STATE OF TEXAS §
§
COUNTY OF FORT BEND §

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES

(Engineering Services for Roadway and Drainage Improvements– Project No. 23412)

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

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

WHEREAS, County desires for Engineer to provide such professional engineering services for roadway and drainage improvements for Charlie Roberts Lane under Mobility Bond Project No. 23412; and

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

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

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

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

1. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of this Agreement.

2. **Scope of Services.** Engineer shall render services to County as provided in Engineer's Proposal attached hereto as "Exhibit A" and incorporated herein by reference (the "Services").

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

4. **Compensation and Payment Terms.**

Engineer's fees for the Services shall be calculated at the rate(s) set forth in Exhibit "A" attached hereto. The Maximum Compensation to Engineer for the Services performed under this Agreement is One Million Sixteen Thousand Seven Hundred Forty Two and 80/100 Dollars ($1,016,742.80). 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 $1,016,742.80. 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 $1,016,742.80 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 $1,016,742.80.

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 EXCERCISES CONTROL. IN ADDITION, ENGINEER SHALL PROCURE AND MAINTAIN LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT.**

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

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

10. **Public Information Act.** Engineer expressly acknowledges and agrees that County is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall County be liable to Engineer for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, County agrees to maintain the confidentiality of information provided by Engineer expressly marked as proprietary or confidential. County shall not be liable to Engineer for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Engineer further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.

11. **Compliance with Laws.** Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. Engineer, in providing all services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Engineer shall be deemed an independent Contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Engineer. Engineer and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of County and shall not be entitled to any of the privileges or benefits of County employment.

13. **Use of Customer Name.** Engineer may use County's name without County's prior written consent only in Engineer's customer lists. Any other use of County's name by Engineer must have the prior written consent of County.

14. **County/County Data**. Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.

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

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

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

16. **Confidential and Proprietary Information.** Engineer acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to County. Any and all information of any form obtained by Engineer or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Engineer shall be treated with respect to confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Engineer) publicly known or is contained in

a publicly available document; (b) is rightfully in Engineer's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Engineer who can be shown to have had no access to the Confidential Information.

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

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

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

17. **Ownership and Reuse of Documents.** All work product and data produced or developed under this Agreement by Engineer including any documents, data, notes, reports, research, graphic presentation materials, and any other related material (collectively, "Materials"), shall at all times be the property of County. County, at all times, shall have a right of access to the Materials. Engineer shall promptly furnish and deliver all such Materials to County on request. Notwithstanding the foregoing, Engineer shall bear no liability or responsibility for Materials that have been modified post-delivery to County or

used by County for a purpose other than that for which they were prepared under this Agreement.

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

19. **Termination.**

(a) Without Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, without cause, upon thirty (30) days prior written notice to Engineer.

(b) With Cause. County, in its sole discretion, and without prejudice to any other remedy to which it may be entitled to at law or in equity, may terminate this Agreement, in whole or in part, with cause, for any of the following reasons, each of which shall constitute a material breach and "Default" of the Agreement:

(1) Engineer fails to perform any portion of the Scope of Services within the timeframe(s) provided under this Agreement.

(2) Engineer fails to comply with County's documentation and reporting requirements, terms and requirements of this Agreement, or applicable federal, state, or local laws and regulations.

(3) Non-performance and suspension of the Agreement by Engineer that exceeds thirty (30) calendar days due to Force Majeure.

(4) Engineer fails to perform any obligation under this Agreement or as required by law, ordinance, or regulation and such failure creates an imminent threat to the public health and/or safety.

(5) Engineer otherwise materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other

provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms.

(6) County shall notify Engineer in writing of the alleged Default in reasonable detail ("Notice"). Upon receipt of said Notice, Engineer shall have opportunity to cure such Default within the time specified in the Notice by County. If Engineer fails to cure such Default within such time, and to the reasonable satisfaction of County, then County may elect to terminate this Agreement for cause.

(7) If, after termination of the Agreement by County for cause, it is determined for any reason whatsoever that Engineer was not in Default, or that the Default was excusable, the rights and obligations of the Parties hereunder shall be the same as if the termination had been issued by County without cause in accordance with this Agreement.

(c) Upon termination of this Agreement for any reason, Engineer shall cease all work and activity for the Services by the date specified by County and shall not incur any new obligations or perform any additional services for the work performed hereunder beyond the specified date. County shall compensate Engineer in accordance with Section 4, above, for such work provided by Engineer under this Agreement prior to its termination and which has not been previously presented for payment by Engineer to County.

(d) If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the termination date, shall thereafter be paid to Engineer.

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

For purposes of this Agreement, Force Majeure includes, but is not limited to: acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of the government of the United States of America or the State of Texas or any civil or military authority other than a Party to this Agreement, insurrections, riots,

epidemics, landslides, lightning, earthquakes, fires, hurricanes, severe storms, floods, washouts, drought, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, and any other inabilities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.

21. **Assignment.** Engineer shall not assign this Agreement to another party without the prior written consent of County, which consent shall not be unreasonably withheld, conditioned, or delayed. Any purported or attempted assignment or transfer in violation of this Section shall be null and void.

22. **Successors and Assigns Bound.** County and Engineer each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.

23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of County. Under no circumstances, whatsoever, shall Engineer release any material or information developed or received during the performance of Services hereunder unless Engineer obtains the express written approval of County or is required to do so by law.

24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

If to County:

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

And

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

If to Engineer:

IMS Engineers, Inc.
1225 North Loop West, Suite 1020
Houston, Texas 77008

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 ACKNOWLEDEDGED BY ENGINEER THAT NO OFFICER, AGENT, EMPLOYEE, OR REPRESENTATIVE OF COUNTY HAS ANY AUTHORITY TO CHANGE THE TERMS OF THIS AGREEMENT OR ANY ATTACHED EXHIBITS HERETO UNLESS EXPRESSLY AUTHORIZED BY THE FORT BEND COUNTY COMMISSIONERS COURT.**

32. **Conflict.** In the event there is a conflict among the terms of this document entitled "Agreement for Professional Engineering Services" and the terms of Engineer's Proposal or any other exhibit attached hereto, the terms of this document shall prevail with regard to the conflict.

33. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.

34. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

35. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either Party relating to this Agreement shall be considered a waiver or surrender by County of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.

36. **Applicable Law and Venue.** This Agreement shall be construed according to the laws of the state of Texas. Venue for any claim arising out of or relating to the subject matter of this Agreement shall lie in a court of competent jurisdiction of Fort Bend County, Texas.

37. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by County regardless of content For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Engineer hereby verifies that Engineer and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:

    (a) Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions

regime relating to a foreign terrorist organization, Engineer is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.

(b) If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. "Boycott Israel" has the meaning provided in § 808.001 of the Texas Government Code.

(c) If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. "Boycott energy company" has the meaning provided in § 809.001 of the Texas Government Code.

(d) If employing ten (10) or more full-time employees and this Agreement has a value of $100,000.00 or more, Engineer does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. "Discriminate against a firearm entity or firearm trade association" has the meaning provided in § 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.

38. **Human Trafficking. BY ACCEPTANCE OF THIS AGREEMENT, ENGINEER ACKNOWLEDGES THAT FORT BEND COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.**

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

40. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.

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

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

FORT BEND COUNTY, TEXAS

KP George, County Judge

Date

ATTEST:

Laura Richard, County Clerk

IMS ENGINEERS, INC.

Authorized Agent – Signature

Rod Hill

Authorized Agent- Printed Name

President

Title

3/31/25

Date

APPROVED:

J. Stacy Slawinski, County Engineer

AUDITOR'S CERTIFICATE

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

Robert Ed Sturdivant, County Auditor

EXHIBIT A

(Engineer's Proposal Follows Behind)

IMS ENGINEERS, INC.

HOUSTON OFFICE • 1225 NORTH LOOP WEST, SUITE 1020 • HOUSTON, TEXAS 77008 • 713.739.7744

02/12/2025

Mr. J. Stacy Slawinski, P.E.
Fort Bend County Engineer
Fort Bend County Engineering Department
301 Jackson Street, Suite 401
Richmond, Texas, 77469

ATTN: Ike Akinwande, SE, P.E., MLSE
Marcus Baskin, P.E., PMP, CFM

RE: Professional Engineering Services for Roadway and Drainage Infrastructure Improvements for New Roadway Access to Bates Allen Park (From Lum Road to Bates Allen Park), Precinct 4, for the Charlie Roberts Lane - Project No. 23412

Dear Mr. Slawinski:

In respect to the aforementioned project, enclosed are the following:

- Level of Effort (LOE) Cost Tables for the Preliminary Engineering Report (PER) Phase and for the Detail Engineering Phase applicable to the new proposed roadway from Lum Road to entrance area for Bates Allen Park. The proposed roadway once constructed will serve as a "secondary access" roadway to Bates Allen Park.
- Project Schedule for both the PER and Detail Engineering Phases.
- Preliminary "Appendix A" scope of work description applicable to both original SOW and proposed secondary access roadway.
- Revised cost proposals and/or correspondence from our subconsultants for this project that match the revised SOW for this project. The subconsultant roles and companies are listed below:
    - Surveying/Mapping – KCI, Inc.,
    - Geotechnical – Geotech Engineering and Testing Inc.,
    - SUE (Subsurface Utility Engineering) – United Engineers, Inc.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Ed Quiroz, P.E., CPM
Southwest Region Vice-President

Enclosures: 1) LOE Sheets, Appendix A, Project Schedule, Subconsultant Proposals/Costs

Project Name: New Roadway Bates Allen Park - From Lum Rd to Park Entrance
Project No. 23412 (Secondary Access Road)
Client: Fort Bend County (FBC) & PMC: Pape-Dawson Engineers
Total Budget Summary

Date:2/12/2025

	Budget $			
Basic Services				
Phase I	$241,276.00		70	Estimate Plan Sheet Count
Phase II	$377,856.00		$5,398	cost per Plan Sheet
Phase III	$0.00	N/A separate authorization		
Total Budget on Basic Services	$619,132.00			
Additional Services		Items		
	$127,617.50	SURVEY	See attached proposal.	
	$28,992.90	ROW MAPPING	See attached proposal.	
Phase I	$40,948.40	ROW PARCELS	See attached proposal.	
	$28,412.00	UTILITIES/SUE	See attached proposal.	
	$92,220.00	GEOTECHINCAL	See attached proposal.	
Phase II	$10,000.00	SURVEY	Budgetary allocation/allowance for followup survey items during Phase II	
Phase III	$0.00	N/A separate authorization		
Additional Items		Item		
LUM Road	$69,420.00	Mill&Overlay with minor roadside ditch improvments/regrading, with existing driveway replacements.		
			19	Estimate Plan Sheet Count
			$3,654	cost per Plan Sheet

Total Project Budget Fee	**$1,016,742.80**

Project Name: New Roadway Bates Allen Park - From Lum Rd to Park Entrance
Project No. 23412 (Secondary Access Road)
Client: Fort Bend County (FBC) & PMC: Pape-Dawson Engineers

Phase I Basic Services Budgets Estimate
Date: 12/23/2024

		Principal	Project Manager	Sr. Project Engineer	Project Engineer	Design Technician	CADD Technician	Admin Assist.	Sub-total Man-hours	Subtotal (cost $)
	Billing Rate per Hour	$330.00	$285.00	$270.00	$210.00	$150.00	$108.00	$114.00		
	Task Description	$110.00 x 3.0	$95.00 x 3.0	$90.00 x 3.0	$70.00 x 3.0	$50.00 x 3.0	$36.00 x 3.0	$38.00 x 3.0		
BASIC SERVICES- PRELIMINARY PHASE		**LEVEL OF EFFORT**								
	Project Management									
1	Initiation and Project Set-up	4	8					8	20	$4,512
2	Monthly Progress Meetings and Minutes (9 months) Plus Meeting Minutes		12		36			8	104	$11,892
3	Project Schedule (MS Project) with Updates	1	2		16			4	23	$4,716
4	Cash Flow Projections and Invoicing									$0
5	Subconsultant - Oversight, review and coordination									$0
	General Coordination									
6	Prepare Vicinity Map and other Exhibits		2				8		10	$1,434
7	Coordination with County and Sub-consultants	2	16		32	12			62	$13,740
8	Site Visit with Project Team (Post KO Mtg)		8		8	8			24	$5,160
	Preliminary Engineering									
9	Review Previous Reports		2	8	16				26	$6,090
10	Identify and Define Existing Conditions		2	4	8		8		22	$4,194
11	Identify and Define Conflicts		2			8			10	$1,770
12	Identify and Define Existing ROW and Constraints	2	2		4	8			16	$3,270
13	Review Public & Private Utilities Service Lines		2	4	6				12	$2,910
14	Perform Existing Condition Drainage Review		6	8	16				30	$7,230
15	Perform Depth grid analysis and identify flood parcels		4	8	16				28	$6,660
16	Identify and analyze inadequate receiving drainage systems		8	16	40				64	$15,000
17	Perform Proposed Drainage Analysis (Storm Model HEC-HAS) - Drainage Report	1	2	4	120				127	$27,180
18	Determine Impact and Mitigation	2	8		40	10			60	$12,840
19	Review Proposed Utility Conflicts		4	4	12				20	$4,740
20	Evaluate Proposed Pavement Recommendation	2	4		8	8			22	$4,680
21	Traffic Volumes and Traffic Control Strategy	2	4		8		8		22	$4,344
22	Prepare Quantities and Construction Cost Estimate	1	2		12				15	$3,420
23	Identify necessary permits, easements and agreements		4		8				12	$2,820
24	Proposal ROW Map (Roll Plot)		2		12		40		54	$7,410
25	Plans and Profiles (TYPICAL)		8	12	26		80		126	$19,620
26	Typical Sections (Existing & Proposed)		4		16		24		44	$7,092
27	Prepare 30% Schematic Roll Plots) Proposed Improvements include alternatives		16		16		80		112	$16,560
28	Prepared Phase I Report with 30% Design		4	4	60				68	$14,820
29	QA/QC	6		24	0				30	$8,460
30	60% Milestone Submittal - Schematic Roll Plot Exisitng Conditions with Roadway Alternatives (Month 3)	1	2	4	8	16	60		91	$12,540
31	90% Milestone Submittal - Schematic Roll Plot Exisitng Conditions with Roadway Alternatives (Month 5)			1	2	4	12		19	$2,586
32	Submit Final PER and 100% Schematic Roll Plot (Month 6)			1	2	4	12		19	$2,586
	Subtotal	24	140	102	548	78	332	20	1292	**$240,276**
	Reimbursable Expenses									
33	Travel									$500
34	Printing / Copies									$500
	Subtotal									**$1,000**
	Total Not to Exceed Cost									**$241,276**

Project Name: Charlie Roberts Lane - From Lum Rd to FBC Park
Project No. 23412 (Secondary Access Roadway- Contingency)
Client: Fort Bend County (FBC) & PMC: Pape-Dawson Engineers

