375

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 Cobb, Fendley & Associates, Inc. (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County desires that Contractor provide certain professional engineering services for the construction of a four-lane concrete roadway under the Fort Bend County 2013 Mobility Bond Program – FM 762 Extension/10th Street from US 90A (Jackson Street) to Clay Street – Project No. 13106 (hereinafter "Services") pursuant to SOQ 14-025; 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 I. Scope of Services

Contractor shall render Services to County as defined in the Scope of Services (attached hereto as Exhibit A).

Section II. 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.

3/12/2015 – Original to Jillian Hernandez, Engineering

Section III. 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 eight hundred fifty-three thousand nine hundred eight dollars and 00/100 ($853,908.00). In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without an approved change order.

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 and two (2) original hard copies of invoices 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 IV. 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 eight hundred fifty-three thousand nine hundred eight dollars and 00/100 ($853,908.00), specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed eight hundred fifty-three thousand nine hundred eight dollars and 00/100 ($853,908.00).

Section V. 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 thirty-six (36) months thereafter. 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 VI. 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 VII. Termination

7.1 Termination for Convenience

7.1.1 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 VIII. 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 IX. 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 X. 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 from such companies having Bests 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 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. 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 XI. Indemnity

CONTRACTOR SHALL INDEMNIFY AND DEFEND COUNTY AGAINST ALL LOSSES, LIABILITIES, CLAIMS, CAUSES OF ACTION, AND OTHER EXPENSES, INCLUDING REASONABLE ATTORNEYS FEES, ARISING FROM ACTIVITIES OF CONTRACTOR, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, ERROR, OR OMISSION OF CONTRACTOR OR ANY OF CONTRACTOR'S AGENTS, SERVANTS OR EMPLOYEES.

Section XII. 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 XIII. 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 XIV. 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, 1st Floor Richmond, Texas 77469
Contractor:	Cobb, Fendley & Associates, Inc. Attn: Mahmoud Salehi, P.E. 13430 Northwest Freeway, Suite 1100 Houston, Texas 77040

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 XV. 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 XVI. Performance Warranty

16.1 Contractor warrants to County that Contractor has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession practicing in the greater Houston metropolitan area and Contractor will apply that skill and knowledge with care and diligence to ensure that the Services provided hereunder will be performed and delivered in accordance with the highest professional standards.

16.2 Contractor warrants to County that the Services will be free from material errors and will materially conform to all requirements and specifications contained in the attached Exhibit A.

Section XVII. 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 XVIII. 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 XIX. 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 XX. Third Party Beneficiaries

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

Section XXI. 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 XXII. 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 XXIII. 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 XXIV. Conflict

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

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 24th day of February, 2015.

FORT BEND COUNTY

Robert E. Hebert, County Judge

22415

Date

Cobb, Fendley & Associates, Inc.

~~Mahmoud Salehi, P.E., Vice~~ DALE CONLEY President

2-15-15

Date

ATTEST:

Laura Richard, County Clerk

COMMISSIONERS COURT STATE OF TEXAS FORT BEND COUNTY, TEXAS

APPROVED:

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

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of $853,908.00 to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Edward Sturdivant, County Auditor

MDS

EXHIBIT A

Exhibit 'A'

SCOPE OF SERVICES

Exiting Conditions:

The existing roadway is 3,600 LF of 2-lane asphalt with roadside ditches and buried pipes/boxes/conduits of variable sizes intermittently from just north of US 90 A (Jackson Street) to Clay Street. The existing right-of-way (ROW) for the majority of the 10th Street and portion of the FM 762 extension north of the US 90 A appears to be 60-ft wide.

The UPRR track is located between Morton and Preston Streets and traverses in an east-west direction with a prescriptive variable ROW from 40-ft to 80-ft wide intermittently throughout Downtown Richmond. Existing 10th Street has an at-grade crossing of the UPRR tracks. There are a total of seventeen (17) intersecting streets within the project limits, of which US 90 A is the only signalized intersection. There are an excessive number of driveways accessing residential communities particularly north of the railroad tracks to the project termini at Clay Street.

Proposed Scope:

The proposed scope is comprised of 3 phases: Study, final design, and construction phase services. The scope of services will include professional engineering, surveying and ROW mapping, geotechnical investigation, and environmental services. The project will involve construction of approximately 3,600 LF of a 4-lane concrete curb and gutter thoroughfare with closed system storm sewer drainage improvements. The project scope limits are from the north curb line of US 90A to the north ROW line of Clay Street in addition to a grade separated bridge structure over the existing UPRR ROW, a 50-ft wide opening for the future commuter rail located immediately to the north of UPRR ROW, and Preston Street ROW. There is no work scoped beyond the limits described. It is not anticipated that the scope go beyond aforementioned limits. However, should TxDOT, Fort Bend County, and the City of Richmond request additional work, CobbFendley will draft a separate proposal with associated compensation for such services. The proposed roadway improvements and bridge configuration will depend on obtaining the maximum ROW strip(s) width to be acquired within the project limits. The proposed roadway section and the ROW width will be evaluated along the existing 10th Street. It is anticipated that at a minimum a 20-ft ROW widening along 10th Street will be required in order to accommodate left turn lanes at all intersecting public streets. The following roadway typical section alternatives will be developed in the study phase:

1. 4-Lane divided, flush median, proposed 80-ft ROW (symmetrical ROW takings)
2. 4-Lane divided, flush median, proposed 80-ft ROW (ROW takings on one side)
3. 4-Lane divided, raised/flushed median, proposed 100-ft ROW (ROW taking on one side)
4. The proposed bridge section will depend largely on the proposed roadway section however; at a minimum it should accommodate 4 lanes of traffic and sidewalks

The existing posted speed limit is 30 MPH. The project will be designed based on 35 MPH design speed. Final Posted speed will be determined after the completion of the project.

During the study/PER phase, the existing US 90A intersection layout and traffic signal will be evaluated in coordination with the TxDOT area office engineer and the Houston District for a traffic signal hardware modification including probable construction cost. The proposed condition of the permanent traffic signal, any intersection modifications, and temporary signal for the traffic control plan will be designed and incorporated into the plans during the final design phase.

During the study phase, an existing drainage area map with outfall locations will be identified along with preliminary storm sewer trunk size and probable construction cost of the on-site drainage and potential off-site conveyance. During final design, an impact and conveyance analysis will be performed for the 3 outfalls within the project limits as part of this project in close coordination with the Fort Bend County drainage district engineer, the County Engineer's office staff, TxDOT, and the City of Richmond.

