

STATE OF TEXAS §
 §
 COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Kentucky Road, Project No. 23204)

This Agreement for Professional Engineering Services ("Agreement") is made and entered into by and between Fort Bend County, Texas ("County"), a political subdivision of the state of Texas, and MBROH Engineering, Inc. ("Engineer"), a Texas corporation. County and Engineer may be referred to individually as a "Party" or collectively as the "Parties."

WHEREAS, Engineer provides professional engineering services in the Greater Houston Area; and

WHEREAS, County desires for Engineer to provide such services for engineering reports and geotechnical investigations to facilitate the improvement of Kentucky Road under Mobility Bond Project No. 23204; and

WHEREAS, Engineer represents that it is qualified and desires to perform such services for County; and

WHEREAS, pursuant to the requirements of Chapter 2254 of the Texas Government Code, County has determined that Engineer is the most highly qualified provider of such professional services and the Parties have negotiated a fair and reasonable price for the same; and

WHEREAS, this Agreement is not subject to competitive bidding requirements under Section 262.023 of the Texas Local Government Code because this Agreement is for professional engineering services and may not be competitively bid pursuant to Chapter 2254 of the Texas Government Code.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the Parties do mutually agree as follows:

1. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of this Agreement.
2. **Scope of Services.** Engineer shall render services to County as provided in Engineer's Proposal attached hereto as "Exhibit A" and incorporated herein by reference (the "Services").

3. **Time for Performance.** Time for performance for the Services provided under this Agreement shall begin with Engineer's receipt of Notice to Proceed and shall end no later than December 31, 2028. Engineer shall complete such tasks described in the Scope of Services, within this time or within such additional time as may be extended by County.

4. **Compensation and Payment Terms.**

Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is Four Hundred Twenty Thousand, Seven Hundred Five and 00/100 Dollars (\$420,705.00). In no event shall the amount paid by County to Engineer under this Agreement exceed said Maximum Compensation without an approved change order.

- (a) Engineer understands and agrees that the Maximum Compensation stated is an all-inclusive amount and no additional fee, cost or reimbursed expense shall be added whatsoever to the fees stated in the attached Exhibit "A."
- (b) County will pay Engineer based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Engineer 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. Engineer shall submit invoices no more frequently than on a monthly basis. 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.
- (c) Accrual and payment of interest on any overdue payments assessed by Engineer, if any, shall be governed by Chapter 2251 of the Texas Government Code.
- (d) Engineer understands and agrees that County's obligation to make any payment(s) hereunder is dependent upon Engineer's completion of the Services in a timely, good, and professional manner and in accordance with the performance representations made in Section 25 of this Agreement. Therefore, County reserves the right to withhold payment pending verification of satisfactory work performed.

5. **Limit of Appropriation.** Engineer understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is \$420,705.00. In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change

order. Engineer 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 \$420,705.00 specifically allocated to fully discharge any and all liabilities County may incur under this Agreement. Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Engineer may become entitled to and the total maximum sum that County may become liable to pay Engineer under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed \$420,705.00.

6. **Non-appropriation.** Engineer understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Engineer in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the County. In no event shall said termination of this Agreement or County's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by County in any amount(s) in excess of those previously funded.
7. **Taxes.** Engineer understands and agrees that County is a governmental entity and political subdivision of the state of Texas, and as such, is exempt from payment of any sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Engineer.
8. **Insurance.** Prior to commencement of the Services, Engineer 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. Engineer shall provide certified copies of insurance endorsements and/or policies if requested by County. Engineer 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. Engineer shall obtain such insurance written on an Occurrence form 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:
 - (a) Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
 - (b) 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.

- (c) 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.
- (d) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- (e) Professional Liability insurance with limits not less than \$1,000,000.

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

If required coverage is written on a claims-made basis, Engineer warrants that any retroactive date applicable to coverage under the policy precedes the Effective Date of this Agreement 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 the work under this Agreement is completed.

Engineer shall not commence any portion of the work under this Agreement until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by County.

No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to County.

Approval of the insurance by County shall not relieve or decrease the liability of the Engineer.

9. **Indemnity. PURSUANT TO SECTION 271.904 OF THE TEXAS LOCAL GOVERNMENT CODE, ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER OR ENGINEER'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL. IN ADDITION, ENGINEER SHALL PROCURE AND MAINTAIN**

LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.

ENGINEER SHALL TIMELY REPORT TO COUNTY ALL SUCH MATTERS ARISING UNDER THE INDEMNITY PROVISIONS ABOVE. UPON THE RECEIPT OF ANY CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN, OR JUDGMENT, AND NO LATER THAN THE FIFTEENTH DAY OF EACH MONTH, ENGINEER SHALL PROVIDE COUNTY WITH A WRITTEN REPORT ON EACH MATTER, SETTING FORTH THE STATUS OF EACH MATTER, THE SCHEDULE OR PLANNED PROCEEDINGS WITH RESPECT TO EACH MATTER, AND THE COOPERATION OR ASSISTANCE, IF ANY, OF COUNTY REQUIRED BY ENGINEER IN THE DEFENSE OF EACH MATTER. IN THE EVENT OF ANY DISPUTE BETWEEN THE PARTIES AS TO WHETHER A CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN, OR JUDGMENT APPEARS TO HAVE BEEN CAUSED BY OR APPEARS TO HAVE ARISEN OUT OF OR RESULTS FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER, OR ITS AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL, ENGINEER SHALL, NEVERTHELESS, FULLY DEFEND SUCH CLAIM, DEMAND, SUIT, ACTION, PROCEEDING, LIEN, OR JUDGMENT UNTIL AND UNLESS THERE IS A DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT SAID ACTS AND/OR OMISSIONS OF ENGINEER ARE NOT AT ISSUE IN THE MATTER.

THE INDEMNITY PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT HOWEVER CAUSED, AND NO PAYMENT, PARTIAL PAYMENT, OR ISSUANCE OF CERTIFICATION OF COMPLETION OF THE SERVICES UNDER THIS AGREEMENT BY COUNTY, WHETHER IN WHOLE OR IN PART, SHALL WAIVE OR RELEASE ANY OF THE PROVISIONS OF THIS SECTION.

10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the 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. Engineer, in providing all services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Engineer 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 Engineer. Engineer 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.
13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.
14. **County/County Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.
15. **Personnel.** Engineer represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Services when and as required and without delays.

All employees of Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee or agent of Engineer who, in County's opinion, is incompetent or by his conduct becomes detrimental to providing Services pursuant to this Agreement, shall, upon request of County, immediately be removed from association with the Services required under this Agreement.

When performing Services on-site at County's facilities, Engineer shall comply with, and will require that all Engineer's Personnel comply with, all applicable rules, regulations and known policies of County that are communicated to Engineer in writing, including security procedures concerning systems and data and remote access thereto, building security procedures, including the restriction of access by County to certain areas of its premises or systems for security reasons, and general health and safety practices and procedures.

16. **Confidential and Proprietary Information.** Engineer 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 Engineer 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 Engineer 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 Engineer) publicly known or is contained in a publicly available document; (b) is rightfully in Engineer'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 Engineer who can be shown to have had no access to the Confidential Information.

Engineer agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Engineer 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. Engineer 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, Engineer shall advise County immediately in the event Engineer 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 Engineer will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Engineer against any such person. Engineer agrees that, except as directed by County, Engineer 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, Engineer will promptly turn over to County all documents, papers, and other matters in Engineer's possession which embody Confidential Information.

Engineer 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. Engineer 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.

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

17. **Ownership and Reuse of Documents.** All work product and data produced or developed under this Agreement by Engineer including any documents, data, notes, reports,

research, graphic presentation materials, and any other related material (collectively, "Materials"), shall at all times be the property of County. County, at all times, shall have a right of access to the Materials. Engineer shall promptly furnish and deliver all such Materials to County on request. Notwithstanding the foregoing, Engineer shall bear no liability or responsibility for Materials that have been modified post-delivery to County or used by County for a purpose other than that for which they were prepared under this Agreement.

18. **Inspection of Books and Records.** Engineer shall permit County, or any duly authorized agent of County, to inspect and examine the books, records, information, and documentation (collectively, "Records") of Engineer which relate to the Services provided under this Agreement for the purposes of making audits, examinations, excerpts, copies, and transcriptions. Engineer shall maintain all such Records in a readily available state and location, reasonably accessible to County or their authorized representatives. County's right to inspect such books and records shall survive the termination of this Agreement for a period of four (4) years, or until any litigation concerning any of the Services has been satisfactorily resolved, whichever occurs later. **ENGINEER SHALL NOT DESTROY OR DISCARD ANY RECORDS REASONABLY RELATED TO THIS AGREEMENT OR THE SERVICES, UNLESS THE TIME PERIOD FOR MAINTAINING THE SAME HAS EXPIRED.**

19. **Termination.**

- (a) Without Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, without cause, upon thirty (30) days prior written notice to Engineer.
- (b) With Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, with cause, for any of the following reasons, each of which shall constitute a material breach and "Default" of the Agreement:
- (1) Engineer fails to perform any portion of the Scope of Services within the timeframe(s) provided under this Agreement.
 - (2) Engineer fails to comply with County's documentation and reporting requirements, terms and requirements of this Agreement, or applicable federal, state, or local laws and regulations.
 - (3) Non-performance and suspension of the Agreement by Engineer that exceeds thirty (30) calendar days due to Force Majeure.

