

STATE OF TEXAS §
§
COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Clodine Road, Segment 1 – Project No. 23407)

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 LJA 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 approximately 1.44 miles of a 3 – lane roadway along with curb, gutter, drainage system and all necessary appurtenances along Clodine Road from Beechnut Street to W. Bellfort Avenue under Mobility Bond Project No. 23407; 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 9, 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 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 Two Million Five Hundred Thirty-Seven Thousand Sixty-One and 86/100 Dollars (\$2,537,061.86). 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 Two Million Five Hundred Thirty-Seven Thousand Sixty-One and 86/100 Dollars (\$2,537,061.86). 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 Two Million Five Hundred Thirty-Seven Thousand Sixty-One and 86/100 Dollars (\$2,537,061.86) 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 Two Million Five Hundred Thirty-Seven Thousand Sixty-One and 86/100 Dollars (\$2,537,061.86).

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, SHALL 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 incapacities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer shall not assign this Agreement to another party without the prior written consent of County.
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: **LJA Engineering, Inc.**
Attn: _____
3600 W. Sam Houston Pkwy, Ste 600
Houston, TX 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.

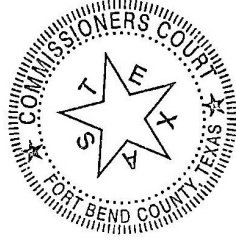
FORT BEND COUNTY, TEXAS

KP George
KP George, County Judge

March 12, 2025
Date

ATTEST:

Laura Richard
Laura Richard, County Clerk



LJA ENGINEERING, INC

Signed by:
W. Todd Thurber
Authorized Agent - Signature

W. Todd Thurber, PE
Authorized Agent- Printed Name

Senior Vice President
Title

2/26/2025
Date

APPROVED:

J. Stacy Slawinski
J. Stacy Slawinski, County Engineer

AUDITOR'S CERTIFICATE

I hereby certify that funds in the amount of \$ 2,537,061.86 are available to pay the obligation of Fort Bend County, Texas within the foregoing Agreement.

Robert Ed Sturdivant
Robert Ed Sturdivant, County Auditor

i:\agreements\2025 agreements\engineering\lja engineering, inc. (25-eng-100456)\agmt for professional engineering services - lja engineering, inc..docx - knm

EXHIBIT A

(Engineer's Proposal Follows Behind)



EXHIBIT "A" SCOPE OF SERVICES

January 9, 2025

PROPOSAL

Mr. Stacy Slawinski, P.E.
County Engineer, Fort Bend County
301 Jackson
Richmond, TX 7749
281-633-7506

Attn: Ike Akinwande and Marcus Baskin

RE: Proposal for Professional Engineering Services
Clodine Road Seg. 1: From Beechnut St. to W. Bellfort Ave.
Precinct 4
Fort Bend County
FBC Project No. 23407

Dear Mr. Slawinski,

Please see the below proposal for the study and design of Clodine Rd. Segment 1.

EXISTING CONDITIONS

The existing 1.44-mile road consists of two lanes of asphalt pavement with turn lanes at the major intersections and cross streets. The existing road consists of roadside ditches and culverts underneath driveways and cross streets for drainage. The project right-of-way (ROW) appears to vary in width and may require ROW acquisition. The project includes areas in the floodplain. Based on preliminary review of RRC GIS information, there are also 5 pipeline crossings, one of which turns and runs parallel to Clodine Rd.

PROPOSED SCOPE

LJA's scope for the 1.44 mile road is projected to include the preliminary design phase report and final design phase engineering services to develop the project plans specifications and estimates for construction of approximately 1.44 miles of 3-lane curb and gutter roadway along Clodine Rd. from Beechnut St. to W. Bellfort Ave. This project's roadway design scope will be split geographically with iGET Services, LLC. LJA will design the portion of the roadway from Beechnut St. to the division point of roadway, 1300 LF North of Bissonnet Street. An exhibit showing the geographic split of responsibilities is attached. LJA and iGET will split coordination with the subconsultants and traffic control plans for their respective roadway segments as well. LJA will be responsible for cohesiveness in the deliverables and overall project management.

Environmental services will be provided by Fort Bend County, and that scope is not included in this proposal.

A project design schedule has been prepared and is included as Attachment B.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 2

BASIC SERVICES

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

Design Criteria

1. The Engineer shall prepare all work in accordance with the latest version of the Fort Bend County (FBC) Engineering Design Manual, March 2022 Edition, and applicable FBC design standards and details. When design criteria are not identified in FBC manuals, the Engineer shall refer to the American Association of Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets (latest edition), TMUTCD and municipal and/or ETJ design criteria.
2. Produce roadway plans including typical-sections, specifications and estimates (PS&E) and prepare construction bid documents.
3. All designs for the above work will be in accordance with standards for FBC Engineering Design Manual, March 2022 edition.
4. The project may have the acquisition of new right-of-way (ROW).
5. Submit 30% plans during the preliminary design phase, as well as 70%, and 95% PS&E packages for review by the Program Manager Pape-Dawson, and FBC Engineering. The final 100% set will incorporate any revisions from the Program Manager Pape-Dawson and FBC comment on the 95% set.
6. The LJA scope of the Clodine Rd Segment 1 will include the intersection at Beechnut St.
7. Provide project planning and control to include quality management
8. Provide an accurate, complete and constructible set of contract documents.
9. FBC will have the ultimate authority for determining what constitutes an accurate, complete and constructible set of contract documents.

PROJECT COORDINATION/ MANAGEMENT

LJA shall be responsible for coordinating all activities associated with the project and delivering the work on time.

Project Coordination

Provide general coordination with the Project team members concerning admin and technical issues. Report and coordinate with Program Manager Pape-Dawson Engineers on any design issues and requests for information. Internal administration of the project files. At the completion of the work, the project files will be shipped to the Program Manager Pape-Dawson Engineers as requested.

Invoicing/Progress Reports

Prepare and submit monthly progress reports and invoices for review and approval. The invoices will include the progress report and subconsultant invoices as well. The progress report will list outstanding issues that need resolution, as well as the progress of the tasks and estimated completion dates for the work.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 3

Project Scheduling

Prepare an overall project design schedule detailing the progression of the work. This schedule will include review dates by subconsultants, submittal dates for deliverables, and estimated time frame to complete the work. The schedule will be updated monthly and included in the progress report. Changes or adjustments in the schedule caused by delays due to unforeseen task difficulties or lengthy review times will be shown and reported to Pape-Dawson.

Progress Meetings

Attend coordination and interim progress review meetings every month or as necessary, to be scheduled on an as-needed basis. Prepare and distribute meeting minutes within five working days after the meeting.

Preliminary Design Phase

LJA will prepare a study report documenting the project scope, findings and recommendations for the final design phase that will include 30% plans, preliminary drainage area map and calculations, ROW acquisition needs, potential utility conflicts, sight triangles, preliminary construction cost estimate, preliminary TCP, and geotechnical report. LJA will review the drainage calculations provided by surrounding areas to ensure the plan for the project's drainage won't negatively impact surrounding communities. 30% Plans will consist of typical sections, plan & profiles of roadway with existing shown in plan and profile views, and proposed shown in plan view only, and preliminary traffic control phasing. LJA will attend bi-weekly progress meetings with the Program Manager, Pape-Dawson.

Roadway Design

LJA will coordinate with iGET on roadway design tasks to ensure that the deliverables of all stages of the project appear to come from one consultant. This will include drafting coordination and review of the intersection point between the two designs. LJA and iGET will follow the general requirements below. For more information on iGET's role in this project, please refer to the attached proposal.

The primary goals for LJA are to (1) establish a typical cross section and cross sections in non-standard areas, (2) positively determine right-of-way (ROW), (3) determine potential conflicts with existing facilities, (4) identify critical path items, (5) identify problem areas and potential resolution(s), (6) determine permit and regulatory requirements, and (7) prepare a reasonable construction cost estimate. Normally, a 30 percent plan set will be prepared, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation. LJA will prepare a Preliminary Engineering Report (PER) and 30% design submittal as described below.

Collect Existing Data

Gather and review as-built drawings for Clodine Rd (Seg 1) and adjacent areas and roadways. Collect and review as-built drawings for water lines, sanitary sewers, storm sewers, channels, ditches, drainage systems, detention basins, and other related systems in the project area. Collect and review drainage studies, master drainage plans, and similar related drainage, floodplain, or storm water management plans in the project area. Collect and review property boundaries, jurisdictional boundaries, and ROW boundary information. Collect and review existing traffic data, studies and plans pertaining to the project area.

Conduct Field Reconnaissance

1. Perform site visits to observe and photograph existing conditions.
2. Observe existing utilities.
3. Observe existing drainage facilities.
4. Observe existing traffic, signage, and signal facilities.
5. Observe existing vegetation and landscaping features.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 4

30% Design Drawings 1. Provide 30% submittals for the design, for interim progress reviews by the Program Manager Pape-Dawson and FBC. 2. Prepare and submit a set of 30% design drawing on 11"x17" plan sheets for review by the Program Manager Pape-Dawson and FBC. The 30% design plans will include the following design sheets:

- a. Draft Cover Sheet
- b. Typical Sections
- c. Plan & Profile Sheets
- d. Intersection Layouts
- e. Drainage Area Maps
- f. Drainage Design Layout
- g. Existing Utility Layout

Preliminary Engineering Report (PER)

1. Collaborate with the Prime Consultant LJA to prepare and submit a draft letter report (3 copies) entitled Preliminary Engineering Report (PER) which will
 - a. Briefly summarize existing conditions in narrative and photographic format
 - b. Identify key design issues and how they should be addressed
 - c. Identify utility conflicts
 - d. Identify critical path items
 - e. Identify proposed access, detour, and traffic control approaches to support construction activities
 - f. Recommend appropriate construction phasing
 - g. Recommend appropriate pavement type and cross section
 - h. Recommend any required structures or cross culverts
 - i. Recommend location and number of left turn lanes and median cuts
 - j. Recommend signalization, if warranted
 - k. Incorporate a Geotechnical Report
 - l. Identify ROW needs
 - m. Prepare an engineer's construction cost estimate.
2. Present PER
3. Prepare and submit a final PER based on FBC written comments.

Drainage

LJA will be performing a drainage study to support the roadway improvements for the project. The scope of work will start with analysis and preliminary design in the study phase for the whole project. This will include coordination with iGET on their portion of the roadway design.

The Clodine Road improvement project involves approximately 1.44 miles of roadway widening and reconstruction. The improvements to the roadway will add impervious area to this segment which will require the mitigation of the additional impervious cover. It is our understanding that the proposed roadway will be lowered relative to its current elevation and conveyance will be handled via a combination of above ground sheet flow (via roadway grading) and underground storm sewer. The proposed detention plan for the project will explore several potential alternatives:

- Review project limits for undeveloped land where a detention basin can be excavated.
- Review project limits for existing detention basins which could be deepened or expanded to add additional volume.
- Explore underground in-line detention.
- A combination of the aforementioned scenarios.

The existing drainage system is roadside ditches. Based on the existing conditions, it is anticipated that conveyance improvements to the storm sewer system will also lead to an increase in peak flows. As part of the detention calculations that will be performed for this project, LJA will also compare the existing and

Mr. Stacy Slawinski, PE
January 9, 2025
Page 5

proposed hydrographs and restrict the system accordingly to ensure the developed flows will not exceed the predeveloped flows.

The majority of the project area is not located in the regulatory FEMA floodplain. Depending on the location of the proposed detention basin, the project limits may encroach into the FEMA floodplain, and further analysis may be warranted dependent on this location.

The drainage analysis will follow the effective Fort Bend County - Interim Atlas 14 Drainage Criteria Manual. Based on the anticipated drainage area for the project, it is anticipated that a simplified method will be conducted for the drainage model. To address the above requirements and document that adequate drainage and detention are provided for the proposed paving and drainage improvements, the following tasks identify the required scope of work items:

Task 1 – Clodine Road Drainage Analysis and Preliminary Detention Design

1. Coordination meetings with client and internal design project manager.
2. Gather and review available record drawings data for Clodine Road and surrounding developments and roadways.
3. Conduct site visits to verify desktop analysis such as drainage patterns and facilities (from topographic survey and record drawings).
4. Develop a base conditions hydrologic model of the area.
5. Prepare a proposed conditions hydrologic model of the area to reflect the proposed roadway improvements.
6. Compare the existing and proposed hydrologic models and conduct a detention analysis to calculate the required.
7. Develop an existing conditions hydraulic model of the project area.
8. Prepare a proposed conditions 1D hydraulic model of the project area. At this stage, the system will be sized to the manhole level. The model would be built on PCSWMM or XPSWMM.
9. The proposed storm sewer system between Beechnut St and Bissonnet St is likely to discharge into Keegans Bayou basin adjacent to Clodine Road, therefore, no adverse impacts will need to be analyzed into Keegans Bayou using the FEMA Effective models for this area. The hydrologic and hydraulic models for Keegans will be updated to incorporate the roadway and drainage improvements to the area. Both the hydrologic and hydraulic models will need to be updated.
10. Provide preliminary sizing of the proposed storm sewer system to the roadway project manager.
11. Prepare a technical memorandum providing the results of the drainage analysis, recommendations for final storm sewer configuration, and indicate no adverse impacts based on the improvements. The memorandum will include all models, exhibits, and appendices to support the analysis.

It is anticipated that this task will take 180 days to complete. The following is a breakdown of the schedule:

Activity	Time (Days)
Data Gathering	30
Existing Conditions – Hydrologic Models	15
Proposed Conditions – Hydrologic Models	15
Existing Conditions – Hydraulic Models	20
Proposed Conditions – Hydraulic Models	45
Report Preparation	15
County Review	25
Finalize Report and Models	15
Total	180

The prepared schedule will rely on receiving topographic survey and proposed solutions from the design team in a timely manner, any delays in delivery of those items will impact schedule.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 6

Utilities

Research and obtain record documents for all known existing utilities within the road ROW. LJA will prepare a utility conflict table and update it during the final design phase as needed. LJA will submit milestone-level drawings to the applicable utility companies for their review. It is understood that the county and/or the project management consultant (Pape-Dawson) will contact and coordinate all utility adjustments/relocations. Due to the number of pipelines, waterlines, communications, and their potential impacts on the proposed improvements, there will be a Level A Subsurface Utility Engineering (SUE) effort. This will involve hydrovac equipment, additional surveying and potentially additional traffic control. Pipeline potholes are listed as a basic service, and as LJA understands the other utility locations better, there are additional potholes that can be authorized as optional additional for all utilities.

Surveying

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 following surveying services are included in this proposal:

- Right of Entry
- Establish Horizontal and Vertical Control Datum
- Existing Right of Way Mapping
- Survey Control Maps
- Topographic Surveying
- Subsurface Utility Engineering (Quality Level B)
- Construction Services
- Parcel Plat and Metes and Bounds for Acquisitions
- Potential Basin topo and boundary if necessary

These items are further described in the attached proposal from United Engineers, Inc.

Geotechnical

As requested, the geotechnical report will be prepared in accordance with the current Fort Bend County Engineering Department Engineering Design Manual March 2022 Edition and the attached proposal is provided by HTS, Inc. Consultants. A total of seven (16) soil borings at 30' will be drilled for the proposed road. Boring depth has been estimated based on storm sewer outfall depth and locations. The geotechnical report will include a description of subsurface conditions, groundwater information, boring logs and pavement recommendations in typical FBCED format. Items included are as follows: Transmittal letter, executive summary, introduction, purpose and scope, site explorations, field work, laboratory testing, description of conditions, engineering analysis and recommendations, construction considerations and appendices. See attached proposal by HTS, Inc. Consultants for additional details.

Traffic

Traffic signal and associated services will be provided by AIG Technical Services and can be reviewed in the attached proposal. AIG's study phase deliverables include a section in the PER reviewing their study phase items, data collection review, traffic signal warrant analysis, capacity analysis, traffic operational safety analysis and recommendations for intersections, and 30% plans and estimates. The intersection's traffic signal warrant analyses are basic services, but the traffic signal warrant analyses at the subdivision entrances are optional additional services.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 7

Final Design Phase

Roadway Design and Plan Production

LJA will proceed with completion of the PS&E for 70%, 95%, and 100% submittals to Pape-Dawson. LJA will address comments presented in the Preliminary Design Phase review meeting, and address and/or provide responses to 70% and 95% comments.

Per the Fort Bend County Engineering Department Engineering Design Manual March 2022 Edition, 70% and 95% submittals shall include cover sheet, index, general notes, typical and non-standard cross-sections, overall project layout, survey control map, right-of-way, horizontal alignment data, removal layout, drainage area map with hydraulic calculations, plan and profile sheets, traffic control plan, signing and striping plan, storm water pollution prevention plan, cross sections at 100' intervals, specification table of contents, construction cost estimate and bid form. Plans shall be submitted electronically in PDF format and page size of 11x17. Submittals will also include a kmz file and necessary checklists.

Additionally, the 95% submittal shall also include standard construction details, project manual, and responses to 70% comments. The 95% submittal will be the same format as the 70% submittal.

The 100% submittal shall consist of one sealed and signed set of drawings delivered to the County consisting of a PDF submittal of the drawings, specifications, and estimate sent to Pape-Dawson. Responses to 95% comments, and a construction time estimate will also be included.

LJA will provide monthly progress reports and attend bi-weekly progress meetings.

Utilities

LJA will identify all known existing utilities on the plan and profiles. LJA will coordinate with Pape-Dawson's utility coordinator for the project and identify conflicts between the proposed improvements and the existing utilities. LJA to submit each milestone submittal to utility companies that are identified to be in conflict. Some of the entities that will be coordinated with include Energy Transfer, DOW, Monument Pipeline, Kinder Morgan Tejas, Enterprise, Fort Bend County MUD 30, Fort Bend County MUD 206, Fort Bend County FWSD 2, and Fort Bend County MUD 134C.

LJA will be identifying certain utilities with Level A SUE to provide data to LJA and iGET for potential utility conflicts. This item is optional additional and will locate utility coordinates and depth within the ROW on a per pothole basis.

Water or sewer relocation or adjustment plans are included as optional additional in this proposal if necessary.

Traffic

Prepare construction phase traffic control sheets for lane closures in accordance with the current published criteria for Fort Bend County. LJA and iGET will prepare the construction phase traffic control plans to accommodate the existing traffic during the construction of the proposed road improvements. The two firms will handle traffic control plans for their respective portions of the roadway design.

