

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 CIVILCORP, LLC (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide professional engineering services for the reconstruction and widening of McCrary Road from a 2-lane rural asphalt roadway to a 4-lane boulevard, in Richmond, Texas for the McCrary Road South Project, Number 17313X, under the 2017 Mobility Bond Program (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, including the surveying, right-of-way mapping, geotechnical investigations, roadway design, drainage design, traffic control design and utility coordination for the project as described Scope of Services and Deliverable Documents 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 Nine Hundred Ten thousand and Fourteen and 87/100 (\$910,014.87) 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 Nine Hundred Ten thousand and Fourteen and 87/100 (\$910,014.87), 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 Nine Hundred Ten thousand and Fourteen and 87/100 (\$910,014.87).

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, 2022. 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. 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.

10.1.2 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.

10.1.3 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.

10.1.4 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 NEGLIGENT ACT, 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 st Floor Richmond, Texas 77469
Contractor:	CivilCorp, LLC Attn: Thomas C. Kuykendall, Jr., Vice President P.O. Box 1029 Fulshear, Texas 77441

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 2270 Texas Government Code: By signature below, Contractor verifies 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.

{EXECUTION PAGE FOLLOWS}

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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

CIVILCORP, LLC

Robert E. Hebert, County Judge



Thomas C. Kuykendall, Jr., Vice President

Date

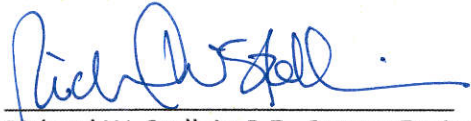
06/04/2018

Date

ATTEST:

Laura Richard, County Clerk

APPROVED:



Richard W. Stolleis, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

LaNetra S. Lary, Assistant County Attorney

AUDITOR'S CERTIFICATE

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

Robert Ed Sturdivant, County Auditor

I:\AGREEMENTS\2018 Agreements\Engineering\Prof Engineering Services Agrmt.McCrary Road.docx. (LSL 6/1/18)

EXHIBIT A

May 22, 2018

Mr. Mark Dessens, PE
Schaumburg & Polk, Inc.
11767 Katy Fwy # 900
Houston, TX 77079

Re: McCrary Road South (Project #17313X)
Professional Civil Engineering and Surveying Services Proposal

Dear Mr. Dessens:

CivilCorp, LLC. would like to thank Fort Bend County for the opportunity to work and partner with the County and Schaumburg & Polk on this project. In accordance with the scoping meeting and our subsequent discussions, CivilCorp submits this proposal to Fort Bend County for Professional Civil Engineering and Surveying Services for the reconstruction and widening of McCrary Road from a 2-lane rural asphalt roadway to a 4-Lane boulevard with concrete curb & gutter and storm drainage system from FM 359 to North McCrary Road.

PROJECT DESCRIPTION

Fort Bend County developed and passed a mobility bond program in November 2017. Fort Bend County desires to prepare the PS&E (Plans, Specifications and Estimate) for McCrary Road utilizing the 2017 bond funding. The limits of the project extend from FM 359 to North McCrary Road approximately 7,500' with approximately 1,700' on new location. McCrary Road will be widened from a rural 2-lane asphalt section to a 4-Lane boulevard with concrete curb & gutter and storm drainage system. A traffic signal and safety lighting will be included at the intersection of FM 359. An offsite detention pond will be developed to provide for the drainage impacts for the additional lanes. Development is occurring along the project corridor and we will coordinate the project design with existing and proposed development plans. The project development will follow applicable design criteria, in order of priority, (1) *Fort Bend County Drainage Criteria Manual* (Fort Bend County Drainage District, November 1987, revised April 1999), (2) municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria, (3) *Guidelines for Engineers Having Contracts with Harris County, Texas* (Harris County Public Infrastructure Department, 1987), (4) applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable), and (5) the *Infrastructure Design Manual* (City of Houston Department of Public Works and Engineering, current version, used for infrastructure for which design criteria do not exist in the preceding criteria documents). Municipalities contributing funds to the project may review the submittals. The project scope will entail surveying and plan document preparation to facilitate the bidding and construction of the project.

SCOPE OF SERVICES

The overall scope of services will conform to Fort Bend County procedures and requirements to provide a PS&E package suitable for construction bidding. CivilCorp will provide Fort Bend County with the following surveying and engineering services for the project:

Preliminary Design, Final Design and Bid and Construction Phase Services will be performed in accordance with **Attachment "A" 2017 Mobility Bond Program Summary of Design Process**.

Summary of Project Costs

- See Exhibit "1"

Drainage, Detention Pond, Traffic Control and SWPPP Services Provided by Pape-Dawson Engineering, Inc.

- See Attachment "B"

Surveying and Right-of-Way Mapping Services Provided by Weisser Engineering and Surveying, Inc.

- See Attachment "C"

Geotechnical Engineering Services Provided by Geotest Engineering, Inc.

- See Attachment "D"

INFORMATION AND SERVICES PROVIDED BY FORT BEND COUNTY

Fort Bend County will provide CivilCorp with the following information and assistance.

1. Survey control monument data, if available.
2. Existing drainage studies or data
3. Existing utility plans or other data applicable to the project
4. Timely review and decisions to maintain project schedule
5. Coordination with adjacent projects and consultants.

SERVICES NOT INCLUDED WITHIN THE SCOPE OF SERVICES:

The following services have not been included within the above scope of services:

1. Subsurface utility engineering Quality Level A (potholing)
2. Landscaping
3. Design of Private Utilities
4. Construction Inspection

CivilCorp, LLC could provide these services to Fort Bend County, if desired. These services would be developed under a separate proposal.

SCHEDULE

Project development and design will begin upon notice to proceed from Fort Bend County anticipated to be on June 12, 2018.

Kick-off Meeting	6/18/18
Geotechnical Complete	8/17/18
Surveying Complete	8/10/18
Preliminary Drainage Impact Report	9/7/2018
Preliminary Engineering	10/19/18
Utility Adjustments	10/19/18 to 9/6/19
ROW Documents	11/16/18
ROW Acquisition	11/19/18 to 5/31/19

Environmental Permitting	10/19/18 to 5/31/19
Final PS&E	9/6/19
Construction	11/4/19

*CivilCorp is not responsible for delays beyond its control.

COMPENSATION

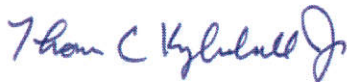
Payment and compensation for the above Scope of Services except for bidding and construction phase services is to be on a lump sum basis. Bidding and Construction phase services will be billed according to time and materials for services rendered. CivilCorp will prepare monthly invoices for services rendered. A budget in the amount of \$ 910,014.87 is established for this agreement and will not be exceeded without prior authorization by Fort Bend County. "Exhibit "1" provides a summary of the fee estimate and a detailed fee estimate calculation for all items of CivilCorp's work.

All work will be closely coordinated with Fort Bend County. Thank you for the opportunity to submit this proposal. If you are in agreement with the services and related fee contained in this proposal and wish to proceed, please sign on the space provided and return an executed copy to my attention that will serve as the Notice to Proceed.

If you have any questions or require additional information, please don't hesitate to call me. We are looking forward to working with you on this project.

Very truly yours,

CivilCorp, LLC



Thomas C. Kuykendall, Jr., PE
Vice President

Fort Bend County

By: _____
Title: _____
Date: _____

EXHIBIT 1 - FEE SCHEDULE

PROJECT NAME: MCCRARY ROAD SOUTH
 LIMITS: FROM FM 359 TO NORTH MCCRARY ROAD (7,500 LF)
 PROJECT LENGTH: 7,500' (ROADWAY)
 FORT BEND COUNTY PROJECT NO.: 17313X
 METHOD OF PAY: LUMP SUM
 PRIME PROVIDER NAME: CIVILCORP, LLC

5/22/18

FEE SUMMARY		
MCCRARY ROAD		
FBC PROJECT NO. 17313X		
TASKS	CIVILCORP, LLC	
FC 110	\$ 23,208.23	
FC 120	\$ -	
FC 130	\$ 45,540.38	
FC 150		
FC 160	\$ 168,624.04	
FC 161	\$ 28,289.66	
FC 162	\$ 22,654.30	
FC 163	\$ 51,281.09	
FC 164	\$ 36,769.56	
FC 309	\$ 29,117.11	Billed as time and materials
Direct Expenses	\$ 2,596.00	
TOTALS	\$408,080.37	
TOTAL		\$408,080.37