During the study/PER phase, the horizontal and vertical location of existing public and private utilities along the corridor will be identified in coordination with the City of Richmond public works staff and the private utility owners along the corridor. If there are no existing records available then subsurface utility engineering (SUE) test holes will be proposed during final design in order to avoid potential utility conflicts with the proposed roadway horizontal and vertical geometry and drainage improvements. The City of Richmond will assist in locating the existing and proposed water and wastewater facilities along the corridor.

The overall design will be performed in accordance with the latest Fort Bend County and Harris County criteria, Guidelines, and Specifications as applicable.

The anticipated basic services during the study, final design, and contract phases are as follow:

BASIC SERVICES

1. Study Phase/Preliminary Engineering Report, PER (30% Plans)

This phase will include collection of supporting documents, findings, alternatives, and recommendations for the design phase. The Engineer shall perform the engineering and related services described below and, as necessary, to develop a preliminary design plan and profile including identifying any issues specific to the completion of the Project and developing a resolution and alternatives acceptable to the County Engineer, for addressing such issues.

A. Data Collection

1. Obtain record drawings, as-built information, and utility, backgrounds, prior drainage studies and models in addition to traffic volumes from City of Richmond, Fort Bend County, and TxDOT.
2. Conduct field visits to validate the record information in addition to field truth the topographical survey.

B. Study/PER Summary Report

The letter report will include an executive summary including scaled drawings/exhibits containing:

1. Summary of horizontal alignment alternatives based on apparent 80-ft and 100-ft ROW
2. Vertical alignment impact on the existing street system, traffic circulation, and accessibility to future overpass
3. Evaluation of typical roadway section configurations including pedestrian amenities
4. Identifying the drainage outfalls, the preliminary drainage impact, and preliminary storm sewer trunk size within the study area.
5. Preparation of preliminary bridge sections and bridge layout for the following spans:
   a. UPRR ROW overpass Bridge
   b. UPRR ROW plus additional 50-ft immediately to the north of the UPRR ROW
   c. UPRR ROW, future 50-ft planned commuter rail, and Preston Street ROW

   It must be noted that this analysis will evaluate the proposed bridge approximate dimensions for bridge length, and bridge width, span length and span type for the bridge openings mentioned in item 5a, b, & C. In addition to the UPRR required 23'- 4" vertical clearance from top of rail, the structure should provide a minimum of 25-ft horizontal clearance from nearest centerline of each track in order to avoid installing crash proof walls in front of the proposed columns/supports.

6. Identifying the extent/size of ROW widening and number of impacted parcels to be acquired for the recommended alternative
7. Identification of existing utilities and preparation of potential utility conflict lists with proposed roadway and drainage improvements
8. Preparation of the probable construction cost estimate associated with the recommended alternatives
9. Conceptual traffic control phasing
10. Prepare 30% plans which will include roadway horizontal and vertical geometrics, preliminary drainage layout, sight triangles and sight distances

C. Project Management, Meetings/Coordination

The Engineer shall participate in the following meetings with Fort Bend County engineering staff, the City of Richmond, TxDOT, and pertinent stakeholders as necessary:

1. Project Kick-Off meetings
2. Drainage meeting with Fort Bend Drainage District Engineer/staff
3. Meeting with the TxDOT Houston District and Area Engineer Office
4. Meeting with the UPRR manager of the public infrastructure
5. Proposed alignment meeting at 50% plans

And perform the following Project Management duties:

1. Prepare invoices, meeting minutes, clerical (monthly) (9)
2. Update project status (9)
3. Obtain Final Design private utility and agency approval signatures

D. Surveying and ROW Mapping

1. Horizontal & Vertical Control and Topographical Surveying
   Topographic Surveying and Roadway Cross-Sections will include but are not limited to the following:

   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/TSARP datum).

   b. Topographical features such as horizontal and vertical positioning of the existing Railroad track(s), identifying the nearest RR mile marker and the bungalow identification number, the existing roadways alignments, major drainage systems & utilities. Existing top of rails and center of ballast shots mast be taken at 100-ft intervals for approximately 500-ft on either side of the proposed alignment.

   c. Visible property delineators such as fence corners and other existing monumentations in order to evaluate alignment alternatives within project limits

   d. The linear Topographical survey along FM 762/10th Street extension from south curb line of the US 90 to north ROW line of Clay Street for approximately 3,600 feet. The topographical survey will also extend approximately 250 feet along signalized intersecting public streets and, 150 feet along all other minor intersecting roads for a total of approximately 6,000 linear feet.

   e. Obtain roadway cross sections at 100 ft. intervals. Cross-sections shall extend 30 feet beyond the existing right-of-way lines as applicable.

   f. 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 pipes.

   g. 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 and plans provided by the Client and marked by "One Call" within the projects 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.

   h. The 3D topographical survey base map and digital terrain model (DTM), surface triangular irregular network (TIN) will be created for the existing roadway and drainage channel from field data.

   i. The survey line work and surface TIN shall be provided to the Client in Microstation/Geopak CADD platform.

2. Right of Way Mapping - Existing ROW envelope Determination
   The existing ROW envelope will be performed upon completion and acceptance of the study phase findings and will include the following tasks:

   a. Perform abstract survey; obtain deeds of records, and plats for 10th right-of Street way, streets intersecting 10th Street and tracts of land adjoining 10th Street including a segment of FM 762 north of US 90 A to the UPRR tracks.
   b. Establish the existing right-of-way of 10th Street and intersecting streets.
   c. Prepare existing Right-of Way Map of the project.
   d. Prepare Survey Control Sheet(s) for the project.
   e. Establish a recoverable existing and proposed iron rods and/or monumentation set for cutback corners along 10th Street and at intersecting streets.

The Engineer shall evaluate the existing ROW envelope and make recommendations for the acquisition of ROW necessary based on the chosen alternative for the Project. The existing ROW will also include determination of existing utility easements, unobstructed view easement (UVE), detention, and outfalls. The Engineer shall prepare a ROW Acquisition Table which shall include a parcel ID number, acreage (and square footage) to be acquired, acreage of the parent tract, acreage remaining of the parent tract, current owner, recording information, current flood plain zone, and note any issues that may affect the acquisition of the parcels.

3. Proposed ROW Maps
   The Engineer shall provide services including surveying in accordance with Category IA Condition II Land Title Survey, as necessary to prepare and provide Proposed ROW Maps and metes and bounds descriptions for any proposed parcel takings. The maps shall be at a scale of 1" = 40' on 11" x 17" sheets, shall identify any ROW needed for the Project including but not limited to roadway, corner cuts, sight distance triangles, outfalls, and detention. All structures shall be dimensioned to the proposed ROW.

