

(Engineering and Design services— Project No. 23416)

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

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

4. **Compensation and Payment Terms.**

Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is \$330,285.45. 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 \$330,285.45. 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 \$330,285.45 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 \$330,285.45.

6. **Non-appropriation.** Engineer understands and agrees that in the event no funds or insufficient funds are appropriated by the County under this Agreement, County shall immediately notify Engineer in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the County. In no event shall said termination of this Agreement or County's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by County in any amount(s) in excess of those previously funded.
7. **Taxes.** Engineer understands and agrees that County is a governmental entity and political subdivision of the state of Texas, and as such, is exempt from payment of any sales and use taxes. County shall furnish evidence of its tax-exempt status upon written request by Engineer.
8. **Insurance.** Prior to commencement of the Services, Engineer shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to County. Engineer shall provide certified copies of insurance endorsements and/or policies if requested by County. Engineer shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Engineer shall obtain such insurance written on an Occurrence form from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
  - (a) Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
  - (b) Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
  - (c) Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and

products/completed operations arising out of the business operations of the policyholder.

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

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

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

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

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

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

9. **Indemnity. PURSUANT TO SECTION 271.904 OF THE TEXAS LOCAL GOVERNMENT CODE, ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS COUNTY, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY ENGINEER OR ENGINEER'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH ENGINEER EXERCISES CONTROL. IN ADDITION, ENGINEER SHALL PROCURE AND MAINTAIN LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.**

**ENGINEER SHALL TIMELY REPORT TO COUNTY ALL SUCH MATTERS ARISING UNDER THE INDEMNITY PROVISIONS ABOVE. UPON THE RECEIPT OF ANY CLAIM, DEMAND, SUIT,**

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

THE INDEMNITY PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT HOWEVER CAUSED, AND NO PAYMENT, PARTIAL PAYMENT, OR ISSUANCE OF CERTIFICATION OF COMPLETION OF THE SERVICES UNDER THIS AGREEMENT BY COUNTY, WHETHER IN WHOLE OR IN 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, which consent shall not be unreasonably withheld, conditioned, or delayed. Any purported or attempted assignment or transfer in violation of this Section shall be null and void.
22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.
24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

**If to County:** Fort Bend County Engineering  
Attn: County Engineer  
301 Jackson Street, 4<sup>th</sup> Floor  
Richmond, Texas 77469

**And**

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

**If to Engineer:** MV Engineering, Inc.  
3600 W Sam Houston Pkwy S., Suite 600  
Houston, Texas 77042

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**

**MV ENGINEERING, INC.**

\_\_\_\_\_  
KP George, County Judge

  
\_\_\_\_\_  
Authorized Agent – Signature

\_\_\_\_\_  
Date

**SYED NAVED AFTAB**

\_\_\_\_\_  
Authorized Agent- Printed Name

**ATTEST:**

**PRESIDENT**

\_\_\_\_\_  
Title

**3/25/2025**

\_\_\_\_\_  
Laura Richard, County Clerk

\_\_\_\_\_  
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

# EXHIBIT A

(Engineer's Proposal Follows Behind)



**MV ENGINEERING, INC.**  
mv-engineering.com

2/21/2025

Mr. Robert McBride, P.E.  
Senior Project Manager – LJA Engineering, Inc.  
3600 W Sam Houston Pkwy S, Suite 600  
Houston, Texas 77042

RE: Proposal for Professional Engineering Services  
23416 – Bellaire Boulevard at Grand Mission Boulevard  
Precinct 4, Fort Bend County

Dear Mr. McBride:

MV Engineering, Inc. (MVE), is pleased to submit our proposal for Professional Services to develop Plans, Specifications and Estimates (PS&E) for the above-mentioned project. This proposal is based upon our project understanding and the terms and conditions of the Fort Bend County Standard Professional Services Agreement.

#### **PROJECT UNDERSTANDING:**

##### **Project Assignment**

The Design assignment will involve preparing Plans, Specifications and Estimates (PS&E) for a single contract for the addition of four right-turn lanes at the signalized intersection of **Bellaire at Grand Mission Blvd** in Fort Bend County. The project aims to enhance traffic flow while minimizing environmental impacts, particularly by preserving as much of the existing landscape as possible through coordination with the local Homeowner's Association (HOA). The project will also include the evaluation and potential acquisition of **Right of Way (ROW) take** and drainage system modifications using **Atlas-14 rainfall data**, including inlet relocations and evaluating the need for increasing the trunkline size for stormwater management and detention. The project is partially located within the 500-year floodplains based on the current published FEMA map: 48157C0130L revised 04/02/2014.

MVE will adhere to the Fort Bend County Drainage District requirements, including providing a drainage impact analysis report and a sizing analysis of the existing trunkline will be prepared and included with the Preliminary Engineering Report.

A geotechnical report will be prepared in accordance with the current Fort Bend County Engineering Department Engineering Design Manual (EDM), dated March 2022.

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***“The Solution Starts Here”***

**Houston**  
11011 Richmond Ave, Suite 875  
Houston, TX 77042



## **MV ENGINEERING, INC.**

mv-engineering.com

It is our understanding that any required environmental services will be provided by Fort Bend County via an independent consultant, not included in this proposal. A stormwater pollution prevention report is not included in this proposal.

MVE shall initiate coordination with TxDOT once LJA and Fort Bend County consider opportune and prepare the necessary exhibits to facilitate any permitting process.

### **Introduction of the MVE Team**

MV Engineering is the lead firm. Serving as your single point of contact will be Fabian Hererra, P.E. Project Manager focused on roadway and drainage design aspects of the project, as well as coordination, quality control, schedule, and team compliance with Fort Bend County Design and Construction standards.

**Solar Surveying, LLC (Solar)** will provide control, design, and right of way survey services, including preparing metes and bounds surveys and parcel mapping for appraisals and land acquisition by others.

**All-Terra Engineering, Inc. (ATE)** will provide geotechnical engineering services.

**Transcend Engineers & Planners, LLC (Transcend)** will provide design of traffic signal modifications, including changes to signal timing, relocations, new hardware, and any necessary upgrades to accommodate the new lanes. They will also provide details for the intersection layout to include signing and pavement markings and ADA ramp configuration for crosswalks.

### **Management Structure**

MV Engineering understands LJA Engineering, Inc. will serve as Program Manager; and, as an extension of Fort Bend County Engineering Department and will serve as our single point of contact with the county throughout the duration of the design phase of this project.

### **SCOPE OF BASIC SERVICES:**

Basic services will generally follow the design process outlined in the Fort Bend County Engineering Department Engineering Design Manual (EDM), March 2022 Edition.

### **Preliminary Design Phase**

MVE will prepare the design to a 30% completion level based on preliminary topographic surveys. This milestone will include a Preliminary Engineering Report (PER) analyzing up to three alternate roadway options and recommending a preferred design. The PER will cover the project location and scope, assess existing conditions and utilities, detail the proposed roadway design, and address drainage and detention systems. It will also include information on right-of-way, traffic signals, geotechnical and environmental investigations, permit and regulatory requirements, and a cost estimate. Appendices will feature review meeting minutes, project maps, alignment and roundabout exhibits, FEMA flood maps, drainage area maps, sight triangle exhibits, right-of-way exhibits, cost estimates, and utility information.

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### **Roadway**

MVE will develop up to three options for adding four right turn lanes and recommend a preferred alternative based on geometry, utility, and environmental constraints. The design will comply with the latest AASHTO standards. MVE will advance the preferred alternative, identify ROW requirements, and develop a preliminary roadway profile and traffic control plan, in accordance with Fort Bend County Engineering Department EDM March 2022 Edition. For the 30% drawing submittal, MVE will provide preliminary typical sections, project layout, roadway plan sheets, and the total project footprint.

### **Utilities**

The team shall research and obtain record documents for all known existing utilities within the road ROW. MVE will prepare and maintain utility log through the Final Design phase. MVE will establish contact with utility companies and provide plan set roadway drawings to the applicable utility companies for their use in developing any utility adjustment plans. It is understood that MVE will identify major utilities and coordinate directly with utility companies; LJA will assist in facilitating utility adjustment process during the construction phase as required to verify the utilities are relocated. MVE to provide utility relocation plan review once plans are finalized by the utility entities.