Based on scoping information received, sidewalk is anticipated to be included in the project on both sides of the roadway.

Additional traffic scope of services is provided by AIG Tech and encompasses preliminary engineering report on traffic signal warrant analysis, traffic operational and safety analysis. If a new signal or signals are warranted, coordination with CenterPoint will be handled for power service. AIG will not be providing any traffic control plan sheets. More details are included in the attached proposal from AIG Tech.

Mr. Stacy Slawinski, PE
January 9, 2025
Page 8

Drainage

Task 2 will consist of detailed design of the potential detention basin or in line detention. There is an optional additional task to perform the floodway analysis for No Rise Certification. Coordination with the Keegans Bayou Improvement District and other applicable entities will continue throughout the project.

Task 2 – Clodine Road Drainage Analysis Final Design

1. Attend coordination meetings with client and internal design project manager.
2. Update the drainage impact analysis models to incorporate the final flowlines and storm sewer size configurations. Since there may be several pipeline crossings in the areas, it is assumed that Task 1 will provide the necessary sizing for design, however, the sizes may need to be updated based on the final design and known pipeline data.
3. Conduct an inlet analysis to provide proper inlet sizing.
4. Finalize drainage models and provide HGL values to input into plans.

It is anticipated that this task will take 70 days to complete. The following is a breakdown of the schedule:

Activity	Time (Days)
Inlet Level Analysis	45
Update Drainage Models	15
Update Report	10
Total	70

Optional Task – Floodway Analysis for No Rise Certification

Dependent on the ultimate configuration to place detention, LJA has done a preliminary scoping of the project area to identify potential sites for above ground detention to serve the roadway and drainage improvements for this project. One site is in the floodway and would require a no rise certification to meet FEMA requirements. A no rise certification would include updating the hydraulic and hydrologic FEMA effective models to ensure that there are no impacts to the floodway.

The detailed detention design will be in accordance with the FBCED design manual and standards and submitted in kind to the rest of the plan set submittals. The detailed design will consist of existing conditions, demolition plans, drainage area and hydraulic calculations sheets, proposed layout and grading, geometric layout and point table, typical sections, outfall plan and profile, storm water pollution prevention plan, and quantities.

Bid and Construction Phase

Bid Phase

Assist Pape-Dawson with the preparation of the bid phase documents, attend pre-bid meeting, address bidder questions, and prepare addendums.

Construction Phase

Attendance of the pre-construction meeting is included in this proposal, but no other construction phase activities are included.

Billing

The preliminary and final design efforts will be a lump sum fee to be billed monthly on a percent complete basis by tasks. Bid phase efforts will be billed monthly based on time & materials with a breakdown of hours spent by personnel in the various employee categories at the approved billing rates. Invoicing will

Mr. Stacy Slawinski, PE
January 9, 2025
Page 9

be per direction provided in the Fort Bend County Engineering Department Engineering Design Manual March 2022 Edition.

Cost Summary

A level of effort estimate is enclosed based on the scope of work described herein. The Lump Sum Fee amount is \$2,518,751.86 and the Hourly Not-To-Exceed Fee amount is \$18,310.00 for a total of \$2,537,061.86 for the project. The Basic Services total is \$2,036,446.02 and the Optional Additional Services total is \$500,615.84 for a total of \$2,537,061.86.

We appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you have any questions or comments about our proposal, please do not hesitate to contact me directly at 713.953.5200.

Best Regards,

A handwritten signature in blue ink, appearing to read 'Austin McLean', is positioned above the typed name.

Austin McLean, P.E., CFM
Sr. Project Manager, Transportation

AM/pa

Attachments: LOE, H&H LOE, Geotech Proposal, Traffic Proposal, Roadway Design #2 Proposal, Survey Proposal, Roadway Design Exhibit, Schedule

Clodine Rd. - Segment 1 - Precinct 4
Level of Effort Estimate

1/9/2025

	Proj. Man. \$254	Engineer \$182	Senior Designer		CADD \$100	Clerical \$75	Fee	Total	Number of	Hour per Sheet
			\$150	Sr. CADD \$125				Hours per	sheets	
								Task		
Phase I - Preliminary Design Phase										
Coordination with Project Team and Surrounding Entities	15	25	0	0	0	0	\$ 8,360.00	40	N/A	N/A
Coordination and review deliverables with IGET	30	20	8	10	12	24	\$ 16,710.00	104	N/A	N/A
Coordination and review deliverables with AIG Tech	8	10	12	5	5	0	\$ 6,777.00	40	N/A	N/A
Coordination and review deliverables with United Engineers	20	15	15	9	12	0	\$ 12,385.00	71	N/A	N/A
Coordination and review deliverables with HTS	6	12	8	0	0	0	\$ 4,908.00	26	N/A	N/A
Attend Progress Meetings (Bi-weekly for 4 months)	16	16	8	0	0	0	\$ 8,176.00	40	N/A	N/A
Topo Site Walk Review	4	4	0	0	0	0	\$ 1,744.00	8	N/A	N/A
Review Researched Documentation for Existing Utilities within ROW	8	8	20	10	20	0	\$ 9,738.00	66	N/A	N/A
Attend Utility Coordination Meetings	8	8	4	0	0	0	\$ 4,088.00	20	N/A	N/A
Prepare 30% plan and profile- proposed plan view only	25	30	50	100	100	0	\$ 41,810.00	305	8	38.1
Prepare 30% detention basin plan view drawings	20	20	50	80	80	0	\$ 34,220.00	250	8	31.3
Prepare Executive Summary Letter	8	20	24	4	4	8	\$ 10,772.00	68	N/A	N/A
Construction Cost Estimate	8	16	24	2	12	0	\$ 9,994.00	62	N/A	N/A
Progress Reports	20	0	0	0	0	0	\$ 5,080.00	20	N/A	N/A
Project Scheduling	20	0	0	0	0	0	\$ 5,080.00	20	N/A	N/A
QA/QC	6	12	18	8	9	0	\$ 8,308.00	53	N/A	N/A
Address Comments	2	6	10	8	16	6	\$ 6,150.00	48	N/A	N/A
Final Submittal of Letter Report	2	2	6	1	4	2	\$ 2,447.00	17	N/A	N/A
						SUBTOTAL	\$ 196,747.00			
Phase II - Final Design Phase										
Project Administration	95	12	4	0	0	15	\$ 28,039.00	126	N/A	N/A
Attend Progress Meetings (Bi-weekly for 8 months)	32	32	16	0	0	0	\$ 16,352.00	80	N/A	N/A
Coordination with IGET	50	40	16	12	24	24	\$ 28,080.00	166	N/A	N/A
Coordination with Pipelines	30	30	15	0	0	0	\$ 15,330.00	75	N/A	N/A
Obtain Letter of No Objection from utilities	10	10	10	0	0	0	\$ 5,860.00	30	N/A	N/A
Coordination with Keegans Bayou Improvement District	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination with Fort Bend County MUD 30	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination with Fort Bend County MUD 206	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination with Fort Bend County FWSD 2	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination with Fort Bend County MUD 134C	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination with water transmission line (North Fort Bend Water Authority)	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
Coordination Communications Companies	10	5	2	5	5	0	\$ 4,875.00	27	N/A	N/A
County Permit Reviews	5	10	2	0	0	0	\$ 3,390.00	17	N/A	N/A
QA/QC										
Internal QA/QC (70% submittal)	6	12	18	8	9	0	\$ 8,308.00	53	N/A	N/A
Internal QA/QC (95% submittal)	6	12	18	8	9	0	\$ 8,308.00	53	N/A	N/A
Internal QA/QC (100% submittal)	6	12	18	8	9	0	\$ 8,308.00	53	N/A	N/A
Construction Documents										
Plans										
Cover sheet	1	1	1	0	0	0	\$ 586.00	3	1	3.0
Index of Sheets	1	1	1	2	2	0	\$ 1,036.00	7	1	7.0
General Notes	1	1	1	2	2	0	\$ 1,036.00	7	2	3.5
Legend	1	1	1	2	2	0	\$ 1,036.00	7	1	7.0
Survey Control Sheets	1	0	1	0	2	0	\$ 604.00	4	4	1.0
Existing Typical Section	1	4	1	4	8	0	\$ 2,432.00	18	1	18.0

Clodine Rd. - Segment 1 - Precinct 4
Level of Effort Estimate

1/9/2025

	Proj. Man. \$254	Engineer \$182	Senior Designer		CADD \$100	Clerical \$75	Fee	Total	Number of	Hour per Sheet
			\$150	Sr. CADD \$125				Hours per	sheets	
								Task		
Proposed Typical Sections	3	8	1	8	14	0	\$ 4,768.00	34	1	34.0
Storm Sewer Drainage Area Map	1	2	8	4	8	0	\$ 3,118.00	23	1	23.0
Storm Sewer Calculations	1	8	20	16	16	0	\$ 8,310.00	61	1	61.0
Roadway Outfall Structure	10	20	20	40	60	0	\$ 20,180.00	150	3	50.0
Box culvert roadway crossing	20	30	30	40	50	0	\$ 25,040.00	170	2	85.0
Overall Drainage Area Map	1	2	6	4	8	0	\$ 2,818.00	21	1	21.0
Demolition Plans	2	4	8	8	12	0	\$ 4,636.00	34	6	5.7
Plan and Profile (1"=40' scale 11x17)	40	50	55	60	120	0	\$ 47,010.00	325	10	32.5
Pipeline design requirements (slabs, notes, etc.)	10	5	5	10	10	0	\$ 6,450.00	40	3	13.3
Detention Basin										
Existing Conditions	5	8	12	18	30	0	\$ 9,776.00	73	1	73.0
Demolition Plan	1	1	2	3	6	0	\$ 1,711.00	13	1	13.0
Proposed Layout and Grading	5	7	12	18	30	0	\$ 9,594.00	72	1	72.0
Geometric Layout and Point Table	5	7	12	18	30	0	\$ 9,594.00	72	2	36.0
Typical Sections	8	8	12	18	30	0	\$ 10,538.00	76	1	76.0
Inflow Plan and Profile	10	20	20	40	60	0	\$ 20,180.00	150	1	150.0
Outfall Plan and Profile	10	20	20	40	60	0	\$ 20,180.00	150	1	150.0
Drainage Area and Hydraulic Calculations Sheets	10	20	20	6	6	0	\$ 10,530.00	62	6	10.3
SWPPP	2	4	4	5	5	0	\$ 2,961.00	20	1	20.0
Details										
Typical Pavement Details	2	2	2	0	2	0	\$ 1,372.00	8	2	4.0
Concrete Driveway Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
ADA Ramp Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Storm Sewer Construction Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Type "A" Inlet Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Modified Type "A" Inlet w/ Concrete Apron	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Type "B-B" Inlet Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Modified Type "B-B" Inlet Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Monolithic Type C, C-1, C-2, and C-2A Inlet Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Precast Concrete Storm Sewer Manhole Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Backslope Interceptor Detail	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Junction Box Manhole Detail	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Sidewalk Detail	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Pilot Channel Detail	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Flexbeam Guardrail Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Type III Barricade Details	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Safety End Treatment for 12"-72" Dia. Pipe Culverts	2	2	2	0	2	0	\$ 1,372.00	8	1	8.0
Traffic Control Plans										
Phasing Layout with General Notes	5	10	0	10	15	0	\$ 5,840.00	40	2	20.0
Typical Construction Cross-sections	5	10	0	10	15	0	\$ 5,840.00	40	2	20.0
Advanced Warning Signs Layouts	4	6	0	4	10	0	\$ 3,608.00	24	1	24.0
Phase One Layouts (1"=50' scale)	15	20	25	30	50	0	\$ 19,950.00	140	10	14.0
Phase Two Layouts (1"=50' scale)	15	20	25	30	50	0	\$ 19,950.00	140	10	14.0
Phase Three Layouts (1"=50' scale)	15	20	25	30	50	0	\$ 19,950.00	140	10	14.0
Storm Water Pollution Prevention Plans (1"=100' scale)	2	4	8	5	16	0	\$ 4,661.00	35	4	8.8
Storm Water Pollution Prevention Plan Details	1	1	1	0	1	0	\$ 686.00	4	1	4.0
Signing and Paving Marking Plans (1"=50' scale)	4	8	16	14	28	0	\$ 9,422.00	70	7	10.0
Pavement Marking Details	2	2	2	0	2	0	\$ 1,372.00	8	2	4.0
Earthwork Table	5	10	20	12	30	0	\$ 10,590.00	77	2	38.5
Cross Sections	8	20	25	25	38	0	\$ 16,347.00	116	20	5.8
Construction Cost Estimate	10	20	30	5	15	0	\$ 12,805.00	80	N/A	N/A

Clodine Rd. - Segment 1 - Precinct 4
Level of Effort Estimate

1/9/2025

	Proj. Man. \$254	Engineer \$182	Senior Designer		CADD \$100	Clerical \$75	Fee	Total	Number of	Hour per Sheet
			\$150	Sr. CADD \$125				Hours per Task		
Project Manual (Bid form, specification TOC, special specs)	15	30	0	0	0	12	\$ 10,170.00	57	N/A	N/A
						SUBTOTAL	\$ 544,739.00			
Optional Additional Detention Basin Number 2										
Detention Basin										
Prepare 30% detention basin plan view drawings	20	20	50	80	80	0	\$ 34,220.00	250	1	250.0
Existing Conditions	1	1	2	3	6	0	\$ 1,711.00	13	1	13.0
Demolition Plan	1	1	2	3	6	0	\$ 1,711.00	13	1	13.0
Proposed Layout and Grading	5	7	12	18	30	0	\$ 9,594.00	72	1	72.0
Geometric Layout and Point Table	5	7	12	18	30	0	\$ 9,594.00	72	2	36.0
Typical Sections	8	8	12	18	30	0	\$ 10,538.00	76	1	76.0
Inflow Plan and Profile	10	20	20	40	60	0	\$ 20,180.00	150	1	150.0
Outfall Plan and Profile	10	20	20	40	60	0	\$ 20,180.00	150	1	150.0
SWPPP	2	4	4	5	5	0	\$ 2,961.00	20	1	20.0
						SUBTOTAL	\$ 110,689.00			

Total Hours Phase I - Preliminary Design Phase	226	224	257	237	274	40	Total Hours	1258
Rate (\$/HR)	254	182	150	125	100	75	Total Sheets	16

Phase I - Pre-Design Phase Subtotal (Lump Sum)	\$ 57,404.00	\$ 40,768.00	\$ 38,550.00	\$ 29,625.00	\$ 27,400.00	\$ 3,000.00	\$ 196,747.00
	29%	21%	20%	15%	14%	1.5%	

Total Hours Phase II - Final Design Phase	600	652	615	612	1011	51	Total Hours	3541
Rate (\$/HR)	254	182	150	125	100	75	Total Sheets	152

Phase II - Design Phase Subtotal (Lump Sum)	\$ 152,400.00	\$ 118,664.00	\$ 92,250.00	\$ 76,500.00	\$ 101,100.00	\$ 3,825.00	\$ 544,739.00
	28%	22%	17%	14%	19%	0.7%	

Bid Phase Subtotal (Hourly, Not-To-Exceed)	-	-	-	-	-	-	\$9,000.00
--	---	---	---	---	---	---	------------

H&H - LJA

Preliminary Analysis and Preliminary Detention Design	\$ 223,780.00
Drainage Analysis Final Design	\$ 62,320.00
No Rise Certification (Optional Additional)	\$ 16,880.00
Detention Basin #2 Preliminary and Final Design (Optional Additional)	\$ 110,689.00
H&H Subtotal (Lump Sum)	\$ 413,669.00

Subsurface Utility Engineering (SUE)- LJA

Level A SUE (\$4,000 per Test Hole- 18 Test Holes Budgeted, incl. traffic control as needed up to 2 days) Basic Service	\$ 72,000.00
Level A SUE (\$4,000 per Test Hole- 24 Test Holes Budgeted, incl. traffic control as needed up to 2 days) Optional Additional	\$ 96,000.00
Water/Sanitary Relocation (Optional Additional if Necessary)	\$ 40,000.00
SUE Subtotal (Lump Sum)	\$ 208,000.00

Roadway Design #2 - IGET

Project Coordination/Management	\$ 29,530.00
Preliminary Engineering	\$ 203,635.00
Design Phase	\$ 309,890.00

Clodine Rd. - Segment 1 - Precinct 4
Level of Effort Estimate

1/9/2025

	Proj. Man. \$254	Engineer \$182	Senior Designer		Sr. CADD \$125	CADD \$100	Clerical \$75	Fee	Total	Number of	Hour per Sheet
			\$150						Hours per Task	sheets	
Contract - Bid Phase (Hourly, Not-to-Exceed)								\$	9,310.00		
Roadway Design #2 (Lump Sum and Hourly, Not-to-Exceed)								\$	552,365.00		
Survey - United Engineers, Inc.											
Area 1-6											
Right of Entry								\$	5,600.00		
Horizontal and Vertical Control Datum								\$	19,000.00		
ROW Acquisition (\$3,900 per Parcel x 5 Parcels) (optional additional)								\$	19,500.00		
Topographic Survey								\$	63,480.00		
CAD Services Utility Base Plan								\$	18,360.00		
Existing Topo/ROW Survey Maps								\$	36,600.00		
Survey Control Maps								\$	18,240.00		
						Subtotal	\$ 180,780.00				
Area 7											
Right of Entry								\$	2,240.00		
Horizontal and Vertical Control Datum								\$	6,880.00		
Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 3 Parcels) (optional additional)								\$	11,700.00		
Topographic Survey								\$	10,760.00		
CAD Services Utility Base Plan								\$	4,920.00		
Existing Topo/ROW Survey Maps								\$	6,600.00		
Survey Control Maps								\$	5,160.00		
						Subtotal	\$ 48,260.00				
Area 8											
Right of Entry								\$	280.00		
Horizontal and Vertical Control Datum								\$	1,180.00		
Topographic Survey								\$	980.00		
CAD Services Utility Base Plan								\$	1,090.00		
Existing Topo/ROW Survey Maps								\$	1,060.00		
Survey Control Maps								\$	530.00		
						Subtotal	\$ 5,120.00				
Area 9											
Right of Entry								\$	1,750.00		
Horizontal and Vertical Control Datum								\$	3,600.00		
Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 1 Parcel)								\$	3,900.00		
Topographic Survey								\$	6,030.00		
CAD Services Utility Base Plan								\$	3,100.00		
Existing Topo/ROW Survey Maps								\$	3,950.00		
Survey Control Maps								\$	3,350.00		
						Subtotal	\$ 25,680.00				
Area 10											
Right of Entry								\$	1,750.00		
Horizontal and Vertical Control Datum								\$	3,600.00		
Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 1 Parcel)								\$	3,900.00		
Topographic Survey								\$	6,030.00		
CAD Services Utility Base Plan								\$	3,100.00		
Existing Topo/ROW Survey Maps								\$	3,950.00		
Survey Control Maps								\$	3,350.00		
						Subtotal	\$ 25,680.00				
Additional Scope											
Re-stake ROW and Survey Control (\$4,660.00 x 2)								\$	9,320.00		
UVE -ROW Acquisition (\$3,900 per Parcel x 4 Parcels)								\$	15,600.00		

