



#0075-02

Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183 800 Victoria Drive • Houston, Texas 77022-2908 • Tel: 713-699-4000 • Fax: 713-699-9200 • Website: www. geotech.eng

INVOICE

Page 1 of 3

Invoice Date: 10/20/2015 Invoice No: 15-10-000194

Client Address: Fort Bend County

Mr. Wesley Crawford County of Fort Bend 301 Jackson, Suite 400 Richmond, TX. 77469

Account No.: FBC Project No: 15-2011

Project Desc.: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend,

Richmond, Texas

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

	Unit Rate	Qty	Extension	
10700 - Technician	\$65.00	34.00	\$2,210.00	
10700-2 - Technician	\$65.00	12.00	\$780.00	
10700-2 - Technician - OT	\$97.50	2.91	\$283.73	
10700-2 - Technician OT	\$97.50	1.59	\$155.03	
10700-2 - Technician, OT	\$97.50	0.75	\$73.13	
10800 - Support Personnel (Drafting, Technical Typing)	\$46.00	3.50	\$161.00	
10800 - Support Personnel (Drafting, Technical Typing)	\$60.00	0.50	\$30.00	
10900 - Project Engineer Review	\$183.00	4.00	\$732.00	
11160 - Vehicle (Pick-up Truck) Charge	\$10.00	41.66	\$416.60	
11160 - Vehicle (Pick-up Truck) Charge	\$55.00	1.00	\$55.00	
90100 - Liquid and Plastic Limits (ASTM D 4318)	\$62.00	2.00	\$124.00	
90600 - Percent Passing # 200 Sieve (ASTM D 1140)	\$48.00	2.00	\$96.00	
92300 - OMD Standad Compaction	\$203.00	2.00	\$406.00	
92300 - OMD Standad Compaction, CSS	\$225.00	1.00	\$225.00	
92601 - Percent Solids in Lime Slurry	\$37.00	3.00	\$111.00	
94100 - Cement Sand Compressive Strength	\$71.00	4.00	\$284.00	
95100 - Nuclear Density Equipment Rental	\$10.50	14.75	\$154.88	
95100 - Nuclear Density Equipment Rental	\$45.00	1.00	\$45.00	
	Total for this Invoice:			

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

Report No.	Sampled	<u>Qty</u>	Billing Code	Unit Type	Unit Rate	<u>Extension</u>
33	09/22/2015	6.00	10700 - Technician	hour	\$65.00	\$390.00
33	09/22/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$60.00	\$30.00

REMIT TO:DAE & ASSOCIATES, LTD dba GEOTECH ENGINEERING AND TESTING **800 VICTORIA DRIVE** Houston, Texas 77022-2908

*Invoice is due on presentation





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183
800 Victoria Drive ● Houston, Texas 77022-2908 ● Tel: 713-699-4000 ● Fax: 713-699-9200 ● Website: www. geotech.eng

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Page 2 of 3

Invoice Date: 10/20/2015 Invoice No: 15-10-000194

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

Report No.	<u>Sampled</u>	Qty	Billing Code	<u>Unit Type</u>	<u>Unit Rate</u>	<u>Extension</u>
33	09/22/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
33	09/22/2015	6.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$60.00
33	09/22/2015	6.00	95100 - Nuclear Density Equipment Rental	per hour	\$10.50	\$63.00
			5	Report Number 3.	3 for a Subtotal of:	\$634.50
34	09/23/2015	8.00	10700 - Technician	hour	\$65.00	\$520.00
34	09/23/2015	0.75	10700-2 - Technician, OT	hour	\$97.50	\$73.13
34	09/23/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
34	09/23/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
34	09/23/2015	8.75	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$87.50
34	09/23/2015	1.00	92300 - OMD Standad Compaction, CSS	each	\$225.00	\$225.00
34	09/23/2015	4.00	94100 - Cement Sand Compressive Strength	each	\$71.00	\$284.00
34	09/23/2015	8.75	95100 - Nuclear Density Equipment Rental	hour	\$10.50	\$91.88
			5	Report Number 3	4 for a Subtotal of:	\$1,396.01
36	10/01/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36	10/01/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36	10/01/2015	0.50	10900 - Project Engineer Review	each	\$183.00	\$91.50
36	10/01/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
			R	Report Number 3	6 for a Subtotal of:	\$414.50
36A	10/14/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36A	10/14/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36A	10/14/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
36A	10/14/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
36A	10/14/2015	2.00	92601 - Percent Solids in Lime Slurry	each	\$37.00	\$74.00
			Re	port Number 36	A for a Subtotal of:	\$488.50
36B	10/15/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36B	10/15/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36B	10/15/2015	0.50	10900 - Project Engineer Revlew	hour	\$183.00	\$91.50
36B	10/15/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
			Re	port Number 36E	3 for a Subtotal of:	\$414.50

