

STATE OF TEXAS                   §  
    §  
 COUNTY OF FORT BEND       §

### **AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

THIS AGREEMENT is made and entered into by and between Fort Bend County, (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and CivilTech Engineering, Inc., (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

#### WITNESSETH

WHEREAS, County desires that Contractor provide professional engineering services for improvements to Koeblen Road under 2020 Mobility Bond Project No. 20115 (hereinafter "Services") pursuant to SOQ 14-025; and

WHEREAS, County has determined Contractor is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Contractor have negotiated to reach a fair and reasonable amount of compensation for the provision of such Services, as required under Chapter 2254 of the Texas Government Code; and

WHEREAS, Contractor represents that it is qualified and desires to perform such services.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

#### AGREEMENT

##### **Section 1. Scope of Services**

Contractor shall render the professional engineering services as described in Contractor's proposal dated April 28, 2021, attached hereto as Exhibit A, and incorporated herein for all purposes.

##### **Section 2. Personnel**

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

2.2 All employees of Contractor shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Contractor who, in the opinion of County, is incompetent or by his conduct becomes detrimental to the project shall, upon request of County, immediately be removed from association with the project.

### **Section 3. Compensation and Payment**

3.1 Contractor's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is five hundred eighteen thousand three hundred ninety-eight dollars and no/100 (\$518,398.00) as set forth in Exhibit A. In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without a written agreement executed by the parties.

3.2 All performance of the Scope of Services by Contractor including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

3.3 County will pay Contractor based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Contractor 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. 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. County reserves the right to withhold payment pending verification of satisfactory work performed.

### **Section 4. Limit of Appropriation**

4.1 Contractor 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 five hundred eighteen thousand three hundred ninety-eight dollars and no/100 (\$518,398.00) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed five hundred eighteen thousand three hundred ninety-eight dollars and no/100 (\$518,398.00).

### **Section 5. Time of Performance**

Time for performance of the Scope of Services under this Agreement shall begin with receipt of the Notice to Proceed and end no later than December 31, 2025. Contractor shall complete the tasks described in the Scope of Services, within this time or within such additional time as may be extended by the County.

### **Section 6. Modifications and Waivers**

6.1 The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.

6.2 No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the parties, operates as a waiver or estoppel of any right, remedy, or condition.

6.3 The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

## **Section 7. Termination**

7.1 Termination for Convenience – County may terminate this Agreement at any time upon forty-eight (48) hours written notice.

### **7.2 Termination for Default**

7.2.1 County may terminate the whole or any part of this Agreement for cause in the following circumstances:

7.2.1.1 If Contractor fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the County in writing;

7.2.1.2 If Contractor 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, and in any of these circumstances does not cure such breach or failure to County's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from County specifying such breach or failure.

7.2.2 If, after termination, it is determined for any reason whatsoever that Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the County in accordance with Section 7.1 above.

7.3 Upon termination of this Agreement, County shall compensate Contractor in accordance with Section 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County. Contractor's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 3 above.

7.4 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 Contractor.

## **Section 8. Ownership and Reuse of Documents**

All documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time

of payment under Section 3 for work performed. Contractor shall promptly furnish all such data and material to County on request.

#### **Section 9. Inspection of Books and Records**

Contractor will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Contractor for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect survives the termination of this Agreement for a period of four years.

#### **Section 10. Insurance**

10.1 Prior to commencement of the Services, Contractor 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. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor 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. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) 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:

10.1.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.

10.1.2 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.

10.1.3 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.

10.1.4 Business Automobile Liability insurance with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.

10.1.5 Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.

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

10.3 If required coverage is written on a claims-made basis, Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the contract; 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 that work under the Agreement is completed.

#### **Section 11. Indemnity**

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS COUNTY AGAINST LOSSES, LIABILITIES, CLAIMS, AND CAUSES OF ACTION, INCLUDING THE REIMBURSEMENT OF COUNTY'S REASONABLE ATTORNEYS FEES IN PROPORTION TO CONTRACTOR'S LIABILITY, ARISING FROM ACTIVITIES OF CONTRACTOR, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENCE, INTENTIONAL TORT, ERROR, OR OMISSION OF CONTRACTOR OR ANY OF CONTRACTOR'S AGENTS, SERVANTS OR EMPLOYEES.**

#### **Section 12. Confidential and Proprietary Information**

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

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

12.3 Contractor 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. Contractor 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.

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

12.5 Contractor expressly acknowledges that County is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 *et seq.*, as amended, and notwithstanding any provision in the Agreement to the contrary, County will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to County by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed.

### **Section 13. Independent Contractor**

13.1 In the performance of work or services hereunder, Contractor 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 contractor or, where permitted, of its subcontractors.

13.2 Contractor 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.

### **Section 14. Notices**

14.1 Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).

14.2 Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

County: Fort Bend County Engineering Department  
Attn: County Engineer  
301 Jackson Street  
Richmond, Texas 77469

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

Contractor: CivilTech Engineering, Inc.  
11821 Telge Road  
Cypress, Texas 77429

14.3 A Notice is effective only if the party giving or making the Notice has complied with subsections 14.1 and 14.2 and if the addressee has received the Notice. A Notice is deemed received as follows:

14.3.1 If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.

14.3.2 If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

#### **Section 15. Compliance with Laws**

Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and 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. When required by County, Contractor shall furnish County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

#### **Section 16. Standard of Care**

Contractor represents shall perform the Services to be provided under this Agreement with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license. Further, Contractor shall perform the Services as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer.

### **Section 17. Assignment**

17.1 Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.

17.2 Neither party may delegate any performance under this Agreement.

17.3 Any purported assignment of rights or delegation of performance in violation of this Section is void.

### **Section 18. Applicable Law**

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the County's sovereign immunity.

### **Section 19. Successors and Assigns**

County and Contractor bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

### **Section 20. Third Party Beneficiaries**

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

### **Section 21. Severability**

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

### **Section 22. Publicity**

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of County. Under no circumstances whatsoever, shall Contractor release any material or information developed or received in the performance of the Services hereunder without the express written permission of County, except where required to do so by law.



### **Section 23. Captions**

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

### **Section 24. Conflict**

In the event there is a conflict between this Agreement and the attached exhibits, this Agreement controls.

### **Section 25. Certain State Law Requirements for Contracts**

25.1 Agreement to Not Boycott Israel Chapter 2271 Texas Government Code: By signature below, Contractor verifies that if Contractor employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

25.2 Texas Government Code Section 2251.152 Acknowledgment: By signature below, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

### **Section 26. Human Trafficking**


BY ACCEPTANCE OF AGREEMENT, CONTRACTOR ACKNOWLEDGES THAT THE 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.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

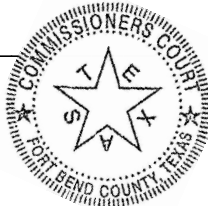
FORT BEND COUNTY

CIVILTECH ENGINEERING, INC

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

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

6.22.2021  
\_\_\_\_\_  
Date




ATTEST:

Paul M. Baxter, PE  
\_\_\_\_\_  
Authorized Agent – Printed Name

Vice President - Transportation  
\_\_\_\_\_  
Title

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

June 1, 2021  
\_\_\_\_\_  
Date


APPROVED:  
  
\_\_\_\_\_  
J. Stacy Slawinski, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

  
\_\_\_\_\_  
Marcus D. Spencer, First Assistant County Attorney

#### AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$518,398.00 to accomplish and pay the obligation of Fort Bend County under this contract.

  
\_\_\_\_\_  
Robert Ed Sturdivant, County Auditor

# EXHIBIT A

# CivilTech Engineering, Inc.

*Civil Engineering  
Water Resources  
Transportation  
Structures  
Economic Analysis  
GIS*

April 28, 2021

Mr. Kevin Mineo, P.E.  
Sr. Project Manager  
Binkley & Barfield Consulting Engineers  
1710 Seamist Drive  
Houston, TX 77008

**Re: Professional Engineering Services Proposal**

Koeblen Road – Segment 3  
Ft. Bend County, Precinct 1

Mr. Mineo,

We are pleased to submit the following proposal to provide Professional Engineering Services for the design of Koeblen Road Segment 3 from FM 2218 to the City of Rosenberg City Limits, Precinct 1.

Attached are our proposed scope of services, professional engineering services compensation, level of efforts (CivilTech and Sub-consultants), and project schedule.

Please review the attached documents and let us know if you have any comments, questions, or require any additional information. We look forward to working with you and Ft. Bend County on this important project.

Respectfully,  
**CIVILTECH ENGINEERING, INC.**



Paul M. Baxter, P.E.  
Vice President - Transportation

## SCOPE OF SERVICES

### Koeblen Road Segment 3 – from FM 2218 to the City of Rosenberg City Limits

**CivilTech Engineering, Inc., (CivilTech)** as the lead Design Consultant, will be responsible for the overall project management, technical accuracy and design schedule. Mr. Paul M. Baxter, PE will serve as the Project Manager and will be County's and/or its Project Manager's primary contact through completion of the identified scope of services.

## SCOPE OF WORK

Koeblen Road Segment 3 will be constructed as a four-lane concrete roadway with a divided median and underground storm sewer from FM 2218 to the City of Rosenberg City Limits; a length of approximately 5,230 feet in northern Ft. Bend County, Precinct 1. The northern (westbound) portion of the roadway will be designed and constructed by Friendswood Development Company as part of the Sendero Development. The following limits of Koeblen Road will be constructed by the developer:

- Full 4-lane boulevard section from FM 2218 to approximately 450-feet east of FM 2218. (Currently under construction).
- Half 2-lane boulevard section (northern side) from approximately 450-feet east of FM 2218 to 2,755 east of FM 2218 (Currently under construction).
- Half 2-lane boulevard section (north side) from approximately 2,755-feet east of FM 2218 to end of Koeblen Road Segment 3 (future Spacek Road – Future design and construction schedules are unknown).
- Underground storm sewer, inlets, and detention for the northern side of Koeblen Road Segment 3

The proposed roadway will consist of a 2-lane, concrete curb and gutter roadway and a separate storm sewer system consisting of inlets on the southern side of Koeblen Road and a separate trunkline. The roadway will include detention storage to mitigate impacts for the ultimate boulevard section of 6-lanes, and will account for the volume that was not accounted for in the Sendero Development. The project will be constructed in a typical 100-foot right-of-way, with some of the right-of-way being provided by the Sendero Development. The project will include demolitions/removals, signing and striping, traffic control during construction, utility conflicts identification, and storm water runoff mitigation. The analysis, designs, and plan production will be done following the City of Rosenberg and Fort Bend County Design Manuals and Standards.