CIVILCORP, LLC	
CIVILCORP TOTAL	\$408,080.37
Pape Dawson (Drainage Impact, Detention, Drainage Design, Traffic Control & SWPPP)	\$182,325.00
Pape Dawson (Bid & Construction Phase)	\$8,020.00
Pape-Dawson Total	\$190,345.00
EPIC (Traffic Signal Warrant)	\$8,238.00
EPIC (Traffic Signal)	\$38,995.50
EPIC Total	\$47,233.50
Weisser (Surveying & Existing ROW Mapping)	
Existing ROW Mapping	\$78,920.00
Topographic Survey	\$68,780.00
SUE Level B (Designation)	\$8,680.00
Project Control for Construction	\$8,080.00
Weisser (Surveying & Existing ROW Mapping) Total	\$164,460.00
Weisser (Proposed ROW Detention Pond - 6 to 10 Acres)	\$6,800.00
Weisser (Proposed ROW Estimated 40 Parcels @ \$1,500/Parcel)	\$60,000.00
Weisser Proposed ROW Total	\$66,800.00
Geotech (Geotechnical)	\$33,096.00
Geotech Total	\$33,096.00
TOTAL PROJECT	\$910,014.87

Estimated Construction Cost	\$ 7,000,000.00
Percent of Construction Cost	13.0%

EXHIBIT 1 - FEE SCHEDULE

PROJECT NAME: MCCRARY ROAD SOUTH
LIMITS: FROM FM 359 TO NORTH MCCRARY ROAD (7,500 LF)
FORT BEND COUNTY PROJECT NO.: 17313X
METHOD OF PAY: LUMP SUM
PRIME PROVIDER NAME: CIVILCORP, LLC

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	EIT	SENIOR OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS	HRS PER SHEET
CONTRACT RATE PER HOUR	\$ 199.51	\$ 136.48	\$ 132.79	\$ 113.93	\$ 88.95	\$ 85.52	\$ 82.10				
ROUTE & DESIGN STUDIES (FC 110)											
DATA COLLECTION	6	16			8	8		38	\$ 5,287.70	N/A	N/A
FIELD RECONNAISSANCE (C EST)		18	10	20				40	\$ 5,285.30	N/A	N/A
DETERMINE & DOCUMENT DESIGN CRITERIA	6	12			16			34	\$ 4,632.42	N/A	N/A
PRELIMINARY COST ESTIMATE	1	4	10		16			31	\$ 3,000.93	N/A	N/A
SCHEDULE ATTEND AND CONDUCT PRELIMINARY DESIGN INTO	12	12						24	\$ 4,391.88	N/A	N/A
HOURS SUB-TOTALS	25	54	20	20	40	8	0	157		0	
SUBTOTAL (FC 110)	\$4,097.76	\$3,699.52	\$2,666.80	\$2,772.00	\$3,594.00	\$708.16	\$0.00	\$22,209.29	\$ 22,209.29		
SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT (FC 120)											
REVIEW EXISTING RIGHT OF WAY MAPS	6	14	16					36	\$ 5,692.42	N/A	N/A
DETERMINE PROPOSED RIGHT OF WAY NEEDS	6	24		40				70	\$ 9,737.78	N/A	N/A
ACTIVATE ONE-CALL (COORDINATE FOR SURVEY OPERATIONS)		2			12			14	\$ 1,411.16	N/A	N/A
OBTAIN EXISTING UTILITY DATA & DEVELOP BASE FILE	4	16			80	80		160	\$ 15,950.92	N/A	N/A
COORDINATE UTILITY MARKINGS WITH SURVEYORS	5				10			15	\$ 1,780.00	N/A	N/A
COORDINATE WITH UTILITY & PIPELINE COMPANIES	4	24	18	34				80	\$ 11,847.20	N/A	N/A
HOURS SUB-TOTALS	29	65	34	74	102	80	0	375		0	
SUBTOTAL (FC 120)	\$3,950.30	\$14,159.80	\$4,514.85	\$5,408.62	\$3,164.70	\$5,311.20	\$0.00	\$45,540.38	\$ 45,540.38		
ROADWAY DESIGN CONTROLS (FC 160)											
EXISTING AND PROPOSED TYPICAL SECTIONS	6	12	26		36	42		122	\$ 13,659.30	6	20
PAVEMENT GEOMETRICS LAYOUTS	4	10	16	24	36	48		138	\$ 14,796.16	10	14
(H: 1'-40" - 11"x17" DOUBLE BANKED)											
MCCRARY ROAD ROADWAY PLAN AND PROFILE SHEETS	10	36	56	60	80	200		442	\$ 47,134.42	16	28
(H: 1'-40" V: 1'-4" - 11"x17")											
CLAYHEAD ROAD ROADWAY PLAN AND PROFILE SHEETS	2	2	8	8	12	24		56	\$ 5,906.02	2	28
(H: 1'-40" V: 1'-4" - 11"x17")											
BRANDT ROAD ROADWAY PLAN AND PROFILE SHEETS	2	2	4	4	6	12		30	\$ 3,319.00	1	30
(H: 1'-40" V: 1'-4" - 11"x17")											
INTERSECTION LAYOUT	6	16	22	18	22	36		120	\$ 13,590.88	4	30
(FM 359, CLAYHEAD, BRANDT, MCCRARY NORTH)											
DETERMINE SITE TRIANGLES FOR ALL INTERSECTIONS (PER PHASE)	2	8		16	24			60	\$ 5,705.34	1	60
DRIVEWAY SUMMARY AND DETAILS	1	1	2	4	6	16		30	\$ 3,041.51	1	30
MISCELLANEOUS ROADWAY DETAILS	1	3	8	6	10	8		36	\$ 4,946.71	2	18
GEOPAK DESIGN CROSS SECTIONS (80 ESTIMATED)	6	16	80	240	48	48		430	\$ 40,598.19	20	22
ESTIMATED QUANTITIES	2	4	16		32	16		70	\$ 7,481.10		
HOURS SUB-TOTALS	42	110	238	393	364	450	0	1524		63	
SUBTOTAL (FC 160)	\$5,379.42	\$18,312.80	\$51,684.02	\$43,178.40	\$27,314.40	\$38,834.00	\$0.00	\$188,824.04	\$ 188,824.04		

EXHIBIT 1 - FEE SCHEDULE

PROJECT NAME: MCCRARY ROAD SOUTH
LIMITS: FROM FM 359 TO NORTH MCCRARY ROAD (7,500 LF)
FORT BEND COUNTY PROJECT NO.: 17313X
METHOD OF PAY: LUMP SUM
PRIME PROVIDER NAME: CIVIL CORP., LLC

