

March 31, 2016

Commissioner Joseph Palacios
Attn: Maria "LuLu" Lucio
Hidalgo County, Pct. #4
1102 N. Doolittle Rd.
Edinburg, Texas 78539

RECEIVED
APR 01 2016
BY: *M. Lucio*

RE: Hoehn Subdv. -Water & Sewer Imprvts.

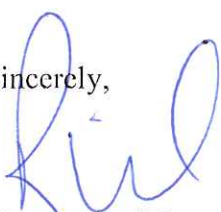
Dear Ms. Lucio:

Included for your use with this letter is test report **R008** for **Construction Material Testing** performed on the above referenced project.

L&G Engineering appreciates the opportunity to serve your material testing needs on this project and we look forward to working with you in the future.

If you have any questions, feel free to contact me at 956-565-0760.

Sincerely,


Ricardo A. Gil
General Manager

Attachments

CC: Vanguard Engineering

PROCTOR TEST REPORT

Project Description: Hoehn Subdv.- Water & Sewer Imprvts.
 Client: Hidalgo County Pct. #4
 Contractor: Vanguard Engineering

L&G Project Number: E1301501
 L&G Report Number: R008
 Sample Date: 02/02/2016
 Date Reported: 03/28/2016

Client PO: 728310

Page 1 of 1

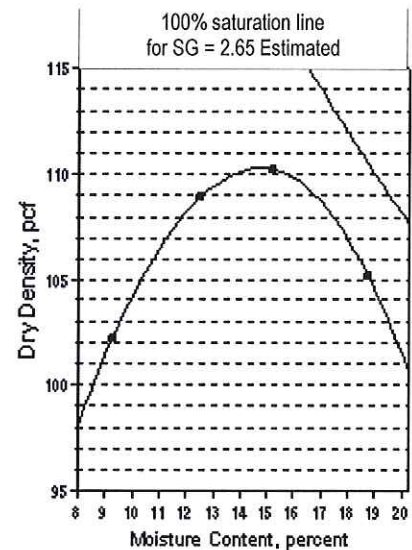
Compaction Method: **ASTM D-698**
 Material Description: **Trench Backfill-Sta. 5+00 12" Line**

Specific Gravity: **2.65**

Liquid Limit: 48
Plastic Limit: 15
Plasticity Index: 33
% Passing No. 200: 59
Group Symbol: CL

Specimen No.:	1	2	3	4
Moisture, %:	9.2	12.5	15.3	18.7
Dry Density (pcf):	102.0	108.9	110.2	105.3

Maximum Dry Density in P.C.F.: 110.3
Optimum Moisture (%): 14.8



Remarks: Sampled from Sta 5+00 (12" Sewer Line)
Test Method: ASTM D-698 Method-A, ASTM D-4318, ASTM D-1140

Orig: Hidalgo County Pct. #4 (E130) (Hidalgo County Pct. #4)
 (Edinburg, TX) Attn: Maria Lucio
 (1-cc copy)
 1-cc Vanguard Engineering
 1-cc Laboratory

Respectfully Submitted,
 L&G Engineering



Ricardo A. Gil, Lab Manager

Rick Gil

From: Jesse Alvarez [jose.alvarez@co.hidalgo.tx.us]
Sent: Tuesday, February 02, 2016 2:56 PM
To: Billy Ortiz
Cc: Raul Sesin; Eliza Yzaguirre; Nora Cavazos; Noe Saldivar; cagonzalez@mcallen.net; Juan Arroyo; Rick Gil
Subject: Hidalgo County Pct. No. 4 Water And Sewer Improvements Hoehn Subd.

Good Afternoon Billy ,

Please see below for testing request,

Date of Service Requested: 02/02/2016 Tuesday

Time of Needed Services: 03:00 PM

ROOS

Project Name/Location: Hidalgo County Pct. No. 4 Water And Sewer Improvements Hoehn Subd.

Type of Service Requested: Backfill Proctor Sample Pickup for 12 " Sanitary Sewer Line

Note: Testing Time has already been coordinated with Billy Ortiz

Thank You

Jesse Alvarez
Construction Inspector

2100 W. Expressway 83
Mercedes, TX 78570
Office (956) 565-0760 Fax (956) 565-6746

Client Address: Hidalgo County Pct. #4
 Maria Lucio, Program Manager
 1102 N. Doolittle Rd.