- (4) Engineer fails to perform any obligation under this Agreement or as required by law, ordinance, or regulation and such failure creates an imminent threat to the public health and/or safety.
 - (5) Engineer otherwise 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.
 - (6) County shall notify Engineer in writing of the alleged Default in reasonable detail ("Notice"). Upon receipt of said Notice, Engineer shall have opportunity to cure such Default within the time specified in the Notice by County. If Engineer fails to cure such Default within such time, and to the reasonable satisfaction of County, then County may elect to terminate this Agreement for cause.
 - (7) If, after termination of the Agreement by County for cause, it is determined for any reason whatsoever that Engineer was not in Default, or that the Default was excusable, the rights and obligations of the Parties hereunder shall be the same as if the termination had been issued by County without cause in accordance with this Agreement.
- (c) Upon termination of this Agreement for any reason, Engineer shall cease all work and activity for the Services by the date specified by County and shall not incur any new obligations or perform any additional services for the work performed hereunder beyond the specified date. County shall compensate Engineer in accordance with Section 4, above, for such work provided by Engineer under this Agreement prior to its termination and which has not been previously presented for payment by Engineer to County.
- (d) 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 Engineer.

20. **Force Majeure.** In the event either Party is rendered unable, wholly or in part, by Force Majeure to carry out any of its obligations under this Agreement, then, within a reasonable time after the occurrence of such event, but no later than ten (10) calendar days after, the Party whose obligations are so affected (the "Affected Party") thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party's obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The

Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.

For purposes of this Agreement, Force Majeure includes, but is not limited to: acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of the government of the United States of America or the State of Texas or any civil or military authority other than a Party to this Agreement, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, severe storms, floods, washouts, drought, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, and any other incapacities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer shall not assign this Agreement to another party without the prior written consent of County, which consent shall not be unreasonably withheld, conditioned, or delayed. Any purported or attempted assignment or transfer in violation of this Section shall be null and void.
22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.
24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

If to County: Fort Bend County Engineering
Attn: County Engineer
301 Jackson Street, 4th Floor
Richmond, Texas 77469

And

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

If to Engineer: MBROH Engineering, Inc.
13601 Preston Road, Suite 900W
Dallas, Texas 75240

Within five (5) business days of the Effective Date of this Agreement, each Party to this Agreement shall designate in writing to the other Party one person and one alternate person to be that Party's designated spokesperson for communications between the Parties.

25. **Standard of Care.** Pursuant to Section 271.904 of the Texas Local Government Code, Engineer represents to County that Engineer has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession ("Professionals") practicing in the greater Houston metropolitan area. Engineer shall provide the Services to County with the same professional skill and care ordinarily provided by such Professionals under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent Professional.
26. **Travel Policy.** Mutually approved travel and mileage expenses incurred in the performance of the Services hereunder will be reimbursed to Engineer only to the extent that those costs do not exceed Fort Bend County travel reimbursement allowances. A copy of County's Travel Policy with those reimbursement limits shall be provided to Engineer upon request.
27. **Arbitration, Litigation Waiver, and Attorney Fees.** County does not agree to submit disputes arising out of this Agreement to binding arbitration nor does County agree to pay any and/or all attorney fees incurred by Engineer in any way associated with this Agreement. Therefore, any references in Engineer's Proposal to binding arbitration, waiver of a right to litigate a dispute, or payment of attorney fees are hereby deleted.
28. **No Waiver of Jury Trial.** County does not agree that all disputes (including any claims or counterclaims) arising from or related to this Agreement shall be resolved without a jury. Therefore, any references in Engineer's Proposal to County's waiver of jury trial are hereby deleted.
29. **Limitations.** Limitations for the right to bring an action, regardless of form, shall be governed by the applicable laws of the State of Texas, and any provisions to the contrary in Engineer's Proposal are hereby deleted.
30. **Indemnification by County. ENGINEER UNDERSTANDS AND AGREES THAT UNDER THE TEXAS CONSTITUTION AND THE LAWS OF THE STATE OF TEXAS, COUNTY CANNOT ENTER INTO AN AGREEMENT WHEREBY COUNTY AGREES TO INDEMNIFY OR HOLD**

HARMLESS ANOTHER PARTY. THEREFORE, ANY AND ALL REFERENCES IN ENGINEER'S PROPOSAL TO COUNTY DEFENDING, INDEMNIFYING, OR HOLDING OR SAVING HARMLESS ENGINEER OR ANY OTHER PARTY, FOR ANY REASON WHATSOEVER, ARE HEREBY DELETED.

31. **Entire Agreement and Modification.** This Agreement constitutes the entire Agreement between the Parties and supersedes all previous agreements, written or oral, pertaining to the subject matter of this Agreement. Any amendment to this Agreement must be in writing and signed by each Party to come into full force and effect. **IT IS ACKNOWLEDGED BY ENGINEER THAT NO OFFICER, AGENT, EMPLOYEE, OR REPRESENTATIVE OF COUNTY HAS ANY AUTHORITY TO CHANGE THE TERMS OF THIS AGREEMENT OR ANY ATTACHED EXHIBITS HERETO UNLESS EXPRESSLY AUTHORIZED BY THE FORT BEND COUNTY COMMISSIONERS COURT.**
32. **Conflict.** In the event there is a conflict among the terms of this document entitled "Agreement for Professional Engineering Services" and the terms of Engineer's Proposal or any other exhibit attached hereto, the terms of this document shall prevail with regard to the conflict.
33. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.
34. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
35. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either Party relating to this Agreement shall be considered a waiver or surrender by County of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.
36. **Applicable Law and Venue.** This Agreement shall be construed according to the laws of the state of Texas. Venue for any claim arising out of or relating to the subject matter of this Agreement shall lie in a court of competent jurisdiction of Fort Bend County, Texas.
37. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by County regardless of content For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Engineer

hereby verifies that Engineer and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

- (a) Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, Engineer is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.
- (b) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in § 808.001 of the Texas Government Code.
- (c) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in § 809.001 of the Texas Government Code.
- (d) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Engineer does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in § 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.

- 38. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND 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.
- 39. **Captions.** The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of the Agreement.
- 40. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.

41. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

IN WITNESS WHEREOF, and intending to be legally bound, County and Engineer hereto have executed this Agreement to be effective on the date signed by the last Party hereto.

FORT BEND COUNTY, TEXAS

MBROH ENGINEERING, INC.

KP George, County Judge

Ernestine Mbroh
Authorized Agent – Signature

Date

Ernestine Mbroh
Authorized Agent- Printed Name

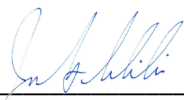
ATTEST:

Director of Transportation
Title

Laura Richard, County Clerk

7-16-2025
Date

APPROVED:


J. Stacy Slawinski, County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds in the amount of \$_____ are available to pay the obligation of Fort Bend County, Texas within the foregoing Agreement.

Robert Ed Sturdivant, County Auditor

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EXHIBIT A

(Engineer's Proposal Follows Behind)



SCOPE OF WORK

March 12, 2025

Mr. Gabriel Odreman, PE, PMP
575 N. Dairy Ashford Rd
Houston Texas 77433

Re: Roadway design plans to extend Kentucky Road from Evergreen Road north to Lake Olympia parkway.

Project Number: 23204
Project Name: Kentucky Road
Project Limits: Lake Olympia to Evergreen Rd
Length: Approximately 2,700-ft

Mr. Odreman:

Mbroh Engineering is pleased to submit a scope and fee proposal for the referenced project on behalf of our team for your consideration.

The scope of work in support of the Mbroh team fee proposal includes the development of preliminary engineering report, topographic survey, hydraulic/hydrology analysis, geotechnical investigations, utility and right of way investigations, water line design, design plans specification and estimates to facilitate the construction of Kentucky Road, from Evergreen Road extending approximately 2,700 feet north to Lake Olympia Parkway, in Fort Bend County, Precinct 2, within the City of Houston's ETJ. Roadway improvements include a new asphalt road with 6-foot-wide shoulders and open ditches on both sides. Additional improvements designed by others include a water line. Alternative alignments (including analysis of sidewalk location) of the proposed improvements will be analyzed as part of the preliminary engineering report.

Scope of Work:

- A. **Design Requirements:** Specific design requirements for the project shall be in accordance with Fort Bend County Engineering Department – Engineering Design Manual (latest edition), Fort Bend County Drainage Criteria Manual (latest edition) and the Fort Bend County Interim Atlas 14 Drainage Criteria Manual and Minimum Slab Elevation Criteria (latest revision), Harris County Design Guide, Texas Department of Transportation (TxDOT) Design Guide, TxDOT's Texas Manual on Uniform Traffic Control Devices (TMUTCD) as warranted. Public Utility designs shall comply with the requirements of the municipality having jurisdiction, the Texas Commission on Environmental Quality, and the Texas Water Code. 8. Private utility crossings shall comply with the requirements of the utility owner and as applicable to railroad and irrigation channel crossings.
- B. **Project Management:** In addition to the requirements outlined in Section IV. "Project Management" of the Fort Bend County draft scope, the Project Engineer will manage the work outlined in this scope to ensure efficient and effective use of the Fort Bend County's time and resources. The Project Engineer will proactively manage change, communicate effectively, coordinate internally and externally as needed, and address issues with the Fort Bend County's



Project Manager and stakeholders as necessary to deliver a successful project. The Project Engineer will:

- Lead, manage and direct design team activities
- Ensure Quality Control / Quality Assurance (QC/QA) is practiced in performance of the work.
- Communicate internally among team members and external stakeholders, adjacent design consultants, Fort Bend County, Fort Bend County Program Managers, City of Houston, TCEQ and FSWD#1.
- Task and allocate team resources.
- Ensure that all activities as outlined in section IV. "Project Management" of the Fort Bend County draft scope is adhered to.

