Time and Test)	143.00/ea
ASTM C 88; TxDOT, TEX-411-A	Sulfate Soundness (Time and Test) Preparation Time	37.00/hr 368.00/ea 328.00/ea
ASTM C 117; ASTM C 29; ASTM C 127; ASTM C 128; ASTM C 136; ASTM C 566; TXDOT, TEX-406-A; TXDOT, TEX-404-A; TXDOT, TEX-201-F; TXDOT, TEX-401-A	Physical Properties of Aggregates - Includes Decantation, Rodded Unit Weight, Specific Gravity, Absorption, Sieve Analysis and Moisture Content (Per Aggregate Type and Size) Conducted in Conjunction with Concrete Mix Design Conducted Separate from Concrete Mix Design	110.00/ea 143.00/ea
ASTM C 40; TxDOT, TEX-408-A	Organic Impurities	29.00/ea
ASTM C 2419; TxDOT, TEX-203-F	Sand Equivalent Values	64.00/ea
ASTM C 142	Clay Lumps and Friable Particles	42.00/ea
ASTM C 641	Staining Materials in Lightweight Concrete Aggregate	42.00/ea



# **CONCRETE MASONRY UNITS**

REFERENCE	LABORATORY SERVICES		
ASTM C 140	Compressive Strength Test  Compressive Strength Test  Absorption Test	 \$	50.00/ea 35.00/ea
ASTM C 426	Drying Shrinkage of Concrete Block		355.00/pair

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## CORING

REFERENCE	FIELD SERVICES		
ASTM C 42; ACI 318	Technician Time and Equipment  a) One Man  b) Two Men  c) Reinforcing Steel Detector  d) Coring  e) Generator		\$ 42.00/hr 72.00/hr 22.00/day 70.00/day 38.00/day
	Bit Wear  a) Limestone Aggregate	······································	4.00/inin. 5.00/inin.
REFERENCE	LABORATORY SERVICES		
ASTM C 42	Sawed Ends for Compressive Strength Test  a) Limestone Aggregate		\$ 0.80/sq.in.
ASTM C 39; ASTM C 42; ASTM C 174; ASTM C 617	Compressive Strength of Concrete Core Includes Measurements, Capping and Testing		18.00/ea
	Report Photographs		Cost +15%
	Laboratory Air-Dried Unit Weight		12.00/ea







#### DRILLED-AND-UNDERREAMED PIERS

REFERENCE	FIELD SERVICES	
	This Service is Provided to Observe and/or Record the Following Items:	
ACI 336.1	<ul> <li>a) Specification Dimensions of Shaft and Bell</li> <li>b) Identification of Foundation Bearing Stratum</li> <li>c) Cleanliness of the Pier Excavation Bottom</li> <li>d) Size, Grade, Length, Concrete Cover and Orientation of Reinforcing Steel</li> <li>e) Consistency of Concrete Placed in the Pier</li> </ul>	
	Technician Time a) Hourly	\$ 42.00/hr
	Cylinder Cast in Conjunction with Observation	13.00/ea

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## FLY ASH

REFERENCE	LABORATORY SERVICES		
ASTM C 311	Standard Method of Sampling Fly Ash	•••••	\$ 37.00/hr
ASTM C 311	Moisture Content		10.00/ea
ASTM C 311	Loss of Ignition		24.00/ea
ASTM C 311	Available Alkalis		70.00/ea
ASTM C 430	Fineness, No. 325 Sieve Analysis		44.00/ea
ASTM C 311	Soundness, Autoclave		158.00/ea
ASTM C 311	Pozzolanic Activity; Portland Cement	•••••	268.00/ea
ASTM C 311	Pozzolanic Activity; Lime		113.00/ea
ASTM C 311	Increase of Drying Shrinkage of Mortar Bar		205.00/ea
ASTM C 618	ASTM C 618 Chemical Analysis	············	260.00/ea 632.00/ea
ASTM C 595	Water-Soluble Fraction	********	32.00/ea
ASTM C 430	325 Sieve Rescreening and Calibration	•••••	78.00/ea
ASTM C 430	New 325 Sieve with Calibration	•••••	143.00/ea
ASTM C 188	Specific Gravity		44.00/ea
ASTM C 441	Alkali-Silica Reactivity		450.00/mix



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#### LIME

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REFERENCE	FIELD SERVICES	
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	\$ 37.00/hr
REFERENCE	LABORATORY SERVICES	
ASTM D 422; TxDOT, TEX-101-E, Pt. II	Sieve Analysis of Pulverized Materials for Gradation Compliance	\$ 48.00/ea
ASTM D 4318; TxDOT, TEX-112-E	Lime Series Curve Determination Including Five Atterberg Limits	286.00/ea

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# PORTLAND CEMENT

REFERENCE	LABORATORY SERVICES	
ASTM C 183	Standard Method of Sampling Hydraulic Cement	r
ASTM C 109	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50mm Cube Specimen)	:a
ASTM C 185	Air Content of Hydraulic Cement Mortar	а
ASTM C 266; ASTM C 191	Time of Setting of Hydraulic Cement by Gillmore/Vicat Needles	a
ASTM C 151	Autoclave Expansion of Portland Cement	a
ASTM C 187	Normal Consistency of Hydraulic Cement	a
ASTM C 188	Specific Gravity of Hydraulic Cement	:a
ASTM C 430	Fineness of Hydraulic Cement by the No. 325 Sieve	:a
ASTM C 451	Early Stiffening of Portland Cement (Paste Method)	:a
ASTM C 114	Chemical Analysis	a
ASTM C 91	Water Retention of Masonry Cement	a
ASTM C 150	Chemical Analysis 275.00/e Physical Analysis 546.00/e	

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# PRECAST CONCRETE PLANT OBSERVATION

REFERENCE	FIELD SERVICES		
PCI MNL-117	Plant Observation - To Verify Compliance with the Project Specifications and Fabrication Drawings to Maintain Consistent Workmanship Technician Time		42.00/hr 13.00/ea
	Job-Site Erection Observation Technician Time	•• .	42.00/hr

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## SOILS

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REFERENCE	FIELD SERVICES	
ASTM D 75	Sampling Subgrade, Fill or Base Technician Time\$	37.00/hr
ASTM D 2922 ASTM D 2167; ASTM D 1556	In-Place Moisture-Density Test Technician Time Nuclear Density Volumetric Density (Sand Cone	37.00/hr 18.00/ea 56.00/ea
ASTM D 1990	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) Proof Rolling Observation	37.00/hr 37.00/hr
ASTM D 2922	Nuclear Density Test with Observation	12.00/ea
REFERENCE  ASTM D 2216; TxDOT, TEX-103-E	LABORATORY SERVICES  Moisture Content \$	10.00/ea
ASTM D 4318	Atterberg Limits a) ASTM or TxDOT (TEX-104, TEX-105-E, TEX-106-E)	61.00/ea
ASTM D 427	Shrinkage Limit in Conjunction with Atterberg Limits  a) Volumetric	78.00/ea 78.00/ea
ASTM D 422; TxDOT, TEX-101-E; TxDOT, TEX-110-E	Sieve Analysis  a) Washed Through No. 40 (Up to 5 Sieves)	39.00/ea 64.00/ea 10.00/ea
ASTM D 1140	Amount Finer Than No. 200 Sieve	39.00/ea
ASTM D 698; ASTM D 1557	Moisture-Density Relationship Preparation TimeASTM	37.00/hr 190.00/ea
AASHTO T 99; AASHTO T 180	TxDOT	190.00/ea
TxDOT, TEX-113-E; TxDOT, TEX-114-E MIL STD CE 55A	Corps of Engineers	190.00/ea
ASTM C 131; ASTM D 535	Los Angeles Abrasion (Time and Test)	143.00/ea
ASTM D 1883	California Bearing Ratio - Short Method; Includes  Moisture-Density Relationship and Three Test Specimens  Each Additional Specimen	602.00/set 133.00/ea

