

ARF-1611

REGULAR SESSION AGENDA

Date: 09/28/2010

Terra Associates Traffic Signalization Agreement Mason Road, et.

Submitted By: Mary Reveles, County Attorney

Department: ✓ Engineering

Type of Item: Discussion Item

Renewal Agreement/

Appointment:

Reviewed by County

Attorney's Office:

Multiple Originals

Y/N?:

320
Item #: ~~73.0~~
Engineering

Information

SUMMARY OF ITEM

Take all appropriate action on the Professional Engineering Services Agreement between Fort Bend County and Terra Associates, Inc. for traffic signalization design for Mason Road at Northmoor Drive, Highland Knolls Drive at Greenway Village Drive and Cinco Ranch Blvd. at Gaston Road in an amount not to exceed \$83,692.63. Fund: Road & Bridge, Multi.

SPECIAL HANDLING

Attachments

Link: contract

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**PROFESSIONAL ENGINEERING SERVICES AGREEMENT
SIGNALIZATION FOR
MASON ROAD AT NORTHMOOR DRIVE
HIGHLAND KNOLLS DRIVE AT GREENWAY VILLAGE DRIVE
CINCO RANCH BOULEVARD AT GASTON ROAD**

THIS AGREEMENT is made and entered into by and between FORT BEND COUNTY, TEXAS, a public body corporate and politic of the State of Texas acting by and through the Fort Bend County Commissioners Court (hereinafter referred to as "County") and TERRA Associates, Inc., (hereinafter referred to as "Engineer,") authorized to conduct business in the State of Texas.

WITNESSETH

WHEREAS, County proposes to install traffic signals at the intersections of Mason Road at Northmoor Drive, Highland Knolls Drive at Greenway Village Drive and Cinco Ranch Boulevard at Gaston Road, located in Fort Bend County, Texas, hereinafter referred to as the "Project;" and,

WHEREAS, County desires to enter into this Agreement for the performance by Engineer of professional services related to the Project; and,

WHEREAS, County has determined that this Agreement is for personal or professional services and therefore exempt from competitive bidding under Chapter 262, TEXAS LOCAL GOVERNMENT CODE; and

WHEREAS, County has determined that this Agreement serves a public purpose.

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

AGREEMENT

**SECTION I
SCOPE OF AGREEMENT**

- 1.01 Engineer shall render professional services to County related to the Project as described in Attachment A-1 Scope of Work and Basic Fee Calculations for Traffic Signal Design.
- 1.02 A Work Authorization; a sample is attached as Attachment B-1, will be issued for each authorized phase as detailed in Section XIV Work Authorizations.
- 1.03 Engineer shall use all best efforts to perform all professional services agreed hereunder in a manner satisfactory and acceptable to County, in keeping with the highest professional standard

of care provided by engineers in similar projects. Engineer shall use its best efforts to ensure that all services provided hereunder shall be suitable for their intended use.

- 1.04 Engineer shall use all best efforts and measures to implement its responsibilities under this Agreement to safeguard County against defects and deficiencies in the completed services provided under this Agreement. However, Engineer will promptly inform County whenever defects and deficiencies in the completed service are observed, or when any observed actions or omissions are undertaken which are not in the best interest of County and the Project.
- 1.05 At the request of County, Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of County, or at the site of the Project, and shall permit inspections of its offices by County, or others when requested by County.
- 1.06 If requested by County, or on its behalf, Engineer shall prepare such engineering exhibits and plans as may be requested for all hearings related to the Project, and, further, it shall prepare for and appear at conferences at the office of the County Engineer, hereinafter referred to as "County Project Manager," and shall furnish competent expert engineering witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project.

