

STATE OF TEXAS §
 §
 COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

THIS AGREEMENT is made and entered into by and between Fort Bend County, (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and BGE, Inc., (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide professional engineering services for the proposed improvements to Lexington Boulevard under 2020 Mobility Bond Project No. 20405 (hereinafter "Services") pursuant to SOQ 14-025; and

WHEREAS, County has determined Contractor is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Contractor have negotiated to reach a fair and reasonable amount of compensation for the provision of such Services, as required under Chapter 2254 of the Texas Government Code; and

WHEREAS, Contractor represents that it is qualified and desires to perform such services.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

AGREEMENT

Section 1. Scope of Services

Contractor shall render the professional engineering services as described in Contractor's proposal dated May 28, 2021, attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

2.1 Contractor represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that Contractor shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Scope of Services when and as required and without delays.

2.2 All employees of Contractor shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Contractor who, in the opinion of County, is incompetent or by his conduct becomes detrimental to the project shall, upon request of County, immediately be removed from association with the project.

Agreement for Professional Engineering Services
 2020 Mobility Bond Program – Project No. 20405

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Section 3. Compensation and Payment

3.1 Contractor's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is six hundred eighty-two thousand eighty-five dollars and 92/100 (\$682,085.92) as set forth in Exhibit A. In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without a written agreement executed by the parties.

3.2 All performance of the Scope of Services by Contractor including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

3.3 County will pay Contractor based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Contractor shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. County shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.

Section 4. Limit of Appropriation

4.1 Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of six hundred eighty-two thousand eighty-five dollars and 92/100 (\$682,085.92) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed six hundred eighty-two thousand eighty-five dollars and 92/100 (\$682,085.92).

Section 5. Time of Performance

Time for performance of the Scope of Services under this Agreement shall begin with receipt of the Notice to Proceed and end no later than December 31, 2025. Contractor shall complete the tasks described in the Scope of Services, within this time or within such additional time as may be extended by the County.

Section 6. Modifications and Waivers

6.1 The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.

6.2 No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the parties, operates as a waiver or estoppel of any right, remedy, or condition.

6.3 The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

Section 7. Termination

7.1 Termination for Convenience – County may terminate this Agreement at any time upon forty-eight (48) hours written notice.

7.2 Termination for Default

7.2.1 County may terminate the whole or any part of this Agreement for cause in the following circumstances:

7.2.1.1 If Contractor fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the County in writing;

7.2.1.2 If Contractor materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and in any of these circumstances does not cure such breach or failure to County's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from County specifying such breach or failure.

7.2.2 If, after termination, it is determined for any reason whatsoever that Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the County in accordance with Section 7.1 above.

7.3 Upon termination of this Agreement, County shall compensate Contractor in accordance with Section 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Contractor's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 3 above.

7.4 If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Contractor.

Section 8. Ownership and Reuse of Documents

All documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time

of payment under Section 3 for work performed. Contractor shall promptly furnish all such data and material to County on request.

Section 9. Inspection of Books and Records

Contractor will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Contractor for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect survives the termination of this Agreement for a period of four years.

Section 10. Insurance

10.1 Prior to commencement of the Services, Contractor shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

10.1.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.

10.1.2 Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.

10.1.3 Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.

10.1.4 Business Automobile Liability insurance with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.

10.1.5 Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.

10.2 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies including Workers' Compensation written on behalf of Contractor shall contain a waiver of subrogation in favor of County and members of Commissioners Court.

10.3 If required coverage is written on a claims-made basis, Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time that work under the Agreement is completed.

Section 11. Indemnity

CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS COUNTY AGAINST LOSSES, LIABILITIES, CLAIMS, AND CAUSES OF ACTION, INCLUDING THE REIMBURSEMENT OF COUNTY'S REASONABLE ATTORNEYS FEES IN PROPORTION TO CONTRACTOR'S LIABILITY, ARISING FROM ACTIVITIES OF CONTRACTOR, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENCE, INTENTIONAL TORT, ERROR, OR OMISSION OF CONTRACTOR OR ANY OF CONTRACTOR'S AGENTS, SERVANTS OR EMPLOYEES.

Section 12. Confidential and Proprietary Information

12.1 Contractor acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Contractor or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Contractor shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Contractor) publicly known or is contained in a publicly available document; (b) is rightfully in Contractor's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Contractor who can be shown to have had no access to the Confidential Information.

12.2 Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Contractor shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Contractor shall advise County immediately in the event Contractor learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Contractor will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Contractor against any such person. Contractor agrees that, except as directed by County, Contractor will not at any time during

or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at County's request, Contractor will promptly turn over to County all documents, papers, and other matter in Contractor's possession which embody Confidential Information.

12.3 Contractor acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to County that is inadequately compensable in damages. Accordingly, County may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Contractor acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.

12.4 Contractor in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12.5 Contractor expressly acknowledges that County is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 *et seq.*, as amended, and notwithstanding any provision in the Agreement to the contrary, County will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to County by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed.

Section 13. Independent Contractor

13.1 In the performance of work or services hereunder, Contractor shall be deemed an independent contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of contractor or, where permitted, of its subcontractors.

13.2 Contractor and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.

Section 14. Notices

14.1 Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).

14.2 Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

County: Fort Bend County Engineering Department
Attn: County Engineer
301 Jackson Street
Richmond, Texas 77469

With a copy to: Fort Bend County
Attn: County Judge
401 Jackson Street, 1st Floor
Richmond, Texas 77469

Contractor: BGE, Inc.
10777 Westheimer Road, Suite 400
Houston, Texas 77042

14.3 A Notice is effective only if the party giving or making the Notice has complied with subsections 14.1 and 14.2 and if the addressee has received the Notice. A Notice is deemed received as follows:

14.3.1 If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.

14.3.2 If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

Section 15. Compliance with Laws

Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required by County, Contractor shall furnish County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

Section 16. Standard of Care

Contractor represents shall perform the Services to be provided under this Agreement with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license. Further, Contractor shall perform the Services as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer.

Section 17. Assignment

17.1 Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.

17.2 Neither party may delegate any performance under this Agreement.

17.3 Any purported assignment of rights or delegation of performance in violation of this Section is void.

Section 18. Applicable Law

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the County's sovereign immunity.

Section 19. Successors and Assigns

County and Contractor bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

Section 20. Third Party Beneficiaries

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

Section 21. Severability

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

Section 22. Publicity

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of County. Under no circumstances whatsoever, shall Contractor release any material or information developed or received in the performance of the Services hereunder without the express written permission of County, except where required to do so by law.

Section 23. Captions

The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of this Agreement.

Section 24. Conflict

In the event there is a conflict between this Agreement and the attached exhibits, this Agreement controls.

Section 25. Certain State Law Requirements for Contracts

25.1 Agreement to Not Boycott Israel Chapter 2271 Texas Government Code: By signature below, Contractor verifies that if Contractor employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

25.2 Texas Government Code Section 2251.152 Acknowledgment: By signature below, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

Section 26. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONTRACTOR ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

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IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

FORT BEND COUNTY

BGE, INC



KP George, County Judge
County Judge KP George



Authorized Agent – Signature

7.6.2021
Date

ATTEST:



Laura Richard, County Clerk

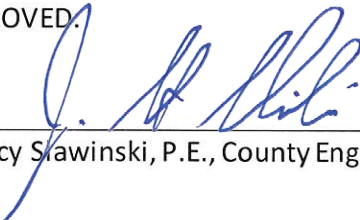


Jason P. Ellison, P.E.
Authorized Agent – Printed Name

Roadway Group Manager
Title

6/23/2021
Date


APPROVED:



J. Stacy Slawinski, P.E., County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$682,085.92 to accomplish and pay the obligation of Fort Bend County under this contract.



Robert Ed Sturdivant, County Auditor

EXHIBIT A



Date: May 28, 2021

Robert T. McBride, P.E.
C/O Fort Bend County Engineering
Senior Project Manager
LIA Engineering, Inc.
3600 W. Sam Houston Parkway S., Suite 600
Houston, TX 77042

Reference: FBC 20405 – Lexington Boulevard (Laurel Green Rd. to east of Lexington Grove Dr.)
Fort Bend County 2020 Mobility Bond Program

Subject: Proposal-Preliminary & Final Engineering, Bid & Construction Phase Services

Dear Mr. McBride,

Enclosed are BGE, Inc's proposed fee estimate, manpower and direct expense breakdown and scope of services for Preliminary Engineering, Final Engineering, Geotechnical, Surveying, ROW Mapping, Bidding & Construction Phase Services for the above referenced project. These documents are based on the project scope discussed at the kick-off meeting between BGE, Inc. and LIA Engineering, Inc. on April 27, 2021. A summary by phase includes:

Phase 1 – Preliminary Design Services (including survey and geotechnical)	\$234,925.50
Phase 2 – Final Design Services (including ROW Mapping)	\$396,963.22
Phase 3 – Bidding Phase / Construction Phase Services	<u>\$50,197.20</u>
Total Proposed Fee	\$682,085.92

The detailed scope of services, level of effort documents, and proposals provided by subconsultant(s) for survey, geotechnical, and ROW mapping services are attached. We will commence work upon receipt of a written notice to proceed. Please contact me if you require any additional information.

Sincerely,

A handwritten signature in blue ink that reads "Jason O. Ellison".

Jason Ellison, P.E.

Roadway Group Manager
BGE, Inc.

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

Scope of Work – the project generally includes roadway reconstruction and drainage improvements for Fort Bend County Mobility Bond Project 20405 - **Lexington Boulevard from Laurel Green Road to 450 feet east of Lexington Grove Drive**. ROW acquisition is generally not anticipated except as intersection corner clips.

Scope of Services – the Engineer (Design Consultant) shall perform surveying, geotechnical studies, preliminary design, final design, utility coordination, ROW mapping, bidding and construction phase services according to the following detailed scope. The Engineer shall develop the projects in collaboration with the Project Manager firm, who is also under contract with the County.

Project 20405 will be included in a single construction package.

Design Criteria - applicable design criteria for the above projects include, in order of priority:

- 1) Any Fort Bend County Engineering or Drainage District criteria/standards, including the Fort Bend County Engineering Design Manual (Fort Bend County Engineering Department, August 2020) and the Fort Bend County Drainage Criteria Manual (Fort Bend County Drainage District, November 1987, revised April 1999)
- 2) Municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria (City of Missouri City)
- 3) Guidelines for Engineers Having Contracts with Harris County, Texas (Harris County Public Infrastructure Department, 1987)
- 4) Applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable)

The following scope utilizes a **lump sum method of payment** unless otherwise noted.

PRELIMINARY DESIGN

Design Survey

Prepare a planimetric survey to include:

- Temporary benchmarks and control (1,000-foot maximum spacing)
- Abstracting to determine property ownership and ROW dimensions
- Visible surface features including pavements, curbs, medians, median openings, side streets, driveways, sidewalks, pedestrian ramps, mailboxes, striping, signs (with panel description), signal poles, ditches, fencing, etc. Provide photos of each sign.
- Visible utilities including marker or pole locations, and description of marker or pole (type of utility and owner shown on marker). Provide photos of each utility marker or visible surface feature. Research to obtain record documents for existing facilities including location and depths of pipelines.

2020 Mobility Bond Program
Scope of Services
(BGE, Inc.)

- Drainage features to include:
 - Cross drainage structure and outfall channel between Sheffield Dr. and Laurel Green. Rd. Include all drainage features including pipe / box sizes, flowlines, slope protection, headwalls, channel flowlines, channel highbanks, etc. Extend outfall channel survey 100 feet upstream and downstream of cross drainage structure headwalls.
 - Storm sewer sizes, pipe alignment at each manhole or inlet, and flowline shots. Remove manhole covers and obtain flowline shots, pipe size measurements, and pipe flow directions. Provide a photo that clearly shows pipe connections within each manhole.
 - Culvert sizes, directions of flow, and end treatments
 - Flume sections or concrete lined ditches
 - Geotechnical boring locations
- Extend survey to include ROW (secure right of entry approval as needed). Include all fences and other features along ROW line.
- Prepare a topographical survey to include shots of center of roadways, edge of roadways, gutter, curb, ditches, ROW, fences at ROW, and any other break lines. Develop a full DTM for each project.
- Survey limits include:
 - Lexington Blvd. - Survey shall extend along Lexington Blvd. beyond the project limits. Survey shall begin 550 feet west of the western project terminus at Laurel Green Rd. Survey shall extend 550 feet east of the eastern project terminus to include the Murphy Rd / FM 1092 intersection returns.
 - Side Streets – extend survey 100 feet along intersecting streets beyond the radius returns from Lexington Blvd. Survey the entire width of public ROW including all surface features. Side streets include:
 - Sheffield Dr. (2 streets, North and South)
 - Laurel Green Rd.
 - Castlebar Ln.
 - Lexington Green Dr.
 - Birchstone Dr. (North) and Bridgewater Dr. (South)
 - Grand Falls Dr.
 - Bluestone Dr. (2 streets, North and South)
 - Lexington Grove Dr.
 - Driveways – extend survey 50 feet along each driveway beyond the radius return from Lexington Blvd. Survey the entire width of the driveway plus 10 feet outside of the driveway pavement (secure right of entry approval as needed).
 - Outfall Channel between Sheffield Dr. and Laurel Green. Rd. - extend outfall channel survey 100 feet upstream and 300 downstream of cross drainage structure headwalls. The downstream survey should include the 600'-wide pond section including the fence line (east side), channel slopes, low flow channel and edge of pavement along Sheffield Dr. (west side).

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

Topographic survey should be taken within existing right-of-way through the limits of Lexington Blvd., side streets, driveways, and the outfall channel identified above.

Temporary benchmarks and baseline control should be set, both with 1,000-foot maximum spacing between points. Abstracting should be performed to gain a preliminary determination of property ownership and existing right-of-way widths. During survey, found property corners should be documented so that the approximate location of the right-of-way can be determined. Edges of structures in clear view (not behind privacy fences) and within 100 feet of the existing right-of-way should be surveyed. Include the existing right-of-way line in the planimetric survey deliverable.

Design Survey Deliverables

- Survey Control Map with Monument Details (11x17 sealed sheet)
- 2D ROW and Property Boundary Map file in Microstation Select Series 10 format
- 2D Planimetric file in Microstation Select Series 10 format
- 3D DTM in Microstation Select Series 10 format
- ASCII point file of all shots
- Triangulated TIN file
- KMZ file of 2D planimetric survey
- PDF of field books
- Photos of all signs, utility markers, and inside of manholes as described above

Files shall be named according to Fort Bend County's file naming convention and digital submittal requirements which will be provided.

ROW Mapping and Parcel Documents (Time & Materials Method of Payment)

This scope includes ROW mapping for corner clips on 2 parcels along Lexington Blvd. at side street or driveway intersections. ROW mapping services will be utilized as directed by Fort Bend County and / or the Project Management firm.

Once right-of-way needs have been determined and approved by the County, a Category 1A survey must be performed to produce (1) an overall project map showing existing and proposed right-of-way, (2) a parcel map and metes-and-bounds description for each parcel to be acquired in the project, and (3) a KMZ file (used by Google Earth) showing existing right-of-way with ownership information, proposed takings with parcel numbers, and a preliminary roadway layout. Right-of-way documents will be submitted separately from other design documents and will be paid for on a per-parcel basis.

Aa directed, stake the project ROW two times as follows:

- Staking for ROW clearing and utility relocation
- Staking immediately prior to construction

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

ROW Mapping Deliverables

- Overall Project Map
- Parcel Map
- Existing & Proposed ROW Layout Sheet
- Metes and bounds description for each parcel
- KMZ file showing existing and proposed ROW lines

Files shall be named according to Fort Bend County's file naming convention and digital submittal requirements which will be provided.

Geotechnical Investigation

Geotechnical investigations and reporting should be completed during preliminary design, in accordance with Fort Bend County Engineering Design Manual (FBC Engineering Dept., August 2020).

Items to be provided by the County include the right-of-entry to conduct the exploration and information regarding the locations of any utilities on the subject site.

The proposed field investigation includes:

- Storm Sewer and Street Paving – 9 borings (20' deep) 500' spacing maximum
- Outfall and Detention Pond – 1 outfall boring (25' deep) and 2 detention pond borings (20' deep)

Submit a preliminary boring / coring layout for approval prior to the start of field work. Develop traffic control plans and implement during normal business hours to conduct fieldwork.

Prepare a log of each boring to document field activities and results.

The geotechnical engineer should calculate the equivalent single axle load (ESAL) for the County's standard pavement design (8-inches of concrete with 8-inches of lime stabilized subgrade). Provide concrete paving recommendations, storm sewer recommendations (soil classification, requirements for bedding, excavation, backfill, etc.), outfall recommendations (soil classification, requirements for bedding, excavation, backfill, etc.), and detention pond modification recommendations.

Submit a draft geotechnical report to include field investigation observations, photos, cores, calculations, and supporting documents. Submit a final report incorporating comments to the draft report.

The report will address the following:

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

- Soil & groundwater conditions encountered at the boring locations
- Concrete existing road pavement thicknesses and composition at boring locations
- Paving and storm water drainage recommendations
- Material & compaction requirements
- Construction considerations
- Outfall and detention pond recommendations, including a slope stability analysis of modified pond slopes
- Review of plans and specifications for conformance with the geotechnical report

Geotechnical Deliverables

- Boring / Coring Layout
- Pavement Cores
- Report

Drainage Impact Study (DIS)

Prepare a drainage impact study to include drainage area maps, hydrologic computations, hydraulic models and computations, and storm runoff mitigation for roadway improvements described in the scope of work. Utilize Atlas-14 rainfall data for runoff computation. Compute system capacities to accommodate Atlas-14 runoff.

Prepare a SWMM model (100-year only) to determine storm water detention volume needs which could include in-line or off-site detention. Meet with the Fort Bend County Drainage District to confirm approach to mitigation prior to finalizing the DIS.