 Edinburg, TX. 78539

Account No.: E130
Project No: E1301501
Project Desc.: Hoehn Subdv.- Water & Sewer Imprvts.

Due Date: UPON RECEIPT
Budget/Remaining: \$42,900.53 / \$39,454.95
PO: 728310

===== Invoice Summary by Billing Code =====

	<u>Unit Rate</u>	<u>Qty</u>	<u>Extension</u>
910:91004 - Atterberg Limits Det	\$78.48	1.00	\$78.48
910:91006 - Materials Finer #200	\$65.49	1.00	\$65.49
910:91009 - M-D ASTM D698 (Standard Proctor) (each)	\$202.78	1.00	\$202.78
940:94048 - Eng. Tech. (Soils / SP.)	\$47.14	2.00	\$94.28
940:94054 - Engineering Specialist	\$117.75	0.25	\$29.44
940:94055 - Engineer / P.E.	\$157.08	0.25	\$39.27
950:95061 - Test Report	\$23.24	1.00	\$23.24
Total for this Invoice:			\$532.98

===== Invoice Detail by Report =====

<u>Report No.</u>	<u>Sampled</u>	<u>Qty</u>	<u>Billing Code</u>	<u>Unit Type</u>	<u>Unit Rate</u>	<u>Extension</u>
R008	02/02/2016	1.00	910:91004 - Atterberg Limits Det	Each	\$78.48	\$78.48
R008	02/02/2016	1.00	910:91006 - Materials Finer #200	Each	\$65.49	\$65.49
R008	02/02/2016	1.00	910:91009 - M-D ASTM D698 (Standard Proctor) (each)	Each	\$202.78	\$202.78
R008	02/02/2016	2.00	940:94048 - Eng. Tech. (Soils / SP.)	Hour	\$47.14	\$94.28
R008	02/02/2016	0.25	940:94054 - Engineering Specialist	Hour	\$117.75	\$29.44
R008	02/02/2016	0.25	940:94055 - Engineer / P.E.	Hour	\$157.08	\$39.27
R008	02/02/2016	1.00	950:95061 - Test Report	Each	\$23.24	\$23.24
<i>Report Number R008 for a Subtotal of:</i>						\$532.98
Total for this Invoice:						\$532.98

REMIT TO: 2100 W. Expressway 83
 Mercedes, TX 78570
 Office (956) 565-0760 Fax (956) 565-6746

Net 30 Days



Purchase Order COUNTY OF HIDALGO

PO# 728310

DATE: 07/08/15

PAGE NO: 1 Of 1

PO TYPE:

VENDOR: 280046

REQ: 00279604

PHONE: (956) 565-9813

Fax: (956) 565-6746

EMAIL:

SHIP TO: HIDALGO CO. PCT 4

1051 N. DOOLITTLE
EDINBURG TX 78542

L & G CONSULTING ENGINEERS, INC.
2100 W. EXPRESSWAY 83
MERCEDDES TX 78570

CONTACT:

SITE: COMMISSIONER, PRECINCT 4

CONTRACT NO:

SPECIAL INSTRUCTIONS: PCL # 728

VENDOR NOTES

1. Do not add to, or alter this Purchase Order. This Order is not renewable.
2. TAX EXEMPTION: This Purchase Order may be accepted in lieu of Exemption Certificate.
3. This Order is also placed F.O.B. Destination. Vendor must repay all shipping costs.
4. Invoice each Purchase Order singly. Original invoices are required customer copy may be accepted. Our number must appear on all invoices, bills of lading, and packages.
5. Payment will be made only for bona fide and full completed orders, unless otherwise attached.