### **Metes and Bounds Right of Way Taking Mapping**

Per Fort Bend County Engineering Department EDM May 2021 Draft, Unrestricted Visibility Easements (UVEs) should not be acquired as separate easements, but instead included in the proposed right-of-way acquisition. Parcel Plats and Metes and Bounds for UVEs are not included in this proposal. The following surveying services are included in this proposal and further described in the attached proposal from Solar:

- Vertical and Horizontal Control
- Topographic Survey and Mapping
- Parcel Plat and Metes and Bounds Mapping for Land Acquisitions

See attached proposal by Solar for detailed description of services.

### **Geotechnical**

The work involves field and laboratory investigations, testing, and analysis, including producing a project geotechnical report in accordance with the Fort Bend County Engineering Department EDM March 2022 Edition guidelines. The geotechnical report will include a description of subsurface conditions, groundwater information, boring logs, and pavement recommendations in typical FBCED format. Boring logs will become part of the final PS&E package for the construction contractor's use.

See attached proposal by ATE for additional details.

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### **Permits**

MVE will collaborate closely with LJA to ensure adherence to all county requirements during the design phase, maintaining open communication and providing regular updates. Additionally, MVE shall review and provide necessary feedback on County permits in the vicinity within 48 hours. There will not be any TxDOT permits or LOSA package required on this project.

### **Final Design Phase**

Upon FBC concurrence and approval of the PER, MVE will proceed with completing the PS&E, including 70%, 95%, and 100% submittals to LJA. MVE will address comments presented in the Preliminary Design Phase review meeting and provide responses to 70% and 95% LJA review comments. Per the Fort Bend County Engineering Department EDM March 2022 Edition, 70% and 95% submittals shall include cover sheet, typical and non-standard cross-sections, overall project layout, survey control map, drainage area map with hydraulic calculations, plan and profile sheets, traffic control plan, storm water pollution prevention plan, cross sections at 100' intervals, specification table of contents, and bid form with estimated unit and total costs. A digital copy (Bluebeam Revu format, PDF) at each design milestone will be submitted for LJA's review in 11"x17" sheets including the drawings, cross sections at 100-foot intervals, Specifications Table of Contents (MVE to use Harris County Specifications - TxDOT Specifications to be used as necessary depending on FBC guidance), Construction Cost Estimate (PDF and Excel format), Bid Form (PDF and Excel format), KMZ file, and Review Checklists.

In addition to the 70% requirements, the 95% submittal shall also include general notes sheet, signage and pavement marking plans, verification of earthwork quantities, with cross sections at 100-foot intervals, standard construction details, project manual, responses to 70% comments and 95% Review Checklist.

The 100% submittal shall consist of one sealed and signed set of drawings, along with a PDF submittal of the drawings, specifications, and estimate and shall be provided to LJA.

MVE will provide monthly progress reports per LJA requirements.

### **Drainage**

MVE will meet with and incorporate the Fort Bend County Drainage District requirements into preparation of the PS&E package. The drainage analysis will follow the effective Fort Bend County Interim Atlas 14 Design Criteria Manual per Fort Bend County Drainage District. Based on scoping discussions with the drainage district on other projects, it is understood that a detailed drainage study is required that includes Data collection and review, Hydrology and Hydraulics analysis of the existing and proposed roadside ditch and crossing culverts, and detention analysis accompanied by maps, exhibits, and other supporting documentation for the drainage study. The project is partially located within the 500-year floodplains based on the current published FEMA map: 48157C0130L revised 04/02/2014. A FEMA submittal for the project and/or providing/obtaining a "no impact letter" are not part of this proposal. MVE shall provide Storm Water Pollution Prevention Plan and details.

### **Traffic and Pedestrian Safety**

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MVE will prepare the construction phase traffic control plans to accommodate the existing traffic during the construction of the proposed road improvements. Based on existing conditions and scoping discussions with LJA, MVE will provide a minimum 2' buffer between back of curb and sidewalk and Fort Bend County has approved the inclusion of a minimum 5' wide (6' desirable) sidewalk along the back of curb when buffer cannot be maintained.

Transcend will perform a traffic engineering analysis and prepare traffic signal plans and more detail of these services can be found in the attached proposal.

### **Coordination**

MVE will communicate with Municipal Utility Districts (MUDs), Homeowners Associations (HOAs), and other landowners to explore viable options. This includes attending stakeholder meetings when necessary for coordination. MVE will be responsible for providing exhibits and design plans as necessary. LJA will be included in coordination when required.

### **Fort Bend County Support**

Fort Bend County is expected to provide, but not limited to, the following data:

1. As-builts & Right-of-Way maps (PDF and CAD, if available)
2. Pertinent engineering studies and models
3. Available drainage data and ditch culvert crossing models
4. Environmental constraint map (i.e., Wetlands)
5. Design and construction standards and details

### **Bid and Construction Support Services**

During the Construction Phase Services, we will provide a comprehensive range of support including printing construction plans, attending the preconstruction conference, and conducting up to 16 site visits for construction observation. Our team will manage document control, review all shop drawings, and handle change orders and RFI logs. Additionally, we will prepare record drawings to ensure project documentation is accurate and up-to-date.

### **Additional Services, Optional, If Needed**

**Water and Sanitary Sewer Relocation** - Water and Sanitary Sewer lines present within the project area may need to be adjusted and/or adjusted. MVE will coordinate with the MUDs and provide design support services to facilitate any modifications.

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## COMPENSATION

Except for mapping and parcel acquisition, the preliminary and final design efforts will be a lump-sum contract fee to be billed monthly based on a Schedule of Value basis and percent complete basis by work task.

A level of effort estimate is enclosed based on the scope of work described herein. The Lump-Sum Fee amount, including subconsultants, reimbursable expenses, additional services, and ROW mapping and parcel acquisition is \$330,285.45

<b>FEE SUMMARY</b>				
	MVE	ATE	SOLAR	TRANSCEND
<b>ENGINEERING FEE - BASE SERVICES</b>				
General Management/Coordination	\$ 41,342.00	\$	\$	\$
Preliminary Design Phase (PER)	\$ 47,900.00	\$ 6,516.00	\$ 37,723.35	\$ 11,670.00
Intermediate Design Phase	\$ 59,697.00	\$	\$	\$
Pre-Final Design Phase	\$ 16,946.00	\$	\$	\$
Final Design Phase	\$ 10,040.00	\$	\$	\$ 61,878.00
<b>SUBTOTAL BY FIRM</b>	<b>\$ 175,925.00</b>	<b>\$ 6,516.00</b>	<b>\$ 37,723.35</b>	<b>\$ 73,548.00</b>
<b>SUBTOTAL BASE SERVICES</b>	\$			<b>293,712.35</b>
<b>ENGINEERING FEE - TIME AND MATERIALS SERVICES</b>				
Bid and Construction Support Services	\$ 13,670.00	\$	\$ 6,900.60	\$ 3,885.00
Direct Expenses	\$ 810.00	\$	\$ 1,731.50	\$ 2,140.00
<b>SUBTOTAL BY FIRM</b>	<b>\$ 14,480.00</b>	<b>\$</b>	<b>\$ 8,632.10</b>	<b>\$ 6,025.00</b>
<b>SUBTOTAL BASE SERVICES</b>	\$			<b>29,137.10</b>
<b>ENGINEERING FEE - OPTIONAL ADDITIONAL SERVICES</b>				
- Water Line Relocation Coordination	\$ 3,718.00	\$	\$	\$
- Sewer Line Relocation Coordination	\$ 3,718.00	\$	\$	\$
<b>SUBTOTAL BY FIRM</b>	<b>\$ 7,436.00</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>SUBTOTAL ADDITIONAL SERVICES</b>	\$			<b>7,436.00</b>
<b>GRAND TOTAL BY FIRM</b>	<b>\$ 197,841.00</b>	<b>\$ 6,516.00</b>	<b>\$ 46,355.45</b>	<b>\$ 79,573.00</b>
<b>GRAND TOTAL (BASE AND ADDITIONAL SERVICES)</b>	\$			<b>330,285.45</b>

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## **SCHEDULE**

MVE anticipates the project will follow the following timeline schedule:

- a) Contract execution and NTP – March 2025
- b) Survey to be provided – End of April 2025
- c) PER Meeting (based on LiDAR) – June 2025
- d) Preliminary Parcel roll plot – July 2025
- e) 70% milestone submittal – December 2025
- f) Final metes and bounds parcel mapping; Begin ROW acquisition – January 2026
- g) 95% milestone submittal – June 2026
- h) Final submittal – September 2026
- i) Utility adjustment/relocation – beginning July 2026
- j) Complete ROW acquisition; Complete Utility adjustment/relocations – January 2027

A detailed project design schedule is included as Attachment B.