Phase II & Phase III Basic Services Budgets Estimate
Date: 12/23/2024

Project Length (ft) = 1600

	Principal	Project Manager	Sr. Project Engineer	Project Engineer	Design Engineer	CADD Technician	Admin Assist.	Sub-total Man-hours	Subtotal (cost $)
Billing Rate per Hour	$330.00	$285.00	$270.00	$210.00	$180.00	$150.00	$114.00		
Task Description	$110.00 x 3.0	$95.00 x 3.0	$90.00 x 3.0	$70.00 x 3.0	$60.00 x 3.0	$50.00 x 3.0	$38.00 x 3.0		
BASIC SERVICES - PHASE 2 FINAL DESIGN PHASE									
PROJECT MANAGEMENT									
Coordination with Sub-consultants and County	8	24		8			12	52	$12,528
Schedule / Invoicing / Cashflow		4		24			30	58	$9,600
Attend Progress Meetings (6 month meetings - Plus each submittal = total 9 meetings) Web based		18		12				30	$7,650
Written Response comments to 70% comments spreadsheet/documentation	1	4	8	24			4	0	$9,126
Written Response comments to 95% comments spreadsheet/documentation	1	4	8	24			4	41	$9,126
SUBTOTAL PROJECT MANAGEMENT	10	54	16	92	0	0	50	181	**$48,030**
DESIGN									
Design Services									
Storm Sewer Design (Based on Drainage Report)	1	2		40		80		123	$21,300
Typical Sections, P&P, TCP, S&PM, Cross sections, Misc.	1	2		24		60		87	$14,940
Subsurface Utility Engineering (By United Engineers)									
Surveying/ Mapping (By KCI) - Survey Control Map w/ Swing Ties, Exist. ROW, Topo Survey, Prop ROW, Roll Plot & Tables									
Geotechnical (By Geotech Engineering & Testing) - Geotech Report									
No. Dwgs ***List of Drawings***									
1 Cover Sheet		1		2		4		7	$1,305
1 Index of Sheets		1		2		4		7	$1,305
2 Legend & Abbreviations Sheet		1		2		4		7	$1,305
2 General Notes Sheet		1		2		8		11	$1,905
4 Incorporation Survey Control Map / Utility/ Geotech		2	6	16		0		24	$5,550
1 Typical Sections Sheets (Existing & Proposed)		4	4	4		0		12	$3,060
1 Project Layout Sheet		4	8	16		24		52	$10,260
1 Horizontal Alignment Data Sheet	1	4	8	16		12		41	$8,790
4 Plan and Profile Sheets (500 ft per sheet) -NEW ROADWAY	1	4		40		80		125	$21,870
Bridge Layout & Details								0	$0
Signal Warrant Analysis								0	$0
3 Traffic Circle Layout, aligment and details	1	8		24		72		0	$18,450
1 Intersection Grading Plan	1	4		32		24		0	$11,790
Driveway Design Tabulation incl. Details								0	$0
1 Existing Drainage Area Map		1		2		6		9	$1,605
1 Existing Drainage System		1		2		6		9	$1,605
1 Existing Drainage Hydraulic Data (2-yr and 100 years Altas 14 storm events)		1		2		6		9	$1,605
1 Proposed Drainage Hydraulic Data (2-yr and 100 years Altas 14 storm events)		1		2		6		9	$1,605
1 Proposed Drainage Area Map		1		2		6		9	$1,605
2 Proposed Drainage System (Roadway Ditches, Inlets, and Culverts)		1		2		6		9	$1,605
1 Outfall/Wingwalls/Headwall Details	1	1	6	26		32		66	$12,495
4 Detention Pond Layout and Details		2	6	38		60		106	$19,170
2 Traffic Control Plans		2		12		40		54	$9,090
4 Signing & Striping Plans		2		16		40		58	$9,930
4 Storm Water Pollution Prevention Plans (SW3P)		1		4		16		21	$3,525
3 Cross Sections (Every 100 feet incl. Earthwork calculations) 6 sections per sheet		2		50				52	$11,070
24 Fort Bend County/ TXDOT Standard Construction Details - Paving / Pavement Marking / Street Cut / Misc.				6		48		54	$8,460
Final Construction Cost Estimate		1		12				13	$2,805
Project KMZ File (Updated each submittal)		2				24		26	$4,170
Construction Duration/ Timeline		1		12				13	$2,805
Project Manual									
SpecificationsDocuments (Contract Documents excluded)	2	8	0	40			40	90	$15,900
Bid Items and Forms (All milestone submittals)	1	8	12	40			16	77	$16,074
Calculations / Mobilization / Flagman / Traffic Control /			2	8				10	$2,220
SWPPP / Tree Protection / Trench Safety / Cash Allowances /			2	8		24		34	$5,820
Construction Days / misc			1	6				7	$1,530
Total No Sheets Quantity Takeoff Sheet by Sheet		2		60			4	66	$13,626
									$0
70 **SUBTOTAL DESIGN**	8	72	55	506	0	552	60	1087	**$270,150**
STANDARD APPROVALS									
Interagency (TXDOT / etc)		8	4	70		24	8	144	$22,572
Public & Private Utilities (MUD & City Utilities/ Centerpoint / ATT/ Pipelines / etc)		8	10	70		24	8	150	$24,192
SUBTOTAL STANDARD APPROVALS	0	16	14	140	0	48	16	294	**$46,764**
BIDDING									
Pre-Bid Information / Pre-bid Agenda / Addendum / Conformed Drawings		4	0	12		0	4	20	$4,116
Bid Tabulation / Recommendation / Post-Bid Services	1	2	4	16	0	0	4	27	$5,796
SUBTOTAL BIDDING	1	6	4	28	0	0	8	47	**$9,912**
SUBTOTAL PHASE 2 FINAL DESIGN PHASE SERVICES	**19**	**148**	**89**	**766**	**0**	**600**	**134**	**1609**	**$374,856**
PHASE 2 EXPENSES									
Travel									$2,000
Printing / Copies									$1,000
SUBTOTAL PHASE 2 EXPENSES									**$3,000**
TOTAL PHASE 2 FINAL DESIGN PHASE SERVICES	**19**	**148**	**89**	**766**	**0**	**600**	**134**	**1609**	**$377,856**
PHASE 3 CONSTRUCTION PHASE SERVICES									6 month schedule
Pre-Construction Meeting / Progress Meetings (Minimum one monthly and as needed)									$0
Construction Site Observation Visits (Minimum one monthly and as needed)									$0
Review and Respond to Submittals / RFI's / RFP's / etc									$0
Monthly Construction Activities Reports									$0
Substantial Completion / Final Walk Through									$0
Record Drawings (Based on as-builts)									$0
SUBTOTAL PHASE 3 CONSTRUCTION PHASE SERVICES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**
PHASE 3 EXPENSES									
Travel									
Printing / Copies									
SUBTOTAL PHASE 3 EXPENSES									**$0**
TOTAL PHASE 3 CONSTRUCTION PHASE SERVICES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**
TOTAL PHASE 2 & PHASE 3 BASIC SERVICES (Excl Man-hrs for Sub-consultants):	**19**	**148**	**89**	**766**	**0**	**600**	**134**	**1609**	

TOTAL NOT TO EXCEED FEE	**$377,856**

Project Name: Charlie Roberts Lane - From Lum Rd to FBC Park
Project No. 23412 (Secondary Access Roadway- Contingency)
Client: Fort Bend County (FBC) & PMC: Pape-Dawson Engineers

Phase II & Phase III Basic Services Budgets Estimate (Lum Roadway, Mill& Overlay, Signage & Pavement Markings, Minor Roadside

Date: 12/23/2024 Project Length (ft) = 2800

		Principal	Project Manager	Sr. Project Engineer	Project Engineer	Design Engineer	CADD Technician	Admin Assist.	Sub-total Man-hours	Subtotal (cost $)
	Billing Rate per Hour	$330.00	$285.00	$270.00	$210.00	$180.00	$150.00	$114.00		
	Task Description	$110.00 x 3.0	$95.00 x 3.0	$90.00 x 3.0	$70.00 x 3.0	$60.00 x 3.0	$50.00 x 3.0	$38.00 x 3.0		
	BASIC SERVICES - PHASE 2 FINAL DESIGN PHASE									
	PROJECT MANAGEMENT									
	Coordination with Sub-consultants and County								0	$0
	Schedule / Invoicing / Cashflow								0	$0
	Attend Progress Meetings (6 month meetings - Plus each submittal = total 9 meetings) Web based								0	$0
	Written Response comments to 70% comments spreadsheet/documentation								0	$0
	Written Response comments to 95% comments spreadsheet/documentation								0	$0
	SUBTOTAL PROJECT MANAGEMENT	0	0	0	0	0	0	0	0	**$0**
	DESIGN									
	Design Services									
	Storm Sewer Design (Based on Drainage Report)								0	$0
	Typical Sections, P&P, TCP, S&PM, Cross sections, Misc. (LUM ROAD)	1	2		4		16		23	$4,140
	Subsurface Utility Engineering (By United Engineers)									
	Surveying/ Mapping (By KCI) - Survey Control Map w/ Swing Ties, Exist. ROW, Topo Survey, Prop ROW, Roll Plot & Tables									
	Geotechnical (By Geotech Engineering & Testing) - Geotech Report									
No. Dwgs	***List of Drawings***									
	Cover Sheet									$0
	Index of Sheets									$0
	Legend & Abbreviations Sheet									$0
	General Notes Sheet									$0
	Incorporation Survey Control Map / Utility/ Geotech									$0
1	Typical Sections Sheets (Existing @ 2 locations)		4	4	4				12	$3,060
1	Project Layout Sheet		1	2	4		4		11	$2,265
	Horizontal Alignment Data Sheet								0	$0
6	Plan and Profile Sheets (500 ft per sheet) -LUM ROADWAY (MILL & OVERLAY, MINOR STORM)	1	4		40		100		145	$24,870
	Bridge Layout & Details								0	$0
	Signal Warrant Analysis								0	$0
	Traffic Circle Layout, aligment and details								0	$0
	Intersection Grading Plan								0	$0
1	Driveway Design Tabulation incl. Details (8 qty)		1		16				17	$3,645
	Existing Drainage Area Map								0	$0
	Existing Drainage System								0	$0
	Existing Drainage Hydraulic Data (2-yr and 100 years Altas 14 storm events)								0	$0
	Proposed Drainage Hydraulic Data (2-yr and 100 years Altas 14 storm events)								0	$0
	Proposed Drainage Area Map								0	$0
2	Proposed Drainage System (Roadway Ditches, Inlets, and Culverts)		1	4	24				29	$6,405
	Outfall/Wingwalls/Headwall Details								0	$0
	Detention Pond Layout and Details								0	$0
2	Traffic Control Plans		2		8		12		22	$4,050
3	Signing & Striping Plans		2		20		48		70	$11,970
3	Storm Water Pollution Prevention Plans (SW3P)		1		6		12		19	$3,345
	Cross Sections (Every 100 feet incl. Earthwork calculations) 6 sections per sheet								0	$0
	Fort Bend County/ TXDOT Standard Construction Details - Paving / Pavement Marking / Street Cut / Misc.								0	$0
	Final Construction Cost Estimate								0	$0
	Project KMZ File (Updated each submittal)								0	$0
	Construction Duration/ Timeline								0	$0
	Project Manual									
	SpecificationsDocuments (Contract Documents excluded)		1		4				5	$1,125
	Bid Items and Forms (All milestone submittals)								0	$0
	Calculations / Mobilization / Flagman / Traffic Control /								0	$0
	SWPPP / Tree Protection / Trench Safety / Cash Allowances /								0	$0
	Construction Days / misc								0	$0
Total No Sheets	Quantity Takeoff Sheet by Sheet		1		6				7	$1,545 $0
19	**SUBTOTAL DESIGN**	1	18	10	132	0	176	0	337	**$66,420**
	STANDARD APPROVALS									
	Interagency (TXDOT / etc)								0	$0
	Public & Private Utilities (MUD & City Utilities/ Centerpoint / ATT/ Pipelines / etc)								0	$0
	SUBTOTAL STANDARD APPROVALS	0	0	0	0	0	0	0	0	**$0**
	BIDDING									
	Pre-Bid Information / Pre-bid Agenda / Addendum / Conformed Drawings								0	$0
	Bid Tabulation / Recommendation / Post-Bid Services								0	$0
	SUBTOTAL BIDDING	0	0	0	0	0	0	0	0	**$0**
	SUBTOTAL PHASE 2 FINAL DESIGN PHASE SERVICES	**1**	**18**	**10**	**132**	**0**	**176**	**0**	**337**	**$66,420**
	PHASE 2 EXPENSES									
	Travel									$2,000
	Printing / Copies									$1,000
	SUBTOTAL PHASE 2 EXPENSES									**$3,000**
	TOTAL PHASE 2 FINAL DESIGN PHASE SERVICES	**1**	**18**	**10**	**132**	**0**	**176**	**0**	**337**	**$69,420**
	PHASE 3 CONSTRUCTION PHASE SERVICES									6 month schedule
	Pre-Construction Meeting / Progress Meetings (Minimum one monthly and as needed)									$0
	Construction Site Observation Visits (Minimum one monthly and as needed)									$0
	Review and Respond to Submittals / RFI's / RFP's / etc									$0
	Monthly Construction Activities Reports									$0
	Substantial Completion / Final Walk Through									$0
	Record Drawings (Based on as-builts)									$0
	SUBTOTAL PHASE 3 CONSTRUCTION PHASE SERVICES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**
	PHASE 3 EXPENSES									
	Travel									
	Printing / Copies									
	SUBTOTAL PHASE 3 EXPENSES									**$0**
	TOTAL PHASE 3 CONSTRUCTION PHASE SERVICES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**
	TOTAL PHASE 2 & PHASE 3 BASIC SERVICES (Excl Man-hrs for Sub-consultants):	**1**	**18**	**10**	**132**	**0**	**176**	**0**	**337**	

TOTAL NOT TO EXCEED FEE	**$69,420**

APPENDIX A

SCOPE OF SERVICES

DESIGN SERVICES IN SUPPORT OF NEW ROADWAY FROM LUM ROAD TO ENTRANCE TO BATES ALLEN PARK FORT BEND COUNTY PROJECT NO. 23412

PROJECT LOCATION / DESCRIPTION

The proposed Project is located in Fort Bend County at the entrance to Bates Allen Park and Charlie Roberts Lane. The proposed new roadway will extend from Lum Road south to Bates Allen Park entrance way at Charlie Roberts Lane. A proposed traffic circle will service both Charlie Roberts Lane and the new roadway to the part entrance. The project includes providing professional engineering services necessary to improve the roadway and drainage infrastructure within the area. The improvements include acquiring 120-wide street ROW, providing a 3-lane concrete curb and gutter roadway with storm sewers and inlet drainage improvements, roadside ditches and culvert crossings, detention pond, traffic circle, roadway signage and pavement markings. Additional improvements include asphalt mill and overlay along Lum Road from approximately 500 feet east of intersection with the proposed new roadway to the Charlie Robert Lane intersection; as well as, minor roadside ditch regrading and/or ditch corrections along the same segment of Lum Road. In summary the project will consist of the following main improvements:

A. NEW ROADWAY FROM LUM ROAD TO ENTRANCE FOR BATES ALLEN PARK

1. New Roadway Improvements:
    a. Concrete Pavement (approximately 1,600 linear feet)
    b. Curb & Gutter Roadway
    c. Three (3) 12-wide traffic lanes.
2. Storm Improvements (New Roadway):
    a. Roadside Ditch improvements along new roadway
    b. Box Culvert improvements at intermit creek.
    c. Curb & Grate Inlets
    d. Storm water detention (In-line and/or detention pond)
3. Intersection Improvements (@ Lum Road intersection & Park entrance):
    a. Turning Lanes (as needed) from Lum Road at intersection to “new” unnamed roadway.
    b. Traffic circle at intersection for Charlie Roberts Lane and north entrance way to Bates Allen Park.
4. ROW Acquisition (New Roadway & Lum Road):
    a. 120-ft wide street, 1600-ft long ROW acquisition from Lum Road to Charlie Roberts Lane for “new” unnamed roadway ending at entrance to Bates Allen Park.
    b. Property/land acquisition for storm water detention pond (if needed).
    c. Additional ROW acquisition along Lum Road from Charlie Roberts Lane to new road intersection to provide consistent ROW width for Lum Road.

5. Signage and Pavement Markings:
    a. Along Lum Rd for limits of asphalt overlay.
    b. Along new roadway limits.
    c. At traffic circle/entrance to Bates Allen Park.
6. Lum Road Improvements:
    a. Mill and asphalt overlay from Charlie Roberts Lane intersection to intersection of new roadway.
    b. Roadside ditch regrading (both sides) with minor corrections from Charlie Roberts Lane intersection to intersection of new roadway.