QTY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
		DO NOT DUPLICATE ORDER		
		C-14-330-09-09 EXP 9-08-15 Approved CC 06/23/15 AI-50218, Consent AI- 50241, Regular		
1.00	LOT	CC WA # 3- Construction Materials Testing Services for the "Hoshn Subdv." Project in Hidalgo County Precinct No. Four (4)	42,900.53	42,900.53
		TOTAL:		42,900.53
		***** For Hidalgo County use only 5-1200-431-00-124-159-0-841	42,900.53	

Authorized by: Martha Salazar

EXHIBIT "C"
L&G ENGINEERING
GEOTECHNICAL ENGINEERING
LABORATORY RATES FOR FY 2014-2015

Geotechnical Field Services

	FY 2014	FY 2015
Mobilization (Drill Rig and Crew)	\$435.13/Day	\$441.66/Day
Stand-By Time	\$191.31/Hr.	\$194.18/Hr.
Texas Cone Penetration Test (Tex-132)	\$5.47/Ea.	\$5.55/Ea.
Soil Boring / Solid Stem	\$30.62/Lf	\$31.08/Lf
Soil Boring / Hollow Stem	\$30.62/Lf	\$31.08/Lf
Soil Boring / Mud Rotary	\$30.62/Lf	\$31.08/Lf
Mileage (Logger-Soil Tech)	.52/Mi.	.53/Mi.
Support Truck	\$1.63/Mi.	\$1.65/Mi.
Peizometer / Monitoring Well	By Quote	By Quote

Soil Classification Testing

	FY 2014	FY 2015
Moisture Content Determination	\$10.40/Ea.	\$10.45/Ea.
Determination of Liquid Limit of Soils	\$52.37/Ea.	\$53.16/Ea.
Determination of Plastic Limit of Soils	\$52.50/Ea.	\$53.29/Ea.
Atterberg Limits of Soils	\$78.48/Ea.	\$79.66/Ea.
Bar Linear Shrinkage of Soils	\$65.49/Ea.	\$66.47/Ea.
Sieve Analysis		
Through #200 Sieve	\$76.52/Ea.	\$77.67/Ea.
Finer #200 Sieve	\$65.49/Ea.	\$66.47/Ea.
Unit Dry Weight	\$28.42/Ea.	\$28.85/Ea.
Specific Gravity	\$76.94/Ea.	\$78.09/Ea.
Hydrometer Analysis – w/Sieve Analysis	\$94.35/Ea.	\$95.76/Ea.

Strength / Volume Change Laboratory Testing

	FY 2014	FY 2015
Unconfined Compression-Soil Shelby Tube Specimen	\$49.21/Ea.	\$49.95/Ea.
Unconfined Compression-Rock Core Specimen	\$52.48/Ea.	\$53.27/Ea.
Swell Test-Pressure Method	\$273.30/Ea.	\$277.40/Ea.
Swell Test-Free Swell	\$153.05/Ea.	\$155.35/Ea.
Consolidation Test	\$513.80/Ea.	\$521.51/Ea.
Hydraulic Conductivity	\$382.61/Ea.	\$388.35/Ea.

Personnel and Expenses

	FY 2014	FY 2015
Engineer (Principal)	\$157.08/Hr.	\$159.44/Hr.
Engineer (Staff)	\$157.08/Hr.	\$159.44/Hr.
E.I.T.(Engineer in Training)	\$117.75/Hr.	\$119.52/Hr.
Engineering Specialist	\$117.75/Hr.	\$119.52/Hr.
Technician (Soils)(Logger	\$47.14/Hr.	\$47.85/Hr.
Technician (CADD)	\$60.18/Hr.	\$61.08/Hr.
Admin./Clerical/Report Reproduction	\$46.44/Hr.	\$47.14/Hr.

L & G Engineering

Consulting Engineers

Attachment "D"
L&G Engineering

Hoehn Subdivision Sanitary Sewer Improvements
Prepared for Hidalgo County Precinct No. 4