A Category 1B, Condition II Urban Standard Land Survey to identify existing right-of-way will be performed. The existing right-of-way will be verified, and recommendations for the proposed alignment and right-of-way will be made to achieve the minimum overall width of 100 feet. Right-of-way recommendations shall give consideration to the impact to existing properties, structures, drainage

conveyance, utilities, any environmentally sensitive areas, impacts to remaining parcels, and constructions costs.

A Category 6, Condition II Topographic field survey to support the design of the proposed roadway will be performed along the alignment that is agreed upon by the County and/or its Project Manager. The topographic survey will include survey of the existing intersections and intersecting roadways, all above ground features, and visible utilities. Soil borings performed for the project will be located and identified on the survey maps with horizontal and vertical locations/information. All necessary rights of entry (ROE) will be obtained from the private landowners using request letters prepared by the Design Consultant that are approved by the County and/or its Project Manager.

Category 1A, Condition II right-of-way mapping will be provided for all proposed parcel acquisitions and include existing right-of-way information, right-of-way layouts, boundary surveys of parent tracts, metes and bonds descriptions.

A geotechnical soils investigation will be performed in accordance with the Ft. Bend County Engineering Department (FBCED) *“Engineering Design Manual”, August 2020 Edition - DRAFT*. The soils investigation will include soil borings along the proposed section of Koeblen Road generally spaced at 500-foot intervals. All necessary rights of entry (ROE) will be coordinated by the Design Consultant along with the Surveyor. The findings will be summarized and provided in a signed and sealed Geotechnical Engineering report.

A Drainage Impact & Mitigation Analysis will be performed per the requirements of the Ft. Bend County Drainage District criteria for the proposed project; and account for the Atlas 14 Rainfall data. The drainage study will present the existing site conditions, drainage patterns and existing drainage infrastructure; determine the impacts associated with the proposed roadway improvements; identify proposed drainage systems and identify and quantify mitigation measures. The findings will be summarized and provided in a signed and sealed study report to be reviewed and approved by the Ft. Bend County Drainage District.

No traffic study or traffic signal design will be performed as part of this project.

Environmental investigations and all documentation will be performed by others and provided by Ft. Bend County to the Design Consultant to be included in the Preliminary Engineering Report.

Utility Investigation will be performed for the project area to identify existing utilities with the project area, and along the proposed project alignment. The investigation will be limited to record drawing research, utility company notifications, and field investigations. A utility conflict table will be generated identifying the existing utilities, the utility owners, and any known conflicts. Additional utility investigations (Level A & B SUE) will be provided as an optional additional service as needed and identified by the Design Consultant with the approval of Ft. Bend County.

The findings of the survey, geotechnical investigations, drainage impact and mitigation study, and utility investigation will be summarized in a Preliminary Engineering Report (PER) to be submitted to the County and/or its Project Manager for review and approval. The PER will include sufficient information to identify the following:

- Proposed Roadway Alignment
- Proposed Roadway Typical Section
- Proposed Right-of-Way
- Proposed Drainage System & Mitigation Needs
- Potential Conflicts (Utilities & Existing Features)
- Estimated Probable Construction Costs
- Estimated Probable Construction Time
- Preliminary Construction Plans (Existing Features w/Proposed Plan View)

## **BASIC PROFESSIONAL SERVICES**

The Design Consultant shall render the following professional services in connection with the Project:

### **I. PRELIMINARY DESIGN SERVICES**

All Preliminary Design Services shall be paid for in a Single Lump Sum. Upon receiving written authorization to proceed with the Preliminary Design Services, the Design Consultant shall:

- a. Attend meetings with the County and/or its Project Manager as required, establishing the design parameters of the Project. These will include, but not limited to:
  - Preliminary Design Kickoff Meeting
  - Technical Review Committee Presentation (PER Meeting)
- b. Participate in progress meetings with County and/or its Project Manager.
- c. Perform Preliminary Engineering Investigations for the Project to include:
  - Geotechnical Investigation
  - Survey Data including existing right-of-way.
  - Drainage Impact & Mitigation Study
- d. The Preliminary Design shall include:
  - Proposed Alignment
  - Proposed Right-of-way
  - Preliminary roadway layouts
    - Existing Elements in Plan & Profile
    - Proposed Elements in Plan Only
  - Utility investigation, conflict analysis, and utility conflict table

- Preliminary drainage design
  - Estimated probable construction costs
- e. Prepare a PowerPoint Presentation and attend a Technical Review Committee Meeting (PER Meeting) with the County and/or its Project Manager, presenting a summary of the information and findings from the preliminary design.
- f. The Preliminary Engineering Report shall be prepared in sufficient detail to clearly indicate recommended alignment including right-of-way acquisitions, typical roadway cross-sections, existing utilities, storm sewer and any anticipated conflicts or design issues. The report shall address any comments from the Technical Review Committee. The report shall also present probable cost associated with the recommended improvements.

## II. FINAL DESIGN SERVICES

All Final Design Services shall be paid for in a Single Lump Sum. Upon receiving written authorization to proceed with the Final Design Phase Services, the Design Consultant shall:

- a. Attend coordination meetings with the County and/or its Project Manager as required. These will include, but not limited to:
- Bi-Weekly Coordination Meetings (Conference Calls)
- b. Prepare final designs, drawings and specifications for the Project. Drawings shall be submitted for review at the following Milestones:
- 70% Milestone Submittal: Preliminary plans to include:
    - Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)
    - Typical and non-standard cross sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
    - Overall project layout (scale as appropriate with sheet references left blank since they are subject to change in subsequent submittals)
    - Survey control map
    - Removal plans
    - Drainage area map with hydraulic calculations (display calculations clearly for future use by area developers)
    - Plan and profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; separate drawings for roadway and storm sewer are not



- necessary; detailed callouts not required at 70%)
  - Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged)
  - Storm Water Pollution Prevention Plan (drawings and text; drawings may consist of a layout and details)
  - Specification table of contents (use Harris County Specifications)
  - Bid form with estimated unit and total costs (spreadsheet based)
  - Deliverables:
    - Adobe PDF Electronic Copy
- 95% Milestone Submittal: Complete drawings with interim seal to include all information from the 70% Milestone Submittal in addition to the following:
    - General Notes Sheet
    - Verify earthwork quantities with cross sections at 100-foot intervals (only non-standard sections should be included in plans)
    - Signage and pavement marking plans (signs may be shown on plan and profile sheets and use of pavement marking standards is encouraged)
    - Standard construction details
    - Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
    - Responses to 70 percent comments
    - Deliverables:
      - Adobe PDF Electronic Copy
- 100% Milestone Submittal: Final signed and sealed drawings, specifications, and estimate.
    - Deliverables:
      - One (1) Final Set of Drawings
      - Adobe PDF Electronic Copy

### III. BID & CONSTRUCTION PHASE SERVICES

All Bid and Construction Phase Services will be paid on a time-and-materials basis. The not-to-exceed fee for these services will be determined by the County and/or its Project Manager and the Design Consultant. Monthly billing will include a breakdown of hours spent by personnel in the various employee categories, at billing rates agreed to by the County and the Design Consultant.

- a. Upon completion of Final Design Services, the County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by the County and provided to the Design Consultant in PDF format. The Design Consultant will prepare a single project manual file in PDF format, consisting of:
  - Administrative documents
  - An index of sheets
  - Scope of Work
  - The bid form (prepared by the Design Consultant)
  - A specification table of contents
  - Applicable specifications and documents
- b. The Design Consultant will prepare a single file in PDF format for the entire drawing set. The Title Sheet will be signed and scanned back to the Design Consultant. All other drawings may be printed directly to Adobe Acrobat format with electronic seal and signature.
- c. The Design Consultant will prepare 27 compact discs, each with one project manual file and one drawing file. The compact discs will be delivered to the County Purchasing Agent for advertising, and two discs will be provided to the Project Manager. Printed documents are not required.
- d. The Design Consultant will attend a pre-bid meeting at the County Purchasing Office. It is not necessary to prepare for the meeting, other than to be able to briefly describe the project.
- e. The Purchasing Agent will forward bidder questions to the Design Consultant. Answers to questions, as well as any other required changes, will be included in an addendum, prepared by the Design Consultant if necessary. The Purchasing Agent will distribute the addendum.
- f. After the bid, the Project Manager will prepare a bid tabulation and provide a copy to the Design Consultant for filing.
- g. The Design Consultant will attend a pre-construction meeting with County staff, Project Manager, general contractor, and construction materials testing contractor.
- h. The survey control and benchmarks will be staked by the Surveyor for the County's contractor.

- i. The Design Consultant will be responsible for reviewing contractor submittals and responding to Requests for Information.
- j. Field visits and progress meetings will not be required unless requested by the County.
- k. The Design Consultant will participate in a substantial completion walkthrough.
- l. After project completion, the Design Consultant will prepare record drawings based on contractor as-built markups. The record drawings may be printed on paper and delivered to the County.

#### **IV. INVOICING**

The Design Consultant may prepare invoices in the format of its accounting system, to be approved by the Project Manager prior to acceptance. However, the following will apply for invoices:

- a. Invoices will comply with the County's naming convention.
- b. When the first invoice is prepared, all major billing tasks anticipated for the project duration (Preliminary Design, Final Design, Survey, etc.) should be listed with budgets included. The sum of the task budgets must equal the amount in the Design Consultant's agreement. If tasks must be added or revised during the course of the project, budgets must be revised to ensure that the total budget remains the same (unless the budget is revised by amendment). Columns should be included, for each task, to show percent complete, amount earned, previously billed and current billing.
- c. A sequential numbering must be included with each invoice, i.e. Invoice 1 followed by Invoice 2, etc. Another invoice number may be included for internal purposes, but the sequential numbering should be included as well.
- d. The Purchase Order number and County's project number must be included on the invoice.
- e. Markups for subconsultant services or reimbursable expenses are not allowed.
- f. The County is tax-exempt and will not reimburse tax expenses. The Project Manager can provide a tax exemption form to the Design Consultant to ensure that tax is not charged.
- g. For lump sum tasks, subconsultant invoices do not need to be included in the Design Consultant's invoice.
- h. A brief progress report must be submitted with each invoice, to include efforts reflected in the invoice. Employee hourly breakdowns are not required for lump sum tasks but are required for time-and-materials tasks. Although employee timesheets are not required for time-and-materials tasks, the County reserves the right to request them in an audit.
- i. Invoices shall be submitted in PDF format to the County Engineering Department with copy to the Project Manager. The Project Manager will approve or require revisions within

five days of invoice submission or revision, as applicable. The Project Manager will provide the email addresses of all to be included in the invoice submittals.