REMIT TO:DAE & ASSOCIATES, LTD

dba GEOTECH ENGINEERING AND TESTING
800 VICTORIA DRIVE

Houston, Texas 77022-2908

*Invoice is due on presentation





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Page 3 of 3

Invoice Date: 10/20/2015 Invoice No: 15-10-000194

Report No.	Sampled	Qty	Billing Code	Unit Type	Unit Rate	<u>Extension</u>
<i>37</i>	10/16/2015	4.00	10700 - Technician	hour	\$65.00	\$260.00
37	10/16/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
<i>37</i>	10/16/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
<i>37</i>	10/16/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
3 <i>7</i>	10/16/2015	1.00	92601 - Percent Solids in Lime Slurry	each	\$37.00	\$37.00
			Re	eport Number 3	7 for a Subtotal of:	\$451.50
38	10/19/2015	8.00	10700 - Technician	hour	\$65.00	\$520.00
38	10/19/2015	2.91	10700-2 - Technician - OT	hour	\$97.50	\$283.73
38	10/19/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
38	10/19/2015	0.50	10900 - Project Engineer Review	each	\$183.00	\$91.50
38	10/19/2015	10.91	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$109.10
38	10/19/2015	1.00	90100 - Liquid and Plastic Limits (ASTM D 4318)	each	\$62.00	\$62.00
38	10/19/2015	1.00	90600 - Percent Passing # 200 Sieve (ASTM each D 1140)		\$48.00	\$48.00
38	10/19/2015	1.00	92300 - OMD Standad Compaction	each	\$203.00	\$203.00
			Re	eport Number 3	8 for a Subtotal of:	\$1,340.33
38A	10/20/2015	8.00	10700 - Technician	hour	\$65.00	\$520.00
38A	10/20/2015	1.59	10700-2 - Technician OT	hour	\$97.50	\$155.03
38A	10/20/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
38A	10/20/2015	0.50	10900 - Project Engineer Review	each	\$183.00	\$91.50
38A	10/20/2015	1.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$55.00	\$55.00
38A	10/20/2015	1.00	90100 - Liquid and Plastic Limits (ASTM D 4318)	each	\$62.00	\$62,00
38A	10/20/2015	1.00	90600 - Percent Passing # 200 Sieve (ASTM D 1140)	each	\$48.00	\$48.00
38A	10/20/2015	1.00	92300 - OMD Standad Compaction	each	\$203.00	\$203.00
38A	10/20/2015	1.00	95100 - Nuclear Density Equipment Rental	per trip	\$45.00	\$45.00
			Rep	oort Number 38.	A for a Subtotal of:	\$1,202.53
				Tota	l for this Invoice	\$6 342 37

Total for this Invoice:

