

§

§

§

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Post Road, Segment 1 – Project No. 23218x)

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 TLC Engineering, Inc. ("Engineer"), a Texas corporation. County and Engineer may be referred to individually as a "Party" or collectively as the "Parties."

WHEREAS, Engineer is a professional engineering firm which provides design, consulting and engineering services in the Greater Houston Area; and

WHEREAS, County desires for Engineer to provide professional engineering services for the design and consulting services for two separated double-twelve feet travel roadways and pavements along with curb, median, gutter, drainage system and all necessary appurtenances along Post Road from Ladonia Avenue to FM 521 under Mobility Bond Project No. 23218x; 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 dated January 14, 2025 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 28, 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 Seven Hundred Forty-Seven Thousand Six Hundred Fifty and 00/100 Dollars (\$747,650.00). 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 Seven Hundred Forty-Seven Thousand Six Hundred Fifty and 00/100 Dollars (\$747,650.00). 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 Seven Hundred Forty-Seven Thousand Six Hundred Fifty and 00/100 Dollars (\$747,650.00)

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 Seven Hundred Forty-Seven Thousand Six Hundred Fifty and 00/100 Dollars (\$747,650.00).

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, HALL FURTHER 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 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

inabilities 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.
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: **TLC Engineering, Inc.**
Attn: _____
8204 Westglen Drive
Houston, TX 77063

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

KP George, County Judge

Date

ATTEST:

Laura Richard, County Clerk

TLC ENGINEERING, INC



Authorized Agent – Signature

Tony L. Council

Authorized Agent- Printed Name

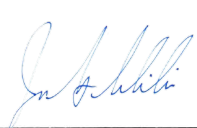
President and CEO

Title

February 24, 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

r:\agreements\2025 agreements\engineering\tlc engineering, inc. (25-eng 100434)\agmt for professional engineering services - tlk engineering, inc. docx - knm

EXHIBIT A

(Engineer's Proposal Follows Behind)

**Preliminary Engineering Report
ENGINEERING CONSULTING SERVICES**

Post Road Segment - 1

Project # 23218X

Submitted to:

**Kevin A. Mineo, GEC Manager kmineo@dccm.com
Representing Fort Bend County Engineering Dept.**

**Mobility Bond Projects 2023
Fort Bend County Precinct II**



**Prime Provider: TLC Engineering, Inc.
8204 Westglen Drive, Houston TX 77063**

Project Manager

A handwritten signature in blue ink, appearing to read "Wanzhi Li", is positioned below the "Project Manager" title.

**Wanzhi Li, Ph.D., PE
January 14, 2025**

1. INTRODUCTION

Fort Bend County, Precinct 2, plans to extend the Post Road Roadway from Ladonia Ave. to FM 521, Post Road Segment-I, Project # 23218x, Mobility Bond Projects 2023. TLC Engineering Inc. is pleased to provide engineering consulting services for Fort Bend County as the prime firm to conduct Civil, roadway, pavement, hydraulic, drainage, traffic, and utility design while United Engineers Inc and HVJ Associates, as subconsultants, are responsible for survey and geotechnical investigation services respectively. This proposal presents project understanding, design specifications, standards and regulations set forth on this project, the scope of work, consulting fees, and the proposed project schedule for completing the consulting services on this project. Fort Bend County will be referred to as "County" and the prime consultant, TLC Engineering, Inc. and its subconsultants, will be referred to as "Engineer" in this document.

2. PROJECT OVERVIEW

The Post Road Segment-I consists of two separated Double-Twelve feet (2_12'-0") travel lanes for both east bound and west bound within a proposed ROW of One Hundred feet (100'-0"). A median of thirty-three feet (33'-0") shall be furnished between the two bounds. The roadway of Segment-I will be built in an existing green belt area where some existing buildings or facilities should be demolished, and the existing trees should be protected, and tree removal should be minimized. Different alternatives shall be studied regarding the intersection of Pot Road and FM 521 which is under construction. Additionally, left turn lanes, approach pavements connecting driveways or streets shall be studied for potential or proposed streets and driveways entering or exiting from the communities.

TLC developed this proposal based on the Design Manual developed by Fort Bend County for the Mobility Bond Projects 2023.

3. DESIGN CODE COMPLIANCE

Design should abide by the County, State and National design specifications, design codes and related regulations and standards listed in the following:

- Fort Bend County Engineering Design Manual 2022
- Fort Bend County Drainage Criteria Manual
- AASHTO Specifications
- Texas Standard Specifications, 2024
- 2014 Special Provisions/Special Specifications, 2014
- TxDOT Roadway Design Manual
- TxDOT Hydraulic Design Manual (HYD) 2019
- TxDOT Drainage Design Guidelines
- TxDOT Geotechnical Manual
- TxDOT Traffic Design Standards for Signs, Signals, And Markings
- Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- International Building Code (IBC)
- ACI-318, Concrete Design Specifications
- Americans with Disabilities Act
- 2018 International Fire Code
- 2015 International Energy Conservation Code (IECC)
- NFPA 101 - Life Safety Code
- IES Handbook - Illuminating Engineering Society of North America

4. CONSULTING SERVICE ASSIGNMENT

It has been mentioned that the consulting team on this project consists of three engineering firms, TLC Engineering Inc, United Engineers Inc, and HVJ Associates. The task assignments are presented below.

United Engineers Inc. (Proposal Detail for Survey refers to Attachment-D)

- Site Survey
- ROW Identification and Control Points
- Existing Properties, Utilities, Easements and Trees
- Submit Survey Map and Project TOPO

HVJ Associates, (Proposal Detail for Survey refers to Attachment-E)

- Soil Boring
- Soil Test
- Soil Repot
- Design Recommendations for Pavement to Confirm Pavement Design Approved by the County

TLC Engineering, Inc.

- Roadway Alignment and Profile Studies and Design
- Roadway Layout including Soil Boring and Soil Layer Properties
- Review of Environment Studies to be conducted by a third party
- Review of Hydraulic Analysis and Site Studies to be conducted by a third party
- Drainage Design
- Pavement Design
- Culvert Design as a Needed Basis
- Traffic, Signal, Sign, Stripping and Marking Design
- Subsurface Utility Design Consisting of Water/Sewer but excluding utility of gas, power and communication lines
- Studies on Potential Utility Conflicts and Development of Conflict Matrix
- Construction Sequence Design
- Traffic Control pertaining to Corresponding Construction Sequence
- Permitting and Bidding Support

5. SCOPE OF WORK

5.1 United Engineers Inc.

Scope of Work for Survey refers to Attachment-D.

5.2 HVJ Associates

Scope of Work for Geotechnical Services refers to Attachment-E

5.3 TLC Engineering, Inc.

Scope of Work for General Engineering Services, see Attachment-A

6. PROPOSED CONSULTING FEE

TLC Engineering Inc. is pleased to submit this proposal with an estimated consulting fee to Fort Bend County for engineering services on Post Road Segment-I, project # 23218x.

The proposed total compensation for **Post Road Segment-I**, Project # 23218X, consisting of all aspects of engineering consulting services from conceptual design to submitting a complete design package, permitting and bidding supporting services, see **Attachment-B**.

6.1 Compensation For Basic Services Billed as Lump Sum of:

FOUR HUNDRED SIXTY-FOUR THOUSAND SIX HUNDRED AND SEVENTY-SIX 00/100 DOLLARS (\$464,676.00).

6.2 Compensation for Permitting and Bidding Services Billed Hourly with A Total of:

TWENTY-NINE THOUSAND TWO HUNDRED AND SEVENTY-EIGHT 00/100 DOLLARS (\$29,278.00).

The Permitting and Bidding Service fee is morally estimated by hourly rate and that may be subject to change depending on changes of the required hours necessary for providing support on permitting and bidding services.

6.3 Compensation for Construction Services Billed Hourly with A Total of:

EIGHTY-ONE THOUSAND SEVEN HUNDRED AND TWO 00/100 DOLLARS (\$81,702.00).

The Construction Service fee may be subject to change depending on changes of the scope of work for the construction services.

6.4 Compensation for Optional Additional services:

The Optional Additional services compensation, which may be subject to change, is estimated as:

ONE HUNDRED SEVENTY-ONE THOUSAND NINE HUNDRED AND NINETY-FOUR 00/100 DOLLARS (\$171,994.00).

6.5 Consulting Fee Allocations:

Within the total consulting fees, Fee allocations for basic, construction services and optional additional services between the three firms are presented in Table-1 and detailed calculations are shown in the spreadsheet file, Attachment-B.

Table-1 Fee Allocations

Classification	Firm	Compensation	% for Firm	% of Budget
Basic Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$ 372,376.00	80.14%	7.22%
	United Engineers _ Services on Survey and TOPO	\$ 68,880.00	14.82%	1.34%
	HVJ Associates _ Services on Geotechnical Investigation	\$ 23,420.00	5.04%	0.45%
Total Basic		\$464,676.00	100.00%	9.01%
Permitting and Bidding Services	TLC Engineering _ Permitting and Bidding Services (By hourly Rate)	\$ 29,278.00	35.84%	0.57%
Construction Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$81,702.00	100.00%	1.58%
Additional Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$ 136,120.00	79.14%	2.64%
	United Engineers _ Services on Survey and TOPO	\$ 13,400.00	7.79%	0.26%
	HVJ Associates _ Services on Geotechnical Investigation	\$ 22,474.00	13.07%	0.44%
Total Additional		\$ 171,994.00	100.00%	3.33%
Total Contract Value		\$747,650.00		14.49%

7. PROPOSED PROJECT SCHEDULE

The Professional Services for the mentioned tasks shall be completed within **295 business days, refers to Attachment C**, from the date when a NOTICE TO PROCEEDING ISSUED.

The working schedule of 295 business days consists of FIVE (5) project execution phases in accordance with the milestones specified in the Fort Bend County Engineering Design Manual:

1. 30% Design and Submittal Including Preliminary Studies and Conceptual Design
2. 70% Design and Submittal
3. 95% Design and Submittal
4. 100% Design and Submittal
5. Permitting and Bidding Supporting

8. COMMITMENT AND ACKNOWLEDGEMENT

TLC Engineering Inc. and the contract team are committed to serving Fort Bend County on this project following the project requirements described in the Design Manual to perform engineering consulting services for the scope of work consisting of Survey, Geotechnical, Roadway, Civil, Grading, Pavement, Hydraulic, Flooding Mitigation, Drainage, Traffic and Utility, and assure that the design to be in compliance with Fort Bend County, State and Federal Laws, industrial specifications and regulations and Fort Bend County preferences and requirements.