Revised January 2002

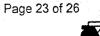




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## SOILS (Continued)

REFERENCE	LABORATORY SERVICES		
TxDOT, TEX-117-E	TxDOT Triaxial - Short Method; Includes Moisture-Density Relationship and Up to Six Test Specimens		
ASTM D 854; TxDOT, TEX-108-E	Specific Gravity		
ASTM D 422; TxDOT, TEX-110-E	Hydrometer Analysis (Includes Sample Preparation, Grain Size Curve and Specific Gravity)	208.00/ea	
ASTM D 5084	Hydraulic Conductivity	321.00/ea	
ASTM D 2166	Unit Weight	22.00/ea	
TxDOT, TEX-116-E	Wet Ball Mill	158.00/ea	
	Water Content and Visual Classification	10.00/ea	
	Unconfined Compression (includes unit dry weight)  a) Soil Shelby Tube Specimens  b) Rock Core Specimens  (1) Sawed Specimen Ends	34.00/ea 36.00/ea 7.00/end	
	Triaxial Compression a) Unconsolidated-Undrained, Per Specimen b) Unconsolidated-Undrained, Multistage	60.00/ea 187.00/ea	
	Direct Shear a) Unconsolidated-Undrained b) Consolidated-Drained (Sand)	166.00/ea 350.00/ea	
	Consolidation (Not Including Specific Gravity)		
	Swell Test  a) Pressure Method	225.00/ea 119.00/ea	





#### STEEL

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REFERENCE	FIELD SERVICES		
AISC	Observation - Fabrication Shop or Field Erection Certified Welding Inspector Technician Time	\$	80.00/hr 42.00/hr
AWS D1.1	Weldment Observation Certified Welding Inspector Technician Time/Certified Associate Welding Inspector		80.00/hr 42.00/hr
AISC	Bolt Torque Testing Technician Time		42.00/hr
CRSI; ASTM A 615	Reinforcing Steel Sampling for Subsequent Lab Testing Technician Time		37.00/hr
CRSI; ACI 318	Placement and Cross-Section Observation Technician Time		42.00/hr
PTI; ACI 318	Pre-Tensioning Strands/Post-Tensioning Tendon Placement and Stressing Observation Technician Time		42.00/hr
AWS D1.1; ASME Sec. IX	Welders Test Witness Qualification Welding		80.00/hr
ASME Sec. IX	Qualification Welding Coupons a) 3/8-in. Coupon		Cost +15% Cost +15%
AWS D1.1	Guided Bend Test  Bend Test  Set-Up Charge, Per Day		20.00/ea 39.00/day
AWS D1.1	Tensile Test (Test and Set-Up) Tensile Test		Cost +15%
	Coupon Preparation and Machining Services		Cost +15%
	Welder Qualification Position		70.00/ea
	Radiographic Examination of Coupon		100.00/ea
REFERENCE	LABORATORY SERVICES		
ASTM A 370	Tension Test  a) Reinforcing Steel with Elongation  b) Reduced Section Preparation (No. 14 & No. 18)  c) Set-Up Charge, Per Day	\$	30.00/ea Cost +15% 39.00/day

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# CONSULTANTS AND COORDINATION

Principal Engineer	\$	156.00/hr
Materials Senior Consultant		151.00/hr
Managing Engineer		136.00/hr
Staff Engineer		84.00/hr
Laboratory Manager		66.00/hr
Construction Services Manager		.66.00/hr
79g Letter		180.00/ea
Project Set-Up		160.00/ea
Outside Professional Services and Reimbursables		Cost +15%
Additional Insured		160.00/ea
Report Preparation and Administration.		50.00/hr

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#### **ZONE CHART**

Raba Kistner Consultants, Inc. 12821 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 699-9090 • FAX (210) 699-6426 A2LA Accreditation Nos. 34.01 and 34.03 www.rkci.com

CORRECTED TRAVEL TIME	CORRECTED MILEAGE CHARGE
0.25	\$ 5.00
0.75	10.00
1.00	16.00
1.25	20.00
1.50	28.00
2.00	39.00
2.50	<b>50.0</b> 0
3.00	61.00
3.50	72.00
4.00	83.00
4.50	94.00
5.00	105.00
5.50	116.00
6.00	127.00
6.50	139.00
7.00	150.00
7.50	161.00
8.00	172.00
	183.00
9.00	194.00
9.50	205.00
10.00	216.00
10.50	227.00
	0.25 0.75 1.00 1.25 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00

#### **BASIC CHARGE**

- 1. A vehicle travel charge (refer to "Zone Chart") 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 returns from the project.
- 3. Any engineering and/or technical services provided on Saturday and all work in excess or "normal" work hours, as stated herein, Monday through Friday, will be charged at an overtime rate of 1.3 times the appropriate hourly rate. Our total cost of services is based upon the assumption 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 2 hours billing per visit to project site.
- 6. A ten (10) percent project management and administration cost will be added to all invoices.

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#### ATTACHMENT "B"

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#### RABA-KISTNER CONSULTANTS, INC

#### LABOR RATES

Geotechnical	
Labor Category	<u>Unit Rate</u>
Prinicipal	\$156.00
Sr. Geotech. Consultant	\$151.00
Project Manager	\$136.00
Geotechnical Engineer	. \$99.00
Staff Engineer	\$84.00
Field Engineer	\$84.00
Geologists	\$84.00
Laboratory Manager	\$66.00
Logger - Engr. Tech	\$47.00
Logger - Geologists	\$63.00
Logger - Engineer	\$84.00
Flagman	\$42.00
CADD Operator	\$52.00
Clerical/Secretarial	\$50.00

#### Reimbursable Expenses

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D size \$25/sheet E size \$30/sheet

#### High Volume Printing

Lodging

8 1/2" x 11" \$0.10/sheet 11" x 17" \$0.10/sheet 11" x 17" Mylar \$2.00/sheet \$0.45/mile