E. Environmental Site Assessment (ESA)

CobbFendley will coordinate with Berg Oliver Associate, Inc. for the environmental investigation of the project.

2. Design Phase (60%, 90%, 100% and final submittal)

The design submittal will address and incorporated pertinent comments from Fort Bend County staff on the PER report (30% Plans). The engineer will perform a detailed design of the approved recommendations made on the PER/schematics letter report. The design submittal will include the submittal of electronically signed and sealed 22" x 34" construction documents which will include paving and drainage plan & profile sheets, traffic control plans and construction sequencing (TCP), temporary and permanent traffic signal plans, signing and pavement marking plan, roadway cross sections, bridge design, UPRR Exhibit "A", and an

estimate of the probable construction cost. The design phase will have 30%, 60%, 90%, 100%, and final submittals. The project manual, including the final construction cost estimate, will be a part of 100% deliverables.

A. Geotechnical Investigation

1. Soil Sampling Services

   The scope of services covered in this proposal consist of field exploration, laboratory testing and the preparation of a geotechnical engineering report for the pavement, utilities, and open channel. The geotechnical engineering report will include pavement design section for concrete pavement, utility trench safety analysis, slope stability analysis for the proposed channel, channel liner design section, and culvert foundations.

   The Roadway length is about 3,600 LF, the borings will be spaced at 500 feet. We propose to drill a total of seven (4) soil borings each to depths of 50-ft for retaining walls, and 2-100 ft. borings on each side of the RR track for the proposed bridge abutments and 6-10 borings for the pavement/drainage design along the proposed alignment for a total of 460-vertical feet (VF) along the project alignment to evaluate subsurface conditions for the proposed storm sewer and pavement structure design. The field work will be conducted using standard geotechnical drilling and sampling procedures. The pavement/utility soil borings will be sampled continuously to 12-ft, and at 5-ft intervals thereafter to scheduled completion depth. Soil samples for the culvert and channel improvement borings will be obtained continuously to scheduled completion depths. All drilling will be performed in accordance with general ASTM D 1586 and D1587 criteria. We will transport representative portions of the recovered samples to our soil mechanics laboratory for testing. The geotechnical work and the engineering analysis report must be in accordance with the latest Geotechnical Investigation Guidelines and the report shall be reviewed and is subject to Fort Bend County approval.

2. Laboratory Testing

   The Engineer will perform soil mechanics laboratory tests to measure physical and engineering properties of selected representative soil samples. The testing will generally include measurement of the shear strength, total unit weight, in situ moisture content, plasticity characteristics of the soils and pinhole dispersion analysis. All laboratory tests will be performed in accordance with appropriate ASTM standards. The soil samples will be kept for 90 days after the final report is accepted by Fort Bend County. We will discard the samples after that time, unless instructed otherwise.

3. Geotechnical Report

   The Engineer will prepare an engineering report that will present our findings and provide you with geotechnical design recommendations including:

a. Subsurface stratigraphy and groundwater conditions;
b. Utility excavation retention and groundwater control;
c. Pavement subgrade preparation and pavement design in accordance with AASHTO standards for roads and available Fort Bend County/TxDOT Guidelines;
d. A review of pinhole testing in combination with our field observations to determine the presence and extent of dispersive clays at the project site and recommend a treatment for dispersive soils;
e. Based on the stability analysis for the three cases presented above, if a proposed slope is not stable we will recommend an alternate one with calculated factors of safety equal to or greater than the minimum recommended ones;
f. The draft and final report will be provided in electronic pdf format.

The slope stability analyses will be performed using the computer program STABL which runs under the Microsoft® Windows operating systems. The slope stability analyses will be performed using the Modified Bishop method. The STABL computer code searches for the critical slope failure plane and computes the minimum safety factor for the given slope geometry and subsurface soil and ground water conditions. Soil parameters for the stability analyses will be based on laboratory test results from this geotechnical investigation, previous geotechnical investigations if available, and our personnel's past experience with similar soils. For the end of construction design case we will use unconfined compression test results as well as unconsolidated-undrained triaxial test results to select soil parameters. Effective soil parameters from consolidated-undrained triaxial tests with pore pressure measurements will be used for the rapid drawdown and long term design cases.

B. Traffic Engineering

1. Temporary Traffic Signal Design

The engineer_will prepare PS&E design documents for the installation of temporary traffic signalization at the intersection of 10th Street and US 90 A (Jackson Street).

The design will be based upon roadway design plans and traffic control plans. The temporary traffic signal design will follow the approved traffic control plans and will support the traffic throughout the various phases and sequences of construction. Based upon coordination with Fort Bend County and TxDOT, at this time 3 phases of construction are anticipated. Wooden poles are anticipated to be installed for the temporary signals which are deemed as both cost effective and efficient.

2. Permanent Traffic Signal Design

The engineer will also prepare full PS&E design documents for installation of modified and complete traffic signal hardware assembly at the intersection of the US 90 A (Jackson Street).

3. Traffic Control Plans

   Detailed Traffic control plans (TCP) will be prepared based on the approach and the number of construction phases decided in the conceptual TCP as part of the study. TCP will be designed according to the latest edition of The Texas Manual on Uniform Traffic Control Devices.

4. Traffic Engineering Coordination

   The design of the project traffic signals will be coordinated with TxDOT area office engineer and Fort Bend County Traffic Engineering while working on the proposed temporary and permanent traffic signals.

C. SWPPP

Storm water pollution prevention plans (SWPPP) will be prepared and included in the construction documents and project manual based on FBC and/or HCFCD criteria.

D. Subsurface Utility Engineering (SUE)

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

1. Locating and identifying 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 ROW.
2. Meeting with the utility companies and to provide information and schematics as necessary.
3. Identifying major utilities (i.e. pipelines, concrete incased conduits, water, sanitary sewer, storm sewer, or other utilities of this nature) that may require relocation.
4. Identifying any utilities that are within dedicated easement that will be within the proposed right—of-way (i.e. utilities for which the County may be responsible for the cost of any adjustments and/or relocations).
5. Providing a table listing each utility identified with an ID number for, station number (at the left right-of-way, centerline, and right right-of-way), utility owner, contact person (name, address, phone number, and email address), notes in regards to potential conflict, and notes in regards to making recommendations for addressing potential conflicts.

The Engineer, upon prior written authorization from the County Engineer, shall furnish the following services in accordance with the applicable guidelines as set forth below:

1. Level A Subsurface Utility Engineering (SUE)

The Engineer shall perform, if required, quality level A subsurface utility engineering services at $260.00 per hour (4 hours minimum) for test hole(s) within the project limits, designated by the design engineer, generally from US 90 A to Clay Street.

a. Quality Level A

Subsurface Utility Locate (Test Hole) Quality Level A locate means to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non-destructive excavation techniques that ensures the integrity of the utility facility.