The team will study different alternatives for designing key engineering elements or components including civil, roadway layout, grading, hydraulic, ROW limits and necessary ROW purchase, easement, flood control, and discuss the pros and cons, cost estimates and schedule comparison between alternatives with Fort Bend County PM and the GEC representing Fort Bend County to reach agreements on finalizing the design plans prior to starting the preliminary or 30% design.

We will focus on Controlling Design Quality, Schedule, and Project Expenditure to provide high quality of design, to meet project schedule and to save construction cost by means of efficient management, contract administration, quality assurance, optimum design plans, complete design drawing set, and resolving conflicts among different disciplines and breaking through engineering or technical challenges.

We are confident that this team, consisting of diverse experts from environmental, geotechnical, roadway, structural, traffic, electrical, utility, H&H, and drainage disciplines, will work as one-team with seamless collaboration by means of cooperative, responsible, respective, trustworthy, and compromising philosophies. We are determined to make great efforts to execute the project by effective management, coordination, and cooperation with the client and stakeholders to develop feasible, reliable, cost-effective, environmental-harmonious, constructable, aesthetic appeal plans, produce high-quality design products, meet design criterion, client demands, and successfully complete the project within the project schedule and budget.

ATTACHMENTS

Attachment-A	Scope of Work for Engineering Services _ TLC Engineering
Attachment-B	Manhour and Fee Estimate
Attachment-C	Proposed Project Schedule
Attachment-D	Scope of Work for Topographic Survey Services _ United Engineers
Attachment-E	Scope of Work for Geotechnical Investigation _ HVJ Associates
Attachment-F	Site Map Image
Attachment-G	Preliminary Roadway Layout
Attachment-H	Preliminary Roadway Layout -Image

ATTACHMENT A

SCOPE OF WORK AND LEVEL OF EFFORT FOR ENGINEERING SERVICES

Post Road Segment-1 Roadway

Project # 23218X

**Mobility Bond Projects 2023
Fort Bend County, Precinct II**

1. EXECUTIVE SUMMARY

TLC Engineering, Inc. is contracted with Fort Bend County as the prime provider to conduct engineering consulting services, Post Road Segment-1 Roadway Design, Project # 23218X, consisting of Civil, Roadway, Grading, Pavement, Drainage, Traffic, Subsurface Utility designs, as well as Review of Environmental Assessment and Hydraulic Analysis (environmental assessment, hydraulics analysis and site studies shall be conducted by specified third parties). United Engineers, Inc. and HVJ Associates as subconsultants, are responsible for topographic survey and geotechnical investigation respectively. This document outlines the scope of work and LOE for consulting services on this project.

2. SCOPE OF WORK

The Scope of Work and level of efforts (LOE) are presented by working classifications for Topographic Survey, Geotechnical Investigation, and Engineering Consulting Services.

2.1 ENGINEERING CONSULTING SERVICES

This document, **Attachment A**, describes the responsibilities of the prime provider, TLC Engineering, Inc. in engineering consulting services consisting of Civil, Roadway, Grading, Pavement, Drainage, Traffic, and Subsurface Utility design services, as well as Review of Environmental Studies, Hydraulic Analysis and Site Studies which shall be conducted by third parties.

2.2 TOPOGRAPHIC SURVEY

The Scope of Work and LOE for Topographic Survey Services provided by United Engineers, Inc. as a subconsultant are described in **Attachment D**.

2.3 GEOTECHNICAL INVESTIGATION

The Scope of Work and LOE for geotechnical investigation provided by HVJ Associates as a subconsultant are presented in **Attachment E**.

3. ENGINEERING CONSULTING SERVICES

Engineering consulting services on this project shall be executed with Five (5) engineering phases from conceptual design through 30% (including pre-engineering and alternative studies), 70%, 95%, 100% designs to engineering supporting services for permitting application and bidding process.

Construction management and construction inspection services were excluded from the current Scope of Work. However, a preliminary service fee estimate for Construction Management and Construction Inspection Services was proposed in addition to the basic engineering consulting services.

3.1 30% Design and PER including Conceptual Design and Alternative Studies

- Studies on Project Features and Site Constraints
- Site Walk Through Prior to 30% Design
- Studies on Roadway Typical Section Alternatives
- Studies on Alignment Alternatives per Orthogonal Intersecting FM 521
- Studies on Alignment Alternatives per Left Turn Lanes at FM 521 & Ladonia St.
- Studies on Alternatives per Driveway Approaches to Communities
- Studies on ROW Acquisition pertaining to Different Alignment Alternatives
- Review of Preliminary Environmental Analysis and Assessment Report
- Review of Preliminary Hydraulic Analysis and Site Study Report
- Stakeholder Coordination
- Weekly/Biweekly Technical Meetings
- Design Coordination for Selecting Alignment and Typical Section
- Develop Roadway Alignment and Profile per Fort Bend County and TxDOT Design Manuals
- Develop Preliminary Engineering Report (PER)
- Follow Fort Bend County 30% design Checklist.
 - ✓ Establish a typical cross section and cross sections in non-standard areas
 - ✓ Determine drainage system needs (drainage report and/or preliminary roadway drainage design)
 - ✓ Positively determine right-of-way acquisition needs
 - ✓ Determine potential conflicts with existing facilities
 - ✓ Identify critical path items
 - ✓ Identify problem areas and potential resolution(s)
 - ✓ Determine permit and regulatory requirements
 - ✓ Prepare a reasonable construction cost estimate
 - ✓ Identify impacts to pipelines by locating the drainage high point at pipeline intersections.
 - ✓ Prepare 30 percent plan set, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation.
- Follow Fort Bend County Preliminary Engineering Report (PER) Checklist.
 - ✓ Project location and scope of the project
 - ✓ Existing Conditions
 - ✓ Existing Utilities, including potential conflicts
 - ✓ Proposed Roadway Design, highlighting any deviation from applicable design criteria
 - ✓ Existing and Proposed Drainage and Detention
 - ✓ Proposed Right-of-Way
 - ✓ Proposed Traffic Signal, if applicable
 - ✓ Geotechnical Investigation
 - ✓ Environmental Investigation (letter report to be provided to Design Consultant by the County)
 - ✓ Permit and Regulatory Requirements
 - ✓ Cost Estimate
 - ✓ Appendices
 - 1. PER review meeting minutes

- 2. Project Location Map
- 3. Alignment Exhibit showing ultimate configuration
- 4. Roundabout Exhibit, if applicable
- 5. FEMA Flood Insurance Rate Maps (FIRM)
- Delivery of 30% Submittal and PER

3.2 70% Design

- Address to Client Review Comments per 30% Submittal
- Further Studies and Coordination with Survey Data and Site Map
- Coordination with FM 521 Construction
- Coordination with Post Road Seg-2 Design
- ROW Acquisition per Selected Alignment Layout
- Review of Final Report on Environmental Analysis and Assessment
- Review of Final Report on Hydraulic Analysis and Site Studies
- Finalize Roadway Alignment and Profile Layout
- Finalize Typical Section
- Traffic Lights, Signal and Signs Plan
- General Drainage Plan
- Detention Pond Location and Sizing
- Development of Potential Utility Conflict Matrix
- Develop Culvert Plan Layout
- Stakeholder Coordination
- Initial Draft of Project Report
- Interdisciplinary Design Coordination and QA/QC Management
- Weekly/Biweekly Technical Meetings and Design Coordination
- Draft General Design Notes
- Draft Quantity Summary and Bill of Materials
- Follow Fort Bend County 70% design Checklist.
 - ✓ A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.
 - ✓ The 70 percent submittal shall include the following:
 1. Cover Sheet with a 70 percent interim seal
 2. Index of Sheet
 3. General Notes
 4. Typical and Non-standard Cross Sections
 5. Project Layout Sheet
 6. Survey Control
 7. Right-of-way (Existing and Proposed)
 8. Horizontal Alignment Data
 9. Plan and Profile Sheets (detailed callouts not required at 70 percent)
 10. Drainage Area Map with Hydraulic Calculations
 11. Traffic Control Plan
 12. Signing and Striping Plan
 13. Traffic Signal and Details (if applicable)
 14. Storm Water Pollution Prevention Plan
 15. Cross Sections (100 foot) intervals with earthwork calculations)
 16. Specification Table of Contents (Use Harris County Specifications. TxDOT Specifications and others to be used as necessary depending on jurisdiction). Refer to Appendix B for Fort Bend County Specification Table of Contents

- template.
- 17. Construction Cost Estimate (PDF and Excel format)
- 18. Bid Form (PDF and Excel format). Ensure that bid items and units match those shown in the applicable specification. Refer to Appendix B for Fort Bend County Bid template.
- 19. KMZ file of current design with proposed right-of-way.
- Delivery of 70% Submittal

3.3 95% Design

- Address to Client Review Comments per 70% Submittal
- Technical Meeting for Clearing Design Conflicts
- Incorporate Client and Stakeholder's Preferences and Requirements
- Finalize ROW Acquisition per Final Alignment Layout
- Update Roadway Alignment and Profile Layout
- Update Typical Section
- Update Traffic Lights, Signal and Signs Plan
- Develop Traffic Lights, Signal Signs and Sign Support Details
- Update the General Drainage Plan
- Develop Drainage Details Consisting of Gutter, Inlet, Outlet, and Junction Boxes
- Update Pond Design Consisting of Location, Plan Size and Depth
- Develop Pond Design Details Consisting of Connections to City Sewer System
- Finalize Potential Utility Conflict Matrix
- Update Culvert Plan Layout
- Develop Culvert Design Details
- Further Stakeholder Coordination
- Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes
- QA/QC Management - Sing-Off QA/QC Matrixes
- Weekly/Biweekly Technical Meetings and Design Coordination
- Update General Design Notes
- Update Quantity Summary and Bill of Materials
- Update Construction Cost Estimate
- Follow Fort Bend County 95% design Checklist.
 - ✓ A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager.
 - ✓ The 95 percent submittal should be considered complete with 95 percent interim seal, and shall include all of the 70 percent requirements plus the following:
 - ✓ Verify earthwork quantities with cross sections at 100-foot intervals.
 - ✓ Standard construction details.
 - ✓ Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
 - ✓ KMZ file of current design with proposed right-of-way.
 - ✓ Responses to 70 percent comments
- Delivery of 95% Submittal