Preliminary Engineering Report (PER)

The Engineer will prepare a Preliminary Engineering Report (PER) in the form of a concise technical memorandum with attachments as described in this scope. The PER deliverable is not intended to be a lengthy report, and multiple submission and revision cycles of the PER deliverable are not included. The submission cycle will include one draft PER for review followed by the Final PER revised per comments. The purpose of the PER is to facilitate communication with the County about the goals for each project.

Prepare a single technical memorandum PER. The primary goals are to (1) establish a typical cross section, (2) determine drainage system needs (drainage report and/or preliminary roadway drainage design), (3) determine right-of-way acquisition needs, (4) determine potential conflicts with existing facilities, (5) identify critical path items, (6) identify problem areas and potential resolution(s), (7) outline

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

permit and regulatory requirements, and (8) prepare a reasonable construction cost estimate.

A "30 percent" plan set will be prepared, consisting of all existing features shown in plan and profile, and proposed improvements in plan only with minor annotation. These plans, along with a typical section sheet, are the only drawings that are necessary for inclusion in the PER.

A Preliminary Engineering Report (PER) will be prepared for preliminary design, and the purpose of the report is to document the eight goals stated above. It is not necessary to prepare a presentation-quality document, as the report will remain internal to Engineering staff. The report should be submitted as a technical memorandum and include as attachments a narrative, applicable plans, a drainage report, and a construction cost estimate. The geotechnical report may be submitted subsequent to or concurrent with the PER.

3 copies of the report are required.

Meet with the Fort Bend Drainage District to review the Drainage Impact Study prior to review and approval of the PER and meeting with key County staff.

Upon preliminary review and approval of the PER, the Design Consultant and Project Manager will conduct a review meeting to include key County staff. This scope assumes that all approvals or change requirements are given at this meeting.

Utility Coordination

The Engineer shall research to determine the existence and location of underground utilities (pipelines, duct banks, etc.). Any subsurface utility investigation (SUI) should be at the expense of the utility company. Utility company signatures will not be required on completed drawings.

The Engineer will:

- Perform records research and field visits to determine the presence of underground or overhead private or public utilities during the Preliminary Design phase
- Send records requests to utility companies and obtain I.D. numbers (CenterPoint, AT&T, Frontier, MCI, Pipelines)
- Depict utilities to a reasonable degree of accuracy on the plan and profile drawings (based on available information)
- Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required
- Submit milestone drawings to applicable utility companies for their review

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Scope of Services
(BGE, Inc.)

Unless otherwise noted, the preliminary design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis by task. Major tasks of preliminary design (design, survey, geotechnical, etc.) should be itemized in invoices.

FINAL DESIGN

Roadway Design

Prepare roadway designs at each location as follows:

1. Typical Sections – prepare existing and proposed typical sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
2. Overall Project Layout – prepare project layout sheets at 200 scale showing the overall project.
3. Plan and Profiles – prepare P&P sheets (1"=20' plan scale but printed half-size for a 1"=40' scale) showing all existing and proposed facilities in plan and profile; separate drawings for roadway and storm sewer are not necessary
4. Intersection Layouts – prepare sheets (1"=20' plan scale but printed half-size for a 1"=40' scale) showing geometric and grading details of all public intersections.
5. Driveway Details – prepare a sheet with driveway grading details (length & grades) in tabular form in conformance with the County's Driveway Details standard.
6. Cross Sections – prepare roadway cross sections along Lexington Blvd. at 50-foot intervals. Cross sections are to be utilized for contractor's information only and should graphically show pavement structure, final grading, drainage ditches, and the ROW line. Only non-standard sections should be included in plans if needed for clarity. Typical Sections will not be developed for non-standard cross sections. Cross sections are generally not be sealed and do not supersede information in the sealed plans.

Roadway Design Deliverables

- Cross Sections Sheets
- See additional sheet deliverables under Final Design

Drainage Design

Prepare drainage designs as follows:

1. Drainage and Storm Sewer Designs – prepare drainage areas, hydrologic computations, inlet calculations, storm sewer hydraulic computations, ditch computations and outfall designs for storm sewers or ditches. Size system to convey Atlas-14 runoff for design year event. Depict storm sewer geometry individual Storm Sewer P&P sheets in addition to SWPPP elements.
2. Detention Details – prepare volumetric computations for off-site ponds or storm sewers to accommodate detention requirements.

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Scope of Services
(BGE, Inc.)**

Drainage Design Deliverables

- Storm Sewer Models
- Detention Details
- See additional sheet deliverables under Final Design

Signing, Pavement Markings, Signals and Traffic Control Plan

Prepare signing, pavement markings, and TCP designs in accordance with Fort Bend County standards, the TMUTCD, and criteria listed above.

Prepare designs as follows:

1. TCP – prepare General Construction Notes, an overall TCP Construction Sequence, and TCP Phasing Layouts. This scope assumes two phases of construction.
2. Signing & Pavement Markings – prepare separate plan layouts (1"=20' plan scale but printed half-size for a 1"=40' scale, double-bank sheets) to depict signing and pavement markings along Lexington Blvd. to avoid overcrowding on the Roadway P&P sheets.
3. Signal Adjustments – replace loop detectors at Brightwater / Birchstone Intersection and depict on the plans. No additional adjustments to the signal foundation, poles, controller, conduit, or cabinets are included.

Signing, Pvt Mrk, Signals, TCP Design Deliverables

- General Construction Notes
- TCP Construction Sequence
- TCP Layouts
- Signing & Pavement Marking Layouts
- See additional sheet deliverables under Final Design

Storm Water Pollution Prevention Plan (SWPPP)

Prepare SWPPP designs in accordance with Fort Bend County standards and criteria listed above. Place SWPPP features on drainage / storm sewer plan sheets.

SWPPP Deliverables

- On Storm Sewer sheets

Municipal Utility Adjustments

Prepare utility relocation plans for sanitary and water lines that are impacted by proposed roadway or drainage designs. Prepare in accordance with Fort Bend County standards and criteria listed above. This scope includes utility adjustments at six locations along the project. This scope does not include relocation of sanitary and water facilities throughout the entire length of the project.

Deliverables

- See sheet deliverables under Final Design

2020 Mobility Bond Program
Scope of Services
(BGE, Inc.)

Tree Protection Plan

Prepare tree protection plans and details in accordance with Fort Bend County standards and criteria listed above.

Deliverables

- See sheet deliverables under Final Design

Final Design Plans - 70 Percent Submittal

Interim submittals will be made at 70 percent and 95 percent completion, and should include drawings, a specification table of contents (and/or special specifications, as applicable), and a construction cost estimate.

The 70 percent submittal should include the following as applicable:

- Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)
- Sheet Index
- Typical and non-standard cross sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
- Overall project layout (scale as appropriate with sheet references left blank since they are subject to change in subsequent submittals)
- Survey control map
- Plan and profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; detailed callouts not required at 70%)
- Intersection Layouts (detailed callouts not required at 70%)
- Driveway Details
- Drainage area map with hydraulic calculations (display calculations clearly for future use by area developers)
- Storm Sewer Plan and Profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; detailed callouts not required at 70%)
- Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged)
- Signing & Pavement Marking Layouts (details not required at 70%)
- Storm Water Pollution Prevention Plan (on Storm Sewer plan sheets)
- Tree Protection Plan Layouts
- Municipal Utility Relocation Layouts
- Specification table of contents (use Harris County Specifications)

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

- Bid form with estimated unit and total costs (spreadsheet based)
- Cost Estimate

Three copies of the 70 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.

Final Design Plans - 95 Percent Submittal

The 95 percent submittal should be considered complete, shall include a 95% interim seal, and shall include all of the 70 percent requirements plus the following as applicable:

- General notes sheet
- Verify earthwork quantities with cross sections at 50-foot intervals (only non-standard sections should be included in plans)
- Signage and pavement marking plans
- Tree Protection Plan Details
- Municipal Utility Relocation Details
- Standard construction details
 - Roadway, Pavement, Curb
 - Driveway (schedule & details), Sidewalks, Ramps
 - Drainage, Manholes, Inlets, Outfalls
 - Signing & Striping
 - Slope Paving
 - Project Sign
- List of Specifications (bid documents and Project Manual being prepared by Project Management firm)
- Responses to 70 percent comments

Three copies of the 95 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.

Final Design Plans - 100 Percent Submittal

The 100 percent design submittal shall consist of one sealed and signed set of drawings delivered to the County, along with a PDF submittal of the drawings, specifications and estimate sent to the Project Manager.

All final design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis.

**2020 Mobility Bond Program
Scope of Services
(BGE, Inc.)**

BID AND CONSTRUCTION PHASE SERVICES

Bid Phase (Hourly Method of Payment)

Upon completion of final design services, the County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by the County and provided to the Design Consultant in PDF format. The Design Consultant will compile a single project manual file in PDF format, consisting of:

- Administrative documents
- The bid form (prepared by the Design Consultant)
- A sealed specification table of contents
- Applicable specifications and documents

The Design Consultant will prepare a single file in PDF format for the entire drawing set. Except for the cover sheet, which contains approval signature(s), all drawings may be printed directly to Adobe Acrobat format with electronic seal and signature.

The Design Consultant will prepare 27 compact discs, each with one project manual file and one drawing file. Of these, 25 compact discs will be delivered to the County Purchasing Agent for advertising, and two discs will be provided to the Project Manager. Printed documents are not required.

The Design Consultant will attend a pre-bid meeting at the County Purchasing Office. It is not necessary to prepare for the meeting, other than to be able to briefly describe the project.

The Purchasing Agent will forward bidder questions to the Design Consultant. Answers to questions, as well as any other required changes, will be included in an addendum, prepared by the Design Consultant if necessary. The Purchasing Agent will distribute the addendum.

After the bid, the Project Manager will prepare a bid tabulation and provide a copy to the Design Consultant for filing. The Design Consultant will not provide a letter of recommendation.

Construction Phase (Time & Materials Method of Payment)

The Design Consultant will attend a pre-construction meeting with County staff, Project Manager, general contractor, and construction materials testing contractor. Prior to the meeting, the Project Manager will inform the Design Consultant of how many drawing and project manual sets are required (not to exceed 10), and the Design Consultant will provide these documents at the pre-construction meeting.

The Design Consultant will be responsible for reviewing contractor submittals and

2020 Mobility Bond Program Scope of Services (BGE, Inc.)

responding to Requests for Information.

Field visits and progress meetings will not be required. The Design Consultant will participate in a substantial completion walkthrough.

After project completion, the Design Consultant will prepare record drawings based on contractor as-built markups. The record drawings may be printed on paper and delivered to the County.

All bid and construction phase services will be paid on a time-and-materials basis. The not-to-exceed fee for these services will be determined by the County and/or its Project Manager and the Design Consultant. Monthly billing will include a breakdown of hours spent by personnel in the various employee categories, at billing rates agreed to by the County and the Design Consultant.

CONTRACT ADMINISTRATION (Lump Sum Method of Payment)

Manage professional contract, develop and maintain a project schedule, prepare and manage subconsultant contracts, perform project administration, progress reports, and correspondence. Coordinate with and attend meetings with the Project Management firm and the County. Prepare, distribute, and retain correspondence. Document project discussions via phone calls or conference calls as required.

EXCLUSIONS

The following items and tasks are excluded from the scope and may be added with a supplemental agreement:

- Preliminary wetlands investigations and project notification to the Texas Historical Commission will be performed by the County on a program-wide basis.
- Phase 1 Environmental Site Assessment
- Utility Coordination to be performed by the Project Management Firm:
 - Assist the Design Consultant in identifying major utilities, and providing contact information for various utilities as needed
 - Coordinate directly with utility companies to facilitate utility adjustments required by the proposed improvements
 - Coordinate with utility companies during the Construction phase as required
- Pavement expansion to 6-lane configuration.
- Updates to any available regional drainage models for the outfall channel from the City or LID.
- All administrative project manual or frontend documents (cover page, Notice to

**2020 Mobility Bond Program
Scope of Services
(BGE, Inc.)**

Bidders, etc.) to be prepared by the County.

- Project Manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded) to be prepared by Project Management firm.
- Pavement/concrete/asphalt mix design for construction phased services.
- A letter of recommendation from the Design Consultant to award the project.
- Public utility (water and wastewater) design throughout the entire length of the project.
- Additional study of sizing of adjusted public utility lines.
- Plans or details for adjustments to illumination.
- Plans for adjustment to signal (except loop detectors) at Brightwater / Birchstone Intersection.
- Warrant study or plans for additional signals.
- Subsurface utility engineering (SUE) designation survey.
- Additional soil borings beyond those specified above
- Additional ROW Mapping, metes or bounds beyond those specified above

FEE SCHEDULE Summary

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
PRIME PROVIDER: BGE, Inc.

FIRM SUMMARY		
Firm	Amount	Percent
BGE, Inc.	\$ 515,518.42	75.6%
EHRA	\$ 93,865.00	13.8%
Geotech Engineering and Testing	\$ 72,702.50	10.7%
Total	\$ 682,085.92	100.0%

SUMMARY BY PAYMENT BASIS				
	Firm			
	BGE, Inc.	EHRA	Geotech Engineering and Testing	Total
	(Design)	(Survey / ROW)	(Geotechnical)	
LUMP SUM PAYMENT BASIS				
Preliminary Design (Survey)		\$ 74,600.00		\$ 74,600.00
Preliminary Design (Engineering)	\$ 87,623.00		\$ 72,702.50	\$ 160,325.50
Final Design	\$ 326,981.00			\$ 326,981.00
Contract Administration	\$ 39,660.00			\$ 39,660.00
DIRECT EXPENSES	\$ 11,057.22			\$ 11,057.22
SUBTOTAL (LUMP SUM PAYMENT BASIS)	\$ 465,321.22	\$ 74,600.00	\$ 72,702.50	\$ 612,623.72
TIME AND MATERIALS PAYMENT BASIS				
Final Design (ROW Mapping and Parcel Docs)		\$ 19,265.00		\$ 19,265.00
Bid and Construction Phase Services	\$ 50,197.20			\$ 50,197.20
SUBTOTAL (TIME & MATERIALS PAYMENT BASIS)	\$ 50,197.20	\$ 19,265.00	\$ -	\$ 69,462.20
GRAND TOTAL	\$ 515,518.42	\$ 93,865.00	\$ 72,702.50	\$ 682,085.92

SUMMARY BY CONTRACT PHASE & DISCIPLINE				
	Firm			
	BGE, Inc.	EHRA	Geotech Engineering and Testing	Total
	(Design)	(Survey / ROW)	(Geotechnical)	
PHASE 1 - PRELIMINARY ENGINEERING				
Geotechnical				
Geotechnical (Pvt / Storm Borings and Report)			\$ 39,275.50	\$ 39,275.50
Geotechnical (Detention Outfall / Pond Borings and Report)			\$ 33,427.00	\$ 33,427.00
Survey (Road, Outfall & Pond)		\$ 74,600.00		\$ 74,600.00
Preliminary Engineering Report (PER)	\$ 23,544.00			\$ 23,544.00
Drainage Impact Study	\$ 32,137.00			\$ 32,137.00
Utility Coordination	\$ 31,942.00			\$ 31,942.00
SUBTOTAL (PRELIMINARY ENGINEERING)	\$ 87,623.00	\$ 74,600.00	\$ 72,702.50	\$ 234,925.50
PHASE 2 - FINAL DESIGN				
Final Design	\$ 326,981.00			\$ 326,981.00
ROW Mapping / Parcel Documents		\$ 19,265.00		\$ 19,265.00
Contract Administration and Direct Expenses	\$ 50,717.22			\$ 50,717.22
SUBTOTAL (FINAL DESIGN)	\$ 377,698.22	\$ 19,265.00	\$ -	\$ 396,963.22
PHASE 3 - BID AND CONSTRUCTION PHASE SERVICES				
	\$ 50,197.20			\$ 50,197.20
GRAND TOTAL	\$ 515,518.42	\$ 93,865.00	\$ 72,702.50	\$ 682,085.92

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)
P1 P2 Eng (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
PRELIMINARY DESIGN (LUMP SUM PAYMENT BASIS)												
Preliminary Engineering Report (PER)												
PER Narrative / Copile PER	1	1	12	12				2	28	\$ 4,039.00	-	-
ROW Corner Clip Sight Distance Analysis			2	2	4				8	\$ 1,042.00	-	-
Initial Geometric Design		1	8	16	24				49	\$ 6,359.00	-	-
Preliminary Cost Estimates		1	4	4	16				25	\$ 3,187.00	-	-
PER Exhibits		2	4	4	24	16			50	\$ 6,034.00	6	8
Incorporate Comments / Final PER Submittal	1	1	8	8				2	20	\$ 2,883.00	-	-
HOURS SUB-TOTALS	2	6	38	46	68	16	0	4	180			
SUBTOTAL	\$480.00	\$1,050.00	\$5,814.00	\$6,256.00	\$7,888.00	\$1,744.00	\$0.00	\$312.00	\$23,544.00	\$23,544.00		
Drainage Impact Study (DIS)												
Drainage Impact Study Letter Report (Project 20405)												
Existing Conditions Hydrology (Calcs and Drainage Areas)	2			40	16				58	\$ 7,776.00		
Proposed Conditions Hydrology (Calcs and Drainage Areas)	2			24	8				34	\$ 4,672.00		
Impervious Cover Mitigation (SWMM) - 100 YR	1	2		8	24				35	\$ 4,462.00		
Exhibits for Letter Report						16			16	\$ 1,744.00		
Draft Drainage Letter Report	1	8	16	16	24	15			80	\$ 10,683.00		
Final Drainage Letter Report	1			12	8				21	\$ 2,800.00		
HOURS SUB-TOTALS	7	10	16	100	80	31	0	0	244			
SUBTOTAL	\$1,680.00	\$1,750.00	\$2,448.00	\$13,600.00	\$9,280.00	\$3,379.00	\$0.00	\$0.00	\$32,137.00	\$32,137.00		
Utility Coordination												
Identify Existing Utilities (Records Research)			2	8	24				34	\$ 4,178.00		
Field Visit (2)	4		8		8				20	\$ 3,112.00		
Coordination with Private Utilities Companies		2	12	12	12				38	\$ 5,210.00		
Coordination / Meetings with City (Water and Sanitary)		4	16	16					36	\$ 5,324.00		
Develop and Maintain Utility Conflict List		1	8	24	24			24	81	\$ 9,319.00		
Utility Progress Calls with GEC		1	16	16					33	\$ 4,799.00		
HOURS SUB-TOTALS	4	8	62	76	68	0	0	24	242			
SUBTOTAL	\$960.00	\$1,400.00	\$9,486.00	\$10,336.00	\$7,888.00	\$0.00	\$0.00	\$1,872.00	\$31,942.00	\$31,942.00		
SUBTOTAL PRELIMINARY DESIGN	13	24	116	222	216	47	0	28	666	0		
	\$3,120.00	\$4,200.00	\$17,748.00	\$30,192.00	\$25,056.00	\$5,123.00	\$0.00	\$2,184.00	\$87,623.00	\$87,623.00		
FINAL DESIGN (LUMP SUM PAYMENT BASIS)												