C. Preliminary Engineering:

- Site Visit – Includes an initial site visit for Preliminary Engineering Report. Additional visits will be made as required to facilitate the preparation of the report.
- Mapping – Preparation of exhibits of existing conditions of site with emphasis on topography, utility conflicts, and structural issues related to vicinity that will affect the design. Exhibits for proposed alternative layouts will be provided as part of the Preliminary Engineering Report.
- Topographic Survey - Survey of existing ground elevations, structures, utilities and vegetation that will affect design.
- Right of Way Determination Services – Survey of existing property boundaries and public right of way that will affect design.
- Geotechnical Investigation – Sampling and analysis of existing soil within project boundaries. The study will provide guidance on proposed pavement structure and recommended ditch slope grades.
- Alternative Analysis – Provide viable layouts that will meet Fort Bend County's budget, schedule and desired outcomes with respect to local mobility. Emphasis will be placed on effectively using existing right of way and minimizing parcel acquisitions, while providing a roadway that will meet design life requirements and provide local drainage.
- Drainage Analysis - Will assess the stormwater discharge rate from the project area under existing conditions, and additionally, consider the proposed improvements to identify any necessary detention areas that can accommodate drainage from the new road without affecting stormwater discharge in the proposed conditions.
- Utility Coordination

Determine Potential Conflicts W/Existing Facilities & Utilities (Preliminary Design)

- Provide design conflict matrix information for all utilities in the project limits.
- Work with Fort Bend County, Design Engineers, and Others deemed necessary to share utility information.
- Compile "Design Conflict Matrix"
- Execute summary of critical utilities and cost opinion for the relocation of utilities.
- Drive out and inspect the project location.



- Update the design conflict matrix including estimated costs to relocate utilities in conflict.
- Meeting attendance for 30% plan review (emphasizing engineering suggestions/implementations to avoid costly utility relocations).
- Utility Coordination (Preliminary Design)
 - Review (70%) plans and compare them to 30% plan review report.
 - Prepare and submit 70% plan review report.
- Utility Coordination (Preliminary Design)/Utility & Agency Approvals & Signatures (Final Design)
 - Schedule and Prep for utilities field meetings.
 - Conduct utilities field meetings.
 - Generate & submit field meeting reports.
 - Develop preliminary “utility relocation plan” plans and relocation schedules.
 - Distribute revisions.
 - Obtain & submit RW 309 documentation for Engineer/Inspector/Surveyor Approval
 - Obtain & submit proposals and RW 305 relocation agreements
 - Issue & submit approval deferred letter.
 - Prepare/submit “Utilities Relocation” plans
- Environmental – Will investigate the existing conditions of the site as part of an Environmental Site Assessment Phase 1. Mbroh will not provide these services but will coordinate with a Fort Bend County assigned consultant as needed.
- Water Line – Will provide location and general information for the waterline in the PER and as part of the presentation.
- Preliminary Engineering Report – Provide viable alternative designs for roadway improvements. The report will evaluate the roadway alignment, pavement structure, ditch design, and sidewalk location (analysis only). The report will also provide typical cross sections, identify drainage needs, determine right of way acquisition needs, identify potential conflicts with existing facilities, identify critical path items, identify problem areas and resolutions, determine permit and regulatory requirements, prepare a construction cost estimate, identify impacts to pipelines and a 30% plan set. The 30% plan set will show all existing features in plan and profile with proposed features in plan view only.
- Presentation of Results – Selected alternative design will be collated into a final summary presentation. Design alignment, pavement structure, ditch design, waterline design, tentative schedule and opinion of probable construction cost.

D. Final Design:

Mbroh will provide final design services for roadway alignment, pavement structure, ditch, pavement striping, traffic control and stormwater pollution prevention. The waterline design will be provided by a subcontractor, selected and approved by Fort Bend County’s Project Manager and provided to Mbroh to be incorporated into the final plans.

- Roadway and Traffic Design



- Upon the evaluation, and subsequent approval of the design alternatives, the preferred alternative will be designed to meet all applicable design requirements and criteria. Construction plans with the required typical sections, standards, layout sheets and cost estimates will be developed and submitted for approval.
- Permanent signing and striping plans will be developed throughout the project extents.
- Temporary construction traffic control plans will be developed for each phase of construction throughout the project extents.

E. Construction Phase Services:

Mbroh will provide construction phase services during construction that include attending pre-construction meetings, review of construction submittals, review and response to requests for information (RFIs), revisions to construction documents as necessary and construction site visits.

F. Additional Services:

Additional Services to be performed at the discretion of the Front Bend County Project Manager:

- Survey - Proposed Basin Topographic Survey scope and fee are described in Appendix A
- Geotech - Slope Stabilization in support of a detention pond scope and fee are described in Appendix B
- Water Line - Proposed waterline construction plans, specifications and associated scope of work are provided in Appendix C.
- Detention Pond Design – The Engineer will compute the rate of stormwater discharge from the project area in existing conditions and will locate a detention area as needed to accommodate the drainage of the proposed road to have no impacts in the discharge of the stormwater in proposed conditions. The detention pond will be designed per the requirements of Fort Bend County Engineering Department – Engineering Design Manual and Fort Bend County Drainage District Drainage Criteria Manual with The ATLAS 14 update.
- Traffic Design - The designs will include the following as applicable:
 - 24-hour turning movement counts at the intersection of Kentucky Rd & Evergreen Rd will be collected to be used in the traffic study at the intersection of Kentucky Rd & Evergreen Rd.
 - A traffic study at the intersection of Kentucky Rd & Evergreen Rd will be performed to determine the intersection control type needed if an intersection type other than existing is requested. Studies may include but are not limited to capacity analysis, turn lane analysis, safety analysis.

Schedule and Deliverables: Notice to Proceed July 2025

- A. Survey Complete – Oct 2025
- B. Geotechnical Report - Oct 2025



Plans

C. Preliminary Report – December 2025

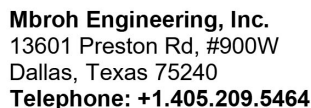
1. PDF of Preliminary Report including the following:
 - a. 2- Improvement Alternatives
 - b. Estimates of Construction Cost for each Alternative
 - c. Assumed approval of PER by January 2026
2. Final Parcel, Map Preparation – February 2026
 - a. Survey maps of property to be acquired (as approved in PER)
 - b. Metes and bounds of property to be prepared (as approved in PER)
3. 30% Design Plans – February 2026
 - a. PDF of 11x17 Plan Sheets
 - b. Specifications
 - c. Estimate of Construction Cost
 - d. 70% Review Checklist
4. 70% Design Plans – May 2026
 - a. PDF of 11x17 Plan Sheets
 - b. Specifications
 - c. Estimate of Construction Cost
 - d. 70% Review Checklist
5. 95% Design Plans – August 2026
 - a. PDF of 11x17 Plan Sheets
 - b. Specifications
 - c. Estimate of Construction Cost
 - d. Bid forms and Project Manual
 - e. 95% Review Checklist
6. Final Design Plans (100%) – October 2026
 - a. PDF of 11x17 Signed and Sealed Plan Sheets
 - b. Specifications
 - c. Estimate of Construction Cost
 - d. Bid forms and Project Manual
 - e. 100% Review Checklist

D. Bid Phase Services – November 2026

1. Prepare project manual including contract documents
2. Attend pre-bid meeting
3. Respond to questions during bid period
4. Prepare bid tabulation
5. Prepare Engineers Recommendation of Award
6. Revise project manual and contract documents as necessary

E. Construction Phase Services – April 2027

1. Attend pre-construction meeting
2. Review construction submittals
3. Revise construction documents as necessary
4. RFI Review and Approval
5. Construction Site Visits



Basic Services:

Survey Services.....	\$62,228.00
Geotechnical Services.....	\$26,595.00
Preliminary Roadway/Traffic Design Services.....	\$49,654.00
Water Line Preliminary Design.....	\$7,735.00
Final Roadway/ Traffic Design Services.....	\$139,214.00
Water Line Final Design.....	\$20,300.00
Bid & Construction Phase Services.....	\$26,646.00
Water Line Design.....	\$3,550.00

Total Basic Services: \$335,922.00

Survey Services	
Right of Way Acquisition (3 parcels).....	\$11,700.00
Proposed Basin Topographic Survey.....	\$15,500.00
Re-stake Right of Way and Survey Control.....	\$4,660.00
Detention Pond Design Services.....	\$18,139.00
Detention Pond Design Services (Geotech).....	\$31,600.00
Intersection Modifications.....	\$3,184.00
(Kentucky Rd & Evergreen St)	
(Kentucky Rd & Lake Olympia Parkway)	
Total Additional Services.....	\$84,783.00