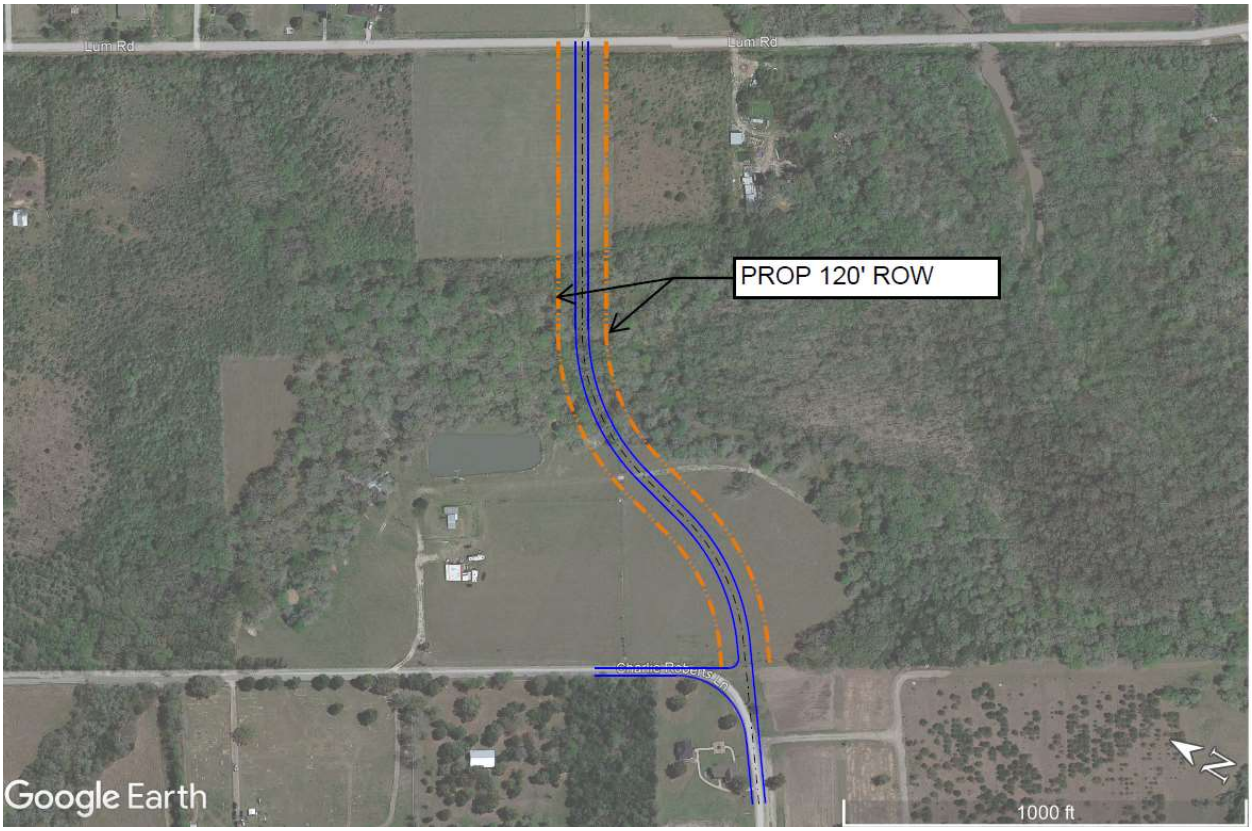


Figure 1 - Secondary Access Road (Unnamed roadway) Project Limits

GENERAL REQUIREMENTS

Program Management Consultant (PMC) FORT BEND COUNTY (FB) has designated Pape-Dawson Engineers (PDE) as its Program Management Consultant (PMC). PDE shall be the prime point of contact for the Engineer. In general, Engineering design and procedures will follow the usual design practices of FBCED.

Fort Bend County Engineering Department (FBCED) Design Criteria, Guidelines, and Resources: include but are not limited to the follow:

Fort Bend County Engineering Department:
https://www.fortbendcountytx.gov/government/departments/county-services/engineering

i. Fort Bend County Engineering Department, Design Manual:
ii. https://www.fortbendcountytx.gov/sites/default/files/2023-07/20220301-Engineering-Design-Manual.pdf
iii. Fort Bend County Engineering Department, Regulations: https://www.fortbendcountytx.gov/government/departments/engineering/regulations-3864
iv. Fort Bend County Construction Details: https://www.fortbendcountytx.gov/sites/default/files/2022-03/FBC-Standard-Details_20220316.pdf
v. Fort Bend County Engineering Traffic Impact Analysis Guidelines: https://www.fortbendcountytx.gov/sites/default/files/document-central/document-central/engineering-documents/engineering-requirements/TrafficImpactAnalysisGuide_0.pdf
vi. Fort Bend County Engineering General Construction Notes: https://www.fortbendcountytx.gov/sites/default/files/document-central/document-central/engineering-documents/development/FBC-Standard-Details_General-Construction-Notes_20220316.pdf
vii. Fort Bend County Engineering Street Acceptance Guidance: https://www.fortbendcountytx.gov/sites/default/files/document-central/document-central/engineering-documents/engineering-requirements/FortBendCountyEngineeringS.pdf
viii. Fort Bend County – Interim Atlas 14 Drainage Criteria Manual and Minimum Slab Elevation Criteria, December 2019, Revised September 2021: https://www.fortbendcountytx.gov/sites/default/files/2021-10/3357_dd4_drainage_manual_revisions.pdf

In general, Engineering design and procedures will follow the usual design practices of FBCED. The following are general requirements for the Project:

A. Produce roadway plans including cross-sections, specifications, and estimates (PS&E) and prepare construction bid documents.

B. Produce drainage design plans including drainage area maps, roadway inlet and storm sewer calculations, temporary drainage facilities, SWPPP plans, specifications, and estimates (PS&E) and prepare construction bid documents. Drainage Report with peak flows for applicable project for use.

C. All designs for the Project shall be in accordance with the established FBCED CADD Standards using AutoCAD software.

D. Furnish computer media and computer graphics files as described herein.

E. Submit schematics, exhibits, and 70%, 95%, and final (100%) PS&E packages for review by the PMC.

F. Coordinate contract document preparation with the PMC.

G. Provide project planning and control to include quality management.

H. Provide an accurate, complete, and constructible set of contract documents.

I. FBCED will have the ultimate authority for determining what constitutes an accurate, complete, and constructible set of contract documents.

J. If so, directed by FBCED and/or the PMC, make the revisions to the contract documents, as reported during the design review process.

SERVICES TO BE PROVIDED BY FBCED THROUGH THE PMC

The PMC shall provide the following items, if available, to the Engineer.

A. Copies of as built or existing plans for the roadway, etc.

B. Contact information for each Project consultant.

C. All available existing survey information including survey control information, mapping, point files, and field notes.

D. All available existing geotechnical information and reports.

E. Traffic information, including number and width of toll lanes for each toll location.

F. Existing and proposed traffic volumes.

G. Environmental, Historical and/or Endangered Species Reports and/or attachments needed for construction.

H. All permitting and coordination with applicable agencies needed for construction.

I. Real Estates services and coordination for the acquisition of the proposed roadway right-of-way; as well as, any additional property or ROW needed for stormwater detention purposes (as needed).

SERVICES TO BE PROVIDED BY THE ENGINEER

SCOPE OF SERVICES

The Engineer shall provide engineering and design services required for the preparation of the Plans Specifications, Estimates (PS&E) package(s), and bidding for the Project. The Engineer's responsibility includes inserting plans prepared by other consultants into the PS&E package.

I. PRELIMINARY ENGINEERING REPORT (PER) PHASE

Preliminary Engineering (PER) Phase

i. Deliverables
   1. Exhibits
   2. Survey Control Map
   3. Existing Right-of-Way (ROW)
   4. Topographic Survey (Topo) Map
   5. Proposed ROW Roll Plot and ROW Table
   6. Drainage Report Analysis, in accordance with FBC Drainage District
   7. Environmental Report (To be provided by FB County)
   8. Geotechnical Report
   9. **30% Plans & Construction Cost Estimate**
   10. **Preliminary Engineering Report (PER) Report**

ii. Utility Coordination
   1. Identification/verification of utilities and pipelines
   2. Utility contact and conflict table (Public Water and Sewer & Private)

iii. Project Management
   1. Monthly progress updates
   2. Progress meetings (milestone submittals at a minimum but state frequency)
   3. Sub-Consultant Management/Coordination

II. DETAIL ENGINEERING PHASE

1. Deliverables (70% Submittal) – A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager. 70% submittal shall include the following:
   1. Cover Sheet with a 70 percent interim seal.
   2. Index of Sheet
   3. General Notes
   4. Typical and Non-standard Cross Sections
   5. Project Layout Sheet
   6. Survey Control
   7. Right-of-way (Existing and Proposed)
   8. Horizontal Alignment Data
   9. Plan and Profile Sheets (detailed callouts not required at 70 percent)
   10. Bridge Layout and Details (if applicable)
   11. Drainage Area Map with Hydraulic Calculations (if applicable)
   12. Detention Pond, Box Culverts, and Ditch Design Sheets
   13. Traffic Control Plan
   14. Signing and Striping Plan
   15. Traffic Signal and Details (if applicable)
   16. Storm Water Pollution Prevention Plan
   17. Cross Sections (100-foot intervals with earthwork calculations)
   18. Specification Table of Contents (Use Harris County Specifications. TxDOT Specifications and others to be used as necessary depending

on area/subject). Refer to Appendix B for Fort Bend County Specification Table of Contents template.
19. Construction Cost Estimate (PDF and Excel format)
20. Bid Form (PDF and Excel format). Ensure that bid items and units match those shown in the applicable specification. Refer to Appendix B for Fort Bend County Bid template.
21. KMZ file of current design with proposed right-of-way.
22. 70% Review Checklist.

2. Deliverables (95% Submittal) – A digital copy (Adobe Acrobat format, PDF) of the drawings, specifications, and estimate will be required and shall be submitted to the Program Manager. The 95% submittal should be considered complete with 95 percent interim seal, and shall include all of the 70 percent requirements plus the following:
    1. Verify earthwork quantities with cross sections at 100-foot intervals.
    2. Standard construction details.
    3. Project manual (bid form, specification table of contents, any special
    4. specifications or conditions; contract documents excluded)
    5. KMZ file of current design with proposed right-of-way.
    6. Responses to 70% comments
    7. 95% Review Checklist.

3. Deliverables (100% Submittal) – A digital copy in Adobe Acrobat format (PDF) of the drawings (sealed and signed). The 100% submittal should be considered ready for project advertisement and should include the following:
    1. Project manual
    2. Construction cost estimate
    3. KMZ file of current design with proposed right-of-way.
    4. Responses to 95 percent comments
    5. Recommended maximum number of calendar days for construction.
    6. 100% Review Checklist
4. Quality Control
    1. All documents shall be internally reviewed in accordance with the Design Consultant's documented Quality Assurance/Quality Control (QA/QC) process prior to submittal to the Program Manager. Fort Bend County reserves the right to audit QA/QC documents to ensure the process has been followed.
5. Utility Coordination
    1. Represented existing utilities in plan and profile.
    2. Updated utility contact and conflict table
    3. Signature block
    4. Attending utility coordination meetings.

Bid Phase

i. Prep for and attend pre-bid, document notes.
ii. Prep bid form, addendum as needed.
iii. Other meetings as needed to address remaining issues.

Survey

i. Basic Services
    1. Survey Control and TBMs
    2. Existing ROW (Cat 1B, Cond. II)
    3. Topographic Survey (Cat 6, Cond II)
    4. ROW Maps and Metes and Bounds for ROW Acquisition
    5. Survey Coordination

Utilities/SUE

i. Utility Conflict Table
    1. Initial Utility Contact Table – submitted with the Survey.
        a. Power pole risers to be called out individually.
        b. HOA, MUDS, Cities, and other entities in the area: (add: "For Notification Purposes" in the "Conflict" column
        c. *The Design Consultant will be responsible for verifying all utilities and discovering* any additional utilities within their project limits.

ii. SUE – One Pipeline – Natural Gas

Geotechnical

i. Basic Service
    1. Review Table 8-2; FBC Engineering Design Manual
    2. Review spacing needs and depth.
    3. Dual Design criteria maybe needed (TxDOT & HCFCD)

Environmental

i. Preliminary wetlands investigations and project notification to the Texas Historical Commission will be performed by Fort Bend County on a program-wide basis, so these efforts should not be needed on a project level.

ii. Various potential issues (To be Performed by Fort Bend County):
    1. WOTUS concern with Brooks Branch
    2. Texas Historical Commission involvement due to cemetery

Drainage

i. Drainage Report (*completed under the guidelines of the FBCDD Drainage Criteria Manual, Updated Interim Atlas 14 Drainage Criteria Manual and Minimum Slab Elevation Criteria, December 2019, Revised September 2021)*

ii. Please contact the Drainage District to obtain the new draft version of the Drainage Criteria Manual, which includes additional requirements for new developments.

ROW Acquisition

- Review Design Manual – Section 7 – Right-Of-Way
- Document Requirements – Section 7.3
    1. An overall project map showing existing and proposed right-of-way.
    2. A parcel map and metes-and-bounds description for each parcel to be acquired in the project.
    3. KMZ file

- **LAND SURVEYING SERVICES (Project Limits)**

I. LAND SURVEYING SERVICES (Project Limits)

A. Establish Control and TBMs

Fort Bend County horizontal control points and vertical benchmarks by others will be recovered and used as reference. Temporary Benchmarks and baseline control points will be established at an approximate 1,000-foot intervals, maintaining intervisibility from beginning to end of the project for construction purposes (min 3). Every attempt will be made to select locations that will not be lost during construction.

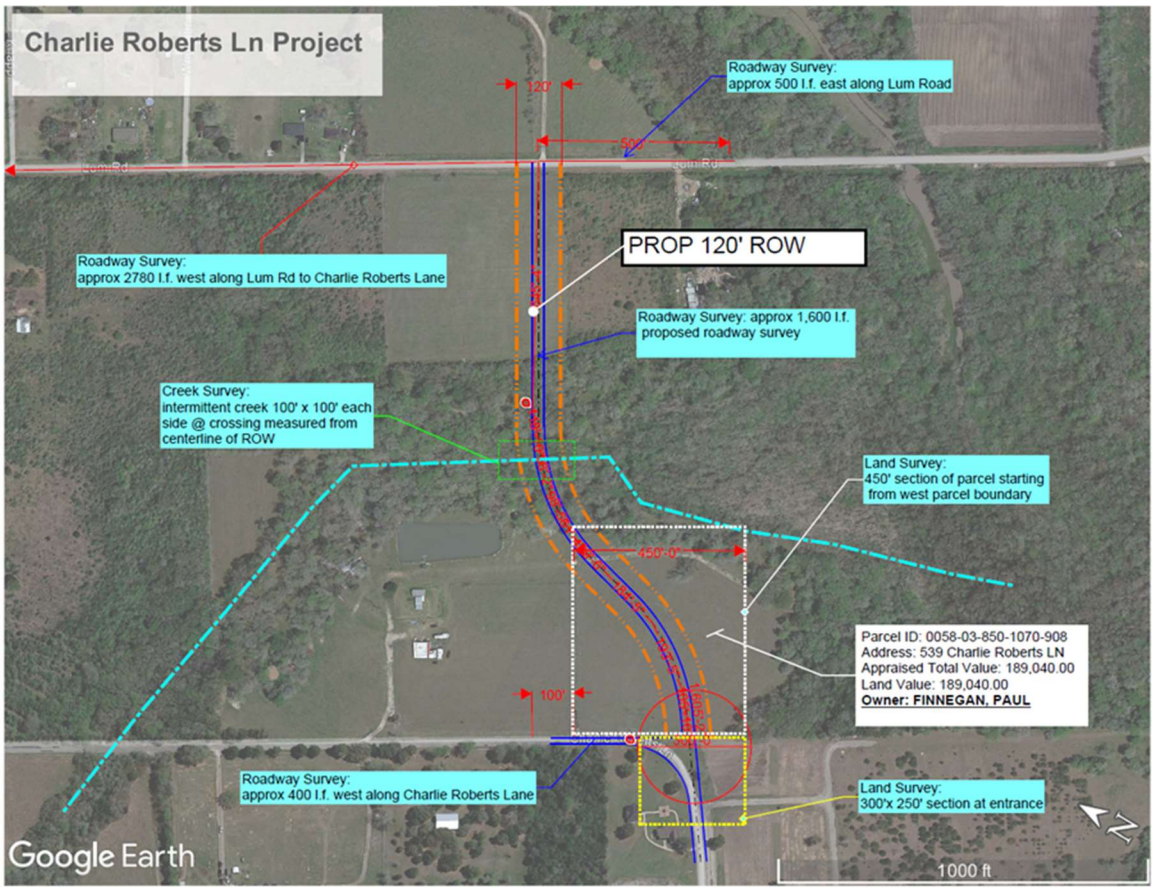


Figure 2 – Survey Limits

All bearings and coordinates will be based on the Texas Coordinate System of 1983 (NAD 83), South Central Zone 4204. Benchmark elevations will be referenced to the same datum as the effective Fort Bend County Flood Insurance Rate Map by observations on existing Reference Monuments.

B. Survey Control Maps

The Surveyor will prepare a sealed Survey Control Map Sheet and a Control Detail Sheet for the project which includes the proposed right-of-way line, the survey control baseline, Temporary Benchmarks, and the project baseline. Client to provide a digital copy of the sheet file border and format for use by KCI Technologies.

The survey control deliverables will be provided at a suitable scale for use in 11" x 17" and 22" x 34" formats.

C. Existing Right-Of-Way (Cat 1B, Condition II)

This survey will be performed in accordance with the Manual of Practice for Land Surveying in Texas for Category 1B, Condition II Urban Standard Land Survey. Improvements will be shown with transparency behind the Existing Boundary. Crossing and adjacent easements will be shown within the Topographic Survey limits defined below; However, Off-site easement estates and non-exclusive easement routes to off-project facilities are not included in this proposal.