3.4 100% Design Submittal

- Address to Client Review Comment per 95% Submittal
- Incorporate Client and Stakeholder's Preferences and Requirements
- Further Coordinate Interdisciplinary Design Clashes

- Confirm ROW Acquisition per Final Alignment Layout
- Finalize Roadway Alignment and Profile Layout
- Finalize Typical Section
- Finalize Traffic Lights, Signal and Signs Plan
- Finalize Traffic Lights, Signal Signs and Sign Support Details
- Finalize General Drainage Plan
- Finalize Drainage Details Consisting of Gutter, Inlet, Outlet, Junction Boxes
- Finalize Pond Design Consisting of Location, Plan Size and Depth
- Finalize Pond Design Details Consisting of Connections to City Sewer System
- Finalize Culvert Plan Layout
- Finalize Culvert Design Details
- Final Meeting of Stakeholder Coordination
- Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes
- QA/QC Management - Sing-Off QA/QC Matrixes
- Weekly/Biweekly Technical Meetings and Design Coordination
- Finalize General Design Notes
- Finalize Quantity Summary and Bill of Materials
- Finalize Construction Cost Estimate
- Address to Client Review Comment per 100% Design
- Incorporate Client and Stakeholder's Preferences and Requirements
- Follow Fort Bend County 100% design Checklist.
 - ✓ Project manual
 - ✓ Construction cost estimate
 - ✓ KMZ file of current design with proposed right-of-way.
 - ✓ Responses to 95 percent comments.
 - ✓ Recommended maximum number of calendar days for construction.
- Wrap-Up and Submit 100% Design Package

3.5 Permitting and Bidding Phase

Team Design Review Meeting

Public Meetings

Stakeholder Meetings

Finalize Engineer's Opinion of Probable Construction Cost

Prepare and Sign QA/QC Matrix and Related Form

Wrap-up 100% Submittal Packages and Bidding Documents

Provide necessary Material and Information Supporting Applications for Permitting

Respond to Questions During Bid Process and Addendum

4. EXECUTION OF PROJECT

4.1 Follow all Applicable Design Codes and Standards

Designs should follow County, State and Federal design specifications, codes, regulations and standards outlined in the section of "Design Code Compliance" in the Project Proposal as well as additional applicable requirements and design criterion set forth for this project.

4.2 Meet Project Specifications

Designs should abide by “Fort Bent County Engineering Design Manual”, project specifications, and requirements, specified in the project specifications or ordered by Fort Bend County during execution of the project.

4.3 Work With County PM and GEC Managers

Work with the County Managers and GEC Managers on key items, especially in resolving potential deadlocks and obstructions. Provide alternative recommendations and try to meet the County’s preferences on resolving engineering challenges.

4.4 Take into Accounts Concerns from Diverse Stakeholders

Conduct early and effective coordination with diverse stakeholders, carefully listen to their concerns and suggestions, and try to meet their preferences on condition that the design goals, criterion, budget, and project schedule are met.

4.5 Coordinate Design with Different Disciplines

Effective project management shall be realized through managing the task leaders and subconsultant managers and key professionals.

Call for weekly or Biweekly meetings regularly to have every professional involved in the project to be aware of his/her tasks to be done, schedule to be met and outstanding issues exist, and conflicts or clashes to be cleared up in a timely manner.

4.6 QA/QC Management to Provide High Quality of Design

Effectively manage the design with periodic coordination and design review to maintain high quality of design.

Any design errors, conflicts or failures to meet the Design Specifications and County Requirements should be resolved immediately without delay.

- Design and review should follow a procedure through three level review-check process.
- Mutual check and QA/QC matrix sign off between the designer and the reviewer.
- Squad check or disciplinary review while the discipline manager or task leader and all parties should sign off the QA/QC matrix.
- Final review and check, the task leader and discipline manager should further review their design sheet and ensure that outstanding issues or conflicts are cleared up before submitting the design to the Project Manager. After the project manager and his/her representatives review and approve the design, then the project manager, task leader and discipline manager sign the QA/AC matrix finally.

4.7 Control Expenditure and Project Budget

The project manager, task leaders, discipline managers should control the project expenditure, and the time spent to control project expense and budget.

4.8 Work on the Project Schedule

The entire team should be well organized, design tasks should be wisely assigned, design quality and process should be effectively managed for submitting high quality design in time in each of the design phases.

Monday, January 13, 2025																	
ITEM NO.	Project: Post Road Seg-1, Fort Bend County_ Project No. 23218X	No.	Principal	Sr. Project	Project	Discipline	Senior	Design	QA/QC	Quantity	Senior	Junior	Clerical	Parcel	Working	Tasks and	Work
	Prepared By: Wanzhi Li, Ph.D., PE, General Manager, TLC	Sheets	Director	Manager	Manager	Engineer	Engineer	Engineer	Manager	Estimator	Designer	Designer	Admin	Acquisition	Hours	Fees	Category
	TLC - Civil, Roadway, Hydraulic, Drainage, Traffic and Subsurface Utility		\$ 258.00	\$ 245.00	\$ 231.00	\$ 207.00	\$ 197.00	\$ 176.00	\$ 212.00	\$ 185.00	\$ 96.00	\$ 84.00	\$ 75.00		Average Rate	\$ 156.40	1
	United Engineers - Survey			\$ 250.00		\$ 200.00	\$ 150.00	\$ 140.00				\$ 40.00	\$ 25.00	\$ 3,900.00			2
	HVJ Associates - Geotechnical Investigation																3
BREAKDOWN	TASK AND FEE ALLOCATIONS		HOURS												TOTAL	TOTAL	
	TLC _ On Civil, Roadway, Drainage, Traffic and Subsurface Utilities	146	42	302	141	204	218	250	64	122	484	492	25		2,366	\$ 372,376.00	80.14%
	United Engineers _ On Survey and TOPO			16		124	16	156				16	140	3	471	\$ 68,880.00	14.82%
	HVJ Associates _ On Geotechnical Services														134	\$ 23,420.00	5.04%
	Total Hours and Fees on Engineering Consulting Services	146	42	318	141	328	234	406	64	122	484	508	165	3	2971	\$ 464,676.00	\$ 464,676.00
Phase-1.1	Phase-1.1 _ Pre-Engineering Studies & Conceptual Design																
1.10	Subtotal of Pre-Engineering Studies and Conceptual Design	5	13	60	28	148	36	176			16	52	149		815	\$ 130,565.00	
1.11	Kick Off Meeting		4	4	4										12	\$ 2,936.00	1
1.12	Site Survey and TOPO Development, see Proposal Attachment D			16		124	16	156				16	140	3	471	\$ 68,880.00	2
1.13	Boring, Testing and Soil Report - Lumpsum, see Proposal Attachment E	1	A lumpsum Hour and Fee were Applied due to Many Classifications, Detailed Estimate refers to Proposal Attachment E,												134	\$ 23,420.00	3
1.14	Studies on Project Features and Site Constraints			4	4	4	4								16	\$ 3,520.00	1
1.15	Studies on Roadway Typical Section Alternatives	1		4	4			4			8		1		21	\$ 3,451.00	1
1.16	Studies on Alignment Alternatives per Orthogonal Intersecting FM 521	2	1		4	4	4					8			21	\$ 3,470.00	1
1.17	Studies on Alignment Alternatives per Left Turn Lanes at FM 521 & Ladonia St				4		4				8				16	\$ 2,480.00	1
1.18	Studies on Alternatives per Driveway Approaches to Communities			4		4						8			16	\$ 2,480.00	1
1.19	Studies on ROW Acquisition per Different Alignment Alternatives	1			4	4		4				8			20	\$ 3,128.00	1
1.20	Stakeholder Coordination		4	4	4		4								16	\$ 3,724.00	1
1.21	PER Development			16				12				12	4		44	\$ 7,340.00	1
1.22	Weekly/Biweekly Technical Meetings			4		4	4								12	\$ 2,596.00	1
1.23	PER Meeting for Selecting Alignment and Typical Section		4	4		4							4		16	\$ 3,140.00	1
Phase -1.2	Phase-1.2 _ 30% Design																
1.20	Subtotal of 30% Design Submittal	27	12	76	38	44	48	52	8	24	104	96	6		508	\$ 82,844.00	
1.21	Technical Meeting for Determining Alignment Layout and Typical Section		4	4	4	4	4								20	\$ 4,552.00	1
1.22	Complete TOPO _Must Submit within Two Weeks after Starting 30% Design		Must Submit within Two Weeks after Starting 30% Design,													\$ -	2
1.23	Studies on Survey Data and Site Map			4			8				12				24	\$ 3,708.00	1
1.24	Site Walk Through Prior to 30% Design			4		4		4							12	\$ 2,512.00	1
1.25	ROW Acquisition per Selected Alignment Layout _ Optional Additional Services	2	2	4	8		4					12			30	\$ 5,140.00	1
1.26	Soil Report _ Must Submit within Three Week after Starting 30% Design		Must Submit within Two Weeks after Starting 30% Design,													\$ -	3
1.27	Develop Roadway Alignment	4		4	4			8			12	12			40	\$ 5,472.00	1
1.28	Develop Typical Section	1		4		8						12			24	\$ 3,644.00	1
1.29	Develop Roadway Profile	4		4			8				12				24	\$ 3,708.00	1
1.30	Roadway Geometry Design Coordination and Confirmation			4		8		8				12			32	\$ 5,052.00	1
1.31	Develop Traffic Lights, Signal and Signs Plan _ Optional Additional Services	3	Optional Additional Services,													\$ -	1
1.32	Review of Preliminary Report on Environmental Studies and Assessment			2		4									6	\$ 1,318.00	1
1.33	Review of Preliminary Report on Hydraulic Analysis and Site Studies				2			4							6	\$ 1,166.00	1
1.34	Develop General Drainage Plan	4	1	4	8			8			16	12			49	\$ 7,038.00	1
1.35	Detention Pond Location and Sizing _ Optional Service or Sharing with Seg-2	1	Optional Additional Services,													\$ -	1
1.36	Develop Potential Utility Conflict Matrix	2		4				4			8				16	\$ 2,452.00	1
1.37	Develop Water/Sewer Line Layout _ Optional Additional Services	4	Optional Additional Services,													\$ -	
1.38	Develop Culvert Plan Layout	2		8			8				12	12			40	\$ 5,696.00	1
1.39	Stakeholder Coordination		4		4	4									12	\$ 2,784.00	1
1.40	Initial Draft of Preliminary Engineering Report			12			8	8			8		4		40	\$ 6,992.00	1
1.41	Weekly/Biweekly Technical Meetings			4	4		4								12	\$ 2,692.00	1
1.42	Draft Quantity Summary and Bill or Materials		1	2		4		4		24					35	\$ 6,720.00	1
1.43	Interdisciplinary Design Coordination and QA/QC per County/TxDOT Checklist				4		4	4			12	12			36	\$ 4,576.00	1
1.44	Wrap Up and Submit 30% Design			8		8			8		12	12	2		50	\$ 7,622.00	1
Phase -2	Phase-Two _ 70% Design																
2.10	Subtotal of 70% Design Submittal	38	6	68	23	40	56	70	20	42	124	132	5		608	\$ 94,772.00	
2.11	Address to Client Review Comments per 30% Submittal		1	4		4		8			8				25	\$ 4,242.00	1
2.12	Incorporate FM 521 Construction and Post Road Seg-2 Design		1	4			4				8	8	1		26	\$ 3,541.00	1
2.13	Incorporate Client and Stakeholder's Preferences and Requirements				4			4				8			16	\$ 2,300.00	1
2.14	Modify/Revise, Update ROW Acquisition per Final Alignment Layout		1	2				4			8				15	\$ 2,220.00	1
2.15	Modify, Revise, Update Roadway Alignment and Profile Layout	4		8		4		4			12	12			40	\$ 5,652.00	1
2.16	Modify, Revise, Update Typical Section	1	1	2				4				8			15	\$ 2,124.00	1
2.17	Modify, Revise, Update Traffic Lights, Signal and Signs Plan - Opt. Additional Services	3	Optional Additional Services ,													\$ -	1
2.18	Modify, Revise, Update Traffic Lights, Signal and Sign Details - Opt. Additional Services	2														\$ -	1
2.19	Review of Final Report on Environmental Studies and Assessment			2		4									28	\$ 1,318.00	1
2.20	Review of Final Report on Hydraulic Analysis and Site Studies				2				4			8			6	\$ 1,310.00	1
2.21	Modify, Revise, Update General Drainage Plan	3		4		4		8			12	8			36	\$ 5,040.00	1
2.22	Modify/Revise Drainage Details	2	1	4			8				8	12			33	\$ 4,590.00	1
2.23	Finalize Potential Utility Conflict Matrix	3			4			8				8			20	\$ 3,004.00	1
2.24	Update Water/Sewer Line Layout _ Optional Additional Services		Optional Additional Services,													\$ -	1
2.25	Develop Water/Sewer Line Connection Details _ Optional Additional Services	2														\$ -	1
2.26	Modify, Revise, Update Pond Design Plan _ Optional Additional Services	2	Optional Additional Services,													\$ -	1
2.27	Modify, Revise, Update Pond Connection Details _ Optional Additional Services	2														\$ -	1
2.28	Modify/Revise Utility Plan Layout _ Optional Additional Services	3														\$ -	1
2.29	Modify, Revise, Update Potential Utility Conflict and Relocation Plan	2	Optional Additional Services,													\$ -	1