\$70/day

Mileage \$0.45/mil

Meals \$25/day

All outside expenses cost + 15%



			•	
REFERENCE		GEOTECHNICAL LABORATORY TESTING SERVICES		COST/TEST
TEX-404-A		Dry Unit Weights Unconfined Compression (Includes Unit Dry Weight)		\$22.00
ASTM D 2166 ASTM D 1938		(a) Soil Shelby Tube Specimens (b) Rock Core Specimens Two Sawed Rock Core Specimens Direct Shear		\$34.00 \$36.00 \$14.00
ASTM D 2850 ASTM D 3080		(a) Unconsolidated-Undrained (Modified) (b) Consolidated-Drained (Sand)		\$166.00 \$350.00
ASTM D 2435		Consolidation, Not Including Specific Gravity		\$430.00
ASTM D 4546		Swell Test		\$225.00
ASTM/TxDOT; TEX-121-E	•	Lime Series Curve Determination Including Five Atterberg L	imits	\$295.50
ASTM D 1883; AASHTO T-193		California Bearing Ratio - Short Method; Includes  (i) Moisture-Density Relationship and Three Test Specimen  (ii) Each Additional Specimen	is / []	\$602.00 \$133.00
TEX-128-E		Soil pH		\$38.00
TEX-129-E		Resistivity of Soil Material		\$95.00
TEX-101-E		Soil and Flex Base Preparation		\$37.00
TEX-103-E		Determination of Moisture Content in Soils		\$10.00
TEX-106-E		Method of Calculating Plasticity Index of Soils Test		\$61.00
TEX-107-E		Determination of Shrinkage Factors of Soils Test		\$44.00
TEX-108-E		Determination of Specific Gravity of Soils Test		\$64.00
TEX-110-E TEX-110-E		Determination of Particle Size Analysis of Soils Test (Part I)  Determination of Particle Size Analysis of Soils Test (Part II)		\$47.50 \$208.00
TEX-111-E		Determination of Amount Minus No. 200 Sieve		\$39.00
TEX-203-F		Sand Equivalent Test		\$71.00
ASTM D 2850 ASTM D 2850 TEX-131-E		Triaxial Compression (Unconsolidated -Undrained) 1-point Triaxial Compression (Unconsolidated -Undrained) multi-st Triaxial Compression (Consolidated - Undrained) per specir	age nen	\$60.00 \$187.00 \$349.00



GEOTECHNICAL F	IELD SERVICES UNIT RATE
Auger Drilling soil (per ft) soft rock (per ft)	\$11.75 \$12.50
Standard Wet Rotary (per ft)	\$15.50
Nx Rock Core Soft rock (marl, shale) (per ft) Hard rock (limestone, sandstone) (per ft)	\$24.50 \$32.00
Non-conventional drilling (barge drilling or unusual time consuming drilling i.e. through bridge) (per hour)	\$207.00
Mobilization Mobilization or truck-mounted rig, rill crew and support/mile Field logger trip charge/mile Mobilization non-standard equipment (ARDCO4x4 all terrain rig) Barge mobilization and rental  Sampling/Field Testing Standard Penetration Test (ASTM D1586) (per test) Shelby Tube (ASTM D1587) (per test) Texas Cone Penetrometer Test (THD, Tex-132-E) (per test) Pressuremeter Testing	\$3.50 \$0.45 cost + 15% cost + 15% \$29.75 \$17.75 \$29.75 \$1250.00/day
Other Expenses/Charges Logging Charges (per hour) Standby Time (per hour) Grout backfill (per ft) Dozer/clearing cost Standard pavement coring (each) Concrete/AC patch (each) Traffic control - signs, barricades All other outside expenses	Charged at the labor rates presented above \$130.00 \$3.00 cost + 15% \$71.00 \$59.25 cost + 15% cost + 15%

Note: Per ft drilling charges do not include logging

Note: Drilling and Lab Charges assume standard geotechnical procedures, and do not include special

techniques which may be required for environmentally contaminated soils

Note: Pressuremeter testing charge does not include field engineer time



ATTACHMENT "C"

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### UNIT RATES FOR TESTING SERVICES ASSOCIATED WITH STREET RECLAMATION (RECYCLING)

Type of Test		Unit Rate	
1.	Asphalt Pavement Cores (Includes sampling of asphalt and base Material. Core specimen to be 6-inch diameter, minimum ten (10) cores.)	\$	75.00/core
2.	Mix Design of Asphalt Stabilized Base Material (TxDOT, Item 345). (Test will require equivalent of Approximately ten (10) asphalt/base core samples.)	1	,092.00/ea
3.	Engineer Review and Design Services (Unit fees will vary per project requirements. Fees will be in accordance with Engineering fee schedule in Attachment "B").		



Travel Time and Trip for this group of Services is based upon a trip within a radius of 0 to 20 miles from the office.

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	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	\$229.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	\$165.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	\$45.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	\$109.00
2B	Atterberg Limits Determination	Each	\$45.00
3	Sieve Analysis (with sampling and travel charges)	Each	\$109.00
ЗА	Sieve Analysis	Each	\$45.00
4	Field Density Tests (1-3 Per Set)	Set	\$124.00
5	Field Density Tests (each additional on same call out)	Each	\$20.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	\$144.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	\$80.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	\$32.00
7	Pick-up Concrete Test Specimens	Each	\$16.00
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charge)	Set	\$124.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	\$60.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	\$193.00
9A	L.A. Abrasion Test	Each	\$129.00
10	Standby time	Hour	\$32.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	\$338.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	\$274.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	\$119.00
12A	Welded Wire Fabric - Gauge thickness	Each	\$55.00
13	Brick Testing (with sampling and travel charges)	Each	\$114.00
13A	Brick Testing	Each	\$50.00
14	Slurry Seal (field measurement of slurry seal application)	Each	\$64.00
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	\$119.00
15A	Fence Post and Rails (weight and coating thickness)	Each	\$55.00
16	Inspection/Stamping Precast Manufacture	Each	\$192.00
17	Sample Charge	Each	\$96.00

Travel Time and Trip for this group of Services is based upon a trip within a radius of 20 to 40 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	\$261.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	\$165.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	\$45.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	\$141.00
2B	Atterberg Limits Determination	Each	\$45.00
3	Sieve Analysis (with sampling and travel charges)	Each	\$141.00
3A	Sieve Analysis	Each	\$45.00
4	Field Density Tests (1-3 Per Set)	Set	\$156.00
5	Field Density Tests (each additional on same call out)	Each	\$20.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	\$176.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	\$80.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	\$32.00
7	Pick-up Concrete Test Specimens	Each	\$24.00
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charge)	Set	\$124.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	\$60.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	\$225.00
9A	L.A. Abrasion Test	Each	\$129.00
10	Standby time	Hour	\$32.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	\$370.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	\$274.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	\$151.00
12A	Welded Wire Fabric - Gauge thickness	Each	\$55.00
13	Brick Testing (with sampling and travel charges)	Each	\$108.00
13A	Brick Testing	Each	\$12.00
14	Slurry Seal (field measurement of slurry seal application)	Each	\$96.00
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	\$151.00
15A	Fence Post and Rails (weight and coating thickness)	Each	\$55.00
16	Inspection/Stamping Precast Manufacture	Each	\$192.00
17	Sample Charge	Each	\$128.00



Geotechnical • Construction Materials Testing • Environmental

April 11, 2002

Mr. Razi S. Hosseini, P.E., R.P.L.S. Assistant City Engineer Public Works Department Engineering & Traffic Division City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

SUBJECT

Construction Materials Testing Services DCE Proposal No. G011115C

Dear Mr. Hosseini:

We have attached the completed fee schedule for services to be provided by Drash Consulting Engineers, Inc. (DCE), as you requested.