Subsurface Utility Locate (Test Hole) Services (Quality Level A) are inclusive of Quality Levels B, C, and D. The utilities shall be referenced by the type of utility, utility company or agency name, telephone number and contact person and color coded to American Public Works Association standards. These services include meeting and contact with all utilities on the project.

E. Contract/Project Bidding

The project construction cost estimate and bid sheets will be prepared as defined by Fort Bend County Purchasing template. The project will be bid through Fort Bend County Purchasing. The following tasks will be performed during the bid phase of the contract.

1. Respond to contractors questions and issue clarifications & Addenda
2. Attend Pre-Construction meeting

3. Construction Phase Services

The construction duration for this project is estimated to take 18 months. Fort Bend County has indicated that an initial amount of $25,000.00 (lump-sum) will be authorized for construction phase services. The level of efforts for the construction phase services will be compensated based on Time & Material up to the initially authorized amount of $25,000.00. It is our understanding that compensations for the required level of efforts may exceed this initially authorized funds through completion of the project. At such time, it is also our understanding that Fort Bend County would ask for a proposal to augment the $25,000.00 allocated funds for compensation toward required level of efforts through completion of the construction. The construction phase services will be performed and continued with prior Fort Bend County authorization. The following services will be performed during the construction phase services:

1. Attend Construction Progress meeting (limited 6 quarterly meetings)
2. Review Shop Drawings (including detailed structural components)
3. Respond to contractors RFI's (justifiable number of RFI's)

PS&E Deliverables

Upon acceptance of the study phase recommendations, 3 submittals will be made during the final design phase of the project according to the design schedule prepared by the engineer. The following deliverables will be provided to Fort Bend County:

1. **First Submittal (60% milestone)**
   The following submittal will be made electronically in pdf format

   A. Refined Horizontal and vertical alignment sheets
   B. Preliminary Utility conflict resolutions along with utility relocation/adjustments
   C. Cover sheet/Index Sheet
   D. Typical sections
   E. Layout sheet
   F. Drainage area map
   G. Drainage calculations
   H. Plan & profiles
   I. Preliminary traffic signal design
   J. Conceptual Traffic control plan
   K. Traffic signals
   L. Bridge and ROW and Layouts
   M. Preliminary RR Exhibits "A"
   N. Quantities summary
   O. Preliminary Construction Cost Estimates
   P. QA/QC

2. **Second Submittal (90% milestone)**
   The following submittal will be made electronically in pdf format

   A. Cover sheet/Index Sheet
   B. General notes
   C. Layout sheet
   D. Survey Control Sheets
   E. ROW maps
   F. Horizontal Data Sheets
   G. Drainage area map
   H. Storm sewer design with calculations
   I. Off-Site mitigation plan (if required)
   J. Typical sections
   K. Plan & Profiles
   L. Existing and proposed utility layouts
   M. Utility conflict resolutions along with utility relocation/adjustments
   N. Traffic Control Plan
   O. Cross sections
   P. Storm water pollution prevention plans
   Q. Traffic signals including temporary and permanent signalization
   R. Signing & pavement markings

S. Illumination
T. Draft UPRR Exhibit "A"
U. Bridge Design and Structural Details – Bridge Layout, Retaining Wall Layouts, Bridge Typical Section, Estimated Quantities and Bearing Seats, Abutment Cap and Foundation Details, Bridge Deck Details/Slab Layout, Beam Framing Plan, Beam Design Data, RR Crash Protection Details, Pipe Underdrain details.
V. Miscellaneous Details
W. Summary of Quantities
X. Construction Cost Estimates including the excel worksheet
Y. Prepare project manual (SS, SP, and list of technical specifications)
Z. QA/QC

3. Final Submittal (100% milestone)
The following submittal will be made electronically in pdf format

A. Cover sheet/Index Sheet
B. General Notes and Fort Bend County General Conditions
C. Layout sheets
D. Survey Control Sheets
E. ROW maps
F. Horizontal Data Sheets
G. Drainage area map
H. Storm sewer design with calculations
I. Off-Site mitigation plan (if required)
J. Typical sections
K. Plan & Profiles
L. Existing and proposed utility layouts including utility relocation/adjustments
M. Traffic control plan
N. Cross sections
O. Storm water pollution prevention (SWPPP) plans
P. Traffic signals (Temporary and Permanent)
Q. Signing & pavement markings
R. Illumination (if required)
S. Final UPRR Exhibit A
T. Bridge Design & Structural Details – Bridge Layout, Retaining Wall Layouts, Bridge Typical Section, Estimated Quantities and Bearing Seats, Abutment Cap and Foundation Details, Bridge Deck Details/Slab Layout, Beam Framing Plan, Beam Design Data, RR Crash Protection Details, Pipe Underdrain details, and structural calculation folder
U. Miscellaneous Details
V. Agency approvals (TxDOT, FBC Drainage District, TDLR)
W. Summary of Quantities
X. Construction Cost Estimates including electronic version in Excel Worksheet
Y. Complete project manual (specs, bid forms, front end docs, SS, & SP)
The manual will include the geotechnical and ESA I reports
Z. QA/QC

4.Bid Ready submittal (Signed & Sealed Reproducible Mylar)

The following tasks will be performed:

A. The plan modification(s) based on the review and comments on the final (100%) submittal.
B. Submittal of signed & sealed (22" x 34") reproducible mylar of Construction documents
C. Electronic submittal of the PS&E package in pdf format

ENGINEER TEAM ACKNOWLEGEMENT

The following is the group of providers selected to perform the obligations described in the Agreement:

A. Prime Consultant – Cobb, Fendley & Associates, Inc.
B. Engineering & Surveying Services – Kelly R. Kaluza & Associates, Inc.
C. Geotechnical Investigation – Paradigm Consultants, Inc.

The Engineer understands that it is solely responsible and liable to the County for the completion of all obligations under this Agreement.