ATTACHMENT-B
Manhour and Fee Estimate, Post Road Seg-1, Project #23218X
Fort Bend County Mobility Bond Project 2023

2.30	Develop Necessary Utility Relocation Design Details	3									12				25	\$	-	1
2.31	Modify, Revise, Update Culvert Plan Layout	3	1	4			8	8			8	12			40	\$	3,966.00	1
2.32	Develop Culvert Design Details Consisting of Flow to Major Creek	2		4			8								27	\$	5,820.00	1
2.33	Finalize Preliminary Engineering Report			2	5		8				12				27	\$	4,373.00	1
2.34	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes			2			8				8	8			26	\$	3,506.00	1
2.35	QA/QC Per County/TxDOT Checklist - Sing-Off QA/QC Matrixes			4		4		6				8			22	\$	3,536.00	1
2.36	Weekly/Biweekly Technical Meetings and Design Coordination				4	4			4		8				20	\$	3,368.00	1
2.37	Draft General Design Notes			8				8				12	2		30	\$	4,526.00	1
2.38	Update Quantity Summary and Bill of Materials	1		2	4			12			8				26	\$	4,546.00	1
2.39	Update Construction Cost Estimate			4		4		8		30		8			54	\$	9,438.00	1
2.40	Wrap Up and Submit 70% Design		1	12			8	8	8	12	12	20	20	2	103	\$	16,352.00	1
Phase -3	Phase-3 _ 95% Design Submittal																	
3.10	Subtotal of 95% Design Submittal	38	5	48	20	44	40	48	16	28	116	112	3		480	\$	72,447.00	
3.11	Address to Client Review Comments per 70% Submittal		1	4		4		4			8	8			29	\$	4,210.00	1
3.12	Incorporate FM 521 Construction and Post Road Seg-2 Design			4		4	4				8	8	1		29	\$	4,111.00	1
3.13	Update ROW Acquisition per Final Alignment Layout	1	1			4		8			8				21	\$	3,262.00	1
3.14	Update Roadway Alignment and Profile Layout	4		4			8	8			12	12			44	\$	6,124.00	1
3.15	Update Typical Section	1			4			4				8			16	\$	2,300.00	1
3.16	Update Traffic Lights, Signal and Signs Plan	3														\$	-	1
3.17	Update Traffic Lights, Signal Signs and Sign Support Details	2														\$	-	1
3.18	Update the General Drainage Plan	3		4		8					8	12			32	\$	4,412.00	1
3.19	Update Drainage Details Consisting of Gutter, Ducts and Junction Boxes	2	1	4			8				12	8			33	\$	4,638.00	1
3.20	Update Water/Sewer Line Layout	3														\$	-	1
3.21	Update Water/Sewer Line Connection Details	2														\$	-	1
3.22	Update Pond Design Plan _ Optional Service or Sharing with Seg-2	2														\$	-	1
3.23	Update Pond Design Details _ Optional Service or Sharing with Seg-2	2														\$	-	1
3.24	Update Utility Plan Layout	3														\$	-	1
3.25	Update Necessary Utility Relocation Design Details	3														\$	-	1
3.26	Update Ditch/Culvert Plan Layout	3	1				4				8	12			25	\$	2,822.00	1
3.27	Update Culvert and Ditch Design Details Consisting of Flow to Major Creek	2		4		4		4			8	8			28	\$	3,952.00	1
3.28	Update Draft of Project Report				4						8				16	\$	2,480.00	1
3.29	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes				4		4				8				16	\$	2,480.00	1
3.30	QA/QC Per County/TxDOT Checklist - Sign-Off QA/QC Matrixes			8		8		8	12			8			44	\$	8,240.00	1
3.31	Weekly/Biweekly Technical Meetings and Design Coordination				4		4				8				16	\$	2,480.00	1
3.32	Update General Design Notes	1		4		4		4				8			20	\$	3,184.00	1
3.33	Update Quantity Summary and Bill of Materials	1			4		4				8				16	\$	2,480.00	1
3.34	Update Construction Cost Estimate			4		4		4		24		8			44	\$	7,624.00	1
3.35	Wrap-Up and Submit 95% Design		1	8		4		4	4	4	12	12	2		51	\$	7,648.00	1
Phase -4	Phase-4 _ 100% Design Submittal																	
4.10	Subtotal of 100% Design Submittal	38	5	62	32	48	54	52	20	28	116	116	2		535	\$	84,048.00	
4.11	Address to Client Review Comment per 95% Submittal			4		4		4			8	8			28	\$	3,952.00	1
4.12	Technical Meeting for Clearing Conflicts or Clashes			4	4	4									12	\$	2,732.00	1
4.13	Incorporate Client and Stakeholder's Preferences and Requirements		1	4			8				8		1		22	\$	3,657.00	1
4.14	Confirm ROW Acquisition per Final Alignment Layout	1	1				6					8			15	\$	2,112.00	1
4.15	Finalize Roadway Alignment and Profile Layout	4		4		4	4				12	12			36	\$	4,756.00	1
4.16	Finalize Typical Section	1			4			4				8			16	\$	2,300.00	1
4.17	Finalize Traffic Lights, Signal and Signs Plan - Optional Additional Services	3														\$	-	1
4.18	Finalize Traffic Lights, Signal Signs and Sign Support Details - Opt Add Services	2														\$	-	1
4.19	Finalize the General Drainage Plan				4			8							12	\$	2,620.00	1
4.20	Finalize Drainage Design Details	3			4			4			8	8			24	\$	3,068.00	1
4.21	Finalize Water/Sewer Line Layout	2														\$	-	1
4.22	Finalize Water/Sewer Line Connection Details	3														\$	-	1
4.23	Finalize Pond Design Consisting of Location, Plan Size and Depth	2														\$	-	1
4.24	Finalize Pond Design Details Consisting of Connections to City Sewer System	2														\$	-	1
4.25	Finalize Utility Plan Layout	2														\$	-	1
4.26	Finalize Necessary Utility Relocation Design Plan Layout	3														\$	-	1
4.27	Finalize Utility Relocation Design Details	2														\$	-	1
4.28	Finalize Culvert Plan Layout	3	1	4			8				12	8			33	\$	4,638.00	1
4.29	Finalize Culvert and Ditch Design Details Consisting of Flow to Major Creek	3		4		4		8			12	8			36	\$	5,040.00	1
4.30	Stakeholder Coordination to Clear Potential Conflicts			4		4		4				4			16	\$	2,848.00	1
4.31	Interdisciplinary Coordination to Clear Outstanding Conflicts and Slashes			4	4		4				4				16	\$	3,076.00	1
4.32	QA/QC Per County/TxDOT Checklist - Sing-Off QA/QC Matrixes			4		4		4	4						16	\$	3,360.00	1
4.33	Weekly/Biweekly Technical Meetings and Design Coordination				4		4		4						12	\$	2,560.00	1
4.34	Finalize General Design Notes	1		4		8		4				8			24	\$	4,012.00	1
4.35	Finalize Quantity Summary and Bill of Materials	1			4		4				4				12	\$	2,096.00	1
4.36	Address to Client Review Comment per 100% Design			4		4		4		24		4			40	\$	7,288.00	1
4.37			1	8		8		12			24	16			69	\$	9,634.00	1
4.38	Incorporate FM 521 Construction and Post Road Seg-2 Design			2	4		8								14	\$	2,990.00	1
4.39	Clear All Outstanding Design Issues to Meet Client Preferences			4			8				8	8			28	\$	3,996.00	1
4.40	Wrap-Up and Submit 100% Design Package		1	4		4		4	4	4	16	16	1		54	\$	7,313.00	1
Phase -5	Phase-5 _ Permitting and Bidding Phase																	
5.10	Subtotal of Permitting and Bidding Phase		3	24	12	20	12	24		20	32	28			175	\$	29,278.00	
5.11	Team Design Review Meeting, Public Meetings, Stakeholder Meetings		1	4		4		4							13	\$	2,770.00	1
5.12	Finalize Engineer's Opinion of Probable Construction Cost			4		4	8			16	12	8			52	\$	8,168.00	1