Please contact us if you have any questions or need project specific information. We look forward to the opportunity to work with you.

Very Truly Yours, **Drash Consulting Engineers, Inc.** 

Alfredo "Fred" Belfort

Manager

Construction Materials Testing Division

Chuck A. Gregory, P.E.

Principal

AB/pv

Attachments (2)

San Antonia

4926 Research Drive • San Antonio, Texas 78240 P.O. Box 7812O8 • San Antonio, Texas 78278-12O8 (210) 641-2112 • (800) 332-1728 • Fax: (210) 641-2124

E-Mail: drash@drashce.com

# Travel Time and Trip for this group of Services is based upon a trip within a radius of 0 to less than 20 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	\$240.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	\$150.00
') 1	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	\$50.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	\$140.00
2B	Atterberg Limits Determination	Each	\$50.00
3	Sieve Analysis (with sampling and travel charges)	Each	\$165.00
ЗА	Sieve Analysis	Each	\$75.00
4	Field Density Tests (1-3 Per Set)	Set	\$120.00
5	Field Density Tests (each additional on same call out)	Each	\$45.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	\$140.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	\$120.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	\$35.00
7	Pick-up Concrete Test Specimens	Each	\$90.00
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charges)	Set	\$275.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	\$100.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	\$340.00
9A	L.A. Abrasion Test	Each	\$250.00
10	Standby Time	Hour	\$35.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	\$400.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	\$325.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	\$150.00
12A	Welded Wire Fabric - Gauge thickness	Each	\$50.00
13	Brick Testing (with sampling and travel charges)	Each	\$125.00
13A	Brick Testing	Each	\$25.0
14	Slurry Seal (field measurement of slurry seal application)	Each	\$250.0
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	\$175.0
15A	Fence Post and Rails (weight and coating thickness)	Each	\$125.0
16	Inspection/Stamping Precast Manufacture	Each	\$250.0
17	Sample Charge	Each	\$100.0

Drash Consulting Engineers, Inc.

### Travel Time and Trip for this group of Services is based upon a trip within a radius of 20 to less than 40 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	250.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	150.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	50.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	160.00
2B	Atterberg Limits Determination	Each	50.00
3	Sieve Analysis (with sampling and travel charges)	Each	185.00
ЗА	Sieve Analysis	Each	75.00
4	Field Density Tests (1-3 Per Set)	Set	150.00
5	Field Density Tests (each additional on same call out)	Each	45.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	160.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	120.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	35.00
7	Pick-up Concrete Test Specimens	Each	110.00
8	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set with travel charges)	Set	300.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	100.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	360.00
9A	L.A. Abrasion Test	Each	250.00
10	Standby Time	Hour	35.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	425.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	325.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	175.00
12A	Welded Wire Fabric - Gauge thickness	Each	50.00
13	Brick Testing (with sampling and travel charges)	Each	150.00
13A	Brick Testing	Each	25.00
14	Slurry Seal (field measurement of slurry seal application)	Each	275.00
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	200.00
15A	Fence Post and Rails (weight and coating thickness)	Each	150.00
16	Inspection/Stamping Precast Manufacture	Each	300.00
17	Sample Charge	Each	125.00

# SCHEDULE OF FEES FOR CITY OF SAN ANTONIO ANNUAL CONTRACT FOR GEOTECHNICAL ENGINEERING AND CONSTRUCTION MATERIALS TESTING AND MONITORING SERVICES

### **Engineering and Support Staff**

Personnel:	Rat	e, Hour
CADD Technician	\$	40.00
Project Secretary		35.00
Administrative Secretary	\$	50.00
Engineering Technician	\$	35.00
Senior Engineering Technician	\$	45.00
Laboratory/Field Supervisor	\$	60.00
Staff Engineer/Geologist/Scientist	\$	80.00
Project Engineer/Geologist/Scientist	\$	90.00
Project Manager, Senior Engineer/Scientist/Geologist	\$	105.00
Engineering Manager	\$	115.00
Consultant, Project Principal	\$	130.00

Overtime rates of 1.3 times the standard hourly rate will be applicable for all hours worked before 8:00 am, after 5:00 pm, or over 8 hours per day, Monday through Friday. For all hours worked on Saturdays, Sundays, and holidays there will be a 4.0 hour minimum charge.

Out-of-town subsistence and travel expenses incurred by an employee in connection with the project will be invoiced at cost plus 20 percent or at a Per Diem rate of \$115.00 per day per individual. Use of company vehicles will be charged on the basis of \$0.50 per mile.

### **General Information**

Expenses incurred in connection with the project will be invoiced at cost plus 20 percent. These expenses may include the following:

Services directly applicable to the work, such as special legal and accounting expenses, special consultants, subcontractor services, and similar costs that are not applicable to general operating expenses.

Identifiable communication expenses, such as long distance telephone, facsimile, telegraphy, cable, express delivery charges, postage, and similar costs that are not applicable to general correspondence and/or operating expenses.

Identifiable processing and reproduction costs applicable to the project, such as developing, blueprinting, photocopying, printing, and similar costs that are not applicable to general operating expenses.

Invoices will be submitted monthly for work in progress and are due and payable 30 days from invoice date. Interest will be charged at the rate of 1.5 percent per month for late



payments. Information and corresponding fees for special services and testing not presented herein will be furnished upon request.

### **Geotechnical Field Services**

Drilling and Sampling Operations		
Soil Borings, 3 in. thin-wall tube sample or		
2 inch split barrel sampler, sample at		
5-foot intervals (continuous 0-10 ft.):		
0 to 50 ft., per linear foot	. \$	12.00
51 to 100 ft., per linear foot	. \$	
101 to 200 ft., per linear foot		
10 1 to 200 it., per inical root	. Ψ	10.00
Casing installation/removal, per linear foot	. \$	8.00
Wash or auger boring, per linear foot	\$	9.00
Rock coring, soft formation, per linear foot		22.00
Rock coring, hard formation, per linear foot*		
Nock coming, hard formation, per linear foot	. Ψ	20.00
Core bit wear per linear foot:		
Soft formation	. \$	0.50
Hard formation*		
Inaccessible borings requiring all-terrain drilling	. ψ	2.00
vehicles, additional charge, per linear foot	. \$	4.00
Special sampling techniques (piston samples, etc.)		On request
Standpipe/Observation well installation	•	Offrequest
1 1	<b>C</b>	150.00
(excludes material), per hour		150.00
Hourly Drilling Rate, 3-man crew, per hour		
Rig Standby, per hour		150.00
Damaged tube samplers, each	. \$	25.00
Grouting of Test Borings (Maximum 6" nominal dia. hole,		
excludes materials), per hour	. \$	150.00
* For year hard rock formations such as granito, or unusual co	aditi.	220
* For very hard rock formations such as granite, or unusual co such as karstic limestone, prices will be quoted upon request.	mulli	JIIS
such as karstic limestone, prices will be quoted upon request.		
Mobilization, Travel Expenses and Site Access		
Mobilization, Drill Crew, per mile	. \$	2.50
Mobilization, all-terrain vehicle,	. Ψ	2.00
additional charge per mile	\$	1.50
Use of additional vehicle during drilling, per mile	. φ	0.50
Drill Crew Per Diem, per man day	. \$ . \$ . \$	80.00
	·	
Drayage, permits for equipment		Cost+20%
Rental of special equipment for site access, etc	•	Cost+20%