Total Fee Summary

2013 Fort Bend County Mobility Program

FM 762 Extension/10th Street from US 90A (Jackson Street) to Clay Street

Fort Bend County Project No. 13106

Sponsor: Fort Bend County/City of Richmond

Description: Reconstruct exist 2-lane rural to 4-lane curb & gutter including a Bridge over UPRR tracks

Date: 2/10/15

Basic Services

Phase I & II (PER & Final Design)	$	557,709
Expenses	$	8,104
Topo & Apparent ROW Envelope =	$	47,095
Exist. & Prop. ROW Map & Parcel M&B (60)=	$	180,000
Geotechnical Investigation	$	36,000
Subtotal Basic Services	$	828,908
Phase III Limited CM Services (T&M)	$	25,000
PROJECT GRAND TOTAL	**$**	**853,908**

Cobb Fendley Fee Summary

2013 Fort Bend County Mobility Program

FM 762 Extension/10th Street from US 90A (Jackson Street) to Clay Street

Sponsor: Fort Bend County/City of Richmond

Date: 2/10/15

LABOR OVERALL BASIC SERVICES PHASE I&II

Classification	Hours	Rate	Labor Cost
Principal	16	$83.33	$1,333.33
Project Manager	521	$66.67	$34,733.33
Senior Engineer	570	$60.00	$34,200.00
Project Engineer III	228	$48.33	$11,020.00
Project Engineer I	437	$35.00	$15,295.00
Designer	705	$35.00	$24,675.00
CAD Operator	1,531	$31.67	$48,481.67
RPLS	0	$48.33	$0.00
3-Man Crew	0	$48.33	$0.00
Survey Tech I	0	$31.67	$0.00
Utility Specialist	28	$41.67	$1,166.67
Clerical	106	$21.67	$2,296.67
Total Labor	4,142		$173,201.67
OVERHEAD	180.00%		$311,763.00
OPERATING MARGIN	15%		$72,744.70
EXPENSES			$8,103.90
TOTAL BASIC SERVICES PHASES I&II			**$565,813.27**

LABOR STUDY/PER (PHASE I)

Classification	Hours	Rate	Labor Cost
Principal	4	$83.33	$333.33
Project Manager	160	$66.67	$10,666.67
Senior Engineer	154	$60.00	$9,240.00
Project Engineer III	108	$48.33	$5,220.00
Project Engineer I	178	$35.00	$6,230.00
Designer	132	$35.00	$4,620.00
CAD Operator	248	$31.67	$7,853.33
RPLS	0	$48.33	$0.00
3-Man Crew	0	$48.33	$0.00
Survey Tech I	0	$31.67	$0.00
Utility Specialist	28	$41.67	$1,166.67
Clerical	25	$21.67	$534.44
Total Labor	1,037		$45,864.44
OVERHEAD	180.00%		$82,556.00
OPERATING MARGIN	15%		$19,263.07
EXPENSES DURING PER PHASE			$2,701.30
TOTAL STUDY/SCHEMATICS			**$150,384.81**

LABOR FINAL DESIGN SERVICES (PHASE II)

Classification	Hours	Rate	Labor Cost
Principal	12	$83.33	$1,000.00
Project Manager	361	$66.67	$24,066.67
Senior Engineer	416	$60.00	$24,960.00
Project Engineer III	120	$48.33	$5,800.00
Project Engineer I	259	$35.00	$9,065.00
Designer	573	$35.00	$20,055.00
CAD Operator	1,283	$31.67	$40,628.33
RPLS	0	$48.33	$0.00
3-Man Crew	0	$48.33	$0.00
Survey Tech I	0	$31.67	$0.00
Utility Specialist	0	$41.67	$0.00
Clerical	81	$21.67	$1,762.22
Total Labor	3,105		$127,337.22
OVERHEAD	180.00%		$229,207.00
OPERATING MARGIN	15%		$53,481.63
EXPENSES DURING DESIGN PHASE			$5,402.60
TOTAL PHASE II SERVICES			**$415,428.46**

2013 Fort Bend County Mobility Program

Fort Bend County Project No. 13106

Sponsor: Fort Bend County/City of Richmond

FM 762 Extension/10th Street from US 90A (Jackson Street) to Clay Street

Consultant: Cobb, Fendley & Associates, Inc.

Manhour Estimate													
Task	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Designer	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Project Management													
Project kick-off meeting (1)	2	4	0	4	0	0	0	0	0	0	0	0	10
Attend status meetings (6)	0	16	8	16	0	0	0	0	0	0	0	0	40
Prepare invoice (monthly) (9)	0	8	0	8	0	0	0	0	0	0	0	14	30
Update project status (9)	0	8	0	8	0	0	0	0	0	0	0	4	20
Project coordination (project staff & subs)	0	48	40	24	0	0	0	0	0	0	0	8	120
Subtotal Project Management	2	84	48	60	0	0	0	0	0	0	0	26	220
	0	56	32	40	0	0	0	0	0	0	0	17	145
Study Phase/Preliminary Engineering Report (PER)													
Prepare 30% submittal													
Data collection	0	16	0	0	24	0	0	0	0	0	0	0	40
Conduct field visits	0	4	0	8	8	0	0	0	0	0	4	0	24
Drainage Studies (Existing Drainage condition Analysis)	0	8	16	16	16	0	0	0	0	0	0	0	56
Proposed Hydraulic Analysis including STM SWR sizing	0	8	24	24	16	0	8	0	0	0	0	0	80
Drainage Impact Mitigation	0	4	24	16	8	0	0	0	0	0	0	0	52
Prepare and submit Drainage impact analysis	0	4	8	16	12	0	0	0	0	0	0	0	40
Typical sections	0	4	0	0	0	4	8	0	0	0	0	0	16
Horz/Vert alignments	0	8	8	0	16	16	40	0	0	0	0	0	88
90% Bridge Layouts (2 bridges)	0	4	16	0	0	24	40	0	0	0	0	0	84
30% Plan production	0	16	8	0	24	40	80	0	0	0	0	0	168
Cross sections	0	4	4	0	0	40	40	0	0	0	0	0	88
Limited Traffic Engineering (90A signal & TCP phasing)	0	2	6	0	8	8	16	0	0	0	0	0	40
Public & Private Utility coordination	0	8	0	0	32	0	0	0	0	0	24	0	64
UPRR Coordination	0	16	4	8	8	0	16	0	0	0	0	8	60
Construction cost estimate	0	2	0	0	6	0	0	0	0	0	0	0	8
Prepare the study report	0	24	16	0	0	0	0	0	0	0	0	8	48
QA/QC	2	0	4	0	0	0	0	0	0	0	0	0	6
Subtotal Study Phase/Schematic	2	132	138	88	178	132	248	0	0	0	28	16	962
Final Design													
Prepare 60% submittal													
Revise horz/vert alignments	0	4	4	0	0	16	16	0	0	0	0	0	40
Drainage design, Drainage Area Map	0	4	8	0	0	8	40	0	0	0	0	0	60
Utility Design, adjustment, relocation	0	8	16	0	8	40	48	0	0	0	0	0	120
Cover sheet/Index Sheet (2 Sheets)	0	2	0	0	0	0	6	0	0	0	0	0	8
Typical sections (3 Sheets)	0	2	0	0	0	0	8	0	0	0	0	0	10
Layout sheet (2 Sheets)	0	0	0	0	8	0	8	0	0	0	0	0	16
Plan & profiles sheets 10th Street(9)	0	16	0	0	0	24	80	0	0	0	0	0	120
Plan & profiles and intersection detail sheets (17)	0	4	8	0	0	40	108	0	0	0	0	0	160
Traffic control plan including temporary signal at US 90A	0	4	12	0	0	16	48	0	0	0	0	0	80