ATTACHMENT-B
Manhour and Fee Estimate, Post Road Seg-1, Project #23218X
Fort Bend County Mobility Bond Project 2023

5.13	Wrap-up 100% Submittal Packages and Bidding Documents		1	4	8		8			8	8			37	\$	5,934.00	1	
5.14	Provide Material and Information necessary for Permitting Application			4		8		8		4	12	12		48	\$	6,944.00	1	
5.15	Respond to Questions During Bid Process and Addendum		1	4	4		4							13	\$	2,866.00	1	
5.16	Bid Tabulation and Contractor Bid Review			4		4	4							12	\$	2,596.00	1	
Phase -6	Phase-6 Construction Services																	
6.10	Subtotal of Construction Services		4	12	76	8	114		8	36	28	28	6	320	\$	62,000.00		
6.11	Kick Off Meeting			4		4		4						12	\$	2,512.00	1	
6.12	Review Material Submittals				16		30			24	12	12		94	\$	16,206.00	1	
6.13	Address RFI and Change Orders			8	60		80		8	12	16	16	6	206	\$	38,826.00	1	
6.14	Final Walk Through and Prepare Final Punch List		4	4		8	4							20	\$	4,456.00	1	
Phase -7	Phase-7 Close Out Phase																	
7.10	Subtotal of Project Closeout		1	12	8	8	8	20	12	4	24	24	4	125	\$	19,702.00		
7.11	Review and Revision of Record		1	4	8		8	8	8		12	12	2	63	\$	10,076.00	1	
7.12	Develop As-Built Drawings			8		8		12	4	4	12	12	2	62	\$	9,626.00	1	
Estimate Project Budget	TOTAL FOR CONSULTING SERVICES	146	42	318	141	328	234	406	64	122	484	508	165	3	2971	\$	464,676.00	9.01%
	Permitting and Bidding Services		3	24	12	20	12	24		20	32	28			175	\$	29,278.00	0.57%
	TOTAL CONSTRUCTION SERVICES		5	24	84	16	122	20	20	40	52	52	10		445	\$	81,702.00	1.58%
\$ 5,158,000	TOTAL FOR CONSULTING AND CONSTRUCTION SERVICES	146	47	342	225	344	356	426	84	162	536	560	175	3	3,416	\$	575,656.00	11.16%
Phase -8	OPTIONAL ADDITIONAL SERVICES																	
Phase -8.1	Phase-8.1 Optional Additional Traffic Services																	
Optional Additional Service Allocations	TLC Engineering		20	68	100	96	48	84	12		240	256		924	\$	136,120.00	2.64%	
	United Engineers - Survey												1	66	\$	13,400.00	0.26%	
	HVJ Associates - Geotechnical Investigation													73	\$	22,474.00	0.44%	
	Total for Optional Additional Services		20	68	100	96	48	84	12		240	256		997	\$	171,994.00	3.33%	
Phase -8	Phase-8.1 Additional Traffic Services																	
8.10	Subtotal of Additional Traffic Services	18	6	12	20	20	20	28			76	68		250	\$	35,124.00		
8.11	Develop Traffic Lights, Signal and Signs Plan _ Optional Additional Services	3			4		4				12	8		28	\$	3,452.00	1	
8.12	Modify, Revise, Update Traffic Lights, Signal and Signs Plan	3		4		8	4				8	12		36	\$	5,200.00	1	
8.13	Modify, Revise, Update Traffic Lights, Signal Signs and Sign Support Details	2	2		4		8				12	8		34	\$	4,672.00	1	
8.14	Update Traffic Lights, Signal and Signs Plan	3		4		4	8				8	12		36	\$	5,160.00	1	
8.15	Update Traffic Lights, Signal Signs and Sign Support Details	2	2		4		8				12	8		34	\$	4,672.00	1	
8.16	Finalize Traffic Lights, Signal and Signs Plan - Optional Additional Services	3		4		8	8				12	12		44	\$	6,372.00	1	
8.17	Finalize Traffic Lights, Signal Signs and Sign Support Details - Opt Add Services	2	2		8		8				12	8		38	\$	5,596.00	1	
Phase -8.2	Phase-8.2 Optional Additional Service on Subsurface Utilities																	
8.20	Subtotal of Additional Subsurface Utility Services	5	1	24	24	24	8	24			48	44		197	\$	66,040.00		
8.21	Identify Utility Conflicts and Develop Relocation Plan	2	1	8		8					12	8		37	\$	5,618.00	1	
8.22	Complete Utility Relocation Design Detail Sheets	3		16	24	24		24			36	36		160	\$	25,136.00	1	
8.23	Water/Sewer Line Layout		1	8	20	16		8			24	36		113	\$	16,886.00	1	
8.24	Water/Sewer Line Connection Details	2		12	16	12		8	12		24	36		120	\$	18,400.00	1	
Phase -8.3	Phase-8.3 Optional Additional Detention Pond Services																	
8.30	Subtotal of Additional Detention Pond Services	13	12	12	20	24	20	16			68	72		244	\$	34,956.00		
8.31	Detention Pond Location and Sizing _ Optional Service or Sharing with Seg-2	1			4	8		4			8	12		36	\$	5,060.00	1	
8.32	Modify, Revise, Update Pond Design Plan _ Optional Additional Services	2	4		4	4		4			12	8		36	\$	5,312.00	1	
8.33	Modify, Revise, Update Pond Connection Details _ Optional Additional Services	2		4			8				8	12		32	\$	4,332.00	1	
8.34	Finalize Pond Design Consisting of Location, Plan Size and Depth	2	4		8	4		4			12	8		40	\$	6,236.00	1	
8.35	Finalize Pond Design Details Consisting of Connections to City Sewer System	2		4			4				8	12		28	\$	3,544.00	1	
8.36	Finalize Pond Design Consisting of Location, Plan Size and Depth	2	4		4	8		4			12	8		40	\$	6,140.00	1	
8.37	Finalize Pond Design Details Consisting of Connections to City Sewer System	2		4			8				8	12		32	\$	4,332.00	1	
Phase -8.4	Phase-8.4 Optional Additional Survey Services-A additional Survey Per Pond																	
8.40	Subtotal of Additional Survey Services-Estimate													66	\$	13,400.00		
8.41	Parcel(1x\$3900)												1		\$	3,900.00	2	
8.42	Detention Pond Survey													36	\$	5,190.00	2	
8.43	SUE LVL "A" POTHOLE(1 HOLE)													30	\$	4,310.00	2	
Phase -8.5	Phase-8.5 Optional Additional Geotechnical Services-Additional Two Borings																	
8.50	Subtotal of Additional Geotechnical Services- Estimate													73	\$	22,474.00		
8.51	Additional Boring for Possible Detention Pond Location													73	\$	22,474.00	3	
8.52	Geotechnical Design Recommendation on Detention Pond																	
	TOTAL FOR OPTIONAL ADDITIONAL SERVICES														\$	171,994.00	3.33%	

Summary of Fee Allocations on Basic, Construction and Optional Additional Services

Classification	Firm	Compensation	% for Firm	% of Budget
Basic Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$ 372,376.00	80.14%	7.22%
	United Engineers _ Services on Survey and TOPO	\$ 68,880.00	14.82%	1.34%
	HVJ Associates _ Services on Geotechnical Investigation	\$ 23,420.00	5.04%	0.45%
Total Basic		\$464,676.00	100.00%	9.01%
Permitting and Bidding Services	TLC Engineering _ Permitting and Bidding Services (By hourly Rate)	\$ 29,278.00	35.84%	0.57%
Construction Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$81,702.00	100.00%	1.58%
Additional Services	TLC Engineering _ Services on Civil, Roadway, Drainage, Traffic and SUE	\$ 136,120.00	79.14%	2.64%
	United Engineers _ Services on Survey and TOPO	\$ 13,400.00	7.79%	0.26%
	HVJ Associates _ Services on Geotechnical Investigation	\$ 22,474.00	13.07%	0.44%
Total Additional		\$ 171,994.00	100.00%	3.33%
Total Contract Value		\$747,650.00		14.49%