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)
P1 P2 Eng (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
Miscellaneous												
Cover Sheet		1	1			2	4		8	\$ 886.00	1	8
Index of Sheets			1	8	8	2	2		21	\$ 2,557.00	1	21
Roadway Design												
Alignment/Baseline Definition			1	2	4	1			8	\$ 998.00	1	8
Finalize Geometrics	1	1	8	12	16	8			46	\$ 5,999.00		
Roadway P&Ps (11x17, Scale: 1"=40')	8	8	16	64	72	24	24		216	\$ 27,480.00	8	27
Project Layout (11x17, Scale: 1"=100')				4	16	6	6		32	\$ 3,564.00	3	11
Existing and Proposed Typical Sections		1	4	24	40	16	16		101	\$ 11,795.00	4	25
Cross Sections (50' spacing)		1	4	48	80	2			135	\$ 16,813.00	30	5
Earthwork Computations			1	12	36				49	\$ 5,961.00	-	-
Sidewalk Design / Details (on P&Ps)			1	6	12	4	4		27	\$ 3,137.00		
Driveway Details			1	4	8	4	4		21	\$ 2,401.00	1	21
Miscellaneous Roadway Details			1	6	12	4	4		27	\$ 3,137.00	2	14
Intersection Layouts (Scale: 1"=40')	2	2	8	48	84	12	12		168	\$ 20,654.00	7	24
HOURS SUB-TOTALS	11	14	47	238	388	85	76	0	859			
SUBTOTAL	\$2,640.00	\$2,450.00	\$7,191.00	\$32,368.00	\$45,008.00	\$9,265.00	\$6,460.00	\$0.00	\$105,382.00	\$105,382.00		

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)
P1 P2 Eng (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
Drainage Design												
Drainage and Storm Designs												
Drainage Area Maps (11x17, Scale: 1"=40')		1	1	24	36	8	8		78	\$ 9,320.00	8	10
Storm Sewer P&Ps (11x17, Scale: 1"=40')	8	8	16	64	72	24	24		216	\$ 27,480.00	8	27
Storm Sewer Lateral Details	1		1	16	32	8	8		66	\$ 7,833.00	2	33
Storm Conveyance Model - Design Yr			1	40	80				121	\$ 14,873.00		
Hydraulic Computation Sheets			1	4	8	2	2		17	\$ 2,013.00	2	9
Detention Pond / Outfall Details	1	2	2	16	36	4	4		65	\$ 8,024.00	2	33
Miscellaneous Drainage Details			1	6	12	4	4		27	\$ 3,137.00	2	14
HOURS SUB-TOTALS	10	11	23	170	276	50	50	0	590		24	
SUBTOTAL	\$2,400.00	\$1,925.00	\$3,519.00	\$23,120.00	\$32,016.00	\$5,450.00	\$4,250.00	\$0.00	\$72,680.00	\$72,680.00		
Municipal Utility Adjustment Plans												
Municipal Utility Relocation Plans (11x17, Scale: 1"=40')	2	2	14	28	44	20	20		130	\$ 15,764.00	6	22
Detail Sheets	1	1	8	8		16	16		50	\$ 5,831.00	4	13
HOURS SUB-TOTALS	3	3	22	36	44	36	36	0	180		36	
SUBTOTAL	\$720.00	\$525.00	\$3,366.00	\$4,896.00	\$5,104.00	\$3,924.00	\$3,060.00	\$0.00	\$21,595.00	\$21,595.00		
Signing, Pavement Markings, and TCP												
Signing and Striping Plans (11x17, Scale: 1"=40')	1		4	32	56	16	16		125	\$ 14,804.00	8	16
Signal Adjustments (Brightwater / Birchstone Loop Detectors)		1		4	8	4			17	\$ 2,083.00	1	17
TCP Phase 1 (11x17, Scale: 1"=40')	2		16	48	96	24	16		202	\$ 24,568.00	8	25
TCP Phase 2 (11x17, Scale: 1"=40')	2		16	48	96	24	16		202	\$ 24,568.00	8	25
Miscellaneous TCP Details			1	6	12	4	4		27	\$ 3,137.00	2	14
HOURS SUB-TOTALS	5	1	37	138	268	72	52	0	573		27	
SUBTOTAL	\$1,200.00	\$175.00	\$5,661.00	\$18,768.00	\$31,088.00	\$7,848.00	\$4,420.00	\$0.00	\$69,160.00	\$69,160.00		

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)
P1 P2 Eng (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
Storm Water Pollution Prevention Plan (SWPPP)												
SWPPP (on Storm Sewer P&P Sheets)			2	16	16	4	2		40	\$ 4,944.00		
HOURS SUB-TOTALS	0	0	2	16	16	4	2	0	40		0	
SUBTOTAL	\$0.00	\$0.00	\$306.00	\$2,176.00	\$1,856.00	\$436.00	\$170.00	\$0.00	\$4,944.00	\$4,944.00		
Final Design Plans												
Submittals (70%, 85%, 100%)												
Quantity Computations												
Roadway Quantities		1	8	20	32				61	\$ 7,831.00		
Storm Sewer Quantities		1	8	16	24				49	\$ 6,359.00		
TCP Quantities		1	8	16	24				49	\$ 6,359.00		
Municipal Utility Quantities		1	4	8	8				21	\$ 2,803.00		
Erosion Control / SWPPP Quantities		1	4	12	16				33	\$ 4,275.00		
Signing / Pavement Marking / Signal Quantities		1	4	12	16				33	\$ 4,275.00		
Cost Estimate		1	12	24					37	\$ 5,275.00		
Standards			1	1	4		8		14	\$ 1,433.00		
Specifications Table		1	4	8					13	\$ 1,875.00		
General Notes		1	2	8			2		13	\$ 1,739.00		
QA/QC	16	40						2	58	\$ 10,996.00		
HOURS SUB-TOTALS	16	49	55	125	124	0	10	2	381		0	
SUBTOTAL	\$3,840.00	\$8,575.00	\$8,415.00	\$17,000.00	\$14,384.00	\$0.00	\$850.00	\$156.00	\$53,220.00	\$53,220.00		
SUBTOTAL FINAL DESIGN	45	78	186	723	1116	247	226	2	2623	0		
	\$10,800.00	\$13,650.00	\$28,458.00	\$98,328.00	\$129,456.00	\$26,923.00	\$19,210.00	\$156.00	\$326,981.00	\$326,981.00		
CONTRACT ADMINISTRATION (LUMP SUM PAYMENT BASIS)												
Develop and Maintain Project Schedule	8	8	8						24	\$ 4,544.00		
Prepare and Manage Subconsultant Contracts	8	8	8						24	\$ 4,544.00		
Document Control for Project Admin, Progress Reports, & Correspo	12	12	24					24	72	\$ 10,524.00		
Conference Calls	8	8	24	24					64	\$ 10,256.00		
Review Meetings and Documentation (Fort Bend County)(3)	4	12	12						28	\$ 4,896.00		
Review Meetings and Documentation (City of Missouri City)(3)	4	12	12						28	\$ 4,896.00		
HOURS SUB-TOTALS	44	60	88	24	0	0	0	24	240			
SUBTOTAL	\$10,560.00	\$10,500.00	\$13,464.00	\$3,264.00	\$0.00	\$0.00	\$0.00	\$1,872.00	\$39,660.00	\$39,660.00		
TOTAL HOURS	102	162	390	969	1,332	294	226	54	3,529			
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				

FEE SCHEDULE
(LUMP SUM AND TIME & MATERIALS PAYMENT BASIS)
P1 P2 Eng (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
SUBTOTAL LABOR EXPENSES	\$ 24,480.00	\$ 28,350.00	\$ 59,670.00	\$ 131,784.00	\$ 154,512.00	\$ 32,046.00	\$ 19,210.00	\$ 4,212.00	\$454,264.00			
DIRECT EXPENSES	QUANTITY	UNIT	RATE						TOTAL			
MILEAGE	192	mile	\$ 0.535						\$ 102.72			
OVERNIGHT MAIL - OVERSIZED BOX	5	each	\$ 35.00						\$ 175.00			
CD ARCHIVE	27	each	\$ 5.00						\$ 135.00			
CN Koehl Urban Forestry Inc. (Tree Protection Plan)	1	LS	\$ 9,495.00						\$ 9,495.00			
TDLR / RAS Review Fee	1	LS	\$ 750.00						\$ 750.00			
Utility Record Plan Fees (Private and City)	1	LS	\$ 200.00						\$ 200.00			
Utility Pothole (Lv A SUE) - excluded	0	each	\$ 1,500.00						\$ -			
Level B SUE - excluded	0	LF	\$ 1.60						\$ -			
PHOTOCOPIES B/W (11" X 17")	300	each	\$ 0.20						\$ 60.00			
PHOTOCOPIES B/W (8 1/2" X 11")	300	each	\$ 0.10						\$ 30.00			
PHOTOCOPIES COLOR (11" X 17")	30	each	\$ 1.25						\$ 37.50			
PHOTOCOPIES COLOR (8 1/2" X 11")	30	each	\$ 0.65						\$ 19.50			
PLOTS (COLOR ON BOND)	30	per sq. ft.	\$ 1.75						\$ 52.50			
SUBTOTAL DIRECT EXPENSES									\$ 11,057.22			
TOTAL									\$465,321.22			

FEE SCHEDULE
(TIME & MATERIALS PAYMENT BASIS)
Bid Const (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				

BID AND CONSTRUCTION PHASE SERVICES (TIME AND MATERIALS PAYMENT BASIS)												
Bid Phase												
Compile Project Manual	1		8		12			8	29	\$ 3,480.00		
Prepare Bid Tabulation Form	1		6		8				15	\$ 2,086.00		
Attend Pre-Bid Meeting	4	4	4						12	\$ 2,272.00		
Addressing Bidder Questions	1		8	12					21	\$ 3,096.00		
HOURS SUB-TOTALS	7	4	26	12	20	0	0	8	77		0	
SUBTOTAL	\$1,680.00	\$700.00	\$3,978.00	\$1,632.00	\$2,320.00	\$0.00	\$0.00	\$624.00	\$10,934.00	\$10,934.00		

Construction Phase												
Pre Construction Meeting	4	4	4						12	\$ 2,272.00		
Review Contractor Submittals & RFIs												
Submittals (20)	4	8	12	20				6	50	\$ 7,384.00		
RFIs (30)	4	8	8	16				4	40	\$ 6,072.00		
Field Visits & Progress Meetings	8	8	16						32	\$ 5,768.00		
Field Visits (3)	6	2	9	9					26	\$ 4,391.00		
Progress Meetings (12) - Teams	6		12	12					30	\$ 4,908.00		
Completion Walkthrough	6	6	6						18	\$ 3,408.00		
Prepare Record Drawings	1		4	4	16	16			41	\$ 4,996.00		
HOURS SUB-TOTALS	39	36	71	61	16	16	0	10	249		0	
SUBTOTAL	\$9,360.00	\$6,300.00	\$10,863.00	\$8,296.00	\$1,856.00	\$1,744.00	\$0.00	\$780.00	\$39,199.00	\$39,199.00		
SUBTOTAL BID AND CONSTRUCTION PHASE SERVICES	46	40	97	73	36	16	0	18	326	0		
	\$11,040.00	\$7,000.00	\$14,841.00	\$9,928.00	\$4,176.00	\$1,744.00	\$0.00	\$1,404.00	\$50,133.00	\$50,133.00		

TOTAL HOURS	46	40	97	73	36	16	0	18	326			
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
SUBTOTAL LABOR EXPENSES	\$ 11,040.00	\$ 7,000.00	\$ 14,841.00	\$ 9,928.00	\$ 4,176.00	\$ 1,744.00	\$ -	\$ 1,404.00	\$50,133.00			
DIRECT EXPENSES	QUANTITY	UNIT	RATE							TOTAL		
MILEAGE	120	mile	\$ 0.535							\$ 64.20		
OVERNIGHT MAIL - OVERSIZED BOX		each	\$ 35.00							\$ -		
PHOTOCOPIES B/W (11" X 17")		each	\$ 0.20							\$ -		
PHOTOCOPIES B/W (8 1/2" X 11")		each	\$ 0.10							\$ -		
PHOTOCOPIES COLOR (11" X 17")		each	\$ 1.25							\$ -		
PHOTOCOPIES COLOR (8 1/2" X 11")		each	\$ 0.65							\$ -		
PLOTS (COLOR ON BOND)		per sq. ft.	\$ 1.75							\$ -		

FEE SCHEDULE
(TIME & MATERIALS PAYMENT BASIS)
Bid Const (BGE)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Engineering

PRIME PROVIDER: BGE, Inc.

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER IN TRAINING	SENIOR CADD OPERATOR	CADD OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF SHTS	HRS PER SHT
CONTRACT RATE PER HOUR	\$ 240.00	\$ 175.00	\$ 153.00	\$ 136.00	\$ 116.00	\$ 109.00	\$ 85.00	\$ 78.00				
SUBTOTAL DIRECT EXPENSES									\$ 64.20			
TOTAL									\$50,197.20			

FEE SCHEDULE
(LUMP SUM PAYMENT BASIS)
P1 Survey (EHRA)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Survey

SUBPROVIDER: EHRA

TASK DESCRIPTION	EHRA - PROJECT MANAGER	SURVEY TECHNICIAN	CADD TECHNICIAN	FIELD CREW 3-MAN	ADMIN		TOTAL HRS. & COSTS	COST PER TASK
CONTRACT RATE PER HOUR	\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00			
SURVEY (LUMP SUM PAYMENT BASIS)								
Topo Survey								
DIGTESS Locate Request	1	2					3	\$ 465.00
Utility Research	1	4					5	\$ 735.00
Pipeline Coordination	2	3		10			15	\$ 2,695.00
Field Topographic Survey - Control	2	2		20			24	\$ 4,460.00
Field Topographic Survey-Roadway	6	6		120			132	\$ 24,780.00
Soil Borings	1	4		10			15	\$ 2,635.00
Topographic Survey-Office	6	35	60				101	\$ 11,595.00
Prepare 3D TIN File	2	16					18	\$ 2,550.00
Prepare ASCII point file	1	2					3	\$ 465.00
Deliverables	1	3	8				12	\$ 1,360.00
Control Sheets								
Survey Control Map	4	15	30				49	\$ 5,655.00
ROW Research / ROW line determination								
Abstracting	1	1					2	\$ 330.00
Existing ROW Sketch/Boundary Survey - Field	5	15	20	20			60	\$ 8,700.00
Existing ROW/Boundary Survey-Office	4	12	40				56	\$ 6,200.00
ROE								
Letter Drafting	1	2			2		5	\$ 625.00
HOURS SUB-TOTALS	38	122	158	180	2	0	500	
SUBTOTAL	\$7,410.00	\$16,470.00	\$15,010.00	\$34,200.00	\$160.00	\$0.00	\$73,250.00	\$73,250.00
TOTAL HOURS	38	122	158	180	2	0	500.0	
CONTRACT RATE PER HOUR	\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00	\$ -		
SUBTOTAL LABOR EXPENSES	\$ 7,410.00	\$ 16,470.00	\$ 15,010.00	\$ 34,200.00	\$ 160.00	\$ -	\$73,250.00	
DIRECT EXPENSES	QUANTITY	UNIT	RATE				TOTAL	
Utility Records	1		\$ 1,350.000				\$ 1,350.00	
SUBTOTAL OTHER DIRECT EXPENSES							\$ 1,350.00	
TOTAL							\$74,600.00	

FEE SCHEDULE
(TIME MATERIALS PAYMENT BASIS)
P2 ROW (EHRA)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - ROW Mapping

SUBPROVIDER: EHRA

TASK DESCRIPTION	EHRA - PROJEC MANAGER	SURVEY TECHNICIAN	CADD TECHNICIAN	FIELD CREW 3-MAN	ADMIN		TOTAL HRS. & COSTS	COST PER TASK
CONTRACT RATE PER HOUR	\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00			
(TIME AND MATERIALS PAYMENT BASIS)								
ROW Mapping								
Category 1A Land Title Survey (2)	2	2	8	10			22	\$ 3,320.00
Proposed Project ROW Map w/ Parcels	2	10	20				32	\$ 3,640.00
Proposed ROW Parcel Taking Survey (2)	4	12	20	10			46	\$ 6,200.00
Prepare KMZ File	1	6	12				19	\$ 2,145.00
ROW Construction Staking								
Stakeout Proposed ROW - Utility Relocation	1	2		6			9	\$ 1,605.00
Stakeout Proposed ROW - Pre-Construction	1	2		6			9	\$ 1,605.00
HOURS SUB-TOTALS	11	34	60	32	0	0	137	
SUBTOTAL	\$2,145.00	\$4,590.00	\$5,700.00	\$6,080.00	\$0.00	\$0.00	\$18,515.00	\$18,515.00

