



July 12, 2017

Mr. Craig Light, PE  
Chief Engineer  
City of Jonesboro  
300 South Church  
Jonesboro, AR 72401

**Re: Professional Services related to Proposed Improvements for Lacy Park Access Road from Dan Avenue (SR 91) south to the City Property Line Jonesboro, Arkansas**

Mr. Light:

Pickering Firm, Inc., herein known as Pickering (the "Consultant"), is pleased to submit this Scope of Work and Fee Proposal to the City of Jonesboro, herein known as the City (the "Client"), for providing Professional Engineering services for the development of the referenced project. The project is more specifically defined as the design of a new access road from Dan Avenue (SR 91) south to the City owned property. Improvements will typically consist of a two lane roadway with sidewalks on both sides, and proposed signal modifications. Final design shall be based on a \$300,000 maximum budget based on state weighted unit averages. Our scope of services, schedule, and fee are shown below.

## **SCOPE OF SERVICES**

### ***Task A – Topo Surveys***

1. All topography and cross-sections will be obtained using ground, not aerial, mapping methods. Locations, topography, and cross-sections will be performed along project corridor and all adjoining roadways within the project limits. Surveys along the mainline will be a width of 50 feet on each side of the existing centerline, for a total width of 100 feet.
2. The existing right-of-way will be determined on existing side roads (Dan Avenue) and the 60' right-of-way for the proposed road construction will be verified.
3. One Call will be contacted for field locations of underground utilities. These locations will be field located and shown on our plans. Arkansas One Call fees are included in the fees shown.

### ***Task B - Geotechnical Investigation***

1. A geotechnical investigation will be performed for the roadway in general accordance with AHTD standard practices. The geotechnical information gathered will be used for design recommendations such as pavement design and areas that may require undercut and select backfill.

### ***Task C - Roadway Designs***

1. Pickering will prepare construction plans in accordance with City standards and design guidelines.
2. The access road will generally consist of a two (2) lane section with 5' sidewalks on both sides. Additional turn lanes at the existing intersection of Dan Avenue will be required. The total distance of the section is approximately 0.12 miles.

No improvements are proposed to existing Dan Avenue. The new access road will tie to the existing conditions.

3. Roadway plans will include some or all of the following sheets: title, index, standard drawings, estimated roadway quantities, typical sections, general notes, special notes, details, standard plan and profile sheets, culvert sections, EPSC, traffic control, signing and pavement marking, roadway cross sections, and storm water pollution prevention plan (SWPPP) if required. A separate set of signal modification plans will be produced for bidding purposes.
4. All designs, plans, details and specifications for relocations of any utility or the addition of new utilities (other than street lighting) will be prepared by the utility owner or negotiated as additional services.

### ***Task D – Signal Modification Design***

1. Currently the Arkansas State Highway and Transportation Department (AHTD) has a project to install a RR Signal Upgrade and Traffic Signal located at the intersection of Henson Road and Dan Avenue. This project is scheduled for letting in June 2017 which is prior to the construction of the entrance drive to the park. Using the plans produced by the AHTD which will be furnished electronically, Pickering will produce a standalone set of construction plans and specifications for the signal modifications required to accommodate the new park access road.
2. An as-built survey will not be done when work on the signal project is completed. Features shown on the plans will be considered as as-built conditions for the purposes of the modification design.
3. The signal design will be in accordance with AHTD standards. Signal will be designed to comply with the AHTD and the City of Jonesboro specifications as required.

### ***Task E - Bid Phase***

1. Pickering will print plans for project review meetings and approvals. Printing of plans and specification for bidding purposes is not included and will be considered a reimbursable.
2. Bid phase services are not included.

### ***Task F - Construction Phase***

1. Construction phase services are not included.

## **OPTIONAL SERVICES**

If the City requires services beyond what is provided in the scope of services listed above, said services can be performed based upon a negotiated lump sum fee agreed to by both of us. Additional services will only be performed after written authorization is received.

## **PROPOSED PROJECT SCHEDULE**

It is our understanding that the City would like to have a construction contract in place to begin construction on this project in early 2018. To facilitate that schedule, Pickering will submit final construction documents by January 31, 2018.

## **FAILURE TO COMPLETE WORK ON TIME**

Time is an essential element of the Agreement and it is important that the work be pressed vigorously to completion in accordance with the proposed project schedule. The cost to the Owner (City of Jonesboro) of the administration of this Agreement will be increased as the time occupied in the work is lengthened. Loss will accrue to the public due to delayed completion of the design and construction documents.