This proposal includes hiring title research by a qualified provider. An Abstractor's Certificate will be ordered by a third-party provider for deed information and other easements/encumbrances affecting the immediate project area. Adjoining property owner deeds and adjacent easement documents will also be ordered. Additional research: surveying services required to address comments, etc. outside the original scope of this proposal; or changes made to the survey after completion (if so required), will be considered additional services and can be provided to you on an hourly basis and a separate budget.

Topographic Survey (Cat. 6, Cond. 1) for Proposed Road

Prepare a base map of the route in a format suitable to the engineer for design purposes. This survey will be performed in accordance with the Manual of Practice for Land Surveying in Texas for Category 6, Condition 1 Detailed Topographic Survey Plat. The project area is marked on the attached exhibit and will be defined as:

- Existing Lum Road Right-Of-Way – Starting at the Intersection of Charlie Roberts Lane and Lum Road extending an additional 100 feet in a northwesterly and northeasterly and southwesterly of said intersection. Thence in a southeasterly direction along the existing Lum Road Right-Of-Way approximately +/- 3,000 LF to a point approximately 500 feet southeast of the proposed intersection of Lum Road and the proposed extension of Charlie Roberts Lane.
- Proposed Extension of Charlie Roberts Lane-Along the 120-foot-wide proposed Right-Of-Way for the extension of Charlie Roberts

Lane, beginning at the intersection of the Proposed Right-Of-Way with the existing Right-Of-Way with Charlie Roberts Lane, thence along the proposed path to its intersection with the existing Charlie Roberts Lane Right-Of-Way.

- Expanded scope area 1-Roughly 550'x650' area, encompassing the southwestern extents of the proposed Right-Of-Way and extending across existing tracts of land having fort bend county appraisal district parcel I.D. Nos. 0058-03-850-1140-908 and 0058-03-850-1070-908.
- Expanded Scope Area 2- Roughly 300'x250' area at the existing park entrance, extending from the southwest end of the proposed Right-Of-Way extension +/- 250 feet into the existing park along it existing drive, and roughly 150' North and south of the existing park drive.
- Existing Charlie Roberts Lane- approximately 400 linear feet of the existing Charlie Roberts Lane Right-Of-Way, Beginning at the northern most extent of scope area 2 thence 400 feet in a northwesterly direction along the existing Right-Of-Way of Charlie Roberts Road.

The topographic survey deliverable will be provided in a digital CAD file in produced in AutoCAD Civil 3D (plan view only) at a scale suitable to the engineer for design purposes and will be limited to the following:

- Tie visible improvements within existing and Proposed Right-of-way, from Right-of-Way Line to Right-Of-Way plus 20 feet within project areas described above. Right-Of-Entry to be secured by KCI within private properties affected by scope.
- 50-foot grid within existing ROW, 100-foot grid within the proposed ROW
- Show contours at 1-foot intervals.
- Utility flowlines will be tied where physically accessible.
- The Surveyor will coordinate with state One-Call resources to determine the existence and location of existing subsurface utilities within the project limits. The Surveyor will survey the utility markings and depict these findings in the Topographic Survey. Should the need for further investigation be needed, this will be provided by designated utility engineer for Level B utility designating and Level A utility pot holing at conflict locations as determined by design consultant.
- Overhead Sag elevation for crossing overhead electrical utilities.
- Locate trees over 6" and the perimeter of existing heavily brushed areas within defined scope area.
- Tie environmental and geotechnical marks/locations. Location exhibit to be provided by client.

- Tie location of structures within 100 feet of existing ROW
- At existing Creek crossing extents of scope to be extended an additional 100 feet up and down stream of existing proposed Right-Of-Way capturing cross sections at 25-foot intervals.
- Overlay Current FEMA Flood Plain Mapping and annotate designated flood hazard zones withing project area.
- Existing utility pole locations to be captured and designated with their existing pole nos.

D. <u>Right-of-Way Maps</u>

The Surveyor will prepare a sealed overall project map showing existing and proposed right-of-way and create a centerline alignment for the road section if one of the records does not exist. The areas to be acquired shall be shaded and labeled. The Right-of-Way maps will include identify monuments, corners, angle points, points of curve (PC), points of intersections (PIs), points of tangency (PTs) and other points as either “found” or “set” along with title abstracting information used for the project. Show X-Y values on control monuments. All bearings and coordinates shall be based on the established coordinate system for the project. X-Y values will be shown for PCs, PTs, and PIs of curves on the proposed right-of-way lines. Curve data will include the following: delta, radius, arc length, chord length, and chord bearing. Client to provide a digital copy of the sheet file border and format for use by KCI Technologies. KCI has included an Additional Services fee for parcel maps and metes-and-bounds description for locations of proposed Right-of-Way taking.

The survey Right-of-Way maps deliverables will be provided at a suitable scale for use in 11” x 17” and 22” x 34” formats.

E. <u>Right-of-way Acquisition (estimate 4 Parcels)</u>

Up to twelve (12) Parcel Descriptions and Exhibits for proposed parcel acquisition. This item does not include off-site easements which may require additional boundary retracement or professional ROW acquisition services. This service may be performed under a separate proposal.

Subsurface Utility Engineering (SUE):

IV. SUE SERVICES

The SUE work for this project will be prepared in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-22 (Standard Guideline for Investigating and Documenting Existing Utilities). As described

in the mentioned ASCE publication, four levels have been established to describe the quality of utility location and attribute information used on plans.

The four quality levels are as follows:

- Quality Level D (QL "D") - Information derived from existing records (e.g., plans, GIS databases, utility owner memory and recollection, etc.).
- Quality Level C (QL "C") - QL "D" information supplemented with information obtained by surveying visible above-ground utility features (e.g., valves, hydrants, meters, manhole covers, etc.).
- Quality Level 8 (QL "8") - Also known as "designating" this quality level provides the horizontal position of subsurface utilities within approximately one foot. Two-dimensional (x, y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Utility indications are referenced to established survey control.
- Quality Level A (QL "A") -Also known as "locating", this quality level provides precise three-dimensional (x, y, z) information at critical locations by exposing specific utilities. Non-destructive vacuum excavation equipment is used to expose utilities at specific points. Utility indications are referenced to established survey control.

Quality Level D (QL "D")

1. Will perform records research for the full length of the project area as identified in the attached Exhibit "A" (Figure 3) for all utility owners within the project footprint.
2. Will provide all collected record drawings and a Utility Contact List to the Client.
3. Will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing all QL "D" record drawing data.

Quality Level B (QL "B")

1. Subsurface detection methods (Electromagnetic Locators) will be utilized to designate the estimated 5,000 LF of existing telecommunication and gas facilities and the estimated 100 LF of existing pipeline crossing Charlie Roberts Lane. The QL "B" will also extend approximately 100 LF north and south along Lum Road from the intersection of Charlie Roberts Lane. The QL "B" will also extend approximately 500 LF east along Charlier Roberts Road from the intersection of Lum Road.

2. All SUE designated utilities in the field will be identified in pink paint marks/flags. All paint marks and/or flagging placed by SUE consultant is considered temporary and will not be maintained after the day of placement. SUE consultant designation marks will be surveyed using a GPS or conventional surveying methods.

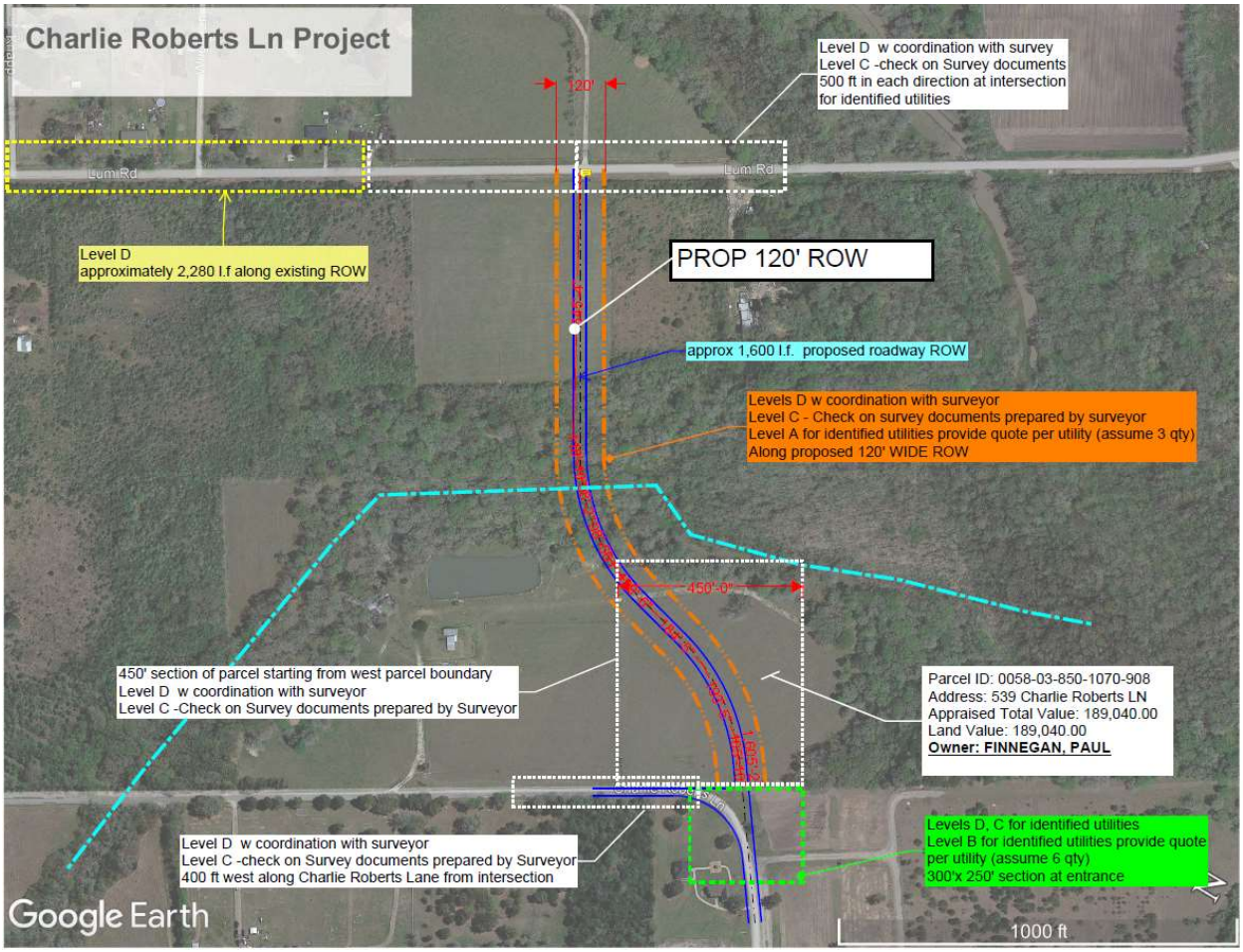


Figure 3 – SUE Exhibit

3. The SUE consultant will coordinate with the Surveyor to obtain survey controls and a survey topographic file to be referenced into the SUE Existing Utility Base Map to provide confirmation of layout and orientation of all collected SUE utility data. The SUE CAD technician will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing all QL "B" designated data collected in the field as well as any QL "D" record drawing data which may have not been tenable or discovered in the field.

4. Will perform project planning, oversight of schedules, and quality control review of all scope of services.

5. The deliverable will be a SUE Existing Utility Base file.

Utility Coordination

After the SUE Existing Utility Base Map is generated, SUE consultant will generate a Utility Conflict Matrix representing all discovered utilities/pipelines within the project limits. The deliverables will be pre-design, preliminary Utility Conflict Matrix and as design is developed an updated Utility Conflict Matrix will be provided. The SUE consultant will be

charged with providing utility coordination from the start of the project till the end of construction, which will include acquiring LONO's where necessary.

Quality Level A (QL "A")

1. A total of 3 test holes have been budgeted for this project.

2. There will be two non-destructive test hole excavations to obtain the top of pipeline elevations on each side of Chartier Roberts Lane and will include verifying the size of the pipeline and backfill of the hole. Breaking and repairing concrete is not anticipated and not included in this proposal. It is assumed any site access and right of entry will be coordinated by the Surveyor. SUE consultant will place 811 One Call tickets prior to all excavations, obtain and review all available record drawings to plan efficient field excavation operations, conduct advance planning with pipeline owner's representative(s) and schedule field work accordingly. This work includes a CAD technician generating the signed and sealed test hole reports and updating the SUE Existing Utility AutoCAD file with the location of each QL "A" test hole performed. All test hole work will be performed in accordance with SUE consultant 's standard Quality Assurance/Quality Control procedures.

3. There will be one additional pothole for any other potential conflicts that may be found during the project design.

4. The deliverables will be an updated SUE Existing Utility Base file and four (3) Signed and Sealed Test Hole Data Sheets.

Geotechnical Engineering

V. GEOTECHNICAL SERVICES

The geotechnical work is divided into two sections. Each section will be discussed and estimated separately. These sections are as follows:

- Desktop Geologic Fault Study.

- Geotechnical Exploration Study for the pavement and drainage improvements.

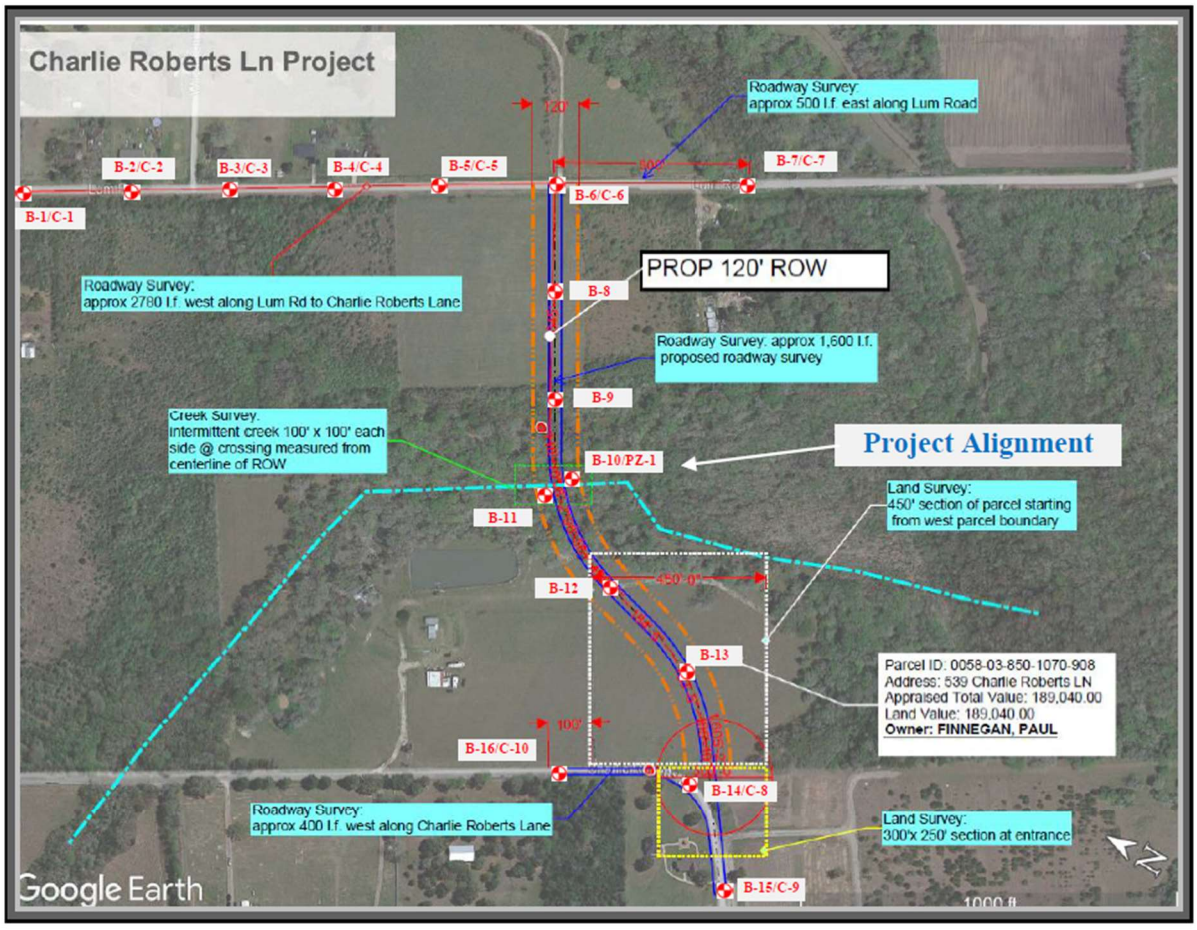
All geotechnical work will be completed in accordance with Fort Bend County Geotechnical Guidelines Draft, March 2022.