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## **ATTACHMENTS**

**Attachment A – MV Engineering, Inc.'s Proposal Fee**

**Attachment B – Project Anticipated Design Schedule**

**Attachment C – Solar Engineering Company's Surveying Services Proposal – Solar**

**Attachment D – All-Terra Engineering, Inc.'s Geotechnical Investigation Proposal – ATE**

**Attachment E – Transcend Engineers & Planners Traffic Engineering Proposal – Transcend**

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## Attachment A

### MV Engineering, Inc.'s Proposal Fee

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Summaries of all fee schedules  
Design Services for  
23416 Bellaire Blvd. at Grand Mission Blvd. Survey, Signals, Geotechnial, and PS&E for Precinct 4,, Fort Bend County, Texas  
2023 Mobility Project

Firm Name	Fee	Percentage of Budget	Percentage of entire Contract	SBE	Remarks
MV Engineering, Inc. (MVE)	\$ 197,841.00		59.90%	59.90%	
All-Terra Engineering, Inc.	\$ 6,516.00		1.97%	1.97%	
Solar Surveying, LLC	\$ 46,355.45		14.03%	14.03%	
Transcend Engineers, Planners	\$ 79,573.00		24.09%	24.09%	
Total	\$330,285.45		100%	100%	



**Exhibit A :Scope of Services / Schedule of Fees & Rates**  
**Design Services for**  
**PS&E Design for 23416 Bellaire Blvd. at Grand Mission Blvd.Fort Bend County, Texas**

Task No.	Task Description	Basis for Hour Estimate	Unit	Labor (hours)						Total Labor Cost	Expense				Total Expense Cost	Task Sub Total
				Project Manager	Senior Engineer	Project Engineer	EIT	CADD	Admin		Subconsultant		Travel	Reproduction		
				\$308	\$267	\$166	\$135	\$120	\$89		MWBE	Non-MWBE				
	Basic Services															
I	General Management/Coordination			64	18	54	44	16	0	\$41,342	\$0	\$0	\$0	\$0	\$0	\$41,342
A	Project Management/Coordination															
A1	Internal Team Meetings			2	8	8	4			\$4,620					\$0	\$4,620
A2	QA/QC			12						\$3,696					\$0	\$3,696
A3	Pre-Design Coordination Meeting			8	8					\$4,600					\$0	\$4,600
A4	Review of County Permits			6						\$1,848					\$0	\$1,848
A5	Coordination with HOA/MUDS/Others			12						\$3,696					\$0	\$3,696
B	Progress Schedule															
B1	Prepare Baseline Schedule			2		4				\$1,280					\$0	\$1,280
B2	Prepare Monthly Progress Reports			8		8				\$3,792					\$0	\$3,792
B3	Update Monthly Schedule			8		8				\$3,792					\$0	\$3,792
C	Research and Data Gathering															
C1	Attend Kick-off Meeting			2	2	2				\$1,482					\$0	\$1,482
C2	Field Visit					8	8			\$2,408					\$0	\$2,408
C3	Data Collection					8	16			\$3,488					\$0	\$3,488
D	Meeting & Meeting Exhibits									\$0					\$0	\$0
D1	Preparing Meeting Exhibits		4	4		8	16	16		\$6,640					\$0	\$6,640
II	Preliminary Design Phase			0	28	78	144	64	4	\$47,900	\$0	\$0	\$0	\$0	\$0	\$47,900
A	Roadway Details															
A1	Typical Sections		2		2	4	8	8		\$3,238					\$0	\$3,238
A2	Roadway Plan Sheets		4		2	16	28	28		\$10,330					\$0	\$10,330
B	Traffic Control Plan															
B1	Traffic Control Plan		4		2	8	24	24		\$7,982					\$0	\$7,982
C	Drainage Study									\$0						
C1	Update Hydrological Analysis using Atlas-14				4	8	16			\$4,556					\$0	\$4,556
C2	Identify Proposed Drainage Improvements				4	8	16			\$4,556					\$0	\$4,556
C3	Analysis of FEMA Floodplain requirements				1					\$267					\$0	\$267
C4	Preliminary Drainage Area Map and Calculations				4	8	16			\$4,556					\$0	\$4,556
D	Preliminary Engineering Report															
D1	Existing Condition Analysis					4	8			\$1,744					\$0	\$1,744
D2	Utility Conflict Analysis and Coordination					8	16		4	\$3,844					\$0	\$3,844
D3	Permitting and Regulatory Requirements				4	8				\$2,396					\$0	\$2,396
E	30% Deliverables															
E1	QC/QA 30% Plans and Preliminary Engineering Report				4	4	4	4		\$2,752					\$0	\$2,752
E2	Develop 30% Construction Cost Estimate				1	2	8			\$1,679					\$0	\$1,679
III	Intermediate Design Phase (70%)			0	7	18	192	241	0	\$59,697	\$0	\$0	\$0	\$0	\$0	\$59,697
A	General															
A1	Cover Sheet, Index, General Notes, Typical and Non-standard Cross Sections, Project Layout		6				16	32		\$6,000					\$0	\$6,000
B	Roadway/Drainage Details															
B1	Horizontal and Vertical Alignments						16	24		\$5,040					\$0	\$5,040
B2	Plan and Profile Sheets with Drainage and Intersection Details						24	32		\$7,080					\$0	\$7,080
B4	Drainage Area Map with Calculations		1				16	24		\$5,040					\$0	\$5,040
D	Traffic Items									\$0					\$0	\$0
D2	Signing and Striping Plan						16	24		\$5,040					\$0	\$5,040



**Exhibit A :Scope of Services / Schedule of Fees & Rates**  
**Design Services for**  
**PS&E Design for 23416 Bellaire Blvd. at Grand Mission Blvd.Fort Bend County, Texas**