TOTAL HOURS	11	34	60	32	0	0	137.0	
CONTRACT RATE PER HOUR	\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00	\$ -		
SUBTOTAL LABOR EXPENSES	\$ 2,145.00	\$ 4,590.00	\$ 5,700.00	\$ 6,080.00	\$ -	\$ -	\$18,515.00	
DIRECT EXPENSES	QUANTITY	UNIT	RATE				TOTAL	
Abstracting 1 Tract	1		\$ 750.00				\$ 750.00	
SUBTOTAL OTHER DIRECT EXPENSES							\$ 750.00	
TOTAL							\$19,265.00	

FEE SCHEDULE
(LUMP SUM PAYMENT BASIS)
P1 Geotech Pvt Storm (GET)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Geotechnical - Paving and Storm Sewer

SUBPROVIDER: Geotech Engineering and Testing

TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING TECH	SENIOR CADD OPERATOR	CADD OPERATOR	SENIOR TECHNICIAN	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS
CONTRACT RATE PER HOUR	\$ 250.00	\$ 205.00	\$ 115.00				\$ 55.00	\$ 70.00			
1 Project Kickoff and Planning	4	2	3						9	\$ 1,755.00	N/A
2 Initial Site Visits			11						11	\$ 1,265.00	N/A
3 Field Exploration			9				36		45	\$ 3,015.00	N/A
4 Laboratory Testing			8						8	\$ 920.00	N/A
5 Boring Logs and Exhibits			11						11	\$ 1,265.00	
6 Preliminary Report Preparation	2.5	15.5	50						68	\$ 9,552.50	N/A
7 Final Report Preparation and Delivery	1	2	4					6	13	\$ 1,540.00	N/A
8 Review of plans and specifications	1	3	4						8	\$ 1,325.00	N/A
HOURS SUB-TOTALS	8.5	22.5	100	0	0	0	36	6	173		N/A
SUBTOTAL (FC 1B3)	\$2,125.00	\$4,612.50	\$11,500.00	\$0.00	\$0.00	\$0.00	\$1,980.00	\$420.00	\$20,637.50	\$20,637.50	

TOTAL HOURS	9	23	100	0	0	0	36	6	173	
CONTRACT RATE PER HOUR	\$ 250.00	\$ 205.00	\$ 115.00	\$ -	\$ -	\$ 75.31	\$ 55.00	\$ 70.00		
SUBTOTAL LABOR EXPENSES	\$ 2,125.00	\$ 4,612.50	\$11,500.00	\$ -	\$ -	\$ -	\$ 1,980.00	\$ 420.00	\$20,637.50	
DIRECT EXPENSES	QUANTITY	UNIT	RATE							TOTAL
1 Concrete Coring	9	Each	\$170.00							\$ 1,530.00
	54	Inch	\$16.00							\$ 864.00
2 Traffic Control	4	Days	\$720.50							\$ 2,882.00
3 ATV Rig Allowance		ft	\$10.00							\$ -
mobilization/demob		each	\$250.00							\$ -
4 Drilling										
Mobilization/Demobilization	1	each	\$700.00							\$ 700.00
Continuous Drilling	135	ft	\$25.00							\$ 3,375.00
Intermittent Drilling	45	ft	\$23.00							\$ 1,035.00
Daily travel	1	each	\$500.00							\$ 500.00
Borehole grouting	160	ft	\$12.00							\$ 2,160.00
Vehicle charge	54	hr	\$12.00							\$ 648.00
5 Laboratory Testing										\$ -
Water content	81	each	\$11.000							\$ 891.00
LL & PI	18	each	\$71.00							\$ 1,278.00
-200	18	each	\$55.00							\$ 990.00
Sieve analysis with hydrometer		each	\$145.00							\$ -
Torvane	81	each	\$3.00							\$ 243.00
Hand Penetrometer	81	each	\$4.00							\$ 324.00
UCS	18	each	\$51.00							\$ 918.00
6 Report Reproduction Allowance										\$ 300.00
SUBTOTAL DIRECT EXPENSES										\$ 18,638.00
TOTAL										\$39,275.50

FEE SCHEDULE
(LUMP SUM PAYMENT BASIS)
P1 Geotech Outfall Pond (GET)

Fort Bend County 2020 Mobility Bond Program
Lexington Boulevard
Project No. 20405
SUMMARY OF SCOPE - Geotechnical - Outfall and Detention Pond

SUBPROVIDER: Geotech Engineering and Testing

TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING TECH	SENIOR CADD OPERATOR	CADD OPERATOR	SENIOR TECHNICIAN	ADMIN/CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS
CONTRACT RATE PER HOUR	\$ 250.00	\$ 205.00	\$ 115.00				\$ 55.00	\$ 70.00			
1 Project Kickoff and Planning	1	2	1						4	\$ 775.00	N/A
2 Initial Site Visits			4						4	\$ 460.00	N/A
3 Field Exploration		1.5	6				16		23.5	\$ 1,877.50	N/A
4 Laboratory Testing		1	5						6	\$ 780.00	N/A
5 Boring Logs and Exhibits			4						4	\$ 460.00	
6 Preliminary Report Preparation	2.5	23.5	66						92	\$ 13,032.50	N/A
7 Final Report Preparation and Delivery	1	1	2					2	6	\$ 625.00	N/A
8 Review of plans and specifications	1	3	4						8	\$ 1,325.00	N/A
HOURS SUB-TOTALS	5.5	32	92	0	0	0	16	2	147.5		N/A
SUBTOTAL (FC 153)	\$1,375.00	\$6,560.00	\$10,580.00	\$0.00	\$0.00	\$0.00	\$880.00	\$140.00	\$19,535.00	\$19,535.00	

TOTAL HOURS	6	32	92	0	0	0	16	2	148	
CONTRACT RATE PER HOUR	\$ 250.00	\$ 205.00	\$ 115.00	\$ -	\$ -	\$ 76.31	\$ 55.00	\$ 70.00		
SUBTOTAL LABOR EXPENSES	\$ 1,375.00	\$ 6,560.00	\$10,580.00	\$ -	\$ -	\$ -	\$ 880.00	\$ 140.00	\$19,535.00	
DIRECT EXPENSES	QUANTITY	UNIT	RATE							TOTAL
1 Concrete Coring		Each	\$170.00							\$ -
		inch	\$16.00							\$ -
2 Traffic Control		Days	\$720.50							\$ -
3 ATV Rig Allowance	65	ft	\$10.00							\$ 650.00
mobilization/demob	1	each	\$250.00							\$ 250.00
4 Drilling										
Mobilization/Demobilization	1	each	\$700.00							\$ 700.00
Continuous Drilling	45	ft	\$25.00							\$ 1,125.00
Intermittent Drilling	20	ft	\$23.00							\$ 460.00
Daily travel		each	\$500.00							\$ -
Borehole grouting	65	ft	\$12.00							\$ 780.00
Vehicle charge	24	hr	\$12.00							\$ 288.00
5 Laboratory Testing										\$ -
Water content	28	each	\$11,000							\$ 308.00
LL & PI	7	each	\$71.00							\$ 497.00
-200	5	each	\$55.00							\$ 275.00
Sieve analysis with hydrometer	2	each	\$145.00							\$ 290.00
Torvane	28	each	\$3.00							\$ 84.00
Hand Penetrometer	28	each	\$4.00							\$ 112.00
UCS	7	each	\$51.00							\$ 357.00
Consolidated Undrained Triaxial Test	3	each	\$1,800.00							\$ 5,400.00
Double Hydrometer	6	each	\$250.00							\$ 1,500.00
Crumb Test	12	each	\$43.00							\$ 516.00
8 Report Reproduction Allowance										\$ 300.00
SUBTOTAL DIRECT EXPENSES										\$ 13,892.00
TOTAL										\$33,427.00

May 26, 2021

VIA E-MAIL: Jellison@bgeinc.com

Mr. Jason Ellison, P.E.
BGE, Inc.
10777 Westheimer, Suite 400
Houston, Texas 77042

Re: Proposal for Surveying Services for Fort Bend County
Lexington Boulevard from 550-feet West of Laurel Green Road
to 550-feet East of Lexington Grove Drive
Precinct 4 (Project No. 20405)
EHRA Project No. 211-520-00 (41)(50)(62)

Dear Mr. Ellison,

At your request, Edminster, Hinshaw, Russ & Associates, Inc. d/b/a EHRA (Surveyor) has prepared this proposal to provide professional surveying services for BGE, Inc. (Client) as referenced above, in accordance with the following description of professional services, terms, and conditions:

SCOPE OF SERVICES

BASIC SERVICES

Existing Right-of-Way (ROW) and Topographic Design Survey

Surveyor will perform a survey in substantial compliance with a Category 2, Condition II Route Survey and a Category 6, Condition II Topographic Survey for Lexington Boulevard from 550-feet west of Laurel Green Road to 550-feet east of Lexington Grove Boulevard, required to establish the current right-of-way and existing conditions required for the final roadway design. This will involve locating boundary corners for the current right-of-ways and mapping Lexington Boulevard and the cross-streets 100-feet each direction from the right-of-way of each intersection, for an approximate total linear footage of 6,000-feet, including off-site drainage. The existing right-of-way at Lexington Boulevard will be mapped for the limits of current occupied right-of-way and 20-feet beyond the right-of-way along the block corners required for the final roadway design parcels, providing access is permitted. The Scope of Services is more specifically described as follows:

1. Perform abstracting to obtain copies of current deeds and plats for the existing right-of-way for Lexington Boulevard from 550-feet west of Laurel Green Road to 550-feet east of Lexington Grove Drive and the current intersections of Sheffield Drive, Laurel Green Road, Castlebar Lane, Lexington Green Drive, Brightwater Drive/Birchstone Drive, Grandfalls Drive, Bluestone Drive, and Lexington Grove Drive, includes abstracting the adjacent subdivision plats and acreage tracts;

2. Prepare and send right-of-entry letters to landowners adjacent to Lexington Boulevard and the current intersections;
3. Notify DIGTESS and request underground utility companies mark the locations of private utility lines within the project limits;
4. Research public and private utilities to obtain record documents or plans for existing facilities;
5. Coordinate with private pipeline companies to meet and obtain information regarding the locations and depths for petroleum pipelines that might cross the project limits (if any are within the project limits);
6. Perform field surveying to set "permanent" iron rod control monuments at each intersection sufficient for conventional total station data collection surveying. The control shall be oriented to the Texas State Plane Coordinate System, NAD of 1983, South Central Zone, and scaled to the surface using the appropriate scale factor. Elevations will be established on all control monuments based on the current National Geodetic Survey (NGS) Benchmark, NAVD 1988. Additional temporary benchmarks shall be set at each intersection;
7. Perform technical office processing of abstract records to prepare a working sketch of the current right-of-way and property along Lexington Boulevard and the current intersections sufficient for field recovery of boundary corners. Perform field surveying to recover and tie boundary corners for the existing right-of-way lines and tracts of land along Lexington Boulevard and the current intersections sufficient to establish the current rights-of-way lines and adjacent property lines for the project limits;
8. Perform field surveying along Lexington Boulevard and 100-feet along the side streets and 50-feet along driveways to locate existing features (natural and man-made). The field surveying shall include; locating existing roadway features and striping, signal poles, medians, sidewalks, ramps, driveways, culverts, outfall channels and drainage structures, visible utilities and marked utilities, mail boxes, fences, signs, trees, and other major visible improvements; Outline heavily wooded areas; Obtain elevations across the project limits at 100-foot intervals; Obtain elevations of manhole covers, valve covers, valve operating nuts (where accessible); Elevations of underground utility pipes where accessible (manholes, inlets, and culvert pipes); and provide photos of underground utility manholes, utility markers, and signs. Survey limits for the existing outfall channel will extend 100-feet upstream and 300-feet downstream of Lexington Boulevard, including the entire pond section;
9. Coordinate with geotechnical consultants to determine the locations and ground surface elevations for soil boring locations throughout the limits of the project;
10. Process the field surveying boundary data and perform technical office calculations and analysis of the property corners to establish the existing right-of-way lines for Lexington Boulevard and the current intersections sufficient to establish the current rights-of-way lines and adjacent property lines for the project limits;



11. Process all field survey topographic survey data, record utility data and prepare an existing condition 2D topographic survey base map for the project limits; Research the Federal Emergency Management Agency for current elevations and locations of the flood plain lines affecting the project limits and incorporate these into the final drawing; and Attach a separate reference file of the existing right-of-way lines and boundary lines for the property adjacent to the limits of the project. The map shall be prepared in AutoCad and converted to MicroStation DGN format and will be sufficient for engineering review and design. Files will be named according to Fort Bend County naming convention;
12. Prepare a 3D TIN file in MicroStation for the project limits;
13. Prepare an ASCII point file for all topographic survey data;
14. Prepare a Survey Control Map (11" X 17" sheet) for the overall project control to be signed and sealed by a Registered Professional Land Surveyor licensed to practice in the State of Texas; and
15. Deliverables will include KMZ of 2D planimetric survey and PDF copies of field book records.

ROW Mapping and Parcel Documents (Land Title Survey)

The purpose of this survey is to provide a Category 1A Survey for corner clips along Lexington Boulevard at side streets and driveway intersections. Once the right-of-way needs have been recognized by the county, the Surveyor shall provide the following Scope of Services:

1. Perform abstracting to provide a title report for two (2) tracts of land subject to a corner clip or parcel;
2. Perform a Category 1A Field Survey for the two (2) tracts of land subject to a corner clip or parcel;
3. Prepare a continuous right-of-way map for the limits of Lexington Boulevard at the intersections and driveway tracts showing the existing project limits, the boundary lines, and current ownership information for the tracts of land at each corner of the intersections. This map will be used for the review of proposed right-of-way clip corner lines;
4. Perform technical office surveying to calculate the proposed right-of-way clip corner lines required for each new parcel of land;
5. Upon approval of the proposed right-of-way lines for each parcel, the Surveyor will prepare a parcel map and metes and bounds description for each separate parcel of land to be acquired. The basis of bearings will be the Texas Coordinate System, 1983, South Central Zone. These surveys will be made in conformance with a Category 1A, Condition II Survey and prepared in AutoCad and Microsoft Word;



6. Perform field stakeout for each separate parcel. The final stakeout of the parcels on the ground will be performed using capped iron rods five-eighths (5/8) of an inch in diameter and twenty-four (24) inches in length;
7. Prepare a KMZ file for each parcel including, existing ownership information, parcel number, and preliminary roadway layout;
8. After the acquisition of the parcels of land at each intersection, design of final roadway and drainage improvements, and upon notification by the client, the Surveyor will perform a right-of-way stakeout for clearing and utility relocations on a one-time basis. Copies of our stakeout records will be provided to the client upon request; and
9. Prior to construction, the Surveyor will perform a right-of-way stakeout on a one-time basis. Copies of our stakeout records will be provided to the client upon request.

The Surveyor's statement included as a part of the Parcel Map will contain the following language:

“We, Edminster, Hinshaw, Russ & Associates, Inc. d/b/a EHRA acting by and through _____, a Texas Registered Professional Land Surveyor, hereby certify that this survey substantially complies with the current Texas Society of Professional Surveyors Standards and Specifications for a Category 1A, Condition II Survey.”

COMPENSATION

We propose to provide Existing Right-of-Way and Topographic Design Survey Services to the Client on lump sum basis, including abstracting and reimbursable utility records expenses, for a total fee of \$74,600.00, as shown on the attached man-hour projection sheets. We propose to perform the ROW Mapping and Land Title Survey and Parcel Documents on a time and materials basis, including abstracting title report expenses, for a total estimated fee of \$19,265.00, not including state sales tax. Should we discover any unforeseen problems not routinely or customarily associated with the above-described Scope of Services, we will notify you of the circumstances and provide a separate proposal for Additional Services. Sales tax on the right-of-way and parcel surveying is not included in this fee but will be collected if a tax exemption certificate is not provided. Surveyor will not proceed with any Additional Services without prior written authorization by Client. The cost of labor, materials, and equipment for performing the above Scope of Services includes deed research for the boundary and printing and delivery of copies of the drawing and metes and bounds description.

PAYMENT

Surveyor shall submit monthly invoice(s) for services rendered and for reimbursable expenses incurred in accordance with the attached Hourly Rate and Reimbursement Schedule. Client shall make prompt monthly payment(s) in response to Surveyor's invoice(s).



Additional work beyond the Scope of Services described above will be considered an Additional Service and will subsequently be provided in accordance to the attached Hourly Rate and Reimbursement Schedule or negotiated to a fixed fee. Surveyor will not proceed with any Additional Services without prior written authorization by Client. Any Additional Services not contemplated under this Agreement can only be provided by a separate contract or change order.

The General Conditions (Exhibit "A") of this proposal are attached hereto and made a part hereof for all purposes.

If all terms and provisions are acceptable to you, please signify so by executing this document in the appropriate space provided. Please retain one (1) executed copy for your records and return one (1) executed copy to the undersigned. We will consider receipt of this executed document as our authorization to proceed.

We thank you for the opportunity to provide professional surveying services and we look forward to working with you on this project.

CLIENT AND SURVEYOR AGREE AS SET FORTH ABOVE.

CLIENT

SURVEYOR

BGE, INC.

**EDMINSTER, HINSHAW, RUSS
& ASSOCIATES, INC. d/b/a EHRA**

By: _____
Jason Ellison, P.E.

By: _____
Robert L. Boelsche, R.P.L.S.
Sr. Survey Project Manager
Surveying and Mapping Services

Effective Date: _____

Date: _____

By: _____
Charles Kennedy, Jr., R.P.L.S.
Sr. Vice President | Practice Area Leader
Surveying and Mapping Services

Date: _____

RLB/ol

Attachments: Exhibit "A" – General Conditions
Hourly Rates 2019STD2SV
Lexington Blvd. Man Hour Projection Route and Topo
Lexington Blvd. Man Hour Projection Addn ROW



EXHIBIT "A"
GENERAL CONDITIONS

CLIENT'S RESPONSIBILITY (SURVEYING): Easements and other restrictions of record, unless depicted on a recorded plat, will be noted based on a current title insurance commitment or title report together with copies of the relevant documents all of which will be provided by the Client.