\$6,342.37





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INVOICE

Page 1 of 3

Invoice Date: 10/20/2015 Invoice No: 15-10-000128

Client Address: Schaumburg & Polk, Inc

Mark Dessens, Engineering Manager

11767 Katy Freeway

Suite 900

Houston, TX. 77079

Account No.: Schaumburg

Project No: 15-2011

Project Desc.: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and

Drainage Improvements, County of Fort Bend,

Richmond, Texas

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

	<u>Unit Rate</u>	<u>Qty</u>	<u>Extension</u>
10700 - Technician	\$65.00	34.00	\$2,210.00
10700-2 - Technician	\$65.00	12.00	\$780.00
10700-2 - Technician - OT	\$97.50	2.91	\$283.73
10700-2 - Technician OT	\$97.50	1.59	\$155.03
10700-2 - Technician, OT	\$97.50	0.75	\$73.13
10800 - Support Personnel (Drafting, Technical Typing)	\$46.00	3.50	\$161.00
10800 - Support Personnel (Drafting, Technical Typing)	\$60,00	0.50	\$30.00
10900 - Project Engineer Review	\$183.00	4.00	\$732.00
11160 - Vehicle (Pick-up Truck) Charge	\$10.00	41.66	\$416.60
11160 - Vehicle (Pick-up Truck) Charge	\$55.00	1.00	\$55.00
90100 - Liquid and Plastic Limits (ASTM D 4318)	\$62.00	2.00	\$124.00
90600 - Percent Passing # 200 Sieve (ASTM D 1140)	\$48.00	2.00	\$96.00
92300 - OMD Standad Compaction	\$203.00	2.00	\$406.00
92300 - OMD Standad Compaction, CSS	\$225.00	1.00	\$225.00
92601 - Percent Solids in Lime Slurry	\$37.00	3.00	\$111,00
94100 - Cement Sand Compressive Strength	\$71.00	4.00	\$284.00
95100 - Nuclear Density Equipment Rental	\$10.50	14.75	\$154.88
95100 - Nuclear Density Equipment Rental	\$45.00	1.00	\$45.00
	Total for	this Invoice:	\$6,342.37

Report No.	Sampled	<u>Qty</u>	Billing Code	<u>Unit Type</u>	Unit Rate	Extension
33 33	09/22/2015 09/22/2015	6.00 0.50	10700 - Technician 10800 - Support Personnel (Drafting, Technical Typing)	hour hour	\$65,00 \$60.00	\$390.00 \$30.00

REMIT TO:





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183
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INVOICE

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Invoice Date: 10/20/2015 Invoice No: 15-10-000128

Report No.	<u>Sampled</u>	<u>Qty</u>	Billing Code	<u>Unit Type</u>	<u>Unit Rate</u>	<u>Extension</u>
33	09/22/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
33	09/22/2015	6.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$60.00
33	09/22/2015	6.00	95100 - Nuclear Density Equipment Rental	per hour	\$10.50	\$63.00
			· ·	Report Number 3	3 for a Subtotal of:	\$634.50
34	09/23/2015	8.00	10700 - Technician	hour	\$65.00	\$520.00
34	09/23/2015	0.75	10700-2 - Technician, OT	hour	\$97.50	\$73.13
34	09/23/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
34	09/23/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
34	09/23/2015	8.75	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$87.50
34	09/23/2015	1.00	92300 - OMD Standad Compaction, CSS	each	\$225.00	\$225.00
34	09/23/2015	4.00	94100 - Cement Sand Compressive Strength	h each	\$71.00	\$284.00
34	09/23/2015	8.75	95100 - Nuclear Density Equipment Rental	hour	\$10.50	\$91.88
				Report Number 3	4 for a Subtotal of:	\$1,396.01
36	10/01/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36	10/01/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36	10/01/2015	0 .50	10900 - Project Engineer Review	each	\$183.00	\$91.50
36	10/01/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
				Report Number 3	6 for a Subtotal of:	\$414.50
36A	10/14/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36A	10/14/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36A	10/14/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
36A	10/14/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
36A	10/14/2015	2.00	92601 - Percent Solids in Lime Slurry	each	\$37.00	\$74.00
			R	eport Number 36	A for a Subtotal of:	\$488.50
36B	10/15/2015	4.00	10700-2 - Technician	hour	\$65.00	\$260.00
36B	10/15/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
36B	10/15/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
36B	10/15/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
			· R	eport Number 36	B for a Subtotal of:	\$414.50

REMIT TO:





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Invoice Date: 10/20/2015 Invoice No: 15-10-000128