Drilling and Sampling.

The Geotechnical Subconsultant will evaluate the soil stratigraphy and groundwater conditions for the proposed paving and storm sewer improvements by conducting sixteen (16) soil borings to a depth of 30-ft from existing grade, spaced about 500-ft from each other. We will conduct one (1) soil boring on each side of the creek creek/channel crossing in general accordance with HCFCD geotechnical guidelines. The plan of borings is shown on Plate 2. The borings schedule is as follows:

Facility	Borings	Depth, ft	Remark
Paving and Underground Utilities	B-1 thru B-9 and B-12 thru B-16	30	A truck-mounted drilling rig.
Box Culvert	B-10 and B-11	30	A truck-mounted drilling rig. An ATV rig may be needed, if wet and soft soils are encountered at borings on grass

Soil samples will be obtained continuously at boring locations from the ground surface to 20-ft and at five-ft intervals thereafter to the completion depths of the borings. The cohesive soils will be sampled, using a Shelby Tube sampler. Standard Penetration Tests (SPT) will be performed in sands, if encountered. Shear strengths of the clays will be measured in the field with a hand penetrometer and correlations between this data and laboratory unconfined compression and Torvane tests used to supplement laboratory shear strength data.



B-1/C-1: Coring at Boring B-1

B-10/PZ-1: Piezometer 1 at Boring B-10

Groundwater.

Depth to groundwater will be important for design and construction of the proposed facilities. For this reason, borings will be drilled dry and the depth at which groundwater is encountered will be recorded. Twenty-four-hour water levels will be measured only at Piezometer Boring, B-8.

Borehole Grouting.

All of the geotechnical boreholes on existing pavement will be grouted with cement and bentonite, after drilling and sampling.

Material Laboratory Testing.

Laboratory tests will vary with the soils encountered but will be planned to evaluate soils design parameters for the proposed pavements and storm sewers. It is anticipated that the tests will include hand penetrometer, torvane, unconfined compression, unit weight, moisture content, liquid and plastic limit tests, gradation, and hydrometers. We will conduct additional detailed testing for Global stability analysis of creek/channel side slope. These tests will consist of Consolidated Undrained (CU) Triaxial Tests with pore pressure measurements and Unconsolidated Undrained (UU) Triaxial Tests. All of the subsoils will be classified in general accordance with the American Society of Testing Materials (ASTM) Soil Classification System. All tests will be performed in general accordance with the ASTM Procedures.

Geotechnical Report Contents.

The field and laboratory data will be summarized in an engineering geotechnical report PE sealed by the Geotechnical Subconsultant. Analyses of these data will be presented and recommendations made relative to the following (as applicable):

- Summary.
- Project site pictures.
- Geology.
- Results of the Desktop Geologic Fault Study and recommendations for Phase I Study, if warranted.
- Generalized soils stratigraphy and groundwater levels.
- Boring logs per GET format.
- Estimated subgrade properties (based on correlations) including CBR and Resilient Modulus values for natural soils.
- Concrete pavement design, using AASHTO 1993 pavement design method. The client will provide traffic loading in the form of ESAL.
- Concrete pavement recommendations.
- Pavement steel placement and spacing.
- Soil stabilization requirements for the pavements.
- Potential construction problems.
- Recommendations on site drainage.

- Recommendations on the design of the storm sewers including bedding requirements, dewatering, trench safety etc.
- In the event that open excavation is used, we will provide bedding, backfilling, excavation wall and bottom stability, thrust restraint, dewatering, pipe design parameters.
- In the event that tunneling is used, the report will provide soil design parameters, ground stability, tunnel shaft excavation stability and dewatering.
- Construction requirements for trench excavations and backfilling, including groundwater effects and dewatering considerations.
- Soil types are available from excavations and use of these materials for fill.
- OSHA soil classification for the trench safety.
- Trench construction and safety requirements.
- Trench safety report.
- Lateral earth pressures for the design of the retention system.
- Recommendations on design of the shaft structure.
- Potential for bottom blow up at the trenches and tunnel.
- Any other soils design or construction problems revealed by the study.
- For open excavation construction, the report will provide bedding, backfilling, excavation wall and bottom stability, thrust restraint, dewatering and design parameters for the box culverts.
- OSHA soil classification for the trench safety.
- Trench safety report.
- Lateral earth pressures for the design of the retention system.

I. CONSTRUCTION PHASE SERVICES

A. Construction Phase Services include reviewing shop drawings, providing responses to contractor's Request For Information (RFI), attending meetings, and performing site visits as required by the PMC. This effort will be compensated for on a specified rate basis. A supplemental work authorization will be developed at the 95% design completion level to establish a budget for these services.

COST PROPOSALS AND/OR CORRESPONDENCES

FROM SUBCONSULTANTS

CHARLIE ROBERTS LANE – PROJECT 23412

NEW ROADWAY - SECONDARY ACCESS

REVISED
PROPOSAL FOR
DESKTOP GEOLOGIC FAULT STUDY AND
GEOTECHNICAL STUDY
CHARLIE ROBERTS LANE PAVING AND DRAINAGE IMPROVEMENTS
FORT BEND COUNTY PROJECT NO. 23412
FORT BEND COUNTY, TEXAS
REVISION I

PROPOSAL NO. P24-353

TO

IMS ENGINEERS, INC.
HOUSTON, TEXAS

BY

GEOTECH ENGINEERING AND TESTING

www.geotecheng.com

DECEMBER 2024

IMS Engineers, Inc.
1225 North Loop West, Suite 1020
Houston, Texas 77008

Proposal No. P24-353
October 7, 2024
Tel.: 713-739-7744
E-mail: equiroz@imsengineers.com

Attention: Mr. Ed Quiroz, P.E., CPM
Southwest Region Vice President

REVISED
PROPOSAL FOR
DESKTOP GEOLOGIC FAULT STUDY AND
GEOTECHNICAL STUDY
CHARLIE ROBERTS LANE PAVING AND DRAINAGE IMPROVEMENTS
FORT BEND COUNTY PROJECT NO. 23412
FORT BEND COUNTY, TEXAS
REVISION I

Gentlemen:

At your request, we are pleased to submit this proposal for the Charlie Roberts Lane Paving/Drainage Improvement project. The roadway improvement will be about 6,000-ft, from Lum Road to Bates Allen Park, Fort Bend County, Texas. Existing 2-lane asphalt roadway will be converted to 3-lane concrete roadway along with storm sewer. The planned paving improvements were discussed in detail with Mr. Ed Quiroz, P.E., CPM in order to plan a study that would provide the necessary design and construction data.

INTRODUCTION

It is planned to improve approximately 6,000 linear feet of Charlie Roberts Lane from Lum Road to Bates Allen Park, Fort Bend County, Texas. We understand that the proposed improvement will consist of concrete pavement, storm sewers and box culvert. Furthermore, the proposed facilities will consist of the following:

Facility	Remarks
Paving	The roadway will be about 6,000-ft long, concrete paving. We understand, client will provide the traffic loading in a form of Equivalent Single Axial Load (ESAL). Furthermore, we understand that 30-year design life will be used for concrete pavement design.
Storm Sewers	The underground utilities will consist of storm sewers. We assumed that the depth of the underground utilities will be about 13- to 18-ft deep.
Box Culvert	We understand that the planned improvements will include installing RC box culvert at the creek crossing.

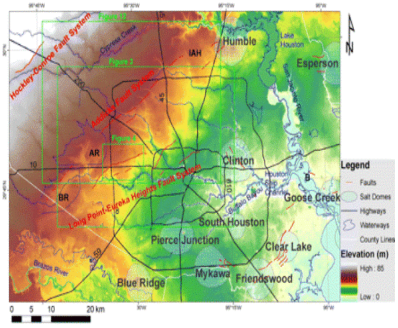
This proposal is divided into two sections. Each section will be discussed and estimated separately. These sections are as follows:

- Desktop Geologic Fault Study.
- Geotechnical Exploration Study for the pavement and drainage improvements.

The scope of our work will be in general accordance with Fort Bend County Geotechnical Guidelines Draft, March 2022. The geotechnical study at the channel/creek crossing along Charlie Roberts Lane shall be conducted in accordance with HCFCD geotechnical guidelines, December 2021. We understand that the scope of our work will not include review of plans and specifications prior to the final design.

DESKTOP GEOLOGIC FAULTING

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



A Desktop Geologic Fault Study will be conducted. A desktop fault study will include a study of published data on surface faults in the area of the site from the Geotech Engineering and Testing Library. A report of our findings will be provided.

GEOTECHNICAL STUDY

Field Exploration

Site Access. The project alignment is along the existing 2-lane asphalt roadway. Therefore, site access can be provided, using a truck-mounted drilling rig. Traffic control will be required. Due to presence of soft subgrade soils and potential access problems, an ATV rig may have to be used for the boring on grass.

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

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

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

Drilling and Sampling. We will evaluate the soil stratigraphy and groundwater conditions for the proposed paving and storm sewer improvements by conducting sixteen (16) soil borings to a depth of 30-ft from existing grade, spaced about 500-ft from each other. We will conduct one (1) soil boring on each side of the creek creek/channel crossing in general accordance with HCFCD geotechnical guidelines. The plan of borings is shown on Plate 2. The borings schedule is as follows:

Facility	Borings	Depth, ft	Remark
Paving and Underground Utilities	B-1 thru B-9 and B-12 thru B-16	30	A truck-mounted drilling rig.
Box Culvert	B-10 and B-11	30	A truck-mounted drilling rig. An ATV rig may be needed, if wet and soft soils are encountered at borings on grass

Soil samples will be obtained continuously at boring locations from the ground surface to 20-ft and at five-ft intervals thereafter to the completion depths of the borings. The cohesive soils will be sampled, using a Shelby Tube sampler. Standard Penetration Tests (SPT) will be performed in sands, if encountered. Shear strengths of the clays will be measured in the field with a hand penetrometer and correlations between this data and laboratory unconfined compression and Torvane tests used to supplement laboratory shear strength data.

Groundwater. Depth to groundwater will be important for design and construction of the proposed facilities. For this reason, borings will be drilled dry and the depth at which groundwater is encountered will be recorded. Twenty-four hour water levels will be measured only at Piezometer Boring, B-8.

Borehole Grouting. All of the geotechnical boreholes on existing pavement will be grouted with cement and bentonite, after drilling and sampling.

LABORATORY TESTING

Laboratory tests will vary with the soils encountered but will be planned to evaluate soils design parameters for the proposed pavements and storm sewers.

It is anticipated that the tests will include hand penetrometer, torvane, unconfined compression, unit weight, moisture content, liquid and plastic limit tests, gradation, and hydrometers.

We will conduct additional detailed testing for Global stability analysis of creek/channel side slope. These tests will consist of Consolidated Undrained (CU) Triaxial Tests with pore pressure measurements and Unconsolidated Undrained (UU) Triaxial Tests.

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

ENGINEERING ANALYSES AND REPORTING

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

Facility	Recommendations
General	o Summary. o Project site pictures. o Geology. o Results of the Desktop Geologic Fault Study and recommendations for Phase I Study, if warranted. o Generalized soils stratigraphy and groundwater levels. o Boring logs per GET format.

Facility	Recommendations
Road Paving	○ Estimated subgrade properties (based on correlations) including CBR and Resilient Modulus values for natural soils. ○ Concrete pavement design, using AASHTO 1993 pavement design method. The client will provide traffic loading in the form of ESAL. ○ Concrete pavement recommendations. ○ Pavement steel placement and spacing. ○ Soil stabilization requirements for the pavements. ○ Potential construction problems. ○ Recommendations on site drainage.
Storm Sewers	○ Recommendations on the design of the storm sewers including bedding requirements, dewatering, trench safety etc. ○ In the event that open excavation is used, we will provide bedding, backfilling, excavation wall and bottom stability, thrust restraint, dewatering, pipe design parameters. ○ In the event that tunneling is used, we will provide, soil design parameters, ground stability, tunnel shaft excavation stability and dewatering. ○ Construction requirements for trench excavations and backfilling, including groundwater effects and dewatering considerations. ○ Soil types available from excavations and use of these materials for fill. ○ OSHA soil classification for the trench safety. ○ Trench construction and safety requirements. ○ Trench safety report. ○ Lateral earth pressures for the design of the retention system. ○ Recommendations on design of the shaft structure. ○ Potential for bottom blow up at the trenches and tunnel. ○ Any other soils design or construction problems revealed by the study.

Facility	Recommendations
RC Box Culvert	o We understand that open excavation is used. We will provide bedding, backfilling, excavation wall and bottom stability, thrust restraint, dewatering and design parameters for the box culverts. o OSHA soil classification for the trench safety. o Trench safety report. o Lateral earth pressures for the design of the retention system.

COST ESTIMATE

General

Based on the scope of work outlined above, we estimate the cost for field, laboratory, and engineering services based on the Fee Schedule as shown on Plates 3 through 5. This estimate assumes underground obstructions will not be encountered that require boring relocations. GET is not responsible for damages to underground utilities, man-made utilities, etc. In the event that concrete, rock/rubble is encountered, the boring(s) will be terminated. We understand that all of the boring elevations will be provided by the client prior to completion of GET report. Our cost estimate includes one draft report copy and one final report copy. A digital copy of the report will also be provided. Additional report copies will be provided at a separate charge.

Underground Utilities

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

Traffic Control Allowance

The cost estimate for traffic control is only an allowance. The actual cost may be lower or higher, depending on access, pavement thickness, concrete strength and daily production. GET is prepared to use any qualified traffic control subcontractor specified by the client. **Our estimated traffic control schedule is as follow:**

	Day	Services
	4.0	Coring, drilling and Sampling, Borehole Grouting
Total:	4.0	

Cost Summary

A summary of estimated cost is presented below:

Scope of Work	Estimated Cost	Cost Breakdown Plate(s)
Desktop Geologic Fault Study	$ 989.00	3
Geotechnical Exploration for Paving and Storm Sewer	79,557.00	3 – 4
Pavement Coring (Allowance)	3,464.00	5
Traffic Control (allowance)	3,872.00	5
Piezometer Installation (Allowance)	2,092.00	5
ATV Rig (allowance)	2,246.00	5
Subtotal	$ 91,231.00	
Grand Total	**$ 92,220.00**	

REPORT REVIEWS AND COMMENTS

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

TIME SCHEDULES

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

Facility	Right of Way/Utility Clearance	Field Exploration	Laboratory Testing	Engineering	Total
Paving and Utilities & Box Culvert	10	10	25	30	75