SURVEYOR'S/ENGINEER'S RESPONSIBILITY: The Surveyor/Engineer hereby represents and warrants to the Owner/Client that the Surveyor/Engineer is licensed by the State of Texas to perform the work, is experienced in the performance of the work similar to the work to be performed, and is competent to perform the work. The Owner/Client is relying upon the expertise of the Engineer/Surveyor in its performance of the work.

ADDITIONAL SERVICES: If authorized by the Owner/Client, Edminster Hinshaw, Russ & Associates, Inc. ("EHRA") will furnish or obtain from others, Additional Services not included in the Basic Services. Any Additional Services not contemplated under this Agreement can only be provided by written authorization from the Owner/Client and will be in accordance with the attached Hourly Rate and Reimbursement Schedule or negotiated to a lump-sum fee. Any work not specified above that may arise will be covered under the Additional Services section and as such, EHRA will not proceed with any Additional Services without written authorization by Owner/Client.

Additional Services required by Owner/Client, which may arise and are not outlined in the Basic Services include revisions to drawings due to design changes associated with alteration to Owner/Client-approved general plan after the design work has commenced, design of non-standard structures, preparation of easements by separate instrument, and survey staking other than listed above, etc. All Additional Services for assignments related to design and preparation of construction plans will include topographic surveying, construction plan preparation, governmental agency approvals, bidding cycle services, construction control staking, construction phase services, and post-construction topographic survey, as may be required.

FAILURE TO MAKE PAYMENT: If Owner/Client fails to make any payment due EHRA for services and expenses within thirty (30) days after receipt of EHRA's statement thereof, the amounts due EHRA will be increased at the rate of 1% per month from said thirtieth (30th) day, and in addition, EHRA may, after giving fourteen (14) days written notice to Owner/Client, suspend services under this Agreement until EHRA has been paid in full all amounts due for services, expenses and charges.

TERMINATION OF AGREEMENT: This Agreement may be terminated by EHRA or Owner/Client by providing fourteen (14) days written notice to the other party. In the event of such termination, EHRA will prepare an invoice for all work performed, on the task underway, up to the date of termination. The total of this work will be deducted from the advance payment (if any) and any balance remaining will be reimbursed back to Owner/Client.

OWNERSHIP OF DOCUMENTS: Drawings, images, fonts and specifications as instruments of service are, and will remain, the property of EHRA, whether the project for which they are made is executed, or not. EHRA is not to reuse these drawings, or any part thereof, for any other client EHRA may have, without the written approval of Owner/Client contingent upon EHRA having been paid in full. These drawings, images and fonts are not to be used by Owner/Client on other projects, or extensions to this project, except by agreement in writing and with appropriate compensation to EHRA.

Owner/Client certifies they have proper license or ownership of data, fonts or images given to EHRA for incorporation into work product.

EHRA will provide Owner/Client with a copy of its engineering/surveying calculations upon which its designs are based. All correspondence, documents and drawings initiated from EHRA's office will be copied to Owner/Client's office as an original document.

EHRA will provide to the Owner/Client the results of the work product in a paper ("hard copy") form. An AutoCAD drawing file ("soft copy") of the work product may be provided to the Owner/Client, if requested. Use of soft copy information is governed by the attached "Electronic File Transfer Agreement." All original documents, drawings, notes, or procedures, in whatever form, produced as a result of this professional service will remain the property of EHRA and may be used by EHRA without the consent of the Owner/Client.

SUCCESSORS AND ASSIGNS: Owner/Client and EHRA each binds itself, its successors, assigns and legal representatives to the other party of this Agreement and to the successors, assigns and legal representatives of such other party with respect to all provisions of this Agreement. Neither Owner/Client nor EHRA will assign, set over or transfer its interest, in whole or in part, in this Agreement without the prior written consent of the other, and any act in derogation hereof, will, at the option of the non-assigning party, render the within Agreement terminated. Minor changes in EHRA's corporation will not operate to cancel this Agreement.

INSURANCE PROVISION: EHRA will carry professional liability insurance in the minimum amount of One Million (\$1,000,000) dollars per claim and Two Million (\$2,000,000) dollars aggregate limits to indemnify itself from damage resulting from errors and omissions from surveying, drawings, or specifications, which insurance will inure to the benefit of Owner/Client.

DISPUTE RESOLUTION: If a dispute arises out of or related to this Agreement or the breach thereof, the parties will attempt to settle the matter between themselves. If no agreement can be reached, the laws of Texas (other than the choice of law provisions thereof) should govern the validity of this Agreement, the construction of its terms, and the interpretation of the rights and duties of the parties. The parties hereto each hereby agree that all obligations performable under this Agreement and/or the Ancillary Documents shall be performed in Harris County, Texas, and each party hereto irrevocably attorns to the venue of the courts in Harris County, Texas.

CONDITIONS (SURVEYING): EHRA will begin the Survey upon receipt of this signed Agreement and proceed diligently to complete the Survey as soon as possible. Weather and other site conditions may affect our schedule and we will attempt to notify you promptly of delays which may affect our anticipated schedule. If the Client has a particular closing schedule or contract deadline, the Surveyor must be informed of this prior to the start of work.

LANDSCAPE ARCHITECT STATEMENT OF JURISDICTION: The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as Landscape Architects in Texas. Mailing Address: P.O. Box 12337, Austin, TX 78711; Phone: (512) 305-9000; or e-mail: customerservice@tbae.state.tx.us.

EXTENT OF AGREEMENT: This Agreement represents the entire and integrated agreement between Owner/Client and EHRA and supersedes all prior negotiations, representatives or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner/Client and EHRA. Any modifications to this original Agreement must be agreed to by Owner/Client and EHRA and initialed and dated by both the Owner/Client and EHRA in order for the modification to be in full force and effect.

GOVERNING LAW: This Agreement will be governed by the laws of the State of Texas.



EHRA
HOURLY RATE AND REIMBURSEMENT SCHEDULE
Standard Rates
2019

PROFESSIONAL SURVEYING PERSONNEL	Per Hour
Principal / RPLS	\$240.00
Expert Witness	225.00
Senior Survey Project Manager/RPLS	195.00
Survey Project Manager/RPLS	165.00
Senior Survey CAD Technician	135.00
CAD Technician	95.00
Senior Platting Coordinator	115.00
Platting Coordinator	105.00
Administrative Assistant	85.00
Clerical	80.00
Survey Field Supervisor	130.00
Survey 1 Person GPS/Robotic Crew	140.00
Survey Party Chief	90.00
Survey Instrument Person	65.00
Survey Rod Person	35.00

UAV LiDAR (Drone)

available upon request

REIMBURSABLES:

Delivery	Cost
Sub-Consultant Fees	Cost
Outside Abstracting, Documentation, Deed Research	Cost
Advertising	Cost
Plan Review Fees, Governmental Fees	Cost

Above fees include all materials, mileage, tolls, equipment, reproduction and incidentals.

MAY 2021
MAN-HOUR PROJECTIONS FOR
LEXINGTON BOULEVARD FROM 500' WEST OF LAUREL GREEN TO 550' EAST OF LEXINGTON GROVE DRIVE
ROUTE AND TOPOGRAPHIC SURVEY

	TASK	PROJECT MANAGER	SURVEY TECH	CADD TECH	3-MAN CREW	ADMIN	TOTAL
1	Abstracting	1	1				\$330.00
2	Right-of-Entry Letters	1	2			2	\$625.00
3	DIGTESS locate request	1	2				\$465.00
4	Utility Research	1	4				\$735.00
5	Pipeline Coordination	2	3		10		\$2,695.00
6	Field Topographic Survey-Control	2	2		20		\$4,460.00
7	Existing ROW Sketch/Boundary Survey-Field	5	15	20	20		\$8,700.00
8	Field Topographic Survey-Roadway	6	6		120		\$24,780.00
9	Soil Borings	1	4		10		\$2,635.00
10	Existing ROW/Boundary Survey-Office	4	12	40			\$6,200.00
11	Topographic Survey-Office	6	35	60			\$11,595.00
12	Prepare 3D TIN File	2	16				\$2,550.00
13	Prepare ASCII point file	1	2				\$465.00
14	Survey Control Map	4	15	30			\$5,655.00
15	Deliverables	2	4	8			\$1,690.00
TOTAL HOURS		38	122	158	180	2	
HOURLY RATE		\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00	
TOTAL		\$ 7,410.00	\$ 16,470.00	\$ 15,010.00	\$ 34,200.00	\$ 160.00	
	OTHER - Reimbursable (Abstracting and Utility Records)						\$1,350.00
GRAND TOTAL		\$ 7,410.00	\$ 16,470.00	\$ 15,010.00	\$ 34,200.00	\$ 160.00	\$74,600.00

**MAY 2021-REVISED
MAN-HOUR PROJECTIONS FOR
LEXINGTON BOULEVARD FROM 500' WEST OF LAUREL GREEN TO 550' EAST OF LEXINGTON GROVE DRIVE
ROW MAPPING AND PARCEL DOCUMENTS (LAND TITLE SURVEY)**

	TASK	PROJECT MANAGER	SURVEY TECH	CADD TECH	3-MAN CREW	ADMIN	TOTAL
1	Category 1A Land Title Survey (2)	2	2	8	10		\$3,320.00
2	Proposed Project ROW Map w/ Parcels	2	10	20			\$3,640.00
3	Proposed ROW Parcel Taking Survey (2)	4	12	20	10		\$6,200.00
4	Prepare KMZ File	1	6	12			\$2,145.00
5	Stakeout Proposed ROW - Utility Relocation	1	2		6		\$1,605.00
6	Stakeout Proposed ROW - Pre-Construction	1	2		6		\$1,605.00
TOTAL HOURS		11	34	60	32	0	
HOURLY RATE		\$ 195.00	\$ 135.00	\$ 95.00	\$ 190.00	\$ 80.00	
TOTAL		\$ 2,145.00	\$ 4,590.00	\$ 5,700.00	\$ 6,080.00	\$ -	
	OTHER - Reimbursable (Abstracting 2 Tracts)						\$750.00
GRAND TOTAL		\$ 2,145.00	\$ 4,590.00	\$ 5,700.00	\$ 6,080.00	\$ -	\$19,265.00

**REVISED
PROPOSAL FOR
LIMITED GEOLOGIC FAULT STUDY AND GEOTECHNICAL STUDY
LEXINGTON BOULEVARD
FROM LAUREL GREEN RD. TO 450-FT EAST OF LEXINGTON GROVE DR.
PAVING AND DRAINAGE IMPROVEMENTS
FORT BEND COUNTY MOBILITY BOND PROJECT 20405
FORT BEND COUNTY, TEXAS
REVISION I**

PROPOSAL NO. P21-117



TO

**BGE, INC.
HOUSTON, TEXAS**

BY

GEOTECH ENGINEERING AND TESTING

www.geotecheng.com

MAY 2021



GEOTECH ENGINEERING and TESTING

Geotechnical, Environmental, Construction Materials, and Forensic Engineering



ACCREDITED
CERTIFICATE #0075-01
#0075-02

BGE, Inc.
10777 Westheimer, Suite 400
Houston, Texas 77042

Attention: Mr. Jason Ellison, P.E.
Group Manager, Roadways

Proposal No. P21-117

May 27, 2021

Tel.: 713-488-8150

E-mail: jellison@bgeinc.com

**REVISED
PROPOSAL FOR
LIMITED GEOLOGIC FAULT STUDY AND GEOTECHNICAL STUDY
LEXINGTON BOULEVARD
FROM LAUREL GREEN RD. TO 450-FT EAST OF LEXINGTON GROVE DR.
PAVING AND DRAINAGE IMPROVEMENTS
FORT BEND COUNTY MOBILITY BOND PROJECT 20405
FORT BEND COUNTY, TEXAS
REVISION I**

Gentlemen:

At your request, we are pleased to submit this proposal for the Lexington Boulevard, from Laurel Green Road to 450-ft east of Lexington Grove Drive Paving and Drainage Improvement project. The paving and drainage improvements will be about 3,700-ft, from Laurel Green Road to 450-ft east of Lexington Grove Drive, Fort Bend County, Texas. The improvement includes reconstruction of existing concrete boulevard and storm sewers. An outfall and a detention pond will also be constructed as a part of this project. The size, depth and location of the detention pond and the size and depth of the outfall are unknown at this time. The planned paving improvements were discussed in detail with Mr. Jason Ellison, P.E. in order to plan a study that would provide the necessary design and construction data.



INTRODUCTION

It is planned to improve approximately 3,700 linear feet of the Lexington Boulevard, from Laurel Green Road to 450-ft east of Lexington Grove Drive, Fort Bend County, Texas. We understand that the proposed improvement will consist of concrete pavement, storm sewers, an outfall and a detention pond. The specific improvement will consist of the following:

Facility	Remarks
Paving	The roadway will be about 3,700-ft long, concrete paving. We understand that it is proposed to construct 8-inch concrete pavement over 8-inch lime stabilized subgrade. Furthermore, we understand that 30-year design life will be used for concrete pavement design. The traffic loading in the form of ESAL is not available, hence, the traffic loading will be assumed.

Facility	Remarks
Storm Sewers	The underground utilities will consist of storm sewers. We assumed that the depth of the underground utilities will be less than 10-ft deep.
Outfall	We understand that an outfall will be constructed at a drainage ditch located near the intersection of Laurel Green Road and Lexington Boulevard. The depth and size of the outfall is unknown at the time.
Detention Pond	We understand a detention pond will be constructed during this project. The size depth of detention pond is unknown at this time. We assumed a pond depth of 10-ft for the purpose of this proposal.

This proposal is divided into three sections. Each section will be discussed and estimated separately. These sections are as follows:

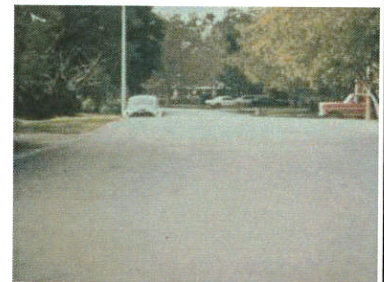
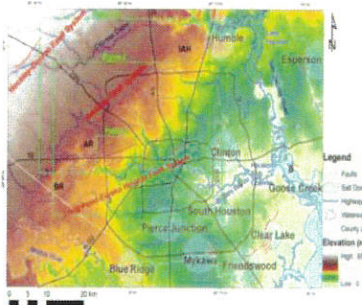
- o Limited Geologic Fault Study.
- o Geotechnical Exploration Study for the pavement and drainage improvements.
- o Geotechnical Exploration Study for an outfall and a detention pond.



The scope of our work will be in general accordance with the Fort Bend County Engineering Design Manual (FBC Engineering Dept., August 2020). We will not perform the geotechnical exploration for the subject project in accordance with the City of Houston, Harris County or TxDOT Guidelines. We will not perform the geotechnical exploration for the outfall and detention pond in accordance with the HCFCD Guidelines.

LIMITED GEOLOGIC FAULT STUDY

The project site is located in Fort Bend County, Texas. Geologic faults are scattered throughout Houston. In general, faults are caused by groundwater and oil removal from the underlying surface. Faults originate several thousand feet below the ground surface and can often cause displacement of the ground surface, causing broken pavement, water lines, and damage to residential and commercial structures.



A Limited Geologic Fault Study will be conducted. A limited geologic fault study will include a study of published data on surface faults in the area of the site from the Geotech Engineering and Testing Library and a field visit by our project engineer to identify any visual fault activity. A report of our findings will be provided.

GEOTECHNICAL STUDY

Field Exploration

Site Access. Major portion of the project alignment is along the existing concrete pavement. Therefore, site access can be provided, using a truck-mounted drilling rig. Traffic control will be required. Due to presence of soft subgrade soils and potential access problems, an ATV rig may have to be used to drill borings for the proposed outfall and detention pond.



Surveying. The client will establish and provide GET the boring coordinates and ground surface elevations. GET will mark the boring locations in the field so that the survey crew can locate them.

Checking for Utilities. GET will call Texas 811-Call for the locations of utilities. GET will coordinate these activities. GET will not hire a contractor to conduct subsurface utility studies to find location of any and all utilities. This is not the scope of GET work. We recommend the scope of our work to include subsurface utility investigation at boring locations to assess that underground utilities are not hit during field exploration.



Traffic Control. Traffic control will be required along the project alignment during our field exploration. The scope of our field work will require a lane closure during drilling and sampling and borehole grouting. Our traffic control will be subcontracted out.

Pavement Coring. The existing pavement will be cored at nine (9) locations prior to drilling and sampling. We will provide the pavement thickness components in our report, as to the depth from existing surface to the top of first soil sample. All of the cores will be seven inches in diameter.



Drilling and Sampling. We will evaluate the soil stratigraphy and groundwater conditions for the proposed paving and storm sewer improvements by conducting fifteen (9) soil borings to a depth of 20-ft from existing grade. It should be noted that spacing between borings is about 500-ft. We will conduct one (1) boring at the proposed outfall and two (2) soil borings at the proposed detention pond to a depth of 25- and 20-ft, respectively from existing grade. The Plan of Borings for the proposed paving, storm sewers and outfall are shown on Plate 2. The plan of borings does not include the proposed borings for detention pond as the location of the pond is unknown at this time. The borings schedule is as follows:

Facility	Borings	Depth, ft	Remark
Paving and Underground Utilities	B-1 thru B-9	20	A truck-mounted drilling rig.
Outfall	B-10	25	A truck-mounted drilling rig. An ATV rig may be needed, if wet and soft soils are encountered.
Detention Pond	B-11 & B-12	20	A truck-mounted drilling rig. An ATV rig may be needed, if wet and soft soils are encountered.

Soil samples will be obtained continuously from the surface to the completion depth of borings. The cohesive soils will be sampled, using a Shelby Tube sampler. Standard Penetration Tests (SPT) will be performed in sands, if encountered. Shear strengths of the clays will be measured in the field with a hand penetrometer and correlations between this data and laboratory unconfined compression and Torvane tests used to supplement laboratory shear strength data.