Resistivity Surveys	
Staff Geologist/Engineer	\$ 80.00
Project Geologist/Engineer, per hour	
Resistivity Equipment, per day	
Other Sampling Techniques & Services not Shown	On request

### Notes:

Right of entry to exploration sites must be provided by the client unless other arrangements are made in advance. Site restoration, as required by the client and due to no fault of Drash Consulting Engineers, Inc. will be billed at cost plus 10 percent in addition to the above rates if performed by us.

### Construction Materials Testing and Inspection Field Services

Pick-up concrete test specimens or sampling materials, per hour Field molding of concrete cylinders, slump, air content,	\$	35.00
and temperature measurements, per hour	\$	35.00
air content, unit weight, & temperature measurements, per hour	\$	45.00
Concrete and asphalt, plant inspection, per hour	\$	45.00
Concrete or asphalt coring, per hour	\$	35.00
plus generator, per day	\$	75.00
plus core rig and equipment, per day	\$	75.00
plus supplies for patching of holes, each	\$	5.00
Windsor probe or Swiss hammer testing:,		
Senior engineering technician, per hour	\$	45.00
Staff engineer, per hour	\$	80.00
Project engineer, per hour	\$	90.00
plus Windsor probe or Swiss hammer, day	\$	75.00
plus Windsor probe shots		Cost + 20%
In-place nuclear moisture-density testing, per hour	\$	35.00
Plus Charge per Test	\$	10.00
Full Time earthwork monitoring:		
Engineering technician, per hour	\$	35.00
Senior engineering technician, per hour	\$	45.00
plus nuclear gauge, per day	\$ \$	50.00
Field soil stabilization (lime or cement) monitoring, per hour		45.00
plus nuclear gauge, per day	\$	50.00
Foundation installation monitoring, per hour	\$	45.00
Roofing installation monitoring:		
Senior engineering technician, per hour	\$	45.00
Staff engineer, per hour	\$	80.00
Project engineer, per hour	\$	90.00
Structural steel inspection; Bolted connections:		
Senior engineering technician, per hour	\$	50.00



Staff engineer, per hour	\$ 80.00
Project engineer, per hour	\$ 90.00
Visual welding inspection and welder performance qualifications:	
Certified welding inspector, per hour	\$ 85.00
NDE technician, per hour	\$ 85.00
Reinforcing steel inspection, per hour,	\$ 35.00
Radiographic examination:	
NDE technician, per hour	\$ 85.00
plus equipment, per day	\$ 125.00
plus film and supplies	Cost + 20%
Ultrasonic, magnetic particle & liquid penetrant examination:	
NDE technician, per hour	\$ 85.00
plus equipment, per day	\$ 100.00
plus supplies	Cost + 20%
	\$ 45.00
	\$ 45.00
Precast Concrete Inspection, hour	\$ 45.00
Transportation charges (applied to all field operations):	
per mile:	\$ 0.50
In connection with full-time monitoring:	
One-half day	\$ 20.00
Full day	\$ 40.00

### **Geotechnical Laboratory Testing Services**

(The price for tests in this section are based on a per sample or per test basis.)

### Strength and Volume Change Tests

Unconfined Compression Tests	
Soil	\$ 30.00
Rock	\$ 40.00
Vane Shear Test	\$ 20.00
Pocket Penetrometer	\$ 5.00
Triaxial Tests	
Unconsolidated-Undrained	\$ 40.00
Consolidated-Undrained w/Pore	
Pressure Measurements (per stage)	\$ 200.00
Consolidated-Undrained Cyclic Loading	\$ 400.00
Consolidated-Drained (Sands and Silts)	\$ 200.00
Direct Shear Tests	
Unconsolidated-Undrained	\$ 75.00
Consolidated-Undrained (per stage)	\$ 200.00
Consolidated-Drained (per stage)	\$ 275.00
Consolidated-Drained, Residual Strength (per stage)	\$ 375.00



Swell-Pressure Tests		
Single load	\$	75.00
Multiple load increments		125.00
Consolidation Tests, max 7 loadings		400.00
Additional load increments		50.00
Classification Tests		
Liquid and Plastic Limits		
Single Point Test	\$	40.00
Three-Point Test		50.00
Particle Size Analysis	•	20.00
Sieve Analysis through No. 200 Sieve (dry)	\$	60.00
Sieve Analysis through No. 200 Sieve (wet)		75.00
Percent Finer than No. 200 Sieve (Washed)	\$	30.00
Hydrometer (Includes No. 200 Sieve)		120.00
Try dromotor (morados 145. 255 5.545)	Ψ	120.00
Other Tests and Miscellaneous Items		
Water Content	\$	5.00
Density of Undisturbed Samples	ΨΨ	0.00
Soil	\$	10.00
Rock		15.00
Specific Gravity		60.00
Organic Content		60.00
Permeability	Ψ	00.00
Flexible wall test-triaxial cell	\$	375.00
Falling Head		125.00
Moisture-Density Relationship, Standard or Modified:	Ψ	123.00
Soil (4" and 6" Mold)	Φ	150.00
Soil with Gravel, Base Materials (6" Mold)	\$ \$	175.00
Soil, Base Material with Chemical Admixtures (6" Mold)	\$	200.00
Soil-lime mixture design (using pH)		125.00
	•	
Soil-lime mixture design (using plasticity index)Laboratory CBR Tests	Ф	250.00
	\$	120.00
(Excludes Moisture-Density Relationship)		120.00
Shipment of Samples to Laboratory	- 00	ost + 20%

#### Notes:

All tests not listed can be performed at either a quoted price or on an hourly basis.

Rush test assignments requiring unscheduled overtime in the laboratory are subject to a 50 percent surcharge for a 3 day turn-around.

Technician time for sample preparation will be \$35.00 per hour in addition to test charges. Special data presentation such as plotting stress-strain curves will be charged at the hourly rate of \$50.00 in addition to the test charges.

Photograph of sample is \$8.00 for first copy, and \$4.00 for every additional photograph.