Task No.	Task Description	Basis for Hour Estimate	Unit	Labor (hours)						Total Labor Cost	Expense				Total Expense Cost	Task Sub Total
				Project Manager	Senior Engineer	Project Engineer	EIT	CADD	Admin		Subconsultant		Travel	Reproduction		
				\$308	\$267	\$166	\$135	\$120	\$89		MWBE	Non-MWBE				
<b>E</b>	<b>Traffic Control Plan</b>									\$0					\$0	\$0
E1	Construction Sequence						8	8		\$2,040					\$0	\$2,040
E2	Traffic Control Details						16	24		\$5,040					\$0	\$5,040
<b>F</b>	<b>Environmental Issues</b>									\$0					\$0	\$0
F1	Storm Water Pollution Prevention Plan						16	16		\$4,080					\$0	\$4,080
<b>G</b>	<b>Construction Cross Sections</b>						8	8		\$2,040					\$0	\$2,040
<b>H</b>	<b>Openroads Modeling</b>														\$0	\$0
H1	Roadway Model						24	24		\$6,120					\$0	\$6,120
H2	Drainage Model						16	16		\$4,080					\$0	\$4,080
<b>I</b>	<b>70% Deliverables</b>														\$0	\$0
I1	QC/QA 70% Plans and/or Documentation				4	4	4	4		\$2,752					\$0	\$2,752
I2	Develop 70% Construction Cost Estimate				1	2	8			\$1,679					\$0	\$1,679
I3	Prepare KMZ file of current design with proposed ROW							1		\$120					\$0	\$120
I4	Utility Conflict Analysis and Coordination					8	4	4		\$2,348					\$0	\$2,348
I5	Comment Resolution				2	4				\$1,198					\$0	\$1,198
<b>IV</b>	<b>Pre-Final Design (95%)</b>			<b>0</b>	<b>14</b>	<b>38</b>	<b>36</b>	<b>17</b>	<b>0</b>	<b>\$16,946.00</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,946</b>
<b>A</b>	<b>95% Deliverables</b>														\$0	\$0
A1	Develop Earthwork Quantities					4	8			\$1,744					\$0	\$1,744
A2	Prepare Standard Construction Details					2	4	8		\$1,832					\$0	\$1,832
A3	QC/QA 95% Plans and/or Documentation				4	4	4	4		\$2,752					\$0	\$2,752
A4	Develop 95% Construction Cost Estimate				4	8	16			\$4,556					\$0	\$4,556
A5	Develop 95% Construction Specifications and Supporting Forms				4	8				\$2,396					\$0	\$2,396
A6	Prepare KMZ file of current design with proposed ROW							1		\$120					\$0	\$120
A7	Utility Conflict Analysis and Coordination					8	4	4		\$2,348					\$0	\$2,348
A8	Comment Resolution				2	4				\$1,198					\$0	\$1,198
<b>V</b>	<b>Final Design (100%)</b>			<b>0</b>	<b>10</b>	<b>20</b>	<b>22</b>	<b>9</b>	<b>0</b>	<b>\$10,040</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,040</b>
<b>A</b>	<b>100% Deliverables</b>														\$0	\$0
A3	QC/QA 100% Plans and/or Documentation				2	4	8	8		\$3,238					\$0	\$3,238
A4	Develop 100% Final Construction Cost Estimate				2	4	6			\$2,008					\$0	\$2,008
A5	Develop 100% Final Construction Specifications and Supporting Forms				2	8				\$1,862					\$0	\$1,862
A6	Prepare KMZ file of current design with proposed ROW							1		\$120					\$0	\$120
A8	Develop Estimated Construction Schedule				4	4	8			\$2,812					\$0	\$2,812
<b>Total Basic Services (MVE)</b>				<b>64.00</b>	<b>77.00</b>	<b>208.00</b>	<b>438.00</b>	<b>347.00</b>	<b>4.00</b>	<b>175,925.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>175,925.00</b>
<b>Time and Materials Services</b>																
<b>VI</b>	<b>Opinion of Probable Construction Cost</b>			<b>4</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ 2,560.00</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,560</b>
<b>A</b>	<b>Final Construction Estimate and Recommendation for Letting</b>			<b>4</b>		<b>8</b>				<b>\$2,560</b>					<b>\$0</b>	<b>\$2,560</b>
<b>VII</b>	<b>Construction Phase Services</b>			<b>0</b>	<b>17</b>	<b>18</b>	<b>10</b>	<b>6</b>	<b>17</b>	<b>\$ 11,110.00</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11,110</b>



Exhibit A :Scope of Services / Schedule of Fees & Rates  
Design Services for  
PS&E Design for 23416 Bellaire Blvd. at Grand Mission Blvd.Fort Bend County, Texas

Task No.	Task Description	Basis for Hour Estimate	Unit	Labor (hours)						Total Labor Cost	Expense				Total Expense Cost	Task Sub Total
				Project Manager	Senior Engineer	Project Engineer	EIT	CADD	Admin		Subconsultant		Travel	Reproduction		
				\$308	\$267	\$166	\$135	\$120	\$89		MWBE	Non-MWBE				
A	Construction Plans printout					2			4	\$688					\$0	\$688
B	Attend Preconstruction Conference				2	2				\$866					\$0	\$866
D	Document Control				2	2	4		8	\$2,118					\$0	\$2,118
E	Review all shop drawings				8					\$2,136					\$0	\$2,136
F	Prepare, Respond to and Provide change order LOG and RFI LOG				4	8			4	\$2,752					\$0	\$2,752
G	Prepare As-Built Plans				1	4	6	6	1	\$2,550					\$0	\$2,550
Total Time and MaterialsServices (MVE)				4.00	17.00	26.00	10.00	6.00	17.00	13,670.00	0.00	0.00	0.00	0.00	0.00	13,670.00
VIII	Optional Additional Services			0	4	8	16	24	0	\$ 7,436.00	0	0	0	0	0	7436
A	Waterline Relocation Design Coordination				2	4	8	12		\$3,718					\$0	\$3,718
B	Sewerline Relocation Design Coordination				2	4	8	12		\$3,718					\$0	\$3,718
Total Optional Services (MVE)				0.00	4.00	8.00	16.00	24.00	0.00	\$ 7,436.00	\$0	\$0	\$0	\$0	\$0	\$ 7,436.00

OTHER DIRECT EXPENSES - MVE	unit	unit cost	units	cost/unit	cost
Mileage	mile	Current IRS Rate	100	\$ 0.70	\$ 70.00
Postage	each	Current USPS Rate		\$ 0.73	\$ -
Courier Services	each	\$ 25.00	3	\$ 25.00	\$ 75.00
Photocopies B/W (8.5 X 11)	each	\$ 0.10	150	\$ 0.10	\$ 15.00
Photocopies B/W (11 X 17)	each	\$ 0.20	500	\$ 0.20	\$ 100.00
Photocopies Color (8.5 X 11)	each	\$ 1.00	150	\$ 1.00	\$ 150.00
Photocopies Color (11 X 17) - for field work	each	\$ 1.50	150	\$ 1.50	\$ 225.00
GPS Unit	day	\$ 125.00	0	\$ 125.00	\$ -
TDLR Project Filing Fee	each	\$ 175.00	1	\$ 175.00	\$ 175.00
TDLR Project Inspection Fee	hour	\$ 215.00		\$215.00	\$ -
TOTAL:					\$ 810.00

Direct Expenses: \$ 810.00

TOTAL BASIC SERVICES: \$ 175,925.00  
TOTAL TIME AND MATERIALS SERVICES + DIRECT EXPENSES : \$ 14,480.00  
TOTAL OPTIONAL ADDITIONAL SERVICES : \$ 7,436.00  
TOTAL SERVICES : \$ 197,841.00



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## Attachment B

### Project Anticipated Design Schedule

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Attachment B - Project Anticipated Design Schedule																																			
ID	Task Name	Duration	Start	Finish	Predecessors	4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter		
						O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	
0	23415 - Bellaire Blvd @ Grand Mission Blvd - Pct. 4	482 days?	Mon 3/3/25	Tue 1/5/27																															
1	1 Contract execution and NTP	0 days	Mon 3/3/25	Mon 3/3/25																															
2	2 Preliminary Design Phase:	120 days?	Mon 3/3/25	Fri 8/15/25	1																														
3	2.1 Data Collection	2 wks	Mon 3/3/25	Fri 3/14/25	1																														
4	2.2 Utility Coordination	6 mons	Mon 3/3/25	Fri 8/15/25	1																														
5	2.3 Design Survey (Topographic and Existing ROW Map)	2 mons	Mon 3/3/25	Fri 4/25/25	1																														
6	2.4 Survey to be provided	0 days	Fri 4/25/25	Fri 4/25/25	5																														
7	2.5 30% Plans and Construction Cost Estimate	3 mons	Mon 4/28/25	Fri 7/18/25	6																														
8	2.6 Geotechnical Investigation	3 wks?	Mon 3/3/25	Fri 3/21/25	1																														
9	2.7 Review Geotechnical Report	2 days	Mon 3/24/25	Tue 3/25/25	8																														
10	2.8 Drainage Study Report	2 wks	Mon 3/17/25	Fri 3/28/25	3																														
11	2.9 Roadway Design	27 days	Mon 3/17/25	Tue 4/22/25	3																														
12	2.10 Internal QA/QC	1 wk	Wed 4/23/25	Tue 4/29/25	11																														
13	2.11 Draft Preliminary Engineering Report (PER)	1 mon	Wed 4/23/25	Tue 5/20/25	11																														
14	2.12 PER County Review	3 wks	Wed 5/21/25	Tue 6/10/25	13																														
15	2.13 Final PER	1 wk	Wed 6/11/25	Tue 6/17/25	14																														
16	2.14 PER Meeting (based on LiDAR)	0 days	Tue 6/17/25	Tue 6/17/25	15																														
17	2.15 Preliminary Parcel roll plot	2 wks	Wed 6/18/25	Tue 7/1/25	16																														
18	3 Intermediate Design Phase	140 days	Wed 7/2/25	Tue 1/13/26																															
19	3.1 Final Metes and Bounds Parcel Map	6 mons	Wed 7/2/25	Tue 12/16/25	17																														
20	3.2 70% Plans, Specifications and Estimates preparation	6 mons	Wed 7/2/25	Tue 12/16/25	17																														
21	3.3 70% Milestone Submittal	0 days	Tue 12/16/25	Tue 12/16/25	19																														
22	3.4 County/LIA/Stakeholder Review	3 wks	Wed 12/17/25	Tue 1/6/26	21																														
23	3.5 70% Comment Resolution	1 wk	Wed 1/7/26	Tue 1/13/26	22																														
24	4 Pre-Final Design Phase	260 days	Wed 1/7/26	Tue 1/5/27																															
25	4.1 ROW Acquisition	52 wks	Wed 1/7/26	Tue 1/5/27	22																														
26	4.2 95% Plans, Specifications and Estimates preparation	6 mons	Wed 1/14/26	Tue 6/30/26	23																														
27	4.3 Internal QA/QC	1 wk	Wed 7/1/26	Tue 7/7/26	26																														
28	4.4 95% Milestone Submittal	0 days	Tue 6/30/26	Tue 6/30/26	26																														
29	4.5 County/LIA/Stakeholder Review	3 wks	Wed 7/1/26	Tue 7/21/26	28																														
30	4.6 Utility Adjustment/Relocation	135 days	Wed 7/1/26	Tue 1/5/27	28																														
31	4.7 95% Comment Resolution	1 wk	Wed 7/22/26	Tue 7/28/26	29																														
32	5 Final Design Phase	45 days	Wed 7/29/26	Tue 9/29/26																															
33	5.1 100% Final Plans, Specifications and Estimate	2 mons	Wed 7/29/26	Tue 9/22/26	31																														
34	5.2 Internal QA/QC	1 wk	Wed 9/23/26	Tue 9/29/26	33																														
35	5.3 100% Milestone Submittal	0 days	Tue 9/29/26	Tue 9/29/26	34																														