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	BIT OPERATOR	ADMIN CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS	HRS PER SHEET
CONTRACT RATE PER HOUR	\$ 195.51	\$ 165.48	\$ 132.79	\$ 113.83	\$ 88.35	\$ 62.10				
DRAINAGE DESIGN (FC 161)										
PREVIEW DRAINAGE IMPACT ANALYSIS	12	32	12	32			88	\$ 12,851.12		
COORDINATION WITH DRAINAGE DESIGN	10	24	15	32	24		114	\$ 19,335.54		
HOURS SUB-TOTALS	22	56	27	64	24	0	202			
SUBTOTAL (FC 161)	\$2,681.28	\$9,322.08	\$3,083.70	\$7,272.32	\$0.00	\$2,124.48	\$29,289.86	\$ 28,789.38	0	
SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT) (FC 162)										
SIGNING AND PAVEMENT MARKING LAYOUT SHEET (FC 1-40" - 11"x17" DOUBLE BANKED)	4	15	28		70	100	220	\$ 22,654.30	8	28
HOURS SUB-TOTALS	4	15	28	0	70	100	220		8	
SUBTOTAL (FC 162)	\$768.04	\$2,995.64	\$3,718.12	\$0.00	\$6,289.50	\$6,852.00	\$22,854.30	\$ 22,654.30		
MISCELLANEOUS (ROADWAY) (FC 163)										
TITLE SHEET	1	3			6	10	20	\$ 2,123.26	1	20
INDEX OF SHEETS	1	2			6	8	17	\$ 1,775.78	1	17
GENERAL NOTES SHEET	2	8			8	12	30	\$ 3,511.90	3	10
PROJECT LAYOUT	2	8	4		10	24	48	\$ 4,452.00	2	22
TOP	2	4	8		8	16	36	\$ 4,262.38	4	10
STANDARD CONSTRUCTION DETAILS	1	3	8			8	20	\$ 2,258.07	N/A	N/A
SPECIFICATION TABLE (70%, 85% and FINAL)	1	4	8			16	28	\$ 2,321.35	N/A	N/A
BID FORM	1	4					8	\$ 4,262.46	N/A	N/A
COST ESTIMATE (70%, 85% and FINAL)	2	6			24		40	\$ 2,947.79	N/A	N/A
CONSTRUCTION SCHEDULE	1	4			8	40	200	\$ 22,761.50	N/A	N/A
PRELIMINARY ENGINEERING REPORT (PER) (MEMO & 50% PLANS)	8	26	34	38	40	14	200	\$ 22,761.50	N/A	N/A
HOURS SUB-TOTALS	21	63	62	59	110	118	462		11	
SUBTOTAL (FC 163)	\$4,189.71	\$10,486.24	\$8,232.08	\$5,681.59	\$9,893.60	\$10,446.36	\$61,281.09	\$ 51,281.09		
PROJECT MANAGEMENT AND ADMINISTRATION (FC 164)										
COORDINATION WITH SUBCONSULTANTS	12	24	18	18		8	80	\$ 11,322.00	N/A	N/A
COORDINATION WITH SCHAUERS & POLK	24	36					60	\$ 10,781.52	N/A	N/A
PREPARE MONTHLY INVOICES AND PROGRESS REPORTS (1/2 ESTIMATED)	12	12				24	48	\$ 5,682.28	N/A	N/A
PROGRESS REVIEW MEETINGS (6 ESTIMATED)	24	24					48	\$ 6,783.76	N/A	N/A
HOURS SUB-TOTALS	72	96	18	18	0	32	236		0	
SUBTOTAL (FC 164)	\$14,364.72	\$10,982.08	\$2,389.22	\$2,746.34	\$0.00	\$1,897.26	\$34,709.68	\$ 36,788.36		
BIDDING AND CONSTRUCTION PHASE SERVICES (FC 239)										
PREPARE FOR BID DOCUMENTS	3	8			10	0	27	\$ 3,565.89	N/A	N/A
PREPARE 27 COMPACT DISKS FOR BIDDING	1	2			6		21	\$ 1,916.77	N/A	N/A
ATTEND PRE-BID MEETING	6	6			12		12	\$ 2,185.94	N/A	N/A
ANSWER PRE-BID QUESTIONS AND PREPARE ADDENDA	2	12	5		12	2	36	\$ 4,714.34	N/A	N/A
ATTEND PRE-CONSTRUCTION MEETING	3	3					6	\$ 1,907.97	N/A	N/A
REVIEW CONTRACTOR SUBMITTALS	4	8	24		12		48	\$ 6,395.64	N/A	N/A
RESPOND TO REQUESTS FOR INFORMATION	6	18	24		24		72	\$ 9,537.68	N/A	N/A
HOURS SUB-TOTALS	25	67	85	0	64	8	222		0	
SUBTOTAL (FC 239)	\$4,987.75	\$9,486.36	\$7,439.24	\$0.00	\$6750.40	\$708.16	\$28,117.11	\$ 28,117.11		
CONTRACT RATE PER HOUR	\$ 195.51	\$ 165.48	\$ 132.79	\$ 113.83	\$ 88.35	\$ 62.10				
TOTAL HOURS	227	559	485	695	690	768	3408			
SUBTOTAL LABOR EXPENSES	\$46,486.83	\$86,795.03	\$69,817.82	\$68,855.76	\$55,707.00	\$59,131.36	\$5,892.20	\$405,684.37		

EXHIBIT 1 - FEE SCHEDULE

PROJECT NAME: MCCRARY ROAD SOUTH
 LIMITS: FROM FM 358 TO NORTH MCCRARY ROAD (7,500 LF)
 FORT BEND COUNTY PROJECT NO.: 17313X
 METHOD OF PAY: LUMP SUM
 PRIME PROVIDER NAME: CIVILCORP, LLC

TASK DESCRIPTION	SENIOR PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	EIT	SENIOR CAD/ OPERATOR	ADMIN/ CLERICAL	TOTAL HRS. & COSTS	COST PER TASK	NO OF DWGS	HRS PER SHEET
CONTRACT RATE PER HOUR	\$ 189.51	\$ 188.48	\$ 132.79	\$ 113.83	\$ 88.85	\$ 88.52	\$ 82.10				
DIRECT EXPENSES	QUANTITY	UNIT	RATE					TOTAL			
LODGING/HOTEL (TAXES/FEE'S NOT INCLUDED)		day/person	\$ 83.00					\$			
MEALS (OVERNIGHT STAY REQUIRED)		day/person	\$ 30.00					\$			
TRAVEL (OVERNIGHT STAY REQUIRED)		day/person	\$ 41.00					\$			
OVERNIGHT MAIL - OVERSIZED BOX	100	min	\$ 0.146					\$ 486.00			
PHOTOCOPIES 8 1/2 X 11"	6	each	\$ 30.00					\$ 180.00			
PHOTOCOPIES 8 1/2 X 11"	1200	each	\$ 0.10					\$ 120.00			
PHOTOCOPIES 8 1/2 X 11"	1800	each	\$ 0.20					\$ 360.00			
PHOTOCOPIES 8 1/2 X 11"	600	each	\$ 2.50					\$ 1,500.00			
SUBTOTAL DIRECT EXPENSES								\$ 2,506.00			
TOTAL								\$ 486,980.37			

2017 Mobility Bond Program Summary of Design Process

The design process will be a collaborative effort between the Design Consultant (one per project under contract with the County, with subconsultants under contract with the Design Consultant), the Project Manager (one per Precinct under contract with the County) and County staff.

Preliminary Design

The primary goals are to (1) establish a typical cross section and cross sections in non-standard areas, (2) determine drainage system needs (drainage report and/or preliminary roadway drainage design), (3) positively determine right-of-way acquisition needs, (4) determine potential conflicts with existing facilities, (5) identify critical path items, (6) identify problem areas and potential resolution(s), (7) determine permit and regulatory requirements, and (8) prepare a reasonable construction cost estimate. Normally, a "30 percent" plan set will be prepared, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation. These plans, along with a typical section sheet, are the only drawings that are necessary at this point.

Topographic survey should be completed during preliminary design, unless the project includes a completely new roadway alignment that needs to be approved. Normally, right-of-way acquisition will be required for road expansions, and part of preliminary design includes determining where to expand. To cover all options, topographic survey should be taken within existing right-of-way and then at least 20 feet beyond the right-of-way on each side, or as determined in a scoping meeting. Temporary benchmarks and baseline control should be set, both with 1,000-foot maximum spacing between points. Abstracting should be performed to gain a preliminary determination of property ownership and existing right-of-way widths. During topographic survey, found property corners should be documented so that the approximate location of the right-of-way can be determined. Structures in clear view and within 100 feet of the existing right-of-way should be surveyed.

Once right-of-way needs have been determined and approved by the County, a Category 1A survey must be performed to produce (1) an overall project map showing existing and proposed right-of-way, (2) a parcel map and metes-and-bounds description for each parcel to be acquired in the project, and (3) a KMZ file (used by Google Earth) showing existing right-of-way with ownership information, proposed takings with parcel numbers, and a preliminary roadway layout. Right-of-way documents will be submitted separately from other design documents, and will be paid for on a per-parcel basis.

Except for new alignment roadways, geotechnical investigations and reporting should be completed during preliminary design, in accordance with Harris County criteria. For water crossing structures, use standard TxDOT criteria with boring depths based on the depth of the outfall channel. The geotechnical engineer should calculate the equivalent single axle load (ESAL) for the County's standard pavement design (8-inches of concrete with 8-inches of lime stabilized subgrade).

Preliminary wetlands investigations and project notification to the Texas Historical Commission will be performed by the County on a program-wide basis, so these efforts should not be needed on a project level. The Design Consultant will be notified in a scoping meeting if further efforts are needed for a particular project. The Design Consultant will also be notified if a Phase 1 Environmental Site Assessment is needed for the project, which can be performed by the geotechnical consultant.

A Preliminary Engineering Report (PER) will be prepared for preliminary design, and the purpose of the report is to document the eight goals stated above. It is not necessary to prepare a presentation-quality document, as the report will remain internal to Engineering staff. The report should include a narrative, applicable plans, a drainage report, and a construction cost estimate. A geotechnical report, if prepared during the Preliminary Design phase, may be submitted subsequent to the PER. Any further requirements can be discussed in a scoping meeting. Unless other agencies are involved in the project, no more than three copies of the report should be required. Upon preliminary review and approval of the PER, the Design Consultant and Project Manager will conduct a review meeting to include key County staff. It is intended that all approvals or change requirements are given at this meeting.

The typical completion period for the Preliminary Design is 90-120 days. Proposals will include an hourly level of effort. The preliminary design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis by task. Major tasks of preliminary design (design, survey, geotechnical, etc.) should be itemized in invoices.