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

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

Very truly yours,

GEOTECH ENGINEERING AND TESTING

James Namekar, Ph D., P.E.
Vice President

ACCEPTED BY:_____

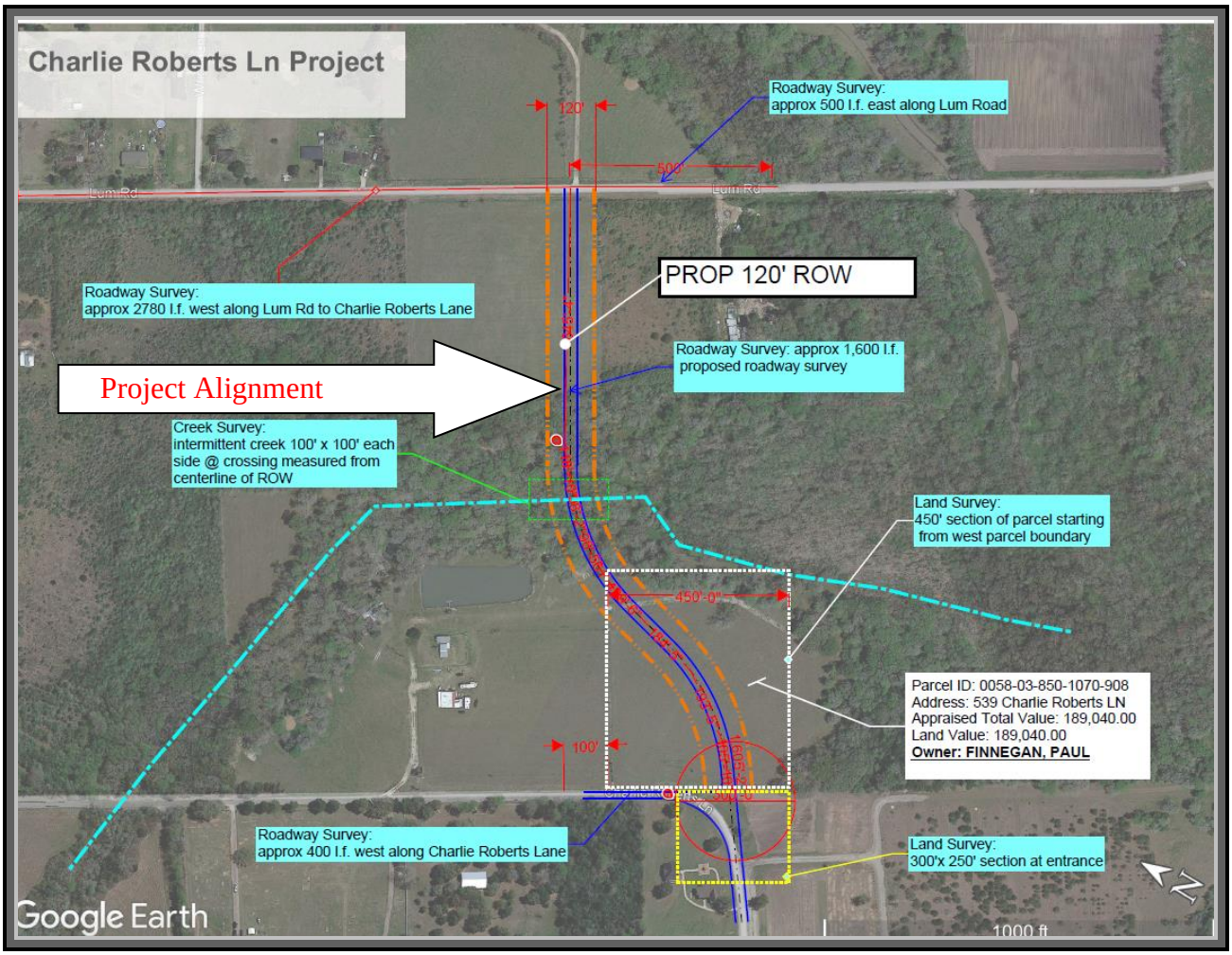
COMAPANY NAME: _____

PRINTED NAME:_____

DATE:_____

Enclosures: Site Vicinity Map – Plate 1
Plan of Borings – Plate 2
Cost Estimate – Plates 3 through 5
General Conditions
Fee Schedule

Copies Submitted: (1) IMS Engineers, Inc. - Mr. Ed Quiroz, P.E., CPM
(1) DAE

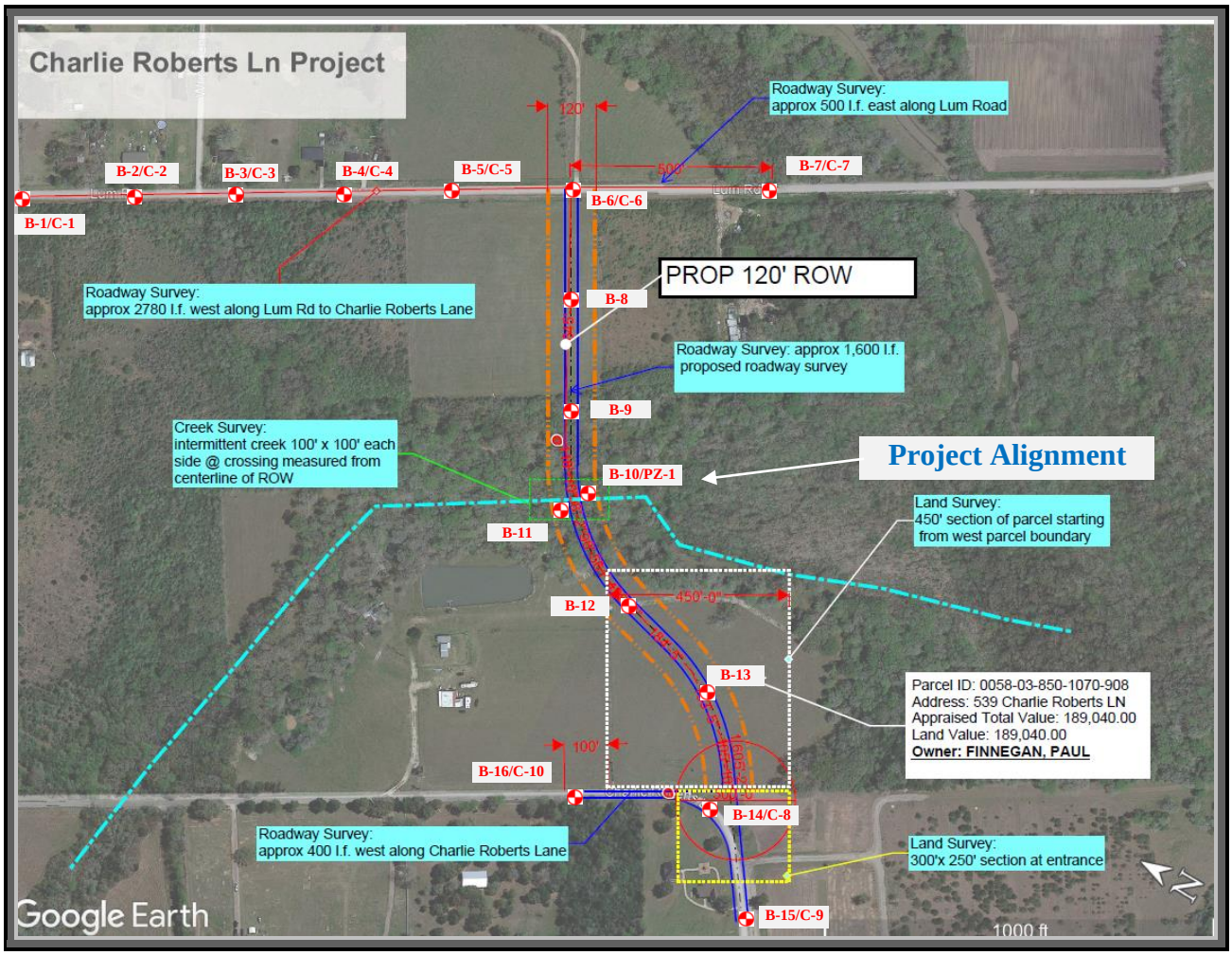


SITE VICINITY MAP

NORTH

PROJECT: Desktop Geologic Fault Study and Geotechnical Exploration for Charlie Roberts Lane Paving and Drainage Improvements
Fort Bend County, FBC Project No. 23412, Texas

SCALE: NOT TO SCALE	DATE: DECEMBER 2024	PROPOSAL NO.: 24-353E



- **B-1/C-1: Coring at Boring B-1**
- **B-10/PZ-1: Piezometer 1 at Boring B-10**

PLAN OF BORINGS (Boring locations are approximate)			NORTH
PROJECT: Desktop Geologic Fault Study and Geotechnical Exploration for Charlie Roberts Lane Paving and Drainage Improvements Fort Bend County, FBC Project No. 23412, Texas			
SCALE: NOT TO SCALE	DATE: DECEMBER 2024	PROPOSAL NO.: 24-353E	

Estimated Cost Summary (Detailed)

Desktop Geologic Fault Study and Geotechnical Study

CHARLIE ROBERTS LANE PAVING AND DRAINAGE IMPROVEMENTS

P24-353

Fort Bend County, Texas

Consultant Proposal Breakdown

GEOTECH ENGINEERING AND TESTING Date: December 11, 2024		**Principal Engineer**	**Senior Engineer**	**Project Engineer**	**Field Technician**	**Typing/ Drafting**	**Unit of Measure**	**Estimated Quantity**	**Rate**	**Subtotal (Cost $)**
		Billing Rate per Hour								
		$266.00	**$218.00**	**$176.00**	**$59.00**	**$75.00**				
Task No.	**Task Description**	*** L E V E L O F E F F O R T**								
	Desktop Geologic Fault Study									
1	Review of Existing Published Fault Maps by Staff Engineer			4						$704.00
2	Reporting		0.5	1						$285.00
									Total:	**$989.00**
	Project Initiation upon Receiving NTP									
3	Review of the scope of the work	3	8	3						$3,070.00
4	Coordinate with Client, in obtaining the updated information of the project		2	1						$612.00
Paving and Utilities along project alignment, 16 Borings										
	Field Investigation									
5	Develop a Drilling Plan			1						$176.00
6	Staking the Sixteen (16) Borings in the Field			10						$1,760.00
7	Coordinate with Surveyors to Locate & Tie in Borings at Site			1						$176.00
8	Field Coordination during Drilling Including Utility Clearance, Texas One Call, and/or obtain drilling permission			12						$2,112.00
9	Mobilization / Demobilization						LS	1	$746.00	$746.00
10	Drilling and Sampling Sixteen (16) Borings									
11	Continous (0' - 20')						LF	320	$27.00	$8,640.00
12	Intermediate (20' - 30')						LF	160	$24.00	$3,840.00
13	Daily Travel						EA	3	$565.00	$1,695.00
14	Borehole Grouting						FT	452	$13.00	$5,876.00
15	Technician, Logging Borings, Borehole cleaning and Water Level Reading				60					$3,540.00
16	Vehicle Charge (Boring staking, site visits during field coordination during drilling including utility clearance, Texas One Call etc., and borehole logging and grouting)						DAY	10	$104.00	$1,040.00
									Subtotal	**$33,283.00**
	Laboratory Testing									
17	Assign Laboratory Tests, Looking at Soil Samples			6						$1,056.00
18	Data Reduction and Evaluation			1						$176.00
19	Water Content (all samples)						EA	192	$12.00	$2,304.00
20	Liquid and Plastic Limits						EA	48	$76.00	$3,648.00
21	Percent Passing #-200 Sieve						EA	36	$59.00	$2,124.00
22	Torvane						EA	192		$0.00
23	Hand Penetrometer						EA	192		$0.00
24	Unconfined Compression						EA	48	$54.00	$2,592.00
25	UU Triaxial Tests						EA	4	$77.00	$308.00
26	Consolidated Undrainged Triaxial Test with Pore Pressure						EA	1	$2,000.00	$2,000.00
27	Double Hydrometer Test						EA	4	$266.00	$1,064.00
28	Crumb Tests						EA	8	$46.00	$368.00
									Subtotal	**$15,640.00**

Estimated Cost Summary (Detailed)
Desktop Geologic Fault Study and Geotechnical Study
CHARLIE ROBERTS LANE PAVING AND DRAINAGE IMPROVEMENTS
P24-353
Fort Bend County, Texas
Consultant Proposal Breakdown

GEOTECH ENGINEERING AND TESTING Date: December 11, 2024		**Principal Engineer**	**Senior Engineer**	**Project Engineer**	**Field Technician**	**Typing/ Drafting**	**Unit of Measure**	**Estimated Quantity**	**Rate**	**Subtotal (Cost $)**
		Billing Rate per Hour								
		$266.00	**$218.00**	**$176.00**	**$59.00**	**$75.00**				
Task No.	**Task Description**	***LEVEL OF EFFORT**								
	Engineering Analysis and Report									
25	Prepare Plan of Borings			1						$176.00
26	Analyze field and laboratory test results			2						$352.00
27	Prepare summary of laboratory test data			2						$352.00
28	Edit and prepare final boring log profiles			16						$2,816.00
29	Prepare and develop boring log profiles			2						$352.00
	Concrete Paving									
30	Develop concrete pavement design based on traffic loading	0.5	2	6						$1,625.00
31	Recommendations on soil stabilization		1	2						$570.00
	Underground Utilities									$0.00
31	Develop Soil parameters and Recommendations for tunneling	0.5	1	5						$1,231.00
32	Develop soil parameters and recommendations for open excavations	0.5	1	3						$879.00
33	Develop excavation supprt earth pressures for trench excavation	0.5	1	4						$1,055.00
34	Recommend dewatering method		1	2						$570.00
35	Prepare a Geotechnical Trench Safety Letter Report	0.5	3	6						$1,843.00
	Box Culvert									$0.00
36	Bedding, backfilling, excavation wall and bottom stability Recommendations	1	3	6						$1,976.00
37	Design parameters for box culvert		2	6						$1,492.00
38	Lateral earth pressures for the design pof retention system	0.5	2	4						$1,273.00
39	Erosion analysis at the side slope of the channel near the road crossing	0.5	2	4						$1,273.00
40	Potential Construction Problems		1	2						$570.00
41	Document the results of soil exploration, laboratory testing and geotehnical recommmendations in a geotechnical draft report	5	10	30						$8,790.00
42	Incorporate the review comments on draft report into final geotechnical report	1	5	8						$2,764.00
43	Technical Typing/Drafting					5				$375.00
44	Report Reproduction Allowance									$300.00
									Subtotal	**$30,634.00**
									Total:	**$79,557.00**

Estimated Cost Summary (Detailed)
Desktop Geologic Fault Study and Geotechnical Study
CHARLIE ROBERTS LANE PAVING AND DRAINAGE IMPROVEMENTS
Fort Bend County, Texas

P24-353

Consultant Proposal Breakdown

GEOTECH ENGINEERING AND TESTING Date: December 11, 2024	**Principal Engineer**	**Senior Engineer**	**Project Engineer**	**Field Technician**	**Typing/ Drafting**	**Unit of Measure**	**Estimated Quantity**	**Rate**	**Subtotal (Cost $)**
	Billing Rate per Hour								
	$266.00	**$218.00**	**$176.00**	**$59.00**	**$75.00**				
Task No. **Task Description**	***LEVEL OF EFFORT**								
ALLOWANCE ITEMS									
Pavement Coring Allowance									
61 Coring and Patching (Up to Six-Inches), Six-Inch Cores						EA	10	$180.00	$1,800.00
62 Coring and Patching (6" - 12")						IN	60	$16.00	$960.00
63 Coordination, Project Engineer			4						$704.00
								Subtotal	**$3,464.00**
Traffic Control/Allowance									
64 Traffic Control (Cost +10%)						DAY	4	$880.00	$3,520.00
65 Coordination, Project Engineer			2						$352.00
								Subtotal	**$3,872.00**
ATV Rig Allowance									
66 Mobilization/Demobilization						LS	1	$266.00	$266.00
67 Drilling and Sampling Surcharge						FT	180	$11.00	$1,980.00
								Subtotal	**$2,246.00**
Piezometer Installation and Abandonment Allowance									
68 One 20' and 3 inch diameter Piezometers w/ 10' screen (linstallation and abondomnent)						FT	20	$47.00	$940.00
69 Technician Monitoring Piezometer Placement			8						$472.00
70 Technician, Piezometer Reading (for a month, twice in one month)			8						$472.00
71 Vehicle Charge						DAY	2	$104.00	$208.00
								Subtotal	**$2,092.00**
								Total:	**$11,674.00**
								Grand Total:	**$92,220.00**

United Engineers, Inc.
CIVIL ENGINEERING ◆ LAND DEVELOPMENT ◆ CONSTRUCTION MANAGEMENT
SURVEYING ◆ UTILITY ENGINEERING
TBPE FIRM #F-000142; TBPLS FIRM #10117800

December 9, 2024

Eduardo Quiroz, P.E.
IMS Engineers
1225 North Loop West, Suite 1020
Houston, Texas 77008

Re: Utility Coordination and SUE Level "A", "B" and "D" with Land Survey Proposal
UEI Proposal P2024-12-09

Mr. Quiroz:

United Engineers, Inc. (UEI) is in receipt of your request for a cost proposal to perform professional Utility Coordination and SUE services on the above captioned project. The required scope of work for the project as currently defined consists of the following items listed below:

INTRODUCTION
UEI's subcontractor LTRA will perform the SUE work requested for this project in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-22 (Standard Guideline for Investigating and Documenting Existing Utilities). As described in the mentioned ASCE publication, four levels have been established to describe the quality of utility location and attribute information used on plans. The four quality levels are as follows:

- Quality Level D (QL "D") – Information derived from existing records (e.g., plans, GIS databases, utility owner memory and recollection, etc.).
- Quality Level C (QL "C") – QL "D" information supplemented with information obtained by surveying visible above-ground utility features (e.g., valves, hydrants, meters, manhole covers, etc.).
- Quality Level B (QL "B") – Also known as "designating" this quality level provides the horizontal position of subsurface utilities within approximately one foot. Two-dimensional (x,y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Utility indications are referenced to established survey control.
- Quality Level A (QL "A") – Also known as "locating", this quality level provides precise three dimensional (x,y,z) information at critical locations by exposing specific utilities. Non-destructive vacuum excavation equipment is used to expose utilities at specific points. Utility indications are referenced to established survey control.