# Construction Materials Laboratory <u>Testing Services</u>

Particle size analysis:			
Sieve analysis through 200 sieve:			
Dry, each		\$	60.00
Washed, each		\$	75.00
Percent finer than 200 sieve		•	
(washed, soil only), each		\$	30.00
Hydrometer analysis (includes 200 sieve), each		\$	120.00
Specific gravity and absorption (aggregate), each		\$	60.00
Dry-rodded weight, each		\$	25.00
Decantation, each		\$	25.00
Organic impurities test on fine aggregate, each		\$	25.00
Los Angeles abrasion (includes preparation), each		\$	300.00
203 Angeles abrasion (includes preparation), each	• • • • • • • • • • • • • • • • • • • •	Ψ	300.00
Testing of each aggregate type for concrete mix			
design or verification (includes gradation,			
fineness modulus, absorption, specific gravity,			
dry-rodded weight, and decantation), each		\$	200.00
Concrete mix verification, each		\$	225.00
Additional verifications with same aggregates, each		\$	85.00
Concrete mix design			
Regular aggregate, each		\$	250.00
Lightweight aggregate, each		\$	300.00
Additional mixes with same aggregates, each		\$	85.00
Compression testing of concrete cylinders:			
Made during field monitoring or laboratory testing			
services (includes reserves not tested), each		\$	12.50
FOB laboratory (signed hand written			
report, minimum of 4 cylinders), each		\$	15.00
FOB laboratory (signed typed			
report, minimum of 4 cylinders), each		\$	20.00
Flexural testing of concrete beams, each		\$	25.00
Moisture-density relationship,			
standard or modified Proctor:			
Soil (4" and 6" mold), each		\$	150.00
Soil with gravel, base materials (6" mold), each		\$	175.00
Soil, base material with chemical			
admixtures (6" mold), each		\$	200.00
Relative density (maximum and minimum), each		\$	200.00
Density of undisturbed soil samples, each		\$	10.00
Laboratory CBR tests (excludes			
moisture-density Relationship), each			120.00
Texas triaxial series, each set	••••••	\$1	,200.00
Testing of bituminous materials			
Mixing and molding of specimens (set of 3)		\$	150.00



Molding specimens only (set of 3)	 110.00 55.00
Molded Density (set of 3)  Core Density and Thickness, each	25.00
Stability (set of 3)	55.00
Extraction/Gradation	\$ 125.00
Maximum theoretical specific gravity	\$ 55.00
Preparation of samples/materials will be charged for all laboratory tests when applicable at (per hour)	35.00
Miscellaneous Testing Welded Wire Fabric Dimensional Check, each Brick Testing Compressive Strength, Set of 3 Fence Post & Rails, Weight and Dimensional Checks, per post	\$ 50.00 50.00 75.00





April 18, 2002

City of San Antonio 114 W. Commerce St., 8<sup>th</sup> Floor San Antonio, Texas 78205

Attention: Razi Hosseini, P.E.

Re: FY 01-02

Privatization of Materials Testing Lab

San Antonio, Texas

Dear Mr. Hosseini,

Professional Service Industries, Inc. (PSI) is pleased to submit the following revised rates for Construction Materials Testing Services. PSI proposes to provide experienced technical personnel to perform the requested testing and inspection services in accordance with your scheduling.

In accordance with ASTM C-31 "Standard Practice for Making and Curing Test Specimens in the Field", and by incorporation of Reference Documents, the *American Concrete Institute* CP-1, the technician should be a certified Concrete Field Testing Technician, Grade 1. If accredited personnel do not perform tests, then the contractor or ready mix producer may challenge results. PSI proposes to provide the appropriate personnel to perform these services if requested. Other personnel may be assigned to pick-up and transport concrete cylinders and these technicians may not be CP-1 Concrete Field Testing Technicians.

If you have any questions or require additional information, please contact or office at your convenience.

Respectfully submitted.

Professional Service Industries, Inc.

William Ciggelakis, P.E.

Chief Engineer

Preston Parker

Department Manager

Construction Services

WC/PSP/bmm Shared/Letter/2030B

### Travel Time and Trip for this group of Services is based upon a trip within a radius of 0 to 20 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	\$255.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	\$165.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	\$55.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	\$155.00
2B	Atterberg Limits Determination	Each	\$55.00
3	Sieve Analysis (with sampling and travel charges)	Each	\$155.00
ЗА	Sieve Analysis	Each	\$55.00
4	Field Density Tests (1-3 Per Set)	Set	\$140.00
5	Field Density Tests (each additional on same call out)	Each	\$20.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	\$160.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	\$100.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	\$35.00
7	Pick-up Concrete Test Specimens	Each	\$85.00
8	Asphalt Cores of In-Place Asphalt Paving (1 to 3 per Set with travel charges)	Set	\$300.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	\$150.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	\$310.00
9A	L.A. Abrasion Test	Each	\$190.00
10	Standby Time	Hour	\$32.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	\$450.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	\$365.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	\$170.00
12A	Welded Wire Fabric - Gauge thickness	Each	\$65.00
13	Brick Testing (with sampling and travel charges)	Each	\$175.00
13A	Brick Testing	Each	\$45.00
14	Slurry Seal (field measurement of slurry seal application)	Each	\$180.00
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	\$170.00
15A	Fence Post and Rails (weight and coating thickness)	Each	\$50.00
16	Inspection/Stamping Precast Manufacture	Each	\$210.00
17	Sample Charge	Each	\$120.00

### Travel Time and Trip for this group of Services is based upon a trip within a radius of 20 to 40 miles from the office.

	Construction Material Test	Unit	Price
1	Moisture-Density Relationship	Each	\$285.00
1A	Moisture-Density Relationship (no additional trip required to sample)	Each	\$165.00
2	Atterberg Limits Determination (in conjunction with Moisture-Density Relationship)	Each	\$55.00
2A	Atterberg Limits Determination (with sampling and travel charges)	Each	\$185.00
2B	Atterberg Limits Determination	Each	\$55.00
3	Sieve Analysis (with sampling and travel charges)	Each	\$185.00
ЗА	Sieve Analysis	Each	\$55.00
4	Field Density Tests (1-3 Per Set)	Set	\$170.00
5	Field Density Tests (each additional on same call out)	Each	\$20.00
6	Concrete Compressive Strength Tests (4 Cylinder Set)	Set	\$185.00
6A	Concrete Compressive Strength Tests (additional 4 Cylinder Set)	Set	\$100.00
6B	Concrete Testing in excess of 1 hour per cylinder set	Hour	\$35.00
7	Pick-up Concrete Test Specimens	Each	\$130.00
8	Asphalt Cores of In-Place Asphalt Paving (1 to 3 per Set with travel charges)	Set	\$350.00
8A	Asphalt Cores of In-Place Asphalt Paving (1-3 Per Set)	Set	\$150.00
9	L.A. Abrasion Test (with sampling and travel charges)	Each	\$330.00
9A	L.A. Abrasion Test	Each	\$190.00
10	Standby Time	Hour	\$32.00
11	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity (with sampling and travel charges)	Each	\$475.00
11A	Asphalt Concrete Extraction, Gradation, Bitumen Content, Laboratory Density and Rice Gravity	Each	\$365.00
12	Welded Wire Fabric - Gauge thickness (with sampling and travel charges)	Each	\$190.00
12A	Welded Wire Fabric - Gauge thickness	Each	\$65.00
13	Brick Testing (with sampling and travel charges)	Each	\$225.00
13A	Brick Testing	Each	\$45.00
14	Slurry Seal (field measurement of slurry seal application)	Each	\$200.00
15	Fence Post and Rails (weight and coating thickness with sampling and travel charges)	Each	\$190.00
15A	Fence Post and Rails (weight and coating thickness)	Each	\$50.00
16	Inspection/Stamping Precast Manufacture	Each	\$215.00
17	Sample Charge	Each	\$140.00

Professional Service Industries, Inc.