In-Situ Soils Testing-Laboratory-Sanitary Sewer & Force Main					
Standard Proctor	5	Ea.	\$202.78	\$1,013.90	<i>In Situ Subgrade Moisture-Density Testing on the following: Trenches for 8" and 12" Sanitary Sewer 8" Force Main</i>
Atterberg Limits of Soils	5	Ea.	\$78.48	\$392.40	
Material Finer #200	5	Ea.	\$65.49	\$327.45	
Test Report	5	Ea.	\$23.24	\$116.20	
Technician (Soils)	15	Hr.	\$47.14	\$707.10	
Mileage (Trip Charge)	400	Mi.	\$0.52	\$208.00	
				Subtotal:	\$2,765.05
In-Situ Soils Testing-Field -Sanitary Sewer and Force Main					
Field Density Test	450	Ea.	\$23.56	\$10,602.00	<i>Trench Backfill Field Density Testing on the Following: 8" and 12" Sanitary Sewer and 8" Force Main one test per 250 L.F. per each 12" Layer Total 16,000 L.F. x avg. 7' cover</i>
Test Report	60	Ea.	\$23.24	\$1,394.40	
Technician (Soils)	150	Hr.	\$47.14	\$7,071.00	
Mileage (Trip Charge)	4800	Mi.	\$0.52	\$2,496.00	
				Subtotal:	
Treated Backfill Sand Testing-Laboratory					
Standard Proctor	2	Ea.	\$202.78	\$405.56	<i>Quantity Based On 2 visits to obtain samples for laboratory testing</i>
Atterberg Limits of Soils	2	Ea.	\$78.48	\$156.96	
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Soils)	3	Hr.	\$47.14	\$141.42	
Mileage (Trip Charge)	160	Mi.	\$0.52	\$83.20	
				Subtotal:	\$833.62
Treated Backfill Sand Soils Testing-Field					
Field Density Test	40	Ea.	\$23.56	\$942.40	<i>Quantity Based On 10 site visits to perform compaction testing</i>
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Soils)	25	Hr.	\$47.14	\$1,178.50	
Mileage (Trip Charge)	800	Mi.	\$0.52	\$416.00	
				Subtotal:	
Flexible Base (Caliche) Pavement Repair Areas -Testing-Laboratory					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Quantity based on 1 site visit to obtain sample for laboratory testing</i>
Atterberg Limits of Soils	1	Ea.	\$78.48	\$78.48	
Sieve Analysis (Dry)(4 Sieve)	1	Ea.	\$58.85	\$58.85	
Texas Wet Ball Mill	1	Ea.	\$229.11	\$229.11	
Technician (Soils)	4	Hr.	\$47.14	\$188.56	
Test Report	2	Ea.	\$23.24	\$46.48	
Mileage (Trip Charge)	84	Mi.	\$0.52	\$43.68	
				Subtotal:	
Flexible Base (Caliche) Pavement Repair Areas-Field Testing and Monitoring					
Field Density Test	40	Ea.	\$23.56	\$942.40	<i>Quantities based on ten (10) visits to perform in-place testing</i>
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Soils)	25	Hr.	\$47.14	\$1,178.50	
Mileage (Trip Charge)	800	Mi.	\$0.52	\$416.00	
				Subtotal:	
Hot Mix Asphalt Paving-Pavement Repair Areas					
Ext. Sieve Analysis/Asph Content	2	Ea.	\$229.04	\$458.08	<i>Quantities based on site visits to perform testing</i>
Density of Asphaltic Cores	3	Ea.	\$71.96	\$215.88	
Asphalt Rolling Patterns	10	Ea.	\$39.27	\$392.70	
Coring/ACP Thickness	16	Ea.	\$65.49	\$1,047.84	
Technician (Asphalt)	16	Hr.	\$60.18	\$962.88	
Mileage (Trip Charge)	300	Mi.	\$0.52	\$156.00	
Test Report	8	Ea.	\$23.24	\$185.92	
				Subtotal:	\$3,419.30

Concrete Placement - Lift Station

Air Content(Pressure Method)	2	Ea.	\$23.51	\$47.02	<i>Assuming 2 Placements on Lift Station Slab</i>
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Concrete)	6	Hr.	\$60.18	\$361.08	
Mileage (Trip Charge)	200	Mi.	\$0.52	\$104.00	
			Subtotal:	<u>\$558.58</u>	
Cyl. Spec. Prep, Hold, Cure	8	Ea.	\$11.83	\$94.64	<i>Quantities based on sample pickup and deliver to laboratory for Compression Testing</i>
Comp. Str. Of Cyl. Specimen	8	Ea.	\$15.68	\$125.44	
Test Reports (7 and 28 day)	4	Ea.	\$23.24	\$92.96	
Technician (Concrete)	6	Hr.	\$60.18	\$361.08	
Mileage (Trip Charge)	200	Mi.	\$0.52	\$104.00	
			Subtotal:	<u>\$778.12</u>	

Estimated Field and Laboratory Test Fees				\$36,304.61
Engineering Specialist (Report Review)(Hr.)	24	\$117.75		\$2,826.00
Engineer-Principal (Report Review)(Hr.)	24	\$157.08		\$3,769.92
Estimated Materials Testing Total				<u>\$42,900.53</u>