**MV ENGINEERING, INC.**

mv-engineering.com

## Attachment C

### Solar Engineering Company's Surveying Services Proposal

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***“The Solution Starts Here”***

**Houston**

11011 Richmond Ave, Suite 875  
Houston, TX 77042



11111 KATY FREEWAY, SUITE 910  
HOUSTON, TX 77079  
(832)781-4697  
[WWW.SOLARLLC.COM](http://WWW.SOLARLLC.COM)  
TBPELS FIRM NO. 10194442

February 20, 2025

Mrs. Cherita Andrews  
Chief Experience Officer  
MV ENGINEERING, INC.  
11011 Richmond Avenue, Suite 875  
Houston, Texas 77042

Re: 23416 Bellaire Blvd. at Grand Mission Blvd., Precinct 4, Fort Bend County 2023 Mobility Project

Dear Mrs. Andrews,

Solar Surveying, LLC appreciates the opportunity to prepare this Proposal for Professional Surveying Services on the above-referenced project. Based on several Email communications and meetings, it is my understanding that MV ENGINEERING, INC. has been contracted by Fort Bend County to provide Engineering Design Services for improvements at the intersection of Bellaire Blvd. and Grand Mission Blvd., with the Project Limits **as shown in Exhibit "A"**. Based on said communications, we have prepared the herein Scope of Services and Fee Proposal.

This proposal herein is for providing Professional Surveying Services. Below is a Scope of the Services to be provided:

**1.) Existing Right-of-Way Maps (Cat. 1B, Cond. 2) Provide deed research to determine existing rights-of-way on the project.**

- A. Tie in property corners and block corners to define the existing rights-of-ways.
- B. Determine the existing right-of-way in accordance with TSPS Category 1B, Condition 2 standards and conform to Fort Bend County Engineering Department Design Manual Survey Standards.

**2.) Topographic Survey (Cat. 6, Cond. 2)**

- A. Perform topographic survey at the following intersections for traffic signals:
  - i. Bellaire Blvd. (600 L.F.) at Grand Mission Blvd. (600 L.F.)
- B. The survey will be within the existing the right-of-way plus 20 feet beyond, where accessible on site, except where behind obstructions like brick walls, and buildings.

- C. Locations include buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.
- D. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.
- E. Locate Ornamental trees or Landscape trees with a diameter of 6" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on wooded areas.
- G. Cross Sections shall be taken at intervals of 100 feet.
- F. Perform Texas One Call for underground utility locations to tone mark utilities within the existing right-of-way.
  - i. Locate markings provided by One-Call and "visible" utilities within 20 feet of the existing right-of-way (if access is granted).
  - ii. Include locations of electrical risers as a CAD callout and layer in the survey deliverable.
  - iii. Obtain utility maps from other utility owners not limited to waterline, sewer, MUD, pipelines.
- G. Locate soil borings, if required

**Deliverables:** CAD file (AutoCAD .dwg format or other format as requested by Design Project Manager; scale at 1"=20 ft) along with ASCII point file, Data Collection files, DTM with 1-foot contours and TIN file and XML file with break lines; Drawing size to be determined by Design Engineer.

### 3.) Control

- A. Horizontal Survey Control shall be referenced to the Fort Bend County monumentation system or Texas State Plane Coordinate System, South Central Zone, NAD83.
- B. Vertical Control shall be based on the nearest existing Fort Bend County Reference Marker, NAVD 1988 (CORS – Geoid 03) or as determined by the Design Project Manager.
- C. Establish at least Five (5) control points that are set and recoverable, with 1000 foot maximum spacing between points
- D. Establish Two(2) Temporary Benchmarks within 500 feet of the Beginning and Ending points of the alignment.
- E. Set project survey Baseline and stake Begin, End, Street intersections, angle points, Beginning and End of Curves and at even 1000 feet Stations with markers of a substantial nature (e.g. iron rods, PK nails and cut "X" in concrete)

**Deliverables:** Survey Control Index Map and Horizontal & Vertical Control three-point Sketches Map, signed and sealed by a Texas RPLS.



11111 KATY FREEWAY, SUITE 910  
HOUSTON, TX 77079  
(832)781-4697  
[WWW.SOLARLLC.COM](http://WWW.SOLARLLC.COM)  
TBPELS FIRM NO. 10194442

**4.) Prepare Category 1B, Condition 3 of Easement Parcel Maps and Metes & Bounds Legal Descriptions, according to the latest Fort Bend County Guidelines.**

***Deliverables:*** Parcel Map and Metes & Bounds Legal descriptions for each parcel to be acquired in the project, signed and sealed by a Texas RPLS (Up to Four (4) parcels)

**5.) Perform Construction Phase Services**

Recover or re-establish controls immediately prior to construction, stake ROW (up to three times prior to construction), stake of items related to proposed signal design/improvements at the intersection. Any other extra items will be billed hourly.  
As-built Survey is not included in this scope of services.

**6.) No SUE Survey other than those performed by Texas 811 is included in this proposal**

The Fee compensation for this Fee Proposal is a **Lump Sum Fee** per itemized fee task **as shown on Exhibit "B"**.

SOLAR SURVEYING, LLC will not access private properties without permission to obtain any field data.

SOLAR SURVEYING, LLC proposes to deliver the existing Survey within sixty (60) days from the notice to proceed (assuming for 3 weeks review time from the County). Parcel mapping (Plats and Metes & Bounds Legal Descriptions) should commence after the PER meeting and be completed within 2 weeks.



11111 KATY FREEWAY, SUITE 910  
HOUSTON, TX 77079  
(832)781-4697  
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Sincerely,

A handwritten signature in blue ink that reads "Jesus F. Sosa".

Jesus F. Sosa, RPLS

If the scope and terms are agreeable to you, please have the appropriate party sign below in the space provided, and return a copy to us. Upon your approval below we will accept or furnish a formal contract agreement between our firms.