Utility Coordination

Research to determine the existence and location of underground utilities (pipelines, duct banks, etc.) is the Design Consultant's responsibility. Any subsurface utility investigation (SUI) should be at the expense of the utility company. Utility company signatures will not be required on completed drawings.

The Design Consultant will:

- Perform records research and field visits to determine the presence of underground or overhead private or public utilities during the Preliminary Design phase
- Send records requests to utility companies and obtain I.D. numbers (CenterPoint and AT&T)
- Depict utilities to a reasonable degree of accuracy on the plan and profile drawings
- 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
- Submit milestone-level drawings to applicable utility companies for their review

The Project Manager will:

- Assist the Design Consultant in identifying major utilities, and providing contact information for various utilities as needed
- Coordinate directly with utility companies to facilitate utility adjustments required by the proposed improvements
- Coordinate with utility companies during the Construction phase as required

Final Design

The goal is to prepare construction drawings and specifications accurately and efficiently. Interim submittals will normally be made at 70 percent and 95 percent completion, and should include drawings, a specification table of contents (and/or special specifications, as applicable), and a construction cost estimate.

Applicable design criteria include, in order of priority, (1) Any Fort Bend County Engineering or Drainage District criteria/standards, including the Fort Bend County Drainage Criteria Manual (Fort Bend County Drainage District, November 1987, revised April 1999), (2) municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria, (3) Guidelines for Engineers Having Contracts with Harris County, Texas (Harris County Public Infrastructure Department, 1987), (4) applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable), and (5) the Infrastructure Design Manual (City of Houston Department of Public Works and Engineering, current version, used for infrastructure for which design criteria do not exist in the preceding criteria documents). Municipalities contributing funds to the project may review the submittals.

The 70 percent submittal should include the following:

- 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
- 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)
- Bridge layout and details (if applicable)

- Specification table of contents (use Harris County Specifications)
- Bid form with estimated unit and total costs (spreadsheet based)

Three copies of the 70 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets. A digital copy in Adobe Acrobat format (PDF) of the drawings, specifications and estimate will also be required.

The 95 percent submittal should be considered complete with 95% interim seal, and shall include all of the 70 percent requirements plus 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

Physical submittal requirements are the same as for the 70 percent submittal.

The 100 percent design submittal shall consist of one sealed and signed set of drawings delivered to the County, along with a PDF submittal of the drawings, specifications and estimate sent to the Project Manager. Final design efforts will be considered complete when the County has approved the documents as evidenced by the County Engineer's signature on the drawings.

All final design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis.

Bid and Construction Phase Services

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
- The bid form (prepared by the Design Consultant)
- A sealed specification table of contents
- Applicable specifications and documents

The Design Consultant will prepare a single file in PDF format for the entire drawing set. Except for the cover sheet, which contains approval signature(s), all drawings may be printed directly to Adobe Acrobat format with electronic seal and signature.

The Design Consultant will prepare 27 compact discs, each with one project manual file and one drawing file. Of these, 25 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.

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.

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.

After the bid, the Project Manager will prepare a bid tabulation and provide a copy to the Design Consultant for filing.

The Design Consultant will attend a pre-construction meeting with County staff, Project Manager, general contractor, and construction materials testing contractor. Prior to the meeting, the Project Manager will inform the Design Consultant of how many drawing and project manual sets are required, and the Design Consultant will provide these documents at the pre-construction meeting.

The Design Consultant will be responsible for reviewing contractor submittals and responding to Requests for Information.

Field visits and progress meetings will not be required unless requested by the County.

The Design Consultant will participate in a substantial completion walkthrough.

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.

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.

Invoicing

The Design Consultant may prepare invoices in the format of its accounting system. However, the following will apply for invoices:

- 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.

- 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.
- The Purchase Order number must be included on the invoice.
- Markups for subconsultant services or reimbursable expenses are not allowed. A line item may be included in the fee proposal for subconsultant coordination.
- 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.
- For lump sum tasks, subconsultant invoices do not need to be included in the Design Consultant's invoice.
- 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.
- 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.



May 18, 2018

Thomas Kuykendall, PE
Vice President
CivilCorp, LLC
P.O. Box 1029
Fulshear, TX 77441

RE: McCrary Road South (FBC Project #3-13X)
Limits: FM 359 to West of Dawn Ln
Fort Bend County, Texas

Dear Mr. Kuykendall:

We are pleased to present this proposal for performing engineering services in connection with the above referenced project. The proposed scope of services and associated fees are as follows:

PROJECT UNDERSTANDING:

The Fort Bend County Engineering Department is proposing to reconstruct 1.4 miles of McCrary Road from FM 359 to west of Dawn Lane as a 4-lane concrete roadway with curb and gutter, storm sewer, and stormwater detention / mitigation facilities. Between Brandt Road and the northern end of the project, McCrary Road will be realigned on new Right of Way (ROW) east of existing ROW.

DESCRIPTION OF SERVICES:

PRELIMINARY DESIGN

\$42,960

The Engineer shall prepare a standalone drainage report in accordance with the current Fort Bend County Guidelines, and to assure that this project will have no adverse impact to surrounding water surface elevations for up to and including the 100- year storm event.

A. Data Collection & Field Visit

The Engineer shall collect, review, and evaluate the data as described below, if available. The Engineer will also conduct field reconnaissance and collect data including photographic record of notable existing structures.

- As-built plan sets.
- Documents for existing and proposed development along the proposed project route.

- Floodplain information and studies from the Federal Emergency Management Agency (FEMA) and any information provided by Fort Bend County.
- Review survey data (survey data to be provided by others).

B. Drainage Models

The Engineer shall perform an existing and proposed hydrologic and hydraulic analysis in accordance with the Fort Bend County Drainage District Criteria Manual. The hydrologic and hydraulic analysis will include the items listed below.

- Sheet Flow Analysis: The Engineer will develop a 2D model of the project area to capture existing conditions sheet flow patterns. The 2D model will be developed for the 100-year storm event. The 2D flow area will be large enough to capture full influence of sheet flow to the project area. Sheet flow analysis will be used to verify drainage areas.
- Existing Conditions Models: The Engineer will develop existing peak flows for 3 culvert crossings for the 2-, 10-, 25- and 100-year storm event. The peak flows will be computed adhering to the methodology outlined in the Fort Bend County Drainage District Criteria Manual. Existing hydraulic models will be developed for three (3) cross culverts using HEC-RAS or HY-8. The existing hydraulic models will be used to establish the 2-, 10-, 25-, and 100-year water surface elevations.
- Proposed Conditions Models: The Engineer will build upon the existing conditions modeling to include the roadway improvements, and propose structures that will not increase the water surface elevation upstream or downstream of the project area up to and including the 100-year storm event.

C. Detention / Mitigation Analysis

The Engineer shall determine required mitigation and detention volumes for the project. The type, size, and location of proposed mitigation and detention locations will be determined. Calculations will be provided to show that the proposed features are adequate to address mitigation and detention for the project.

D. Floodplain Cut / Fill Analysis

The Engineer shall complete cut and fill calculations for the purpose of identifying potential losses of floodplain storage within areas inundated by the mapped 100-year floodplain within the project area. The calculations shall quantify the proposed volume of fill below the base flood elevations as shown on the FIRM panel, and the required compensatory excavation volume shall be computed. The Engineer shall determine the amount of floodplain fill using an area end method at 100-foot interval cross sections. A preliminary plan view layout shall be developed to identify the limits of fill and compensatory excavation within the 100-year floodplain.

E. Prepare Drainage Report

The Engineer will document the findings and recommendations of the preliminary design for submission to Fort Bend County Engineering Department and Fort Bend County Drainage District. The report will contain the tables, exhibits, models and text typical for drainage report submittals to Fort Bend County Drainage District for approval. The Engineer will provide two (2) hard copies of the final drainage report and two (2) CD drives which will include the developed H&H models. The hard copy reports will be in a three-ring binder; one will be sent to Fort Bend County Engineering Department and one will be sent to Fort Bend County Drainage District.

FINAL DESIGN

\$115,865

The Engineer shall prepare Construction Drawings for the construction of McCrary Road South. The design of the proposed roadway shall be a four-lane boulevard roadway in accordance with the conclusions and recommendations of the Study Report. For the purposes of this scope, it is anticipated that the roadway will consist of approximately 1.4 miles of 8-inch concrete pavement with curb and gutter, storm sewer, and detention and mitigation facilities. Two (2) electronic submittals of relevant sheets and estimates will be provided at the 70%, 95% and 100% stages of plan development.