Clodine Rd. - Segment 1 - Precinct 4
Level of Effort Estimate

1/9/2025

	Proj. Man. \$254	Engineer \$182	Senior Designer		Sr. CADD \$125	CADD \$100	Clerical \$75	Fee	Total	Number of	Hour per Sheet
			\$150						Hours per	sheets	
									Task		
Survey Subtotal (Lump Sum)						Subtotal	\$ 24,920.00				
								\$ 310,440.00			
Geotechnical Report - HTS, Inc. Consultants											
Roadway and Storm Sewer								\$ 38,812.00			
Detention Basin (optional additional)								\$ 24,554.00			
Detention Basin 2 (optional additional)								\$ 20,571.00			
Geotechnical Report Subtotal (Lump Sum)								\$ 83,937.00			
Traffic Engineering - AIG Tech											
Project Management								\$ 27,071.52			
PER								\$ 80,661.84			
Design Phase								\$ 19,027.68			
Bid Phase								\$ 1,058.40			
Traffic Counts and Expenses								\$ 5,903.58			
Driveway Analysis (optional additional)								\$ 80,661.84			
Traffic Counts and Expenses (optional additional)								\$ 3,780.00			
Civil Design Subtotal (Lump Sum)								\$ 218,164.86			
Total Professional Services Budget								\$ 2,537,061.86			
Basic Services and Optional Additional Services Breakdown											
Basic Services											
PER (LJA and iGET)								\$ 429,912.00			
Design (LJA and iGET)								\$ 854,629.00			
Bid (LJA and iGET)								\$ 18,310.00			
H&H								\$ 286,100.00			
SUE								\$ 72,000.00			
Geotech								\$ 38,812.00			
Survey								\$ 202,960.00			
Traffic								\$ 133,723.02			
Subtotal Professional Basic Services								\$ 2,036,446.02			
Optional Additional Services											
Survey (Area 9, 10, UVE, Construction Re-staking, ROW Acquisition from Areas 1-6 & 7)								\$ 107,480.00			
SUE (Test Holes and Water/Sanitary Relocation)								\$ 136,000.00			
Geotech (Detention Basin)								\$ 45,125.00			
H&H (No Rise Certification and Detention Basin #2 design)								\$ 127,569.00			
Traffic (Driveway Analysis and associated counts)								\$ 84,441.84			
Subtotal Professional Optional Additional Services								\$ 500,615.84			
Total Professional Services Budget								\$ 2,537,061.86			

Task Descriptions			Labor (Hours)								
			Total	Dept Manager \$350.00	Sr Project Manager \$300.00	Sr. Engineer \$200.00	Project Engineer \$175.00	Graduate Engineer \$165.00	Sr Designer \$185.00	Designer \$150.00	Clerical Support \$80.00
		A. Task 1 - Clodine Road Drainage Analysis and Preliminary Detention Design									
	1.	Data Collection and Digitize Data	112		8		40	64			
	2.	Hydrologic Analysis - Existing Conditions	96		8		24	64			
	3.	Hydrologic Analysis - Proposed Condiitons	124		16		36	72			
	4.	Hydraulic Analysis - Existing Conditions	136		16		40	80			
	5.	Hydraulic Analysis - Proposed Conditions	304		24		120	160			
	6.	Floodway Analysis - No Rise Certification	96		16		80				
	7.	Prepare Report	96		16		64				16
	8.	Prepare Exhibits	88		8			80			
	9.	Prepare Appendices	48		8		40				
	10.	Coordination with FBCDD and Project Team	56		16		40				
	11.	QA/QC	32	32							
		Total Task A	1188	32	136		484	520			16
		Fee	\$223,780.00	\$11,200.00	\$40,800.00		\$84,700.00	\$85,800.00			\$1,280.00
		B. Task 2 - Clodine Road Drainage Analysis Final Design									
	1.	Coordination with FBCDD and Project Team	48		16		32				
	2.	Update Proposed Conditions Models	72		8		24	40			
	3.	Prepare Inlet Level Analysis (Delineate Drainage Areas to Inlet Level and Calculate Ponding Spreads)	144		16		40	88			
	4.	Update Report and Finalize Models with Final Design	36		4		32				
	5.	QA/QC	16	16							
		Total Task B	316	16	44		128	128			
		Fee	\$62,320.00	\$5,600.00	\$13,200.00		\$22,400.00	\$21,120.00			
		C. Optional Task - Floodway Analysis No Rise Certification									
	1.	Floodway Analysis - No Rise Certification	64		8		56				
	2.	Update Report	26		2		8				16
	3.	QA/QC	4	4							
		Total Task C	94	4	10		64				16
		Fee	\$16,880.00	\$1,400.00	\$3,000.00		\$11,200.00				\$1,280.00
		Total Fee Excluding Optional	\$286,100.00								
		Total fee Including Optional	\$302,980.00								



Excellence in Engineering, Consulting, Testing and Inspection

January 2, 2025

**LJA Engineering, Inc.
1904 West Grand Parkway North, Suite 100
Katy, Texas 77064**

Attn: Mr. Austin McLean, P.E., CFM

**Re: Proposal
Geotechnical Investigation
Clodine Road - Segment 1
Precinct 4
Fort Bend County, Texas**

HTS Proposal No.: 24-00305 Revision 1

Dear Mr. McLean:

1.0 INTRODUCTION

In response to your request, HTS, Inc. Consultants (HTS) is pleased to submit this proposal to LJA Engineering, Inc. to provide a geotechnical investigation pertaining to the proposed development of the Clodine Road - Segment 1 in Precinct 4, Fort Bend County, Texas. HTS thanks you for the opportunity to propose these geotechnical services and looks forward to being part of the design team.

Project information was provided to HTS by Mr. Robert Booth with LJA through an email dated October 29, 2024. Based on HTS's review of the information provided, a summary of our understanding of the proposed project is provided in Table below.

TABLE: PROJECT DESCRIPTION AND DOCUMENT BASIS

Site Location	West Bellfort to Beechnut, Fort Bend County, Texas.
Project Items	<p>HTS understands that the project includes the following:</p> <ul style="list-style-type: none"> a) Reconstruction of existing roadways (assumed to be rigid pavement). The existing roadway section is two lane asphalt and desired typical section is three lane concrete curb and gutter with sidewalk for the length of the 1.4-mile project. b) Construction of storm sewer below the proposed reconstructed pavement (approximate maximum depth of about 16 feet) <p><u>Optional Additional Tasks:</u></p> <p><u>Task 1:</u> Detention basin modification (size: about 15 acres; depth is not known, assumed depth is about 15 feet for this proposal).</p>

	<u>Task 2: Detention basin construction</u> (size: about 9 acres; depth is not known, assumed depth is about 15 feet for this proposal).
Site History	Based on historical Google Earth imagery, the site is developed with existing roadway, detention basin and undeveloped land.
Site Access	Stiff ground conditions are anticipated and should be accessible by a truck/ATV drill rig when dry, but ground surface could become inaccessible after rainfall.

The purpose of this geotechnical investigation is to provide:

- recommendations for roadway reconstruction.
- Storm sewer bedding recommendations.
- Optional Additional Task: Safe slope recommendations for detention basin side slopes.

The remaining portions of this proposal present the proposed work scope, estimated costs, and an estimated schedule to provide geotechnical engineering services.

2.0 SCOPE OF WORK

HTS proposes that the scope of work for the geotechnical investigation be as follows:

- Roadway and Storm Sewer: Core/drill and sample a total of 16 geotechnical borings within the area of the proposed roadway and storm sewer. The depth and number of borings for each design element is provided in the table below. The depth and number of borings are selected based on Fort Bend County Geotechnical Investigation guidelines.

TABLE: SUMMARY OF SOIL BORINGS (ROADWAY AND STORM SEWER)

Design Element	Number of Borings	Boring Designation	Boring Depth (ft)	Total Footage (ft)
Roadway and Storm Sewer	*16	B-1 through B-16	30	416
Total	16	-	-	480

Note: three borings will be converted to piezometers if groundwater is encountered during drilling.

- Optional Tasks - Detention Basin: Drill and sample a total of 8 and 6 geotechnical borings within the area of the proposed detention basins for task no. 1 and 2, respectively. The depth and number of borings for each design element is provided in the table below. The depth and number of borings are selected based on Fort Bend County Geotechnical Investigation guidelines.

TABLE: SUMMARY OF SOIL BORINGS (OPTIONAL ADDITIONAL TASK NO. 1: DETENTION BASIN)

Design Element	Number of Borings	Boring Designation	Boring Depth (ft)	Total Footage (ft)
Optional Scope 1: 15-acre Detention Basin	*8	B-17 through B-24	30	240
Total	8	-	-	240

Note: one boring will be converted to piezometer if groundwater is encountered during drilling.

TABLE: SUMMARY OF SOIL BORINGS (OPTIONAL ADDITIONAL TASK NO. 2: DETENTION BASIN)

Design Element	Number of Borings	Boring Designation	Boring Depth (ft)	Total Footage (ft)
Optional Scope 2: 9-acre Detention Basin	*6	B-25 through B-30	30	180
Total	6	-	-	180

Note: one boring will be converted to piezometer if groundwater is encountered during drilling.

- Obtain both disturbed and undisturbed samples continuously to a depth of 20 feet and at 5-foot intervals thereafter.
- Obtain utilities clearance for all the boring locations by calling TX 811.
- Provide traffic control before drilling the roadway borings.
- Measure groundwater levels in the borings during drilling and within approximately 24 hours after the completion of drilling. In order to assure that accurate 24-hour water level measurements are obtained, the top of the borings will be provided with protective cover in order to preclude surface water from entering the borings.
- Convert select borings into temporary piezometers to record long term water level readings in accordance with Fort Bend County guidelines. Measure groundwater levels in the piezometer at 1 day, 1 week, 2 weeks, and 4 weeks until a month after the installation of the piezometer. Piezometer will be abandoned in accordance with the Texas Commission on Environmental Quality (TCEQ) when they are no longer necessary.
- Backfill the borings with cement grout (except detention basin and piezometer borings) after obtaining 24-hour groundwater level measurements. In the case of borings through pavements, similar or equivalent materials will be used to restore the site. Mark the borings with spray marking/ stakes that extend at least 3 feet above the ground surface, tie survey flagging near the top of the stakes, and label the stakes with the boring number. After the completion of our field activities, the client will be notified for surveying of the boring locations.

- Perform laboratory tests to classify and determine the engineering properties of the subsurface. Soil classifications will be performed in strict accordance with ASTM D 2487. The laboratory program may include the tests described in the Table below.

TABLE: LABORATORY TESTING GENERAL PROCEDURES

Laboratory Test	Applicable ASTM/Standard Procedures
Moisture Content	ASTM D2216
Atterberg Limits	ASTM D4318
Material Finer than No. 200 Sieve	ASTM D1140
Unconfined Compression Strength	ASTM D2166
UU triaxial compression test	ASTM D 2850
Crumb test	ASTM D 6572
Double Hydrometer test for determination of dispersibility	ASTM D 4221
Particle size analyses w/ Hydrometer	ASTM D 7928
Consolidated Undrained Triaxial test	ASTM D 4767

- Characterize the site subsoil and groundwater conditions and provide the results on the “gINT” boring logs.
- Complete engineering analyses as necessary to develop recommendations pertaining to potential uplift of underground structures due to upward acting hydrostatic pressures caused by ground water conditions, lateral earth pressures on underground structures, dewatering requirements for utility excavations, utility trench shoring and bracing requirements, OSHA soil type classifications pertinent to trench shoring and bracing design, utility excavation/backfill requirements, and utility bedding requirements.
- Perform engineering analyses to develop geotechnical recommendations including final concrete pavement recommendations (which will include pavement layer thickness) including subgrade stabilization requirements.
- Provide active, passive, and at-rest earth pressure coefficients and equivalent fluid unit weights to be used for the design of underground structures.
- Conduct a desktop geological fault study, which may include reviewing existing fault maps and conducting a field visit to identify any significant visual fault activity along the project alignment or at the specific project site that could impact the project design.
- Optional Tasks: Perform slope stability analyses in order to determine the stability of the side slopes of the proposed detention basin in the short-term, rapid drawdown, and long-term conditions using subsoil parameters derived from field and laboratory tests. Slope stability analyses will be performed on sections defined by the geotechnical borings within the

proposed detention basin. For our slope stability analyses, we will determine the steepest stable side slopes for the proposed basin. HTS will coordinate with the design engineers for the basin and outfall feature designs in order to assure proper applicability of our analyses.

- Submit a pdf file of a report which presents the results of the geotechnical investigation.

Note: Hard copies of the report will be provided upon request at an additional cost of \$30.00 per report.

3.0 COST AND SCHEDULE

HTS' proposed cost to complete the scope of work (roadway and storm sewer) as designed in Section 2.0 above is:

- roadway and storm sewer: \$38,812.00.
- additional scope of work – task 1: detention basin: \$24,554.00
- additional scope of work – task 2: detention basin: \$20,571.00

The estimated costs are provided in the attached Cost Estimates.

We estimate that about 5 weeks after receipt of the notice to proceed will be required to complete the geotechnical investigation if no delays are encountered with respect to weather conditions and/or site access. The table below summarizes the proposed project schedule.

TABLE: APPROXIMATE SCHEDULE FOR THIS PROJECT

Description of Work	Schedule
Beginning of field exploration	Anticipated to be within a week after the authorization to perform the work is received
Duration of field exploration	Anticipated to be completed within 6 working days.
Laboratory testing	Anticipated to be completed within 2 weeks after the completion of the field exploration
Final Report	Anticipated to be 1 week from the completion date of the laboratory testing
Project Duration	Anticipated to be 5 weeks from the notice to proceed to the submittal of the final geotechnical report.
Additional Scope	An additional week will be necessary to perform the detention boring scope in parallel with the original scope. However, if the additional work begins separately from the original scope, approximately five weeks will be required to complete it.

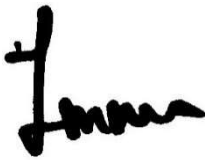
LJA Engineering, Inc.
January 2, 2025
Page 6 of 6

4.0 CLOSING REMARKS

We appreciate the opportunity to present this proposal to you and would be pleased to discuss the contents of this proposal with you at your convenience. Your approval of this proposal may be indicated by your signing/dating this proposal as provided below.

We request that a copy of the signed/dated proposal be provided to HTS. We look forward to being of service to you.

Respectfully submitted,
HTS, Inc. Consultants



Imran Hossain, P.E.
Geotechnical Services Manager



Jubair Hossain, Ph.D., P.E.
President

Attachment: Cost Estimates

AGREED TO THIS _____ DAY OF _____, 2025

PRINTED NAME: _____ TITLE: _____

SIGNATURE: _____

FIRM: _____

IH/JH:rg
H:\Proposals All\Proposals-24\LJA-24-00305 Revision 1.docx



416 Pickering Street
Houston, Texas 77091

COST ESTIMATE

Proposal No.:

24-00305 Rev. 1

Prepared By:

Date:

Checked By:

Date:

IH

01/02/25

JH

01/02/25

Page No.:

1

OF

1

GEOTECHNICAL INVESTIGATION (ROADWAY AND STORM SEWER)

ITEM	EST. QUANTITY	UNIT PRICE	EST. COST
A) Drill/Sample 16, 30' Deep Borings			
Mobe/demobe	Lump Sum	\$ 750.00	\$ 750.00
3" diameter (0' to 30')	480 feet	\$ 20.00	\$ 9,600.00
Traffic control (including signage & cones)	6 day	\$ 600.00	\$ 3,600.00
Grouting the borings	480 feet	\$ 10.00	\$ 4,800.00
Locate/identify borings	8 hours	\$ 55.00	\$ 440.00
SUBTOTAL =			\$ 19,190.00
B) Piezometer Installation/Plugging and Monitoring			
Install 3 piezometers to 30'	90 feet	\$ 24.00	\$ 2,160.00
Field supervision of installation	2 day	\$ 90.00	\$ 180.00
Obtain piezometer water level readings	16 hours	\$ 90.00	\$ 1,440.00
Plugging/abandoning of piezomter	90 feet	\$ 20.00	\$ 1,800.00
SUBTOTAL =			\$ 5,580.00
C) Laboratory Analyses			
Atterberg limits(ASTM D 4318)	35 tests	\$ 71.00	\$ 2,485.00
Unconfined compression test (ASTM D 2166)	28 tests	\$ 55.00	\$ 1,540.00
Moisture content (ASTM D 2216)	35 tests	\$ 11.00	\$ 385.00
Percent material passing No. 200 sieve (ASTM D 1140)	30 tests	\$ 55.00	\$ 1,650.00
Triaxial UU compression (ASTM D-2850)	6 tests	\$ 72.00	\$ 432.00
Crumb tests (ASTM D-6572)	5 tests	\$ 43.00	\$ 215.00
Particle size analysis with hydrometer (ASTM D-7928)	5 tests	\$ 145.00	\$ 725.00
SUBTOTAL =			\$ 7,432.00
D) Engineering Analysis and Report Preparation			
Senior engineer, P.E.	2 hours	\$ 205.00	\$ 410.00
Project engineer, P.E.	8 hours	\$ 165.00	\$ 1,320.00
Stafft engineer, E.I.T.	36 hours	\$ 120.00	\$ 4,320.00
Support personnel (CAD/clerical)	8 hours	\$ 70.00	\$ 560.00
SUBTOTAL =			\$ 6,610.00
TOTAL COST =			\$ 38,812.00