Report No.	<u>Sampled</u>	<u>Qty</u>	Billing Code	Unit Type	Unit Rate	<u>Extension</u>
37	10/16/2015	4.00	10700 - Technician	hour	\$65.00	\$260.00
37	10/16/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
37	10/16/2015	0.50	10900 - Project Engineer Review	hour	\$183.00	\$91.50
37	10/16/2015	4.00	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$40.00
37	10/16/2015	1.00	92601 - Percent Solids in Lime Slurry	each	\$37.00	\$37.00
				eport Number 3	7 for a Subtotal of:	\$451.50
38	10/19/2015	8.00	10700 - Technician	hour	\$65.00	\$520.00
38	10/19/2015	2.91	10700-2 - Technician - OT	hour	\$97.50	\$283.73
38	10/19/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
38	10/19/2015	0.50	10900 - Project Engineer Review	each	\$183.00	\$91.50
38	10/19/2015	10.91	11160 - Vehicle (Pick-up Truck) Charge	hour	\$10.00	\$109.10
38	10/19/2015	1.00	90100 - Liquid and Plastic Limits (ASTM D 4318)	each	\$62.00	\$62.00
38	10/19/2015	1.00	90600 - Percent Passing # 200 Sieve (ASTM D 1140)	f each	\$48.00	\$48.00
38	10/19/2015	1.00	92300 - OMD Standad Compaction	each	\$203.00	\$203.00
			F	Report Number 3	88 for a Subtotal of:	\$1,340.33
38A	10/20/2015	8.00	10700 - Technician	hour	\$65.00	\$520,00
38A	10/20/2015	1.59	10700-2 - Technician OT	hour	\$97.50	\$155.03
38A	10/20/2015	0.50	10800 - Support Personnel (Drafting, Technical Typing)	hour	\$46.00	\$23.00
38A	10/20/2015	0.50	10900 - Project Engineer Review	each	\$183.00	\$91.50
38A	10/20/2015	1.00	11160 - Vehicle (Pick-up Truck) Charge	hour	<i>\$55.00</i>	\$55.00
38A	10/20/2015	1.00	90100 - Liquid and Plastic Limits (ASTM D 4318)	each	\$62.00	\$62.00
38A	10/20/2015	1.00	90600 - Percent Passing # 200 Sieve (ASTM D 1140)	A each	\$48.00	\$48.00
38A	10/20/2015	1.00	92300 - OMD Standad Compaction	each	\$203.00	\$203.00
38A	10/20/2015	1.00	95100 - Nuclear Density Equipment Rental	per trip	\$45.00	\$45.00
			Re	eport Number 38	BA for a Subtotal of:	\$1,202.53
				Tot	al for this Invoice:	\$6,342.37

REMIT TO:





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

800 Victoria Drive • Houston, Texas 77022-2908 • Tel: 713-699-4000 • Fax: 713-699-9200 • Website: www. geotech.eng

Report On: General Report

Work Order: 347

Project No: 15-2011

Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Client:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

09/22/2015

Report No:

33 Version 1

Test Date:

09/22/2015

Technician:

Darrell Hurd

Subject: Compaction Testing

A GET Technician was dispatched to the above referenced project site to conduct the following:

Compaction testing - Compaction tests were performed on Golfview Dr. A total of four (4) tests were performed.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop 1-cc Laboratory

Respectfully Submitted, Geotech Engineering & Testing





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

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Report On: Compaction Testing

Work Order: 347

Project No: 15-2011

Client: Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer: Kelly Kaluza & Associates

Page 1 of 2

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

09/22/2015

Report No:

33 Version 1 09/22/2015

Test Date: Technician:

Hurd, Darrell

Proctor No	Proctor Date	Optimum Moisture (%)	Maximum Dry Density (pcf)	Color / Description	
800		11.5	104.0		

Specification

Moisture Band

Specification No.	Compaction, %	Minimum	Maximum
1	95	9.5	13.5

ocation: Gulfview Dr 36" RCP

Test No.	Lift	Location	vvet Density (pcf)	Content (%)	Dry Density (pcf)	Proctor Number	Spec. No.	Proctor Density
1 Comme	Bed nts: Pass	Cross Sta 1+39 WB	113.0	11.1	101.7	800	1	97.8
Location	: Gulfview	/ Dr 34" RCP						