Attachment C_ Proposed Project Schedule

PROJECT: Post Road Roadway_Seg-1 Fort Bent County, TEXAS					Project # 23218X Post Road_Seg-1 Schedule Mobility Bond 2023										START DATE: 11/18/2024 END DATE" 01/02/2026					
D	<div><div></div><div>i</div></div>	Task Name	Duration	Start	Finish															
						Nov	Dec	Qtr 1, 2025 Jan	Feb	Mar	Qtr 2, 2025 Apr	May	Jun	Qtr 3, 2025 Jul	Aug	Sep	Qtr 4, 2025 Oct	Nov	Dec	
1		Post Road Seg-One, Fort Bent County, TX	290 days	Mon 11/18/24	Fri 12/26/25															
2		Pre-Engineering and Conceptual Design	35 days	Mon 11/18/24	Fri 1/3/25															
3		Kick Off Meeting	1 day	Mon 11/18/24	Mon 11/18/24															
4		Studie on Alignment Alternatives	19 days	Tue 11/19/24	Fri 12/13/24															
5		Site Survey and Survey Map Development	34 days	Tue 11/19/24	Fri 1/3/25															
6		Boring and Test	34 days	Tue 11/19/24	Fri 1/3/25															
7		Coordination on Roadway Aalternatives	14 days	Mon 12/16/24	Thu 1/2/25															
8		Meeting for Roadway Layout Selection	1 day	Fri 1/3/25	Fri 1/3/25															
9		30% DESIGN AND SUBMITTAL	55 days	Mon 1/6/25	Fri 3/21/25															
10		Client and Stakeholder Coordination	1 day	Mon 1/6/25	Mon 1/6/25															
11		Finalize Project TOPO - Must Submit in Time	14 days	Tue 1/7/25	Fri 1/24/25															
12		Finalize Soil Report - Must Submit in Time	14 days	Tue 1/7/25	Fri 1/24/25															
13		Develop and Submit 30% Design	19 days	Tue 1/7/25	Fri 1/31/25															
14		30% Design Review by Client	15 days	Mon 2/3/25	Fri 2/21/25															
15		Address to 30% Review Comments	10 days	Mon 2/24/25	Fri 3/7/25															
16		QA/QC per County/TxDOT Check List	9 days	Mon 3/10/25	Thu 3/20/25															
17		Wrap Up 30% Design Submittal	1 day	Fri 3/21/25	Fri 3/21/25															
18		70% DESIGN AND SUBMITTAL	65 days	Mon 3/24/25	Fri 6/20/25															
19		Client and Stakeholder Coordination	1 day	Mon 3/24/25	Mon 3/24/25															
20		70% Design Development and Submittal	29 days	Tue 3/25/25	Fri 5/2/25															
21		70% Design Review by Client	15 days	Mon 5/5/25	Fri 5/23/25															
22		Address to 70% Review Comments	10 days	Mon 5/26/25	Fri 6/6/25															
29		QA/QC per County/TxDOT Check List	9 days	Mon 6/9/25	Thu 6/19/25															
30		Wrap Up 70% Design Submittal	1 day	Fri 6/20/25	Fri 6/20/25															
31		95% DESIGN AND SUBMITTAL	55 days	Mon 6/23/25	Fri 9/5/25															
32		Client and Stakeholder Coordination	1 day	Mon 6/23/25	Mon 6/23/25															
33		95% Design development and Submittal	19 days	Tue 6/24/25	Fri 7/18/25															
34		95% Design Review by Client	15 days	Mon 7/21/25	Fri 8/8/25															
35		Address To 60% Review Comments	10 days	Mon 8/11/25	Fri 8/22/25															
36		QA/QC per County/TxDOT Check List	9 days	Mon 8/25/25	Thu 9/4/25															
37		Wrap Up 95% Design Submittal	1 day	Fri 9/5/25	Fri 9/5/25															
38		100% DESIGN AND SUBMITTAL	50 days	Mon 9/8/25	Fri 11/14/25															
39		Client and Stakeholder Coordination	1 day	Mon 9/8/25	Mon 9/8/25															
40		100% Design Development	14 days	Tue 9/9/25	Fri 9/26/25															
41		100% Submittal For Client Review	15 days	Mon 9/29/25	Fri 10/17/25															
42		Address 100% Review Comments	10 days	Mon 10/20/25	Fri 10/31/25															
43		QA/QC per County/TxDOT Check List	9 days	Mon 11/3/25	Thu 11/13/25															
44		Complete 100% Design Package	1 day	Fri 11/14/25	Fri 11/14/25															
45		BID PROCESS & PERMITTING	30 days	Mon 11/17/25	Fri 12/26/25															
46		Bidding and Permitting Documents	28 days	Mon 11/17/25	Wed 12/24/25															
47		Get Permitting & Select Contractor	2 days	Thu 12/25/25	Fri 12/26/25															
48																				

Page 1



United Engineers, Inc.

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

October 29, 2024

Mr. Wanzhi Li, PE
TLC Engineering Inc.
8204 Westglen Drive, Suite 100
Houston, Texas 77063

**Re: Survey Proposal for Post Oak Road from FM 521 to Ladonia Road
UEI Proposal P2024-10-29**

Mr. Rasheed:

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 (3 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. 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.

3. Category 6, Condition II (Topographic Survey) from FM 521 to Ladonia Road, (Approx. 2,800 LF across acreage):

- 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 FM 521, Post Road and Ladonia Road.

- c. Topographic Survey will extend 15' beyond the proposed ROW where possible.
- 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 100' cross
- f. UEI will coordinate with Geotech firm to tie in up to 10 boreholes.

4. 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.

5. Existing Topo/ROW Survey Maps:

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

6. Survey Control Maps:

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

7. Proposed ROW Parcel Acquisition (3 tracts):

- 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.

ADDITIONAL SCOPE OF SURVEY SERVICES:

1. Proposed Basin Parcel Acquisition (1 tract):

- 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 property and provide topographic survey for up to 60k Sq. Ft. tract and provide spot elevations at all grade breaks, approximately 50' grid.
- c. UEI will coordinate with Geotech firm to tie up to 5 boreholes within proposed basin.

3. SUE Level 'A' Test Hole:

- a. Perform 811 ONE CALL.
- b. Coordinate with Utility.

- c. Designate Utility if possible.
- d. Provide Test Hole Data Sheet.
- e. Update CAD file to reflect the utility in plan.

SUBMISSION SCHEDULE AND DELIVERABLES:

UEI proposes to begin the work within five (5) working days after receiving your written notice to proceed and will 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.

If Additional Survey Scope of Work is selected. The Parcel Plats and Metes and Bounds will take approximately 20 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	\$ 2,240.00
Item #2: Horizontal and Vertical Control Datum	\$ 9,720.00
Item #3: Topographic Survey	\$20,120.00
Item #4: CAD Services Utility Base Plan & Profile	\$ 8,340.00
Item #5: Existing Topo/ROW Survey Maps	\$ 9,080.00
Item #6: Survey Control Maps	\$ 7,680.00
Item #7: ROW Acquisition (\$3,900 per parcel x 3)	<u>\$11,700.00</u>
Total	\$68,880.00

ADDITIONAL SCOPE OF SURVEY SERVICES:

Item #1: ROW Acquisition (\$3,900 per parcel x 1)	<u>\$ 3,900.00</u>
Item #2: Proposed Basin Topographic Survey	\$ 5,190.00
Item #3: SUE Level 'A' Pothole (1 Pothole Up to 8' deep)	\$ 4,310.00

Mr. Wanzhi Li, PE
Survey Proposal for Post Oak
UEI Proposal P2024-10-29

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

Attachment E



Houston	6120 S. Dairy Ashford Rd.
Austin	Houston, TX 77072-1010
Dallas	281.933.7388 Ph
San Antonio	281.933.7293 Fax
	www.hvj.com

December 3, 2024

Mr. Wanzhi Li, Ph.D., P.E.
General Manager
TLC Engineering, Inc.
8204 Westglen Drive
Houston, Texas 77063

Re: Geotechnical Investigation
Post Road Construction – Segment 1
Fort Bend County, Texas
Owner: Fort Bend County
HVJ Proposal No. HGT241226

Dear Mr. Li:

In response to your request HVJ Associates, Inc. (HVJ) is pleased to submit this proposal for providing a geotechnical study for the above-mentioned project. This proposal outlines our understanding of the scope of work, our approach and our fees for providing the study.

Project Description

The project involves the improvement of Post Road from FM 521 to Ladonia Road in Fort Bend County, Texas. The road improvement consists of the reconstruction of the existing two-lane asphalt pavement road to a four-lane concrete pavement road. Based on the information provided to us, we understand that the new road segment is planned to be constructed as a new alignment to be located south of the existing alignment. The road improvement also includes the construction of new utilities. It is assumed that the new utilities are planned to have an invert depth of about 10 feet and be installed using open-cut techniques.

In addition to the proposed road reconstruction and utility installation, we understand that a new detention basin may be constructed as part of the overall project. We also understand that information related with the detention basin's location, detention area, depth and side slope inclination is not available at the time of preparing this proposal.

The purpose of this study is to perform a geotechnical investigation to provide design and construction recommendations for the proposed pavement reconstruction and utility installation. As requested by TLC Engineering, HVJ provides the scope of work and fee for the new potential detention basin construction as optional services. The following sections present the scope of work and fee for this project.

Mr. Wanzhi Li, Ph.D., P.E.
HGT241226
December 3, 2024

Scope of Work

Road Reconstruction and Utility Installation

As requested, we will drill six (6) borings along the new road alignment to a depth of approximately 15 feet below the existing ground surface. Continuous sampling is planned to be performed to the termination depth of the borings. The depth at which groundwater is encountered during drilling and at 24 hours after drilling will be measured and recorded. The borings will be backfilled with cement bentonite grout upon completion by the tremie method.

Based on available aerial images, the new road alignment may be located in a highly vegetated area. Therefore, the proposed borings may be located in areas where site clearance will be required. We have included site clearance as part of the scope of work and fee for this portion of the project.

Optional Scope of Work – Detention Basin

In addition to the proposed road reconstruction and utility installation, we understand that a new detention basin may be constructed as part of the overall project's scope of work. We also understand that information related with the detention basin's location, detention area, depth and side slope inclination is not available at the time of preparing this proposal.

We propose to drill two (2) borings within the detention basin area to a depth of about 20 feet below the existing ground surface. Continuous sampling is planned to be performed to the termination depth of the borings. The depth at which groundwater is encountered during drilling and at 24 hours after drilling will be measured and recorded. In addition, one piezometer is planned to be installed at one of the boring locations. Groundwater in the piezometer will be measured and recorded at 24 hours, 14 days and 30 days after installation. The piezometer will be removed and abandoned after the 30-day water level reading.

Based on available aerial images of the road alignment, the detention basin may be located in a highly vegetated area. Therefore, the proposed detention basin borings may be in areas where site clearance will be required. HVJ included site clearance as part of the optional scope of work and fee for the new detention basin.

The scope of work presented in this section was developed based on the assumptions listed below. We request TLC Engineering to provide information related to the detention basin's location, detention area, depth and side slope inclination once it becomes available so HVJ can revise the scope of work and fee for the Geotechnical services related with the design and construction of the new detention basin.

- Detention basin will be located within a highly vegetated area.
- Detention basin will have an area of no greater than 5 acres.
- Detention basin will have a maximum depth of 10 feet.

Mr. Wanzhi Li, Ph.D., P.E.
HGT241226
December 3, 2024

Laboratory Testing

The borings will be used to determine the site stratigraphy and to obtain samples for laboratory testing. The laboratory testing program is intended to provide confirmation of the field visual soil classifications and to establish properties of the subsurface materials required for engineering analysis.

Laboratory tests to be performed for the road reconstruction and utility replacement may include moisture content (ASTM D2216); Atterberg limits (ASTM D4318); minus No. 200 sieve analysis (ASTM D1140); unconsolidated undrained Triaxial (ASTM D2850), Standard Proctor (ASTM D698), California Bearing Ratio (ASTM D1883) and Optimum Lime Content (PI Method).