A. Drainage Area Maps and Computations

The Engineer shall prepare an overall drainage area map to show area draining to cross culverts including hydrologic parameters. In addition, the Engineer shall prepare drainage area drawings to show contributing areas for each inlet, including hydrologic calculation parameters. The drainage area maps will be prepared on 11"x17" plan sheets. The reported hydrologic parameters shown will be for the design storm event and the 100-year storm event.

B. Storm Sewer Design

The Engineer will design the storm sewer using an approved software. The analysis will include the design event and will be checked for the 100-year storm event. Hydraulic data sheets reporting the computations will be prepared on 11"x17" sheets.

C. Storm Sewer Plan and Profile (on roadway sheets)

The Engineer will coordinate with the roadway team to prepare plan and profile sheets for the storm sewer design. The roadway team will prepare the sheets and Pape-Dawson will provide the storm sewer line work, details, and call-outs. The plan and profile layouts will be prepared on 11"x17" plan sheets at 1" = 40" scale.

D. Culvert Layouts and Details

The Engineer shall prepare culvert layout drawings for three (3) cross culverts. The culvert layouts will be prepared on 11"x17" plan sheets at 1" = 20" scale.

E. Detention Pond Design and Details

The Engineer shall prepare one (1) detention pond drawing to include outlet structure and details. The detention pond layout and details will be prepared on 11"x17" plan sheets at a scale no larger than 1" = 200". In addition, the Engineer will prepare floodplain cut/fill summary sheets.

F. Storm Sewer and Outfall Details

The Engineer shall prepare storm sewer and outfall details and provide as 11"x17" sheets.

G. Traffic Control Plan (TCP)

The Engineer shall prepare traffic control drawings for each phase of construction, including lead-in and construction signage, temporary traffic control devices, temporary striping, temporary pavements and drainage facilities, and typical sections for each TCP Phase. The Engineer will prepare an overall sequence of construction exhibit and narrative. It is assumed there will be two (2) traffic control phases for this project. TCP layouts will be prepared on double-banked 11"x17" plan sheets at 1" = 100' scale.

H. Stormwater Pollution Prevention Plan (SWPPP)

The Engineer shall prepare a phased Storm Water Pollution Prevention Plan for the project in accordance with TCEQ requirements. SWPPP layouts will be prepared on double-banked 11"x17" plan sheets at 1" = 40' scale and details will be included in the construction drawings.

I. Quantity and Cost Estimates

The Engineer shall prepare quantity and construction cost estimates in spreadsheet format for both submittals during this Phase.

PROJECT MANAGEMENT AND COORDINATION

\$18,500

This task includes coordination with CivilCorp and Fort Bend County, internal project coordination, quality control for all submittals, preparation of monthly invoices and progress reports, and attendance at six (6) project meetings.

BID AND CONSTRUCTION PHASE SERVICES

\$8,020

This task includes participation in bid and construction phase services as required on a time and materials basis.

SUMMARY

I.	Preliminary Design (Lump Sum)	\$42,960
II.	Final Design (Lump Sum)	\$115,865
III.	Project Management and Coordination (Lump Sum)	\$18,500
IV.	Bid and Construction Phase Services (Time & Materials)	\$8,020
V.	Other Direct Expenses	<u>\$5,000</u>
TOTAL:		\$190,345

COMPENSATION

Basis of Compensation

Pape-Dawson's compensation for the above services will be a charge for personnel services plus an hourly charge for specialized equipment and computers. A budget of **\$190,345** is the estimated cost of Pape-Dawson's current understanding of the services identified above. This budget figure will not be exceeded without written modification of this Agreement.

We will begin upon receipt of an executed agreement. This budget figure does not include any other Direct Expenses (defined below) or applicable sales tax on services. These budget figures will not be exceeded without written modification of this Agreement.

Direct Expenses shall include reproduction, travel, long distance telephone calls, express mail, special deliveries, and subcontractor expenses directly related to these services. Direct Expenses shall include a 10% markup on cost.

Agreement

Upon Client's signing of this Proposal, this Proposal and the attached Terms and Conditions become the Agreement between the Client and Pape-Dawson.

We appreciate the opportunity to work with you on this project. Please find attached duplicate originals of our Professional Services Agreement. If this proposal and agreement meets with your approval, please acknowledge such by signing this proposal letter and the attached duplicate originals of the Professional Services Agreement and returning one original of each to our office for our records. Receipt of the executed documents will serve as your authorization for us to proceed with the work.

Sincerely,

Pape-Dawson Engineers, Inc.

TBPE Firm Registration # 470 | TBPLS, Firm Registration # 10193974



Mashhood A. Shah, P.E.

Vice President – Transportation Engineering

Attachment

CIVILCORP, LLC

Signature: _____

Name: _____

Title: _____

Date: _____

O:\MARKETING\PROPOSALS\LETTERS\150807A1H R1.docx (15-02380)

April 24, 2018
Revised May 21, 2018

Tommy Kuykendall, PE
CivilCorp, LLC
29255 FM 1093 RD #7A
Fulshear, Texas 77441

Re: Fort Bend County 2017 Mobility Bond Program (Project #17315)
McCrary Road South – Fort Bend County Precinct 3

Dear Tommy:

EPIC Transportation Group, LP (EPIC) appreciates the opportunity to submit this proposal for engineering services to Fort Bend County (FBC) and CivilCorp, LLC (CC) to reconstruct McCrary Road South in Precinct 3. We understand that the roadway will be widened to a four-lane concrete boulevard section within the project limits.

SCOPE OF SERVICES:

Following is our understanding of the traffic-related services EPIC is tasked to perform:

- FC 110 - Traffic Signal Warrant Study at McCrary Road South and FM 359 intersection
- FC 162 - Traffic Signal Design at McCrary Road South and FM 359 intersection

Prepare all work in accordance with the latest version of the applicable FBC procedures, specifications, manuals, guidelines, standard drawings, etc. Guides include the Texas Manual on Uniform Traffic Control Devices (TMUTCD), Highway Capacity Manual, Institute of Transportation Engineers (ITE) Trip Generation Manual, American with Disabilities Act Accessibility Guidelines (ADAAG), the Texas Accessibility Standards (TAS), AASHTO's A Policy on Geometric Design of Highways and Streets, and applicable traffic software.

FC 110 - SIGNAL WARRANT STUDY AT FM 359 INTERSECTION

Conduct traffic signal study at the intersection of McCrary Road South and FM 359 for opening year traffic conditions and provide recommendations for signalization and related improvements.

The study will contain the following:

- Perform manual intersection traffic movement counts during a weekday (Tuesday, Wednesday or Thursday) for 12-hours (6 AM to 6 PM). Counts will be recorded at 15-minute and hourly intervals. Totals will be provided for the AM and PM periods along with the overall 12-hours.
- Simultaneously perform pedestrian volume counts on each approach for the time period mentioned above.
- Perform 2-hour spot speed data collection on the major street (FM 359).

- Prepare a site map of the area where the study is requested. Information shall consist of existing control devices at the intersection and all existing signals for one mile.
- Conduct site inspection and record traffic characteristics observed in the field. The field work may include but not limited to taking measurements, locating utilities, locating existing traffic control equipment, identifying existing conditions and taking photographs (minimum of three photographs per approach).
- Prepare a condition diagram showing details from site inspection and field work mentioned above.
- Obtain and analyze crash records for the study location or section of roadway from the State or FBC during the most recent thirty six (36) month period.
- Prepare collision diagram from crash records showing crash experience by type, location, direction of movement, severity, weather, time of day and date.
- Project traffic data to opening year using an annual growth rate obtained from H-GAC or a rate preferred by FBC. Analyze the projected traffic and pedestrian data and complete the latest version of the Traffic Survey County Analysis form for inclusion in the report.
- Provide findings and recommendations based on the analysis.

FC 110 - DELIVERABLE

Prepare and submit two (2) draft reports for review and two (2) final reports after review. The reports shall include findings and recommendations along with a site map, existing condition diagram, field photographs, traffic and speed counts, traffic analysis, and any recommended improvements.

FC 162 – TRAFFIC SIGNAL DESIGN

Services to be provided by EPIC are for the Design Phase only. The engineering design shall be performed in accordance with generally accepted procedures, approved variances, FBC and TxDOT design guidelines, standards and specifications. Work specific to the location is described below:

Based on Traffic Signal Warrant Study, if a signal is warranted and recommended this intersection shall receive a new conventional signal system with ground-mounted controller, cabinet and BBUs.

The new signal system shall be fully actuated with a) radar detection for vehicles on asphalt pavement, b) loop detection system for vehicles on concrete pavement, and 3) push buttons for pedestrians.