EXHIBIT "C"
L&G ENGINEERING
CONSTRUCTION MATERIALS TESTING
LABORATORY RATES FOR FY 2014-2015

Soils Testing

		FY 2014	FY 2015
Moisture Content Determination	ASTM D2216 - Tex-103-E	\$10.40/Ea.	\$10.55/Ea.
Determination of Liquid Limit of Soils	Tex-104-E	\$52.37/Ea.	\$53.15/Ea.
Determination of Plastic Limit of Soils	Tex-105-E	\$52.58/Ea.	\$53.37/Ea.
Atterberg Limits of Soils	ASTM D 4318 - Tex-106-E	\$78.48/Ea.	\$79.66/Ea.
Bar Linear Shrinkage of Soils	Tex-107-E	\$65.49/Ea.	\$66.47/Ea.
Material Finer #200 Sieve	ASTM D 1140 -Tex-111-E	\$65.49/Ea.	\$66.47/Ea.
Lime Series Testing	Tex-112-E	\$529.04/Ea.	\$536.97/Ea.
Moisture-Density Relationship (TxDOT)	Tex-113-E / Tex-114-E	\$209.45/Ea.	\$212.59/Ea.
Standard Proctor	ASTM D 698	\$202.78/Ea.	\$205.82/Ea.
Modified Proctor	ASTM D 1557	\$209.36/Ea.	\$212.50/Ea.
Field Density Test (Nuclear)	ASTM D 2950 - Tex-115-E	\$23.56/Ea.	\$23.91/Ea.
Determination of Soil pH	Tex-128-E	\$85.12/Ea.	\$86.40/Ea.
Soil-Lime Testing	Tex-121-E	\$157.08/Ea.	\$159.44/Ea.
Resistivity of Soils	Tex-129-E	\$95.22/Ea.	\$96.65/Ea.
Sieve Analysis (Dry)(4 Sieves)	ASTM C 136 - Tex-200-F	\$58.85/Ea.	\$59.73/Ea.
Sieve Analysis (Washed)(4 Sieve)	ASTM C 136 - Tex-200-F	\$71.20/Ea.	\$72.27/Ea.
Sieve Analysis (Additional Sieves)	ASTM C 136 - Tex-200-F	\$13.11/Ea.	\$13.31/Ea.
Texas Wet Ball Mill (Base Material Quality)	Tex-116-E	\$229.11/Ea.	\$232.55/Ea.

Coarse & Fine Aggregate Quality Testing

Decantation Test (Conc. Aggr.)	ASTM C117 - Tex-406-A	\$45.81/Ea.	\$46.50/Ea.
Specific Gravity/Absorp. (Conc. Aggr)	ASTM C127 - Tex-403-A	\$71.91/Ea.	\$72.99/Ea.
5 Cycle Magnesium Soundness	ASTM C88 - Tex-411-A	\$556.21/Ea.	\$564.55/Ea.
SSD Unit Weight of Aggregates	ASTM C29 - Tex-404-A	\$65.49/Ea.	\$66.47/Ea.
Percent Voids/Solids in Conc. Aggr.	Tex-405-A	\$13.05/Ea.	\$13.25/Ea.
*(In Conjunction w/ SSD Unit Wt of Aggregates)			
Sand Equivalent	ASTM D 2419 - Tex-203-F	\$71.91/Ea.	\$72.99/Ea.
Specific Gravity / Absorption (Fine Aggr.)	ASTM C 128 - Tex -403-A	\$78.49/Ea.	\$79.67/Ea.
Organic Impurities in Fine Aggregate	ASTM C 87 - Tex -408-A	\$45.81/Ea.	\$46.50/Ea.
Fineness Modulus of Fine Aggregate	Tex-402-A	\$15.71/Ea.	\$15.95/Ea.
Acid Insoluble of Fine Aggregate	Tex-612-J	\$85.12/Ea.	\$86.40/Ea.