### GEOTECHNICAL ENGINEERING SERVICES

#### ENGINEERING

	Engineering and technical services for preliminary reconnaissance, boring layout, delayed
	water levels, backfilling of borings, evaluation, field supervision, analysis.
	recommendations, reporting and consultation.
	Chief Geotechnical Engineerper hour \$150.00 Principal Engineerper hour 120.00
	Senior Project Engineer
	Geotechnical Engineer
	Geotechnical Project Manager
	Engineering Technician
SUBSURFAC	E DRILLING AND SAMPLING
	Mobilization and Demobilization:
	per mile
	minimum
	Auger drilling without sampling:
	Depth, Feet Soil Drilling Rock Coring
	0-25
	25-50
	50-100
	100+
	Soil sampling as required with split-barrel or thin wall tube (Shelby Tube) sampler:
	Depth, Feet Unit Charges
	0-25
	25-50
	100+
	Special and/or insitu testing:
	Static Cone Penetrometer
	Field CBR
	Dennison or Piston Sampler
	Other insitu testing with special equipment
	Cost of special equipment or permits for moving drilling
	equipment about the site
	Set-up time per hole, in excess of % hour or stand by time Per Hour \$ 95.00
LABORATO	RY TESTING
	Visual classification
	Moisture content tests
	Density determinations
	Hand penetrometer tests
	Unconfined compression tests w/o stress versus strain curve Each 32.00
	Atterberg limits determination
	Swell pressure tests
	Permeability testing
	a. Falling Head (Flexible Wall)
	Percent passing #200 sieve Each 40.00
	Hydrometer Analysis       150.00         Consolidation       395.00
	Consolidation
	a. Unconsolidated-undrained
	Moisture-density relationship  a. ASTM D698 (Standard Proctor)
	b. ASTM D1557 (Modified Proctor)
	California Bearing Ratio. w/o moisture-density relationship Each 240.00
	California Bearing Ratio. w/moisture-density relationship Each 390.00
REMARKS	
	Services and fees not listed above will be quoted upon request. A
	transportation charge of \$0.75/mile and per diem/lodging charge of
	\$85.00/man/day will be added, if applicable.

# City of San Antonio Discretionary Contracts Disclosure\*

For use of this form, see City of San Antonio Ethics Code, Part D, Sections 1&2
Attach additional sheets if space provided is not sufficient.
State"Not Applicable" for questions that do not apply.

\* This form is required to be supplemented in the event there is any change in the information under (1), (2), or (3) below, before the discretionary contract is the subject of council action, and no later than five (5) business days after any change about which information is required to be filed.

### Disclosure of Parties, Owners, and Closely Related Persons

For the purpose of assisting the city in the enforcement of provisions contained in the City Charter and the code of ethics, an individual or business entity seeking a discretionary contract from the city is required to disclose in connection with a proposal for a discretionary contract:

(1) the identity of any individual who would be a party to the discretionary contract;
Not Applicable
(2) the identity of any <u>business entity</u> that would be a party to the discretionary contract:
and the name of:
(A) any individual or business entity that would be a subcontractor on the discretionary contract;
Raba-Kistner Consultants, Inc.
(B) any individual or business entity that is known to be a <i>partner</i> , or a <i>parent</i> or <i>subsidiary</i> business entity, of any individual or business entity who would be a party to the discretionary contract;
None
(3) the identity of any <i>lobbyist</i> or <i>public relations firm</i> employed for purposes relating to the discretionary contract being sought by any individual or business entity who would be a party to the discretionary contract.
None

<sup>&</sup>lt;sup>1</sup> A *business entity* means a sole proprietorship, partnership, firm, corporation, holding company, joint-stock company, receivership, trust, unincorporated association, or any other entity recognized by law.

Political	Contrit	HIIC	ions

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any current or former member of City Council, any candidate for City Council, or to any political action committee that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an individual include, but are not limited to, contributions made by the individual's spouse, whether statutory or common-law. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, attorneys, or registered lobbyists of the entity.

To Whom Made:	Amount:	Date of Contribution:
List of Contributions Attached		
Disclosures in Proposals		

Any individual or business entity seeking a discretionary contract with the city shall disclose any known facts which, reasonably understood, raise a question<sup>2</sup> as to whether any city official or employee would violate Section 1 of Part B, Improper Economic Benefit, by participating in official action relating to the discretionary contract.

Signature:	Title:	Date:
William Ltroba	Executive Vice President Company:	Sept. 10, 2002
	Raba-Kistner Consultants, Inc.	

<sup>&</sup>lt;sup>2</sup> For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.

### ETHICS ORDINANCE REQUIRED DISCLOSURES

### POLITICAL CONTRIBUTIONS (Previous 24 Months)

Name	<u>Date</u>	Amount
Ed Garza Campaign	11/01/00	1,000.00
Kike Martin Campaign	01/09/01	250.00
David A. Garcia Campaign	01/24/01	250.00
Bonnie Conner Campaign	03/06/01	320.00
Carroll Schubert Campaign	03/08/01	500.00
Kike Martin Campaign	03/09/01	250.00
David Carpenter Campaign	03/21/01	500.00
Enrique Barrera Campaign	03/30/01	500.00
Bobby Perez Campaign	3/30/01	320.00
Enrique Barrera Campaign	3/30/01	320.00
David Carpenter Campaign	4/23/01	380.00
San Antonio Political Action Committee	4/25/02	1,000.00
Southside Road PAC	4/29/02	2,000.00
Ed Garza Campaign	5/31/01	3,000.00
CEC PAC	7/11/01	490.00
ACME-GAC PAC	9/11/01	150.00
Friends of Toni Moorhouse	9/12/01	500.00
John Sanders Campaign	01/03/02	250.00
Ed Garza Campaign	02/13/02	500.00
Bobby Perez Campaign	2/13/02	500.00
David Carpenter Campaign	3/12/02	500.00
David Garcia Campaign	4/17/02	500.00
Ed Garza Campaign	4/18/02	1,000.00
Enrique Barrera Campaign	6/11/02	1,000.00
Toni Moorhouse Campaign	6/25/02	250.00
Carroll Schubert Campaign	7/12/02	1,000.00
Bonnie Conner Campaign	7/12/02	110.00
Friends of Carroll Schubert	7/29/02	110.00
Bobby Perez Campaign	8/16/02	110.00
Ed Garza Campaign	8/16/02	330.00
Friends of Toni Moorhouse	8/21/02	110.00

Grand Total <u>\$ 18,000.00</u>

# City of San Antonio Discretionary Contracts Disclosure\*

For use of this form, see City of San Antonio Ethics Code, Part D, Sections 1&2
Attach additional sheets if space provided is not sufficient.
State"Not Applicable" for questions that do not apply.