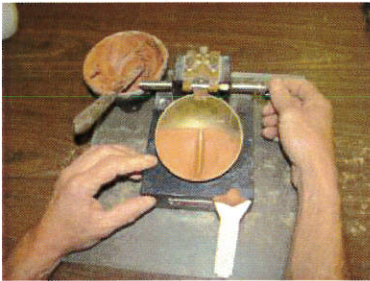
Groundwater. Depth to groundwater will be important for design and construction of the proposed facilities. For this reason, borings will be drilled dry and the depth at which groundwater is encountered will be recorded. Twenty-four hour water levels will not be measured.

Borehole Grouting. All of the geotechnical boreholes except those for the outfall and pond will be grouted with cement and bentonite, after drilling and sampling. The boreholes for the outfall and detention pond will be backfilled with soil cuttings.

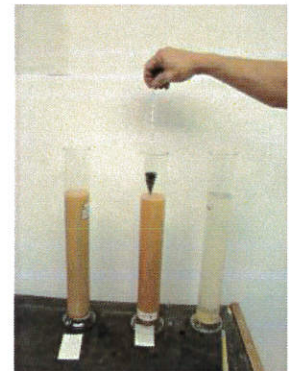


LABORATORY TESTING

Laboratory tests will vary with the soils encountered but will be planned to evaluate soils design parameters for the proposed detention basins, slope-stability and erosion protection.



It is anticipated that the tests will include moisture content (all samples), hand penetrometer, torvane, unconfined compression, consolidated undrained triaxial, unit weight, moisture content, liquid and plastic limit tests, gradation and hydrometer.



There will be additional detailed testing for the outfall and detention pond and erosion protection. These tests will consist of crumb tests and double hydrometer tests to evaluate the dispersive characteristics of the on-site soils.

All of the subsoils will be classified in general accordance with the American Society of Testing Materials (ASTM) Soil Classification System. All tests will be performed in general accordance with the ASTM Procedures.

ENGINEERING ANALYSES AND REPORTING

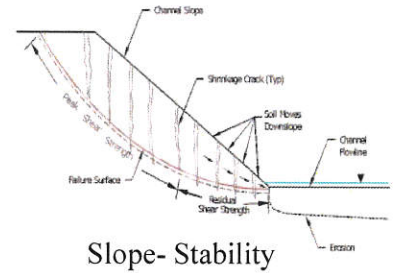
The field and laboratory data will be summarized in an engineering report. Analyses of these data will be presented, and recommendations made relative to the following:

Facility	Recommendations
General	<ul style="list-style-type: none"> ○ Summary. ○ Project site pictures. ○ Geology.

Facility	Recommendations
General	<ul style="list-style-type: none"> ○ Results of the Limited Fault Study and recommendations for Phase I Study, if warranted. ○ Generalized soils stratigraphy and groundwater levels. ○ Boring logs per GET format.
Road Paving	<ul style="list-style-type: none"> ○ Estimated subgrade properties (based on correlations) including CBR and Resilient Modulus values for natural soils. ○ Concrete pavement design, using AASHTO 1993 pavement design method. The traffic loading in the form of ESAL is not available, hence, the traffic loading will be assumed. ○ Concrete pavement recommendations. ○ Pavement steel placement and spacing. ○ Soil stabilization requirements for the pavements. ○ Potential construction problems. ○ Recommendations on site drainage.
Storm Sewers	<ul style="list-style-type: none"> ○ In the event that augering is used, we will provide, soil design parameters, ground stability, auger pit excavation stability and dewatering. ○ OSHA soil classification for trench safety
Outfall	<ul style="list-style-type: none"> ○ Recommendations on design of outfall structure, including bedding requirements, excavations, backfilling, etc. ○ Recommendations on ditch side slopes. Slope-stability analysis will not be conducted. ○ Soil types available from excavations and use of these materials for fill. ○ Dispersive soil characteristics and remedial measures. ○ Erosion protection, including the use of grass for erosion protection. ○ Potential construction issues.



Facility	Recommendations
Detention Pond	<ul style="list-style-type: none"> ○ Recommendations on design of the detention pond, including the recommended slope ratios based on the furnished cross sections. A detailed slope-stability analysis will be conducted. ○ Computerized slope-stability recommendations for short-term, long-term and rapid draw down conditions. ○ Recommended slope ratios and erosion protection. ○ Seepage and bottom blow up recommendations. ○ Dispersive soil characteristics and remedial measures. ○ Erosion recommendations, including the use of grass for erosion protection. ○ Recommendations on earthwork, select fill and construction procedures. ○ Constructability considerations.



COST ESTIMATE

General

Based on the scope of work outlined above, we estimate the cost for field, laboratory, and engineering services based on the Harris County Fee Schedule as shown on Plates 3 through 6. This estimate assumes underground obstructions will not be encountered that require boring relocations. GET is not responsible for damages to underground utilities, man-made utilities, etc. In the event that concrete, rock/rubble or hard soils are encountered, the boring(s) will be terminated. We understand that all of the boring elevations will be provided by the client prior to completion of GET report. Our cost estimate includes one draft report copy and one final report copy. A digital copy of the report will also be provided.



Underground Utilities

The cost estimate for geotechnical services assumes that underground obstructions will not be encountered during boring that requires boring relocation(s). GET will contact Texas 811 for the presence of underground utilities. However, Texas 811 does not have information regarding the presence of underground utilities inside the properties. GET is not responsible for damage to underground utilities, man-made objects, etc., that are not identified by Texas 811. The scope of our work does not include subsurface utility engineering. We recommend the scope of our work to include subsurface utility investigation at boring locations to assess that underground utilities are not hit during field exploration.

Traffic Control

GET is prepared to use any qualified traffic control subcontractor specified by the client. **Our estimated traffic control schedule is as follow:**

	<u>Day</u>	<u>Services</u>
	<u>4.0</u>	Coring, Drilling and Sampling, Borehole Grouting
Total:	<u>4.0</u>	

Cost Summary

A summary of estimated cost is presented below:

<u>Scope of Work</u>	<u>Estimated Cost</u>	<u>Cost Breakdown Plate(s)</u>
Limited Geologic Fault Study	\$ 1,312.50	3
Geotechnical Exploration for Paving and Storm Sewer	32,687.00	3 – 4
Traffic Control	2,882.00	4
Concrete Coring	<u>2,394.00</u>	4
Subtotal	<u>\$ 37,963.00</u>	
Geotechnical Exploration for outfall & detention pond	\$32,527.00	5 – 6
ATV Rig	<u>900.00</u>	6
Subtotal	<u>\$ 33,427.00</u>	
Grand Total	<u>\$ 72,702.50</u>	

REPORT REVIEWS AND COMMENTS

Our report will be submitted to BGE, Inc. in a draft form for comments. Once these reviews are completed, a final report will be issued. All of these comments will be incorporated in the final report. The client agrees that all reviews are complete once a notice for a final report is issued. Any changes to the final report will be outside the scope of our study. We will incorporate any future comments after the final report is issued on a time and materials basis per the applicable fee schedule.

TIME SCHEDULES

We estimate that the field work can be started about one (1) week after authorization is received. The project schedule will be as follows:

<u>Facility</u>	<u>Right of Way/Utility Clearance</u>	<u>Field Exploration</u>	<u>Laboratory Testing</u>	<u>Engineering</u>	<u>Total</u>
Paving and Utilities	10	10	20	30	70
Outfall and Detention Pond	8	5	17	25	55

Preliminary recommendations will be submitted during the course of the exploration, if required to expedite design.

We appreciate the opportunity to submit this proposal and look forward to being of service to you on this project. Formal acceptance of this proposal and our general conditions can be acknowledged by signing below and returning one copy for our files.

Very truly yours,

GEOTECH ENGINEERING AND TESTING

TBPE Registration Number F-001183



David A. Eastwood, P.E., D.GE, DFE, C.A.P.M., F.FPA, F. ASCE
Principal Engineer

ACCEPTED BY: _____

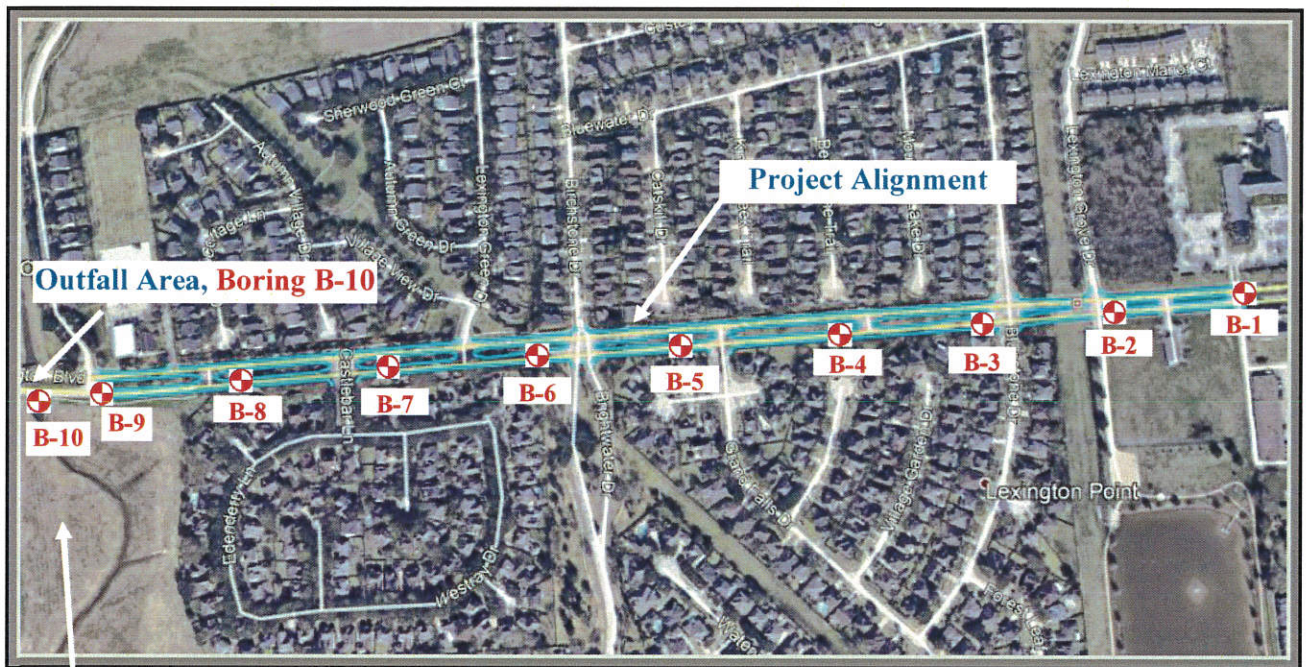
COMAPANY NAME: _____

PRINTED NAME: _____

DATE: _____

Enclosures: Site Vicinity Map -- Plate 1
Plan of Borings -- Plate 2
Cost Estimate -- Plates 3 through 6
General Conditions
Harris County Fee Schedule

Copies Submitted: (1) Mr. Jason Ellison, P.E.
(1) DAE



**Detention Pond Area,
Borings B-11 and B-12**

PLAN OF BORINGS (Boring locations are approximate)

PROJECT: Limited Geologic Fault Study and Geotechnical Exploration for Lexington Blvd. Paving and Drainage Improvements
FBC Mobility Bond Project 20405, Fort Bend County, Texas

SCALE: NOT TO SCALE

DATE: May 2021

PROPOSAL NO.: 21-117E

NORTH



Estimated Cost Summary (Detailed)

Limited Geologic Fault Study and Geotechnical Study
Lexington Boulevard Paving and Drainage Improvements
Fort Bend County, Texas

P21-117

Consultant Proposal Breakdown

GEOTECH ENGINEERING AND TESTING		Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/Drafting	Unit of Measure	Estimated Quantity	Rate	Subtotal (Cost \$)
Date: May 11, 2021										
PER HARRIS COUNTY FEE SCHEDULE		\$250.00	\$205.00	\$115.00	\$55.00	\$70.00				
Task No.	Task Description	* LEVEL OF EFFORT								
Limited Geologic Fault Study										
1	Review of Existing Published Fault Maps by Staff Engineer			4						\$460.00
2	A field visit to identify any visual fault activity			5						\$575.00
3	Reporting		0.5	1						\$217.50
4	Vehicle Charge						HR	5	\$12.00	\$60.00
									Total:	\$1,312.50
Project Initiation upon Receiving NTP										
5	Review of the scope of the work	4	2	2						\$1,640.00
6	Coordinate with Client, in obtaining the updated information of the project			1						\$115.00
Paving and Utilities along project alignment, 9 Borings										
Field Investigation										
7	Develop a Drilling Plan			1						\$115.00
8	Staking the Nine (9) Borings in the Field			6						\$690.00
9	Coordinate with Surveyors to Locate & Tie in Borings at Site			1						\$115.00
10	Field Coordination during Drilling Including Utility Clearance, Texas One Call, and/or obtain drilling permission			7						\$805.00
11	Mobilization / Demobilization						LS	1	\$700.00	\$700.00
12	Drilling and Sampling Nine (9) Borings									
13	Continuous (0' - 15')						LF	135	\$25.00	\$3,375.00
14	Intermittent (15' - 20')						LF	45	\$23.00	\$1,035.00
15	Daily Travel						EA	1	\$500.00	\$500.00
16	Borehole Grouting						FT	180	\$12.00	\$2,160.00
17	Technician, Logging Borings, Borehole cleaning and Water Level Reading				36					\$1,980.00
18	Vehicle Charge (Boring staking, site visits during field coordination during drilling including utility clearance, Texas One Call etc., and borehole logging and grouting)						HR	49	\$12.00	\$588.00
									Subtotal	\$13,818.00
Laboratory Testing										
19	Assign Laboratory Tests, Looking at Soil Samples			4						\$460.00
20	Data Reduction and Evaluation			1						\$115.00
21	Water Content (all samples)						EA	81	\$11.00	\$891.00
22	Liquid and Plastic Limits						EA	18	\$71.00	\$1,278.00
23	Percent Passing #200 Sieve						EA	18	\$55.00	\$990.00
24	Torvane						EA	81	\$3.00	\$243.00
25	Hand Penetrometer						EA	81	\$4.00	\$324.00
26	Unconfined Compression						EA	18	\$51.00	\$918.00
									Subtotal	\$5,219.00

Estimated Cost Summary (Detailed)

Limited Geologic Fault Study and Geotechnical Study
Lexington Boulevard Paving and Drainage Improvements
Fort Bend County, Texas

P21-117

Consultant Proposal Breakdown

GEOTECH ENGINEERING AND TESTING				Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/ Drafting	Unit of Measure	Estimated Quantity	Rate	Subtotal (Cost \$)
Date: May 11, 2021												
						Billing Rate per Hour						
PER HARRIS COUNTY FEE SCHEDULE				\$250.00	\$205.00	\$115.00	\$55.00	\$70.00				
* LEVEL OF EFFORT												
Task No.		Task Description										
Engineering Analysis and Report												
27	Prepare Plan of Borings			1								\$115.00
28	Analyze field and laboratory test results			2								\$230.00
29	Prepare summary of laboratory test data			1								\$115.00
30	Edit and prepare final boring log profiles			9								\$1,035.00
31	Prepare and develop boring log profiles			1								\$115.00
32	Develop concrete pavement design based on traffic loading	0.5	2	4								\$995.00
33	Recommendations on underground utilities		1	4								\$665.00
34	OSHA soil classification for the trench safety and Trench Safety		2	5								\$985.00
35	Document the results of soil exploration, laboratory testing and geotechnical recommendations in a geotechnical draft report	2	10	32								\$6,230.00
36	Responding to comments from BGE, Inc.	1	2	4								\$1,120.00
37	Technical Typing/Drafting						6					\$420.00
38	Report Reproduction Allowance											\$300.00
39	Review of Plan and specifications for conformance with Geotechnical Report	1	3	4								\$1,325.00
											Subtotal	\$13,650.00
											Total:	\$32,687.00
Traffic Coordination												
40	Traffic Control (cost + 10%)							DAY	4	\$720.50	\$2,882.00	
											Subtotal	\$2,882.00
Pavement Coring												
41	Coring and Patching (Up to Six-Inches)							EA	9	\$170.00	\$1,530.00	
42	Coring and Patching (6" to 12")							INCH	54	\$16.00	\$864.00	
											Subtotal	\$2,394.00
											Total:	\$5,276.00
											Grand Total:	\$39,275.50

Plate 4

Estimated Cost Summary (Outfall and Detention Pond)
 Limited Geologic Fault Study and Geotechnical Study
 Lexington Boulevard Paving and Drainage Improvements
 Fort Bend County, Texas