SECTION II THE ENGINEER'S COMPENSATION

- 2.01 For and in consideration of the services rendered by Engineer, and subject to the limit of appropriation under Section XVI, County shall pay to Engineer an amount not to exceed \$83,692.63 including all reimbursable expenses.
- 2.02 Progress payments for authorized work detailed in Work Authorizations will be made when Engineer has attained a level of completion equal to or greater than agreed upon milestones of completion, as determined solely by County.
- 2.03 Engineer shall not provide any services under this Agreement until authorized by County in writing.
- 2.04 Engineer shall submit invoices to County as detailed in Section 2.05 below and County shall pay each invoice within thirty (30) days after the County Project Manager's written approval provided however, that the approval or payment of any invoice shall not be considered to be conclusive evidence of performance by the Engineer to the point indicated by such invoice or of receipt or acceptance by the County of the services covered by such invoice.
- 2.05 Engineer shall submit to County two (2) copies of invoices detailing the amounts due for services performed during the previous month, set forth separately for work under this Agreement, and accompanied by a progress report indicating the percent complete for the Schedule of Values describing the tasks performed in all applicable Work Authorizations in a form acceptable to County. County shall reserve the right to withhold any payment pending verification of satisfactory work performed. County shall process all uncontested invoices within thirty (30) calendar days.

SECTION III TIME OF PERFORMANCE

- 3.01 This Agreement shall become effective upon execution of the last party and shall terminate on final acceptance of construction.

- 3.02 Services described under written Work Authorizations shall be completed in accordance with the schedules provided in said Work Authorizations or within such additional time as may be extended in writing by the County.
- 3.03 Any services provided by Engineer or any costs incurred by Engineer before issuance of a Work Authorization or after the expiration of a Work Authorization shall be ineligible for payment or reimbursement.

SECTION IV TERMINATION

- 4.01 County may terminate this Agreement at any time by providing thirty (30) days written notice to Engineer.
- 4.02 Upon receipt of such termination notice, Engineer shall discontinue all services in connection with the performance of this Agreement and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to this Agreement.
- 4.03 Within thirty (30) days after receipt of notice of termination, Engineer shall submit a statement, describing in detail the services performed under this Agreement to the date of termination.
- 4.04 County shall then pay Engineer that proportion of the services actually performed under this Agreement bear to the total services called for under this Agreement, less such payments on account of charges as have been previously made.
- 4.05 Copies of all completed or partially completed designs, drawings, electronic data files and specifications and reports of any kind prepared under this Agreement shall be delivered to the County when and if this Agreement is terminated in the manner and for the purposes provided in this Agreement.

SECTION V INSPECTIONS OF ENGINEER'S BOOKS AND RECORDS

Engineer shall permit County, or any duly authorized agent of the County, to inspect and examine all books and records of the Engineer for the purpose of verifying the amount of work performed on the Project by Engineer. County's right to inspect survives the termination of this Agreement for a period of four (4) years.

SECTION VI OWNERSHIP AND REUSE OF DOCUMENTS

- 6.01 All documents, including original drawings, electronic files, correspondence, estimates, specifications, field notes, and data created, produced, developed or prepared by Engineer or its approved outside advisory or support consultants (collectively, the "Documents") shall be the property of County.
- 6.02 County shall not be entitled to any Documents not deemed "final" by the Engineer until termination of this Agreement.
- 6.03 Engineer shall deliver all Documents to County within thirty (30) days of the termination of this Agreement and may retain a set of reproducible record copies of the documents, provided that Engineer has received full compensation due pursuant to the terms of this Agreement. County

shall use the Documents solely in connection with the Project and for no other purposes, except with the express written consent of Engineer, which consent will not be unreasonably withheld. Any use of the Documents without the express written consent of the Engineer will be at the County's sole risk and without liability or legal exposure to Engineer.

- 6.04 County shall also be the owner of all intellectual property rights of the services rendered hereunder, including all rights of copyright therein. County and Engineer agree that the services provided are a "work for hire" as the term is used in the federal Copyright Act. Moreover, Engineer's worldwide right, title and interest in and to such work product and all rights of copyright therein.
- 6.05 Any trademarks, trade names, service marks, logos, or copyrighted materials of County are permit only for use in connection with the services and shall not be used without County's consent and shall remain in the sole and exclusive properties of County.

SECTION VII PERSONNEL, EQUIPMENT, AND MATERIAL

- 7.01 Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the professional services required under this Agreement. Engineer shall furnish and maintain, at it's own expense, adequate and sufficient personnel and equipment to perform the professional services when and as required and without delays.
- 7.02 County will approve assignment and release of all key Engineer personnel and that the Engineer shall submit written notification of all key Engineer personnel changes for the County's approval prior to the implementation of such changes. Services described in this Agreement shall be performed under the direction of an engineer licensed to practice professional engineering in the State of Texas.
- 7.03 All employees of Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them to the standard stated in this Agreement. Any employee of the Engineer who, in the opinion of the County, is incompetent or by his conduct becomes detrimental to the Project shall, upon request of the County, immediately be removed from association with the Project.
- 7.04 Except as otherwise specified herein, Engineer shall furnish all equipment, transportation, supplies, and materials required to provide all services subject to this Agreement.