416 Pickering Street
Houston, Texas 77091

COST ESTIMATE

Proposal No.:

24-00305 Rev. 1

Prepared By:

Date:

Checked By:

Date:

IH

01/02/25

JH

01/02/25

Page No.:

1

OF

1

OPTIONAL GEOTECHNICAL INVESTIGATION (TASK 1: DETENTION BASIN)

ITEM	EST. QUANTITY	UNIT PRICE	EST. COST
A) Drill/Sample 8, 30' Deep Borings			
Mobe/demobe	Lump Sum	\$ 750.00	\$ 750.00
3" diameter (0' to 30')	240 feet	\$ 20.00	\$ 4,800.00
Locate/identify borings	8 hours	\$ 55.00	\$ 440.00
SUBTOTAL =			\$ 5,990.00
B) Piezometer Installation/Plugging and Monitoring			
Install 1 piezometers to 30'	30 feet	\$ 24.00	\$ 720.00
Field supervision of installation	1 day	\$ 90.00	\$ 90.00
Obtain piezometer water level readings	8 hours	\$ 90.00	\$ 720.00
Plugging/abandoning of piezomter	30 feet	\$ 20.00	\$ 600.00
SUBTOTAL =			\$ 2,130.00
C) Laboratory Analyses			
Atterberg limits (ASTM D 4318)	28 tests	\$ 71.00	\$ 1,988.00
Unconfined compression test (ASTM D 2166)	18 tests	\$ 55.00	\$ 990.00
Moisture content (ASTM D 2216)	28 tests	\$ 11.00	\$ 308.00
Percent material passing No. 200 sieve (ASTM D 1140)	20 tests	\$ 55.00	\$ 1,100.00
Triaxial UU compression (ASTM D-2850)	8 tests	\$ 72.00	\$ 576.00
Crumb tests (ASTM D-6572)	4 tests	\$ 43.00	\$ 172.00
Particle size analysis with hydrometer (ASTM D-7928)	6 tests	\$ 145.00	\$ 870.00
Double hydrometer tests (ASTM D-4221)	4 tests	\$ 250.00	\$ 1,000.00
Triaxial CU compression - 3 samples (ASTM D-4767)	2 tests	\$ 1,500.00	\$ 3,000.00
SUBTOTAL =			\$ 10,004.00
D) Engineering Analysis and Report Preparation			
Senior engineer, P.E.	2 hours	\$ 205.00	\$ 410.00
Project engineer, P.E.	4 hours	\$ 165.00	\$ 660.00
Stafft engineer, E.I.T.	40 hours	\$ 120.00	\$ 4,800.00
Support personnel (CAD/clerical)	8 hours	\$ 70.00	\$ 560.00
SUBTOTAL =			\$ 6,430.00
TOTAL COST =			\$ 24,554.00





416 Pickering Street
Houston, Texas 77091

COST ESTIMATE

Proposal No.:

24-00305 Rev. 1

Prepared By:

Date:

Checked By:

Date:

IH

01/02/25

JH

01/02/25

Page No.:

1

OF

1

OPTIONAL GEOTECHNICAL INVESTIGATION (TASK 2: DETENTION BASIN)

ITEM	EST. QUANTITY	UNIT PRICE	EST. COST
A) Drill/Sample 6, 30' Deep Borings			
Mobe/demobe	Lump Sum	\$ 750.00	\$ 750.00
3" diameter (0' to 30')	180 feet	\$ 20.00	\$ 3,600.00
Locate/identify borings	8 hours	\$ 55.00	\$ 440.00
SUBTOTAL =			\$ 4,790.00
B) Piezometer Installation/Plugging and Monitoring			
Install 1 piezometers to 30'	30 feet	\$ 24.00	\$ 720.00
Field supervision of installation	1 day	\$ 90.00	\$ 90.00
Obtain piezometer water level readings	8 hours	\$ 90.00	\$ 720.00
Plugging/abandoning of piezomter	30 feet	\$ 20.00	\$ 600.00
SUBTOTAL =			\$ 2,130.00
C) Laboratory Analyses			
Atterberg limits(ASTM D 4318)	20 tests	\$ 71.00	\$ 1,420.00
Unconfined compression test (ASTM D 2166)	14 tests	\$ 55.00	\$ 770.00
Moisture content (ASTM D 2216)	20 tests	\$ 11.00	\$ 220.00
Percent material passing No. 200 sieve (ASTM D 1140)	16 tests	\$ 55.00	\$ 880.00
Triaxial UU compression (ASTM D-2850)	6 tests	\$ 72.00	\$ 432.00
Crumb tests (ASTM D-6572)	3 tests	\$ 43.00	\$ 129.00
Particle size analysis with hydrometer (ASTM D-7928)	4 tests	\$ 145.00	\$ 580.00
Double hydrometer tests (ASTM D-4221)	3 tests	\$ 250.00	\$ 750.00
Triaxial CU compression - 3 samples (ASTM D-4767)	2 tests	\$ 1,500.00	\$ 3,000.00
SUBTOTAL =			\$ 8,181.00
D) Engineering Analysis and Report Preparation			
Senior engineer, P.E.	2 hours	\$ 205.00	\$ 410.00
Project engineer, P.E.	4 hours	\$ 165.00	\$ 660.00
Stafft engineer, E.I.T.	32 hours	\$ 120.00	\$ 3,840.00
Support personnel (CAD/clerical)	8 hours	\$ 70.00	\$ 560.00
SUBTOTAL =			\$ 5,470.00
TOTAL COST =			\$ 20,571.00



Bringing Solutions to Transportation Infrastructure



December 12, 2024

Mr. Austin McLean, P.E., CFM
Sr. Project Manager – Transportation
LJA Engineering, Inc.
3600 W Sam Houston Pkwy S, Houston, TX 77042

RE: Proposal for Professional Engineering Services
23407 – Clodine Road Segment 1: From West Bellfort Avenue to Beechnut Street
Precinct 4
Fort Bend County

Dear Mr. McLean:

AIG Technical Services, LLC (AIG Tech), is pleased to submit our proposal for Professional Services to improve the roadway infrastructure within the study area. 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

Fort Bend County proposes an improvement of Clodine Road from West Bellfort Avenue to Beechnut Street which involves upgrading the two-lane asphalt segments to three-lane concrete curb and gutter section with drainage improvements (Design, ROW, and Utilities only).

AIG Tech shall conduct preliminary engineering analysis to include traffic signal warrant analysis, traffic operational and safety analysis; and prepare Plans, Specifications & Estimates (PS&E) for traffic signal design.

Introduction of the AIG Team

AIG Technical is a subconsultant firm leading traffic engineering. Serving as your single point of contact will be Leslie Dodo, P.E., PTOE - Project Manager.

Management Structure

AIG Technical understands Pape-Dawson Engineers, Inc. will serve as Program Manager; and, as an extension of Fort Bend County Engineering Department. LJA Engineering, Inc. will serve as the Prime Consultant and will continue as our single point of contact with the county throughout the duration of this project.



SCOPE OF BASIC SERVICES:

AIG Tech project activities will include project management, data collection, preliminary engineering and design.

1. Project Management

Project management includes meeting attendance, QA/QC, and preparation of progress reports and invoices.

1.1. Meeting Attendance

AIG Tech shall meet periodically (virtually) with LJA to discuss project progress, timelines, and status of deliverables.

1.2. Project Coordination

AIG Tech will coordinate as necessary with LJA and other agencies to obtain relevant project information.

1.3. Quality Assurance and Quality Control

AIG Tech shall perform quality assurance and quality control (QA/QC) reviews for each submission and supporting data. The Engineer shall provide documentation that the QA/QC reviews were performed by qualified staff.

1.4. Progress Reports and Invoicing

AIG Tech shall submit a written monthly progress report summarizing work accomplished during the month and the anticipated work to be accomplished for the coming month. AIG Tech shall also prepare monthly invoices in accordance with LJA invoicing procedures.

Deliverables

- Documentation of QA/QC reviews
- Monthly Progress Reports

2. Preliminary Engineering (PER) Phase

AIG Tech shall prepare a Preliminary Engineering Report (PER) that details data collection and review, traffic signal warrant analysis, traffic operational and safety analysis analyses and recommendations for three intersections, and 30% plans and construction estimate.

2.1. Data Collection

AIG Tech shall collect, review, and evaluate all data collected at the three signalized intersections on the corridor and up to three driveway locations. The signalized intersection locations are:

- Clodine Rd at Beechnut St
- Clodine Rd at Bissonnet St
- Clodine Rd at W Belfort Ave

AIG Tech shall also:

Collect and review as-built plans and traffic signal timing data.



Perform turning movement counts at all three signalized intersections during a weekday (Tuesday, Wednesday or Thursday) from 6:00 AM to 7:00 PM to include pedestrian volume counts.

Perform 24-hour traffic counts (15 minute and hourly intervals) at two locations on the corridor.

Conduct site inspection at the study location and record traffic characteristics observed in the field. The field work may include but is not limited to taking measurements, locating utilities, locating existing signal equipment, identifying existing conditions, and taking digital photographs of the intersection (minimum of one photograph per approach).

Collect and review historical crash data for 5 full calendar years (January 1st to December 31st)

2.2. Signal Warrant Analysis

AIG Tech shall conduct traffic signal warrant analysis for all three signalized intersections and up to three driveway locations for use in authorizing traffic signals and other recommendations for improving traffic operations. AIG shall utilize the *Texas Manual of Uniform Traffic Control Devices (TMUTCD)* and other applicable guidelines for the analysis:

- Prepare a condition diagram showing details from site inspection and field work conducted under data collection.
- Prepare site maps of all three study intersections. Information on the site map must include existing control devices at the intersection.
- Prepare signal warrant analysis report, which summarizes the findings of the traffic and pedestrian counts and field inventories for each location and the warrant study.

2.3. Capacity Analysis

AIG Tech shall conduct capacity analysis for all three signalized intersections and up to three driveway locations and sections of roadway to make recommendations for improving traffic flow. AIG Tech shall perform these studies using the *TRB Highway Capacity Manual* to analyze and make appropriate recommendations. If microsimulation is required, AIG Tech shall develop and calibrate an existing condition model. AIG Tech shall analyze the data and prepare a capacity study report to summarize the findings and recommend improvements (if appropriate).

2.4. Safety Analysis

AIG Tech shall conduct safety analysis with respect to crash characteristics such severity, crash types, frequency, rates, patterns, clusters, and their relationship to crash contributing factors. The purpose of the historical crash analyses is to determine safety performance of the existing conditions to understand any safety issues within the study area and recommend improvements. AIG Tech shall perform analysis using *AASHTO HSM* and *TxDOT Roadway Design Manual* to analyze and make appropriate recommendations. The safety analysis will be conducted at all three signalized intersections along the corridor.

Deliverables

- Traffic Signal Warrant Analysis Memo
- Capacity and Safety Analysis Memo



3. Design Phase

AIG Tech shall prepare Plans, Specifications & Estimates for the design of traffic signals along the corridor:

- Beechnut Street intersection: Redesign traffic signal at northbound approach and pedestrian signal at southwest corner of intersection. Modifications will include signal phasing, vehicle detection, and other traffic signal infrastructure as necessary.
- West Bellfort Avenue intersection: Redesign all pedestrian signals and push buttons.

Design shall be conducted according to TMUTCD. AIG Tech will not prepare pedestrian ramp designs and signing and pavement marking plans as part of the traffic signal plans. Include the County's Approved Signal Equipment List after request from the Program Manager.

- Perform field work that includes taking measurements, locating utilities, locating ROW, locating existing signal equipment, identifying existing signal phasing, identifying existing conditions, and taking digital photos.
- Prepare 70% submittal to include traffic signal plans, specifications (using Harris County and TxDOT Specifications) and construction cost estimate. Provide completed bid form and 70% review checklist.
- Prepare 95% submittal to include all 70% requirements, interim seal, standard construction details, responses to 70% comments and 95% review checklist.
- Prepare 100% submittal to be ready for project advertisement and should include all 95% requirements, recommended maximum number of calendar days for construction and 100% review checklist.

Deliverables

- 70% plans
- 95% plans
- 100% plans

4. Bid Phase

AIG Tech shall prepare for and attend pre-bid and other meetings as necessary. Prepare addendums as necessary.

5. Optional Additional (Driveway Analysis)

AIG Tech shall conduct data collection, signal warrant analysis, capacity analysis and safety analysis for driveway locations (up to three) along the corridor.

5.1. Data Collection

AIG Tech shall collect, review, and evaluate all data collected at driveway locations (up to three) along the corridor.

Perform turning movement counts at driveway locations (up to three) during a weekday (Tuesday, Wednesday or Thursday) from 6:00 AM to 7:00 PM to include pedestrian volume counts.

Conduct site inspection at the driveways (up to three) and record traffic characteristics observed in the field. The field work may include but is not limited to taking measurements, locating utilities,



identifying existing conditions and taking digital photographs of the intersection (minimum of one photograph per approach). Collect and review historical crash data at the driveways (up to three) for 5 full calendar years (January 1st to December 31st).

5.2. Signal Warrant Analysis

AIG Tech shall conduct traffic signal warrant analysis at driveway locations along the corridor (up to three) for use in authorizing traffic signals and other recommendations for improving traffic operations. AIG shall utilize the *Texas Manual of Uniform Traffic Control Devices (TMUTCD)* and other applicable guidelines for the analysis:

- Prepare a condition diagram showing details from site inspection and field work conducted under data collection.
- Prepare site maps of all three driveway locations. Information on the site map must include existing control devices at the intersection.
- Prepare signal warrant analysis report, which summarizes the findings of the traffic and pedestrian counts and field inventories for each location and the warrant study.

5.3. Capacity Analysis

AIG Tech shall conduct capacity analysis at driveway locations (up to three) to make recommendations for improving traffic flow. AIG Tech shall perform these studies using the *TRB Highway Capacity Manual* to analyze and make appropriate recommendations. If microsimulation is required, AIG Tech shall develop and calibrate an existing condition model. AIG Tech shall analyze the data and prepare a capacity study report to summarize the findings and recommend improvements (if appropriate).

5.4. Safety Analysis

AIG Tech shall conduct safety analysis with respect to crash characteristics such severity, crash types, frequency, rates, patterns, clusters, and their relationship to crash contributing factors. The purpose of the historical crash analyses is to determine safety performance of the existing conditions to understand any safety issues within the study area and recommend improvements. AIG Tech shall perform analysis using *AASHTO HSM* and *TxDOT Roadway Design Manual* to analyze and make appropriate recommendations. The safety analysis will be conducted at driveway locations (up to three) along the corridor.

Deliverables

- Traffic Signal Warrant Analysis Memo
- Capacity and Safety Analysis Memo

COMPENSATION:

A level of effort estimate based on the scope of services described is included as Attachment B. The Lump-Sum Fee amount, including reimbursable expenses, is **\$218,164.86** as summarized in the table below.

Bringing Solutions to Transportation Infrastructure



FEE SUMMARY	
TASK 1: PROJECT MANAGEMENT	\$27,071.52
TASK 2: PRELIMINARY ENGINEERING (PER) PHASE	\$80,661.84
TASK 3: DESIGN PHASE (70%, 95% & 100%)	\$19,027.68
TASK 4: BID PHASE	\$1,058.40
TASK 5: OPTIONAL ADDITIONAL (DRIVEWAY ANALYSIS)	\$80,661.84
TOTAL LABOR	\$208,481.28
OTHER DIRECT EXPENSES	\$23.58
UNIT COSTS (TRAFFIC COUNTS)	\$5,880.00
UNIT COSTS (TRAFFIC COUNTS) - OPTIONAL ADDITIONAL	\$3,780.00
GRAND TOTAL	\$218,164.86

SCHEDULE

AIG Tech anticipates the project will follow the following timeline schedule:

- a) Contract execution and NTP – end of October 2024
- b) PER Submittal – end of January 2025
- c) 70% milestone submittal – July 2025
- d) 95% milestone submittal – end of September 2025

ATTACHMENTS

Attachment A – AIG Technical Services, LLC’s Proposal Fee

Sincerely yours,

Gabriel Y. Johnson

Principal

AIG Technical Service, LLC

Gabe.Johnson@AIGtechnical.com

Cell: 832.875.5923

	Project Manager	Quality Manager	Senior Technical Advisor	Senior Engineer	Senior Transportation Planner	Engineer-In-Training	GIS/CAD Operator	Senior Project Controller	Administrative/Clerical	Totals
PROJECT TASK DESCRIPTION										
Raw Labor Rates	\$264.60	\$258.72	\$294.00	\$258.72	\$255.78	\$117.60	\$117.60	\$132.30	\$99.96	
TASK 1: PROJECT MANAGEMENT										
1. Meeting Attendance	10		10			10				30
2. Project Coordination	6		6			6				18
3. Quality Assurance/Quality Control	4	40								44
4. Progress Reports and Invoicing	6					4		12	12	34
Sub-Total Labor Hours	26	40	16	0	0	20	0	12	12	126
SUBTOTAL LABOR COST	\$6,879.60	\$10,348.80	\$4,704.00	\$0.00	\$0.00	\$2,352.00	\$0.00	\$1,587.60	\$1,199.52	\$27,071.52
TASK 2: PRELIMINARY ENGINEERING (PER) PHASE										
2.1 Data Collection	10			24		40				74
2.2 Signal Warrant Analysis	12			36		84				132
2.3 Capacity Analysis	12			36		84				132
2.4 Safety Analysis	12			36		84				132
Sub-Total Labor Hours	46	0	0	132	0	292	0	0	0	470
SUBTOTAL LABOR COST	\$12,171.60	\$0.00	\$0.00	\$34,151.04	\$0.00	\$34,339.20	\$0.00	\$0.00	\$0.00	\$80,661.84
TASK 3: DESIGN PHASE (70%, 95% & 100%)										
Existing Condition Layouts						8				8
Proposed Condition Layouts	2		2	4		24				32
Signal Details	2		2	4		10				18
Traffic Signal General Notes and Basis of Estimate	2			4		8				14
Coordination with Power Source	2			4		2				8
Quantities	2			4		8				14
Standards						4				4
Address Review Comments	2			4		8				14
Sub-Total Labor Hours	12	0	4	24	0	72	0	0	0	112
SUBTOTAL LABOR COST	\$3,175.20	\$0.00	\$1,176.00	\$6,209.28	\$0.00	\$8,467.20	\$0.00	\$0.00	\$0.00	\$19,027.68
TASK 4: BID PHASE										
Pre-Bid Meetings	2									2
Addendums	2									2
Sub-Total Labor Hours	4	0	0	0	0	0	0	0	0	4
SUBTOTAL LABOR COST	\$1,058.40	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,058.40
TASK 5: DRIVEWAY ANALYSIS (OPTIONAL)										
2.1 Data Collection	10			24		40				74
2.2 Signal Warrant Analysis	12			36		84				132
2.3 Capacity Analysis	12			36		84				132
2.4 Safety Analysis	12			36		84				132
Sub-Total Labor Hours	46	0	0	132	0	292	0	0	0	470
SUBTOTAL LABOR COST	\$12,171.60	\$0.00	\$0.00	\$34,151.04	\$0.00	\$34,339.20	\$0.00	\$0.00	\$0.00	\$80,661.84
TOTAL LABOR HOURS	134	40	20	288	0	676	0	12	12	1,182
TOTAL LABOR COST	\$35,456.40	\$10,348.80	\$5,880.00	\$74,511.36	\$0.00	\$79,497.60	\$0.00	\$1,587.60	\$1,199.52	\$208,481.28
FEE SUMMARY										
TASK 1: PROJECT MANAGEMENT										\$27,071.52
TASK 2: PRELIMINARY ENGINEERING (PER) PHASE										\$80,661.84
TASK 3: DESIGN PHASE (70%, 95% & 100%)										\$19,027.68
TASK 4: BID PHASE										\$1,058.40
TASK 5: OPTIONAL ADDITIONAL (DRIVEWAY ANALYSIS)										\$80,661.84
TOTAL LABOR										\$208,481.28
OTHER DIRECT EXPENSES										\$23.58
UNIT COSTS (TRAFFIC COUNTS)										\$5,880.00
UNIT COSTS (TRAFFIC COUNTS) - OPTIONAL ADDITIONAL										\$3,780.00
GRAND TOTAL										\$218,164.86