The new signal shall have mast arm configuration and horizontal LED vehicle signal heads. Left turn signals will have protected/permissive phasing with flashing yellow indications. The intersection will receive two (2) pole-mounted LED luminaires for safety lighting. Pedestrian related LED countdown signals, push buttons, signing and crosswalks will be applied all around the intersection.

The intersection shall receive new wheelchair ramps (perpendicular or diagonal) at applicable intersection corners with curb, and pedestrian access pads where there is no curb. These ramps

and pads shall be in compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) as adopted by FBC/TxDOT and designed by CC.

Overhead power lines currently exist at the intersection, and depending on their location after widening, the power lines may have to be raised to allow for signal construction. Request to the power company to raise the power lines shall be made through the FBC, if required.

Coordination with Centerpoint Energy will be done by EPIC and Power Service Outlet and Data Statement will be obtained and submitted.

Coordination with Home Owners Association, if any, will be done for any irrigation, plants, controller location and utility easements, if required.

FC 162 - DELIVERABLE

Plan layouts shall be prepared in English units at 1"=40' scale on 11"x17" layouts. Interim reviews shall be at the 70%, 95% and 100% submittals. For which, one set of bond layouts and one PDF copy shall be submitted as requested by FBC. The final submittal will be the sealed and signed bond set of plans. All design drawings shall be prepared using Microstation V8i graphics software and shall be consistent with the level structure required by FBC. Basis of estimate will be provided in FBC format. Computer files containing all design drawings required for the Project shall be provided. Plan layouts shall be prepared per FBC and TxDOT Signal Design Guidelines and shall be designed as part of the bid package put together by CC.

Following are the anticipated sheets:

- Construction Notes and Traffic Signal Notes
- Basis of Estimate
- Existing Conditions Layout
- Proposed Signal Layouts (including Notes)
- Standard Detail Drawings (as required)

EXCLUSIONS – ALL TASKS

The following services are not part of the scope:

- Survey – CC will provide survey through one of its sub-consultants.
- Signing and pavement markings design.
- Pedestrian wheel chair ramp design.
- Geotechnical engineering - Soil and foundation investigations, soil tests, coring and analysis of test results for design and construction are not required.
- Temporary signalization (during construction) is not required since the location does not have an existing signal.
- Signal timing.
- Expert testimony.
- Construction Phase services.

SCHEDULE – ALL TASKS

EPIC shall follow the schedule developed by CC and agreed by FBC for this project. EPIC is assuming there is adequate time for review and coordination in the proposed schedule.

ADDITIONAL SERVICES – ALL TASKS

Any work beyond the Scope is considered additional is subject to negotiation. No work shall be done under Additional Services without prior consent from FBC.

COMPENSATION – ALL TASKS

Please see Exhibit D – Fee Schedule for further details on man-hours and cost breakdown. The amount shown includes all necessary direct expenses estimated to complete the effort as described above. The fee includes all labor and non-labor reimbursable expenses required for this project. EPIC's Labor Classification and Hourly Rates is included as Attachment A.

We trust that the information provided is sufficient for you to complete your evaluation of this proposal. However, should you have any questions, please let me know.

Sincerely,
EPIC Transportation Group, LP



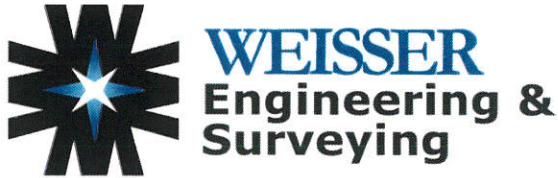
Harish Narayanappa, P.E., PTOE
President

Attachments:
Exhibit D – Fee Schedule

EXHIBIT D - FEE SCHEDULE

PROJECT NAME: McCrary Road South
 Fort Bend County Project No.: 17315
 SUBPROVIDER NAME: EPIC Transportation Group, LP

Task Description	Senior Project Manager	Project Manager	Senior Project Engineer	Graduate Engineer	CADD Technician	Admin/ Clerical	Total Hrs. & Costs	Cost per Task	No of DWGS	Hrs per Sheet
TRAFFIC ENGINEERING STUDIES (FC 110)										
CONTRACT RATE PER HOUR	\$258.00	\$237.00	\$204.00	\$132.00	\$117.00	\$90.00				
Data Collection/Reduction										
Field Visit/Site Inventory		2	4	8			14	\$ 2,346.00	N/A	N/A
Crash Analysis			4				4	\$ 816.00	N/A	N/A
Traffic Signal Warrant Analysis			2	4			6	\$ 1,056.00	N/A	N/A
Reporting		4	2	6	8		20	\$ 936.00	N/A	N/A
								\$ 3,084.00	N/A	N/A
HOURS SUB-TOTALS	0	6	12	26	8	0	52		0	
SUBTOTAL (FC 110)	\$0.00	\$1,422.00	\$2,448.00	\$3,432.00	\$936.00	\$0.00	\$6,238.00	\$8,238.00		
SIGNALIZATION (FC 162)										
Basis of Estimate		2	4	12			18	\$ 2,874.00	1	18
Construction and Traffic Signal Notes			2	4	8		14	\$ 1,872.00	2	7
Existing Condition Layout			2	4	8		14	\$ 1,872.00	1	14
Proposed Signal Layouts		8	40	18	60		126	\$ 19,452.00	4	32
Proposed Signal Elevation Layouts		2	4	4	12		22	\$ 3,222.00	2	11
HOURS SUB-TOTALS	0	12	52	42	88	0	194		11	
SUBTOTAL (FC 162)	\$0.00	\$2,844.00	\$10,608.00	\$5,544.00	\$10,296.00	\$0.00	\$29,292.00	\$29,292.00		
PROJECT MANAGEMENT AND ADMINISTRATION (FC 164)										
Coordination with Prime		8					8	\$ 1,896.00	N/A	N/A
Prepare Monthly Invoices and Progress Reports			4			4	8	\$ 1,176.00	N/A	N/A
Site Visits/Meetings		4	8				12	\$ 2,580.00	N/A	N/A
Utility Coordination			6				6	\$ 1,224.00	N/A	N/A
Submittals (70%/95%/100%)			4	4	8		16	\$ 2,280.00	N/A	N/A
HOURS SUB-TOTALS	0	12	22	4	8	4	50			
SUBTOTAL (FC 164)	\$0.00	\$2,844.00	\$4,488.00	\$528.00	\$936.00	\$360.00	\$9,156.00	\$9,156.00		
TOTAL HOURS	0	30	86	72	104	4	296			
CONTRACT RATE PER HOUR	\$258.00	\$237.00	\$204.00	\$132.00	\$117.00	\$90.00				
SUBTOTAL LABOR EXPENSES	\$0.00	\$7,110.00	\$17,544.00	\$9,504.00	\$12,168.00	\$360.00	\$46,686.00			
DIRECT EXPENSES										
Mileage	QUANTITY	UNIT	RATE				TOTAL			
Overnight Mail - Oversized Box	500	MILE	\$0.535				\$ 267.50			
Photocopies BW (8 1/2" X 11")	3	EACH	\$30.00				\$ 90.00			
Photocopies BW (11" X 17")	300	EACH	\$0.10				\$ 30.00			
Photocopies Color (8 1/2" X 11")	500	EACH	\$0.20				\$ 100.00			
CD Archive	100	EACH	\$0.50				\$ 50.00			
	2	EACH	\$5.00				\$ 10.00			
SUBTOTAL DIRECT EXPENSES							\$ 547.50			
TOTAL							\$47,233.50			



TBPLS Reg. No. 10194324
TBPE Reg. No. F-68

PROPOSAL AGREEMENT FOR PROFESSIONAL SERVICES

Effective Date: May 21, 2018

Thomas C. Kuykendall, Jr., PE
Vice President – CivilCorp, LLC
29255 FM 1093 Rd. #7A
Fulshear, TX 77441
Ph. 832.252.8100 x233
Cell. 832.594.8780
tkuykendall@civilcorp.us

Proposal for Professional Services in Connection With: 2017 Fort Bend County Mobility Project No. 3-13X, McCrary Road South Project, Fort Bend County, Texas

Weisser Engineering & Surveying is pleased to submit this proposal and terms of service (together, the "Agreement") to CivilCorp, LLC (the "Client").

I. SCOPE OF SERVICES

Surveying and Mapping

The Surveyor shall evaluate the existing ROW envelope and make recommendations for the acquisition of ROW necessary for the Project including but not limited to roadway, corner cuts, sight distance triangles, detention, and outfalls, if necessary. The Surveyor shall establish a project baseline based on the centerline of the right-of-way. The Surveyor shall create an existing utility list (Excel Format) including the type, owner, location, and contact information for existing utilities within the project limits to be supplied to the Engineering Consultant to complete the identification of potential utility conflicts. The Surveyor shall sign and seal all survey documents.