Test No.	Lift	Location	Wet Density (pcf)	Moisture Content (%)	Dry Density (pcf)	Proctor Number	Spec. No.	Percent Proctor Density
2	Bed	Cross Sta 4+39 WB	112.0	11.9	100.1	800	1	96.3
_	. (· ·						

Comments: Pass

Gauge Type: 5001

Gauge No. 4219

Daily Standard Counts: 09/22/2015

MS: 2830

DS: 413

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop)

1-cc Laboratory

Respectfully Submitted,

Geotech Engineering & Testing





#0075-02

Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

800 Victoria Drive • Houston, Texas 77022-2908 • Tel: 713-699-4000 • Fax: 713-699-9200 • Website: www. geotech.eng

Report On: Compaction Testing

Work Order: 347

Project No: 15-2011

Client: Schaumburg & Polk, Inc

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Kelly Kaluza & Associates

Page 2 of 2

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

09/22/2015

Report No:

33 Version 1

Test Date:

09/22/2015

Technician:

Hurd, Darrell

Test	Lift	Location	Wet Density (pcf)	Moisture Content (%)	Dry Density (pcf)	Proctor Number	Spec. No.	Percent Proctor Density
3	1	Cross Sta 1+39 WB	113.6	11.4	102.0	800	1	98.1
Comment	s: Pass							

Location: Gulfview Dr 34" RCP

Location: Gulfview Dr 36" RCP

			vvet	Moisture	Dry			Percent
Test			Density	Content	Density	Proctor	Spec.	Proctor
No.	Lift	Location	(pcf)	(%)	(pcf)	Number	No.	Density
4	1	Cross Sta 4+39 WB	113.1	11.3	101.6	800	1	97.7

Comments: Pass

Gauge Type: 5001

MS: 2830 DS: 413 Gauge No. 4219 Daily Standard Counts: 09/22/2015

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

800 Victoria Drive • Houston, Texas 77022-2908 • Tel: 713-699-4000 • Fax: 713-699-9200 • Website: www. geotech.eng

Work Order: 560

Report On: General Report

Project No: 15-2011

Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Client:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

12/03/2015

Report No:

34 Version 2

Test Date: Technician: 09/23/2015 Darrell Hurd

Subject: Compaction Testing

A GET Technician was dispatched to the above referenced project site to conduct the following:

- Compaction Testing Compaction tests were performed on Golfview Dr. Sta 5+50. A total of 2 tests were performed.
- Sample pick up A sample of CSS was picked up for laboratory testing to evaluate the Proctor values and compressive strength.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop 1-ec Kelly Kaluza & Associates Attn: Mr. Troy Burditt 1-ec Fort Bend County Attn: Mr. Wesley Crawford 1-ec City of Richmond Attn: Mr. Jim Whitehead 1-cc Laboratory

Respectfully Submitted, Geotech Engineering & Testing





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183
800 Victoria Drive ● Houston, Texas 77022-2908 ● Tel: 713-699-4000 ● Fax: 713-699-9200 ● Website: www. geotech.eng

Report On: Compaction Testing

Work Order: 560

Project No: 15-2011

Client: Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

12/03/2015

Report No:

34 Version 2

Test Date:

09/23/2015

Technician:

Hurd, Darrell

Proctor No	Proctor Date	Optimum Moisture (%)	Maximum Dry Density (pcf)	Color / Description	
800		11.5	104.0	CSS	

Specification

Moisture Band

Specification No.	Compaction, %	Minimum	Maximum
1	95	9.5	13.5

		- 15 1	
	acation.	Golfview	I iruza
•	1 11 2 2 1 1 1 1 1	CACHINICAN	DIIVE

Test No.	Lift	Location	Wet Density (pcf)	Moisture Content (%)	Dry Density (pcf)	Proctor Number	Spec. No.	Percent Proctor Density
1	Bed	18" RCP Sta 5+50	118.9	13.8	104.5	800	1	100.5
Commen 2	its: Pass 1	18" RCP Sta 5+50	118.0	13.6	103.9	800	1	99.9