Other Direct Expenses					
	Unit	Fixed Cost	Rate		
				Quantity	Total Cost
Travel					
Mileage	mile	Current State Rate	\$0.655	36	\$23.58
Toll Charges	trip		\$20.00		\$0.00
Total Direct Expenses					\$23.58

AIG Tech

Attachment A
Estimated FeeProfessional Engineering Services to Fort Bend County
for Clodine Road - Segment 1

Traffic and Traffic Signal Timing Unit Costs				
<u>Services To Be Provided</u>	<u>Unit</u>	<u>Rate</u>	<u>Quantity</u>	<u>Costs</u>
Turning Movement Counts				
13-hour Turning Movement Count Major Intersection	per intersection	\$ 1,260.00	3	\$ 3,780.00
24-Hour Counts				
24-Hour 3 Vehicle Classification Main Lane Count	per lane/day	\$ 262.50	8	\$ 2,100.00
TOTAL COST				\$ 5,880.00

Traffic and Traffic Signal Timing Unit Costs (Optional Additional)*				
<u>Services To Be Provided</u>	<u>Unit</u>	<u>Rate</u>	<u>Quantity</u>	<u>Costs</u>
Turning Movement Counts				
13-hour Turning Movement Count Major Intersection	per intersection	\$ 1,260.00	3	\$ 3,780.00
TOTAL COST				\$ 3,780.00

*Optional additional traffic counts costs at driveways.



Ref: iGET-2436101

December 27, 2024

Mr. Stacy Slawinski, P.E.
County Engineer, Fort Bend County
301 Jackson
Richmond, TX 77469
281-633-7506

Attn: Mr. Austin McLean, P.E., CFM, LJA

RE: FBC Pct4 23407 – Clodine Rd (Seg 1) Approx. 4,700 LFT (N-S road from W. Bellfort Ave on the South to 1300 LFT North of Bissonnet St.) 3-lane concrete curb& gutter with storm sewer and sidewalks on both sides of the roadway.

Dear Mr. Slawinski,

iGET Services LLC is pleased to present this proposal to the Prime Consultant LJA, Program Manager Pape-Dawson, and Fort Bend County (FBC), for performing Engineering Services for the above referenced project. The scope, deliverables, schedule, and engineering fee presented in this proposal are based on our understanding from the information provided via emails from the Prime Consultant Austin McLean of LJA, and the Program Manager, Marcus Baskin from Pape-Dawson Engineers, and our subsequent discussions including the site visit.

Based on our discussions with the Prime Consultant LJA, Program Manager Pape-Dawson, and our initial assessment of the field conditions of the project location, it is our understanding that iGET's scope of work in this project consists of providing PER and PS&E for the 4,700 LF segment of the Clodine Rd, from W. Bellfort Ave on the South to 1300 LFT North of Bissonnet St., to replace the existing 2-lane asphalt road, and provide a 3-lane curb & gutter concrete roadway, with sidewalks on both sides. iGET will design the roadway with all support systems including storm sewer lines within the right of way, utility relocations, and manage ROE as needed. iGET will coordinate with LJA, who will be conducting a comprehensive H&H study, and providing data for the drainage system design for this project. Bid Phase services are included in this proposal, however, Construction Phase services are not in scope.

The proposed Clodine Rd (Seg 1) North-South corridor in iGET's Scope covers approx. 4,700 LFT from W. Bellfort Ave on the South to 1300 LFT North of Bissonnet St. The Clodine Rd segment to the North of iGET's project boundary, all the way to Beechnut Rd. will be designed by LJA. The Clodine Rd. Seg1 within iGET Scope will include the W. Bellfort Ave. intersection and the Bissonnet St. intersection.



The roadway design process will be a collaborative effort between the Design Consultant (iGET), the Program Manager (Pape-Dawson) and County staff (FBCE). Based on this understanding we propose to provide the basic services as outlined in the Scope of services shown in **EXHIBIT A**, Cost estimate in **Exhibit B**, and the Schedule in **Exhibit C**.

Please let me know if you have any questions or need clarifications. I will be pleased to answer.

Sincerely,

A handwritten signature in blue ink, appearing to read 'S. Pilla'.

Dr. Satya Pilla, P.E., PMP, ENV SP

Principal

iGET Services LLC

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

EXHIBIT A

Scope of Work

GENERAL DESCRIPTION

The FBC Precinct 4 Mobility Bond Project No. 23407 Clodine Rd. Seg1 covers a 1.44-mile (7,600 LF) Noth-South roadway from W. Bellfort Ave. to Beechnut St. iGET's scope of work in this project consists of providing Engineering Services for PER, PS&E, and Bid Phases for replacing the existing 2-lane asphalt road, and providing a 3-lane curb & gutter concrete roadway, with sidewalks on both sides. The project bounds for iGET's Scope are from W. Bellfort Ave on the South to 1300 LF North of Bissonnet St., a 4,700 LF segment of the Clodine Rd. iGET will design the roadway with all support systems including drainage elements, utility relocations, and manage ROE as needed. To accomplish the Scope of Work, iGET will coordinate with LJA for the Project Management activities, H&H data and detention design; HTS Inc. for Geotechnical Engineering; AIG Tech. for Traffic Signal design at the intersections; United Engineers for Surveying/Mapping, and LJA for SUE investigations.

In the overall Clodine Rd. Seg1 project of 1.44-mile (7,600 LF) stretch, iGET's Scope of Work comprises of PER, PS&E and Bid Phase Services for 4,700 LF segment of the corridor - from W. Bellfort Ave on the South, to 1300 LF North of Bissonnet St. iGET's Design Scope will also include the W. Bellfort Ave. intersection, and the Bissonnet St. intersection.

LJA will perform PER, PS&E and Bid Phase Services for 2,900 LF segment of the corridor beginning from the North of iGET's project boundary, all the way to Beechnut Rd. LJA will also perform H&H and drainage design for the entire stretch (7,600 LF) of the Seg1.

Construction Phase Services are not included in the Scope for this project.

GENERAL REQUIREMENTS

Design Criteria

1. The Engineer shall prepare all work in accordance with the latest version of the Fort Bend County (FBC) Engineering Design Manual, March 2022 Edition, and applicable FBC design standards and details. When design criteria are not identified in FBC manuals, the Engineer shall refer to the American Association of Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets (latest edition), TMUTCD and municipal and/or ETJ design criteria.
2. Produce roadway plans including typical-sections, specifications and estimates (PS&E) and prepare construction bid documents.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

3. All designs for the above work will be in accordance with standards for FBC Engineering Design Manual, March 2022 edition.
4. The project will have the acquisition of new right-of-way (ROW).
5. Submit 30% plans during the preliminary design phase, as well as 70%, and 95% PS&E packages for review by the Program Manager Pape-Dawson, and FBC Engineering. The final 100% set will incorporate any revisions from the Program Manager Pape-Dawson and FBC comments on the 95% set.
6. The iGET scope of the Clodine Rd Segment 1 will include the intersections at W. Belfort Ave, and Bissonnet St.
7. Provide project planning and control to include quality management
8. Provide an accurate, complete and constructible set of contract documents.
9. FBC will have the ultimate authority for determining what constitutes an accurate, complete and constructible set of contract documents.

100 - PROJECT COORDINATION/ MANAGEMENT

iGET in collaboration with LJA shall be responsible for coordinating all activities associated with the project and to deliver the work on time

110 - Project Coordination

- Provide general coordination with the Project team members concerning admin and technical issues. Report and coordinate with the Prime Consultant LJA, and Program Manager Pape-Dawson Engineers, on any design issues and requests for information.
- Internal administration of the project files. At the completion of the work, the project files will be shipped to the Program Manager Pape-Dawson Engineers, as requested.

120 - Invoicing/Progress Reports

- Prepare and submit monthly progress reports and invoices to the Prime Consultant LJA, for review and approval. The invoices will include the progress report and invoice. The progress report will list outstanding issues that need resolution, as well as progress of the tasks and estimated completion dates for the work.

130 - Project Scheduling

- Prepare an overall project design schedule detailing the progression of the work. This schedule will include review dates by the Prime Consultant LJA, submittal dates for deliverables, and estimated time frame to complete the work. The schedule will be

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

updated monthly and included in the progress report. Changes or adjustments in the schedule caused by delays due to unforeseen task difficulties or lengthy review times will be shown and reported to the Prime Consultant LJA.

140 - Progress Meetings

- Attend coordination and interim progress review meetings every month or as necessary, to be scheduled on an as-needed basis. Prepare and distribute meeting minutes within five working days after the meeting.

200 - PRELIMINARY DESIGN

The primary goals for iGET are to (1) establish a typical cross section and cross sections in non-standard areas, (2) positively determine right-of-way (ROW), (3) determine potential conflicts with existing facilities, (4) identify critical path items, (5) identify problem areas and potential resolution(s), (6) determine permit and regulatory requirements, and (7) prepare a reasonable construction cost estimate. Normally, a "30 percent" plan set will be prepared, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation. iGET will prepare a Preliminary Design Memo (PDM) and 30% design submittal as described below.

210 - Collect Existing Data

- Gather and review as-built drawings for Clodine Rd (Seg 1) and adjacent areas and roadways.
- Collect and review as-built drawings for water lines, sanitary sewers, storm sewers, channels, ditches, drainagesystems, detention basins, and other related systems in the project area.
- Collect and review drainage studies, master drainage plans, and similar related drainage, floodplain, or storm water management plans in the project area.
- Collect and review property boundaries, jurisdictional boundaries, and ROW boundary information.
- Collect and review existing traffic data, studies and plans pertaining to the project area.

220 - Conduct Field Reconnaissance

1. Perform site visits to observe and photograph existing conditions.
2. Observe existing utilities.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

3. Observe existing drainage facilities.
4. Observe existing traffic, signage, and signal facilities.
5. Observe existing vegetation and landscaping features.

230 - Utility Coordination

1. Utilities will be researched and located in the field to determine the existence and location of underground utilities (pipelines, duct banks, etc.). iGET, in collaboration with LJA shall identify and coordinate with all utility owners for relocations required. Any subsurface utility investigation (SUI) should be at the expense of the utility company. Utility company signatures will not be required on completed drawings.
2. Perform records research and field visits to determine the presence of underground or overhead private or public utilities. Collect as-built plans and/or maps from all utilities having facilities within the project limits.
3. Send records requests to utility companies and obtain I.D. numbers (CenterPoint and AT&T)
4. Coordinate with the Prime Consultant LJA, Program Manager Pape-Dawson, FBC, and adjacent MUDs during the identification of utility conflicts.
5. Depict utilities to a reasonable degree of accuracy on the plan and profile drawings.
6. Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required.
7. Develop designs to avoid and/or minimize conflicts with existing and proposed utilities.
8. Send roadway design plans to all utility owners. Coordinate relocations or adjustments with utility owners.

240 - Traffic Studies

1. The Prime Consultant LJA, Program Manager Pape-Dawson, and FBC will provide current and future traffic information and any previously completed Traffic Studies applicable to the project area.
2. Utilize existing traffic data and define any required future improvements at the intersections and provide an ultimate intersection design.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

260 – Drainage Design and Coordination with LJA

1. LJA will be performing a comprehensive H&H study for this project. iGET team will coordinate with LJA for acquiring the H&H study outcome as input data for the Drainage Design for the roadway segment within iGET's scope, and also stay aligned with the overall roadway design. iGET will perform field visits, review the previous studies and record drawings applicable to the project area, and also review the drainage design deliverables provided by LJA, to the extent required for design integration into the roadway segment within iGET's scope.

270 - Review and Identify Right-of-Way Requirements

1. The project is to be designed within the existing ROW, and also in the new ROW where the proposed Clodine Rd (Seg1) alignment will be relocated.
2. Evaluate proposed roadway design alignments and identify the right of way requirements for the intersecting crossroad.
3. Identify any design elements (sight triangles, traffic signal corner clips, additional turn bays, etc.) that may require additional ROW.

280 - 30% Design Drawings

1. Provide 30% submittals for the design, for interim progress reviews by the Program Manager Pape-Dawson and FBC.
2. Prepare and submit a set of 30% design drawing on 11"x17" plan sheets for review by the Program Manager Pape-Dawson and FBC. The 30% design plans will include the following design sheets:
 - a. Draft Cover Sheet
 - b. Typical Sections
 - c. Plan & Profile Sheets
 - d. Intersection Layouts
 - e. Drainage Area Maps from LJA
 - f. Drainage Design Layout
 - g. Existing Utility Layout
 - h. Bride layout will be attached, if available from TXDOT at the time of submittal.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

290 - Preliminary Engineering Report (PER)

1. Collaborate with the Prime Consultant LJA to prepare and submit a draft letter report (3 copies) entitled Preliminary Engineering Report (PER) which will
 - a. Briefly summarize existing conditions in narrative and photographic format
 - b. Identify key design issues and how they should be addressed
 - c. Identify utility conflicts
 - d. Identify critical path items
 - e. Identify proposed access, detour, and traffic control approaches to support construction activities
 - f. Recommend appropriate construction phasing
 - g. Recommend appropriate pavement type and cross section
 - h. Recommend any required structures or cross culverts
 - i. Recommend location and number of left turn lanes and median cuts
 - j. Recommend signalization, if warranted
 - k. Recommend appropriate drainage system design elements
 - l. Incorporate a Geotechnical Report
 - m. Identify ROW needs
 - n. Prepare an engineer's construction cost estimate.
2. Present PER
3. Prepare and submit a final PER based on FBC written comments.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

300 - FINAL DESIGN PHASE

Provide detailed construction plans, specifications, final design calculations and estimates as necessary for the design of half-boulevard, along with the sidewalk and storm sewers, for the proposed Clodine Rd (Seg1) based on the scope of work provided above and the results of the Preliminary Engineering Phase defined in the PDM and approved by the Program Manager Pape-Dawson and FBC. Typical items during this phase include the following:

310 - Utility Coordination

1. Continue to provide utility coordination to address any potential conflicts on the project including the development of designs to avoid and/or minimize conflicts with existing and proposed utilities
2. Submit milestone-level drawings to applicable utility companies for their review.
3. If conflict exists with a waterline or Sanitary Sewer, iGET is to prepare design plans unless otherwise coordinated with MUD

320 - Roadway

1. Prepare the roadway design and develop the final drawings. The following tasks describe the work to be performed:
 - Conduct field trips to the project site to investigate and confirm data and assumptions and assess general conditions as needed
 - Geometric Design - using previously approved plans provided, define the horizontal and vertical alignments and typical sections to meet project requirements.
 - Prepare plan and profile sheets for roadway to a scale of 1"=40' horizontal and 1"=4' vertical on 11"x17" format sheets.

330 - Drainage Design Coordination with LJA

1. iGET team will closely work with the Prime Consultant LJA, for acquiring the H&H data, and performing the Drainage Design within iGET's scope, and aligning with the overall drainage system design. iGET will perform field visits, review the previous studies and record drawings applicable to the project area, and also review the data provided by LJA, to the extent required for design integration into the overall design.

340 - Storm Water Pollution Prevention Plans (SW3P)

iGET shall develop SW3P, on separate sheets consistent with the project construction phases, to minimize sediment discharge from the project site through runoff to receiving waterways.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

1. Prepare an erosion control plan at a 1" = 100' scale or as directed by FBC. The plan will identify the SW3P components that will mitigate the impacts of construction activities. An Erosion Control Plan will be prepared in compliance with FBC regulations and in accordance with the current Texas Commission on Environmental Quality (TCEQ), TPDES General Permit for storm water discharges associated with construction activities.

350 - Construction Sequencing and Traffic Control

1. Prepare traffic control plans and details. The traffic control work consists of preparation of Traffic Control Plans (TCP), specifications and general notes, and cost estimate for the various traffic control measures.
2. The Engineer shall prepare a TCP with proposed phasing of construction at a scale of 1" = 100' or as directed by FBC. The plan shall identify advanced warning signs on approaches, work areas, temporary paving, temporary signing, detour alignment (approved by FBC), barricades, and other TCP related items. A narrative will be prepared and submitted to the County for review and incorporation into the plans.

360 - Pavement Marking and Signing

1. Prepare Pavement Marking and Signing Plans for the project as necessary and defined in the PER, including modifications to existing signage and cross streets.