**AGREED AND ACCEPTED:**

\_\_\_\_\_  
(Principal)

By: \_\_\_\_\_

Date: \_\_\_\_\_

Attachments

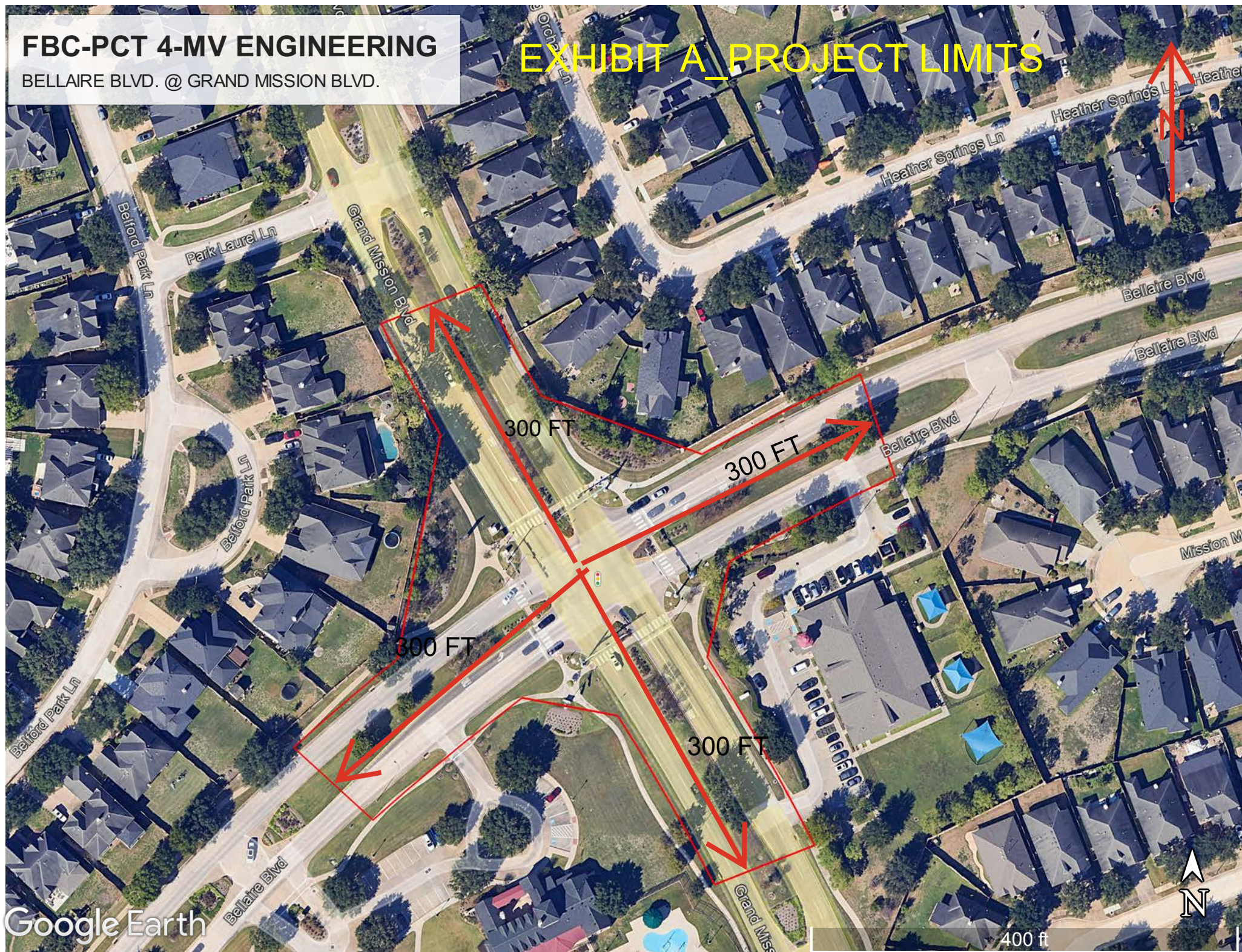
Exhibit "A" – Project Limits

Exhibit "B" – Level of Effort

# FBC-PCT 4-MV ENGINEERING

BELLAIRE BLVD. @ GRAND MISSION BLVD.

## EXHIBIT A PROJECT LIMITS



FORTH BEND COUNTY, PCT. 4  
 2023 MOBILITY PROJECT -  
 BELLAIRE BLVD. @ GRAND MISSION BLVD.  
 EXISTING ROW MAPPING, TOPOGRAPHIC SURVEY,  
 SURVEY CONTROL MAPPING, ESMTS. AND CONST. STAKING

## EXHIBIT "B"

### LEVEL OF EFFORT

February 20, 2025

ITEM #	TASK #		CLERICAL ADMIN ASSIST.	PROJECT SURVEYOR (RPLS)	2-PERSON FIELD CREW	3-PERSON FIELD CREW	CADD TECH	SURVEY TECH	TOTAL LABOR HRS. & COSTS
		2024 LABOR RATE PER HOUR	\$142.80	\$204.75	\$194.25	\$265.65	\$139.65	\$151.20	
1	EXISTING ROW	PERFORM RESEARCH OF EXISTING ROW AND PROPERTY LINES & ESTABLISH RIGHT-OF-WAY LINES BASED ON TITLE ABSTRACTING AND MONUMENTATION RECOVERED IN THE FIELD		2	10		10	10	\$5,260.50
2	TOPO	PREPARE TOPOGRAPHICAL SURVEY ALONG THE ROADWAY OUT TO 20 FEET BEYOND THE EXISTING RIGHT OF WAY IN ACCORDANCE WITH TSPS CAT. 6, COND. 2 SPECS AND PREPARE A DTM WITH 1-FOOT CONTOURS (1,200 L.F.)		2	39		30	8	\$13,384.35
3	CONTROL	ESTABLISH HORIZONTAL AND VERTICAL CONTROL, AND ALSO TEMPORARY BENCHMARKS ALONG THE ROADWAY PROJECT. PREPARE SURVEY CONTROL MAP AND THREE POINT TIES SKETCHES MAP.		2	14		15	5	\$5,979.75
4	ESMTS.	PREPARE FOUR (4) EASMENTS, PARCEL PLATS AND METES AND BOUNDS LEGAL DESCRIPTIONS		4	15		40	25	\$13,098.75
5	CONST. STAKING	RECOVER CONTROL AND BASELINE, STAKE ROW (UP TO 3 TIMES), STAKE ITEMS RELATED TO PROPOSED SIGNAL IMPROVEMENTS (AS-BUILT SURVEY NO INCLUDED)		2	20		10	8	\$6,900.60
		HOURS SUB-TOTALS	0	12	98	0	105	56	
		TOTAL LABOR COSTS	\$0.00	\$2,457.00	\$19,036.50	\$0.00	\$14,663.25	\$8,467.20	\$44,623.95
		DIRECT EXPENSES	NO. UNITS	RATE					
		MILEAGE @ Current IRS Approved Rate per Mile (12 TRIPS @ 42 MI/TRIP)	420	Current IRS Rate					\$294.00
		ABSTRACTING	1	\$1,250.00					\$1,437.50
		TOTAL DIRECT EXPENSES							\$1,731.50
		GRAND TOTAL COST OF SURVEY							\$46,355.45



**MV ENGINEERING, INC.**

mv-engineering.com

## Attachment D

### ATE Laboratories' Geotechnical Services Proposal

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***“The Solution Starts Here”***

**Houston**

11011 Richmond Ave, Suite 875  
Houston, TX 77042

October 25, 2024

MV Engineering, Inc.  
11011 Richmond Avenue, Suite 875  
Houston, Texas 77042

Attn: Ms. Cherita Andrews

Re: Proposal  
Geotechnical Investigation  
Proposed Left Turn Lanes  
Bellaire Boulevard and Grand Mission Boulevard  
Richmond, Fort Bend County, Texas

All-Terra Proposal No.: APE24-2066

Dear Ms. Andrews:

**All-Terra Engineering, Inc. (All-Terra)** appreciates the opportunity to provide this proposal to perform a geotechnical investigation for the above referenced project. This proposal outlines our understanding of the scope of services to be performed by All-Terra for this project and provides an estimated lump sum fee for our services.

## **A. PROJECT INFORMATION**

It is our understanding that left turn lanes in all four directions are being planned for design and construction by Fort Bend County at the intersection of Bellaire Boulevard and Grand Mission Boulevard in Richmond, Texas. The proposed improvement will also involve relocation of underground utilities and traffic signals being affected by the development.

The purpose of the geotechnical investigation will be to determine the subsoil and groundwater conditions within the project area and provide data/parameters/recommendations that can be used for the construction and design of the proposed roadway improvement as well as the underground utilities and traffic signals.