Task	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Designer	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Traffic signal at US 90A (Existing & Proposed Condition)	0	0	16	0	16	24	24	0	0	0	0	0	80
Illumination	0	4	8	0	0	24	24	0	0	0	0	0	60
Bridge Design	0	8	48	24	0	32	80	0	0	0	0	0	192
RR Exhibits	0	8	0	0	0	24	48	0	0	0	0	0	80
Misc.Details (Retaining Wall layout, railing, fencing)	0	8	8	0	0	0	24	0	0	0	0	0	40
Quantities	0	2	0	0	24	14	0	0	0	0	0	0	40
Cost Estimates	0	2	0	0	6	0	0	0	0	0	0	0	8
QA/QC	4	4	0	0	0	0	0	0	0	0	0	0	8
Subtotal 60% Submittal	4	80	128	24	62	262	562	0	0	0	0	0	1122
Prepare 90% submittal													
Cover sheet/Index Sheet (2 Sheets)	0	0	0	0	0	2	2	0	0	0	0	0	4
General notes/Special Provisions Specifications (3 Sheets)	0	8	8	0	0	0	0	0	0	0	0	8	24
Typical sections (3 Sheets)	0	1	0	0	0	5	8	0	0	0	0	0	14
Layout sheet (2 Sheets)	0	1	0	0	3	0	4	0	0	0	0	0	8
Off-Site Detention Drainage area map	0	4	4	0	0	8	32	0	0	0	0	0	48
Plan & profiles (9)	0	8	4	0	0	8	40	0	0	0	0	0	60
Plan & profiles and intersection detail sheets (17)	0	8	4	0	16	16	40	0	0	0	0	0	84
Utility Design, adjustment, relocation	0	16	16	0	0	40	48	0	0	0	0	0	120
Traffic control plan including temporary signal at US 90A	0	8	8	0	0	16	32	0	0	0	0	0	64
Cross sections	0	4	4	0	0	16	32	0	0	0	0	0	56
Stormwater pollution prevention plans	0	2	8	0	8	8	24	0	0	0	0	0	50
Traffic signal at US 90A (Existing & Proposed Condition)	0	4	12	0	0	16	16	0	0	0	0	0	48
Signing & pavement markings (15 sheets)	0	8	16	24	24	0	48	0	0	0	0	0	120
Bridge Design	0	2	16	16	0	16	40	0	0	0	0	0	90
Misc.Details (Retaining Wall layout, railing, fencing)	0	0	8	0	16	0	16	0	0	0	0	0	40
Quantities	0	2	2	0	24	8	0	0	0	0	0	0	36
Cost Estimates	0	2	2	0	4	0	0	0	0	0	0	0	8
Prepare project manual (specifications, bid forms)	0	8	16	0	8	0	0	0	0	0	0	16	48
QA/QC	4	0	4	0	0	0	0	0	0	0	0	0	8
Subtotal 90% Submittal	4	86	132	40	103	159	382	0	0	0	0	24	930
Bid-Ready 100% final submittal													
Cover sheet/Index Sheet (2 Sheets)	0	0	2	0	0	0	2	0	0	0	0	0	4
General notes/Special Specifications & Special Provisions (3 Sheets)	0	8	8	0	0	0	0	0	0	0	0	8	24
Typical sections (3 Sheets)	0	2	0	0	0	0	6	0	0	0	0	0	8
Layout sheet (2 Sheets)	0	1	0	0	0	0	7	0	0	0	0	0	8
Drainage Comments	0	2	2	0	0	0	8	0	0	0	0	0	12
Plan & profiles (9)	0	2	2	0	4	16	16	0	0	0	0	0	40
Plan & profiles and intyersection detail sheets (17)	0	4	8	0	0	16	40	0	0	0	0	0	68
Utility Design, adjustment, relocation	0	8	8	0	0	16	40	0	0	0	0	0	72
Traffic control plan including temporary signal at US 90A	0	2	2	0	0	4	16	0	0	0	0	0	24
Traffic signal at US 90A (Existing & Proposed Condition)	0	2	2	0	0	4	8	0	0	0	0	0	16
Cross sections	0	4	4	0	0	40	32	0	0	0	0	0	80
Stormwater pollution prevention plans	0	0	0	0	0	8	8	0	0	0	0	0	16
Signing & pavement markings (15 sheets)	0	4	4	0	8	8	24	0	0	0	0	0	48
Illumination finalized	0	2	2	0	0	4	16	0	0	0	0	0	24

Task	Principal	Project Manager	Senior Engineer	Project Engineer III	Project Engineer I	Designer	CAD Operator	RPLS	3-Man Crew	Survey Tech I	Utility Specialist	Clerical	Total Hours
Bridge Design	0	4	16	0	0	0	40	0	0	0	0	0	60
RR Exhibits Final Submittal	0	2	4	0	0	0	10	0	0	0	0	0	16
Modify TxDOT standard Details/Misc.	0	8	8	0	0	0	16	0	0	0	0	0	32
Compile standard Details/Misc.	0	2	2	0	0	8	16	0	0	0	0	0	28
Agency approvals (TxDOT, FBC Drainage District, TDLR)	0	8	0	0	40	0	0	0	0	0	0	0	48
Quantities	0	2	2	0	4	0	8	0	0	0	0	0	16
Cost Estimates	0	2	0	0	6	0	0	0	0	0	0	0	8
Prepare complete project manual (specs, bid forms)	0	16	16	0	0	0	0	0	0	0	0	16	48
QA/QC	4	0	4	0	0	0	0	0	0	0	0	0	8
100% Submittal	0	2	0	0	0	12	10	0	0	0	0	0	24
100% Sign & Sealed Bid ready Package	0	4	4	0	0	16	16	0	0	0	0	0	40
Subtotal Final Submittal	4	91	100	0	62	152	339	0	0	0	0	24	772
Contract/Bidding													
Attend Pre-Bid & Pre-Con Meeting	0	8	8	0	0	0	0	0	0	0	0	0	16
Questions & Addenda	0	24	16	16	16	0	0	0	0	0	0	8	80
Tabulation & Recommendation of Bid	0	16	0	0	16	0	0	0	0	0	0	8	40
Subtotal Contract/Bid	0	48	24	16	32	0	0	0	0	0	0	16	136
TOTAL HOURS PER & DESIGN PHASES I&II	16	521	570	228	437	705	1531	0	0	0	28	106	4142

2013 Fort Bend County Mobility Program

Fort Bend County Project No. 13106

Sponsor: Fort Bend County/City of Richmond

FM 762 Extension/10th Street from US 90A (Jackson Street) to Clay Street

Consultant: Cobb, Fendley & Associates, Inc.