372 - General Notes and Specifications

1. Coordinate and combine general notes and specifications applicable to the project design. Prepare final general notes documents and specification list in Microsoft Word format. Use Fort Bend County Design Manual, and Harris County Public Infrastructure Department Standard Engineering Design Specifications for Construction and Maintenance of Roads and Bridges dated 2012, unless instructed otherwise.

374 - Miscellaneous Drawings and Tasks

1. Project Title Sheet- iGET shall prepare a title sheet to be used for the construction plans.
2. Index of Sheets- iGET will complete a detailed Index of Sheets that identifies each sheet location in the plan set, as well as its corresponding sheet number. The Index of Sheets will be updated throughout the submittal process to allow for easier reference during the review process.
3. Horizontal Data Sheet- iGET shall prepare Horizontal Data Sheets.
4. Coordinate the tasks for ROW acquisition as needed.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.

382 - Quantity Take-offs and Quantity Summaries

1. Quantities for construction bid items will be calculated. The quantities will be summarized in tables and organized according to the bid item codes that will be used for construction. A quantity spreadsheet, organized by item per sheet and totaled for the item and the project, will be included with each submittal to the Prime Consultant LJA, Program Manager Pape-Dawson and FBC.

384 - Construction Cost estimate

1. An estimate of the construction costs will be prepared based on plan quantities in standard Fort Bend County bid format at the 70%, 95%, and final submittal stages of the project. More detailed and refined quantities will be updated for each successive submittal. All estimates shall also be submitted in Microsoft Excel format.

390 - Preparation and Submittal of PS&E

1. Provide submittals for the design, including drainage design, for interim progress reviews by the Program Manager Pape-Dawson, and FBC at the 70%, 95%, and final completion stage. Incorporate plan sheets and submittals prepared by any subconsultants for this project. All submittals will follow the FBC requirements for content.
2. Three (3) copies of the 70 percent submittal will be required for County review, and drawings can be submitted on 11"x17" sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.
3. The 70 percent submittal should include the following:
 - a. Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)
 - b. Typical and non-standard cross sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
 - c. Overall project layout (scale as appropriate with sheet references left blank since they are subject to change in subsequent submittals)
 - d. Survey control map
 - e. Drainage area map with hydraulic calculations (display calculations clearly for future use by area developers)

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.


- f. Plan and profile sheets (1" =20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; separate drawings for roadway and storm sewer are not necessary; detailed callouts not required at 70%)
 - g. Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged)
 - h. Storm Water Pollution Prevention Plan (drawings and text; drawings may consist of a layout and details)
 - i. Specification table of contents (use Fort Bend County Specifications)
 - j. Bid form with estimated unit and total costs (spreadsheet based)
4. Three (3) copies of the 95 percent submittal will be required for County review and can be submitted on 11'x17" sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.
5. The 95 percent submittal should be considered complete with 95% interim seal, and shall include all of the 70 percent requirements plus the following:
- a. General notes sheet
 - b. Verify earthwork quantities with cross sections at 100-foot intervals (only non-standard sections should be included in plans)
 - c. Signage and pavement marking plans (signs may be shown on plan and profile sheets and use of pavement marking standards is encouraged)
 - d. Standard construction details
 - e. Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
 - f. Responses to 70 percent comments
6. The 100 percent design submittal shall consist of one sealed and signed set of drawings delivered to the County, along with a PDF submittal of the drawings, specifications and estimate sent to the Project Manager. Final design efforts will be considered complete when the County has approved the documents as evidenced by the County Engineer's signature on the drawings.
7. The final complete (Bid Ready) submittal shall include the electronic files of the Bid Ready set of drawings and specifications and Project Manual in Adobe Acrobat (pdf) format. The entire set of construction drawings will be single file in PDF format. Except for the cover sheet, which contains approval signature(s), all drawings may be printed directly to Adobe Acrobat format with electronic seal and signature. These electronic media will be delivered to the County Purchasing Agent for advertising, and also will be provided to the Program Manager. Printed documents are not required.

FBC Pct4 23407 – Clodine Rd (Segment 1)
4,700 LF of 3-lane concrete roadway w/curb and gutter, storm sewer, and
sidewalks on both sides.


400 - BID PHASE


410 - Bid Phase Meetings


1. Attend Pre-bid meeting as required, furnish revisions related to an addendum, if required.
2. The-Purchasing-Agent will forward bidder questions to the Design Consultant, Answers to the questions, as well as any other required changes, will be included in an addendum, prepared by the Design Consultant if necessary. The Purchasing Agent will distribute the addendum.
3. Bid Tabulation and recommendation of award will be performed by the Program Manager for FBC.

		"EXHIBIT B"					2023 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE		
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
SUMMARY									TOTAL COSTS BY TASK
BASIC SERVICES - To be Provided by iGET Services LLC	Payment Basis								
100 - PROJECT COORDINATION/MANAGEMENT	Lump Sum								\$ 29,530.00
200 - PRELIMINARY ENGINEERING	Lump Sum								\$ 203,635.00
300 - DESIGN PHASE	Lump Sum								\$ 309,890.00
500 - CONTRACT -CONSTRUCTION PHASE	Time & Materials								\$ 9,310.00
ADDITIONAL SERVICES - To be Provided by Subconsultants									
212 - GEOTECHNICAL (Terracon - See attached Budget)	Lump Sum								\$ -
214 SURVEY (Landtech - See attached Budget)	Lump Sum								\$ -
GRAND TOTAL									\$ 552,365.00

SUMMARY	
BASIC SERVICES - iGET	\$ 552,365.00
ADDITIONAL SERVICES	\$ -
GRAND TOTAL	\$ 552,365.00


		"EXHIBIT B"				2023 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE			
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
100-PROJECT COORDINATION/ MANAGEMENT									
110 - PROJECT COORDINATION	8	32		16	16				72
120 - INVOICES/PROJECT PROGRESS REPORTS	0	12						0	12
130 - PROJECT SCHEDULING	4	16							20
140 - PROGRESS MEETINGS	6	32		16					54
Project Management & Meetings									
HOURS SUBTOTALS	18	92		32	16			0	158
TOTAL LABOR COSTS	\$ 4,320.00	\$ 17,940.00		\$ 4,800.00	\$ 1,920.00			\$ -	\$ 28,980.00
SUBTOTAL									\$ 28,980.00
DIRECT EXPENSES PROJECT COORDINATION									
MILEAGE f@ \$0.545 Der mile									\$ -
PHOTO COPIES (BW - 8 1/2" x 11"; @ \$0.10 per copy)			500	\$ 0.10					\$ 50.00
PHOTO COPIES (BW - 11" x 17"; @ \$0.20 per copy)			500	\$ 0.20					\$ 100.00
PHOTO COPIES (Color - 8 1/2" x 11"; @ \$0.70 per copy)			250	\$ 0.70					\$ 175.00
PHOTO COPIES (Color - 11" x 17"; @ \$1.50 per copy)			150	\$ 1.50					\$ 225.00
SUBTOTAL									\$ 550.00
100-PROJECT COORDINATION/MANAGEMENT SUBTOTAL									\$ 29,530.00
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 76.67	\$ 66.67	\$ 60.00	\$ 50.00	\$ 40.00	\$ 36.67	\$ 25.00	\$ 24.67	
Raw Salary Multiplier (3.00)	\$ 230	\$ 200	\$ 180	\$ 150	\$ 120	\$ 110	\$ 75	\$ 74	
200 - PRELIMINARY ENGINEERING									
210 - COLLECT EXISTING DATA									
Early Stakeholder Coordination	8	56	8	66	64	16	0	16	234
Obtain related data, plans, studies and reports		24		16	16				64
				10	24	16		16	66
Review Data		16		24	24				64
Design Criteria		16	8	16					40
220 - CONDUCT FIELD RECONNAISSANCE									
	0	16	0	20	20	20	0	0	80
Multiple Site Visits to observe existing conditions - signage, utilities, apurtenances, etc. and identify Repair & Rehabilitation vs Replacements	4	16		20	20	20			80


		"EXHIBIT B"				2023 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE			
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
230- UTILITY COORDINATION	4	32	0	48	56	0	30	8	178
Identify Existing Utilities and Owners		8		8	8				24
Determine Potential Conflicts and Relocations		8		16	16		6		46
Prepare Utility Conflict list at 30% submittal		4		8	12				24
Develop design to avoid/minimize existing and proposed Utilities		4		4			16		24
Coordination with Utility Owners		4		8	16		8	8	44
Review Survey	4	4		4	4				16
									0
240 - TRAFFIC STUDIES	0	8	24	0	16	0	16	0	64
Intersection LOS Analysis	0	0	16	0	0	0	0	0	16
Intersection Sight Triangle Analysis		8	8		16		16		48
250 - H&H COORDINATION AND DRAINAGE DESIGN	10	44	24	40	56	8	16	0	198
Review H&H data and size conveyance system	2	12	16	24	24				78
Precinct and MUD Meetings /Coordination	4	8	0	0	0				12
Design Coordination with LJA	4	24	8	16	32	8	16		108
260 - LOW IMPACT DEVELOPMENT	0	0	0	0	0	0	0	0	0
Perform Low Impact Development Designs	0	0	0	0	0	0	0	0	
270 - REVIEW AND IDENTIFY RIGHT-OF-WAY REQUIREMENTS	2	8	0	12	0	0	0	0	22
Determine ROW Acquisition Needs	2	8	0	12	0	0	0	0	

		"EXHIBIT B"					2023 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE			
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC										
FEE SUMMARY										
iGET Services LLC										
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS	
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00		
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75		
280 - 30% DESIGN DRAWINGS	6	34	32	84	80	148	124	0	508	
Establish a Typical Cross Section		4		12					16	
Prepare 30% Plans										
Draft Cover Sheet		2		8	8	12			30	
Draft Typical Sections		2		8	8	8			26	
Plan & Profile Sheets		4		8	8	24	48		92	
Intersection Layouts		2	12	8	8	24	32		86	
Sidewalk Layouts		2	8	8	8	20	20		66	
Drainage Area Maps		0		0	0	0			0	
Drainage Design Layout	4	8	8	16	16	32			84	
Existing Utilities Layout		4	4	8	8	16	24		64	
Construction Cost Estimate	2	6		8	16	12			44	
290 • PRELIMINARY DESIGN MEMORANDUM (PER)	16	24	18	36	48	0	24	24	190	
Draft Memorandum	12	16	10	24	32		16	16	126	
Final Memorandum	4	8	8	12	16		8	8	64	
HOURS SUB-TOTALS	46	222	106	306	340	192	210	48	1470	
TOTAL LABOR COSTS	\$ 11,040.00	\$ 43,290.00	\$ 18,550.00	\$ 45,900.00	\$ 40,800.00	\$ 21,120.00	\$ 18,900.00	\$ 3,600.00	\$ 203,200.00	
SUBTOTAL									\$ 203,200.00	
DIRECT EXPENSES										
MILEAGE (@ \$0.545 per mile)									\$ -	
PHOTO COPIES (BW - 8 1/2" x 11"; @ \$0.10 per copy)			500	\$0.10					\$50.00	
PHOTO COPIES (BW - 11" x 17"; @ \$0.20 per copy)			500	\$0.20					\$100.00	
PHOTO COPIES (Color - 8 1/2" x 11"; @ \$0.70 per copy)			50	\$0.70					\$35.00	
PHOTO COPIES (Color - 11" x 17"; @ \$1.50 per copy)			100	\$1.50					\$150.00	
DELIVERIES (@ \$20.00 per delivery)			5	\$20.00					\$100.00	
SUBTOTAL									\$435.00	
200-PRELIMINARY ENGINEERING SUBTOTAL									\$203,635.00	

**"EXHIBIT B"****2023 Fort Bend County Mobility Bond Program
ENGINEERING FEE SCHEDULE**

PROJECT NAME: CLODINE RD. SEGMENT 1. CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET Services LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENG TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
300 - FINAL DESIGN PHASE									
310 - UTILITY COORDINATION	2	20	0	32	56	0	32	12	154
Identification of utility conflicts		8		16	16		0		40
Revise utility conflict list at 70% and 95% submittal		4		8	16		0	12	40
Develop design to avoid/ minimize existing and proposed Utilities	2	8		8	24		32		74
									0
320 - ROADWAY	20	80	24	120	88	56	176	20	584
Review and refine approved Preliminary Roadway Design	4	12	8	16	4		8	8	60
Geometric Roadway Design, Sidewalk Layouts	4	16	8	24	32		32		116
Prepare Existing and Proposed Typical Sections (70%- Final)		8		8	12	16	32		76
Plan and Profile Sheets (Roadway) (70%- Final) (collaborate with Drainage Design)	8	16	8	24	24	24	48		152
Cross Street / DWY Details		8		16		8	16		48
Roadway and Sidewalk Details	4	8		16		8	24	8	68
Design Cross Sections with earthwork calculations		12		16	16		16	4	64
330 - DRAINAGE DESIGN COORDINATION	8	52	8	72	72	18	52	0	282
Field Visits/ Data Verification		8		0	16		0		24
Storm Sewer Design and Hydraulic Data Sheets		12		24	32		24		92
Storm Sewer Plan and Profile design including laterals		12		24		10	0		46
Temporary Drainage Design		8		8			16		32
Design Coordination with LJA	8	12	8	16	24	8	12		88
340 - STORM WATER POLLUTION PREVENTION PLANS (SW3P)	0	8	12	16	24	32	32	0	124
Investigate and Prepare SWPPP Report		4	8	8	16	16	0		52
Prepare SWPPP Plan Sheets (70% - Final)		4	4	8	8	16	32		72
350 - CONSTRUCTION SEQUENCING AND TRAFFIC CONTROL	18	32	0	40	40	32	76	0	238
TCP Advance Warning Signs	4	8		8	12		24		56
TCP Overview & Narrative	4	8		8	12	8	12		52
Detour Plans (with County Approval Only)	2	8		8			8		26
Traffic Control Plan	8	8		16	16	24	32		104
360 - PAVEMENT MARKING AND SIGNING	4	12	8	16	24	0	40	0	104
Prepare Signing & Pavement Marking Sheets (70% - Final)	4	12	8	16	24	0	40		104
372 - GENERAL NOTES & SPECIFICATIONS	8	20	0	28	24	24	8	0	112
Develop any Special Specifications for Bid Items	4	8		12	8		0		32
Prepare Standard Specifications for Bid Items	4	8		12	8	12	0		44
Prepare General Notes		4		4	8	12	8	0	36

		"EXHIBIT B"				2023 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE			
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
374 - MISCELLANEOUS DRAWINGS/ TASKS	6	20	0	28	40	40	64	0	198
Cover Sheet & Index	2	4		4	8	8	16		42
Intersection Detail Sheets	2	8		8		0	24		42
ROW Acquisition Coordination	2	4		8	16	8	24		62
Retaining Wall Sheets If Required						0			0
Prepare Standard Details Sheets		4		8	16	24			52
382 - QUANTITY TAKE-OFFS AND QUANTITY SUMMARIES	4	8	0	8	16	16	0	0	52
Quantities (Summary Sheets - Optional) (70%, 95%, FINAL)	4	8	0	8	16	16			52
384 - CONSTRUCTION COST ESTIMATES	2	8	0	8	16	0	0	0	34
Construction Cost Estimate (0%, 95%, FINAL)	2	8	0	8	16	0			34
390 - PREPARATION AND SUBMITTAL OF PS&E	14	64	24	64	96	32	168	0	462
70% PS&E SUBMITTALS	4	24	16	24	32	16	64		180
Responses to Comments	2	8	4	8	16	0	32		70
95% PS&E SUBMITTAL\$	4	8		8	24	8	32		84
Responses to Comments		8	4	8	16	0	16		52
100% PS&E SUBMITTALS	4	8			8	8	24		52
Bid Form				8					8
Utility & Aaencv Aoorovals & Signatures		8		8					16
HOURS SUBTOTALS	86	324	76	432	496	250	648	32	2344
TOTAL LABOR COSTS	\$20,640.00	\$63,180.00	\$13,300.00	\$64,800.00	\$59,520.00	\$27,500.00	\$58,320.00	\$2,400.00	\$309,660.00
SUBTOTAL									\$309,660.00
DIRECT EXPENSES									
MILEAGE (@ \$0.545 per mile)									\$ -
PHOTO COPIES (BW - 8 1/2" x 11"; @ \$0.10 per copy)			200	\$ 0.10					\$ 20.00
PHOTO COPIES (BW - 11" x 17"; @ \$0.20 per copy)			200	\$ 0.20					\$ 40.00
PHOTO COPIES (Color - 8 1/2" x 11"; @ \$0.70 per copy)			50	\$ 0.70					\$ 35.00
PHOTO COPIES (Color - 11" x 17"; @ \$1.50 per copy)			50	\$ 1.50					\$ 75.00
									\$ -
DELIVERIES (@ \$20.00 per delivery)			3	\$ 20.00					\$ 60.00
SUBTOTAL									\$ 230.00
300-DESIGN PHASE SUBTOTAL									\$309,890.00

		"EXHIBIT B"					2020 Fort Bend County Mobility Bond Program ENGINEERING FEE SCHEDULE		
PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT) CONTRACT NUMBER: 23407 SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET SERVICES LLC									
FEE SUMMARY									
iGET Services LLC									
TASK DESCRIPTION	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	EIT	SENIOR ENGINEER TECH	CADD TECHNICIAN	CLERICAL	TOTAL LABOR HRS. & COSTS
Raw Salary	\$ 80.00	\$ 65.00	\$ 58.33	\$ 50.00	\$ 40.00	\$ 36.67	\$ 30.00	\$ 25.00	
Raw Salary Multiplier (3.00)	\$ 240	\$ 195	\$ 175	\$ 150	\$ 120	\$ 110	\$ 90	\$ 75	
400 - BID PHASE									
410 - BID PHASE	8	16	0	24	4	0	0	0	52
Project Manual & Plans (PDF Format on Compact Disc *28)	4			8	4				16
Attend Pre-Bid Meeting		4		4					8
Answer Bidder Questions & Addendum	4	12		12					28
HOURS SUB-TOTALS FOR BID AND CONSTRUCTION PHASES	8	16	0	24	4	0	0	0	52
Utility & Agency Approvals & Signatures	\$1,920.00	\$3,120.00	\$0.00	\$3,600.00	\$480.00	\$0.00	\$0.00	\$0.00	\$9,120.00
SUBTOTAL									\$9,120.00
DIRECT EXPENSES									
MILEAGE (@ \$0.545 per mile)									\$ -
PHOTO COPIES (BW - 8 1/2" x 11"; @ \$0.10 per copy)			200	\$ 0.10					\$ 20.00
PHOTO COPIES (BW - 11" x 17"; @ \$0.20 per copy)			200	\$ 0.20					\$ 40.00
PHOTO COPIES (Color - 8 1/2" x 11"; @ \$0.70 per copy)			50	\$ 0.70					\$ 35.00
PHOTO COPIES (Color - 11" x 17"; @ \$1.50 per copy)			50	\$ 1.50					\$ 75.00
DELIVERIES (@ \$20.00 per delivery)			1	\$ 20.00					\$ 20.00
SUBTOTAL									\$ 190.00
500 - CONTRACT- CONSTRUCTION PHASE SUBTOTAL									\$9,310.00
SUBTOTAL BASIC SERVICES									

**"EXHIBIT C"**
**2023 Fort Bend County
Mobility Bond Program
ENGINEERING DESIGN SCHEDULE**

PROJECT NAME: CLODINE RD. SEGMENT 1 (4,700 LFT)
CONTRACT NUMBER: 23407
SUB CONSULTANT FOR THE ROADWAY DESIGN: iGET Services LLC

Activity		Duration
Preliminary Engineering	Surveying, Geotechnical Investigation	45 days
	Preliminary Engineering (PER) (Begins after 30 days from the Start of Survey)	
	Geometric Design, Traffic, Drainage Design, Utilities Coordination	60 days
	Draft PER	15 days
	TOTAL	120 days
	PER Reviews and Approval by County and Coordination with TXDOT	45 days
Design Phase	Parcel Mapping (Concurrent with PER Reviews)	30 days
	Detailed Design	
	Roadway Design, Sidewalk Design, Drainage & Detention Design, Utilities Conflict Resolutions, M&B for ROW Acquisition	90 days
	70% Construction Plans Submittal	30 Days
	Review and Approval	30 days
	Bid Ready 95% Submittal	30 days
	Review and Approval	30 days
	Final Plans 100% Approval	30 days
	Final Plans Review and Approval (County and TXDOT)	30 days
Bidding Phase	Bidding and Award	60 days
Construction Phase	Not Proposed	-
	TOTAL	405 days



United Engineers, Inc.