Laboratory tests to be performed for the optional scope of work for the new detention basin may include moisture content (ASTM D2216); Atterberg limits (ASTM D4318); minus No. 200 sieve analysis (ASTM D1140); unconsolidated undrained Triaxial (ASTM D2850), Consolidated Undrained Triaxial (ASTM D4767), Double Hydrometer (ASTM D4221) and Crumb (ASTM D6572).

The laboratory tests will be performed in general accordance with ASTM standards, where applicable, or with other established procedures.

Geotechnical Investigation Report

A geotechnical report of our study will be prepared by an engineer specializing in soil mechanics and foundation engineering after reviewing available structural, geological, boring, and laboratory data. In general, the following items will be included in our report:

- Boring logs and test data,
- Groundwater conditions,
- Generalized subsurface conditions,
- Recommendations for utility installation by open-cut techniques,
- Piping system thrust restraint design recommendations,
- Pavement and subgrade design and constructions recommendations,
- OSHA soil classification and trench safety excavations and
- Structural fill and general earthwork recommendations.

We expect to complete this portion of the project in about eight to ten weeks following our receipt of your written Notice to Proceed (NTP) and work authorization. The proposed schedule is shown in the table below. If requested, preliminary design information can be submitted as it becomes available.

Mr. Wanzhi Li, Ph.D., P.E.
HGT241226
December 3, 2024

Milestone	Completion Time (After NTP)
Site Visit	5 business days
Field Exploration	15 business days
Laboratory Testing	25 business days
Draft Report	40 to 50 business days

Optional Scope of Work – Detention Basin

The following items will be included in our report:

- Boring logs and test data using HCFCF format,
- Groundwater conditions,
- Generalized subsurface conditions and soil profiles using HCFCF format,
- Slope stability analysis to determine the steepest stable slope for the new detention basin,
- Dispersive potential of on-site soils,
- Erosion control recommendations and
- Structural fill requirements and general earthwork recommendations.

We expect to complete this portion of the project in about ten to twelve weeks following our receipt of your written Notice to Proceed (NTP) and work authorization. The proposed schedule is shown in the table below. If requested, preliminary design information can be submitted as it becomes available.

Milestone	Completion Time (After NTP)
Site Visit	5 business days
Field Exploration	15 business days
Laboratory Testing	40 business days
Draft Report	50 to 60 business days

Fees and Conditions

Based on the scope of work outlined, the estimated not to exceed fee for these services is shown in the table below. A detailed cost estimate for the proposed work is attached to this proposal.

Scope	Fee
Road Construction	\$23,420.00
Detention Basin (Optional Services)	\$22,474.00
Total	\$45,894.00

Mr. Wanzhi Li, Ph.D., P.E.
HGT241226
December 3, 2024

This proposal does not include an allowance for support of plan preparation or consultation during construction. Our credit terms are net 30 days.

HVJ Associates, Inc. uses the Texas One Call System to locate buried utilities. TLC Engineering and Fort Bend County will be responsible for notifying us of any other utilities that may be present at the site, and for locating them. We will take care to minimize damage to the existing facilities. However, our activities may result in damage to vegetation or unidentified existing utilities. This proposal specifically excludes any costs associated with restoration of vegetation or repair of such utilities damaged by our operations.

Our proposal does not include the costs of precise surveying of the horizontal and vertical location of the borings. TLC Engineering will be responsible for providing a site plan, with facility locations shown, suitable for use as a base map for our plan of borings.

TLC Engineering and Fort Bend County will be responsible for providing survey information of the horizontal and vertical locations upon completion of drilling.

Laboratory samples will be held for no more than a period of 30 days following completion of the final report, or 120 days following completion of the draft report.

One copy of our draft report will be delivered. After your review and any comments, one revised final copy of the geotechnical study will be submitted.

The scope of work described is appropriate for the project configuration presented to us. If anomalous conditions are encountered, or if the project configuration changes significantly, a change in work scope may be required. HVJ Associates will recommend such changes when and if it is deemed necessary. No changes will be implemented without prior authorization from TLC Engineering and Fort Bend County.

If this proposal meets with your approval, please send us a subcontract for our review and execution. HVJ Associates, Inc. is pleased to be of service on this project. Please contact us if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'F. Aponte-Rivera', with a stylized flourish at the end.

Fernando L. Aponte-Rivera, P.E.
Project Manager

GEOTECHNICAL FEE ESTIMATE

Post Road Construction
Client: TLC Engineering, Inc.
HVJ Proposal No. HGT241226
December 3, 2024

COST BREAKDOWN FOR GEOTECHNICAL INVESTIGATION - ROAD CONSTRUCTION

Field Investigation (6 borings to a depth of 15 feet)

Mobilization/Demobilization	1	@	\$746.00	lump sum	\$746.00
ATV Mobilization Surcharge	1	@	\$266.00	lump sum	\$266.00
Soil Boring, Continuous 3-in. (0' - 15')	90	ft @	\$27.00	per foot	\$2,430.00
ATV Drilling Surcharge	90	ft @	\$11.00	per foot	\$990.00
Project Engineer, PE (Coordination Effort)	4	hr @	\$176.00	per hour	\$704.00
Technician (Non-Certified) (Site visit, utility clearance and soil logging)	40	hr @	\$59.00	per hour	\$2,360.00
Grouting of Completed Boring	90	ft @	\$13.00	per foot	\$1,170.00
Vehicle Charge	40	hr @	\$13.00	per hour	\$520.00
Site Clearance (Mobilization/Demobilization)	2	@	\$715.00	each way	\$1,430.00
Site Clearance (Operations)	1	@	\$1,320.00	per day	\$1,320.00
Subtotal					\$11,936.00

Laboratory Testing *

Moisture Content of Soils by Mass (ASTM D-2216)	18	@ \$	12.00	each	\$216.00
Atterberg Limits (ASTM D-4318)	10	@ \$	76.00	each	\$760.00
Percent Passing #200 Sieve (ASTM D-1120)	10	@ \$	59.00	each	\$590.00
Unconsolidated Undrained (ASTM D-2850)	10	@ \$	77.00	each	\$770.00
Standard Proctor (ASTM D-698)	2	@ \$	246.00	each	\$492.00
California Bearing Ratio (ASTM D-1883)	2	@ \$	259.00	each	\$518.00
Optimum Lime Content - PI Method	2	@ \$	292.00	each	\$584.00
Subtotal					\$3,930.00

Project Management, Engineering Analyses, Report Preparation

Senior Engineer, PE	4	hr @	\$218.00	per hour	\$872.00
Project Engineer, PE	16	hr @	\$176.00	per hour	\$2,816.00
Graduate Engineer	28	hr @	\$122.00	per hour	\$3,416.00
Engineering Assistant	6	hr @	\$75.00	per hour	\$450.00
Subtotal					\$7,554.00

TOTAL GEOTECHNICAL SERVICES

\$23,420.00

*Note: The number and type of tests performed will depend on the actual soil conditions encountered.

GEOTECHNICAL FEE ESTIMATE

Post Road Construction
 Client: TLC Engineering, Inc.
 HVJ Proposal No. HGT241226
 December 3, 2024

COST BREAKDOWN FOR GEOTECHNICAL INVESTIGATION - OPTIONAL SERVICES - DETENTION BASIN**Field Investigation (2 borings to a depth of 20 feet)**

Mobilization/Demobilization	1	@	\$746.00	lump sum	\$746.00
ATV Mobilization Surcharge	1	@	\$266.00	lump sum	\$266.00
Soil Boring, Continuous 3-in. (0' - 20')	40	ft @	\$27.00	per foot	\$1,080.00
ATV Drilling Surcharge	40	ft @	\$11.00	per foot	\$440.00
Project Engineer, PE (Coordination Effort)	4	hr @	\$176.00	per hour	\$704.00
Technician (Non-Certified) (Site visit, utility clearance and soil logging)	25	hr @	\$59.00	per hour	\$1,475.00
Grouting of Completed Boring	40	ft @	\$13.00	per foot	\$520.00
Vehicle Charge (Drilling)	25	hr @	\$13.00	per hour	\$325.00
Site Clearance (Mobilization/Demobilization)	2	@	\$715.00	each way	\$1,430.00
Site Clearance (Operations)	1	@	\$1,320.00	per day	\$1,320.00
Piezometer Installation (1 at 20 feet)	20	ft @	\$24.00	per foot	\$480.00
Piezometer Abandonment (1 at 20 feet)	20	ft @	\$20.00	per foot	\$400.00
Technician (Non-Certified) (Piezometer Readings)	12	hr @	\$59.00	per hour	\$708.00
Vehicle Charge (Piezometer Readings)	12	hr @	\$13.00	per hour	\$156.00
			Subtotal		\$10,050.00

Laboratory Testing *

Moisture Content of Soils by Mass (ASTM D-2216)	8	@ \$	12.00	each	\$96.00
Atterberg Limits (ASTM D-4318)	5	@ \$	76.00	each	\$380.00
Percent Passing #200 Sieve (ASTM D-1120)	5	@ \$	59.00	each	\$295.00
Unconsolidated Undrained (ASTM D-2850)	5	@ \$	77.00	each	\$385.00
Consolidated Undrained Triaxial (ASTM D-4767)	2	@ \$	1,800.00	each	\$3,600.00
Double Hydrometer (ASTM D-4221)	2	@ \$	266.00	each	\$532.00
Crumb Test (ASTM D-6572)	4	@ \$	38.00	each	\$152.00
			Subtotal		\$5,440.00

Project Management, Engineering Analyses, Report Preparation

Senior Engineer, PE	4	hr @	\$218.00	per hour	\$872.00
Project Engineer, PE	15	hr @	\$176.00	per hour	\$2,640.00
Graduate Engineer	26	hr @	\$122.00	per hour	\$3,172.00
Engineering Assistant	4	hr @	\$75.00	per hour	\$300.00
			Subtotal		\$6,984.00

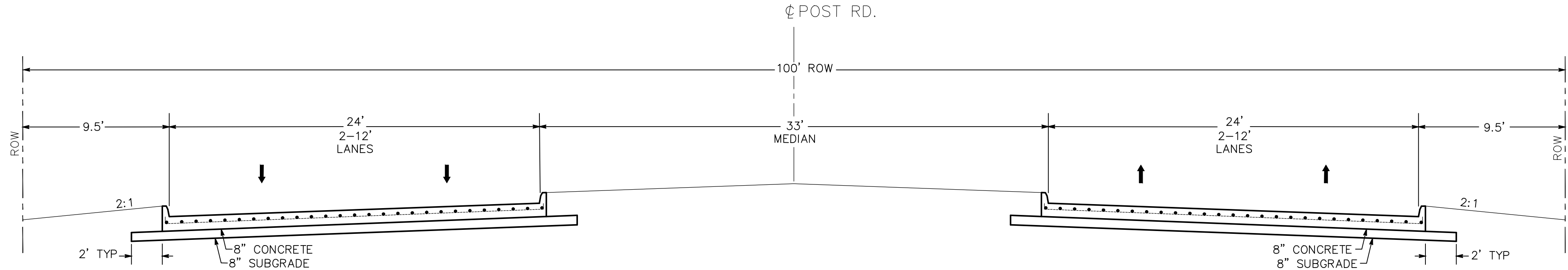
TOTAL GEOTECHNICAL SERVICES**\$22,474.00**

*Note: The number and type of tests performed will depend on the actual soil conditions encountered.