Comments: Pass

Gauge Type: 5001

Gauge No. 4219

Daily Standard Counts: 09/23/2015

MS: 2867

DS: 433

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop

1-ec Kelly Kaluza & Associates Attn: Mr. Troy Burditt

1-ec Fort Bend County Attn: Mr. Wesley Crawford

1-ec City of Richmond Attn: Mr. Jim Whitehead

1-cc Laboratory

Respectfully Submitted,
Geotech Engineering & Testing





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Report On: General Report

Work Order: 708

Project No: 15-2011

Schaumburg & Polk, Inc Client:

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/01/2015

Report No:

36 Version 1 10/01/2015

Test Date: Technician:

Mehran Kordavi

Subject: Proof roll

A GET Technician was dispatched to the above referenced project site to conduct the following:

Other testing/observation - Proofrolling was conducted on left side of pavement on Golfview Drive from Station 12+00 to 18+31. A loaded dump truck was used for the proofroll. Generally, the area proofrolled appeared stable and was approved with the exception of 3'x35' area located at Sta 13+00 that was pumping. It was recommended that this area be fixed to obtain a stable platform.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory

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Report On: General Report

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Project No: 15-2011

Client: Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer: Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/14/2015

Report No:

36A Version 1

Work Order: 1298

Test Date:

10/14/2015

Technician:

Jeff Adelagun

A GET Technician was dispatched to the above referenced project site to conduct the following:

Sample pick up - A sample of lime slurry was picked up for laboratory testing to evaluate the percent solids of the slurry. The samples obtained were:

Sample No:	Location:	Description:
1211	Sta 20+80	Lime Slurry
1212	Sta 22+70	Lime Slurry

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory

Respectfully Submitted, Geotech Engineering & Testing





Geotechnical • Environmental • Construction Materials • Forensic Engineering (Firm PE # F-1183) 800 Victoria Drive•Houston, Texas 77022-2908 • Tel.: 713-699-4000 • Fax: 713-699-9200 • Website: www.geotecheng.com.

LIME SLURRY PERCENT SOLIDS REPORT

Project: Golfview Phase 2 Road Const.

Date: 10/14/2015

Job No.: 15-2011

Client: Fort Bend County

Report No.: 36A

Technician: HS

Attention: Mr. Mark Dressen, P.E.

Weather: Fair

General Location: Harrisburg Blvd

Sample No.	Location	Tare Tare(gm)	Wet Weight	Dry Weight	% Solid
1211	Golfview Blvd Sta 20+80	115.4	728.8	377.5	39.8
1212	GolfviewBlvd Sta 22+70	111.2	711.1	376.4	40.1

Note: The sample tested met the minimum 35% requirement for Type B lime slurry

GEOTECH ENGINEERING AND TESTING

Andrie Fruel, P.E.

Engineering Manager

CME Form No. 237; Last Revision: 10-00 F::winapps\cnewword\cmtforms\limeslurry %solids





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800 Victoria Drive ● Houston, Texas 77022-2908 ● Tel: 713-699-4000 ● Fax: 713-699-9200 ● Website: www. geotech.eng Work Order: 1302

Report On: General Report

Project No: 15-2011

Client: Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/15/2015

Report No:

36B Version 1

Test Date:

10/15/2015

Technician:

Jeff Adelagun

Subject: Proofroll Observation

A GET Technician was dispatched to the above referenced project site to conduct the following:

Proofroll Observation:

Using a loaded dump truck, a proofroll was observed along Golfview Drive from Sta. 7+53 to 11+40. Field observations revealed that the area proofrolled is stable and was deemed acceptable.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory

Respectfully Submitted, Geotech Engineering & Testing





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

Report On: General Report

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Project No: 15-2011

Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Client:

Engineer: Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/16/2015

Report No:

37 Version 1 10/16/2015

Work Order: 1095

Test Date: Technician:

Bayat, Mansour

Subject: Sample Pick Up

A GET Technician was dispatched to the above referenced project site to conduct the following:

Sample pick up - A sample of lime slurry was picked up for laboratory testing to evaluate the % solid.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop-1-cc Laboratory

Respectfully Submitted, Geotech Engineering & Testing





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Report On: General Report

Work Order: 1141

Project No: 15-2011

Client: Schaumburg & Polk, Inc.

> Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Engineer:

Kelly Kaluza & Associates

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/19/2015

Report No:

38 Version 1

Test Date:

10/19/2015

Technician:

Darrell Hurd

Subject: Sample pick up / Gradation

A GET Technician was dispatched to the above referenced project site to conduct the following:

Sample pick up - A sample of soil with lime was picked up for laboratory testing to evaluate Proctor values. The sample obtained was:

Sample No:

Location:

Description:

1227

Golfview Drive Sta: 23+20 Brown/Tan SC w/ lime

Other testing/observation - Field gradation was performed for lime stabilized subgrade soils.

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory



Geotech engineering and testing



Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering (Firm PE # F-1183) 800 Victoria Drive, Houston, Texas, 77022-2908 Tel.: 713-699-4000 Fax: 713-699-4000 Website: www.geotecheng.com.

LIME STABILIZED SUBGRADE FIELD SIEVE GRADATION ANALYSIS REPORT

Project:

Proposed Golfview Drive-Phase 2

Richmond, Texas

Job No.: 15-2011

Client:

County of Fort Bend c/o Schaumburg & Polk, Inc.

Report No.:

Field Grada

11767 Katy Freeway, Suite 900

Page:

Date:

1 of 1

10/19/2015

Attention:

Mr. Mark Dessens, P.E.

Houston, TX. 77079

Technician:

DH

Weather:

Fair

General Locations:

Golfview Blvd

15/	Locations	% Passing 1 3/4"	% Passing 3/4"	% Passing No. 4
and from	Sta. 23+20	100	88	71

Requirements: 100% passing 1 3/4 sieve

85% passing 3/4" sieve 60% passing #4 sieve

Result: pass

GEOTECH ENGINEERING AND TESTING

Andrie Fruel, P.E.

Project Manager





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

Report On: General Report

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Project No: 15-2011

Client:

Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/20/2015

Report No:

38A Version 1 10/20/2015

Work Order: 1192

Test Date: Technician:

Hurd, Darrell

Subject: Compaction Testing / Sample Pick Up

A GET Technician was dispatched to the above referenced project site to conduct the following:

Compaction testing - Compaction tests were performed on Golfview Dr Station 23+50. One test was performed.

Sample pick up - A sample of soil mixed with lime was picked up for laboratory testing to evaluate the Proctor values. The sample obtained was:

Sample No:

Location:

Description:

1235

Station 23+20

Brown Tan Gray SC w/Lime

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc cop) 1-cc Laboratory





Geotechnical ● Environmental ● Construction Materials ● Forensic Engineering ● Firm PE #F-1183

Report On: Compaction Testing

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Work Order: 1192

Project No: 15-2011

Client:

Schaumburg & Polk, Inc.

Mark Dessens Mr. 11767 Katy Freeway

Suite 900

Houston, TX 77079

Page 1 of 1

Project: Golfview Drive (Mobility Project No. 709)

Regional Drainage Facility, Phase 2, Paving and Drainage Improvements, County of Fort Bend, Richmond, Texas

Report Date:

10/20/2015

Report No:

38A Version 1

Test Date:

10/20/2015

Technician:

Hurd, Darrell

Proctor No.	Proctor Date	Optimum Moisture (%)	Maximum Dry Density (pcf)	Color / Description	
1235	10/22/2015	14.5	115.0	Brown Tan Sandy Clay with Lime	

Specification

Moisture Band

Specification No.	Compaction, %	Minimum	Maximum
1	95	14.5	115.0

Location: Golfview Phase 2

Test			Wet Density	Moisture Content	Dry Density	Proctor	Spec.	Percent Proctor
No.	Lift	Location	(pcf)	(%)	(pcf)	Number	Йo.	Density
1	Sub	Station 23+50	130.6	15.1	113.5	1235	1	98.7

Comments: Pass

Gauge Type: 5001

Gauge No. 4219

Daily Standard Counts: 10/20/2015

MS: 2827

DS: 441

Orig: Schaumburg & Polk, Inc (Houston, TX) Attn: Mark Dessens Mr. (1-cc copy 1-cc Laboratory