## **SURVEYING SERVICES**

### **I. BASIC LAND SURVEYING SERVICES**

The necessary rights of entry (ROE) from the private landowners will be obtained by the Design Consultant using request letters that are approved by the County and/or its Project Manager. Upon receiving written authorization to proceed with the Basic Land Surveying Services, the Surveyor shall:

#### **A. Establish Control and TBMs**

Horizontal control points and vertical benchmarks by others will be recovered and/or will be established at an approximate 1,000-foot interval from beginning to end of the project for construction purposes. 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 a minimum of three existing Reference Monuments.

#### **B. Abstract and Document Existing Boundaries**

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.

#### **C. Topographic Survey (~5,700 linear feet (LF))**

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 II Urban Topographic Survey Plat. The project area is defined as:

- Proposed Koeblen Rd Segment 3 – From FM 2218 east to the City of Rosenberg City limits. Portions of these limits are under construction and these limits will be surveyed as “as-built” conditions to use for proposed design. These limits include the northern side of the proposed Koeblen Road from FM 2218 to approximately 2,755-feet west of FM 2218.

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

- Tie visible improvements from existing North Right-of-Way to proposed South Right-of-Way plus 20 feet South of said Right-of-Way within the project area above. Right-of-Entry to be secured by the Design Consultant within private property
- 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, KCI Technologies has included an Additional Services fee for 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.
- Tie environmental and geotechnical marks/locations. Location exhibit to be provided by geotechnical and environmental consultant.
- Tie location of structures within 100 feet of existing ROW.

#### **D. 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. The Design Consultant will 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.

#### **E. Right-of-Way Maps**

The Surveyor will prepare a sealed overall project maps showing existing and proposed South right-of-way. 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. Quality Level D Subsurface Utility Engineering**

Research to determine the existence and location of underground utilities (pipelines, duct banks, etc.). This includes:

- Gather utility information from a variety of sources which may include, but are not limited to:
  - Utility Coordinating Committees
  - Visual site inspection
  - One Call Center
  - Municipality GIS database
  - Landowners
  - Utility owners
  - Internet or computer database search
- Collect applicable utility owner records which may include, but are not limited to:
  - Previous construction plans in the area
  - Field notes
  - Conduit maps
  - Regional, Municipal, utility owner, or other geographic information systems databases
  - Direct-buried cable maps
  - Circuit diagrams
  - Distribution maps
  - Oral histories
  - Transmission maps
  - As-built & record drawings
- Thoroughly review records for:

- Indications of additional available records
- Duplicate information and credibility of such duplicate information
- Need for clarifications by utility owners.
- Prepare a conflict table during the Preliminary Design phase to highlight conflicts between existing utilities and proposed improvements, to be updated during the Final Design phase as required.

## II. OPTIONAL ADDITIONAL LAND SURVEYING SERVICES

Upon receiving written authorization to proceed with the Optional Additional Land Surveying Services, the Surveyor shall:

### A. Boundary and Topographic Survey of Proposed Detention Pond

Prepare a boundary and topographic survey for a proposed detention pond at a site identified during the Preliminary Design Phase. The proposed detention pond site is estimated to be approximately 2 Acres.

### B. Topographic Survey for Proposed Storm Sewer (~1,000 linear feet (LF))

Prepare a base map of the route of a proposed storm sewer system that will extend beyond the limits of Koeblen Road Segment 3 into Koeblen Road Segment 1. The base map will be prepared 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 II Urban Topographic Survey Plat.

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

- Tie visible improvements 25 on either side of proposed storm sewer alignment.
- 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.
- Overhead Sag elevation for crossing overhead electrical utilities.
- Locate trees over 6" and the perimeter of existing heavily brushed areas.
- Tie environmental and geotechnical marks/locations. Location exhibit to be provided by client.
- Tie location of structures within 100 feet of proposed alignment.

**C. Proposed Right-of-Way Parcel Exhibits**

Prepare up to sixteen (16) Parcel Descriptions and Exhibits for proposed right-of-way acquisition. The Parcel Descriptions and Exhibits will be submitted in PDF and DWG/DGN format.

**D. Subsurface Utility Engineering**

- Quality Level A Subsurface Utility Engineering of up to five (5) potholes at conflict locations as determined by the Design Consultant.
- Quality Level B Subsurface Utility Engineering designation along the length of the proposed roadway alignment.

**E. Re-Establish ROW**

Reestablish proposed right-of-way (ROW) and right-of-way monumentation for the County's contractor prior to construction.

**DRAINAGE IMPACT & MITIGATION ANALYSIS**

A Drainage Impact & Mitigation Analysis will be performed, and a Drainage Report will be prepared and submitted as part of the Preliminary Engineering Report. The Drainage Report will be submitted to the Fort Bend County Drainage District for review and approval. The Drainage Impact & Mitigation Study will include the following:

- a. Perform data collection and field site visit.
- b. Perform an analysis to define existing drainage areas and drainage patterns along the roadway and evaluate changes to the existing conditions as a result of the proposed roadway alignment. Evaluate sheet flow drainage patterns along the roadway corridor to define runoff flows from within 150 feet of the ROW versus runoff defined by the existing drainage areas based on LIDAR topography, topographic survey and Fort Bend County drainage criteria. Determine the peak flows and flow hydrographs associated with the determined drainage areas.
- c. Determine the detention needs for the proposed roadway improvements such that the project has no adverse impact in the 10-year, 25-year and 100-year storm events. The detention analysis will consider the extent of the roadway improvements accounted for in the Sendero Development. Identify possible outfall locations and detention sites necessary to accommodate runoff from the proposed roadway improvements.
- d. Confirm the size and flow line of storm sewers along the proposed roadway to effectively convey storm water runoff to the proposed detention facilities and outfall sites do not result in adverse impact to existing conditions.



- e. Determine any potential drainage design requirements or constraints due to sections of the proposed roadway project outfalling to the Sendero Development.
- f. Determine the size and flow line of potential cross drainage culverts along the proposed roadway to effectively convey offsite flow under the proposed roadway utilizing Fort Bend County criteria.
- g. Prepare a drainage report (draft and final) detailing findings utilizing Fort Bend County criteria to establish pre and post improvement conditions and identify how potential impacts are addressed.

## **GEOTECHNICAL INVESTIGATION**

The geotechnical investigation will be performed to determine subsurface conditions along the proposed road alignment and to develop geotechnical engineering recommendations for the design of new rigid pavement and storm drainage, and if authorized, recommendations for proposed detention pond design and side slope stability analysis.

### **I. BASIC GEOTECHNICAL SERVICES**

The necessary rights of entry (ROE) from the private landowners will be obtained by the Design Consultant using request letters that are approved by the County and/or its Project Manager. Upon receiving written authorization to proceed with the Basic Geotechnical Services, the Geotechnical Engineer shall:

- a. Review readily available published and in-house geotechnical literature of the site and the general site area including geologic maps.
- b. Perform a reconnaissance of the project site and mark out proposed boring locations. We will also contact Texas811 prior to exploration.
- c. Drill, log, and sample eleven (11) exploratory borings at the site to depths of 20 feet below the existing ground surface (bgs).
- d. Collect geotechnical soil samples using conventional split-spoon and/or thin-wall tube sampling techniques for laboratory testing and analysis.
- e. Perform laboratory testing that will generally consist of moisture content, No. 200 Wash, Atterberg limits, and strength testing.
- f. Prepare a geotechnical report presenting the results of our evaluation. The report will be sealed by a Professional Engineer licensed in the State of Texas, and will include the following:
  - Description of work scope, laboratory, and field procedures;
  - Maps and boring plans;

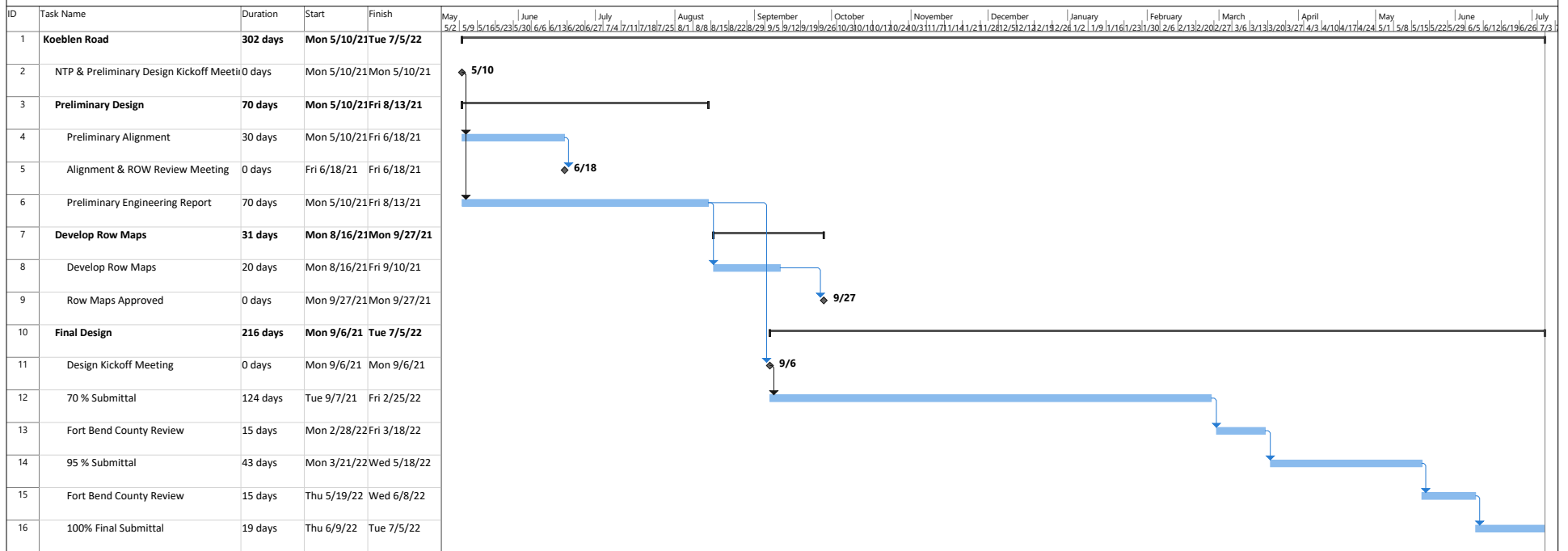
- Boring logs and laboratory test results;
- Subsurface soil and groundwater conditions;
- Earthwork considerations;
- Excavation characteristics of onsite soils;
- Potential for re-use of onsite soils;
- Utility trench excavation requirements;
- Pipe bedding and backfill requirements;
- Subgrade preparation measures;
- Asphalt pavement transition recommendations; and
- Portland cement concrete pavement design recommendations.