It is the responsibility of the SUE provider to perform due diligence with regards to records research (QL "D") and acquisition of available utility records. The due diligence provided for this project will consist of contacting applicable "One Call" agencies, performing GIS database research, reviewing any available utility record information, visually inspecting surface appurtenances, and conducting site investigations. UEI is not responsible for designating and locating "unknown" utilities that were not detected while surveying the work area. While uncommon, utilities possessing the following characteristics can be missed while using the standard SUE procedures: utilities buried excessively deep beyond the detection limits of standard locating equipment, abandoned utilities, utilities with no apparent surface features and no records available, non-conductive utilities, and utilities buried in soil unsuitable for detection.

The specific tasks to be performed by UEI in conjunction with this project are limited to the following:

Subsurface Utility Engineering (SUE):

- **BASIC SERVICES:**

  Quality Level D (QL "D")

  - Will perform records research for the full length of the project area as identified in the attached Exhibit "A" for all utility owners within the project footprint.

  - Will provide all collected record drawings and a Utility Contact List to the Client.

  - Will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing all QL "D" record drawing data.

  Quality Level B (QL "B")

  - Subsurface detection methods (Electromagnetic Locators) will be utilized to designate the estimated 5,000 LF of existing telecommunication and gas facilities and the estimated 100 LF of existing pipeline crossing Charlie Roberts Lane. The QL "B" will also extend approximately 100 LF north and south along Lum Road from the intersection of Charlie Roberts Lane. The QL "B" will also extend approximately 500 LF east along Charlier Roberts Road from the intersection of Lum Road.

  - All SUE designated utilities in the field will be identified in pink paint marks/flags. All paint marks and/or flagging placed by UEI is considered temporary and will not be maintained after the day of placement. UEI's subcontractor's designation marks will be surveyed using a GPS or conventional surveying methods.

- The Client will provide survey controls and a survey topographic file to be referenced into the SUE Existing Utility Base Map to provide confirmation of layout and orientation of all collected SUE utility data. The SUE CAD technician will generate a SUE Existing Utility Base AutoCAD file in grid coordinates showing all QL "B" designated data collected in the field as well as any QL "D" record drawing data which may have not been tonable or discovered in the field.

- Will perform project planning, oversight of schedules, and quality control review of all scope of services.

- The deliverable will be a SUE Existing Utility Base file.

Utility Coordination

- After the SUE Existing Utility Base Map is generated, UEI will generate a Utility Conflict Matrix representing all discovered utilities/pipelines within the project limits. The deliverables will be pre-design, preliminary Utility Conflict Matrix and as design is developed an updated Utility Conflict Matrix will be provided. UEI will be charged with providing utility coordination from the start of the project till the end of construction which will include acquiring LONO's where necessary.

Quality Level A (QL A)

- A total of 3 test holes have been budgeted for this project.

- There will be two non-destructive test hole excavations to obtain top of pipeline elevations on each side of Charlier Roberts Lane and will include verifying the size of the pipeline and backfill of the hole. Breaking and repairing concrete is not anticipated and not included in this proposal. It is assumed any site access and right of entry will be coordinated by the Surveyor. UEI will place 811 One Call tickets prior to all excavations, obtain and review all available record drawings to plan efficient field excavation operations, conduct advance planning with pipeline owner's representative(s) and schedule field work accordingly. This work includes a CAD technician generating the signed and sealed test hole reports and updating the SUE Existing Utility AutoCAD file with the location of each QL "A" test hole performed. All test hole work will be performed in accordance with UEI's standard Quality Assurance/Quality Control procedures.

- There will be one additional potholes for any other potential conflicts that may be found during the project design.

- The deliverables will be an updated SUE Existing Utility Base file and four (3) Signed and Sealed Test Hole Data Sheets.

BASIS OF COMPENSATION: BASIC SERVICES

UEI proposes to perform the described Scope of Services for the following fees. **(See attached Level of Effort)**

QL "D" Costs:	$ 6,970.66
QL "B" Costs:	$13,941.34
QL "A" Costs:	$ 7,500.00
Total:	$28,412.00

EXCLUSIONS FROM THE SCOPE OF SERVICES

a. Specific items excluded from this proposal are as follows, and UEI shall have no responsibility to perform any of these services.
b. Performing QL "B" designation on utilities other than what is stated in Basic Services Scope previously identified.
c. Ground Penetrating radar or acoustic pipe locator investigations.
d. Confirming and verifying the accuracy of as-built record drawings.
e. Performing SUE services on sanitary and storm facilities.
f. Generation of a survey topographic file.
g. Compiling the SUE existing utility layout CAD drawing into plan sheets.
h. Additional Test holes – Performing additional test hole excavation(s) of Quality Level A other than what is listed in the Basic Services Scope.
i. Detailed Traffic Control Device Rental – City Lane closure permits which require a uniform policer officer, certified flaggers, or a truck mounted attenuator.
j. Subcontractor – any test hole(s) exceeding the depth of 15-ft, will require an additional Subcontractor.
k. Pipeline mat rental and handling.
l. Trenching, Casing, or Dewatering.
m. Right of Entry or Access Agreement Coordination.
n. Utility coordination meetings with utility owners.

SCHEDULE OF SERVICES

1. UEI is authorized to begin work on this project within (5) five working days upon receipt of Notice to proceed.

2. Upon receipt of a Notice to Proceed (NTP), UEI's typical practice is to allow up to (20) working days for request and collection of any available existing, as-built utility record drawings.

3. Field work duration is dependent upon good weather. The SUE QL "B" field work described in Basic Services Scope is anticipated to be completed in (20) twenty working days.

4. The final deliverables will be finalized and submitted (10) working days after the SUE field work has been completed.

Mr. Eduardo Quiroz, P.E., CFM
Utility Coordination, SUE with Survey Proposal
P2024-12-09 December 9, 2024

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, George Zamora 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

Charlie Roberts Ln Project

Level D w coordination with survey
Level C -check on Survey documents
500 ft in each direction at intersection
for identified utilities

120'

Lum Rd

Lum Rd

Level D
approximately 2,280 l.f along existing ROW

PROP 120' ROW

approx 1,600 l.f. proposed roadway ROW

Levels D w coordination with surveyor
Level C - Check on survey documents prepared by surveyor
Level A for identified utilities provide quote per utility (assume 3 qty)
Along proposed 120' WIDE ROW

450'-0"

450' section of parcel starting from west parcel boundary
Level D w coordination with surveyor
Level C -Check on Survey documents prepared by Surveyor

Parcel ID: 0058-03-850-1070-908
Address: 539 Charlie Roberts LN
Appraised Total Value: 189,040.00
Land Value: 189,040.00
Owner: FINNEGAN, PAUL

Charlie Roberts Ln

Level D w coordination with surveyor
Level C -check on Survey documents prepared by Surveyor
400 ft west along Charlie Roberts Lane from intersection

Levels D, C for identified utilities
Level B for identified utilities provide quote
per utility (assume 6 qty)
300'x 250' section at entrance

Google Earth

1000 ft

PROJECT NAME: Charlie Roberts Lane
CONTRACT NUMBER: N/A
CLIENT: IMS Engineers (Fort Bend County)
SUB PROVIDER NAME:

	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Miles	Each Pothole		
TASK DESCRIPTION	Project Manager	RPLS	Senior Survey Tech	2-Person Survey Crew	Survey GPS Instrument	Survey Crew Truck	Senior SUE Tech	SUE Tech	Senior Utility Coordinator	Utility Coordinator	Designating Truck	(0-8 ft) Level A Pothole	TOTAL LABOR HRS	TOTAL LABOR COST
SUE Level B-D				16	16	16	8				40		96	
													0	
SUE Level A				8	8	8						3	27	
													0	
SUE Processing			8										8	
													0	
CAD and Data Sheet Drafting								16					16	
													0	
Review SUE deliverables	4	4											8	
													0	
Utility Coordination	4								32	16			52	
													0	
SUBCONTRACT SERVICES													0	
HOURS/MILES SUB-TOTALS	8	4	8	24	24	24	8	16	32	16	40	3	207	
LABOR RATE PER HOUR	**$250.00**	**$250.00**	**$140.00**	**$150.00**	**$40.00**	**$25.00**	**$120.00**	**$110.00**	**$172.00**	**$138.00**	**$30.00**	**$2,500.00**		
ESTIMATED HOURS PER DAY	8	8	8	8	8	8	8	8	8	8	N/A	8		
ESTIMATED DAYS	1	0.5	1	3	3	3	1	2	4	2	N/A	0.375		
TOTAL COSTS	$2,000.00	$1,000.00	$1,120.00	$3,600.00	$960.00	$600.00	$960.00	$1,760.00	$5,504.00	$2,208.00	$1,200.00	$7,500.00		**$28,412.00**

$28,412.00

SURVEYING SERVICES

I. LAND SURVEYING SERVICES (Original Project Limits)

A. Establish Control and TBMs

Fort Bend County horizontal control points and vertical benchmarks by others will be recovered and used as reference. Temporary Benchmarks and baseline control points will be established at an approximate 1,000-foot intervals, maintaining intervisibility from beginning to end of the project for construction purposes (min 3). Every attempt will be made to select locations that will not be lost during construction.

All bearings and coordinates will be based on the Texas Coordinate System of 1983 (NAD 83), South Central Zone 4204. Benchmark elevations will be referenced to the same datum as the effective Fort Bend County Flood Insurance Rate Map by observations on existing Reference Monuments.

B. Survey Control Maps

The Surveyor will prepare a sealed Survey Control Map Sheet and a Control Detail Sheet for the project which includes the proposed right-of-way line, the survey control baseline, Temporary Benchmarks and the project baseline. Client to provide a digital copy of the sheet file border and format for use by KCI Technologies.

The survey control deliverables will be provided at a suitable scale for use in 11" x 17" and 22" x 34" formats

C. Existing Right-Of-Way (Cat 1B, Condition II)

This survey will be performed in accordance with the Manual of Practice for Land Surveying in Texas for a Category 1B, Condition II Urban Standard Land Survey. Improvements will be shown with transparency behind the Existing Boundary. Crossing and adjacent easements will be shown within the Topographic Survey limits defined below; However, Off-site easement estates and non-exclusive easement routes to off-project facilities are not included in this proposal.

This proposal includes hiring title research by a qualified provider. An Abstractor's Certificate will be ordered by a third-party provider for deed information and other easements/encumbrances affecting the immediate project area. Adjoining property owner deeds and adjacent easement documents will also be ordered. Additional research; surveying services required to address comments, etc. outside the original scope of this proposal; or changes made to the survey after completion (if so required), will be considered additional services and can be provided to you on an hourly basis and a separate budget.

D. Topographic Survey (Cat. 6, Cond. 1) for Proposed Road

Prepare a base map of the route in a format suitable to the engineer for design purposes. This survey will be performed in accordance with the Manual of Practice for Land Surveying in Texas

for a Category 6, Condition 1 Detailed Topographic Survey Plat. The project area is marked on the attached exhibit and will be defined as:

- Existing Lum Road Right-Of-Way – Starting at the Intersection of Charlie Roberts Lane and Lum Road extending an additional 100 feet in a northwesterly and northeasterly and southwesterly of said intersection. Thence in a southeasterly direction along the existing Lum Road Right-Of-Way approximately +/- 3,000 LF to a point approximately 500 feet southeast of the proposed intersection of Lum Road and the proposed extension of Charlie Roberts Lane.
- Proposed Extension of Charlie Roberts Lane-Along the 120 foot wide proposed Right-Of-Way for the extension of Charlie Roberts Lane, beginning at the intersection of the Proposed Right-Of-Way with the existing Right-Of-Way with Charlie Roberts Lane, thence along the proposed path to it's intersection with the existing Charlie Roberts Lane Right-Of-Way.
- Expanded scope area 1-Roughly 550'x650' area, encompassing the southwestern extents of the proposed Right-Of-Way and extending across existing tracts of land having fort bend county appraisal district parcel I.D. Nos. 0058-03-850-1140-908 and 0058-03-850-1070-908.
- Expanded Scope Area 2- Roughly 300'x250' area at the existing park entrance, extending from the southwest end of the proposed Right-Of-Way extension +/- 250 feet into the existing park along it existing drive, and roughly 150' North and south of the existing park drive.
- Existing Charlie Roberts Lane- approximately 400 linear feet of the existing Charlie Roberts Lane Right-Of-Way, Beginning at the northern most extent of scope area 2 thence 400 feet in a northwesterly direction along the existing Right-Of-Way of Charlie Roberts Road.

The topographic survey deliverable will be provided in a digital CAD file in produced in AutoCAD Civil 3D (plan view only) at a scale suitable to the engineer for design purposes and will be limited to the following:

- Tie visible improvements within existing and Proposed Right-of-way, from Right-of-Way Line to Right-Of-Way plus 20 feet within project areas described above. Right-Of-Entry to be secured by KCI within private properties affected by scope.
- 50-foot grid within existing ROW, 100-foot grid within the proposed ROW
- Show contours at 1-foot intervals
- Utility flowlines will be tied where physically accessible
- The Surveyor will coordinate with state One-Call resources to determine the existence and location of existing subsurface utilities within the project limits. The Surveyor will survey the utility markings and depict these findings in the Topographic Survey. Should the need for further investigation be needed, this will be provided by

designated utility engineer for Level B utility designating and Level A utility pot holing at conflict locations as determined by design consultant.

- Overhead Sag elevation for crossing overhead electrical utilities
- Locate trees over 6" and the perimeter of existing heavily brushed areas within defined scope area.
- Tie environmental and geotechnical marks/locations. Location exhibit to be provided by client
- Tie location of structures within 100 feet of existing ROW
- At existing Creek crossing extents of scope to be extended an additional 100 feet up and down stream of existing proposed Right-Of-Way capturing cross sections at 25-foot intervals.
- Overlay Current FEMA Flood Plain Mapping and annotate designated flood hazard zones withing project area.
- Existing utility pole locations to be captured and designated with their existing pole nos.

E. Right-of-Way Maps

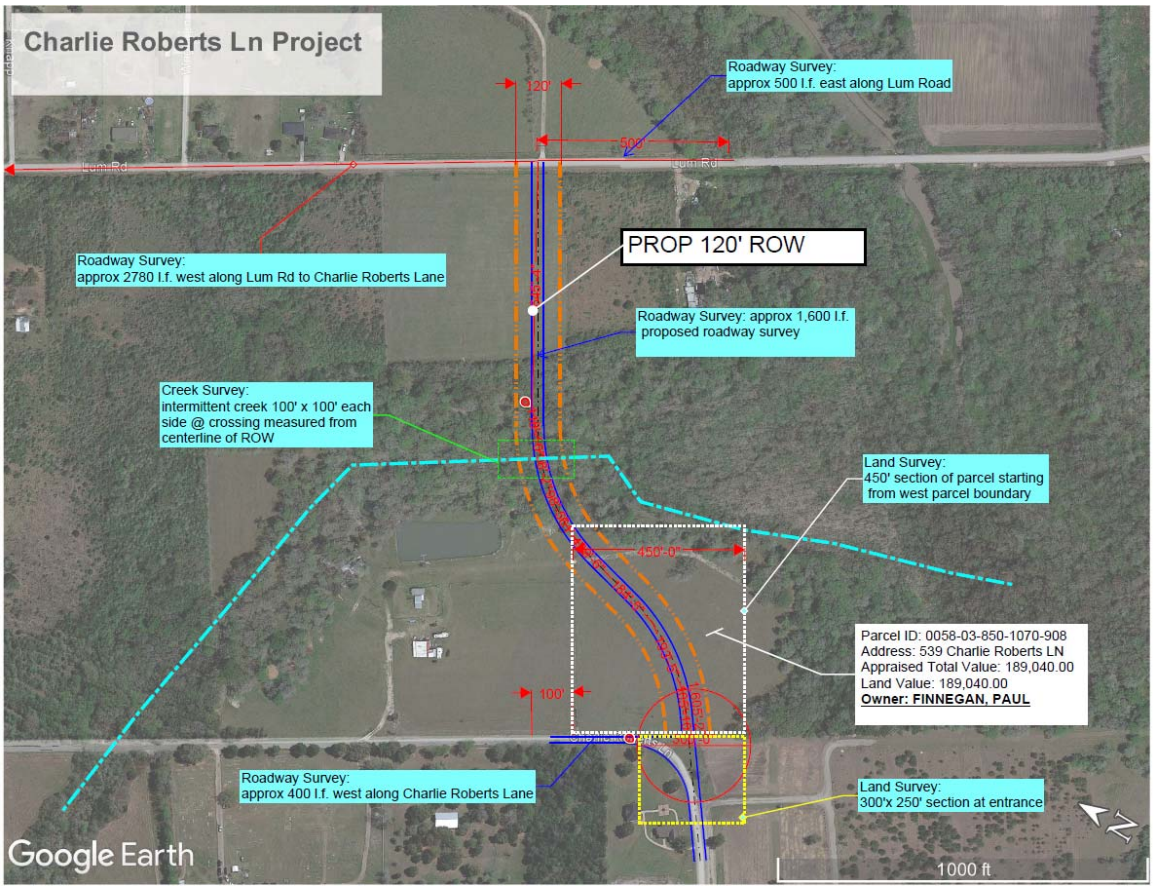
The Surveyor will prepare a sealed overall project maps showing existing and proposed right-of-way and create a centerline alignment for the road section if one of record does not exist. The areas to be acquired shall be shaded and labeled. The Right-of-Way maps will include identify monuments, corners, angle points, points of curve (PC), points of intersections (PIs), points of tangency (PTs) and other points as either "found" or "set" along with title abstracting information used for the project. Show X-Y values on control monuments. All bearings and coordinates shall be based on the established coordinate system for the project. X-Y values will be shown for PCs, PTs, and PIs of curves on the proposed right-of-way lines. Curve data will include the following: delta, radius, arc length, chord length, and chord bearing. Client to provide a digital copy of the sheet file border and format for use by KCI Technologies. KCI has included an Additional Services fee for parcel maps and metes-and-bounds for locations of proposed Right-of-Way taking.