The specific Survey limits are as follows:

The linear topographic and right-of-way survey along McCrary Road will commence at the south right-of-way line of FM 359 and proceed north for approximately 7,400 feet to a point 1,500 feet north of the intersection of McCrary Road and Brandt Road. Limits include 250 feet east and west along FM 359, 250 feet east and west along Clayhead Road, 250 feet east along McCrary Meadows Drive, 250 feet east along McCrary Plains Way, 250 feet west along Brandt Road, 250 feet west along a ditch located approximately 575 feet north of FM 359, 250 feet east along a ditch located approximately 1,500 feet north of FM 359, 250 feet west along a ditch located approximately 2,050 feet north of FM 359, 250 feet east along a ditch located at the intersection of Brandt Road. Limits also include approximately 1,600 feet across a called 136-acre tract of land from the existing north-south portion of McCrary Road to the existing east-west portion of McCrary Road and 250 feet east and west along the existing east-west McCrary Road for an approx. total of **12,000 linear feet**. (As Shown on the Attached Aerial Image)

1. Existing Right of Way Mapping (Cat. 1B; Cond. II)

- a. Perform abstract survey; obtain deeds of records, and plats for McCrary Road right-of-way, streets intersecting McCrary Road and tracts of land adjoining McCrary Road.
- b. Establish the existing right-of-way of McCrary Road, FM 359, Clayhead Road, McCrary Meadows Drive, McCrary Plains Way, and Brandt Road.

- c. Prepare existing Right-of-Way Map of the Project certifying to a Cat. 1B, Cond. II Right-of-Way Survey to be delivered in PDF format.
- d. Prepare Survey Control Sheet(s) for the project to be delivered in PDF format.
- e. Previous survey information collected by LJA will be utilized for reference and verification.
- f. Prepare a Google Earth KMZ file showing the existing and proposed right-of-way throughout the project limits.

COST: \$78,920.00 (non-taxable)

2. Topographic Surveying for McCrary Road and Intersecting Roadways (Cat 6; Cond. II)

The Surveyor will provide the following within the surveying limits described in Task 2:

- a. Establish horizontal and vertical project control. Control shall be relative to the North American Datum of 1983 (NAD 83, 2001 adjustment) and the North American Vertical Datum of 1988 (NAVD 88, 2001 adjustment/FBCGPS Monuments datum).
- b. For the roadway and ditches, obtain cross-sections at 100-foot intervals with grade breaks. Cross-sections shall extend 20 feet beyond the proposed right-of-way lines where accessible. Identify locations and elevations of physical features to include buildings, fences, walls, trees, sidewalks, driveways and driveway curbs, power poles, light poles, water meters, water wells, ponds, sprinklers, off-site drain pipe, etc. Horizontally and vertically locate existing utilities within, crossing, and adjoining project limits. Utilities will be located and tied based on visual evidence and utilities based on maps, plans, and marked by "One Call" within the project limits, flow line elevations, sizes, material types and directions of pipes will be obtained on storm sewer lines, sanitary sewer lines and culverts. The rim (top) and flow line elevations will be obtained on inlets, manholes, and drainage structures.
- c. The Surveyor will coordinate with pipeline companies, municipal utility districts (MUDs), homeowner's associations (HOA's), Fort Bend County, and private utility agencies to obtain locations of existing utilities and depths of existing pipelines and provide Level B Subsurface Utility Surveying.
- d. Prepare existing Topographic Survey Map of the Project certifying to a Cat. 6, Cond. II Topographic Survey to be delivered in PDF format.
- e. The 3D topographical survey base map and digital terrain model (DTM), surface triangular irregular network (TIN) will be created and delivered for the existing roadway using Geopak and Microstation.
- f. Previous survey information collected by LJA will be utilized for reference and verification.

COST: \$68,780.00 (non-taxable)

3. Subsurface Utility Engineering (Levels B) Utility/Pipeline Investigations

The Survey shall perform such investigations, research, and other activities necessary to identify any potential utility/pipeline conflicts with the Project, including but not limited to:

- a. Locating and identifying all existing utilities/pipelines including casings and vent pipes within the existing and proposed rights-of-way, including obtaining information from utility owners record drawings and site reconnaissance, as well as shooting elevations marked or uncovered by others, and providing Subsurface Utility Engineering Level B effort to locate all subsurface utilities within the existing and proposed right-of-way.
 - Level B – Two dimensional (x,y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as "designating", this quality level provides the horizontal position of subsurface utilities within approximately one foot.

COST: \$8,680.00 (non-taxable)

4. Detention Pond

- a. Proposed pond site will be along the west right-of-way of McCrary Road at its intersection with the tributary of Jones Creek.
- b. Surveying services to delineate location for new proposed detention pond. Will include topographic surveying with elevations at 100 foot intervals, parcel plat, and metes & bounds description.

COST: up to a 3 acre site	\$4,400.00
3 to 6 acre site	\$5,500.00
6 to 10 acre site	\$6,800.00

5. Project Control for Construction

- a. Check and/or re-set project control referenced to project baseline for construction.

COST: \$8,080.00 (non-taxable)

6. Additional Services

- a. Parcel Surveys (Cat. 1A; Cond. II) - Prepare metes and bounds descriptions in accordance with Fort Bend County guidelines for property acquisition and add parcels to the existing right-of-way maps.

COST: \$1,500.00 per parcel (non-taxable)
(Approximately 40 Tracts = \$60,000.00)

II. TERMS AND CONDITIONS

1. This Agreement may only be modified by a writing acknowledging agreement of modification by both parties.
2. The Responsible Party signing this Agreement agrees to be fully responsible for the timely and complete payment for Services within thirty (30) days of invoicing. Any requests for modification of this provision must be signed by an officer or department director of Weisser Engineering & Surveying.
3. Weisser Engineering & Surveying is an independent contractor. Nothing in this Agreement forms a partnership, joint venture, employment, franchise, master-servant, or agency relationship between Client and Weisser Engineering & Surveying.
4. WEISSER ENGINEERING & SURVEYING SHALL ONLY BE LIABLE FOR DAMAGE OR LOSS TO ANY PERSON OR PROPERTY TO THE EXTENT SUCH DAMAGE OR LOSS IS CAUSED BY WEISSER ENGINEERING & SURVEYING'S NEGLIGENT ACT OR OMISSION IN CONNECTION WITH THE SERVICES. WEISSER ENGINEERING & SURVEYING'S LIABILITY TO CLIENT OR ANY OTHER PARTY FOR CLAIMS OF ANY KIND, WHETHER BASED ON CONTRACT OR TORT OR OTHERWISE RELATING TO THIS AGREEMENT, SHALL NOT EXCEED THE COMPENSATION PAID OR OWED TO WEISSER ENGINEERING & SURVEYING FOR SERVICES UNDER THIS AGREEMENT.
5. Client shall not solicit Weisser Engineering & Surveying employees for purposes of employment during the course of the Agreement or for a period of twelve (12) months thereafter. Client acknowledges and agrees that breach of this provision may result in irreparable and continuing damage to Weisser Engineering & Surveying, for which there would be no adequate remedy at law, and that, in the event of such breach, Weisser Engineering & Surveying may be entitled to equitable or injunctive relief and/or a decree for specific performance, in addition to all such other and further relief as may be available at law, in equity, or otherwise.
6. Upon request, Weisser Engineering & Surveying may make electronic files of its CAD drawings available to Client on an "as is" basis for informational purposes only that may not be relied upon for any other purpose. ALL WARRANTIES AND REPRESENTATIONS OF ANY KIND WITH REGARD TO ELECTRONIC FILES ARE DISCLAIMED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. Since revisions or additions to design file drawings may occur at any time, Client agrees to indemnify,

defend and hold harmless Weisser Engineering & Surveying, its officers, directors, agents, shareholders, and employees from and against any and all claims, suits, losses, damages or costs, including reasonable attorney's fees, arising from the use of outdated or amended design file drawings by Client or any third party, and such indemnification shall survive acceptance of said file(s) by Client or the termination of this Agreement. Client promises to notify any third party that the third party may not reasonably rely on electronic files, drawings, or documents not directly provided to such third party by Weisser Engineering & Surveying.