This being the case the Owner reserves the right to withhold payment from the Consultant for failure to perform services in a timely manner as per the mutually agreed upon schedule for factors within the Consultant's control. Payment will be withheld from the Consultant until the Owner is satisfied that the Consultant is progressing towards meeting the agreed upon schedule or upon completion of the project.

The Owner and consultant are aware that many factors outside the Consultant's control may affect the Consultant's ability to complete the services to be provided under this Agreement. The Consultant will perform these services with reasonable diligence and expediency consistent with sound professional practices.

If the Consultant becomes aware of delays due to time allowances for review and approval being exceeded, delay by the Owner, the Owner's consultants, reviews by governing agencies, or any other cause beyond the control of the Consultant, which will result in the schedule for performance of the Consultant's not being met, the Consultant shall promptly notify the Owner. If the Owner becomes aware of delays or other caused that will affect the Consultant's schedule, the Owner shall promptly notify the Consultant. In either event, the Consultant's schedule for performance of its services shall be equitably adjusted.

## **SUMMARY OF PROJECT FEES (TITLE I)**

Design (Labor, Overhead, and Fee)	\$22,542.73
Direct Expenses	
Miscellaneous Expense	\$ 494.50
Ridge Surveying	\$ 1,900.00
Geotechnology, Inc.	\$ 4,803.20
Subtotal Direct Costs	<u>\$ 7,197.70</u>

**Total Title I (Not to Exceed)**

**\$29,740.43**

See Appendix A for a detailed scope and man-hour estimates for each of the required tasks.

**TERMS AND CONDITIONS**

The obligation to provide further services under this Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of termination, Pickering Firm, Inc. will be paid for services rendered to the date of termination.

The fees shown in this proposal are based on the Owner agreeing to limit the Professional's liability for all planning, engineering and analytical services to the Owner due to the Professional's negligent acts, errors, or omissions, such that the total aggregate liability of the Professional to all those named shall not exceed the Professional's total fee for services rendered on this project.

This proposal represents the entire understanding between you and us in respect to the "Project" and may only be modified in writing signed by both of us. If it satisfactorily sets for your understanding of the arrangement between us, please sign the acceptance of this proposed Letter Agreement in the space provided below and return it to us.

Please advise if further information is desired.

Sincerely,

**PICKERING FIRM INCORPORATED**



Michael L. Foster, P.E.  
Project Manager

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_

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**Justification of Fees and Costs  
and  
Scope of Work  
FOR  
Lacy Park Access Road  
City of Jonesboro, Arkansas**

12-Jul-17

## Appendix A

### Lacy Park Access Road City of Jonesboro, Arkansas

#### TITLE I

Plans Total Labor, Overhead, and Fee	\$ 22,542.73
Direct Expenses	\$7,197.70
Grand Total TITLE I	\$ 29,740.43

#### TITLE II

Plans Total Labor, Overhead, and Fee	Not Included
Direct Expenses	Not Included
Grand Total TITLE II	Not Included

**Appendix A**  
**Justification of Fees and Costs**  
**Lacy Park Access Road**  
**City of Jonesboro, Arkansas**  
**TITLE I**

	Estimated Hours							Total Hours
	Principal	Project Manager	Senior Engineer	Engineer	Senior Designer	Engineer Intern	Clerical	
<b>Plan Preparation</b>								
<b>Roadway Design</b>								
1. Project Administration	2	4						6
2. Perform Site Visit to Verify Survey			4			2		6
3. Title Sheet				1		2		3
4. Typical Sections			2		8			10
5. Index, General Notes, Standard Drawings				2	2	8		12
6. Horizontal Alignment			1			2		3
7. Vertical Alignment			1			4		5
8. Summary of Quantities			2		4			6
9. Plan & Profile Sheets (1 Sheets)			1		2	4		7
10. Drainage Design			2	4				6
11. Utility Coordination				4				4
12. Maintenance of Traffic Plans			1			4		5
13. Permanent Pavement Markings and Signs			1			2		3
14. EPSC Plans			1			4		5
15. Cross Sections			1			4		5
16. Permits (SWPPP, STAA, ACOE, etc.)				2				2
17. QA/QC		2	2					4
18. Plan Review Meetings			4	4				8
19. Address Comments from Review Meetings			1			4		5
20. Prepare Bid Book			4				12	16
<b>Signal Modification Design</b>								
1. Project Administration	1	2						3
2. Title Sheet				1		2		3
3. Index of Sheets				2	2	4		8
4. Summary of Quantities & Revisions			1	2	4			7
5. Maintenance of Traffic Plans			1			4		5
6. Permanent Pavement Markings and Signs			1	2		4		7
7. Traffic Signal Quantities			1	2	4			7
8. Traffic Signal Notes			1			2		3
9. System Map			1			2		3
10. Signalization Plan Sheets			1	2		4		7
11. Standard Drawings			1			2		
12. Plan Review Meetings			4	4				8
13. Address Comments from Review Meetings			1			4		5
14. QA/QC		2	2					4
<b>Totals</b>	<b>3</b>	<b>10</b>	<b>43</b>	<b>32</b>	<b>26</b>	<b>68</b>	<b>12</b>	<b>191</b>