## **II. OPTIONAL ADDITIONAL GEOTECHNICAL SERVICES**

Upon receiving written authorization to proceed with the Optional Additional Geotechnical Services, the Geotechnical Engineer shall:

- a. Drill, log, and sample two (2) exploratory borings at the site to depths of 20 feet below the existing ground surface (bgs) for a proposed detention pond.
- b. Include detention pond recommendations in our report, including:
  - Detention pond allowable side slopes.
  - Erosion control recommendations.

**Koeblen Road Segment 3  
From FM 2218 to City of Rosenberg City Limits  
Precinct 1  
Project Schedule**



**Compensation for Professional Services**  
**Project Name: Koeblen Road - Segment 3**  
**Project Limits: From FM 2218 to City of Rosenberg City Limits**  
**Construction Cost Estimate: \$2,891,500.00**

1	<b>Preliminary Design Services</b>				<b>\$73,670.00</b>
2	<b>Final Design Services</b>				
	CivilTech Engineering, Inc.		\$158,140.00		
	GC Engineering, Inc.		\$63,934.00		
					<b>\$222,074.00</b>
3	<b>Bid &amp; Construction Phase Services</b>				
					<b>\$35,000.00</b>
4	<b>Survey Services</b>				
					<b>\$56,925.00</b>
5	<b>Geotechnical Investigations</b>				
					<b>\$20,200.00</b>
6	<b>Drainage Impact &amp; Mitigation Analysis</b>				
					<b>\$65,200.00</b>
<b>Subtotal Basic Services (1-7):</b>					<b>\$473,069.00</b>
8	<b>*Optional Additional Services including, but not limited to</b>				
	Boundary & Topographic Survey for Proposed Detention Pond (Approximately 2 Acres)			\$9,258.00	
	Topographic Survey for Proposed Storm Sewer (Approximately 1,000 LF)			\$4,630.00	
	Sixteen (16) Parcel Descriptions & Exhibits, ROW Map Sheet			\$21,213.00	
	Re-Establish ROW Prior to Construction			\$5,928.00	
	Geotechnical Investigation & Report for Proposed Detention Pond (Approximately 2 Acres)			\$4,300.00	
<b>Subtotal Optional Additional Services(8):</b>					<b>\$45,329.00</b>
<b>TOTAL SERVICES (BASIC &amp; OPTIONAL ADDITIONAL)</b>					<b>\$518,398.00</b>

Ft. Bend County - Precinct 1  
 Koeblen Road Segment 3  
 From FM 2218 to City of Rosenberg City Limits

CivilTech Engineering, Inc.  
 11821 Telge Road  
 Cypress, Texas

**KOEBLER ROAD SEGMENT 3: PRELIMINARY DESIGN PHASE: MANHOUR & FEE ESTIMATE**

TASK NUMB.	TASK DESCRIPTION	1	2	3	4	5	6	7	8	TOTAL MH'S PER WORK TASK	TOTAL COSTS PER WORK TASK
		TOTAL MANHOURS PER WORK TASK BY STAFF CLASSIFICATION									
		SENIOR PROJ MGR.	SENIOR PROJ ENGR.	PROJ ENGR	ASS'T ENGR	SR DESIGN TECH	CADD OPERATOR	ADMIN	CLERICAL		
		\$250.00	\$230.00	\$165.00	\$135.00	\$150.00	\$80.00	\$90.00	\$75.00		
PROJECT MANAGEMENT, MEETINGS, & COORDINATION											
1	SCOPING	10	6							16	\$ 3,880.00
2	KICKOFF MEETING	2	2	2						6	\$ 1,290.00
3	DATA COLLECTION & FIELD SITE VISIT			16	16					32	\$ 4,800.00
4	ALIGNMENT & ROW MEETING	2	2	2						6	\$ 1,290.00
5	SURVEY COORDINATION		8	10						18	\$ 3,490.00
6	GEOTECHNICAL COORDINATION		4	10						14	\$ 2,570.00
7	SUBCONSULTANT COORDINATION		2	2						4	\$ 790.00
8	MONTHLY COORDINATION MEETINGS	6	6	6						18	\$ 3,870.00
9	TECHNICAL REVIEW COMMITTEE PRESENTATION	4	4	4						12	\$ 2,580.00
SUBTOTAL PROJECT MANAGEMENT, MEETINGS, & COORDINATION - MANHOURS		24	34	52	16					126	
SUBTOTAL PROJECT MANAGEMENT, MEETINGS, & COORDINATION											\$ 24,560.00
ALTERNATIVE ALIGNMENT & ROW											
10	ALTERNATIVE ALIGNMENT & ROW		2	2	8					12	\$ 1,870.00
11	PREPARE ALIGNMENT & ROW EXHIBITS	2	2	4	8		24			40	\$ 4,620.00
SUBTOTAL ALTERNATIVE ALIGNMENT & ROW - MANOURS		2	4	6	16		24			52	
SUBTOTAL ALTERNATIVE ALIGNMENT & ROW											\$ 6,490.00
PRELIMINARY ROADWAY & DRAINAGE DESIGN											
12	PRELIMINARY ROADWAY DESIGN & LAYOUTS	2	16	24	48		40			130	\$ 17,820.00
13	PRELIMINARY STORM SEWER DESIGN	2	4	8	24					38	\$ 5,980.00
14	ESTIMATED PROBABLE CONSTRUCTION COSTS	2	4	4	8					18	\$ 3,160.00
SUBTOTAL PRELIMINARY ROADWAY & DRAINAGE DESIGN - MANHOURS		6	24	36	80		40			186	
SUBTOTAL PRELIMINARY ROADWAY & DRAINAGE DESIGN											\$ 26,960.00
PRELIMINARY ENGINEERING REPORT & TRC											
15	TECHNICAL REVIEW COMMITTEE PRESENTATION PREPARATION	4	6	2				4		16	\$ 3,070.00
16	PRELIMINARY ENGINEERING REPORT PREPARATION	8	16	24				4	6	58	\$ 10,450.00
17	KMZ FILE GENERATION		2	2		4				8	\$ 1,390.00
SUBTOTAL PRELIMINARY ENGINEERING REPORT & TRC - MANHOURS		12	22	26				8	6	74	
SUBTOTAL PRELIMINARY ENGINEERING REPORT & TRC											\$ 14,910.00
OTHER DIRECT COSTS											
MILEAGE (\$0.56/MILE)											\$ 250.00
REPRODUCTION DELIVERIES											\$ 500.00
SUBTOTAL OTHER DIRECT COSTS											\$ 750.00
TOTAL PRELIMINARY ENGINEERING DESIGN PHASE											\$ 73,670.00

Bend County - Precinct 1 Koeblen Road Segment 3 From FM 2218 to City of Rosenberg City Limits										CivilTech Engineering, Inc. 11821 Telge Road Cypress, Texas				
KOEBLER ROAD SEGMENT 3: FINAL DESIGN PHASE: MANHOUR & FEE ESTIMATE														
TASK NO.	TASK DESCRIPTION	TOTAL MANHOURS PER WORK TASK BY STAFF CLASSIFICATION								TOTAL MH'S PER WORK TASK	ESTIMATED PLAN SHEET REQUIREMENTS		MANHOUR PER SHET	TOTAL COSTS PER WORK TASK
		1	2	3	4	5	6	7	8		QNTY	SCALE		
		SENIOR PROJ MGR.	SENIOR PROJ ENGR.	PROJ ENGR.	ASST ENGR.	SR DESIGN TECH.	CADD OPERATOR	ADMIN	CLERICAL					
		\$250.00	\$230.00	\$165.00	\$135.00	\$150.00	\$80.00	\$90.00	\$75.00					
	PLAN PRODUCTION													
1	PROJECT TITLE SHEET; LOCATION & VICINITY MAP				1		2			3	1	N/A	3	\$ 295.00
2	INDEX OF SHEETS				1		1			2	1	N/A	2	\$ 215.00
3	GENERAL NOTES		2	1	2		4			9	1	N/A	9	\$ 1,215.00
4	TYPICAL SECTIONS		2	2	6		6			16	1	N/A	16	\$ 2,080.00
5	PROJECT LAYOUT SHEET			4	4		8			16	1	1"=100'	16	\$ 1,840.00
6	HORIZONTAL ALIGNMENT DATA SHEET			2			2			4	1	N/A	4	\$ 490.00
7	REMOVAL PLANS		2	8	8		16			34	2	1"=100'	17	\$ 4,140.00
8	ROADWAY PLAN & PROFILE		6	48	64		112			230	11	1"=40'/1"=4'	21	\$ 26,900.00
9	DRAINAGE AREA MAPS			16	24		56			96	6	1"=100'	16	\$ 10,360.00
10	DRAINAGE COMPUTATIONS		2	4	4		4			14	2	N/A	7	\$ 1,980.00
11	ROADWAY DETAILS			2	2		4			8	2	N/A	4	\$ 920.00
12	DRAINAGE DETAILS			4	4		8			16	4	N/A	4	\$ 1,840.00
13	PROJECT SIGN DETAILS				1		2			3	1	N/A	3	\$ 295.00
14	CROSS SECTIONS		16	40	80		144			280	29	1"=20'/1"=2'	10	\$ 32,600.00
PLAN PRODUCTION - MANHOURS			30	131	201		369			731	63			
											SUBTOTAL PLAN PRODUCTION		\$	85,170.00
PROJECT MGMT & DESIGN TASKS														
15	SUBCONSULTANT COORDINATION	24	16	10						50				\$ 11,330.00
16	MONTHLY COORDINATION MEETINGS	12	12							24				\$ 5,760.00
17	INTERNAL QA/QC REVIEWS PRIOR TO SUBMITTALS (70%, 95%, & FINAL SUBMITTALS)	32	12	6						50				\$ 11,750.00
18	WRITTEN RESPONSES TO REVIEW COMMENTS (70%, AND 95% SUBMITTALS)	8	8	4					6	26				\$ 4,950.00
19	DRAINAGE DESIGN	4	8	16	40					68				\$ 10,880.00
20	PAVING & GRADING DESIGN	4	8	24	40					76				\$ 12,200.00
21	MISCELLANEOUS DETAILS	2	2	4						8				\$ 1,620.00
22	PROJECT MANUAL (CONTRACT DOCUMENT, BID PROPOSAL AND TECHNICAL SPECIFICATIONS, INCLUDING CD'S)	2	2	2					2	8				\$ 1,440.00
23	QUANTITIES/COST ESTIMATES (70%, 95% & FINAL SUBMITTALS)	4	12	24	24					64				\$ 10,960.00
24	BID TABULATION & AWARD RECOMMENDATION	2	4	4						10				\$ 2,080.00
SUBTOTAL PROJECT MGMT & DESIGN TASKS - MANHOURS		92	80	90	104				8	374				
											SUBTOTAL PROJECT MGMT & DESIGN TASKS		\$	72,970.00
											TOTAL FINAL DESIGN PHASE		\$	158,140.00