## B. SCOPE OF SERVICES

Based upon our understanding of the project requirements, it is proposed that the scope of work for the geotechnical investigation consists of the following tasks:

- Drill/sample a total of four (4) geotechnical borings to a depth of 15 feet beneath the surface within the relatively flat portions on the sides of the existing roadways (based on a site visit) as shown on the attached Plate No. 1. GPS coordinates of the actual boring locations during drilling will be obtained for documentation and inclusion on the boring logs of the report. Prior to drilling, a utility clearance will be applied (through Texas 811) in order to ensure that the drilled locations are clear of underground utilities.
- Continuously sample each boring continuously to a depth of 12 feet and intermittently thereafter, with both disturbed (cohesionless soils) and relatively undisturbed (cohesive soils) samples being obtained, as applicable.
- Measure the depth to groundwater during drilling, approximately 10 minutes after the water is initially encountered, as applicable, and immediately after the completion of drilling.
- Backfill the boreholes with soil cuttings after the completion of the drilling activities.
- Clearly mark each boring location and provide the client a layout and GPS coordinates of the borings for the surveyor's use in obtaining boring location survey elevations, stationing, and offset distances, as applicable.
- Perform laboratory testing on soil samples obtained such as moisture content tests, unit weight determinations, Atterberg limits tests, tests to determine the percent soil particles passing a No. 200 sieve, dry density tests, and unconfined compression tests in order to define soil classifications and physical soil properties of the site soils.
- Analyze the laboratory test data to define the engineering characteristics of each soil type.
- Prepare boring logs based upon the results of laboratory tests and visual soil classifications.
- Perform engineering analyses as necessary to develop recommendations pertaining to potential uplift of underground structures due to upward acting hydrostatic pressures caused by groundwater conditions, lateral earth pressures on underground structures, dewatering requirements for excavations, utility trench

shoring and bracing requirements, and OSHA soil type classifications pertinent to trench shoring and bracing design as applicable to areas with underground utilities.

- Provide rigid pavement section recommendations per requirement of Fort Bend County.
- Provide recommendations for subgrade preparation and stabilization (depending on the soil type encountered) for the proposed roadway improvement as well as an alternate option where in-place subgrade stabilization is not feasible/cost effective.
- Provide design parameters (bearing, lateral, and torsional) that may be used for the foundation design of traffic signal poles that will be relocated.
- Submit a pdf file of the geotechnical engineering report that presents the results of the geotechnical engineering study. The report will be prepared and sealed by a Licensed Professional Engineer trained and experienced in the practice of geotechnical engineering.

### **C. CONDITIONS**

If there are any other restrictions, unusual circumstances, or special requirements regarding the site or this proposed geotechnical study, the Client shall communicate these to All-Terra prior to our commencing our field activities.

### **D. SCHEDULE**

Our field investigation assumes that we will have the right-of-entry to the project area and that the boring locations will be readily accessible and be drilled utilizing a truck mounted drilling rig. We can initiate our field operations within 1.0 to 1.5 weeks following authorization to proceed, weather permitting. We anticipate completion of our services and submittal of our report within 2 to 3 weeks after the completion of drilling.

### **E. ESTIMATED COST**

For the scope of services outlined within this proposal, we estimate a total lump sum cost of about **\$6,516.00**. The breakdown of the estimated lump sum cost is as follows:

Item	Estimated Quantity	Unit	Unit Price	Estimated Cost
<b>Field Activities:</b>				
Initial site visit for planning of bore locations by Senior engineer, P.E.	2	hours	\$ 150.00	\$ 300.00
Mobe/demobe of drill rig	1	Lump Sum		\$ 300.00
Drilling/sampling of 4 borings to 15 feet	60	feet	\$ 18.00	\$ 1,080.00
Locate/identify/mark borings (including Texas 811 clearance) by graduate engineer	4	hours	\$ 85.00	\$ 340.00
Field logging of soil samples by qualified technician	6	hours	\$ 65.00	\$ 390.00
Vehicle Charge	12	hours	\$ 7.50	\$ 90.00
Sub-Total				<b>\$ 2,500.00</b>
<b>Laboratory Testing:</b>				
Atterberg Limits (ASTM D4318)	12	each	\$ 60.00	\$ 720.00
% Pass No. 200 Sieve (ASTM D1140)	8	each	\$ 46.00	\$ 368.00
Moisture Content (ASTM D2216)	28	each	\$ 9.00	\$ 252.00
Unconfined Compression (ASTM D2166)	4	each	\$ 44.00	\$ 176.00
Sub-Total				<b>\$ 1,516.00</b>
<b>Engineering, coordination, supervision, analysis, and report preparation*:</b>				
Senior engineer, P.E.	6	hours	\$ 150.00	\$ 900.00
Graduate engineer	16	hours	\$ 85.00	\$ 1,360.00
Engineering Assistant	4	hours	\$ 60.00	\$ 240.00
Sub-Total				<b>\$ 2,500.00</b>
TOTAL FOR THE GEOTECHNICAL INVESTIGATION				<b>\$ 6,516.00</b>

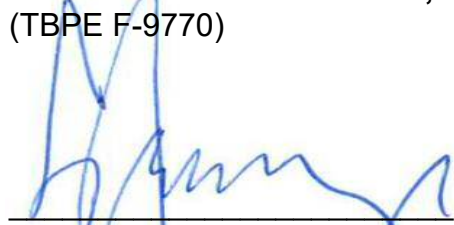
## F. CLOSURE

We appreciate the opportunity to offer our services on your project. We look forward to serving you, and welcome any questions or comments you may have concerning this proposal or our services.

Proposal No. APE24-2066  
Proposed Left Turn Lanes  
Bellaire Boulevard and Grand Mission Boulevard  
Richmond, Fort Bend County, Texas  
October 25, 2024

Respectfully submitted,

**ALL-TERRA ENGINEERING, INC.**  
(TBPE F-9770)



Bonni F. Musngi, Jr., P. E.  
Senior Geotechnical Engineer

**ACCEPTANCE AND AUTHORIZATION** Upon acceptance, this proposal constitutes the agreement between All-Terra and you, the Client, or a separate Sub-Consultant Agreement for Professional Services may be issued to All-Terra. You have the option to accept or reject this agreement, or to propose modification to any element of the agreement.

Agreed to this \_\_\_\_\_ day of \_\_\_\_\_, 2024

By: \_\_\_\_\_  
(Signature) (Printed Name)

\_\_\_\_\_  
(Firm Name) (Title or Position)

*Attachment: Plate No. 1 - Proposed Locations of Borings*

*File:/server/proposals/APE24-2066\_left.turn.lanes.docx*



⊕ - locations of proposed borings



6200 Rothway, Suite 140  
Houston, Texas 77040



Date: 10/25/24

Proposed Left Turn Lanes  
Bellaire Boulevard and Grand Mission Boulevard  
Richmond, Fort Bend County, Texas

**PROPOSED LOCATIONS OF BORINGS**

Proposal No:

**APE24-2066**

**Plate No. 1**



**MV ENGINEERING, INC.**

mv-engineering.com

## Attachment E

### Transcend Engineers & Planners Traffic Engineering Proposal

---

***“The Solution Starts Here”***

**Houston**

11011 Richmond Ave, Suite 875  
Houston, TX 77042

January 3, 2025

Cherita Andrews  
MV ENGINEERING, INC.  
11011 Richmond Avenue, Suite 875  
Houston, Texas 77042

Subject: **Bellaire Boulevard at Grand Mission Boulevard Turn Lanes  
Fort Bend Bond Project No. 23416  
Traffic Engineering Analysis and Design**

Dear Cherita,

Transcend Engineers & Planners, LLC (Transcend) is pleased to submit this proposal to provide traffic engineering analysis and design services for Bellaire Boulevard at Grand Mission Boulevard Turn Lanes in Fort Bend County.

### **Assumptions**

- The existing signalized intersection of Bellaire Boulevard at Grand Mission Boulevard will be improved to include additional turn lanes, sidewalk, and ADA ramp improvements, as well as signing and pavement marking improvements.
- MV Engineering will provide intersection improvement plans and corresponding construction phasing to Transcend.
- The existing intersection would remain in operation during the entire construction with the use of a temporary traffic signal that would be installed prior to improvements.
- All existing signal pole foundations, underground items that can be salvaged and electrical elements that can be reused will be saved and utilized during construction.
- The engineering design shall be performed in accordance with Fort Bend County and TxDOT design guidelines, standards and specifications and generally accepted procedures, including approved variances.
- Interim reviews shall be at 70% and 95% submittals.

### **Scope of Work**

#### **PER Support Services**

Transcend will assist MV Engineering with traffic elements of the preliminary engineering report (PER) as it relates to traffic operational and safety analysis and schematic development of the proposed condition for the intersection of Bellaire Boulevard and Grand Mission Boulevard.