P21-117

Consultant Proposal Breakdown

Fort Bend County, Texas		Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/ Drafting	Unit of Measure	Estimated Quantity	Rate	Subtotal (Cost \$)
GEOTECH ENGINEERING AND TESTING										
Date: May 27, 2021										
		Billing Rate per Hour								
PER HARRIS COUNTY FEE SCHEDULE		\$250.00	\$205.00	\$115.00	\$55.00	\$70.00				
* LEVEL OF EFFORT										
Task No.	Task Description									
Geotechnical Exploration Study for Outfall and Detention Pond, One Boring to 25-ft and 4 Borings to 20-ft Depth										
Project Initiation upon Receiving NTP										
1	Review of the scope of the work (Scope meetings)	1	1	1						\$570.00
2	Coordinate with Client, in obtaining the updated information of the project		1							\$205.00
Subtotal										\$775.00
* LEVEL OF EFFORT										
Field Investigation										
3	Develop a Drilling Plan		0.5	1						\$217.50
4	Staking the Three (3) Boring in the Field			4						\$460.00
5	Coordinate with Surveyors to Locate & Tie in Borings at Site			1						\$115.00
6	Field Coordination during Drilling Including Utility		1	4						\$665.00
7	Mobilization / Demobilization						LS	1	\$700.00	\$700.00
8	Drilling and Sampling One (1) 25-ft and Two (2) 20-ft borings									
9	Technician, Borehole Logging, Clearing, Borehole Grouting				16					\$880.00
10	Continuous (0' - 15')						LF	45	\$25.00	\$1,125.00
11	One Intermittent (15' - 25') and Two Intermittent (15' - 20')						LF	20	\$23.00	\$460.00
12	Vehicle Charge (Boring staking, site visits during field coordination during drilling including utility clearance, Texas One Call etc., and borehole logging)						HR	24	\$12.00	\$288.00
13	Borehole Grouting						FT	65	\$12.00	\$780.00
Subtotal										\$5,690.50
Laboratory Testing										
14	Assign Laboratory Tests, Looking at Soil Samples		1	2						\$435.00
15	Water Content (all samples)						EA	28	\$11.00	\$308.00
16	Liquid and Plastic Limits						EA	7	\$71.00	\$497.00
17	Percent Passing #200 Sieve						EA	5	\$55.00	\$275.00
18	Sieve Analysis with Hydrometer						EA	2	\$145.00	\$290.00
19	Torvane						EA	28	\$3.00	\$84.00
20	Hand Penetrometer						EA	28	\$4.00	\$112.00
21	Unconfined Compression						EA	7	\$51.00	\$357.00
22	Consolidated Undrained (CU) with Pore Pressure Test, Multistage						EA	3	\$1,800.00	\$5,400.00
22	Double Hydrometer Test						EA	6	\$250.00	\$1,500.00
23	Crumb Test						EA	12	\$43.00	\$516.00
Subtotal										\$9,774.00

Estimated Cost Summary (Outfall and Detention Pond)
Limited Geologic Fault Study and Geotechnical Study
Lexington Boulevard Paving and Drainage Improvements
Fort Bend County, Texas

P21-117

GEOTECH ENGINEERING AND TESTING		Principal Engineer	Senior Engineer	Graduate Engineer	Field Technician	Typing/ Drafting	Unit of Measure	Estimated Quantity	Rate	Subtotal (Cost \$)
Date: May 27, 2021										
PER HARRIS COUNTY FEE SCHEDULE		\$250.00	\$205.00	\$115.00	\$55.00	\$70.00				
Engineering Analysis and Report										
24	Prepare Plan of Borings			1						\$115.00
25	Analyze field and laboratory test results			2						\$230.00
26	Prepare summary of laboratory test data			1						\$115.00
27	Edit and prepare boring log profile			3						\$345.00
Develop Geotechnical Recommendations - Outfall										\$0.00
25	Recommendations on the Outfall Structures		0.5	1						\$217.50
26	Recommendation for Ditch Side Slopes		0.5	1						\$217.50
27	Recommendation for Pipe Outfalls		0.5	1						\$217.50
28	Groundwater Effects on the Base Stability of Excavations		0.5	1						\$217.50
29	Prepare a geotechnical trench safety letter report		1	4						\$665.00
Develop Geotechnical Recommendations - Detention Pond										\$0.00
30	Develop parameters for slope-stability		0.5	2						\$332.50
31	Perform Slope-Stability Analysis	0.5	10	24						\$4,935.00
32	Recommendation on Erosion Control		0.5	1						\$217.50
33	Prepare geotechnical trench safety recommendations		0.5	1						\$217.50
34	Evaluation of Stormwater Basin Constructability		0.5	1						\$217.50
35	Groundwater Effects on the Base Stability of Excavations		0.5	1						\$217.50
36	Document the results of soil exploration, laboratory testing	2	8	28						\$5,360.00
37	Incorporate the review comments	1	1	2						\$685.00
38	Technical Typing/Drafting					2				\$140.00
39	Report Reproduction Allowance									\$300.00
40	Review of Plan and specifications for conformance with Geotechnical Report	1	3	4						\$1,325.00
									Subtotal	\$16,287.50
									Total:	\$32,527.00
ATV Rig										
41	Mobilization/Demobilization						LS	1	\$250.00	\$250.00
42	Drilling and Sampling Surcharge						FT	65	\$10.00	\$650.00
									Subtotal	\$900.00
Plate 6									Grand Total	\$33,427.00

Signature: _____

GENERAL CONDITIONS

PAYMENT TERMS - The entire payment is due upon receipt of our invoice. Any retainers are for the sole purpose of the securing part of the expenses. Upon completion of the project, any overpayment will be issued back to client, including the retainer paid (if applicable). If payment is not received within ten (10) days from the invoice date, Client agrees to pay a finance charge on the principal amount of the past due account of one and one-half percent per month (18% per annum). If one and one-half percent per month exceeds the maximum allowed by law, the charge shall automatically be reduced to the maximum legally allowable. Reasonable attorney fees, David Eastwood's hourly charges spent on collections, or any other cost incurred in collecting delinquent accounts will be charged to the client. All sums are due and payable in Harris County, Texas. In the event of any dispute concerning this contract, venue for such dispute shall be in the County and State of GET's principal office location, Harris County, Texas, and shall be determined by binding arbitration conducted by the American Arbitration Association, if and only if, the amount in controversy exceeds the jurisdictional limits of the Small Claims Courts of Harris County, Texas. All disputes not exceeding the Small Claims Court's jurisdictional limit shall be litigated in the Small Claims Courts Precinct 2, located at 101 S. Richey, Suite B, Pasadena, Harris County, Texas 77506. By signing this document, the client agrees this will be the venue for the litigation and it will override any other venues.

In the event Client requests termination of the services prior to completion, a termination charge in an amount equal to all charges incurred through the date services are stopped plus any shutdown costs may, at the discretion of GEOTECH ENGINEERING AND TESTING ("GET"), be made. If during the execution of the services, GET is required to stop operations as a result of changes in the scope of services, such as requests by the Client or requirements of third parties, additional charges will be applicable.

INSURANCE - GET maintains Worker's Compensation and Employer's Liability Insurance in conformance with applicable state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with bodily injury and property damage. A certificate of insurance can be supplied evidencing such coverage upon written request. The certificate contains a clause providing fifteen days written notice is given prior to cancellation by the Insurer. Cost of providing such certificate is included in our quoted fees.

STANDARD OF CARE - The only warranty or guarantee made by GET in connection with the services requested or performed hereunder is that we will use that degree of care and skill ordinarily exercised under similar conditions by reputable members of our profession practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended by our proposal for consulting services or by our furnishing oral or written reports.

LIMITATION OF LIABILITY - Client agrees that GET's liability for any damage on account of any error, omission or other professional negligence will be limited to a sum not to exceed GET's fee. If Client prefers to have higher limits on professional liability, GET agrees to increase the limits up to a maximum of \$250,000 (Annual claims made) upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of five percent of our total fee, or \$100.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

SAMPLING OR TESTING LOCATION - The fees included in this proposal do not include costs associated with surveying of the site or the accurate horizontal and vertical locations of tests. Field tests or boring locations described in GET's report, or shown on sketches, are based on specific information furnished by others or estimates made in the field by our technicians. Such dimensions, depths, or elevations should be considered as approximations unless otherwise specified in our report.

RIGHT-OF-ENTRY - Unless otherwise agreed, Client will furnish right-of-entry on the property for GET to make the planned borings, surveys, tests, and/or explorations. We will take reasonable precautions to minimize damage to the property caused by our operations but have not included in our fee the cost of restoration of damage which may result. If client desires restoration of the property to its former condition, an additional fee will be required and notice of such desire must be provided in writing to GET, prior to our completion of services under this contract.

DAMAGE TO EXISTING MAN-MADE OBJECTS - It shall be the responsibility of the Client or his duly authorized representative, to disclose the presence and accurate location of all hidden or obscure man-made objects on the property where the field tests or boring will be performed. GET's field personnel are trained to recognize clearly identifiable stakes or markings in the field, and without special written instructions, to initiate field testing, drilling and/or sampling within a reasonable distance of each designated location. If GET is cautioned, advised, or given data, in writing, revealing the presence or potential presence of underground or overground obstructions, such as utilities, GET will give special instructions to its field personnel. As evidenced by Client's acceptance of this proposal, Client agrees to indemnify and hold GET harmless from all claims, suits, losses, personal injury, death and property liability resulting from unusual subsurface conditions or damages to subsurface structures, owned by Client or third parties, occurring in the performance of the proposed services, whose presence and exact locations were not revealed to GET in writing, or to reimburse GET for expenses incurred defending any such claims or suits, including reasonable attorneys' fees.

SAMPLE DISPOSAL AGREEMENT - Unless otherwise requested, test specimens or samples will be disposed of immediately upon completion of tests. Drilling samples or other specimens will be disposed of 14 days after submission of our report. Upon written request, GET will retain test specimens or drilling samples for a specified period of time, to be determined at the time of the writing. An acceptable storage charge will be determined prior to such storage.

OWNERSHIP OF DOCUMENTS - All documents, including, but not limited to, drawings, specifications, reports, boring logs, field notes, laboratory data, calculations and estimates, prepared by GET as instruments of service pursuant to this Agreement, shall be the sole property of GET. Client agrees that all documents of any nature furnished to Client or Client's agents or designees, if not paid for, will be returned upon demand and will not be used by Client for any purpose whatsoever. Client further agrees that under no circumstances shall any documents produced by GET, pursuant to this Agreement be used at any location or for any project not expressly provided for in this Agreement without the written permission of GET. At the request and expense of Client, GET will provide copies of documents created in the performance of the work for a period not exceeding five years following submission of the report contemplated by this Agreement.

SAFETY - Should GET provide periodic observations or monitoring services at the job site during construction, Client agrees that, in accordance with generally accepted construction practices, the contractor will be solely and completely responsible for working conditions on the job site, including safety of all persons and property during the performance of the work and compliance with OSHA regulations, and that these requirements will apply continuously and not be limited to normal working hours. Any monitoring of the contractor's procedures conducted by GET is not intended to include review of the adequacy of the contractor's safety measures in, on, adjacent to, or near the construction site.

SITE VISIT - Client agrees that GET will not be expected to make exhaustive or continuous on-site inspections but that periodic observations appropriate to the construction stage shall be performed. It is further agreed that GET will not assume responsibility for the contractor's means, methods, techniques, sequences, or procedures of construction, and it is understood that field services provided by GET will not relieve the contractor of his responsibilities for performing the work in accordance with the plans and specifications. The words "supervision", "inspection", or "control" are used to mean periodic observation of the work and the conducting of tests by GET to verify substantial compliance with the plans, specifications and design concepts. Continuous inspections by our employees do not mean that GET is observing placement of all materials. Full-time inspections mean that an employee of GET has been assigned for eight-hour days during regular business hours. Any alteration of plans, including but not limited to; alteration of blueprints, specifications, recommendations, etc. by the Client or a third party, shall relieve GET of all liability for damages incurred, directly or indirectly, from such changes.

CORPORATE STRUCTURE - The company is a partnership, DAE and Associates, LTD doing business as Geotech Engineering and Testing.

Initial _____

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
Effective: January 1, 2020

Labor Rates

Code	Description	Unit	Current Fee
10100	Principal, P.E.	Hr.	\$250.00
10200	Senior Engineer, P.E. (10 yrs experience)	Hr.	\$205.00
10300	Project Engineer, P.E. or Project Geologist, P.G.	Hr.	\$165.00
10400	Graduate Engineer, Graduate Geologist or Project Manager	Hr.	\$115.00
10500	Technician, NICET IV	Hr.	\$105.00
10600	Technician, NICET III, HMA – II	Hr.	\$100.00
10700	Technician, NICET II, ACI Construction Inspector, HMA – 1A, Logger or both TxDOT Soil SB-101 and SB-102	Hr.	\$90.00
10750	Technician, ACI Field Grade I and TxDOT Soil SB – 102	Hr.	\$78.00
10800	Technician, ACI Field Grade I, TxDOT Soil SB – 101, or SB-102 or HMA – 1B	Hr.	\$65.00
10900	Technician (Non-Certified)	Hr.	\$55.00
11000	Senior Certified Welding Inspector, SCWI or Non Destructive Tester, ACCP Level III	Hr.	\$130.00
11100	Welding Inspector, CWI or Non Destructive Tester, ACCP II	Hr.	\$115.00
11200	Associate Welding Inspector CAWI	Hr.	\$75.00
11400	Non Destructive Tester, ACCP II with Assistant (2 man crew)	Hr.	\$170.00
11500	Administrative Assistant and Clerical Support	Hr.	\$70.00
15000	Vehicle Charge	Hr.	\$12.00
15100	Reimbursable Expenses	Cost	+10%
15200	Services provided by quotation	Cost	+ 10%

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
Effective: January 1, 2020

Aggregates

Code	Description	Standard	Unit	Current Fee
20100	Sieve Analysis – Coarse Aggregates	C136	Ea.	\$62.00
20200	Sieve Analysis – Fine Aggregates	C136	Ea.	\$62.00
20300	Rel. Density & Absorption – Coarse Aggregates	C127	Ea.	\$92.00
20400	Rel. Density & Absorption – Fine Aggregates	C128	Ea.	\$112.00
20500	Bulk Density & Voids in Aggregate	C29	Ea.	\$43.00
20600	Absorption – Coarse Aggregates	C127	Ea.	\$51.00
20700	Absorption – Fine Aggregates	C128	Ea.	\$51.00
20800	Finer Than 75-um (No. 200) Sieve	C117	Ea.	\$56.00
20900	Organic Impurities in Fine Aggregates	C40	Ea.	\$55.00
21000	L.A Abrasion (Fine and Coarse Aggregate)	C131/535	Ea.	\$236.00
21100	Clay Lumps and Friable Particles	C142	Ea.	\$63.00
21200	Lightweight Particles	C123	Ea.	\$300.00
21300	Sand Equivalent	D2419	Ea.	\$74.00
21400	Na/Mg Sulfate Soundness of Aggregates (5 Cycles)	C88	Ea.	\$400.00
21500	Na/Mg Sulfate Soundness of Aggregates (add'l Cycles)	C88	Ea.	\$231.00

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
Effective: January 1, 2020

Portland Cement Concrete

Code	Description	Standard	Unit	Current Fee
30050	Mix Design Review	None	Ea.	\$500.00
30100	Compressive Str. Cylinder	C39	Ea.	\$20.00
30200	Flexural Str. Beam	C78	Ea.	\$31.00
30300	Split Tensile Str. (Incl. Prep)	C496	Ea.	\$124.00
30400	Time of Set by Penetration	C403	Ea.	\$362.00
30500	Linear Shrinkage & Thermal Coef (Bar)	C531	Set 3	\$371.00
30600	Length Change of Hydraulic-Cement Mortar and Concrete	C490/ C157	Set 3	\$132.00
30700	Density of Structural Lightweight Concrete	C567	Ea.	\$92.00
30800	Concrete Coring, Minimum Charge	C42	Min	\$600.00
30900	Concrete Coring (4" Diameter to 6" Thickness)	C42	Ea.	\$119.00
31000	Concrete Coring, Additional Thickness (Over 6" to 12")	C42	In	\$11.00
31100	Concrete Coring, Additional Thickness (Over 12")	C42	In	\$14.00
31110	Concrete Coring (6" Diameter to 6" Thickness)	C42	Ea.	\$170.00
31112	Concrete Coring 6" Additional Thickness (Over 6" to 12")	C42	In	\$16.00
31113	Concrete Coring 6" Additional Thickness (Over 12")	C42	In	\$21.00
31200	Preparation of Core, Cap & Test	C42	Ea.	\$89.00
31300	Measuring Length of Core	C42	Ea.	\$30.00
31400	Pachometer Survey (Magnetic Induction)	None	Day	\$103.00
31500	Probe Penetration Test Equipment (Plus Probes)	C803	Day	\$104.00

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
Effective: January 1, 2020

HMAC

Code	Description	Standard	Unit	Current Fee
40100	Mix Design Review	None	Ea.	\$500.00
40200	HMAC Design (In-Place)	None	Ea.	\$2,460.00
40300	Trial Batch (Up to 5 Points) Excludes Testing	None	Ea.	\$1,846.00
40400	Additional Points	None	Ea.	\$266.00
40500	Extraction/Gradation	Tex-210F	Ea.	\$230.00
40600	Specific Gravity	D2041 & Tex-201F	Ea.	\$82.00
40700	HVEEM Stability	Tex-208F	Set	\$108.00
40800	Bulk Density – Lab Molded or Cores	Tex-207F	Set	\$61.00
40900	Bulk Density Core	Tex-207F	Ea.	\$55.00
41000	Molding Specimens	Tex-206F	Set	\$72.00
41100	Maximum Theoretical Specific Gravity	Tex-227F	Ea.	\$103.00
41200	Apparent Specific Gravity	Tex-202F	Ea.	\$77.00
41300	Abson Recovery	Tex-211F	Ea.	\$370.00
41400	Moisture Susceptibility	Tex-531C	Ea.	\$538.00
41500	Penetration	D5	Ea.	\$98.00
41600	Ductility	D113	Ea.	\$130.00
41700	Viscosity	D2170	Ea.	\$108.00
41800	Asphalt Coring, Minimum Charge	None	Min.	\$600.00
41900	Asphalt Coring (4"Dia. to 6" Thickness)	None	Ea	\$106.00
42000	Asphalt Coring (4"Dia. over 6" Thickness)	None	In	\$10.00
42150	Asphalt Coring (6"Dia. to 6" Thickness)	None	Ea.	\$159.00
42160	Asphalt Coring (6"Dia. over 6" Thickness)	None	In	\$14.00
42200	Measuring Thickness of Asphalt	D3549	Ea.	\$25.00
42300	PMA Extraction/Gradation	D2172	Ea.	\$308.00
42400	PMA Extraction/Gradation	D6307	Ea.	\$191.00
42500	Asphalt Content	D4125	Ea.	\$92.00
42600	Molding Superpave Specimens	Tex-241-F	Set	\$500.00
42700	Hamburg Wheel	Tex-242-F	Ea.	\$1000.00

Harris County Fee Schedule
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Structural Steel