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

December 11, 2024

Austin McLean, P.E., CFM
LJA Engineering, Inc.
3600 W. Sam Houston Pkwy S.,
Houston, Texas 77042

**Re: Survey Proposal for Clodine Road from Beechnut St. to W. Bellfort Ave.
UEI Proposal P2024-12-11**

Mr. Mclean:

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 (AREA 1-6):

1. Right of Entry (ROE) Letters (Area 1-6):

- 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 (Area 1-6):

- 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. ROW Parcel Acquisition (Five Tracts, Area 1-6):

- a. Provide Category 1A, Condition II (ROW Parcel Acquisition for Proposed Basin, see Exhibit "A")
- b. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey. This will be provided for all

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

the properties on all four corners of the intersection where the right of way takings will occur.

- c. UEI is set all parcel corners prior to signing and sealing parcel acquisition plats.
- d. UEI will provide parcel plats and metes and bounds for (5) five parcels.

4. Category 6, Condition II (Topographic Survey) from Beechnut Street to W. Bellfort Avenue, (Approx. 10,350 LF in existing right of way) (Area 1-6):

- 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, 250 feet each direction along Beechnut, Bissonnet and W. Bellfort, also extend 100 feet each direction along all other side streets and extend 300 feet each direction along Keegans Bayou.
- c. Topographic Survey will extend 25' beyond the existing ROW where possible and utilize ROE's that were approved by property owners. This will be surveyed after existing ROW has been surveyed.
- d. Topographic Survey will extend 150' east and west in undeveloped tracts of land that abut the right of way.
- e. Place 811 ONE CALL and all locates will be surveyed in.
- f. UEI will coordinate with all pipelines within the project limits and survey in or probe those pipelines to verify depths.
- g. UEI will provide SAG elevations/heights on lowest aerial cable/line attaching to existing poles crossing the existing ROW survey limits.
- h. UEI will tie in the construction joints and redline sensors at all the newly constructed intersections, including W. Bellfort, Bissonnet and Beechnut.

5. CAD Services (Utility Base Plan and Profile) (Area 1-6):

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

6. Existing Topo/ROW Survey Maps (Area 1-6):

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

7. Survey Control Maps (Area 1-6):

- a. Generate Survey Control Maps for the project area.
- b. UEI will try and provide a differential between LIDAR 18 and this survey, monuments would be needed, or manholes might work.

SCOPE OF SURVEY SERVICES (AREA 8):

1. Right of Entry (ROE) Letters (Area 8):

- 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.

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

- 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 (Area 8):

- 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 Beechnut Street to W. Bellfort Avenue, (Approx. 200 LF inside of plant) (Area 8):

- a. Standard Topographic survey, see limits defined in Exhibit "B" and include 100' cross sections along route survey.
- b. Topographic Survey will extend outside of the row approximately 25 feet into the private property of the water plant.
- c. Place 811 ONE CALL and all locates will be surveyed in.

4. CAD Services (Utility Base Plan and Profile) (Area 8):

- 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 (Area 8):

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

6. Survey Control Maps (Area 8):

- a. Generate Survey Control Maps for the project area.
- b. UEI will try and provide a differential between LIDAR 18 and this survey, monuments would be needed, or manholes might work.

ADDITIONAL SCOPE OF SURVEY SERVICES (UVE):

1. Proposed Unrestricted Visibility Easement (UVE), ROW Parcel Acquisition (4) Four Parcels:

- a. Recon and utilize existing Control from Area 1-6, see Exhibit "A".
- b. Provide Category 1A, Condition II (ROW Parcel Acquisition for UVE.
- c. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey. This will be provided for all the properties on all four corners of the intersection where the right of way takings will occur.

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

- 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 (4) four parcels.

2. Re-stake ROW and Survey Control (Two separate project visits):

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

.....

ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 7):

1. Right of Entry (ROE) Letters (Area 7):

- 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 (Area 7):

- 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. Proposed Basin, ROW Parcel Acquisition (Three Tracts, R46477, R130169 & R162942 (Approx. 600,000 SQ FT) (Area 7):

- a. Provide Category 1A, Condition II (ROW Parcel Acquisition for Proposed Basin, see Exhibit "C"
- b. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey. This will be provided for all the properties on all four corners of the intersection where the right of way takings will occur.
- c. UEI is set all parcel corners prior to signing and sealing parcel acquisition plats.
- d. UEI will provide parcel plats and metes and bounds for (3) three parcels.

4. Proposed Basin, Category 6, Condition II (Topographic Survey) (Three Tracts, R46477, R130169 & R162942 (Approx. 600,000 Sq Ft) (Area 7):

- a. Standard Topographic survey, see limits defined in Exhibit "C" and include shots at all grade breaks.

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

- b. Place 811 ONE CALL and all locates will be surveyed in.
- c. UEI will coordinate with all pipelines within the project limits and survey in or probe those pipelines to verify depths.

5. CAD Services (Utility Base Plan and Profile) (Area 7):

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

6. Existing Topo/ROW Survey Maps (Area 7):

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

7. Survey Control Maps (Area 7):

- a. Generate Survey Control Maps for the project area.
- b. UEI will try and provide a differential between LIDAR 18 and this survey, monuments would be needed, or manholes might work.

.....
ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 9):

1. Right of Entry (ROE) Letters (Area 9):

- 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 (Area 9):

- 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. Proposed Basin, ROW Parcel Acquisition (One Tract, R46427 (Approx. 396,000 SQ FT) (Area 9):

- a. Provide Category 1A, Condition II (ROW Parcel Acquisition for Proposed Basin, see Exhibit "D")
- b. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey. This will be provided for all

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

the properties on all four corners of the intersection where the right of way takings will occur.

- c. UEI is set all parcel corners prior to signing and sealing parcel acquisition plats.
- d. UEI will provide parcel plats and metes and bounds for (3) three parcels.

4. Proposed Basin, Category 6, Condition II (Topographic Survey) (One Tract, R46427 (Approx. 396,000 SQ FT) (Area 9):

- a. Standard Topographic survey, see limits defined in Exhibit "D" and include shots at all grade breaks.
- b. Place 811 ONE CALL and all locates will be surveyed in.
- c. UEI will coordinate with all pipelines within the project limits and survey in or probe those pipelines to verify depths.

5. CAD Services (Utility Base Plan and Profile) (Area 9):

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

6. Existing Topo/ROW Survey Maps (Area 9):

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

7. Survey Control Maps (Area 9):

- b. Generate Survey Control Maps for the project area.
- c. UEI will try and provide a differential between LIDAR 18 and this survey, monuments would be needed, or manholes might work.

ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 10):

1. Right of Entry (ROE) Letters (Area 10):

- 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 (Area 10):

- 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.

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

3. Proposed Basin, ROW Parcel Acquisition (One Tract, R321692 (Approx. 275,000 SQ FT) (Area 9):

- a. Provide Category 1A, Condition II (ROW Parcel Acquisition for Proposed Basin, see Exhibit "E"
- b. UEI will provide Limited Title Report for all abstracting requested and identify all current property owners at the time of survey. This will be provided for all the properties on all four corners of the intersection where the right of way takings will occur.
- c. UEI is set all parcel corners prior to signing and sealing parcel acquisition plats.
- d. UEI will provide parcel plats and metes and bounds for (3) three parcels.

4. Proposed Basin, Category 6, Condition II (Topographic Survey) (One Tract, R321692 (Approx. 275,000 SQ FT) (Area 10):

- a. Standard Topographic survey, see limits defined in Exhibit "E" and include shots at all grade breaks.
- b. Place 811 ONE CALL and all locates will be surveyed in.
- c. UEI will coordinate with all pipelines within the project limits and survey in or probe those pipelines to verify depths.

5. CAD Services (Utility Base Plan and Profile) (Area 10):

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

6. Existing Topo/ROW Survey Maps (Area 10):

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

7. Survey Control Maps (Area 10):

- c. Generate Survey Control Maps for the project area.
- d. UEI will try and provide a differential between LIDAR 18 and this survey, monuments would be needed, or manholes might work.

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 60 working days (Area 1-6), 30 working days (Area 7) and 40 working days (Area 8).

The Parcel Plats and metes and bounds will take approximately 10 additional working days (Proposed Basin, Area 7) and approximate 10 additional working days (UVE's). These timeframes are after the survey is completed in Areas 1-6. These timeframes are contingent on weather conditions and holidays.

UEI's deliverables for the topographic survey will be an ascii file, base plan drawing in AutoCAD and MicroStation 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 responsible for the

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

project. Parcel Plats and Metes and Bounds signed and sealed by the Registered Professional Land Surveyor if Additional Services are approved.

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 (AREA 1-6):

Item #1: Right of Entry	\$ 5,600.00
Item #2: Horizontal and Vertical Control Datum	\$ 19,000.00
Item #3: ROW Acquisition (\$3,900 per Parcel x 5 Parcels)	\$ 19,500.00
Item #4: Topographic Survey	\$ 63,480.00
Item #5: CAD Services Utility Base Plan	\$ 18,360.00
Item #6: Existing Topo/ROW Survey Maps	\$ 36,600.00
Item #7: Survey Control Maps	\$ 18,240.00
Total	\$180,780.00

SCOPE OF SURVEY SERVICES (AREA 8):

Item #1: Right of Entry	\$ 280.00
Item #2: Horizontal and Vertical Control Datum	\$ 1,180.00
Item #3: Topographic Survey	\$ 980.00
Item #4: CAD Services Utility Base Plan	\$ 1,090.00
Item #5: Existing Topo/ROW Survey Maps	\$ 1,060.00
Item #6: Survey Control Maps	\$ 530.00
Total	\$ 5,120.00

Mr. Austin Mclean, P.E., CFM
 Survey Proposal for Clodine Road
 UEI Proposal P2024-12-11

ADDITIONAL SCOPE OF SURVEY SERVICES (UVE):

Item #1: UVE - ROW Acquisition (\$3,900 per Parcel x 4 Parcels)	\$ 15,600.00
Item #2: Re-stake ROW and Survey Control (\$4,660.00 x 2)	<u>\$ 9,320.00</u>
Total	\$ 24,920.00

.....

ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 7):

Item #1: Right of Entry	\$ 2,240.00
Item #2: Horizontal and Vertical Control Datum	\$ 6,880.00
Item #3: Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 3 Parcels)	\$11,700.00
Item #4: Topographic Survey	\$10,760.00
Item #5: CAD Services Utility Base Plan	\$ 4,920.00
Item #6: Existing Topo/ROW Survey Maps	\$ 6,600.00
Item #7: Survey Control Maps	<u>\$ 5,160.00</u>
Total	\$48,260.00

.....

ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 9):

Item #1: Right of Entry	\$ 1,750.00
Item #2: Horizontal and Vertical Control Datum	\$ 3,600.00
Item #3: Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 1 Parcel)	\$ 3,900.00
Item #4: Topographic Survey	\$ 6,030.00
Item #5: CAD Services Utility Base Plan	\$ 3,100.00
Item #6: Existing Topo/ROW Survey Maps	\$ 3,950.00

Mr. Austin Mclean, P.E., CFM
Survey Proposal for Clodine Road
UEI Proposal P2024-12-11

Item #7: Survey Control Maps	<u>\$ 3,350.00</u>
Total	\$25,680.00

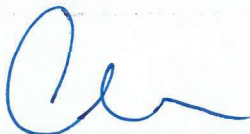
ADDITIONAL SCOPE OF SURVEY SERVICES (AREA 10):

Item #1: Right of Entry	\$ 1,750.00
Item #2: Horizontal and Vertical Control Datum	\$ 3,600.00
Item #3: Proposed Basin - ROW Acquisition (\$3,900 per Parcel x 1 Parcel)	\$ 3,900.00
Item #4: Topographic Survey	\$ 6,030.00
Item #5: CAD Services Utility Base Plan	\$ 3,100.00
Item #6: Existing Topo/ROW Survey Maps	\$ 3,950.00
Item #7: Survey Control Maps	<u>\$ 3,350.00</u>
Total	\$25,680.00

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

Sincerely,

UNITED ENGINEERS, INC.



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

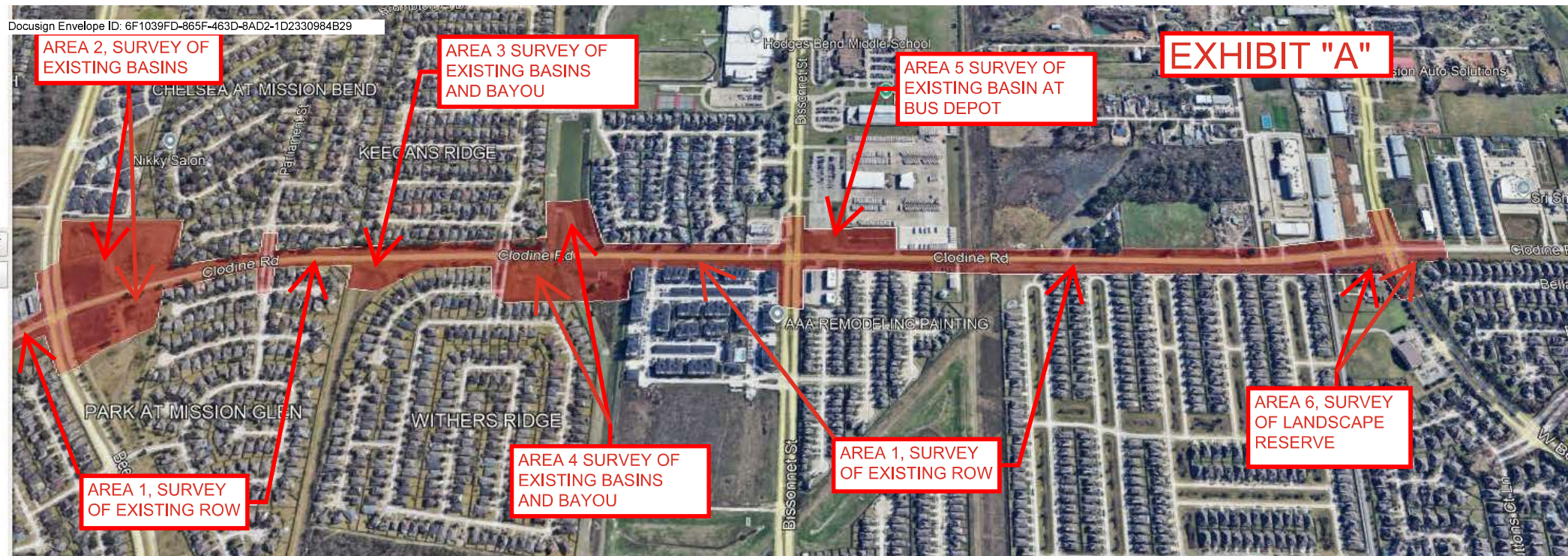


EXHIBIT "B"