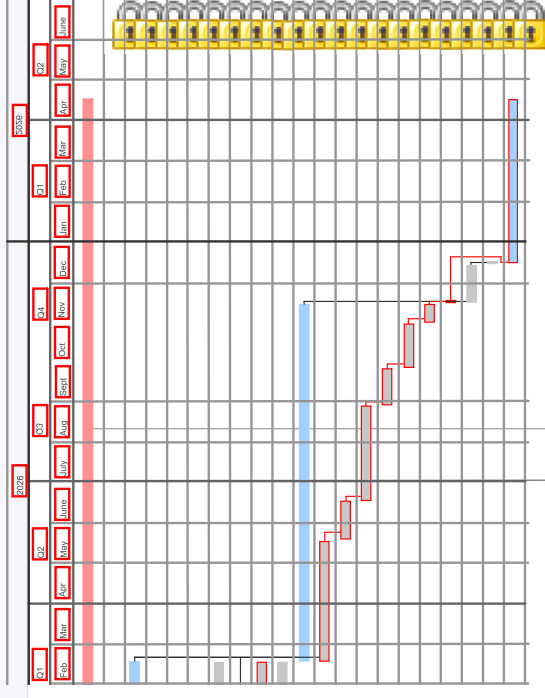
Total Fee: **\$420,705.00**

Sincerely,

Ernestine Mbroh

Ernestine Mbroh, Director of Transportation

Gantt



Fort Bend County 2023 Mobility Bond Program Fee Estimate Worksheet
KENTUCKY ROAD FROM EVERGREEN ST TO FUTURE LAKE OLYMPIA RD
MBROH ENGINEERING INC.

TASK DESCRIPTION	PRINCIPAL	QUALITY MANAGER	PROJECT MANAGER	PROJECT ENGINEER 1	PROJECT ENGINEER 2	UTILITIES MANAGER	UTILITIES ENGINEER	UTILITIES COORDINATOR	SR. CAD DESIGNER	CADD TECH	ADMIN	CLERICAL	TOTAL HOURS	Task Total	NO OF DWGS	LABOR HRS PER SHEET
1. Preliminary Design (LS)														\$ 146,211.21		
Establish a Typical Cross Section		2	2	6					16				28	\$ 3,225.96		
Determine ROW Acquisition Needs			8	4									12	\$ 1,982.89	2	13.00
Determine Potential Conflicts with existing facilities & utilities			1	2		10	5	24					42	\$ 6,598.85		
Identify Critical Path Items			1	2									3	\$ 463.85		
Identify Problem Areas and Potential Resolutions			1	4									5	\$ 751.85		
Site Visit			2	12	4	4		4					20	\$ 3,125.40		
Propose 50% Plans			2	12	6								20	\$ 3,125.40		
Prepare 50% Plans		2	12	24					30	60			128	\$ 14,085.20	7	18.29
Utility Coordination						12	2	35					69	\$ 9,272.00		
Project Management & Meetings (3 Months Typical)	2		8	8		8		8		20			42	\$ 5,586.80		
Topographic Survey														\$ 53,427.50		
Control & Monumentation - Prepare Survey Control Map														\$ 8,800.00		
Photogrammetric Investigation														\$ 2,735.00		
Water Line Design														\$ 7,279.40		
Preliminary Phase Expenses			4	4									8	\$ 1,279.40		
2. Final Design (LS)														\$ 159,514.21		
Cover Sheet & Index		1		1					2	1			5	\$ 612.02	1	5.00
General Notes		1		1					2	1			7	\$ 961.60	1	7.00
Quantities (Summary Sheets - Optional)		1		2					4	2			9	\$ 1,047.19	1	9.00
Typical Sections (70%-Final)		1		2					10	5			21	\$ 2,352.70	2	10.50
Drainage Area Maps		2		5	8				10	5			29	\$ 3,751.02	2	14.50
Drainage Area Maps		1		5	8				10	5			29	\$ 3,751.02	2	14.50
Drainage Calculations		1		3	5	8			2	1			20	\$ 3,113.89	1	20.00
Plan and Profile Sheets (Roadway, Drainage, Public Utilities)		1		69					60	95			229	\$ 24,945.60	7	32.71
Intersection Layouts or Cross Street Details		1		16					2	1			20	\$ 2,772.02	4	5.00
TCP Advance Warning Signs		1		4					8	2			15	\$ 1,748.83	1	15.00
SYNCRP Plan		9		40	16				12	18			35	\$ 6,451.21	1	22.50
Design Calculations		1		40	16				2	1			44	\$ 6,226.02	1	44.00
Signing & Pavement Markings		2		8	2				18	12			40	\$ 4,379.28	2	20.00
Detail Sheets		4		2					8	4			18	\$ 2,160.08	6	3.00
Standard Details		8		4					6	3			21	\$ 2,864.31	12	1.75
Technical Specifications		1		24								16	41	\$ 3,448.95		
Construction Cost Estimate		2		16								8	21	\$ 2,352.70		
Utility & Agency Approvals & Signatures		1		2		4		8				2	17	\$ 2,350.83		
Cross Sections with earthwork calculations		2		16					32				50	\$ 5,866.82		
Responses to Comments		2		48					32			16	98	\$ 10,590.82		
Project Management & Meetings (3 Months Typical)	2		6									6	18	\$ 2,160.50		
Water Line Design														\$ 20,300.00		
Water Line Design Expenses			4	4									8	\$ 1,279.40		
3. Bid & Construction Phase Services (T&M)														\$ 30,196.22		
Project Manual & Plans (PDF Format on Compact Disc - 28)		2		16					8				30	\$ 4,015.53		
Attend Pre-Bid Meeting			3	2									3	\$ 463.85		
Answer Bidder Questions & Addendum			1	2									3	\$ 463.85		
Attend Pre-Construction Meeting			1	2									3	\$ 463.85		
Review Contractor Submittals			8	32									40	\$ 6,014.80		
Submittal Review			2	8									10	\$ 1,501.70		
Submittal Requests for Information			2	8									10	\$ 1,501.70		
Record Drawings			6	32					4				44	\$ 6,426.44		
Water Line Design														\$ 3,550.00		
Bid & Construction Phase Expenses			4	4									8	\$ 1,279.40		
4. Additional Services														\$ 84,782.87		
Detention Pond Design		4	6	8	80				12				110	\$ 16,138.82		
Detention Pond Design (Geotech Services)														\$ 31,400.00		
Proposed Basin														\$ 15,500.00		
Proposed Basin, Topographic Survey														\$ 4,660.00		
Reslake ROW and Survey Control														\$ 3,184.25		
Intersection Modification - Evergreen Rd & Lake Olympia Parkway		1	4	16									21	\$ 3,184.25		
MANHOUR SUBTOTAL		4	63	630	132	50	7	79	408	372	0	57	1,892		68	
LABOR RATE PER HOUR		0%	3%	33%	7%	3%	0%	4%	22%	25%	0%	3%				
		\$606.00	\$76.65	\$26.65	\$41.00	\$41.00	\$69.00	\$145.00	\$41.00	\$41.35	\$45.50	\$41.00				
		\$624.00	\$1,141.65	\$7,036.70	\$97,220.00	\$23,072.28	\$1,183.00	\$11,455.00	\$42,191.28	\$31,370.20	\$0.00	\$57.00				
SUBTOTAL LABOR																
TOTAL														\$ 420,704.51		

APPENDIX A

Survey

Scope and Fee Proposal

United Engineering, Inc.



United Engineers, Inc.

CIVIL ENGINEERING ♦ LAND DEVELOPMENT ♦ CONSTRUCTION MANAGEMENT
SURVEYING ♦ UTILITY ENGINEERING
TBPE FIRM #F-000142; TBPLS FIRM #10117800

March 11, 2025

Ernestine Mbroh
MBROH Engineering
11757 Katy Fwy, Suite 625
Houston, Texas 77079

**Re: Survey Proposal for Kentucky Road from Evergreen St. to Fut. Olympia
UEI Proposal P2025-03-11**

Ms. Mbroh:

United Engineers, Inc. (UEI) is in receipt of your request for a cost proposal to perform professional surveying services on the above captioned project. This project includes a Topographic Survey (Cat. 6, Cond. II), ROW/Topo Maps (Cat. 1B, Cond. II), Proposed ROW Acquisition (Cat. 1A, Cond. II) and Survey Control Maps per Fort Bend County Survey requirements. The project areas consist of the following items listed below:

SCOPE OF SURVEY SERVICES:

1. Right of Entry (ROE) Letters (25 Tracts):

- a. UEI will draft a ROE for each property owner along the route survey that will need to be accessed for survey.
- b. UEI will mail out the ROE and put together a ROE spreadsheet with all properties associated and the owners and status of the ROE for each.
- c. UEI will scan all received ROE Letters and save them for records and will provide them to Fort Bend County (FBC) at the end of the survey.

2. ROW Clearing:

- a. FBC will need to choose from the two options for clearing mentioned below.
 - i. Clearing brush around trees without hauling off.