**KOEBLEN ROAD - SEGMENT 3: DRAINAGE IMPACT & MITIGATION STUDY: MANHOUR & FEE ESTIMATE**

TASK NUMB.	TASK DESCRIPTION	1	2	3	4	5	6	7	8	9	TOTAL MH'S PER WORK TASK	TOTAL COSTS PER WORK TASK
		TOTAL MANHOURS PER WORK TASK BY STAFF CLASSIFICATION										
		SENIOR PROJ MGR.	SENIOR PROJ ENGR.	PROJ ENGR	ASST ENGR	SR GIS ANALYST	GIS ANALYST	ENGINEERING DESIGNER	ADMIN	CLERICAL		
		\$250.00	\$230.00	\$165.00	\$135.00	\$160.00	\$120.00	\$110.00	\$90.00	\$75.00		
DRAINAGE IMPACT & MITIGATION STUDY												
1	PROJECT MANAGEMENT	16							8		24	\$ 4,720.00
2	COORDINATION & MEETINGS		12		12						24	\$ 4,380.00
3	DATA COLLECTION & FIELD SITE VISIT				16		16				32	\$ 4,080.00
4	DETERMINE DRAINAGE AREAS & PEAK FLOWS		4		32		12				48	\$ 6,680.00
5	ANALYZE RUNOFF IMPACTS & DETENTION REQUIREMENTS		12	24	100		16				152	\$ 22,140.00
6	CONFIRM PROPOSED STORM DRAINAGE SYSTEM		4	8	48			16			76	\$ 10,480.00
7	ANALYZE CROSS DRAINAGE CULVERTS		8		16				16		24	\$ 4,000.00
8	PREPARE DRAIANGE REPORT	2	12		24		16			4	58	\$ 8,720.00
SUBTOTAL DRAINAGE IMPACT & MITIGATION ANALYSIS - MANHOURS		18	52	32	248		60	16	8	4	438	
SUBTOTAL DRAINAGE IMPACT & MITIGATION ANALYSIS											\$	65,200.00
TOTAL DRAIANGE IMPACT & MITIGATION STUDY											\$	65,200.00

Prime Provider: KCI TECHNOLOGIES, INC.

Project: Koeblen Road Segment 3

TASK DESCRIPTION	Cost
Establish Control and TBMs	\$6,409.00
Abstracting and Document of Existing Boundaries	\$7,530.00
Topographic Survey of Proposed ROW (approx. 5700 linear feet)	\$23,397.00
Survey Control Map	\$2,710.60
Right-of-way Map	\$11,971.00
Level D Utility Record Research/Conflict Matrix and Summary	\$4,906.76
<b>Total</b>	<b>\$56,924.36</b>

OPTIONAL TASK DESCRIPTION	Cost
Boundary and Topographic Survey of Proposed Detention Pond (approx. 2 acres)	\$9,257.60
Parcel Map and Metes & Bounds Description for Parcel Takes	\$21,212.60
Re-establish ROW Prior to Construction	\$5,928.00
Topographic Survey of Proposed Storm Sewer (approx. 1000 linear feet)	\$4,629.30
<b>Total</b>	<b>\$41,027.50</b>

Total	\$97,951.86
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Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koeblen Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Establish Control and TBMs	1	4	8													13
HOURS SUB-TOTALS	1	4	8	0	0	0	0	0	0	0	0	0	0	0	0	13
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$800.00	\$1,040.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,090.00
% DISTRIBUTION OF STAFFING	11.96%	38.28%	49.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

UNIT COST PAYMENT BASIS				
SERVICES TO BE PROVIDED	UNIT	QUANTITY	RATE	COST
Control Survey - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	20	\$180.00	\$3600.00
			Total Cost	\$3,600.00

OTHER DIRECT EXPENSES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Meals (Excluding alcohol & tips) (Overnight stay required)	mile	\$0.560		150	\$84.00
Environmental Database Search	day		\$45.00	3	\$135.00
Backhoe Rental	hour	\$25.00		20	\$500.00
Reprographics				Total Cost	\$719.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$2,090.00
NON-SALARY (Other Direct Expenses)	\$719.00
UNIT COSTS	\$3,600.00
TOTALS	\$6,409.00

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Abstracting and Document of Existing Boundaries	1	8	24					8							24	65
HOURS SUB-TOTALS	1	8	24	0	0	0	0	8	0	0	0	0	0	0	24	65
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$1,600.00	\$3,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$760.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,800.00	\$7,530.00
% DISTRIBUTION OF STAFFING	3.32%	21.25%	41.43%	0.00%	0.00%	0.00%	0.00%	10.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.90%	34.00%

OTHER DIRECT EXPENSES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
				Total Cost	\$0.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$7,530.00
NON-SALARY (Other Direct Expenses)	\$0.00
UNIT COSTS	\$0.00
TOTALS	\$7,530.00

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koeblen Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Topographic Survey of Proposed ROW (approx. 5700 linear feet)	1	16	24					60								101
HOURS SUB-TOTALS	1	16	24	0	0	0	0	60	0	0	0	0	0	0	0	101
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$3,200.00	\$3,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,700.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,270.00
% DISTRIBUTION OF STAFFING	2.04%	26.08%	25.43%	0.00%	0.00%	0.00%	0.00%	46.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.45%

UNIT COST PAYMENT BASIS				
SERVICES TO BE PROVIDED				
	UNIT	QUANTITY	RATE	COST
Road Topographic and Boundary Survey - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	52	\$180.00	\$9360.00
			Total Cost	\$9,360.00

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	\$0.560		350	\$196.00
Photocopies B/W (11" X 17")	each	\$0.20		5	\$1.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		\$45.00	6	\$270.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	\$25.00		52	\$1,300.00
				Total Cost	\$1,767.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$12,270.00
NON-SALARY (Other Direct Expenses)	\$1,767.00
UNIT COSTS	\$9,360.00
TOTALS	\$23,397.00

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
	1	4	4					12								21
Survey Control Map	1	4	4	0	0	0	0	12	0	0	0	0	0	0	0	21
HOURS SUB-TOTALS	1	4	4	0	0	0	0	12	0	0	0	0	0	0	0	21
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$800.00	\$520.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,140.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,710.00
% DISTRIBUTION OF STAFFING	9.23%	29.52%	19.19%	0.00%	0.00%	0.00%	0.00%	42.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	42.07%

OTHER DIRECT EXPENSES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Photocopies B/W (11" X 17")	each	\$0.20		3	\$0.60
				Total Cost	\$0.60

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$2,710.00
NON-SALARY (Other Direct Expenses)	\$0.60
UNIT COSTS	\$0.00
TOTALS	\$2,710.60

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Right-of-way Map	1	24	24					40								89
HOURS SUB-TOTALS	1	24	24	0	0	0	0	40	0	0	0	0	0	0	0	89
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$4,800.00	\$3,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,970.00
% DISTRIBUTION OF STAFFING	2.09%	40.10%	26.07%	0.00%	0.00%	0.00%	0.00%	31.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	31.75%

OTHER DIRECT EXPENSES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Photocopies B/W (11" X 17")	each	\$0.20		5	\$1.00
				Total Cost	\$1.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$11,970.00
NON-SALARY (Other Direct Expenses)	\$1.00
UNIT COSTS	\$0.00
TOTALS	\$11,971.00

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

TASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE ENGINEER IN TRAINING	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Level D Utility Record Research/Conflict Matrix and Summary	1				8	8	8		8							33
HOURS SUB-TOTALS	1	0	0	0	8	8	8	0	8	0	0	0	0	0	0	33
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$0.00	\$0.00	\$0.00	\$1,655.76	\$1,000.00	\$1,200.00	\$0.00	\$800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,905.76
% DISTRIBUTION OF STAFFING	5.10%	0.00%	0.00%	0.00%	33.75%	20.38%	24.46%	0.00%	16.31%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	94.90%

RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Photocopies B/W (11" X 17")	each	\$0.20		5	\$1.00
				Total Cost	\$1.00

SUMMARY COST	
TOTAL LABOR COSTS (Specified Rate)	\$4,905.76
NON-SALARY (Other Direct Expenses)	\$1.00
UNIT COSTS	\$0.00
TOTALS	\$4,906.76

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

OPTIONALTASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE Engineer in Training	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Boundary and Topographic Survey of Proposed DetentionPond (approx. 2 acres)	1	4	10					20								35
HOURS SUB-TOTALS	1	4	10	0	0	0	0	20	0	0	0	0	0	0	0	35
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$800.00	\$1,300.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,900.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,250.00

UNIT COST PAYMENT BASIS				
SERVICES TO BE PROVIDED	UNIT	QUANTITY	RATE	COST
Detention Pond Topographic Survey - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	24	\$180.00	\$4320.00
			Total Cost	\$4,320.00

OTHER DIRECT EXPENSES FOR OPTIONAL ADDITIONAL SERVICES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	\$0.560		75	\$42.00
Photocopies B/W (11" X 17")	each	\$0.20		2	\$0.40
Photocopies B/W (8 1/2" X 11")	Each	\$0.10		2	\$0.20
Environmental Field Supplies (tathes, stakes, flagging, spray paint, etc.)	day		\$45.00	1	\$45.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	\$25.00		24	\$600.00
			Total Cost		\$687.60

SUMMARY COST - OPTIONAL	
TOTAL LABOR COSTS (Specified Rate)	\$4,250.00
NON-SALARY (Other Direct Expenses)	\$687.60
UNIT COSTS	\$4,320.00
TOTALS	\$9,257.60

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

OPTIONALTASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE Engineer in Training	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Parcel Map and Metes & Bounds Description for Parcel Takes	1	34	20					68								123
HOURS SUB-TOTALS	1	34	20	0	0	0	0	68	0	0	0	0	0	0	0	123
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$6,800.00	\$2,600.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,460.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$16,110.00

UNIT COST PAYMENT BASIS				
SERVICES TO BE PROVIDED	UNIT	QUANTITY	RATE	COST
Staking proposed Parcel Taking - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	24	\$180.00	\$4320.00
			Total Cost	\$4,320.00

OTHER DIRECT EXPENSES FOR OPTIONAL ADDITIONAL SERVICES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	\$0.560		75	\$42.00
Photocopies B/W (11" X 17")	each	\$0.20		12	\$2.40
Photocopies B/W (8 1/2" X 11")	Each	\$0.10		12	\$1.20
CDs	each	\$2.00		1	\$2.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		\$45.00	3	\$135.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	\$25.00		24	\$600.00
				Total Cost	\$782.60

SUMMARY COST - OPTIONAL	
TOTAL LABOR COSTS (Specified Rate)	\$16,110.00
NON-SALARY (Other Direct Expenses)	\$782.60
UNIT COSTS	\$4,320.00
TOTALS	\$21,212.60
Per Parcel Cost	\$1,325.79



Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koebien Road Segment 3

OPTIONALTASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE Engineer in Training	JUNIOR CADD OPERATOR	ADMIN/CLERIC AL	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMM ETRIST	ABSTRACTOR	TOTAL LABOR HR
Re-establish ROW Prior to Construction	1	4	8	4												17
HOURS SUB-TOTALS	1	4	8	4	0	0	0	0	0	0	0	0	0	0	0	17
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$800.00	\$1,040.00	\$440.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,530.00

UNIT COST PAYMENT BASIS				
SERVICES TO BE PROVIDED	UNIT	QUANTITY	RATE	COST
Re-establish ROW - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	16	\$180.00	\$2880.00
			Total Cost	\$2,880.00

OTHER DIRECT EXPENSES FOR OPTIONAL ADDITIONAL SERVICES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	\$0.560		50	\$28.00
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		16	\$400.00
				Total Cost	\$518.00

SUMMARY COST - OPTIONAL	
TOTAL LABOR COSTS (Specified Rate)	\$2,530.00
NON-SALARY (Other Direct Expenses)	\$518.00
UNIT COSTS	\$2,880.00
TOTALS	\$5,928.00

Prime Provider: KCI TECHNOLOGIES, INC.  
Project: Koeblen Road Segment 3

OPTIONALTASK DESCRIPTION	PROJECT MANAGER	RPLS - TASK LEADER	SURVEYOR-IN- TRAINING	SURVEY TECH	SUE MANAGING ENGINEER	PROJECT ENGINEER	SUE MANAGER	CADD OPERATOR	SUE Engineer in Training	JUNIOR CADD OPERATOR	ADMIN/CLERICA L	SCANNING TECHNICIAN	MODEL TECHNICIAN	CERTIFIED PHOTOGRAMME TRIST	ABSTRACTOR	TOTAL LABOR HR
Topographic Survey of Proposed Storm Sewer (approx 1000 linear feet)	1	4	4					10								19
HOURS SUB-TOTALS	1	4	4	0	0	0	0	10	0	0	0	0	0	0	0	19
CONTRACT RATE PER HOUR (INCLUDE AVG HOURLY RATE TIME OVERHEAD AND FF)	\$250.00	\$200.00	\$130.00	\$110.00	\$206.97	\$125.00	\$150.00	\$95.00	\$100.00	\$75.00	\$60.00	\$150.00	\$130.00	\$250.00	\$75.00	
TOTAL LABOR COSTS	\$250.00	\$800.00	\$520.00	\$0.00	\$0.00	\$0.00	\$0.00	\$950.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,520.00

UNIT COST PAYMENT BASIS	UNIT	QUANTITY	RATE	COST
SERVICES TO BE PROVIDED				
Storm Sewer extension Topographic Survey - 2 - Person Survey Crew (GPS and Robotic Total Stations included in indirect cost rate. Mileage not included.)	hour	10	\$180.00	\$1800.00
			Total Cost	\$1,800.00

ATTACHMENT E- FEE SCHEDULE					
OTHER DIRECT EXPENSES FOR OPTIONAL ADDITIONAL SERVICES					
RATES SHOWN APPLY TO PRIME PROVIDER AND ALL SUBPROVIDERS					
SERVICES TO BE PROVIDED	UNIT	FIXED COST	MAXIMUM COST	QUANTITY	COST
Mileage	mile	\$0.560		25	\$14.00
Photocopies B/W (11" X 17")	each	\$0.20		1	\$0.20
Photocopies B/W (8 1/2" X 11")	Each	\$0.10		1	\$0.10
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		\$45.00	1	\$45.00
GPS RTK (rates applied to actual time GPS units are in use)	hour	\$25.00		10	\$250.00
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		\$309.30

SUMMARY COST - OPTIONAL	
TOTAL LABOR COSTS (Specified Rate)	\$2,520.00
NON-SALARY (Other Direct Expenses)	\$309.30
UNIT COSTS	\$1,800.00
TOTALS	\$4,629.30

April 1, 2021  
Project No. 701178001

Mr. Paul Baxter, PE, ENV SP  
CivilTech  
11821 Telge Road  
Cypress, Texas 77429

Subject: Proposal to Perform Geotechnical Evaluation  
Koeblen Road Widening Segment 3  
Near Koeblen Road and Farm-to-Market Road (FM) 2218  
Richmond, Texas

Dear Mr. Baxter:

We are pleased to present this proposal to perform a geotechnical evaluation for the subject project. This proposal was prepared based on information that we received from your office and outlines our scope of services, anticipated schedule, and lump sum fee for this phase of work.

## **SITE AND PROJECT DESCRIPTION**

As part of the Fort Bend County Precinct 1 Mobility Bond, the project consists of the design and construction of the widening of Segment 3 of Koeblen Road. The widening will occur in the eastbound lane and extend from just south of FM 2218 to about 1-mile southeast where it connects with Segment 1 of the project. The roadway will be a curb-and-gutter with a new storm sewer line that will be constructed along the alignment as well as a possible new detention pond.

The new storm sewer line will be installed using conventional open-cut methods at a depth no deeper than about 10 feet below ground surface. At the time of this proposal, it is undecided if the detention pond will be constructed as well as its location. Based on conversation with CivilTech, we assume the detention pond will be no deeper than 10 feet below ground surface. A separate fee for the detention pond evaluation is provided in this proposal, if needed.

## **SCOPE OF SERVICES**

- Review readily available published and in-house geotechnical literature of the site and the general site area including geologic maps.
- Perform a reconnaissance of the project site and mark out proposed boring locations. We will also contact Texas811 prior to exploration.
- Drill, log, and sample 11 exploratory borings at the site to depths of 20 feet below the existing ground surface (bgs).

- Collect geotechnical soil samples using conventional split-spoon and/or thin-wall tube sampling techniques for laboratory testing and analysis.
- Perform laboratory testing that will generally consist of moisture content, No. 200 Wash, Atterberg limits, and strength testing.
- Prepare a geotechnical report presenting the results of our evaluation. The report will be sealed by a Professional Engineer licensed in the State of Texas, and will include the following:
  - Description of work scope, laboratory, and field procedures;
  - Maps and boring plans;
  - Boring logs and laboratory test results;
  - Subsurface soil and groundwater conditions;
  - Earthwork considerations;
  - Excavation characteristics of onsite soils;
  - Potential for re-use of onsite soils;
  - Utility trench excavation requirements;
  - Pipe bedding and backfill requirements;
  - Subgrade preparation measures;
  - Asphalt pavement transition recommendations; and
  - Portland cement concrete pavement design recommendations.

## **OPTIONAL SCOPE OF SERVICES**

- Drill, log, and sample two exploratory borings at the site to depths of 20 feet bgs within the footprint of the planned detention pond.
- Include detention pond recommendations in our report, including:
  - Detention pond allowable side slopes; and
  - Erosion control recommendations.

## **ASSUMPTIONS**

- The site is accessible to ATV-mounted drilling equipment and site access will be granted.
- Traffic control will not be needed.
- The boreholes can be backfilled with soil cuttings from the drilling activities.
- Some ground disturbance should be expected as a result of our fieldwork.

- Ninyo & Moore will contact Texas811 prior to performing our subsurface evaluation. We will not be responsible for damage to utilities encountered during subsurface exploration that have not been marked out or shown on plans.
- Ninyo & Moore will not need to obtain any permits or environmental clearance as a part of this project.
- Our field exploration does not include any sampling, testing, or chemical analysis of soil, groundwater, surface water, or other materials for the purpose of evaluating possible environmental hazards or risks. These services can be provided, if requested, as an additional scope of work.

## SCHEDULE

We are prepared to initiate this project immediately upon receiving your authorization to proceed. Assuming that there are no delays due to inclement weather or site access restrictions, we anticipate that our fieldwork will be initiated within about two weeks after receipt of the notice to proceed. We anticipate issuing a report within about four weeks after fieldwork is completed.

## FEE

We propose to provide our services for the fees presented below in Table 1. The optional fee presented in Table 1 assumes the field exploration will be done concurrently with the field exploration for the base scope of services. Any additional services, not included in the aforementioned scope, will be charged on a time-and-materials basis in accordance with our current Schedule of Fees.

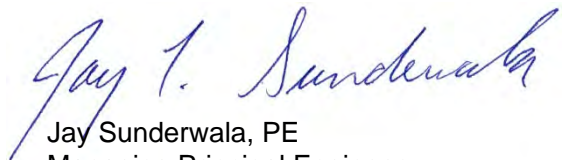
Table 1 – Fee Estimate	
Item	Fee
Geotechnical Evaluation	\$20,200 – Lump Sum
Detention Pond (Optional)	\$4,300 – Lump Sum
<b>TOTAL: \$24,500</b>	

To authorize our services, please provide an Agreement for Professional Consulting Services. We look forward to working with you.

Respectfully submitted,  
**NINYO & MOORE**



Jeff Rodgers, PE, PG  
Principal Engineer



Jay Sunderwala, PE  
Managing Principal Engineer

JSR/JTS/lis

Attachments: Boring Locations Map  
Cost Estimate  
Cost Estimate (Optional Task)





Source: NAVTEQ, 04/01/19.