AREA 8, SURVEY
STRUCTURES
WITHIN 60 FEET
OF THE EXISTING
ROW



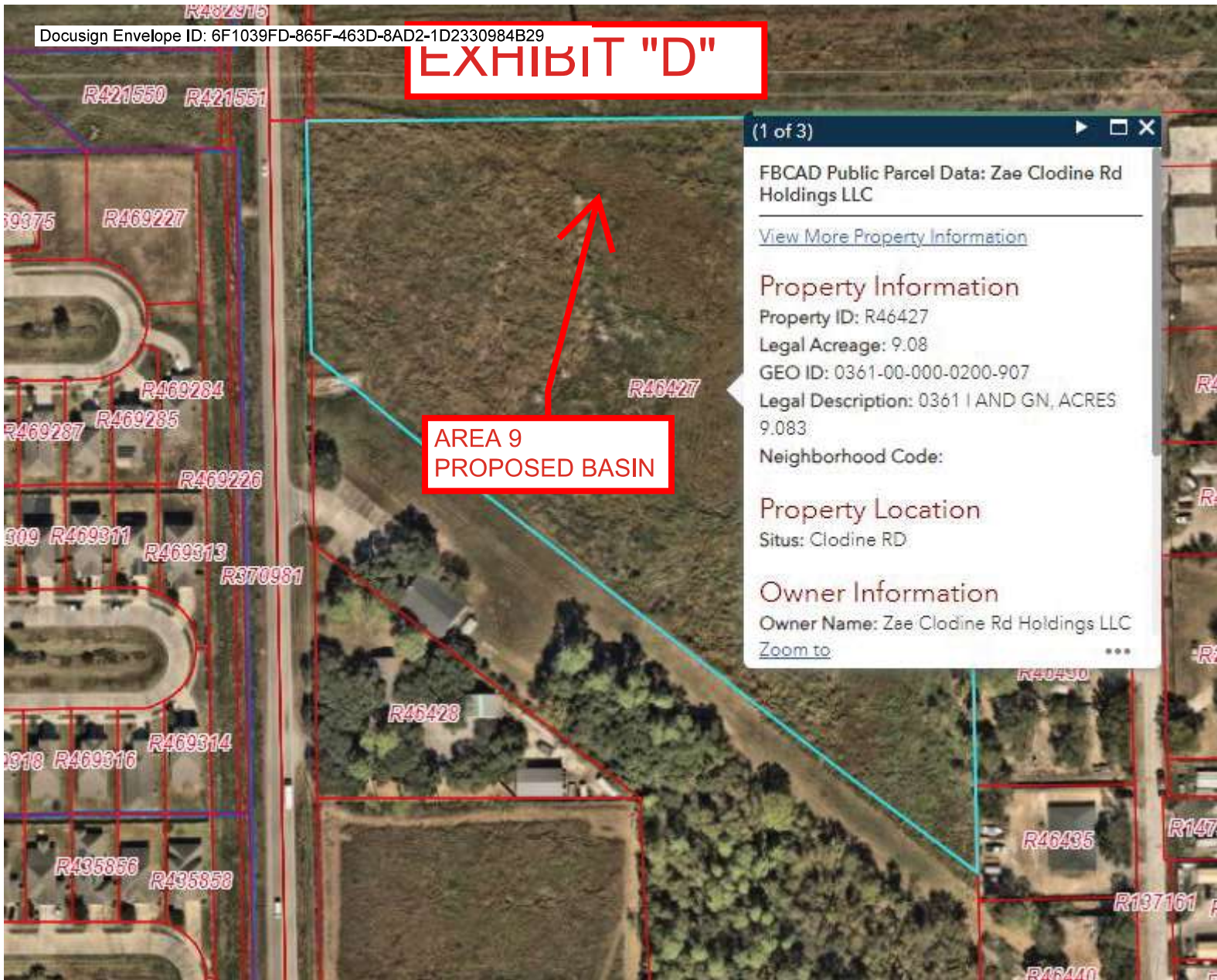
EXHIBIT "C"

AREA 4 SURVEY OF
EXISTING BASINS
AND BAYOU

AREA 7
PROPOSED BASIN



EXHIBIT "D"



(1 of 3)

FBCAD Public Parcel Data: Zae Clodine Rd Holdings LLC

[View More Property Information](#)

Property Information

Property ID: R46427

Legal Acreage: 9.08

GEO ID: 0361-00-000-0200-907

Legal Description: 0361 LAND GN, ACRES 9.083

Neighborhood Code:

Property Location

Situs: Clodine RD

Owner Information

Owner Name: Zae Clodine Rd Holdings LLC

[Zoom to](#)

...

EXHIBIT "E"



TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		40					40	
							0	
Set Horizontal and Vertical Control			40			40	80	
							0	
GPS Control and Define Datum				32	32	32	96	
							0	
Process GPS and produce Control Layout	8	8					16	
							0	
Topographic Survey			168				168	
							0	
Locate and tie Right of Way or Property Lines	8	40					48	
							0	
Process control and topographic survey		24					24	
							0	
Draft ROW/Topographic survey plat	4	264					268	
							0	
Survey Control Map	4	80	24				108	
							0	
COH Site Monument							0	
		120					120	
Property Research							0	
							0	
Review Topographic Survey Plat	8						8	
							0	
Boundary Survey Plat							0	19500
							0	
One Call 811		4					4	
							0	
SUE Level B-D		80					80	
							0	
SUE Processing		16					16	
							0	
Review SUE deliverables	4						4	
							0	
Utility Coordination		24					24	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	36	700	232	32	32	72	1104	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	4.5	87.5	29	4	4	9		
TOTAL COSTS	\$9,000.00	\$98,000.00	\$46,400.00	\$4,800.00	\$1,280.00	\$1,800.00		\$161,280.00

\$180,780.00

CLODINE SURVEY AREA 8

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

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		2					2	
							0	
Set Horizontal and Vertical Control		2	4			4	10	
							0	
GPS Control and Define Datum							0	
							0	
Process GPS and produce Control Layout							0	
							0	
Topographic Survey			2			2	4	
							0	
Locate and tie Right of Way or Property Lines	1	2					3	
							0	
Process control and topographic survey							0	
							0	
Draft ROW/Topographic survey plat	1	4					5	
							0	
Survey Control Map	1	2					3	
							0	
Review Topographic Survey Plat	1						1	
							0	
One Call 811		1					1	
							0	
SUE Level B-D		2					2	
							0	
SUE Processing		1					1	
							0	
Review SUE deliverables	1						1	
							0	
Utility Coordination		2					2	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	5	18	6	0	0	6	35	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	0.625	2.25	0.75	0	0	0.75		
TOTAL COSTS	\$1,250.00	\$2,520.00	\$1,200.00	\$0.00	\$0.00	\$150.00		\$5,120.00

\$5,120.00

CLODINE SURVEY UVE RE-STAKE

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

	Hours	Hours	Hours	Hours	Hours	Hours		
TASK DESCRIPTION	RPLS	Senior Survey Tech	3-Person Survey Crew	2-Person Survey Crew	Survey GPS Instrument	Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Survey Control Map	4	8	32			32	76	
							0	
Boundary Survey Plat							0	15600
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	4	8	32	0	0	32	76	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	0.5	1	4	0	0	4		
TOTAL COSTS	\$1,000.00	\$1,120.00	\$6,400.00	\$0.00	\$0.00	\$800.00		\$9,320.00

\$24,920.00

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		16					16	
							0	
Set Horizontal and Vertical Control			16			16	32	
							0	
GPS Control and Define Datum				8	8	8	24	
							0	
Process GPS and produce Control Layout	4	4					8	
							0	
Topographic Survey			32				32	
							0	
Locate and tie Right of Way or Property Lines	2	20					22	
							0	
Process control and topographic survey		8					8	
							0	
Draft ROW/Topographic survey plat	2	36					38	
							0	
Survey Control Map	4	24	4				32	
							0	
Review Topographic Survey Plat	4						4	
							0	
Boundary Survey Plat							0	11700
							0	
One Call 811		4					4	
							0	
SUE Level B-D		8					8	
							0	
SUE Processing		8					8	
							0	
Review SUE deliverables	4						4	
							0	
Utility Coordination		8					8	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	20	136	52	8	8	24	248	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	2.5	17	6.5	1	1	3		
TOTAL COSTS	\$5,000.00	\$19,040.00	\$10,400.00	\$1,200.00	\$320.00	\$600.00		\$36,560.00

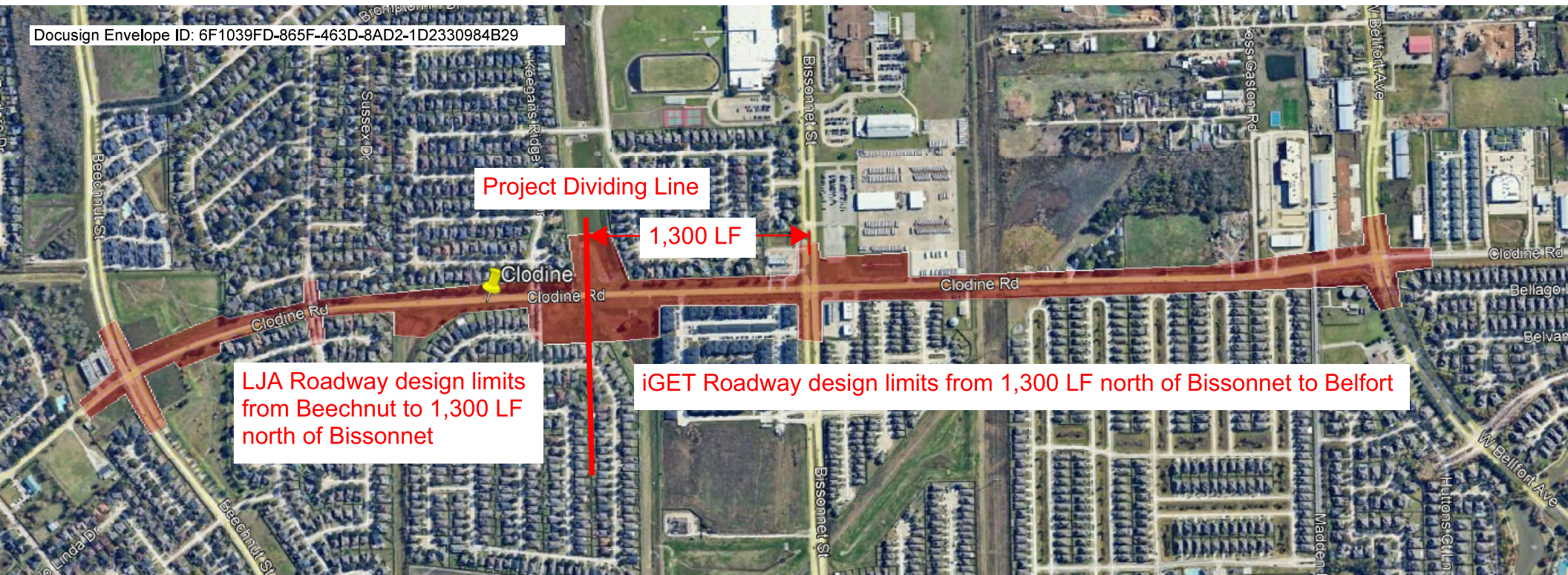
\$48,260.00

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		4					4	
							0	
Set Horizontal and Vertical Control			8			8	16	
							0	
GPS Control and Define Datum				4	4	4	12	
							0	
Process GPS and produce Control Layout	2	2					4	
							0	
Topographic Survey			24				24	
							0	
Locate and tie Right of Way or Property Lines	2	8					10	
							0	
Process control and topographic survey		4					4	
							0	
Draft ROW/Topographic survey plat	2	24					26	
							0	
Survey Control Map	4	16	4				24	
							0	
Review Topographic Survey Plat	4						4	
							0	
Boundary Survey Plat							0	3900
							0	
One Call 811		2					2	
							0	
SUE Level B-D		2					2	
							0	
SUE Processing		2					2	
							0	
Review SUE deliverables	2						2	
							0	
Utility Coordination		4					4	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	16	68	36	4	4	12	140	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	2	8.5	4.5	0.5	0.5	1.5		
TOTAL COSTS	\$4,000.00	\$9,520.00	\$7,200.00	\$600.00	\$160.00	\$300.00		\$21,780.00

\$25,680.00

TASK DESCRIPTION	Hours RPLS	Hours Senior Survey Tech	Hours 3-Person Survey Crew	Hours 2-Person Survey Crew	Hours Survey GPS Instrument	Hours Survey Crew Truck	TOTAL LABOR HRS	TOTAL LABOR COST
Right of Entry ROE		4					4	
							0	
Set Horizontal and Vertical Control			8			8	16	
							0	
GPS Control and Define Datum				4	4	4	12	
							0	
Process GPS and produce Control Layout	2	2					4	
							0	
Topographic Survey			24				24	
							0	
Locate and tie Right of Way or Property Lines	2	8					10	
							0	
Process control and topographic survey		4					4	
							0	
Draft ROW/Topographic survey plat	2	24					26	
							0	
Survey Control Map	4	16	4				24	
							0	
Review Topographic Survey Plat	4						4	
							0	
Boundary Survey Plat							0	3900
							0	
One Call 811		2					2	
							0	
SUE Level B-D		2					2	
							0	
SUE Processing		2					2	
							0	
Review SUE deliverables	2						2	
							0	
Utility Coordination		4					4	
							0	
SUBCONTRACT SERVICES							0	
TRAVEL \$.49/MILE							0	
BUSHHOGGING							0	
HYDRO-AX							0	
REPRODUCTION							0	
RECORDS FEE							0	
PERMIT FEES							0	
HOURS/MILES SUB-TOTALS	16	68	36	4	4	12	140	
LABOR RATE PER HOUR	\$250.00	\$140.00	\$200.00	\$150.00	\$40.00	\$25.00		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8		
ESTIMATED DAYS	2	8.5	4.5	0.5	0.5	1.5		
TOTAL COSTS	\$4,000.00	\$9,520.00	\$7,200.00	\$600.00	\$160.00	\$300.00		\$21,780.00

\$25,680.00



Project Dividing Line

1,300 LF

LJA Roadway design limits
from Beechnut to 1,300 LF
north of Bissonnet

iGET Roadway design limits from 1,300 LF north of Bissonnet to Belfort

LJA		CLODINE ROAD IMPROVEMENTS, SEGMENT 1, FORT BEND COUNTY, TEXAS																
ID	Task Name	Duration	Start	Finish	Predecessors	Actual Finish	% Complete	1, 2025 Feb Mar	Qtr 2, 2025 Apr May Jun	Qtr 3, 2025 Jul Aug Sep	Qtr 4, 2025 Oct Nov Dec	Qtr 1, 2026 Jan Feb Mar	Qtr 2, 2026 Apr May Jun	Qtr 3, 2026 Jul Aug Sep	Qtr 4, 2026 Oct Nov Dec	Qtr 1, 2027 Jan Feb Mar	Qtr 2, 2027 Apr May	
1	Design	539 days	Sat 3/1/25	Fri 8/21/26			NA 0%	◆ Notice To Proceed										
2	Notice To Proceed	1 day	Sat 3/1/25	Sat 3/1/25	1SS		NA 0%	■ Survey Tasks										
3	Survey Tasks	140 days	Sun 3/2/25	Sat 7/19/25	2		NA 0%	■ Geotechnical Borings/Report										
4	Geotechnical Borings/Report	150 days	Sun 3/2/25	Tue 7/29/25	2		NA 0%	■ Traffic Study										
5	Traffic Study	90 days	Sun 3/2/25	Fri 5/30/25	2		NA 0%	■ H&H Study Report										
6	H&H Study Report	150 days	Sun 3/2/25	Tue 7/29/25	2		NA 0%	■ Prepare 30% Submittal										
7	Prepare 30% Submittal	90 days	Sun 7/20/25	Fri 10/17/25	3		NA 0%	■ QAQC										
8	QAQC	7 days	Sat 10/18/25	Fri 10/24/25	7		NA 0%	◆ 30% PER Submittal										
9	30% PER Submittal	1 day	Sat 10/25/25	Sat 10/25/25	8		NA 0%	■ County Review										
10	County Review	14 days	Sun 10/26/25	Sat 11/8/25	9		NA 0%	■ Address Comments Submit Final PER										
11	Address Comments Submit Final PER	7 days	Sun 11/9/25	Sat 11/15/25	10		NA 0%	■ County Review										
12	County Review	14 days	Sun 11/16/25	Sat 11/29/25	11		NA 0%	■ Develop 70% Plans Address PER Comments										
13	Develop 70% Plans Address PER Comments	60 days	Sun 11/30/25	Wed 1/28/26	12		NA 0%	■ ROW Acquisitions (If Necessary)										
14	ROW Acquisitions (If Necessary By Others)	305 days	Thu 1/29/26	Sun 11/29/26	13		NA 0%	■ QAQC										
15	QAQC	7 days	Thu 1/29/26	Wed 2/4/26	13		NA 0%	◆ 70% Submittal										
16	70% Submittal	1 day	Thu 2/5/26	Thu 2/5/26	15		NA 0%	■ Utility Relocations										
17	Utility Relocations	280 days	Fri 2/6/26	Thu 11/12/26	16		NA 0%	■ County Review										
18	County Review	14 days	Fri 2/6/26	Thu 2/19/26	16		NA 0%	■ Address Comments & Prepare 90% Submittal										
19	Address Comments & Prepare 90% Submittal	60 days	Fri 2/20/26	Mon 4/20/26	18		NA 0%	■ QAQC										
20	QAQC	7 days	Tue 4/21/26	Mon 4/27/26	19		NA 0%	◆ 95% Submittal										
21	95% Submittal	1 day	Tue 4/28/26	Tue 4/28/26	20		NA 0%	■ County Review										
22	County Review	25 days	Wed 4/29/26	Sat 5/23/26	21		NA 0%	■ Address Comments & Prepare 100% Submittal										
23	Address Comments & Prepare 100% Submittal	45 days	Sun 5/24/26	Tue 7/7/26	22		NA 0%	■ QAQC										
24	QAQC	7 days	Wed 7/8/26	Tue 7/14/26	23		NA 0%	◆ 100% Submittal										
25	100% Submittal	1 day	Wed 7/15/26	Wed 7/15/26	24		NA 0%	■ County/City Review										
26	County Review	14 days	Thu 7/16/26	Wed 7/29/26	25		NA 0%	■ Address Comments and Prepare Final Submittal										
27	Address Comments and Prepare Final Submittal	21 days	Thu 7/30/26	Wed 8/19/26	26		NA 0%	◆ Final Submittal										
28	Final Submittal	1 day	Thu 8/20/26	Thu 8/20/26	27		NA 0%	■ Bidding & Award										
29	Bidding & Award	120 days	Fri 8/21/26	Fri 12/18/26	28		NA 0%											

Project: Schedule
Date: Mon 12/16/24

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Progress

Deadline

Page 1

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

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

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

LJA Engineering, Inc.
Houston, TX United States

Certificate Number:
2025-1274618

Date Filed:
02/26/2025

Date Acknowledged:
03/11/2025

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

Fort Bend County

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

23407
Professional Engineering Services for Fort Bend County - Clodine Road

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Ross, James, D.	Houston, TX United States	X	
	McKee, Alan B.	Houston, TX United States	X	
	Cannon, Jeff T.	Houston, TX United States	X	
	Alford, Susan D.	Houston, TX United States	X	

5 Check only if there is NO Interested Party.

☐**6 UNSWORN DECLARATION**

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

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

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

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

Signature of authorized agent of contracting business entity
(Declarant)