3. Establish Horizontal and Vertical Control Datum:

- a. Texas State Plane Coordinate System, South Central Zone (4204), NAD 83' (2011), ITRF (EPOCH 2010.0000), NAVD 88 (GD 12B).
- b. GPS observe control (RTK), UEI control, NGS control, FBC Control and HGCSO control if found within project area.
- c. GPS observe control (Static), UEI control, NGS control, FBC Control and HGCSO control if found within project area.
- d. UEI will run conventional levels through UEI control.
- e. UEI will provide Project NGS control, FBC control and HGCSO control with published versus as observed comparison if found within project area.
- f. UEI will coordinate with the adjoining FBC project surveyors in order to establish similar datum or provide conversion factors between the projects.

4. Category 6, Condition II (Topographic Survey) from Evergreen St. to Fut. Olympia, (Approx. 2,800 LF in existing right of way):

- a. Standard Topographic survey, see limits defined in Exhibit "A" and include 100' cross sections along route survey.
- b. Topographic Survey will extend up the side streets, 100 feet each direction along Evergreen Street and Fut. Olympia.
- c. Topographic Survey will extend 10' beyond the existing/future ROW where possible and utilize ROE's that were approved by property owners.
- d. Place 811 ONE CALL and all locates will be surveyed in.
- e. UEI will hand-cut the brush and tree line in order to acquire 200' cross sections for a total width of 80 feet plus 10 feet each side of the centerline for a total of 100 feet where possible.
- f. UEI will coordinate with Geotech firm to tie in 10 boreholes.

5. CAD Services (Utility Base Plan and Profile):

- a. UEI will perform private and public Utility Research.
- b. Create and provide a Utility Base Plan and Profile along with a DTM and dynamic storm sewer and sanitary sewer.

6. Existing Topo/ROW Survey Maps:

- a. Provide Category 1B, Condition II (Topo/ROW Maps) along project limits.

7. Survey Control Maps:

- a. Generate Survey Control Maps for the project area.

ADDITIONAL SCOPE OF SURVEY SERVICES:

1. Proposed ROW Parcel Acquisition:

- a. Recon and utilize existing Control, see Exhibit "A".
- b. Provide Category 1A, Condition II, ROW Parcel Acquisition.
- c. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey.
- d. UEI will set all parcel corners prior to signing and sealing parcel acquisition plats.
- e. UEI will provide parcel plats and metes and bounds for all parcels.

2. Proposed Basin, Category 6, Condition II (Topographic Survey):

- a. UEI will set new control in Proposed Basin area.
- b. UEI will extend cross sections through brush/trees in order to provide spot elevations for proposed basin, approximately 50' grid.
- c. UEI will handcut the brush/trees unless FBC opts to have it cleared by UEI subcontractor.
- d. UEI will coordinate with Geotech firm to tie in 5 boreholes within proposed basin.

3. Re-stake ROW and Survey Control:

- a. Recon and recover existing control and re-stake ROW and Survey control for construction.

SUBMISSION SCHEDULE AND DELIVERABLES:

UEI proposes to begin the work within five (5) working days after receiving your written notice to proceed and will authorize subcontractor to begin clearing once ROE's are approved and in hand. UEI will then attempt to complete all work described in the scope of services, within 40 working days, additional services will add more time if they are requested.

The Parcel Plats and Metes and Bounds will take approximately 30 additional working days. These timeframes are after the survey is completed in the scope of services and are contingent on weather conditions and holidays.

UEI's deliverables for the topographic survey will be an ascii file, base plan drawing in AutoCAD format depicting existing right of way, current conditions, and utilities in plan and profile view, Topographic/ROW maps as well as Survey Control Maps signed and sealed by the Registered Professional Land Surveyor.

COMPENSATION

Our fee for providing the professional surveying services as outlined in the SCOPE OF SERVICES fee will be **LUMP SUM**, see breakdown below:

SCOPE OF SURVEY SERVICES:

Item #1: Right of Entry	\$ 5,600.00
Item #2: ROW Clearing (FBC to choose which option they want)	\$ 8,167.50
Item #3: Horizontal and Vertical Control Datum	\$ 9,160.00
Item #4: Topographic Survey	\$ 11,120.00
Item #5: CAD Services Utility Base Plan & Profile	\$ 8,340.00
Item #6: Existing Topo/ROW Survey Maps	\$ 11,040.00
Item #7: Survey Control Maps	\$ 8,800.00
Total	\$ 62,227.50

ADDITIONAL SCOPE OF SURVEY SERVICES:

Item #1: ROW Acquisition (\$3,900 per parcel x 3)	\$11,700.00
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Ms. Ernestine Mbroh
Survey Proposal for Kentucky Road
UEI Proposal P2025-03-11 March 11, 2025

Item #2: Proposed Basin Topographic Survey **\$15,500.00**

Item #3: Re-stake ROW and Survey Control **\$ 4,660.00**

Total **\$31,860.00**

UEI appreciates this opportunity to submit this proposal and we look forward to working with you to make this a successful project. Should you have any questions, please call me or Kefelegne Tesfaye, P.E. at 713-271-2900.

Sincerely,

UNITED ENGINEERS, INC.



Christin M. Norris, P.E., R.P.L.S.
Director of OSP Telecommunications Design, Land Surveying and Utility Coordination



EXHIBIT "A"

Kentucky Road

Kentucky Road

Evergreen Street



PROJECT NAME:
CONTRACT NUMBER:
CLIENT:
SUB PROVIDER NAME:

KENTUCKY ROAD

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		40					40	
							0	
Set Horizontal and Vertical Control			16			16	32	
							0	
GPS Control and Define Datum		4		16	16	16	52	
							0	
Process GPS and produce Control Layout	4	4					8	
							0	
Topographic Survey			40			40	80	
							0	
Locate and tie Right of Way or Property Lines			12			12	24	
							0	
Process control and topographic survey	4	8					12	
							0	
Draft ROW/Topographic survey plat		16					16	
							0	
Survey Control Map	2	40	12			12	66	
							0	
Property Research		40					40	
							0	
Review Topographic Survey Plat	2						2	
							0	
One Call 811		4					4	
							0	
SUE Level B-D		40					40	
							0	
SUE Processing		4					4	
							0	
Review SUE deliverables	2						2	
							0	
Utility Coordination		8					8	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	16335
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	14	208	80	16	16	96	430	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	1.75	26	10	2	2	12		
TOTAL COSTS	\$3,500.00	\$29,120.00	\$16,000.00	\$2,400.00	\$640.00	\$2,400.00		\$54,060.00

\$70,395.00

PROJECT NAME:KENTUCKY ROAD PROPOSED BASIN

CONTRACT NUMBER:

CLIENT:

SUB PROVIDER NAME:

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE							0	
							0	
Set Horizontal and Vertical Control			16			16	32	
							0	
Topographic Survey			32			32	64	
							0	
Process control and topographic survey	2	4					6	
							0	
Draft ROW/Topographic survey plat		8					8	
							0	
Survey Control Map	1	8	4			4	17	
							0	
Review Topographic Survey Plat	1						1	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	4	20	52	0	0	52	128	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	0.5	2.5	6.5	0	0	6.5		
TOTAL COSTS	\$1,000.00	\$2,800.00	\$10,400.00	\$0.00	\$0.00	\$1,300.00		\$15,500.00

\$15,500.00

PROJECT NAME: KENTUCKY

CONTRACT NUMBER:

CLIENT:

SUB PROVIDER NAME:

	Hours	Hours	Hours	Hours		
TASK DESCRIPTION	RPLS	Senior Survey Tech	3-Person Survey Crew	Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Survey Control Map	2	4	16	16	38	
					0	
SUBCONTRACT SERVICES					0	
TRAVEL \$.49/MILE					0	
BUSHHOGGING					0	
HYDRO-AX					0	
REPRODUCTION					0	
RECORDS FEE					0	
PERMIT FEES					0	
HOURS/MILES SUB-TOTALS	2	4	16	16	38	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8		
ESTIMATED DAYS	0.25	0.5	2	2		
TOTAL COSTS	\$500.00	\$560.00	\$3,200.00	\$400.00		\$4,660.00

\$4,660.00

APPENDIX B

Geotechnical

Scope and Fee Proposal

Aviles Engineering Corporation



October 24, 2024

Ms. Ernestine Mbroh, P.E.
MBROH
11757 Katy Freeway, Suite 625
Houston, Texas 77079

Re: Geotechnical Investigation Proposal
Kentucky Road Improvements
From Future Lake Olympia to Evergreen Road
FBCE Project No. 23204
Fort Bend County, Texas
AEC Proposal No. G2024-10-04R1

Dear Ms. Mbroh,

Aviles Engineering Corporation (AEC) is pleased to present this geotechnical investigation proposal for the Fort Bend County Engineering Department's (FBCED) proposed Kentucky Road project from Future Lake Olympia to Evergreen Road, in Fresno/Fort Bend County, Texas.

Based on preliminary information provided by you, AEC understands Kentucky Road will be reconstructed and widened from an gravel roadway to a concrete roadway, which will either have open side ditches or storm sewers. Potential storm sewer invert depth was not available at the time this proposal was prepared, but is assumed to be a maximum of 10 feet. In addition, there will be water line for FWSD#1 along the project alignment. AEC should be notified if the water line alignment will extend beyond the proposed roadway alignment so that this proposal may be updated as necessary. There may be a future detention pond, which AEC has included as an optional additional scope. However, no information for the future pond was available at this time.