FEET  
0 610

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

FIGURE 2

## BORING LOCATIONS

KOEBLER ROAD WIDENING SEGMENT 3  
NEAR KOEBLER ROAD AND FARM-TO-MARKET ROAD 2218  
RICHMOND, TEXAS  
701178001 | 3/21

DATE: 4/1/2021

**HARRIS COUNTY FEE SCHEDULE - 2020**

CODE

<b>FIELD STUDY/SUBSURFACE FIELD INVESTIGATION</b>		<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>TOTAL</b>
110110	Mobilization/Demobilization	LS	1	\$700.00	\$700.00
10300	Project Engineer, P.E. (Coordination)	HR	4	\$165.00	\$660.00
10300	Project Engineer, P.E. (Site Recon.)	HR	0	\$165.00	\$0.00
10400	Graduate Engineer, E.I.T.	HR	0	\$115.00	\$0.00
110030	Soil Boring, Continuous 3-in. (0 to 20')	FT	110	\$25.00	\$2,750.00
110010	Soil Boring, Intermittent 3-in. dia. (0 to 50')	FT	110	\$23.00	\$2,530.00
110020	Soil Boring, Intermittent 3-in. dia. (50' to 100')	FT	0	\$25.00	\$0.00
30900	Concrete Coring (4" to 6" Thickness)	EA	0	\$119.00	\$0.00
31000	Concrete Coring (Over 6" to 12")	IN	0	\$11.00	\$0.00
110080	Grouting of Completed Boring	FT	0	\$12.00	\$0.00
110071	Piezometer Installation	FT	0	\$24.00	\$0.00
110072	Piezometer Abandonment	FT	0	\$20.00	\$0.00
10400	Graduate Engineer (Trips for water readings)	HR	0	\$115.00	\$0.00
15000	Vehicle Charge	HR	0	\$12.00	\$0.00
TOTAL FIELD / SUBSURFACE INVESTIGATION					\$6,640.00
<b>BORING LOCATIONS &amp; LOGGING</b>					
10400	Graduate Engineering (Locating Borings)	HR	4	\$115.00	\$460.00
10700	Technician, NICET II (Logging Borings)	HR	20	\$90.00	\$1,800.00
15000	Vehicle Charge	HR	24	\$12.00	\$288.00
TOTAL BORINGS					\$2,548.00
<b>LABORATORY TESTING/SOIL TESTS</b>					
90200	Moisture Content of Soils by Mass (D2216)	EA	25	\$11.00	\$275.00
90100	Liquid and Plastic Limits (D4318)	EA	30	\$71.00	\$2,130.00
91100	Unconsolidated-Undrained Triaxial Compression	EA	0	\$72.00	\$0.00
90900	Unconfined Compressive Strength (D2166)	EA	0	\$51.00	\$0.00
90600	Percent Passing #200 Sieve (D1140)	EA	20	\$55.00	\$1,100.00
90500	Sieve Analysis w/Hydrometer (D7928)	EA	0	\$145.00	\$0.00
91700	Soil Suction - Filter Paper	EA	0	\$65.00	\$0.00
91900	California Bearing Ratio (D1883)	EA	0	\$243.00	\$0.00
	Consolidated Undrained (D-4767)	EA	0	\$1,400.00	\$0.00
91500	Dispersive Characteristic by Crumb Test (D6572)	EA	0	\$43.00	\$0.00
91400	Dispersive Characteristic by Pinhole Test (D464)	EA	0	\$324.00	\$0.00
31200	Preparation of Core, Cap & Test	EA	0	\$89.00	\$0.00
31300	Measuring Length of Core	EA	0	\$30.00	\$0.00
TOTAL LABORATORY / SOIL TESTS					\$3,505.00
<b>ENGINEERING/REPORTING</b>					
10100	Principal, P.E.	HR	4	\$250.00	\$1,000.00
10200	Senior Engineer, P.E. (10 yrs exp.)	HR	8	\$205.00	\$1,640.00
10300	Project Engineer, P.E.	HR	0	\$165.00	\$0.00
10400	Graduate Engineer, E.I.T.	HR	40	\$115.00	\$4,600.00
11500	Administrative Asst. / Clerical Support	HR	4	\$70.00	\$280.00
TOTAL ENGINEERING / REPORTING					\$7,520.00
<b>TOTAL</b>					<b>\$20,213.00</b>



DATE: 4/1/2021

**HARRIS COUNTY FEE SCHEDULE - 2020**

CODE

<b>FIELD STUDY/SUBSURFACE FIELD INVESTIGATION</b>		<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>TOTAL</b>
110110	Mobilization/Demobilization	LS	1	\$700.00	\$700.00
10300	Project Engineer, P.E. (Coordination)	HR	1	\$165.00	\$165.00
10300	Project Engineer, P.E. (Site Recon.)	HR	0	\$165.00	\$0.00
10400	Graduate Engineer, E.I.T.	HR	0	\$115.00	\$0.00
110030	Soil Boring, Continuous 3-in. (0 to 20')	FT	20	\$25.00	\$500.00
110010	Soil Boring, Intermittent 3-in. dia. (0 to 50')	FT	20	\$23.00	\$460.00
110020	Soil Boring, Intermittent 3-in. dia. (50' to 100')	FT	0	\$25.00	\$0.00
30900	Concrete Coring (4" to 6" Thickness)	EA	0	\$119.00	\$0.00
31000	Concrete Coring (Over 6" to 12")	IN	0	\$11.00	\$0.00
110080	Grouting of Completed Boring	FT	0	\$12.00	\$0.00
110071	Piezometer Installation	FT	0	\$24.00	\$0.00
110072	Piezometer Abandonment	FT	0	\$20.00	\$0.00
10400	Graduate Engineer (Trips for water readings)	HR	0	\$115.00	\$0.00
15000	Vehicle Charge	HR	0	\$12.00	\$0.00
TOTAL FIELD / SUBSURFACE INVESTIGATION					\$1,825.00
<b>BORING LOCATIONS &amp; LOGGING</b>					
10400	Graduate Engineering (Locating Borings)	HR	2	\$115.00	\$230.00
10700	Technician, NICET II (Logging Borings)	HR	5	\$90.00	\$450.00
15000	Vehicle Charge	HR	7	\$12.00	\$84.00
TOTAL BORINGS					\$764.00
<b>LABORATORY TESTING/SOIL TESTS</b>					
90200	Moisture Content of Soils by Mass (D2216)	EA	6	\$11.00	\$66.00
90100	Liquid and Plastic Limits (D4318)	EA	5	\$71.00	\$355.00
91100	Unconsolidated-Undrained Triaxial Compression	EA	0	\$72.00	\$0.00
90900	Unconfined Compressive Strength (D2166)	EA	0	\$51.00	\$0.00
90600	Percent Passing #200 Sieve (D1140)	EA	5	\$55.00	\$275.00
90500	Sieve Analysis w/Hydrometer (D7928)	EA	0	\$145.00	\$0.00
91700	Soil Suction - Filter Paper	EA	0	\$65.00	\$0.00
91900	California Bearing Ratio (D1883)	EA	0	\$243.00	\$0.00
	Consolidated Undrained (D-4767)	EA	0	\$1,400.00	\$0.00
91500	Dispersive Characteristic by Crumb Test (D6572)	EA	0	\$43.00	\$0.00
91400	Dispersive Characteristic by Pinhole Test (D464)	EA	0	\$324.00	\$0.00
31200	Preparation of Core, Cap & Test	EA	0	\$89.00	\$0.00
31300	Measuring Length of Core	EA	0	\$30.00	\$0.00
TOTAL LABORATORY / SOIL TESTS					\$696.00
<b>ENGINEERING/REPORTING</b>					
10100	Principal, P.E.	HR	1	\$250.00	\$250.00
10200	Senior Engineer, P.E. (10 yrs exp.)	HR	2	\$205.00	\$410.00
10300	Project Engineer, P.E.	HR	0	\$165.00	\$0.00
10400	Graduate Engineer, E.I.T.	HR	2	\$115.00	\$230.00
11500	Administrative Asst. / Clerical Support	HR	2	\$70.00	\$140.00
TOTAL ENGINEERING / REPORTING					\$1,030.00
<b>TOTAL</b>					<b>\$4,315.00</b>





## **GC Engineering, Inc.**

2505 Park Avenue, Pearland, Texas 77581  
Phone: (281) 412-7008, Fax: (281) 412-4623  
www.gc-engineering.com

April 28, 2021

Mr. Paul Baxter, P.E., ENV SP  
CivilTech Engineering, Inc  
11821 Telge Road  
Cypress, Texas 77429

**RE: Proposal for Professional Engineering Services for Koeblen Road Segment 3 project from 400' east of FM 2218 to 90-degree bend at Koeblen Road, Fort Bend County Precinct 1, Texas.  
Fort Bend County Project No.: 20115  
GCE Proposal No.: 21-011**

Dear Mr. Baxter:

GC Engineering, Inc. (GCE) is pleased to have the opportunity to provide CivilTech Engineering, Inc. (Client) with this proposal to provide professional engineering services for Koeblen Road from 400' east of FM 2218 to 90-degree bend at Koeblen Road, an approximately 5,716-foot-long roadway reconstruction project, located in Fort Bend County Precinct 1, Texas.

The proposed improvements for Koeblen Road consist of the addition of two new 12' wide eastbound lanes within the project limits. It is understood that the 2-12' wide westbound lanes on Koeblen Road are currently under construction by others. The proposed eastbound lanes will tie-in to the existing eastbound lanes pavement near FM 2218. A temporary asphalt pavement is proposed near the 90-degree bend of Koeblen Road to tie-in with the existing pavement. The project layout is shown in Exhibit-A.

### **BASIC SERVICES:**

GCE will render the following professional services consistent with the Fort Bend County Engineering Department (FBCED) standards and Texas Manual on Uniform Traffic Control Devices (TMUTCD) requirements.

#### **TASK 1. TRAFFIC CONTROL PLANS**

GCE shall evaluate the requirements for traffic control and develop Traffic Control Plans (TCP) for the project in general accordance with the latest edition of the TMUTCD. GCE shall interface and coordinate phases of work, including the TCP, with the Client and adjacent section engineers, as required.

- 1) GCE shall provide a written narrative of the construction sequencing and work activities per phase and determine the existing and proposed traffic control devices (regulatory signs, warning signs, guide signs, route markers, construction pavement markings, barricades, flag personnel, etc.) to be used to handle traffic during each construction sequence.



- 2) GCE shall provide traffic control plans showing proposed traffic control devices during each construction phase (stop signs, flag person, etc.). GCE shall also show temporary roadways, structures and detours required to maintain two-way traffic at all times during construction.
- 3) GCE shall provide typical sections, Construction Notes and Standard Details for TCP design.

It is anticipated that temporary traffic signals will not be required for the project. It is also anticipated that the project will be constructed within two phases.

## **TASK 2. SIGNING AND PAVEMENT MARKINGS (PERMANENT) LAYOUTS**

- A. Signing. GCE shall prepare drawings, specifications, and details for all signs. GCE shall coordinate with the County and State for overall temporary, interim, and final signing strategies and placement of signs outside project limits. The proposed signs shall be illustrated and numbered on plan sheets. Sign foundation shall be selected from County and State Standards.
- B. Pavement Markings. GCE shall detail permanent and temporary pavement markings and channelization devices on plan sheets. GCE shall coordinate with the County and State (and other section engineers as required) for overall temporary, interim, and final pavement marking strategies. Pavement markings shall be designed according to County standards.

GCE shall provide the following information on Signing and Pavement Markings (SPM) layouts:

1. Roadway layout.
2. Center line with station numbering.
3. ROW lines.
4. Traffic flow direction arrows.
5. Culverts and other structures that present a hazard to traffic.
6. Existing signs to remain, to be removed, or to be relocated.
7. Proposed signs (illustrated, numbered and size).
8. Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
9. Quantities of existing signs and pavement markings to be removed.
10. The location of roadways, intersections, and pedestrian crossings.
11. The number of lanes in each section of proposed roadway and the location of changes in numbers of lanes.