**Labor Rates**

\$	62.00	\$	50.00	\$	48.00	\$	42.00	\$	35.00	\$	30.00	\$	17.00
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Labor Cost \$ 186.00 \$ 500.00 \$ 2,064.00 \$ 1,344.00 \$ 910.00 \$ 2,040.00 \$ 204.00 \$ **7,248.00**

Overhead % 177.50% \$ **12,865.20**

Total Labor and Overhead \$ **20,113.20**

Fixed Fee % 12.00% \$ **2,413.58**

FCCM Overhead 0.22% \$ **15.95**

Total Labor, Overhead, and Fee: \$ **22,542.73**

<b>Direct Costs:</b>	Qty.	Unit Price	
Mileage	700	\$ 0.535	\$374.50
Meals	0	\$ 41.00	\$0.00
Lodging	0	\$ 96.00	\$0.00
Postage	0	\$ 100.00	\$0.00
Reproductions: 8 1/2" x 11"	50	\$ 0.10	\$5.00
Reproductions: 11" x 17"	100	\$ 0.15	\$15.00
Reproductions: Full Size	50	\$ 2.00	\$100.00
Ridge Surveying	1	\$ 1,900.00	\$1,900.00
Geotechnlogy, Inc.	1	\$ 4,803.20	\$4,803.20

Total Direct Costs: \$ **7,197.70**

**Project Total \$ 29,740.43**



311 South Church Suite H  
Jonesboro, Arkansas  
May 3, 2017

Pickering Engineering, Michael Foster, Jonesboro, AR  
RE: Proposal for Surveying Services-Intersection of Dan Ave & Henson Rd.

Thank you for the opportunity to offer you our Professional Surveying Services. Ridge Surveying & Consulting PLLC will perform the following scope of work for a fee of **\$1400.00**. (Estimated Arkansas One Call, not to exceed \$500.00. Not included in our \$1400.00 fee)

- Verify & Establish Site Survey Control.
- Research for project.
- Boundary Ties as needed to determine Right of Way.
- Topo data as discussed.
- Any Easements or Plats as needed for this project.
- Cad drawing with points and line work, as discussed.
- Professional Surveyor Computations & Calculations.
- Professional Surveyor Supervision.

Please note that we anticipate being able to complete this task as outlined above in approximately 15 working days from the time we have received a notice to proceed (depending on weather). If you find this proposal acceptable, please sign & return this document via email.

Name:

Date:

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*DIVISION OF MATERIALS AND TESTS  
GEOTECHNICAL ENGINEERING SECTION*

*GEOTECHNICAL SERVICES*

*MANHOUR REQUIREMENTS AND COST ESTIMATE*

**CRAIGHEAD**

**LACY PARK ACCESS ROAD**

**INTERSECTION IMPROVEMENT**

***GEOTECHNOLOGY, INC.***

Prepared By: ASHRAF ELSAYED, PH.D., P.E.

Date prepared: 5/4/2017

Federal Project No. N/A

State Project No. N/A

Geotechnical Office No. N/A

Pin No. N/A

Contract No, Work Order No. N/A

[<Invoice Number>](#)

ASHRAF ELSAYED, PH.D., P.E.