In accordance with Chapter 8 of the 2022 Fort Bend County Engineering Department Engineering Design Manual, AEC proposes to drill a total of 5 soil borings each to 16 feet deep for the Main scope and a total of 5 soil borings each to 20 feet deep for the Optional Additional scope. For the Optional Additional scope, AEC will install one piezometer to 20 feet to monitor site groundwater levels for the slope stability analyses for the detention pond. The boring and piezometer locations are shown on the attached Proposed Boring Location Plan. The total drilling footage for the main scope is 80 feet and the footage for the optional additional scope is 100 feet. AEC assumes that authorization for the Optional Additional scope will be provided at a later time than the main scope, and as a result, the field work for both scopes will be performed at different times. AEC should be notified if both scopes will be authorized at the same time, so that our fees and schedule can be adjusted, if necessary.

We will perform a site reconnaissance prior to drilling and mark the boring locations. We will contact the Texas 811 System to confirm utility locations; however, Texas 811 does not locate water, sanitary, or storm sewer lines. We request that drawings showing existing underground utilities along the project alignment be provided to AEC prior to starting field work. Three borings (Borings B-1 through B-3) will be located along Kentucky Road and two borings (Borings B-4 and B-5) will be located in a clearing that is parallel to Kentucky Road. AEC assumes that Borings B-4 and B-5 will not require tree clearing to access, although they may be on private property. AEC requests that MBROH (likely through United Engineers performing survey) arrange right of entry for private property access for AEC personnel and field work crews. If tree

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clearing will be required, AEC will first try to rely on United Engineers for tree clearing, but if that is not available, then AEC will need to request additional fees for tree clearing (using a mulcher).

Based on Google Earth, AEC anticipates that all of the borings can be access using a buggy-mounted drill rig. We will collect samples continuously from the ground surface to the boring termination depths. Undisturbed samples will be obtained of cohesive soils by pushing a Shelby tube (ASTM D-1587). Standard Penetration Test samples will be obtained of granular soils (ASTM D-1586). Representative portions of all soil samples will be sealed, packaged, and transported to our laboratory. We will note any visual evidence or odor indicating hazardous materials if encountered in the samples. Water level readings will be noted during drilling, obtained upon completion of drilling, and the borings will be left open overnight so that a 24 hour groundwater reading will be obtained. For the Optional Additional scope, one boring will be converted to a piezometer after completion of drilling. Piezometers will be monitored after 24 hours and after approximately 30 days, after which they will be plugged and abandoned. Boreholes located on existing Kentucky Road will be grouted with cement-bentonite upon completion of drilling, while borings located off pavement will be backfilled with bentonite chips. In accordance with FBCED requirements, AEC requests that the boring locations be surveyed after drilling is completed.

Laboratory testing may consist of moisture contents, Atterberg limits, percentage passing No. 200 sieve, sieve analysis, and unconfined compression, and unconsolidated-undrained (UU) triaxial tests depending on the soil types encountered. For the Optional Additional scope, we will also perform crumb dispersion, double hydrometer dispersion, and one consolidated-undrained (CU) triaxial tests for the slope stability analyses. As part of our services, we will perform a preliminary fault study, which includes reviewing in-house published fault maps to identify documented faults crossing the alignment, and we will also visit the site to observe fault-related features that are evident along the alignment and immediate vicinity.

We will analyze the field and laboratory data to provide a geotechnical engineering report for the Main Scope that includes: (i) boring logs with subsurface soils and ground water depth encountered in the borings; (ii) preliminary fault study; (iii) recommendations for pavement thickness design of concrete pavement, embankment, and subgrade preparation; (iv) recommendations for storm sewer and water line installation by open cut method, including excavation and shoring, pipe loading, bedding, and backfill; and (iv) construction and groundwater control guidelines for the proposed improvements. For the Optional Additional scope, AEC will provide an updated geotechnical engineering report that includes: (i) slope stability analyses to evaluate the factor of safety (FS) of the detention pond; (ii) recommendations for liner for erosion protect, if needed; (iii) basin excavation; and (iv) evaluation if excavated soil is useable for select fill.

The estimated total lump sum fee for our services based on the Main scope (Roadway and Utilities) is **\$26,595.00** and the fee for the Optional Additional scope (Slope Stability) is **\$31,600.00**, as presented on the Itemized Fee Estimate in the Attachments. The fees are based on the following assumptions: The fee assumes a buggy rig can reach the boring locations and the field personnel will use Level D during the field exploration; (ii) any right-of-way for private property access for drilling will be provided to AEC at no charge; (iii) tree clearing, pavement coring, standby time, safety training, surveying, fence removal/restoration, working with hazardous materials, environmental sampling/testing/evaluation, and plan/specification review are not included in the above fee.

Assuming a notice to proceed date of February 7, 2025, we will mark the boring locations, contact Texas 811 to locate and clear utilities, within 1 weeks after we receive notice to proceed and right of entry agreements are obtained. We will mobilize the drill rig within 2 to 3 weeks after the boring locations are marked, utilities are cleared, and tree clearing is performed (if needed) [i.e., mobilization by February 28, 2025]. For the Main scope, drilling will take approximately 1 day to complete. The laboratory soil testing will require approximately 3 to 4 weeks after completion of drilling [i.e., lab testing complete by March 28,



2025]. We will provide a draft geotechnical report for the Main scope approximately 2 weeks after laboratory testing is completed and necessary project drawings are provided to AEC [i.e., draft report submitted by April 11, 2025]. We will provide the final geotechnical report approximately 2 weeks after review comments are received. The geotechnical reports will be provided as an electronic copy. The provided time frame is an estimate based on AEC's current schedule at the time this proposal was written and will remain valid for 60 days from the date of the proposal. If project authorization is received after 60 days, then the schedule estimated herein may be subject to change.

For the Optional Additional scope, drilling will take approximately 1 day to complete [mobilization date unknown, dependent on scope authorization (if any)]. The laboratory soil testing will require approximately 5 to 6 weeks after completion of drilling (due to CU triaxial tests). Similarly, we will provide a separate draft geotechnical report for the Optional Additional scope approximately 2 weeks after laboratory testing is completed and necessary project drawings are provided to AEC.

If any of the project details described in this proposal are incorrect or the scope described or the assumptions listed need to be revised, please inform us immediately so we can revise the proposal as necessary. To authorize us to proceed with the proposed geotechnical services, please issue us a Subconsultant agreement or Professional Services Contract to proceed with the services clearly reflecting the scope of services to be performed and referencing this proposal.

We appreciate the opportunity to present this proposal, and look forward to working with you.

AVILES ENGINEERING CORPORATION
(TBPELS FIRM REGISTRATION NO. F-42)

A handwritten signature in blue ink, appearing to read "W. Wang", is positioned above the printed name of the signatory.

Wilber L. Wang, P.E.
Senior Engineer

Attachments: Itemized Fee Estimate and Boring Location Plan

Fort Bend County 2023 Mobility Bond Program Fee Estimate Worksheet
KENTUCKY ROAD FROM EVERGREEN ST TO FUTURE LAKE OLYMPIA RD
AVILES ENGINEERING CORPORATION (AEC)
AEC PROPOSAL G2024-10-04, DATED 10/18/2024
MAIN SCOPE - ROADWAY AND STORM SEWER

TASK DESCRIPTION	PRINCIPAL	DEPARTMENT MANAGER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	PROJECT GEOLOGIST	STAFF ENGINEER	SENIOR TECHNICIAN	TECHNICIAN	SENIOR CADD TECHNICIAN	CADD TECHNICIAN	CLERICAL	TOTAL HOURS	Task Total	NO OF DWGS	LABOR HRS PER SHEET
1. Preliminary Design (LS)												0	\$ 19,396.00		
E. Geotechnical Investigation - Roadway (Field Work)															#DIV/0!
a. Field Work Coordination (mark boring locations, clear utilities, set up for boring)															#DIV/0!
b. Field Work Supervision (boring logging, 24 hr groundwater readings)					12		16					12	\$ 2,112.00		#DIV/0!
E. Geotechnical Investigation - Roadway (Engineering)												0	\$ -		#DIV/0!
a. Prepare and review boring logs			4			12						16	\$ 2,168.00		#DIV/0!
b. Desktop built study					8							8	\$ 1,408.00		#DIV/0!
c. Perform engineering analysis (pavement and storm sewer)			2	16		24						42	\$ 6,168.00		#DIV/0!
d. Prepare geotechnical engineering report			4			16						36	\$ 5,400.00		#DIV/0!
e. Prepare boron safety plan				2								6	\$ 352.00		#DIV/0!
2. Final Design (LS)												0	\$ -		#DIV/0!
3. Bid & Construction Phase Services (T&M)												0	\$ -		#DIV/0!
4. Additional Services												0	\$ -		#DIV/0!
MANHOUR SUBTOTAL	0	0	6	38	20	52	16	0	0	0	0	132	\$ -	0	
LABOR RATE PER HOUR	0%	\$250.00	\$210.00	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	0%	\$85.00		
SUBTOTAL LABOR	\$0.00	\$0.00	\$1,300.00	\$6,680.00	\$3,500.00	\$9,344.00	\$7,358.00	\$0.00	\$0.00	\$0.00	\$0.00				
TOTAL												TOTAL LABOR	\$ 19,396.00		