The survey Right-of-Way maps deliverables will be provided at a suitable scale for use in 11" x 17" and 22" x 34" formats.

F. Right-of-way Acquisition (estimate 4 Parcels)

Up to twelve (12) Parcel Descriptions and Exhibits for proposed parcel acquisition. This item does not include off-site easements which may require additional boundary retracement or professional ROW acquisition services. This service may be performed under a separate proposal.

Exhibit of Proposed Topographic Survey



Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412)

SERVICE	Cost		
Survey Control and TBMs	$16,865.90		
Existing ROW (Cat 1B, Condition II)	$51,016.00		
Topographic Survey (Cat 6, Cond 1)	$59,735.60		
ROW Maps	$28,992.90		
ROW Acquisition (Estimate 4 Parcels)	$40,948.40	$3,412.37	Per Parcel Cost
Total	$197,558.80		

Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN-TRAINING	SURVEY TECH	CADD OPERATOR	JUNIOR CADD OPERATOR	ADMIN/CLERICAL	2-MAN SURVEY CREW	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMMETRIST	ABSTRACTOR	TOTAL LABOR HR
Survey Control and TBMs													
Establish Control	2	6		12			1	12					33
SET ADDITIONAL CONTROL and TBMs	3	10		20			1	20					54
Control Map	1	2		4	8		1						
HOURS SUB-TOTALS	2	18	0	36	8	0	3	32	0	0	0	0	99
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	$250.00	$200.00	$150.00	$120.00	$95.00	$75.00	$60.00	$200.00	$150.00	$130.00	$250.00	$75.00	
TOTAL LABOR COSTS	$500.00	$3,600.00	$0.00	$4,320.00	$760.00	$0.00	$180.00	$6,400.00	$0.00	$0.00	$0.00	$0.00	$15,760.00
% DISTRIBUTION OF STAFFING	3.17%	22.84%	0.00%	27.41%	4.82%	0.00%	1.14%	40.61%	0.00%	0.00%	0.00%	0.00%	100.00%

ATTACHMENT E- FEE SCHEDULE
OTHER DIRECT EXPENSES
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS

SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	$0.670		320	$214.40
Certified Letter Return Receipt	each	$6.00			
Overnight Mail - letter size	each		$25.00		
Overnight Mail - oversized box	each		$45.00		
Courier Services	each		$38.00		
Photocopies B/W (11" X 17")	each	$0.30		2	$0.60
Photocopies B/W (8 1/2" X 11")	Each	$0.15		6	$0.90
Photocopies Color (11" X 17")	each	$2.00			
Photocopies Color (8 1/2" X 11")	each	$1.00			
Digital Ortho Plotting	sheet		$3.25		
Plots (B/W on Bond)	per sq. ft.		$1.00		
Plots (Color on Bond)	per sq. ft.	$1.80			
Plots (Color on Photographic Paper)	per sq. ft.	$1.50			
Color Graphics on Foam Board	square foot	$10.00			
Presentation Boards 30" X 40" Color Mounted	each		$100.00		
Report Printing	each		$50.00		
Report Binding and tabbing	each		$12.00		
Notebooks	each		$8.00		
Reproduction of CD/DVD	each		$5.00		
CDs	each	$2.00			
4" X 6" Digital Color Print	picture	$0.50			
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		$45.00	2	$90.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	$25.00		32	$800.00
Survey Grade Terrestrial scanner	day	$1,500.00			
Map Records	sheet		$6.00		
Historical Aerial Images	unit		$150.00		
Aerial Photographs (1" = 500' scale)	each		$100.00		
Reprographics	per sq. ft.		$5.00		
				Total Cost	$1,105.90

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	$15,760.00
NON-SALARY (Other Direct Expenses)	$1,105.90
TOTALS	$16,865.90

11/26/2024
2/12/2025

Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN-TRAINING	SURVEY TECH	CADD OPERATOR	JUNIOR CADD OPERATOR	ADMIN/CLERICAL	2-MAN SURVEY CREW	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMMETRIST	ABSTRACTOR	TOTAL LABOR HR
Existing ROW (Cat 1B, Condition II)													
Right-of-Entry	4	6		16			24					4	54
Research	4	6		30	10		1					24	75
Boundary Survey	8	14		35	50		1	80					
HOURS SUB-TOTALS	16	26	0	81	60	0	26	80	0	0	0	28	317
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	$250.00	$200.00	$150.00	$120.00	$95.00	$75.00	$60.00	$200.00	$150.00	$130.00	$250.00	$75.00	
TOTAL LABOR COSTS	$4,000.00	$5,200.00	$0.00	$9,720.00	$5,700.00	$0.00	$1,560.00	$16,000.00	$0.00	$0.00	$0.00	$2,100.00	$44,280.00
% DISTRIBUTION OF STAFFING	9.03%	11.74%	0.00%	21.95%	12.87%	0.00%	3.52%	36.13%	0.00%	0.00%	0.00%	4.74%	100.00%

ATTACHMENT E- FEE SCHEDULE

OTHER DIRECT EXPENSES

RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS

SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	$0.670		760	$509.20
Certified Letter Return Receipt	each	$6.00			
Overnight Mail - letter size	each		$25.00		
Overnight Mail - oversized box	each		$45.00		
Courier Services	each		$38.00		
Photocopies B/W (11" X 17")	each	$0.30		6	$1.80
Photocopies B/W (8 1/2" X 11")	Each	$0.15			
Photocopies Color (11" X 17")	each	$2.00			
Photocopies Color (8 1/2" X 11")	each	$1.00			
Digital Ortho Plotting	sheet		$3.25		
Plots (B/W on Bond)	per sq. ft.		$1.00		
Plots (Color on Bond)	per sq. ft.	$1.80			
Plots (Color on Photographic Paper)	per sq. ft.	$1.50			
Color Graphics on Foam Board	square foot	$10.00			
Presentation Boards 30" X 40" Color Mounted	each		$100.00		
Report Printing	each		$50.00		
Report Binding and tabbing	each		$12.00		
Notebooks	each		$8.00		
Reproduction of CD/DVD	each		$5.00		
CDs	each	$2.00			
4" X 6" Digital Color Print	picture	$0.50			
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		$45.00	5	$225.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	$25.00		80	$2,000.00
Survey Grade Terrestrial scanner	day	$1,500.00			
Map Records	sheet		$6.00		
Historical Aerial Images	unit		$150.00		
Aerial Photographs (1" = 500' scale)	each		$100.00		
Reprographics	per sq. ft.		$5.00		
Parcel Title Reports	Per		$500.00	8	$4,000.00
				Total Cost	$6,736.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	$44,280.00
NON-SALARY (Other Direct Expenses)	$6,736.00
TOTALS	$51,016.00

Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN-TRAINING	SURVEY TECH	CADD OPERATOR	JUNIOR CADD OPERATOR	ADMIN/CLERICAL	2-MAN SURVEY CREW	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMMETRIST	ABSTRACTOR	TOTAL LABOR HR
Proposed Road (Cat 6, Condition 1)													
Topographic Survey	10	50		60	120		7	120					367
HOURS SUB-TOTALS	10	50	0	60	120	0	7	120	0	0	0	0	367
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	$250.00	$200.00	$150.00	$120.00	$95.00	$75.00	$60.00	$200.00	$150.00	$130.00	$250.00	$75.00	
TOTAL LABOR COSTS	$2,500.00	$10,000.00	$0.00	$7,200.00	$11,400.00	$0.00	$420.00	$24,000.00	$0.00	$0.00	$0.00	$0.00	$55,520.00
% DISTRIBUTION OF STAFFING	4.50%	18.01%	0.00%	12.97%	20.53%	0.00%	0.76%	43.23%	0.00%	0.00%	0.00%	0.00%	100.00%

ATTACHMENT E- FEE SCHEDULE
OTHER DIRECT EXPENSES
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS

SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage - paid at current IRS rate	mile	$0.670		1140	$763.80
Certified Letter Return Receipt	each	$6.00			
Overnight Mail - letter size	each		$25.00		
Overnight Mail - oversized box	each		$45.00		
Courier Services	each		$38.00		
Photocopies B/W (11" X 17")	each	$0.30		6	$1.80
Photocopies B/W (8 1/2" X 11")	Each	$0.15			
Photocopies Color (11" X 17")	each	$2.00			
Photocopies Color (8 1/2" X 11")	each	$1.00			
Digital Ortho Plotting	sheet		$3.25		
Plots (B/W on Bond)	per sq. ft.		$1.00		
Plots (Color on Bond)	per sq. ft.	$1.80			
Plots (Color on Photographic Paper)	per sq. ft.	$1.50			
Color Graphics on Foam Board	square foot	$10.00			
Presentation Boards 30" X 40" Color Mounted	each		$100.00		
Report Printing	each		$50.00		
Report Binding and tabbing	each		$12.00		
Notebooks	each		$8.00		
Reproduction of CD/DVD	each		$5.00		
CDs	each	$2.00			
4" X 6" Digital Color Print	picture	$0.50			
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		$45.00	10	$450.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	$25.00		120	$3,000.00
Survey Grade Terrestrial scanner	day	$1,500.00			
Map Records	sheet		$6.00		
Historical Aerial Images	unit		$150.00		
Aerial Photographs (1" = 500' scale)	each		$100.00		
Reprographics	per sq. ft.		$5.00		
Parcel Title Reports	Per		$500.00	0	$0.00
				Total Cost	$4,215.60

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	$55,520.00
NON-SALARY (Other Direct Expenses)	$4,215.60
TOTALS	$59,735.60

Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN-TRAINING	SURVEY TECH	CADD OPERATOR	JUNIOR CADD OPERATOR	ADMIN/CLERICAL	2-MAN SURVEY CREW	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMMETRIST	ABSTRACTOR	TOTAL LABOR HR
Right-of-Way Maps													
ROW Mapping	7	28		50	50	26	12	40					
HOURS SUB-TOTALS	7	28	0	50	50	26	12	40	0	0	0	0	213
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	$250.00	$200.00	$150.00	$120.00	$95.00	$75.00	$60.00	$200.00	$150.00	$130.00	$250.00	$75.00	
TOTAL LABOR COSTS	$1,750.00	$5,600.00	$0.00	$6,000.00	$4,750.00	$1,950.00	$720.00	$8,000.00	$0.00	$0.00	$0.00	$0.00	$28,770.00
% DISTRIBUTION OF STAFFING	6.08%	19.46%	0.00%	20.86%	16.51%	6.78%	2.50%	27.81%	0.00%	0.00%	0.00%	0.00%	100.00%

ATTACHMENT E- FEE SCHEDULE

OTHER DIRECT EXPENSES

RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS

SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage paid at current IRS rate	mile	$0.670		330	$221.10
Certified Letter Return Receipt	each	$6.00			
Overnight Mail - letter size	each		$25.00		
Overnight Mail - oversized box	each		$45.00		
Courier Services	each		$38.00		
Photocopies B/W (11" X 17")	each	$0.30		6	$1.80
Photocopies B/W (8 1/2" X 11")	Each	$0.15			
Photocopies Color (11" X 17")	each	$2.00			
Photocopies Color (8 1/2" X 11")	each	$1.00			
Digital Ortho Plotting	sheet		$3.25		
Plots (B/W on Bond)	per sq. ft.		$1.00		
Plots (Color on Bond)	per sq. ft.	$1.80			
Plots (Color on Photographic Paper)	per sq. ft.	$1.50			
Color Graphics on Foam Board	square foot	$10.00			
Presentation Boards 30" X 40" Color Mounted	each		$100.00		
Report Printing	each		$50.00		
Report Binding and tabbing	each		$12.00		
Notebooks	each		$8.00		
Reproduction of CD/DVD	each		$5.00		
CDs	each	$2.00			
4" X 6" Digital Color Print	picture	$0.50			
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		$45.00		
GPS RTK (rates applied to actual time GPS units are in use)	hour	$25.00			
Survey Grade Terrestrial scanner	day	$1,500.00			
Map Records	sheet		$6.00		
Historical Aerial Images	unit		$150.00		
Aerial Photographs (1" = 500' scale)	each		$100.00		
Reprographics	per sq. ft.		$5.00		
Parcel Title Reports	Per		$500.00	0	$0.00
				Total Cost	$222.90

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	$28,770.00
NON-SALARY (Other Direct Expenses)	$222.90
TOTALS	$28,992.90

Prime Provider: IMS Engineers, Inc.
Sub Provider: KCI TECHNOLOGIES, INC.
Project: Charlie Roberts Lane (FB County Project 23412

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN-TRAINING	SURVEY TECH	CADD OPERATOR	JUNIOR CADD OPERATOR	ADMIN/CLERICAL	2-MAN SURVEY CREW	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMMETRIST	ABSTRACTOR	TOTAL LABOR HR
ROW Acquisition (Estimate 4 Parcels)													
Parcel Mapping	4	36		40	72		6						
Monumenting Parcels	4	12		24				60					
HOURS SUB-TOTALS	8	48	0	64	72	0	6	60	0	0	0	0	258
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	$250.00	$200.00	$150.00	$120.00	$95.00	$75.00	$60.00	$200.00	$150.00	$130.00	$250.00	$75.00	
TOTAL LABOR COSTS	$2,000.00	$9,600.00	$0.00	$7,680.00	$6,840.00	$0.00	$360.00	$12,000.00	$0.00	$0.00	$0.00	$0.00	$38,480.00
% DISTRIBUTION OF STAFFING	5.20%	24.95%	0.00%	19.96%	17.78%	0.00%	0.94%	31.19%	0.00%	0.00%	0.00%	0.00%	100.00%

ATTACHMENT E- FEE SCHEDULE					
OTHER DIRECT EXPENSES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	**UNIT**	**FIXED COST**	**MAXIMUM COST**	**QUANTITY**	**COST**
Mileage paid at current IRS rate	mile	$0.670		900	$603.00
Certified Letter Return Receipt	each	$6.00			
Overnight Mail - letter size	each		$25.00		
Overnight Mail - oversized box	each		$45.00		
Courier Services	each		$38.00		
Photocopies B/W (11" X 17")	each	$0.30			
Photocopies B/W (8 1/2" X 11")	Each	$0.15		36	$5.40
Photocopies Color (11" X 17")	each	$2.00			
Photocopies Color (8 1/2" X 11")	each	$1.00			
Digital Ortho Plotting	sheet		$3.25		
Plots (B/W on Bond)	per sq. ft.		$1.00		
Plots (Color on Bond)	per sq. ft.	$1.80			
Plots (Color on Photographic Paper)	per sq. ft.	$1.50			
Color Graphics on Foam Board	square foot	$10.00			
Presentation Boards 30" X 40" Color Mounted	each		$100.00		
Report Printing	each		$50.00		
Report Binding and tabbing	each		$12.00		
Notebooks	each		$8.00		
Reproduction of CD/DVD	each		$5.00		
CDs	each	$2.00			
4" X 6" Digital Color Print	picture	$0.50			
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		$45.00	8	$360.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	$25.00		60	$1,500.00
Survey Grade Terrestrial scanner	day	$1,500.00			
Map Records	sheet		$6.00		
Historical Aerial Images	unit		$150.00		
Aerial Photographs (1" = 500' scale)	each		$100.00		
Reprographics	per sq. ft.		$5.00		
Parcel Title Reports	Per		$500.00		
				Total Cost	$2,468.40

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	$38,480.00
NON-SALARY (Other Direct Expenses)	$2,468.40
TOTALS	$40,948.40