Expense Estimate

Task	Deliveries	Miles	Mileage ($0.58 per mile)	Reproduction	Review Fees (TDLR)	Total Cost
Project Management						
Project kick-off meeting (1)	$0	40	$23	$0	$0	$23
Attend status meetings (12)	$0	500	$290	$0	$0	$290
Prepare invoice (monthly) (12)	$0		$0	$0	$0	$0
Update project status (12)	$0		$0	$0	$0	$0
Project coordination (project staff & subs)	$0		$0	$0	$0	$0
Preliminary Engineering Report						
Data collection	$0		$0	$0	$0	$0
Conduct field visits	$0	295	$171	$0	$0	$171
Typical sections	$0		$0	$0	$0	$0
Horz/Vert alignments	$0		$0	$100	$0	$100
Alternatives analysis	$0		$0	$0	$0	$0
Traffic studies	$0		$0	$0	$0	$0
Drainage studies	$0		$0	$0	$0	$0
Construction sequencing/TCP	$0		$0	$0	$0	$0
Utility coordination	$0		$0	$0	$0	$0
Right-of-Way requirements	$0		$0	$0	$0	$0
Construction cost estimate	$0		$0	$0	$0	$0
Interagency coordination	$0		$0	$0	$0	$0
Prepare draft PER	$0		$0	$0	$0	$0
Prepare final PER	$0		$0	$750	$0	$750
QA/QC	$0		$0	$0	$0	$0
Final Design						
Revise horz/vert alignments	$0		$0	$0	$0	$0
Drainage design	$0		$0	$0	$0	$0
Utility coordination	$0		$0	$0	$0	$0
Agency approvals (LID, Drainage District, TDLR)	$0		$0	$0	$2,500	$2,500
Prepare 50% submittal						
Cover sheet	$0		$0	$0	$0	$0
Typical sections	$0		$0	$0	$0	$0
Layout sheet	$0		$0	$0	$0	$0
Drainage area map	$0		$0	$0	$0	$0
Plan & profiles	$0		$0	$0	$0	$0
Traffic control plan	$0		$0	$0	$0	$0
Stormwater pollution prevention plans	$0		$0	$0	$0	$0
Traffic signals	$0		$0	$0	$0	$0
Illumination	$0		$0	$0	$0	$0
Bridges	$0		$0	$0	$0	$0
Details	$0		$0	$0	$0	$0
Quantities	$0		$0	$0	$0	$0
Cost Estimates	$0		$0	$0	$0	$0
Technical specifications	$0		$0	$0	$0	$0
QA/QC	$0		$0	$0	$0	$0
Prepare 100% submittal						
Cover sheet	$0		$0	$0	$0	$0
General notes	$0		$0	$0	$0	$0
Typical sections	$0		$0	$0	$0	$0
Layout sheet	$0		$0	$0	$0	$0
Drainage area map	$0		$0	$0	$0	$0
Plan & profiles	$0		$0	$0	$0	$0
Traffic control plan	$0		$0	$0	$0	$0
Cross sections	$0		$0	$0	$0	$0
Stormwater pollution prevention plans	$0		$0	$0	$0	$0
Traffic signals	$0		$0	$0	$0	$0
Signing & pavement markings	$0		$0	$0	$0	$0
Illumination	$0		$0	$0	$0	$0
Bridges	$0		$0	$0	$0	$0
Details	$0		$0	$0	$0	$0
Quantities	$0		$0	$0	$0	$0
Cost Estimates	$0		$0	$0	$0	$0
Prepare project manual (specifications, bid forms)	$0		$0	$1,500	$0	$1,500
QA/QC	$0		$0	$0	$0	$0
Prepare final submittal						
Cover sheet	$0		$0	$0	$0	$0
General notes	$0		$0	$0	$0	$0
Typical sections	$0		$0	$0	$0	$0
Layout sheet	$0		$0	$0	$0	$0
Drainage area map	$0		$0	$0	$0	$0
Plan & profiles	$0		$0	$0	$0	$0
Traffic control plan	$0		$0	$0	$0	$0
Cross sections	$0		$0	$0	$0	$0
Stormwater pollution prevention plans	$0		$0	$0	$0	$0
Traffic signals	$0		$0	$0	$0	$0
Signing & pavement markings	$0		$0	$0	$0	$0
Illumination	$0		$0	$0	$0	$0
Bridges	$0		$0	$0	$0	$0
Details	$0		$0	$0	$0	$0
Quantities	$0		$0	$0	$0	$0
Cost Estimates	$0		$0	$0	$0	$0
Prepare complete project manual (specs, bid forms and front end docs)	$0		$0	$2,500	$0	$2,500
QA/QC	$0		$0	$0	$0	$0
Bid Phase						
Attend Pre-Bid Meeting	$0	120	$70	$0	$0	$70
Questions & Addenda	$0		$0	$100	$0	$100
Tabulation & Recommendation of Bid	$0		$0	$100	$0	$100
Total Cost=	$0		$554	$5,050	$2,500	$8,104

Fort Bend County 2013 Mobility Road Bond Program
FM 762/10th Street Extension from 90A(Jackson) to Clay Street
Preliminary Construction Cost (February 2015)