OTHER DIRECT EXPENSES	QTY	UNIT	RATE	COST
Parking		day	\$35.00	\$0.00
Toll Charges		each	\$36.00	\$0.00
Standard Postage		letter	\$37.00	\$0.00
Certified Letter Return Receipt		each	\$38.00	\$0.00
Copy Services		hour	\$40.00	\$0.00
Vehicle Charge	28	hour	\$13.00	\$364.00
Tree Clearing Subcontractor		day	\$1,950.00	\$0.00
Traffic Control Subcontractor		day	\$950.00	\$0.00
ODE TOTAL				\$ 364.00

UNIT COSTS	QTY	UNIT	RATE	COST
Drill Rig Mobilization/Demobilization	1	LS	\$746.00	\$746.00
Drilling Crew Daily Travel		day	\$965.00	\$0.00
Buggy Rig Mobilization Surcharge	1	LS	\$265.00	\$265.00
Pavement Core (12" dia, 6" thick)		inch	\$127.00	\$0.00
Pavement Core (18" dia, 6" thick)		inch	\$127.00	\$0.00
Soil Boring (0'-20' continuous)	80	feet	\$2,150.00	\$1,720.00
Soil Boring (20'-25' intermittent)		feet	\$24.00	\$0.00
Grouting of Completed Boring	80	feet	\$13.00	\$1,040.00
Initial Piezometers		feet	\$26.00	\$0.00
Metal Piezometer Covers		each	\$60.00	\$0.00
Aluminum Piezometers		each	\$71.00	\$0.00
Aluminum (ASTM D-4378)	10	each	\$70.00	\$700.00
Passing No. 200 Sieve (ASTM D-1140)		each	\$59.00	\$590.00
Slave Analysis (ASTM D-5913)	2	each	\$135.00	\$270.00
Moisture Content (ASTM D-2216)	40	each	\$12.00	\$480.00
Unconfined Compression (ASTM D-2166)	5	each	\$54.00	\$270.00
Unconsolidated-Undrained Triaxial Test (ASTM D-2850)		each	\$385.00	\$0.00
UNIT COST TOTAL				\$6,835.00

GEOTECHNICAL SUMMARY	
TOTAL LABOR	\$19,396.00
OTHER DIRECT EXPENSES	\$364.00
UNIT COSTS	\$6,835.00
TOTAL	\$26,595.00

Fort Bend County 2023 Mobility Bond Program Fee Estimate Worksheet
KENTUCKY ROAD FROM EVERGREEN ST TO FUTURE LAKE OLYMPIA RD
AVILES ENGINEERING CORPORATION (AEC)
AEC PROPOSAL G2024-0-04, DATED 10/18/2024
OPTIONAL ADDITIONAL SCOPE - DETENTION FOND

TASK DESCRIPTION	PRINCIPAL	DEPARTMENT MANAGER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	PROJECT GEOLOGIST	STAFF ENGINEER	SENIOR TECHNICIAN	TECHNICIAN	SENIOR CADD TECHNICIAN	CADD TECHNICIAN	CLERICAL	TOTAL HOURS	Task Total	NO OF DWGS	LABOR HRS PER SHEET SHT
1. Preliminary Design (LS)													\$ -		#DIV/0!
2. Final Design (LS)												0	\$ -		#DIV/0!
3. Bid & Construction Phase Services (T&M)												0	\$ -		#DIV/0!
4. Additional Services (Optional Additional)												0	\$ -		#DIV/0!
a. Field Work Coordination (mark boring locations, clear utilities, set up for tree clearing and drilling subcontractors)					12		4					0	\$ -		#DIV/0!
b. Field Work Supervision and boring logging							16					16	\$ 2,486.00		#DIV/0!
E. Geotechnical Investigation - Detention Pond (Engineering)												0	\$ -		#DIV/0!
a. Prepare and review boring logs				4				12				16	\$ 2,146.00		#DIV/0!
b. Prepare and review engineering analysis (detention pond slope stability, excavation, liner, borrow)				2	40							42	\$ 7,476.00		#DIV/0!
c. Prepare geotechnical engineering report				4	16							20	\$ 3,886.00		#DIV/0!
MANHOUR SUBTOTAL	0	0	6	60	12	12	20	0	0	0	0	110	\$ -	0	
	0%	0%	5%	55%	11%	11%	18%	0%	0%	0%	0%				
LABOR RATE PER HOUR	\$265.00	\$250.00	\$218.00	\$176.00	\$176.00	\$176.00	\$96.00	\$69.00	\$54.00	\$75.00	\$68.00				
	\$0.00	\$0.00	\$1,306.00	\$10,560.00	\$2,112.00	\$1,464.00	\$1,920.00	\$0.00	\$0.00	\$0.00	\$0.00				
SUBTOTAL LABOR															
TOTAL												TOTAL LABOR	\$ 17,364.00		

OTHER DIRECT EXPENSES	QTY	UNIT	RATE	COST
Parking		day	\$35.00	\$0.00
Toll Charges		each	\$56.00	\$0.00
Standard Postage		letter	\$37.00	\$0.00
Certified Letter Return Receipt		each	\$30.00	\$0.00
Courier Services	32	each	\$41.00	\$1,312.00
Travel Expenses		day	\$45.00	\$0.00
Tree Clearing Subcontractor	1	day	\$1,050.00	\$1,050.00
Traffic Control Subcontractor		day	\$950.00	\$0.00
ODE TOTAL				\$ 2,366.00

UNIT COSTS	QTY	UNIT	RATE	COST
Drill Rig Mobilization/Demobilization	1	LS	\$746.00	\$746.00
Drilling Crew Daily Travel		day	\$565.00	\$0.00
Buggy Rig Mobilization Surcharge	1	LS	\$265.00	\$265.00
Pavement Coring and Patching (6" dia, 7-8" thick)		each	\$162.00	\$0.00
Pavement Coring and Patching (12" dia, 8-12" thick)		each	\$270.00	\$0.00
Soil Boring (10-20' continuous)	100	feet	\$27.00	\$2,700.00
Soil Boring (20-25' intermittent)		feet	\$24.00	\$0.00
Grouting of Completed Boring	80	feet	\$13.00	\$1,040.00
Initial Piezometers	20	feet	\$26.00	\$520.00
Metal Piezometer Covers		each	\$60.00	\$0.00
Piezometer Abandonment	20	feet	\$21.00	\$420.00
Atmospheric Pressure Gauge (0-30" Hg)	1	each	\$420.00	\$420.00
Paving No. 200 Sieves (ASTM D-1140)	14	each	\$69.00	\$966.00
Swave Analysis (ASTM D-5813)	2	each	\$135.00	\$270.00
Moisture Content (ASTM D-2216)	50	each	\$12.00	\$600.00
Unconfined Compression (ASTM D-2166)	5	each	\$54.00	\$270.00
Unconsolidated-Undrained Triaxial Test (ASTM D-2850)	9	each	\$77.00	\$693.00
Crumb Dispersion (ASTM D-6572)	5	each	\$46.00	\$230.00
Double Hydrometer Dispersion (ASTM D-4221)	2	each	\$266.00	\$532.00
Consolidated-Undrained Test (ASTM D-7167)	1	each	\$1,825.00	\$1,825.00
UNIT COST TOTAL				\$11,870.00

GEOTECHNICAL SUMMARY	
TOTAL LABOR	\$17,364.00
TOTAL OTHER DIRECT EXPENSES	\$2,366.00
TOTAL UNIT COSTS	\$11,870.00
TOTAL	\$31,600.00



Approximate Project Limits

Up to 5 additional borings each to 20 feet deep for future detention pond. Location to be determined; assuming maximum surface area of 5 acres and maximum depth of 10 feet.

Notes:
1. Boring locations may be adjusted as necessary in field for right of entry purposes and for drill rig access.

LEGEND:

B-# (X')

PROPOSED BORING (DEPTH IN FEET)

AVILES ENGINEERING CORPORATION			
PROPOSED BORING LOCATION PLAN			
KENTUCKY ROAD IMPROVEMENTS			
FROM FUTURE LAKE OLYMPIA TO EVERGREEN RD			
PRECINCT 2, FORT BEND COUNTY, TEXAS			
DES. PROJECT NO.	DATE	DATE ISSUED	SOURCE DRAWING PROVIDED BY:
G2024-10-04	10-21-2024	10-21-2024	GOOGLE
PROJECT NO.	DRAWN BY	SCALE	PLATE NO.
	WLW	1" = 200'	PLATE 1

APPENDIX C

Waterline Design

Scope and Fee Proposal

Linfield, Hunter & Junius, Inc.



LINFIELD, HUNTER & JUNIUS, INC.

PROFESSIONAL ENGINEERS,
ARCHITECTS AND SURVEYORS

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Mark K. Annino
Casey M. Genovese, P.E.