Attachment F Project Site

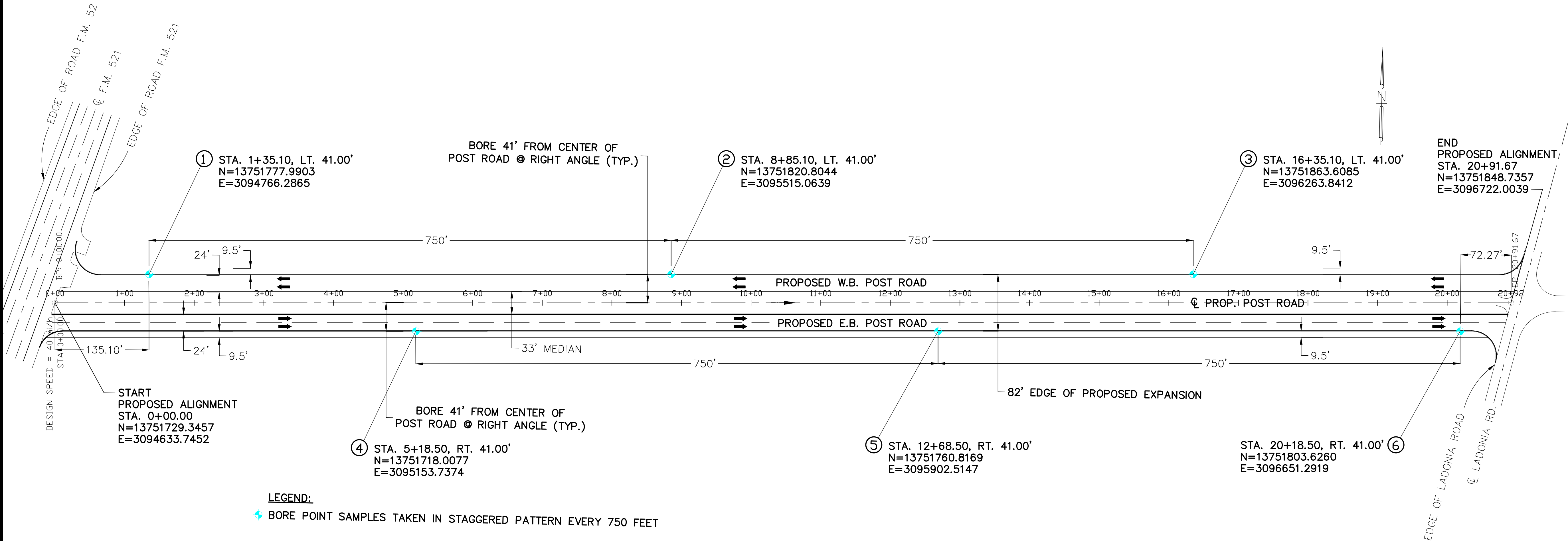


PATH: Z:\2024 Open Projects\Fort Bend County_Mobility Bond Project 2023\CADD\LINER POST RD ROW_IMAGE.dwg
USER: Nov 07, 2024 - 3:10pm jsmart
PLOT TAB: SHT. 1 OF 1



PROPOSED TYPICAL SECTION

SCALE 1:10



PROPOSED ALIGNMENT

SCALE N.T.S.



THIS DOCUMENT IS
INTENDED FOR INTERIM
REVIEW AND
NOT INTENDED FOR
CONSTRUCTION PURPOSES

FORT BEND COUNTY, TEXAS
POST ROAD
ROSHARON, Texas 77583

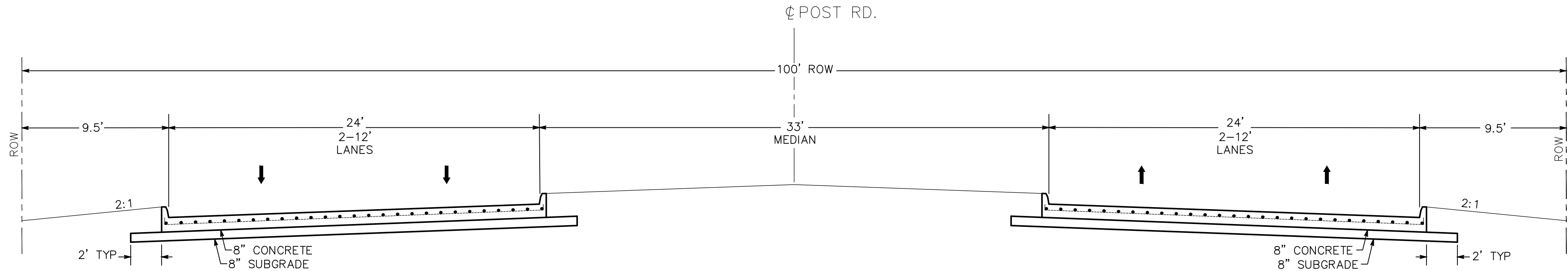
REVISION	
NO.	DATE

PROJECT #
ISSUE:
DATE:
DRAWN BY:

ALIGNMENT

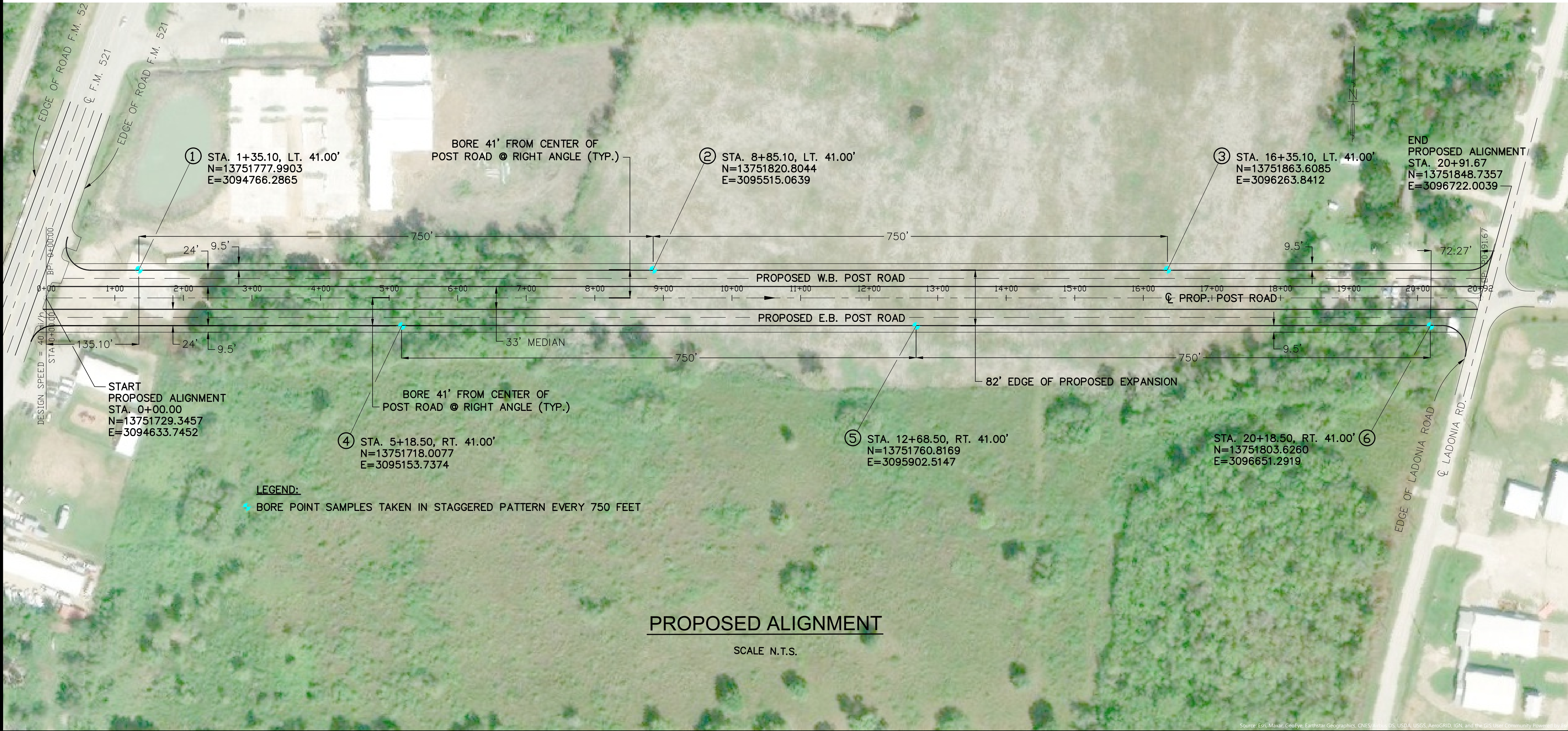
C1.0

PATH: Z:\2024 Open Projects\Fort Bent County_Mobility Bond Project 2023\CADD\POST_RD_CALC--XY_COORS_REV.dwg
USER: Nov 08, 2024 - 11:07am jsmart
PLOT TAB: IMAGE



PROPOSED TYPICAL SECTION

SCALE 1:10



PROPOSED ALIGNMENT

SCALE N.T.S.



THIS DOCUMENT IS
INTENDED FOR INTERIM
REVIEW AND
NOT INTENDED FOR
CONSTRUCTION PURPOSES

FORT BEND COUNTY, TEXAS
POST ROAD
ROSHARON, Texas 77583

REVISION	
NO.	DATE

PROJECT #
ISSUE:
DATE:
DRAWN BY:

ALIGNMENT

C1.0