Transcend's effort will include description of existing conditions and design parameters for the continued signal operation of the intersection. The following tasks are included to assist with PER preparation:

- Collect and Process 13-hr turning movement counts including ped data at intersection
- Collect and Process 24-hr volumes along both Bellaire Boulevard and Grand Mission Boulevard
- Perform Traffic Signal Operational Analysis
- Prepare Vehicle turning template diagram
- Develop Schematic of the proposed 50% signal layout
- Develop Construction cost estimate for the 50% signal layout
- Assist with PER technical memo

## **Traffic Signal Design Services**

### **a. Survey Coordination**

Transcend shall work with the project surveying contractor, to ensure the surveyor will provide the required topography, Survey Control and Existing ROW. Transcend will ensure the Surveyor provides topo cut sheets including alignment information. Under the County's guidance, Transcend shall also coordinate with the Surveyor for any Proposed ROW as optional additional.

### **b. Temporary Traffic Signal**

Transcend shall design the temporary traffic signal to include but not limited to the following for three (3) layouts to match the three roadway construction phases:

- Span wire traffic signal system on wood poles with horizontal LED vehicle signal heads.
- Two wood pole-mounted LED luminaires for safety lighting.
- Radar detection and protected left turn phasing for all four approaches.
- New pavement markings up to 500 feet on all four legs.

Transcend shall prepare Temporary Signal Design Drawings per Fort Bend County signal design guidelines as follows:

- Prepare at 1" = 40' scale in English Units as 11" x 17" layouts
- Prepare all design drawings consistent with the level structure required by Fort Bend County
- Provide basis of estimate in Fort Bend County format
- Provide computer files containing all required design drawings

### **c. Permanent Signal Modification**

The traffic signal design modification will follow Fort Bend County standards and specifications including pedestrian designs considerations. Our design task will include the following:

- Retaining and modifying Mast arm configuration and horizontal LED vehicle signal heads
- Retaining and modifying Pole-mounted decorative luminaires for safety lighting at the intersection
- Retaining and modifying Fully actuated vehicle detection
- Retaining and modifying Pedestrian LED countdown signals, fully actuated push buttons, signing, and crosswalks.
- Retaining or Providing Emergency vehicle preemption system
- Modifying wheelchair ramps in compliance with ADAAG as adopted by Fort Bend County
- Modifying sidewalk connections to accommodate proposed design.

Transcend shall develop Plan layouts to include the following sheets:

- Quantities
- Traffic Signal Notes
- Traffic Signal Plans
- Video Detection Layout
- Traffic Signal Interconnect Layout (**as needed**)
- Proposed Ramp Layout
- County Signal Standards and Details
- Preemption and Interconnect Details (**as needed**)

Transcend shall develop plans and prepare deliverables following Fort Bend County guidelines according to directions for the Bellaire Boulevard at Grand Mission Boulevard Improvement project.

- Prepare all design drawings using MicroStation consistent with the level structure required by Fort Bend County
- Prepare at 1" = 40' scale in English Units as 11" x 17" layouts
- Submit one PDF copy at each interim review (70% and 95%)
- Provide quantities in County format
- Sign and seal bond set of applicable plans for final submittal
- Provide computer files containing all required design drawings

### Construction Phase Services

Transcend shall perform construction staking coordination, attend pre-construction meeting, review and respond to RFIs & Change Orders submitted by the Contractor, and prepare record drawings.

### Exclusions

The following are NOT included in Transcend's scope of work:

Topographic Survey	Drainage Design
Traffic signal timing adjustment	Storm Water Pollution Prevention Plans (SW3P)
ROW Abstracting	Expert Testimony
Geotechnical Engineering	Design changes outside scope of services
Contract Support Services	Traffic Control Plans
Coordination with CNP, HOA and other Utilities	Coordination on Easements and Mast Arm Style

### Compensation

Transcend's fixed fee is as follows which includes labor and non-labor reimbursable expenses. The hours estimate and cost breakdown for Transcend are shown in **Attachment A**.

Task	Fee
PER Support Services	\$11,670.00
Design Services (Temporary Signal & Permanent Signal Modification)	\$61,878.00
Construction Phase Services	\$3,885.00
<b>TOTAL</b>	<b>\$77,433.00</b>
Other Direct Expenses	\$2,140.00
<b>GRAND TOTAL</b>	<b>\$79,573.00</b>

Transcend shall submit monthly Invoices as lumpsum showing percent work complete. Transcend will consider work not specifically stated above as additional with a right to negotiate.

### Schedule

Transcend will follow the overall project schedule for the Bellaire Boulevard at Grand Mission Boulevard Left Turns project and defer to MV Engineering and Fort Bend County for any adjustments. Note that Transcend shall not proceed with any work or additional services without written NTP from Fort Bend County.

Please contact me at 832.492.4499 or at [raj@transcendengineers.com](mailto:raj@transcendengineers.com) with any questions. We appreciate the opportunity to serve Fort Bend County and look forward to NTP.

Regards,

Transcend Engineers & Planners, LLC



Raj Basavaraju, P.E., PTOE, RSP1  
Principal

**Attachment:**

Transcend Hours Estimate & Cost Breakdown

**ATTACHMENT A  
HOURS ESTIMATE & COST BREAKDOWN  
SIGNAL MODIFICATION AT BELLAIRE BOULEVARD AND GRAND MISSION BOULEVARD**

Task Description	Project Manager	Project Engineer	Traffic Engineer	CADD Technician	Project Admin.	Total Hours	Cost
	Labor Rate	\$246.00	\$171.00	\$141.00	\$141.00	\$111.00	
<b>PER SUPPORT SERVICES</b>							
Meetings (Scoping, Field, Progress)	2	2	2			6	\$1,116.00
Operational Analysis Summary	1	2	8			11	\$1,716.00
Left Turn Phasing Analysis	1	2	8			11	\$1,716.00
Turning Template Diagram		2	4	8		14	\$2,034.00
Signal Schematic (1 Proposed Layout)	1	2	4	8		15	\$2,280.00
Construction Cost Estimate (1 Approved Layout)	1	2	2			5	\$870.00
PER Technical Memo	1	1	8	2	1	13	\$1,938.00
<b>PER SUPPORT SERVICES HOURS/COST</b>	<b>7</b>	<b>13</b>	<b>36</b>	<b>18</b>	<b>1</b>	<b>75</b>	<b>\$11,670.00</b>
<b>DESIGN SERVICES</b>							
Project Management (incl. QA/QC)	6	4			4	14	\$2,604.00
Meetings (Kick-off, Coordination)	4	8	8			20	\$3,480.00
Design Drawings - TEMPORARY SIGNAL	4	20	40	120		184	\$26,964.00
Design Drawings - PERMANENT SIGNAL MOD	4	16	32	80		132	\$19,512.00
Submittal Package Prep & Comment Resolution (70%, 95%, 100%)	4	24		30		58	\$9,318.00
<b>DESIGN SERVICES HOURS/COST</b>	<b>22</b>	<b>72</b>	<b>80</b>	<b>230</b>	<b>4</b>	<b>408</b>	<b>\$61,878.00</b>
<b>CONSTRUCTION SUPPORT SERVICES</b>							
Review and respond to RFIs	1	4	8			13	\$2,058.00
Record Drawings/Laminated Signal Layout	1	2		8	1	12	\$1,827.00
<b>CPS HOURS/COST</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>1</b>	<b>25</b>	<b>\$3,885.00</b>
<b>BASIC SERVICES SUB-TOTAL</b>							<b>\$77,433.00</b>

OTHER DIRECT EXPENSES	QTY	UNIT	RATE	COST
Parking		day	\$10.00	\$0.00
Toll Charges		each	\$3.00	\$0.00
Mileage @ Current IRS Approved Rate	200	each	\$0.70	\$134.00
13-hr Traffic Volume & Ped Data Collection	1	each	\$1,200.00	\$1,200.00
24-hr Traffic Volume Data Collection	2	each	\$400.00	\$800.00
Standard Postage		letter	\$0.00	\$0.00
Certified Letter Return Receipt		each	\$0.00	\$0.00
Courier Services		each	\$0.00	\$0.00
<b>ODE SUBTOTAL</b>				<b>\$2,140.00</b>