7. This Agreement shall be deemed entered into in Texas and shall be governed by and construed and interpreted in accordance with the laws of the State of Texas, without reference to any rules of conflict of laws. Venue shall be in Houston, Harris County, Texas.
8. In the event that any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions, and the Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained in it.
9. This Agreement may be executed by facsimile or scanned and electronically transferred signatures. A copy of this Agreement bearing such a signature or signatures shall have the same force and effect as an original agreement with inked original signatures. Once signed, any reproduction of this Agreement made by reliable means (e.g., photocopy, scan, facsimile) is considered an original.
10. Client's failure to sign and return this Agreement to Weisser Engineering & Surveying within fifteen (15) days of Effective Date renders the Agreement voidable by Weisser Engineering & Surveying.

We appreciate the opportunity to provide this proposal. If you have any questions or comments, please do not hesitate to contact John Harvill (jharvill@weissereng.com).

The Client, by signing below, represents that he or she has the authority to enter into this Agreement, agrees to the terms and conditions in this Agreement, is willing to be the Responsible Party, promises to pay the invoiced amount within thirty (30) days of invoicing, and authorizes Weisser Engineering & Surveying to proceed with the Services as described above.

CLIENT
CivilCorp, LLC

By: _____

Printed Name: _____

Title: _____

Date of Acceptance: _____

WEISSER ENGINEERING & SURVEYING

By:  _____

Printed Name: Walter P. Sass

Title: Principal

Date of Acceptance: 5/21/18



GEOTEST ENGINEERING, INC.

Geotechnical Engineers & Materials Testing

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

Fax: (713) 266-2977

Proposal No. 1140430499

April 11, 2018

Mr. Thomas Kuykendall, Jr., P.E.
Vice President
CivilCorp, LLC
29255 FM 1093
Fulshear, Texas 77441

**Re: Proposal for Geotechnical Investigation
McCrary Road South Project (Project #3-13X)
Fort Bend County, Texas**

Dear Mr. Kuykendall, Jr.:

In accordance with your request on April 6, 2018, Geotest Engineering, Inc. is pleased to submit this proposal for the referenced project. Based on the information provided to us, it is our understanding that the project includes roadway widening and storm sewer installation along McCrary Road South, from the intersection of McCrary Road and FM 359 to the existing McCrary Road East. The project includes widening of approximately 7,500 LF of the existing two-lane rural road with deep ditches on either sides to a four-lane curb and gutter roadway along the proposed alignment. The project also includes storm sewer installation along the roadway and an off-site detention pond. It is our understanding that the invert depth of the proposed storm sewer ranges from 4 to 8 feet, except at ditch crossing location where it is approximately 6 to 8 feet deep. The proposed storm sewer will be installed primarily by open-cut method, except at the ditch crossing location where storm sewer will be installed by jack and bore method.

Purpose and Scope

The purposes of this investigation are to evaluate the soil and water level conditions along McCrary Road South to provide geotechnical recommendations for the proposed pavement widening, storm sewer installation, traffic signal and detention pond construction. Based on the information provided to us by your e-mail on April 6, 2018 and April 10, 2018, the scope of this study will consist of the following:

- Calling Lonestar 811 and coordinating with utility locators to get areas for the proposed borings cleared;
- Coring existing pavement along McCrary Road and Clayhead Road to determine the existing pavement material;
- Drilling and sampling:
 - fourteen (14) soil borings each to a depth of 20 feet for storm sewer and roadway construction along McCrary Road;
 - one (1) soil boring to a depth of 25 feet for the proposed traffic signal at FM 359 intersection;
 - two (2) soil borings to a depth of 15 feet for the proposed detention pond; and
 - two (2) soil borings each to a depth of 10 feet, located 200 feet to the east on Clayhead Road and 200 feet to the west on Clayhead Road.

The boring spacing is a minimum of 500 feet.

- Converting three (3) soil boring into a piezometer to monitor steady state water level conditions. The proposed boring/piezometer program is provided in Attachment No. 1
- Grouting all boreholes except piezometers using non-shrink cement bentonite grout after completion of drilling and water level measurements. The use of cement bentonite grout will eliminate the potential problems and safety hazards associated with surface settlements that might occur if boreholes are backfilled with soil cuttings.
- Performing appropriate laboratory tests including Consolidated Undrained Triaxial tests on selected representative samples to develop the engineering properties of the soil.
- Perform engineering analyses to develop geotechnical recommendations for pavement thickness including subgrade stabilization for the pavement construction, bedding and backfill and water level control for open cut construction for storm sewer installation, new traffic signal foundation, side slope stability of the proposed detention pond and construction considerations.

- Submit a geotechnical investigation report containing a plan showing the locations of the borings and recommendations as outlined above.

Schedule and Fees

We should be able to start the fieldwork within one (1) week after receiving your written authorization or one (1) week after staking the borings, whichever is the latest. It is estimated that the fieldwork will be completed in about one (1) week barring bad weather. The laboratory tests will be completed in about six (6) weeks. The complete geotechnical report, which will include field and laboratory data and geotechnical recommendations, will be submitted in about nine (9) weeks after receiving your notice to proceed.

Based on the scope of work outlined above, the cost of the field investigation, laboratory testing, engineering analyses and geotechnical report will be lump sum amount of \$33,096.00. A cost breakdown is provided in Attachment No. 2.

We appreciate the opportunity to submit this proposal. Formal authorization is required for our services. This may be provided by signing in the space provided below and returning one copy for our files.

Sincerely,
GEOTEST ENGINEERING, INC.

B.C. K

Mohan Ballagere, P.E.
Vice President

MB\ego
Copies Submitted: (1-PDF)
Enclosure: Attachment No. 1 – Proposed Boring/Piezometer Program
Attachment No. 2 – Cost Breakdown
PC38\Geotechnical\Proposals\40430499.DOC

ACCEPTED BY: _____

PRINTED NAME: _____

TITLE: _____

DATE: _____

ATTACHMENT NO. 1

PROPOSED BORING/PIEZOMETER PROGRAM

Location/Structure		Borings			Piezometers		
		Quantity (number)	Depth (feet)	Footage (feet)	Quantity (number)	Depth (feet)	Footage (feet)
McCrary Road South	Storm sewer and roadway	14	20	280	2	20	40
	Traffic signal installation at FM 359 intersection	1	25	25			
	Detention Pond	2	15	30	1	15	15
Clayhead Road		2	10	20			
		19		355	3		55

ATTACHMENT NO. 2
COST BREAKDOWN

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Amount</u>
<u>Field Investigation</u>				
Mob and Demob of Truck Mounted Drilling Rig	1	LS	\$340.00	\$340.00
Drilling and Continous Sampling (0'-20')	350.0	ft.	\$21.00	\$7,350.00
Drilling and Intermittent Sampling (20'-50')	5.0	ft.	\$18.00	\$90.00
Grouting of Completed Bore Holes	300.0	ft.	\$7.00	\$2,100.00
Utility Clerance for Boring Locations, Marking borings and Field Coordination	11.0	hr.	\$83.00	\$913.00
Asphalt Coring (4" Dia up to 6" Thickness)	13.0	ea.	\$80.00	\$1,040.00
Piezometer Installation	55.0	ft.	\$16.00	\$880.00
Water Level Readings in piezometer (24 hr and 30 day)	16.0	hr.	\$45.00	\$720.00
Vehicle Charge (marking boring and water level reading)	19.0	hr.	\$10.00	\$190.00
Abandonment of Piezometer	55.0	ft.	\$14.00	\$770.00
Traffic Control Cost	3.0	day	\$650.00	\$1,950.00
			Subtotal	\$16,343.00
<u>Laboratory Testing</u>				
Liquid and Plastic Limits	36	ea.	\$60.00	\$2,160.00
Moisture Content Only	165	ea.	\$9.00	\$1,485.00
Sieve Analysis, through No. 200 Sieve	12	ea.	\$55.00	\$660.00
Percent Passing No. 200 Sieve	24	ea.	\$46.00	\$1,104.00
Unconfined Compression Test	25	ea.	\$44.00	\$1,100.00
Unconsolidated Undrained Triaxial Compression	11	ea.	\$61.00	\$671.00
Consolidated Undrained Triaxial Shear Test	2	ea.	\$1,500.00	\$3,000.00
Crumb Test (to determine erosion characteristics of embankment soils for detention pond)	1	ea.	\$37.00	\$37.00
Dispersive Characteristic by Pinhole Test	1	ea.	\$276.00	\$276.00
			Subtotal	\$10,493.00
<u>Engineering Services</u>				
Principal	2.00	hr.	\$210.00	\$420.00
Sr Engineer	4.00	hr.	\$150.00	\$600.00
Project Engineer	16.00	hr.	\$105.00	\$1,680.00
Staff Engineer	40.00	hr.	\$83.00	\$3,320.00
Support Personnel (Drafting, Word Processing)	4.00	hr.	\$60.00	\$240.00
			Subtotal	\$6,260.00
			Total	\$33,096.00