5501 Kreuger Drive, Suite 110

Jonesboro, AR 72401

<CONTACT ADDRESS>

901-353-1981

[a\\_elsayed@geotechnology.com](mailto:a_elsayed@geotechnology.com)

Section III  
Standard Cost Estimate For Soil And Geological Survey Report  
**1.00 Drilling Services**

County: CRAIGHEAD  
Route: LACY PARK ACCESS ROAD  
Description: N/A  
Project No.: N/A  
Geotechnical Office No.: N/A  
Consultant: GEOTECHNOLOGY, INC.  
Prepared By: ASHRAF ELSAYED, PH.D., P.E.  
Date Prepared: 5/4/2017  
Contract Number: N/A

For further explanation of Item No. and Description refer to attached "Pay Item Numbers and Methods of Measurement for Cost Estimates".

Item No.	Description	Estimated Quantities	Basis of Payment		Price	Amount
1.01	Mobilization	1	each	@	\$1,200.00	\$1,200.00
1.06	Soil Drilling and Split Barrel Type Sampling on Land	20	vertical foot	@	\$18.50	\$370.00
1.07	Soil Drilling and Thin Wall Tube Type Sampling on Land	1	vertical foot	@	\$70.00	\$70.00
1.09 <sup>a</sup>	Traffic Control		Day	@	\$1,900.00	\$0.00
1.10	Pav. Patching and Site Restoration		each	@	\$75.00	\$0.00
1.13	Pavement Coring		per each	@	\$250.00	\$0.00
<b>Total Estimated Drilling Costs</b>						<b>\$1,640.00</b>

a: Direct Cost

# Section III

## Standard Cost Estimate for Soil and Geological Survey Report

### 2.00 Laboratory Services

County: CRAIGHEAD  
Route: LACY PARK ACCESS ROAD  
Description: N/A  
Project No.: N/A  
Geotechnical Office No.: N/A  
Consultant: GEOTECHNOLOGY, INC.  
Prepared By: ASHRAF ELSAYED, PH.D., P.E.  
Date Prepared: 5/4/2017  
Contract Number: N/A

For further explanation of Item No. and Description refer to attached "Pay Item Numbers and Methods of Measurement for Cost Estimates".

Item No.	Description	Estimated Quantities	Basis of Payment		Rate	Amount
2.01	Atterberg Limits	2	each	@	\$71.00	\$142.00
2.02	Natural Moisture Content	8	each	@	\$7.00	\$56.00
2.03	Particle Size Analysis	1	each	@	\$85.00	\$85.00
2.05	Proctor Density Test	1	each	@	\$180.00	\$180.00
2.06	California Bearing Ratio (per point)	2	each	@	\$150.00	\$300.00
2.10	Triaxial Compression UU	0	strength properties	@	\$369.19	\$0.00
2.12	Unconfined Compression	0	per test	@	\$75.00	\$0.00
2.63	CD Direct Shear	0	strength properties	@	\$493.31	\$0.00
<b>Total Estimated Laboratory Services Cost:</b>						<b>\$763.00</b>

Section III  
Standard Cost Estimate for Soil and Geological Survey Report

**3.00 Manpower Requirements**

County: CRAIGHEAD  
Route: LACY PARK ACCESS ROAD  
Description: N/A  
Project No.: N/A  
Geotechnical Office No.: N/A  
Consultant: GEOTECHNOLOGY, INC.  
Prepared By: ASHRAF ELSAYED, PH.D., P.E.  
Date Prepared: 5/4/2017  
Contract Number: N/A

See "Pay Item Numbers and Methods of Measurement for Cost Estimates" for further description of services required by state.

Item No.	ACTIVITY	PRINCIPAL	SENIOR ENGINEER	STAFF ENGINEER	SENIOR GEOLOGIST	STAFF ENGINEER	SUPERVISIN G DRILLER	STAFF CADD TECHNICIAN	STAFF ENGINEER
		MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR
3.10	Project Planning and Coordination				1.0		1.0		
3.20	Field Activities								6.0
3.30	Data Assimilation			1.0					
3.40	Flexible Pavement Design			3.0					
3.50	Final Report Preparation	1.0		8.0				2.0	
3.70	Design-Phase and Post-Design Support	1.0							
Total Estimated Hours		2.0		12.0	1.0		1.0	2.0	6.0
Hourley Wages		\$57.53	\$38.12	\$26.10	\$32.60	\$24.25	\$38.36	\$25.10	\$21.50
Subtotal		\$ 115.06	\$ -	\$ 313.20	\$ 32.60	\$ -	\$ 38.36	\$ 50.20	\$ 129.00
Overhead 205.96%		\$ 236.98	\$ -	\$ 645.07	\$ 67.14	\$ -	\$ 79.01	\$103.39	\$ 265.69
Subtotal		\$ 352.04	\$ -	\$ 958.27	\$ 99.74	\$ -	\$ 117.37	\$153.59	\$ 394.69
Fees		\$ 42.24	\$ -	\$ 114.99	\$ 11.97	\$ -	\$ 14.08	\$ 18.43	\$ 47.36
FCCM 0.84%		\$ 0.97	\$ -	\$ 2.63	\$ 0.27	\$ -	\$ 0.32	\$ 0.42	\$ 1.08
Subtotal of Estimated Man-hour Costs		\$ 395.25	\$ -	\$ 1,075.89	\$ 111.99	\$ -	\$ 131.77	\$172.44	\$ 443.13