## **TASK 3. STORM WATER POLLUTION PREVENTION PLANS**

GCE shall evaluate the requirements for Storm Water Pollution Prevention (SWPP) measures and develop SWPP Plans in conformance with the TCP, to minimize potential impact to receiving waterways. The SWPP shall include text describing the plan, quantities, type, phase, and locations of erosion control devices and any required permanent erosion control measures.

In addition, GCE shall provide general notes for the project.



#### **TASK 4. PROJECT SUBMITTALS, QUANTITY ESTIMATES, SPECS & MEETINGS**

GCE will attend two (2) meetings with the Client/County. GCE will also coordinate TCP, SPM & SWPP design work with the roadway design throughout the project.

GCE shall prepare and submit construction plans as indicated in the above tasks for 30%, 70%, 95% and 100% design phases. GCE shall provide sheet-by-sheet Quantity take-off and Engineer's Construction Cost Estimate for the above tasks in spreadsheet and pdf format for each submittal.

GCE shall prepare Construction Plans in 11"x17" size. The anticipated number of Construction plan sheets for Tasks 1, 2 & 3 are as follows:

TCP Overall Phasing Layout (2 Phases) (1"=300')	1
Traffic Control Construction Notes	1
Traffic Control Plans (1"=100') (Two bays per sheet)	8
Traffic Control Details	5
SPM & SWPP General Notes	1
SPM Layouts (1"=100') (Two bays per sheet)	4
SPM Standard Details	5
SWPP Plans (1"=100') (Two bays per sheet)	4
SWPP Standard Details	1
Total	<hr/> 30 Sheets

GCE shall submit plans in pdf format for all submittals. GCE shall address comments and provide responses to the County comments for all submittals.

#### **PROJECT SCHEDULE**

A project schedule including the milestones will be determined based on the discussions with the Client. GCE shall submit 30% construction plans within eight (8) weeks after the receipt of Notice to Proceed, Topographic Survey and proposed roadway plans from the Client.

GCE shall submit plans for 70%, 95% and 100% levels within three (3) weeks from the receipt of comments at each stage.

#### **PROJECT COST**

The work described in the above scope tasks will be performed at an estimated lump sum fee of **\$63,934.00**. Direct expenses will be billed at cost. Interim billing will be per monthly basis.



Tasks	Description	GCE Cost	Direct Expenses	Budget
Task 1	Traffic Control Plans	\$34,326.00	\$500.00	\$34,980.00
Task 2	Signing and Pavement Markings (Permanent) Layouts	\$13,200.00	\$0.00	\$12,460.00
Task 3	Storm Water Pollution Prevention Plans	\$6,941.00	\$0.00	\$5,959.00
Task 4	Project Submittals, Quantity estimates, Specs & Meetings	\$8,967.00	\$0.00	\$12,020.00
Total		<b>\$63,434.00</b>	<b>\$500.00</b>	<b>\$63,934.00</b>

Direct labor for any authorized additional services will be billed on a time and material basis at the following hourly rates:

Principal	\$210.00
Project Manager	\$187.00
Project Engineer	\$152.00
Senior Engineer	\$132.00
Civil Engineer	\$112.00
CADD Manager	\$110.00
CADD Technician	\$90.00
Clerical	\$50.00
Senior Resident Engineer	\$110.00
Construction Inspector	\$75.00

All direct expenses will be billed at cost

## ASSUMPTIONS

The proposal presented is based on the following assumptions:

1. The Client will provide available information pertaining to the site, including the boundary and topographic survey, design plans, for the existing facilities, design CADD files, standards, and project detail sheets.
2. All CADD files shall be compatible with AutoCAD version 2021 or MicroStation V8i and shall have same horizontal and vertical datum.
3. A total of two meetings will be attended with the Client or County staff at the project site or at Client's location. Attending additional meetings will be invoiced at the hourly rates indicated above.
4. The Client will pay any and all required fees and other costs related to the project directly to FBCED and other review agencies.



We appreciate the opportunity to be of service to you and look forward to working on this important project. If you have any questions or need more information, please contact me at (281) 412-7008 Ext. 104.

Sincerely,  
**GC ENGINEERING, INC.**

A handwritten signature in blue ink, appearing to read 'Mahendra', with a long, sweeping horizontal line extending to the right.

Mahendra Rodrigo, P.E.  
Principal



**Professional Engineering Services**  
**Koeblen Road Segment 3 from FM 2218 to Rosenberg City Limit line**  
**Fort Bend County Project Number: 20115**  
**Fort Bend County, Texas**  
**Project Budget**

TASK	Principal	Project Manager	Project Engineer	Civil Engineer	CAD Technician	Clerical	TOTAL MAN HOURS	TOTAL DIRECT LABOR	Direct Expenses	TOTAL LABOR & EXPENSES
<b>Rate</b>	<b>\$ 210.00</b>	<b>\$ 187.00</b>	<b>\$ 152.00</b>	<b>\$ 112.00</b>	<b>\$ 90.00</b>	<b>\$ 50.00</b>				
<b>Task 1 - Traffic Control Plans</b>										
Data Collection, Field visit, Coordination with the Client and adjacent project Engineers		4				8	12	\$1,148.00	\$500.00	\$1,648.00
TCP Design	2	16	20		16		54	\$7,892.00		\$7,892.00
TCP-Overall Phasing Layout (1 sheet)	1	2	8		16		27	\$3,240.00		\$3,240.00
TCP-Phase 1 (4 sheets)	1	4	8		39		52	\$5,684.00		\$5,684.00
TCP-Phase 2 (4 sheets)	1	4	8		39		52	\$5,684.00		\$5,684.00
Construction Notes, TCP Phasing narrative (1 sheet)		4	8		1		13	\$2,054.00		\$2,054.00
TCP Standard details (5 sheets)		2	4		4		10	\$1,342.00		\$1,342.00
Address comments and submit 70% plans	1	4	8		20		33	\$3,974.00		\$3,974.00
Address comments and submit 95% plans		2	3		10		15	\$1,730.00		\$1,730.00
Address comments and submit 100% signed and sealed plans		2	2		10		14	\$1,578.00		\$1,578.00
<b>Subtotal Task 1 - Traffic Control Plans</b>	<b>6</b>	<b>44</b>	<b>69</b>	<b>0</b>	<b>155</b>	<b>8</b>	<b>282</b>	<b>\$34,326.00</b>	<b>\$500.00</b>	<b>\$34,826.00</b>
<b>Task 2 - Signing and Pavement Markings (Permanent) Layouts</b>										
Signing and Pavement Marking (SPM) Plans (4 sheets)	1	4	24		39		68	\$8,116.00		\$8,116.00
SPM Standard Details (5 sheets)		1	4		4		9	\$1,155.00		\$1,155.00
Address comments and submit 70% plans		2	5		8		15	\$1,854.00		\$1,854.00
Address comments and submit 95% plans		2	5		4		11	\$1,494.00		\$1,494.00
Address comments and submit 100% signed and sealed plans		1	2		1		4	\$581.00		\$581.00
<b>Subtotal Task 2 - Signing and Pavement Markings (Permanent) Layouts</b>	<b>1</b>	<b>10</b>	<b>40</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>107</b>	<b>\$13,200.00</b>	<b>\$0.00</b>	<b>\$13,200.00</b>



**Professional Engineering Services**  
**Koeblen Road Segment 3 from FM 2218 to Rosenberg City Limit line**  
**Fort Bend County Project Number: 20115**  
**Fort Bend County, Texas**  
**Project Budget**

TASK	Principal	Project Manager	Project Engineer	Civil Engineer	CAD Technician	Clerical	TOTAL MAN HOURS	TOTAL DIRECT LABOR	Direct Expenses	TOTAL LABOR & EXPENSES
<b>Rate</b>	<b>\$ 210.00</b>	<b>\$ 187.00</b>	<b>\$ 152.00</b>	<b>\$ 112.00</b>	<b>\$ 90.00</b>	<b>\$ 50.00</b>				
<b>Task 3 - Storm Water Pollution Prevention Plans</b>										
Storm Water Pollution Prevention (SWPP) Plans (4 sheets)	1	2	8		8		19	\$2,520.00		\$2,520.00
General Notes (1 sheet)		1			1		2	\$277.00		\$277.00
SWPP Standard Details (5 sheets)		1			2		3	\$367.00		\$367.00
Address comments and submit 70% plans		2	5		8		15	\$1,854.00		\$1,854.00
Address comments and submit 95% plans		2	4		4		10	\$1,342.00		\$1,342.00
Address comments and submit 100% signed and sealed plans		1	2		1		4	\$581.00		\$581.00
<b>Subtotal Task 3 - Storm Water Pollution Prevention Plans</b>	<b>1</b>	<b>9</b>	<b>19</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>53</b>	<b>\$6,941.00</b>	<b>\$0.00</b>	<b>\$6,941.00</b>
<b>Task 4 - Project Submittals, Quantity estimates, Specs &amp; Meetings</b>										
Quantity take-off for Tasks 1 to 3, update for four submittals	1	7	11	14			33	\$4,759.00		\$4,759.00
Engineer's Construction Cost estimation, update for four submittals	1	3	6	6			16	\$2,355.00		\$2,355.00
Standard Technical Specifications		1		4			5	\$635.00		\$635.00
Attend meetings	2	4				1	7	\$1,218.00		\$1,218.00
<b>Subtotal Task 4 - Project Submittals, Quantity estimates, Specs &amp; Meetings</b>	<b>4</b>	<b>15</b>	<b>17</b>	<b>24</b>	<b>0</b>	<b>1</b>	<b>61</b>	<b>\$8,967.00</b>	<b>\$0.00</b>	<b>\$8,967.00</b>
<b>Man Hours Sub-Total</b>	<b>12</b>	<b>78</b>	<b>145</b>	<b>24</b>	<b>235</b>	<b>9</b>	<b>503</b>			
<b>TOTAL BASIC SERVICES</b>								<b>\$63,434.00</b>	<b>\$500.00</b>	<b>\$63,934.00</b>

# CERTIFICATE OF INTERESTED PARTIES

**FORM 1295**

1 of 1

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

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

CivilTech Engineering Inc  
Cypress, TX United States

**Certificate Number:**  
2021-760288

**Date Filed:**  
06/01/2021

**Date Acknowledged:**  
06/23/2021

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

Fort Bend County Engineering Department

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

Project No. 20115  
Professional Engineering Services

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Phipps, Steve	Cypress, TX United States	X	
	Heid, Josh	Cypress, TX United States	X	
	Cattran, Scott	Cypress, TX United States	X	

**5 Check only if there is NO Interested Party.**

☐**6 UNSWORN DECLARATION**

My name is \_\_\_\_\_, and my date of birth is \_\_\_\_\_.

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

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

Executed in \_\_\_\_\_ County, State of \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(month) (year)

\_\_\_\_\_  
Signature of authorized agent of contracting business entity  
(Declarant)