Concrete/Masonry Field & Laboratory Testing

Slump Test	ASTM C 143 - Tex-415-A	\$no charge	\$no charge
Air Content (Pressure Method)	ASTM C 138 - Tex-416-A	\$23.51/Ea.	\$23.86/Ea.
Air Content (Volumetric)	ASTM C 173	\$26.17/Ea.	\$26.56/Ea.
Casting of Concrete Cylinders	ASTM C 31	\$no charge	
Compressive Strength of Cyl. Specimen	ASTM C 39 - Tex-418-A	\$15.68/Ea.	\$15.92/Ea.
Cylindrical Specimen Prep./Hold/Cure	ASTM C 192	\$11.83/Ea.	\$12.00/Ea.
Casting of Grout Prisms	ASTM C 1019	\$no charge	
Grout Prism Prep./Cure/Compressive Strength	ASTM C 39	\$32.74/Ea.	\$33.23/Ea.
Casting of Mortar Cubes	ASTM C 780	\$no charge	
Mortar Cube Prep./Cure/Compressive Strength	ASTM C 109	\$32.00/Ea.	\$32.48/Ea.
Masonry Unit Prep. /Compressive Str. (Set of 3)	ASTM C 140	\$228.98/Ea.	\$232.41/Ea.
Masonry Unit SPG/Abs./Unit Wt. (Set of 3)	ASTM C 140	\$228.98/Ea.	\$232.41/Ea.

*(In Conjunction w/ Field Inspection)

Pavement Thickness / Asphalt Quality

		FY 2014	FY 2015
Coring – ACP Thickness	ASTM D 3549	\$65.49/Ea.	\$66.47/Ea.
Pavement Thickness Determination (Full Depth)	ASTM	\$87.14/Ea.	\$88.45/Ea.
Density of Asphaltic Cores (4 or 6 inch)	Tex-207-F	\$71.96/Ea.	\$73.04/Ea.
Extraction/Sieve Analysis/Asphalt Content	Tex-210-F / Tex-200-F	\$229.04/Ea.	\$232.48/Ea.
Asphalt Rolling Pattern (Nuclear Method)	Tex-207-F – Part IV	\$39.27/Ea.	\$39.86/Ea.
Eff. Of Water on Asphalt Mixtures (As Rec'd)	Tex-531-C	\$85.12/Ea.	\$86.40/Ea.

Pavement Investigation

	FY 2014	FY 2015
Cores Existing Asphalt for Thickness, Perform Caliche Base Thickness, Sieve Analysis and Plasticity Index, Stabilized Subgrade Thickness and Plasticity Index	\$490.72/Ea.	\$498.08/Ea.

L&G Engineering provides Technical and Engineering services at the rates listed below.

<u>Personnel:</u>		FY 2014	FY 2015
Engineer (Principal).....		\$157.08/Hr.	\$159.44/Hr.
Engineering Specialist.....		\$117.75/Hr.	\$119.52/Hr.
Technician (Soils).....		\$ 47.14/Hr.	\$47.85/Hr.
Technician (Concrete).....		\$ 60.18/Hr.	\$61.08/Hr.
Technician (Asphalt).....		\$ 60.18/Hr.	\$61.08/Hr.

Engineering Review, Evaluation, Management & Administration

	FY 2014	FY 2015
Test Report.....	\$ 23.24/Ea.	\$23.59/Ea.

The specific hourly rate within each classification listed above depends on the experience, training, and qualifications of the personnel. A two (2) hour minimum billing at the applicable rate will be assessed per visit to project site.

Services provided on Saturday, Sunday and all work in excess of "normal" work hours will be invoiced at an overtime rate 1.5 times the applicable rate for the work performed. The cost of services is based upon the assumption that services will be provided during "normal" working hours. Normal working hours are between 7:00 a.m. and 6:00 p.m., Monday through Friday.

<u>Expenses:</u>		FY 2014	FY 2015
Mileage.....		.52/Mi.	.53/Mi.

All other project specific, third-party costs will be charged at cost plus 10 percent. Invoices will be submitted monthly for work in progress in our standard format. They are due and payable upon receipt and become due 30 days after the billing date. Past due invoices may be subject to late charges at the rate of 1 ½ percent per month (18 percent per annum). In the event that the State of Texas legislates a sales tax on Professional Services, the amount of the tax will be added to the appropriate service rate charged. Our invoices are due and payable upon receipt at 2100 W. Expressway 83, Mercedes, Texas 78570.

^^Fees adjusted approximately 1.5% annually.