<b>Total Estimate of Man-hour Requirements:</b>	<b>\$2,330.48</b>
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Section III  
Standard Cost Estimate for Soil and Geological Survey Report  
**3.00 Manpower Requirements, Hourly Rate Breakdown**

County: CRAIGHEAD  
Route: LACY PARK ACCESS ROAD  
Description: N/A  
Project No.: N/A  
Geotechnical Office No.: N/A  
Consultant: GEOTECHNOLOGY, INC.  
Prepared By: ASHRAF ELSAYED, PH.D., P.E.  
Date Prepared: 5/4/2017  
Contract Number: N/A

		PRINCIPAL	SENIOR ENGINEER	STAFF ENGINEER	SENIOR GEOLOGIST	STAFF ENGINEER	SUPERVISING DRILLER	STAFF CADD TECHNICIAN	STAFF ENGINEER
		MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR	MAN-HOUR
Hourly Rate Breakdown									
	Direct Pay Rate	\$57.53	\$38.12	\$25.89	\$32.00	\$25.89	\$39.35	\$26.25	\$21.50
	Pay Range	\$55-\$60	\$38-\$42	\$23-\$28	\$29-\$34	\$24-\$28	\$37-\$42	\$23-\$29	\$19-\$23
	Overhead	105.96	105.96	105.96	105.96	105.96	105.96	105.96	205.96
	FCCM	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84

# Section III

## Standard Cost Estimate for Soil and Geological Survey Report

### 4.0 Other Expenses

County: CRAIGHEAD

Project No.: N/A

Route: LACY PARK ACCESS ROAD

Geotechnical Office No.: N/A

Description: N/A

Contract No: N/A

Prepared By: ASHRAF ELSAYED, PH.D., P.E.

Consultant: GEOTECHNOLOGY, INC.

Date Prepared: 5/4/2017

Distance to Jobsite:

Company Headquarters: <CITY,STATE>	Job Site: <CITY,STATE>
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Travel Expenses				
Item No.	Description	Days	Rate*	Total
4.10	Travel Expenses		\$34.50	\$0.00
4.12	Lodging		\$83.00	\$0.00

\*Must be in accordance with applicable AHTD Travel Regulations

Milage\Transportation Expenses				
Item No.	Description	Miles	Milage Rate*	Total
4.20	Passenger Truck	166	\$0.42	\$69.72

\*Must be in accordance with applicable AHTD Travel Regulations

Equipment Rental				
Item No.	Description	Days	Daily Rate	Total

Plans Reproduction Costs				
Item No.	Description	Units	Unit Price	Total
4.43	Photocopies		\$0.47	\$0.00

Other Expenses				
Item No.	Description	Units	Unit Rate	Total

<b>Total Estimate of Other Expenses:</b>	<b>\$69.72</b>
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Section III  
Standard Cost Estimate for Soil and Geological Survey Report  
**SUMMARY OF COST ESTIMATES**

County: CRAIGHEAD  
Route: LACY PARK ACCESS ROAD  
Description: N/A  
Project No.: N/A  
Geotechnical Office No.: N/A  
Consultant: GEOTECHNOLOGY, INC.  
Prepared By: ASHRAF ELSAYED, PH.D., P.E.  
Date Prepared: 5/4/2017

1.00 Drilling Services	\$1,640.00
2.00 Laboratory Services	\$763.00
3.00 Manpower Requirements	\$2,330.48
4.00 Other Expenses	\$69.72
Total Not-to-Exceed Costs	\$4,803.20