Unit Prices are Based on TxDOT Houston District Average Bids					
ITEM No.	Description	Unit	Quantity	Unit Price	Amount
100-2002	PREP ROW	STA	36	$ 1,000.00	$ 36,000.00
105-2014	REMOV STAB BS AND ASPH PAV (7" - 12")	SY	10,000	$ 3.00	$ 30,000.00
110-2001	EXCAVATION (ROADWAY)	CY	2,593	$ 5.00	$ 12,962.96
132-2003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	47,917	$ 9.50	$ 455,208.33
164-2003	BROADCAST SEED (PERM) (RURAL) (CLAY)	SY	5,000	$ 0.25	$ 1,250.00
168-2001	VEGETATIVE WATERING	MG	100	$ 20.00	$ 2,000.00
260-2001	LIME (HYDRATED LIME (DRY))	TON	399	$ 160.00	$ 63,840.00
260-2026	LIME TRT (EXIST MATL)(8")	SY	25,778	$ 4.00	$ 103,112.00
360-2026	CONC PAV (JOINTED-CPCD)(10 IN)	SY	24,167	$ 65.00	$ 1,570,833.33
420-2033	CL S CONC (APPR SLAB)	CY	120	$ 470.00	$ 56,574.07
500-2001	MOBILIZATION	LS	1	$ 1,000,000.00	$ 1,000,000.00
502-2001	BARRICADES, SIGNS & TRAFFIC HANDLING	MO	12	$ 6,000.00	$ 72,000.00
529-2008	CONC CURB AND GUTTER (SPL)	LF	5800	$ 3.00	$ 17,400.00
531-2018	CURB RAMPS (SPL)	EA	20	$ 3,000.00	$ 60,000.00
531-2015	CONC SIDEWALK (4 IN)(SPL)	SY	4500	$ 35.00	$ 157,500.00
540-2001	MTL W-BEAM GD FEN (TIM POST)	LF	500	$ 17.00	$ 8,500.00
540-2011	MTL BEAM GD FEN TRANS (THRIE-BEAM)	EA	4	$ 1,500.00	$ 6,000.00
544-2001	GUARDRAIL END TRTMNT (INSTALL)	EA	4	$ 2,000.00	$ 8,000.00
556-2010	PIPE UNDERDRAIN (TY 5, 6, 7 OR 8)(6 IN)	LF	2000	$ 20.00	$ 40,000.00
ROADWAY SUBTOTAL					**$ 3,701,181**
416-2002	DRILL SHAFT (24 IN)	LF	400	$ 125.00	$ 50,000.00
416-2004	DRILL SHAFT (36 IN)	LF	1,600	$ 175.00	$ 280,000.00
420-2003	CL C CONC (ABUT)	CY	75	$ 700.00	$ 52,500.00
420-2004	SIDEWALK & PROTECTIVE SHIELD/RAILING	LF	1,500	$ 50.00	$ 75,000.00
423-2001	RETAINING WALL (MSE)	SF	40,000	$ 40.00	$ 1,600,000.00
422-2001	REINF CONC SLAB	SF	7,000	$ 10.00	$ 70,000.00
425-2004	PRESTR CONC BEAM (TY IV)	LF	1,200	$ 120.00	$ 144,000.00
428-2001	CONC SURF TREAT (CLASS I)	SY	1,200	$ 2.50	$ 3,000.00
432-2001	CONC RIPRAP (CONC) (4 IN)	CY	74	$ 280.00	$ 20,740.74
450-2003	RAIL (TY C203)	LF	2,700	$ 80.00	$ 216,000.00
454-2001	SEALED EXPANSION JOINT(4 IN)(SEJ-A)	LF	150	$ 75.00	$ 11,250.00
BRIDGE SUBTOTAL					**$ 2,522,491**
464-2005	RC PIPE (CL III)(24 IN)	LF	1,500	$ 60.00	$ 90,000.00
464-2007	RC PIPE (CL III)(30 IN)	LF	1,000	$ 65.00	$ 65,000.00
464-2009	RC PIPE (CL III)(36 IN)	LF	600	$ 80.00	$ 48,000.00
464-2010	RC PIPE (CL III)(48 IN)	LF	600	$ 120.00	$ 72,000.00
464-2012	RC PIPE (CL III)(54 IN)	LF	600	$ 135.00	$ 81,000.00
465-2001	INLET (COMPL)(TY C)	EA	10	$ 2,800.00	$ 28,000.00
465-2121	MANH (COMPL)(TY B)	EA	10	$ 3,500.00	$ 35,000.00
467-2211	SET (TY II)(24 IN)(RCP)(3:1)(C)	EA	36	$ 900.00	$ 32,400.00
460-2011	CMP (GAL STL 60 IN) (outfall structure)	LF	150	$ 250.00	$ 37,500.00
DRAINAGE SUBTOTAL					**$ 488,900**
	Filter Fabric Fence (Instal, Remove & Maintain)	LF	7500	$ 5.00	$ 37,500.00
506-2001	ROCK FILTER DAMS (INSTALL)(TY1)	LF	100	$ 20.00	$ 2,000.00
506-2009	ROCK FILTER DAMS (REMOVE)	LF	100	$ 10.00	$ 1,000.00
506-2016	CONSTRUCTION EXITS (INSTALL)(TY1)	LS	2	$ 1,000.00	$ 2,000.00
506-2019	CONSTRUCTION EXITS (REMOVE)	LS	2	$ 500.00	$ 1,000.00
STORMWATER POLLUTION PREVENT PLAN SUBTOTAL					**$ 43,500**
644-2001	INS SM RD SN SUP & AM TY 10BWG(1) SA(P)	EA	15	$ 350.00	$ 5,250.00
666-	TRAFFIC SIGNAL ASSEMBLY/Modification at US 90 A	LS	1	$ 80,000.00	$ 80,000.00
666-2012	REFL PAV MRK TY I (W) 4" (SLD) (100MIL)	LF	6,000	$ 1.00	$ 6,000.00
666-2036	REFL PAV MRK TY I (W) 8" (SLD) (100MIL)	LF	1,000	$ 1.00	$ 1,000.00
666-2048	REFL PAV MRK TY I (W) 24" (SLD) (100MIL)	LF	2500	$ 2.50	$ 6,250.00
666-2111	REFL PAV MRK TY I (Y) 4" (SLD) (100MIL)	LF	6,000	$ 1.00	$ 6,000.00
666-2126	REFL PAV MRK TY I (Y) 12" (SLD) (100MIL)	LF	1,000	$ 2.50	$ 2,500.00
672-2012	REFL PAV MRKR TY I-C	EA	500	$ 5.00	$ 2,500.00
672-2015	REFL PAV MRKR TY II-A-A	EA	500	$ 5.00	$2,500.00
TRAFFIC SIGNAL, SIGNING, & PAVEMENT MRK SUBTOTAL					**$ 112,000**
	12-inch Water Main & opportunances	LF	3,600	$ 150.00	$398,000.00
	8-in Wastewater line & opportunances	LF	3,600	$ 125.00	$398,000.00
WATER AND WASTEWATER SUBTOTAL					**$ 796,000**
	UPRR TRACK X-ING GATE ASSEMBLY (FORCE ACCOUNT)	LS	1	$ 100,000.00	$ 100,000.00
RR FORCE ACCOUNT/MISC SUBTOTAL					**$ 100,000**
	Contingencies (10%)	LS	1	$750,000.00	$ 775,000.00
CONTINGENCIES SUBTOTAL					**$ 775,000**
Total Construction Cost					**$ 8,539,071**