\* This form is required to be supplemented in the event there is any change in the information under (1), (2), or (3) below, before the discretionary contract is the subject of council action, and no later than five (5) business days after any change about which information is required to be filed.

### Disclosure of Parties, Owners, and Closely Related Persons

For the purpose of assisting the city in the enforcement of provisions contained in the City Charter and the code of ethics, an individual or business entity seeking a discretionary contract from the city is required to disclose in connection with a proposal for a discretionary contract:

(1) the identity of any individual who would be a party to	the discretionary contract;
Philip C. King	
Philip G. King	
(2) the identity of any <u>business entity</u> that would beFugro South, Inc the name of:	a party to the discretionary contract:
(A) any individual or business entity that would be contract;	
None	
(B) any individual or business entity that is known to business entity, of any individual or business discretionary contract;	entity who would be a party to the
None	:
(3) the identity of any <i>lobbyist</i> or <i>public relations firm</i> ediscretionary contract being sought by any individual party to the discretionary contract.	
None	

<sup>&</sup>lt;sup>1</sup> A *business entity* means a sole proprietorship, partnership, firm, corporation, holding company, joint-stock company, receivership, trust, unincorporated association, or any other entity recognized by law.

#### **Political Contributions**

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any current or former member of City Council, any candidate for City Council, or to any political action committee that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an individual include, but are not limited to, contributions made by the individual's spouse, whether statutory or common-law. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, attorneys, or registered lobbyists of the entity.

To Whom Made:	Amount:	Date of Contribution:
Ed Garza	\$340.00	2001
Bonnie Conner	\$210.00	2001
Bobby Perez	\$200.00	2001
Enrique Barrera	\$200.00	2001
David Carpenter	\$200.00	2001
•		The state of the s

### Disclosures in Proposals

Any individual or business entity seeking a discretionary contract with the city shall disclose any known facts which, reasonably understood, raise a question<sup>2</sup> as to whether any city official or employee would violate Section 1 of Part B, Improper Economic Benefit, by participating in official action relating to the discretionary contract.

S:		
Signature:	Title:	Date:
	Regional Vice President	i
	Company:	09/11/02
	Fugro South, Inc.	
	r ugio south, inc.	

<sup>&</sup>lt;sup>2</sup> For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.

### City of San Antonio Discretionary Contracts Disclosure

For use of this form, see City of San Antonio Ethics Code, Part D, Section 1 & 2

#### Disclosure of Parties, Owners, and Closely Related Persons

For the purpose of assisting the city in the enforcement of provisions contained in the City Charter and the code of ethics, an individual or business entity seeking a discretionary contract from the city is required to disclose in connection with a proposal for a discretionary contract.

(1) The identity of any individual who would be a party to the discretionary contract;

Jill M. Drash, Drash Consulting Engineers, Inc. Chester J. Drash, Jr., P.E., Drash Consulting Engineers, Inc.

(2) The identity of any <u>business entity</u> that would be a party to the discretionary contract and the name of:

(A) Any individual or business entity that would be a subcontractor on the discretionary contract;

NA

(B) Any individual or business entity that is known to be a partner, or a parent or subsidiary business entity, of any individual or business entity who would be a party to the discretionary contract;

NA

(3) The identity of any lobbyist or public relations firm employed for purposes relating to the discretionary contract being sought by any individual or business entity who would be a party to the discretionary contract.

NA

#### Political Contributions

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any member of City Council, or to any political action committee that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, or registered lobbyists of the entity.

To Whom Made:	Amount:	Date of Contribution:
Tim Bannwolf	\$500.00	November 2000
Enrique Martin	\$100.00	December 2000
Bobby Perez	\$250.00	January 2001
Ed Garza	\$250.00	March 2001
Bonnie Carter	\$210.00	March 2001
Tim Bannwolf	\$500.00	March 2001
David Carpenter	\$250.00	March 2001
Ed Garza	\$250.00	March 2001
Tim Bannwolf	\$390.00	April 2001
Bobby Perez	\$200.00	April 2001
Enrique Barrera	\$200.00	April 2001
Bonnie Carter	\$70.00	July 2002
Carroll Schubert	\$70.00	July 2002
Bobby Perez	\$70.00	August 2002

Disclosures in Proposals

Any individual or business entity seeking a discretionary contract with the city shall disclose any know facts which, reasonably understood, raise a question as to whether any city official would violate Section 1 of Part B by participating in official action relating to the discretionary contract.

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1/1/1	· / Regor	September 9, 2002
Signature		Date

<sup>\*</sup>For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.

# City of San Antonio Discretionary Contracts Disclosure\*

For use of this form, see City of San Antonio Ethics Code, Part D, Sections 1&2
Attach additional sheets if space provided is not sufficient.
State"Not Applicable" for questions that do not apply.

\* This form is required to be supplemented in the event there is any change in the information under (1), (2), or (3) below, before the discretionary contract is the subject of council action, and no later than five (5) business days after any change about which information is required to be filed.

### Disclosure of Parties, Owners, and Closely Related Persons

For the purpose of assisting the city in the enforcement of provisions contained in the City Charter and the code of ethics, an individual or business entity seeking a discretionary contract from the city is required to disclose in connection with a proposal for a discretionary contract:

(1) the identity of any <u>individual</u> who would be a party to the	discretionary contract;
Not Applicable.	
(2) the identity of any <u>business entity</u> <sup>1</sup> that would be a p <u>Professional Service Industries, Inc. (PSI)</u> and the name of	
(A) any individual or business entity that would be a s contract;	subcontractor on the discretionary
Not Applicable.	
<ul> <li>(B) any individual or business entity that is known to be a business entity, of any individual or business entity discretionary contract;</li> </ul>	
Not Applicable.	4 2 H
(3) the identity of any <i>lobbyist</i> or <i>public relations firm</i> employers discretionary contract being sought by any individual or party to the discretionary contract.	
Not Applicable.	

<sup>&</sup>lt;sup>1</sup> A business entity means a sole proprietorship, partnership, firm, corporation, holding company, joint-stock company, receivership, trust, unincorporated association, or any other entity recognized by law.

#### **litical** Contributions

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any current or former member of City Council, any candidate for City Council, or to any political action committee that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an individual include, but are not limited to, contributions made by the individual's spouse, whether statutory or common-law. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, attorneys, or registered lobbyists of the entity.

To Whom Made:	Amour	nt:	Date of Contribution:
AGC - PAC		200.00	April 1, 2002

### Disclosures in Proposals

Any individual or business entity seeking a discretionary contract with the city shall disclose any known facts which, reasonably understood, raise a question<sup>2</sup> as to whether any city official or employee would violate Section 1 of Part B, Improper Economic Benefit, by participating in official action relating to the discretionary contract.

No Disclosures.		
Signature:	Title: Vice President	Date: 09/12/02
Alm. U	Company: Professional Service Industries, Inc.	

<sup>&</sup>lt;sup>2</sup> For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.