Daniel A. Flores, P.E.
John M. Jackson, P.E.
Vincent J. Leco, III, P.E.
Eric R. Wright, P.E.
Timothy J. Roth, P.E.
Luis F. Sosa, P.E.
Richard A. Van Wootten, P.E.

November 21, 2024

Ms. Ernestine Mbroh
Director of Transportation
Mbroh Engineering, Inc.
11757 Katy Fwy., Suite 625
Houston, TX 77079

**Re: Fort Bend County
Kentucky Road – Lake Olympia to Evergreen Rd.
County Project No. 23204
Our File #: 24M-175**

Dear Ms. Mbroh:

Thank you for asking us to provide this proposal to provide professional engineering services for the referenced project. We understand that our portion of the work includes the design of a new waterline that will run down from Lake Olympia Parkway to close a loop and connect to another line at Trammel-Fresno Road.

This proposal is for the following engineering services:

- Phase 1 - Preliminary Engineering
- Phase 2 – Final Design
- Phase 3 – Construction Phase Services

We propose to provide our services in accordance with the requirements of the Fort Bend County Engineering Department Engineering Design Manual and City of Houston guidelines and standards. A manhour estimate and fee breakdown for these services is attached.

Below is a detailed description of our proposed scope for the above services.

Phase 1 – Preliminary Engineering

Preliminary Engineering will include:

- Developing a typical cross section showing proposed waterline improvements
- Identifying and documenting potential conflicts with existing facilities
- Performing a site visit to visually assess conditions and confirm proposed improvements
- Preparation of 30% Design Plans (Waterline Only)
- Preparation of 30% Construction Cost Estimate (Waterline Only)
- Preparation of a write-up for the Preliminary Engineering Report (Waterline Only)
- Presentation of Results to Fort Bend County
- Attending Monthly Progress Meetings

Phase 2 – Final Design

Final Design will include:

- Preparation of Construction Plans (Waterline Only) that include:
 - Waterline General Notes
 - Typical and Non-Standard Cross Sections (Waterline Only)
 - Plan and Profile Sheets (Waterline Only)
 - Applicable Waterline Details
- Preparation of Construction Specifications (Waterline Only)
- Preparation of Construction Cost Estimates (Waterline Only)
- Preparation of Waterline Items for the Bid Form
- 70%, 95% and 100% Submittals of the above Construction Plans, Specifications, Construction Cost Estimates and Bid Form items including submittal checklists and KMZ files of design. Each submittal will also include responses to review comments from previous submittals.
- Preparation of a Project Manual (Waterline Items Only). A copy will be included with the 95% Submittal and also with the 100% Submittal.
- Coordination with utility owners necessary for waterline design.
- Attending Monthly Progress Meetings
- Bidding Phase that will include
 - Preparation and delivery of a final Project Manual (Waterline Items Only)
 - Preparation and delivery of Sealed and Signed Construction Plans (Waterline Only)
 - Providing support during advertisement including attending the Pre-Bid Meeting, evaluating and responding to bidder questions and preparation of addenda (Waterline Only)

Phase 3 – Construction Phase Services

Construction Phase Services will include:

- Attending a Pre-Construction Meeting
- Reviewing Contractor Submittals (Waterline Only)
- Answering Contractor Requests for Information (Waterline Only)
- Preparation of Record Drawings (Waterline Only – based upon contractor red-line mark-ups of construction plans)

Below is our projected schedule and deliverables based upon the overall project schedule that we have been furnished:

- Notice to Proceed – February 2025
- Preliminary Engineering Report / 30% Design Plans – July 2025
- 70% Submittal – December 2025
- 95% Submittal – January 2026
- 100% Submittal – February 2026
- Bid Phase Services – March 2026
- Construction Phase Services – July 2026

Ms. Ernestine Mbroh
Director of Transportation
Mbroh Engineering, Inc.
Page 3
November 21, 2024

We propose to provide these services for a total estimated fee of \$30,585.00. Below is a breakdown of our proposed fees for these services:

Phase 1 – Preliminary Engineering – Lump Sum	\$ 7,735.00
Phase 2 – Final Design – Lump Sum	\$ 20,300.00
Phase 3 – Construction Phase – Budget (Time & Materials)	<u>\$ 3,550.00</u>
Total Fee	<u>\$ 31,585.00</u>

These fees do not include mapping, topographic surveying, right-of-way determination, geotechnical investigations, roadway design, drainage or detention design, utility coordination excepting that necessary for waterline design, environmental issues, permitting, testing or construction phase services other than those specified. These services are considered additional work and can be performed on an hourly basis or negotiated lump sum fee if required along with any other work.

We appreciate the opportunity to provide this proposal and hope it meets with your approval. Please do not hesitate to call should you have any questions.

Yours very truly,

LINFIELD, HUNTER & JUNIUS, INC.



Robert E. Nockton, P.E.
Vice President

REN/dlm

Enclosure

LINFIELD, HUNTER & JUNIUS, INC.

Fort Bend County

Kentucky Road - Lake Olympia to Evergreen Road - Waterline Design

TASK DESCRIPTION	PRINCIPAL \$225.00	Manhour Estimate and Fee Breakdown					TOTAL HOURS	TASK TOTAL	NO. OF DWGS.	LABOR HRS PER SHEET
		PROJECT MANAGER \$250.00	ENGINEER \$150.00	JUNIOR ENGINEER \$155.00	CADD TECHNICIAN \$125.00	CLERICAL \$70.00				
Phase 1 - Preliminary Engineering							45	\$ 7,735.00		
Establish a Typical Cross Section (Waterline Only)			1	2	2		5	\$ 710.00	1	5
Determine Potential Conflicts with Existing Facilities & Utilities			1	2			3	\$ 460.00		
Site Visit				4			4	\$ 540.00		
Prepare a Construction Cost Estimate (Waterline Only)			1	2			3	\$ 460.00		
Prepare 30% Plans (Waterline Only)			2	8	8		18	\$ 2,460.00	3	6
Prepare Write-Up for Preliminary Engineering Report			1	2			3	\$ 460.00		
Internal Quality Control (QA/QC)							3	\$ 905.00		
Presentation of Results	1	2					3	\$ 870.00		
Project Management and Meetings (Assume 3 Months)	3	3					3	\$ 870.00		
Phase 2 - Final Design							125	\$ 20,300.00		
General Notes Sheet (Waterline Only)				2			2	\$ 270.00	1	2
Typical and Non-Standard Cross Sections (Waterline Only)			2	4	4		10	\$ 1,420.00	1	10
Plan and Profile Sheets (6 Sheets Total) (Waterline Only)	1	1	4	12	12		29	\$ 4,170.00	6	5
Miscellaneous Details (2 Sheet Total)	1	1	4	8	8		21	\$ 3,130.00	2	11
Specification Table of Contents (70% Submittal) (Waterline Only)			1	2		1	4	\$ 530.00		
Construction Cost Estimate (70% Submittal) (Waterline Only)			2	4			6	\$ 920.00		
Bid Form (70% Submittal) (Waterline Only)				1	1	1	2	\$ 205.00		
KMZ File of Current Design (70% Submittal) (Waterline Only)				1			2	\$ 260.00		
70% Review Checklist		1					1	\$ 290.00		
Standard Construction Details (95% Submittal) (Waterline Only)			1	2	2		5	\$ 710.00	1	5
Project Manual (95% Submittal) (Waterline Only)			1	2		2	5	\$ 600.00		
KMZ File of Current Design (95% Submittal) (Waterline Only)				1	1		2	\$ 260.00		
Responses to 70% Comments (95% Submittal) (Waterline Only)			1	2			3	\$ 460.00		
95% Review Checklist		1					1	\$ 290.00		
Project Manual (100% Submittal) (Waterline Only)			1	2		1	4	\$ 530.00		
KMZ File of Current Design (100% Submittal) (Waterline Only)				1	1		2	\$ 260.00		
Responses to 95% Comments (100% Submittal) (Waterline Only)			1	1			2	\$ 325.00		
100% Review Checklist		1					1	\$ 260.00		
Internal Quality Control (QA/QC)	2	4					6	\$ 1,810.00		
Utility Coordination including Meetings	1	1	4				5	\$ 1,090.00		
Project Management and Meetings (Assume 3 Months)	3	3					3	\$ 870.00		
Bidding										
Attend Pre-Bid Meeting			2				2	\$ 380.00		
Respond to Bidder Questions and Prepare Addenda (Waterline Only)	1	1	1	2	1	1	7	\$ 1,270.00		
Phase 3 - Construction Phase Services							21	\$ 3,550.00		
Attend Pre-Construction Meeting		2					2	\$ 560.00		
Review Contractor Submittals (Waterline Only)		1		4			5	\$ 830.00		
Answering Requests for Information (Waterline Only)		1		4			5	\$ 830.00		
Record Drawings (Waterline Only)		1		2	6		9	\$ 1,310.00		
MANHOUR SUBTOTAL	4	27	31	77	46	6	191		15	
LABOR RATE PER HOUR	\$325.00	\$250.00	\$150.00	\$155.00	\$125.00	\$70.00				
LABOR SUBTOTAL AND EXPENSES	\$1,300.00	\$7,830.00	\$5,860.00	\$10,395.00	\$5,750.00	\$420.00				
TOTAL FEE								\$31,585.00		