Code	Description	Standard	Unit	Current Fee
50100	Radiographic Source, Iridium	None	Day	\$139.00
50200	Radiographic Source, Cobalt 60	None	Day	\$161.00
50300	Ultrasonic Equipment	E114 E273 E587 E797	Day	\$103.00
50400	Magnetic Particle Inspection	E709	Day	\$39.00
50500	Skidmore-Wilhelm Tension Indicator	None	Day	\$154.00
50600	Torque Wrench	None	Day	\$57.00
50700	Discontinuity (Holiday) Equipment	None	Day	\$108.00
50800	Dry Film Thickness Equipment (Tooke Gauge)	D4138	Day	\$39.00
50900	Dry Film Thickness Equipment (Magnetic)	D7091	Day	\$39.00

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Masonry

Code	Description	Standard	Unit	Current Fee
60100	Compressive Strength, Mortar Cubes	C109	Set 6	\$159.00
60200	Compressive Strength, Mortar Cubes	C109	Ea.	\$26.00
60300	Compressive Strength, Mortar or Grout Cylinder	C780/C39	Ea.	\$26.00
60400	Compressive Strength, Grout Prism	C1019	Set 3	\$159.00
60500	Measurement, Brick	C67	Ea.	\$63.00
60600	Compressive Strength Test, Brick	C67	Ea.	\$38.00
60700	Flexural Strength Test, Brick	C67	Ea.	\$49.00
60800	Absorption of Brick, 24 hr.	C67	Ea.	\$82.00
60900	Absorption of Brick, 5 hr.	C67	Ea.	\$81.00
61000	Measurement, CMU	C140	Ea.	\$33.00
61100	Weight, CMU	C140	Ea.	\$92.00
61200	Moisture Content, CMU	C140	Ea.	\$92.00
61300	Compressive Strength, CMU	C140	Ea.	\$150.00
61400	Compressive Strength, CMU Hollow Prism	C1314	Ea.	\$200.00
61500	Compressive Strength, CMU Grouted Prism	C1314	Ea.	\$300.00

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Fireproofing

Code	Description	Standard	Unit	Current Fee
70100	Density of SFRM	E605	Ea.	\$43.00
70200	Cohesion/Adhesion of SFRM (Equipment only)	E736	Ea.	\$33.00

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Roofing

Code	Description	Standard	Unit	Current Fee
80400	Compressive Strength of Lwt. Insulating Concrete	C495	Set 4	\$129.00
80500	Compressive Strength of Lwt. Insulating Concrete	C495	Ea.	\$34.00
80600	Unit Weight of Lwt. Insul. Concrete	C495	Set 2	\$58.00

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Soils

Code	Description	Standard	Unit	Current Fee
90100	Liquid and Plastic Limits	D4318	Ea.	\$71.00
90200	Moisture Content of Soils by Mass	D2216	Ea.	\$11.00
90300	Moisture Content by Microwave	D4643	Ea.	\$34.00
90400	Sieve Analysis	D422 D422	Ea.	\$65.00
90500	Sieve Analysis w/ Hydrometer	D7928	Ea.	\$145.00
90600	Percent Passing #200 Sieve	D1140	Ea.	\$55.00
90700	Specific Gravity	D854	Ea.	\$67.00
90800	pH of Soils	D4972	Ea.	\$20.00
90900	Unconfined Compressive Strength	D2166	Ea.	\$51.00
91100	Unconsolidated-undrained Triaxial Compression	D2850	Ea.	\$72.00
91200	One-Dimension Consolidation	D2435	Ea.	\$450.00
91300	Consolidation, Additional Increment	D2435	Ea.	\$58.00
91400	Dispersive Characteristic by Pinhole Test	D4647	Ea.	\$324.00
91500	Dispersive Characteristic by Crumb Test	D6572	Ea.	\$43.00
91600	Double Hydrometer	D4221	Ea.	\$250.00
91700	Soil Suction – Filter Paper	None	Ea.	\$65.00
91900	California Bearing Ratio	D1883	Ea.	\$243.00
92000	Soil Shrinkage Factors by Mercury Method	D427	Ea.	\$72.00
92100	Soil Shrinkage Factors by Wax Method	D4943	Ea.	\$86.00
92200	One-Dimensional Swell, Cohesive Soil	D4546	Ea.	\$350.00
92300	OMD Standard Compaction	D698	Ea.	\$231.00
92400	OMD Modified Compaction	D1557	Ea.	\$247.00
92500	Max. & Min. Density – Sand	D4253 D4254	Ea.	\$300.00
92600	Percent Solids in Lime Slurry	None	Ea.	\$49.00
92700	Optimum Lime Content – pH Method	D6276	Ea.	\$266.00
92800	Optimum Lime Content – PI Method	None	Ea.	\$274.00
94100	Cement Sand Compressive Strength	D1633	Ea.	\$81.00
94200	Cement Content of Soil-Cement	D806	Ea.	\$354.00
94300	Sieve Analysis - Base Material	C136	Ea.	\$108.00
94400	Compressive Strength Treated Base	Tex-120E	Ea.	\$292.00
94500	OMD Standard Compaction, Treated	D698	Ea.	\$256.00
94600	OMD Modified Compaction, Treated	D1557	Ea.	\$271.00
95100	Nuclear Density Gauge	D6938	Hr.	\$12.00

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Slip-Lining and Manhole Repair

Code	Description	Standard	Unit	Current Fee
100200	Coring and Strength of Gunite Panel	C42/C39	Core	\$137.86

Harris County Fee Schedule
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**Subsurface Exploration
(Geotechnical Drilling)**

Code	Description	Standard	Unit	Current Fee
110010	Soil Boring, Intermittent 3-in. dia. (0 to 50')	None	Ft	\$23.00
110020	Soil Boring, Intermittent 3-in. dia. (50' to 100')	None	Ft	\$25.00
110030	Soil Boring, Continuous 3-in. (0 to 20')	None	Ft	\$25.00
110031	Soil Boring, Continuous 3-in. (20' to 50')	None	Ft	\$30.00
110032	Soil Boring, Continuous 3-in. (50' to 100')	None	Ft	\$40.00
110040	Soil Boring over 100' (Surcharge)	None	Ft	\$10.00
110050	Wash Boring	None	Ft.	\$14.00
111060	Auger Boring	None	Ft.	\$13.00
110070	Undisturbed/Split-Spoon in Wash/Auger	None	Ea.	\$45.00
110071	Piezometer Installation	None	Ft.	\$24.00
110072	Piezometer Abandonment	None	Ft.	\$20.00
110080	Grouting of Completed Boring	None	Ft.	\$12.00
110090	ATV Surcharge	None	Ft.	\$10.00
110100	Minimum Charge for the Exploration (to be used if charges are less than \$1000.00)	None	LS	\$1000.00
110110	Mobilization/Demobilization	None	LS	\$700.00
110120	TDH Cone Penetration Test	None	Ea.	\$31.00
110130	ATV Mobilization Surcharge	None	LS	\$250.00
110140	Portable Drilling Rig Operation (Crew of two)	None	Hr	\$300.00
110150	Standby (Crew of two)	None	Hr	\$300.00
110160	Daily Mobilization (Crew)	None	Day	\$500.00

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
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Harris County Fee Schedule "General Notes" 2020

1 GENERAL

- 1.1 All construction materials engineering services including sampling, field and laboratory testing, and inspection services ("Services") performed by Consultants for Harris County must be authorized by Harris County.**
- 1.2 Services not specifically authorized by Harris County will not be paid for.**
- 1.3 Failure to perform specified services in accordance with Harris County requirements may result in cancellation of Consultant's purchase order.**
- 1.4 Harris County may require use of various internet-based software programs (eBuilder, Unifier, Captrac Etc.) to maintain consistent administrative and technical control on its projects through the County.**

The Consultant is required to use the software directed for reporting of all reports relating to field sampling, inspection, field and laboratory testing, invoices, submittals, or other items as directed, in accordance with procedures provided by the County.

At no cost to the Consultant, the County will provide system login account(s) and provide training for consultant personnel. The consultant must update with any new or revised information within 24 hours of that information becoming known to Consultant.

2 ENGINEERING SERVICES

- 2.1 Engineering Services shall be performed by a professional engineer licensed in the State of Texas and employed full-time by the Consultant ("Engineer")**
- 2.2 All construction materials engineering reports ("Reports") relating to Services performed by the Consultant shall be reviewed and signed by Consultant's Engineer. The Consultants Engineer does not need to sign specimen pick-ups or project cancellation reports.**
- 2.3 For engineering review of services and engineering reports by Consultant's Engineer, Harris County will compensate the Consultant at the Project Engineer rate of ½ (0.5) hour of engineering time for each Engineering Report. Engineering review time will not be allowed on specimen pick up reports, cancellation reports and on revised or updated reports to include additional data on a report such as additional compressive strength test on concrete cylinder and CSS molded specimen reports.**
- 2.4 Harris County shall also compensate Consultant when Consultant's Engineer attends Project-related on-site and progress meetings at the request of the Director.**
- 2.5 Overtime will not be allowed for any Engineering Service.**

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
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3 FIELD SERVICES

- 3.1 "Sampling" is defined as the process of procuring materials for subsequent testing or examination that is performed by a certified technician with knowledge of appropriate sampling procedures.**
- 3.2 "Specimen Pickup" is defined as the process of retrieving "specimens" usually pre-fabricated in the field such as cylinders, beams, or cubes and transporting those specimens to the laboratory for subsequent testing or examination.**
- 3.3 Field Services shall be performed by Consultant's certified engineering technicians and invoiced based on the technician's certification level in accordance with the Fee Schedule. Certifications should be through NICET, ACI, TXAPA/HMA, ACCP and programs associated with ASNT- TC1A.**
- 3.3.1 A non-certified technician may be allowed to assist a certified technician on a Project provided two or more technicians required.**
- 3.3.2 Specimen Pickup shall be performed, whenever possible, as part of a scheduled field trip or by the full-time technician assigned to the Project.**
- 3.3.3 Specimen Pickup not performed as a part of a scheduled field trip or by the technician assigned to the Project shall be compensated at the technician rate. Specimen pick up shall be invoiced based on the technician's certification level but not than the Code 10700 rate.**
- 3.3.4 Field sieve analysis, drilled shaft slurry tests and lime slurry percent-solids determination shall be performed in the field as part of the field inspection without an additional testing charge.**
- 3.3.5 The rates for coring of Portland cement concrete or asphaltic concrete (HMAC) are inclusive of the coring equipment and patching of the core hole with a conventional concrete mixture for concrete or cold-patch asphaltic materials for asphaltic concrete. The technician time for performing the coring and vehicle charges will be in addition to the applicable coring rates. Patching with specialty materials will be reimbursed by Harris County at cost plus 10%.**
- 3.3.6 A minimum of a 30-minute unpaid lunch shall be taken by the field technician for work over eight (8) hours unless otherwise approved in writing by Harris County.**
- 3.4 Harris County shall compensate Consultant for Services for reasonable travel time, with a maximum travel time of one (1) hour travel to the project and maximum travel time of one (1) hour return travel from the project, unless otherwise approved by Harris County, on a portal-to-portal basis between the Consultant's facility and the Harris County Project or other Project - related location.**

Harris County Fee Schedule
Construction Materials Engineering Services
Labor and Unit Rates
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4 LABORATORY SERVICES

- 4.1 Fees for laboratory tests are inclusive of sample preparation unless specifically noted in Attachment. Compensation shall not be paid for personnel services and / or materials related to such testing, except as specifically noted in this Attachment.**
- 4.2 Unless otherwise requested by Harris County, an aggregate correction factor will not be determined for use in adjusting the aggregate gradation and asphalt content when testing HMAC in accordance with ASTM D6307. Laboratory reports should include a note indicating that an aggregate correction factor was not used in the calculation of the reported results.**

5 OTHER SERVICES

5.1 GEOTECHNICAL SERVICES

- 5.1.1 All geotechnical borings shall be staked by the Consultant and shall be compensated at the rate applicable to the lab representative performing the staking however, the rate shall not exceed that for a Graduate Engineer.**
- 5.1.2 Geotechnical logging shall be performed by a technician qualified in geotechnical soil sampling and soil classification or a Graduate Engineer or Graduate Geologist. Unless the services of an Engineer or Geologist are approved by Harris County in advance, logging shall be compensated at the NICET Level II technician rate. Costs for logging services shall be in addition to fees for geotechnical drilling and sampling services.**
- 5.1.3 In accordance with Harris County Guidelines for Consultants performing Geotechnical Investigations, unless otherwise required by Harris County, geotechnical borings shall be continuously sampled to a minimum depth of 15' and at 5' intervals below that depth.**

5.2 TRAFFIC CONTROL

- 5.2.1 If traffic control is necessary during geotechnical field operations, qualified personnel or a qualified subcontractor should be engaged to provide traffic control. Proposed use of traffic control must be approved in advance by the Director.**

6 REPORTING

Consultant shall document all field and laboratory Services in a written report prepared in accordance with Project Specifications and standard methods.

6.1 Reports shall contain the following:

- 6.1.1 Project Name, Consultant Report Number, and Harris County Job Number**
- 6.1.2 Personnel name and certification typed or printed legibly.**

Harris County Fee Schedule
Construction Materials Engineering Services
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- 6.1.3 Time of departure from Consultant's facility.
- 6.1.4 Time of arrival at Project.
- 6.1.5 Standby time, if any.
- 6.1.6 Services requested and performed.
- 6.1.7 Time of departure from Harris County Project.
- 6.1.8 Time of arrival at Consultant's facility.
- 6.1.9 Overtime hours, if any.
- 6.1.10 Appropriate Specification and/or Test Method.
- 6.1.11 Signature of Engineer Reviewing Report
- 6.2 Reports shall contain hours of service for each visit to the Harris County Project, including Specimen Pickup.
- 6.3 All Reports must be received by Harris County within 14 calendar days of the original date of service or completion of required laboratory tests.
- 6.4 Final reports presenting strength test results shall be sent to Harris County within three (3) business days following the test date.
- 6.5 Failing laboratory test results must be reported to Harris County by telephone and by fax or email within one business day of the date of the failing test.
- 7 **COMPENSATION AND INVOICING**
 - 7.1 Compensation of Consultant for personnel performing sampling, testing, inspection and traffic control services shall be as stated in the Fee Schedule and shall include reasonable travel time, as agreed to by Harris County, between Consultant's facility and Harris County Project.
 - 7.2 Fees for services are inclusive of all tools, equipment and consumable supplies needed to perform the subject services, except for coring or as specifically noted in this Attachment.
 - 7.3 Fees for Services performed on an hourly basis shall be recorded to the nearest 1/4 (0.25) hour and will be compensated at the applicable rate.
 - 7.4 Overtime for field services is applicable for any hours worked before 6:00a.m. or after 6:00 p.m., Monday through Friday, and any hours worked on Saturday, Sunday or a holiday or over 8 hours per day. The overtime rate is 1.5 times the standard rate.

Harris County Fee Schedule
Construction Materials Engineering Services
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- 7.5 A minimum charge of four (4) hours for field technician, vehicle and equipment (where charged on an hourly rate) shall apply to each visit to the Project site or an authorized off-site location for sampling, observation, inspection, or testing as outlined in the Fee Schedule. The maximum Vehicle Charge shall be eight (8) hours at the rate outlined in the Fee Schedule.
- 7.6 All hourly services invoiced shall be accompanied by the Company representative's signed time sheet, including the name and classification of the individual. Hourly services shall be invoiced to the nearest 1/4 hour.
- 7.7 A minimum of 30-minute lunch shall be taken for continuous work of more than eight (8) hours on Harris County Projects.
- 7.8 If a technician has departed for the Project, prior to receipt of a cancellation notice, Consultant shall be compensated at the applicable technician rate for the time required to and from the Consultant's facility plus the applicable Vehicle Charge. A two (2) hour minimum shall apply.
- 7.9 If a technician / inspector is assigned to more than one Harris County Project in one day, his or her actual time on both Projects shall be charged (i.e. no minimum charge for both Projects), provided the total time exceeds four (4) hours. All hours invoiced must be supported by copies of Reports and a signed time-sheet or daily activity report sheets, which contains the name of the personnel and their certification, shall be signed by third-party inspector or Contractor if available.
- 7.10 Consultant may be reimbursed by Harris County for services of a qualified subcontractor or consultant, authorized in advance by Harris County, at cost plus 10%.
- 7.11 Reproduction charges shall be compensated at current commercial rates.
- 7.12 All reimbursable expenses of Consultant shall be supported by documentation acceptable to Harris County. Reimbursables such as photographs, reproduction material, delivery, background checks, safety training / orientation, traffic control, parking, and badging, etc., shall be invoiced and reimbursed at cost + 10%. Receipts for reimbursable expenses must be submitted with the Consultant's invoice for the reimbursable expense.
- 7.13 For preparation, input, reproduction, mail out/distribution and filing of Reports by Consultant's Administrative/Clerical Support Staff, Harris County will compensate the Consultant at the Administrative Assistant and Clerical Support rate for 1/2 (0.5) hour of time for each report issued. Administrative/Clerical Support Staff will be allowed only once for each report. This rate will apply only to the initial issuance of a report and does not apply to updated or revised reports which may include additional data on a report such as additional compressive strength tests on concrete cylinder and CSS molded specimen reports.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

**OFFICE USE ONLY
CERTIFICATION OF FILING****1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**

BGE, Inc.
Houston, TX United States

Certificate Number:
2021-770654

Date Filed:
06/24/2021

Date Acknowledged:
07/06/2021

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Fort Bend County

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

20405
Lexington Boulevard (2020 Mobility Bond)

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Heisch , Rodney	Houston, TX United States	X	
	Rob, Harris	Austin , TX United States	X	
	Dillon , Doug	Dallas , TX United States	X	
	Randermann, Randy	Houston, TX United States	X	
	Lennard , Lee	Houston, TX United States	X	

5 Check only if there is NO Interested Party.☐**6 UNSWORN DECLARATION**

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)