SECTION VIII ITEMS TO BE FURNISHED TO ENGINEER BY THE COUNTY

County shall provide to Engineer copies of preliminary studies, assistance in the coordination with all utility companies and assistance in coordination with all public and governmental entities.

SECTION IX
ENGINEER'S INSURANCE REQUIREMENTS

- 9.01 Engineer shall furnish certificates of insurance to County evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of Engineer, name of insurance company, policy number, term of coverage and limits of coverage. Engineer shall cause its insurance companies to provide County with at least 30 days prior written notice of any reduction in the limit of liability by endorsement of the policy, cancellation or non-renewal of the insurance coverage required under this Agreement. Engineer shall obtain such insurance 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:
- A. Workers' Compensation insurance in accordance with the laws of the State of Texas, or state or hire/location of Services, and Employers' Liability coverage with a limit of not less than \$1,000,000 each employee for Occupational Disease, \$1,000,000 policy limit for Occupational Disease; and Employer's Liability of \$1,000,000 each accident.
 - B. Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, Contractors' Protective Liability Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:
 - \$2,000,000 general aggregate limit
 - \$1,000,000 each occurrence
 - \$1,000,000 aggregate Products, combined single limit
 - \$1,000,000 aggregate Personal Injury/Advertising Liability
 - \$100,000 Fire Legal Liability
 - C. Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
 - D. Professional Liability insurance with limits not less than \$1,000,000 each claim/annual aggregate.
 - E. If coverage required is written on a claims-made basis, the Engineer warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this 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 this contract is completed.
- 9.02 County and the County Commissioners shall be named as additional insureds to all coverages required above, except for Section 9.01(A). All policies written on behalf of Engineer shall contain a waiver of subrogation in favor of County and County Commissioners.

SECTION X
INDEMNIFICATION

- 10.01 Engineer shall indemnify, defend and hold county harmless from each and every claim, demand, suit, action, proceeding, lien or judgment caused by or arising out of, directly or indirectly, or in connection with the acts and omissions of Engineer pursuant to this agreement.
- 10.02 Engineer shall timely report all such matters to County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month, provide County with a written report on each such matter covered by this paragraph and by Section 10.03 below, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of County required by Engineer in the defense of each matter.
- 10.03 County shall timely forward to Engineer copies of any and all claims, demands, suits, actions, proceedings or judgments which it may receive and which it may contend is covered by this section. Thereafter, County shall fully cooperate with Engineer in its defense of each such matter.
- 10.04 Engineer's duty to defend indemnify and hold county harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of this agreement unless otherwise agreed by county in writing. The provisions of this section shall survive the termination of the agreement and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 10.05 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Engineer, Engineer shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Engineer are not at issue in the matter. In such event, County shall promptly reimburse Engineer for its costs of defense.
- 10.06 In the event that any such matter being so defended by Engineer also involves any claim of negligence or wrongful action by County, County shall have the obligation to participate in the defense of the matter through separate counsel.
- 10.07 Engineer shall have full authority to resolve all matters being defended by it providing such settlement(s) shall not involve any findings adverse to County and shall not involve or require any payments or contributions by County.
- 10.08 In the event of any final judicial determination or award of any matter covered by this section, County shall be responsible to third parties, pro rata, for any negligence determined to have been caused by County.
- 10.09 Engineer's indemnification shall cover, and Engineer shall indemnify County, in the manner provided for and to the extent described above, in the event County is found to have been negligent for having selected Engineer to perform the work described in this Agreement.
- 10.10 The provision by Engineer of insurance shall not limit the liability of Engineer under this Agreement.
- 10.11 Engineer shall cause all contractors and consultants who may have a contract to perform construction or installation work in the area where work will be performed under this

Agreement, to agree to indemnify County and to hold County harmless from all claims for bodily injury and property damage that may arise from said contractor or consultant's operations. Such provisions shall be in form satisfactory to County.

- 10.12 County shall be exempt from, and in no way liable, for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Engineer providing such insurance.

SECTION XI DISPUTE RESOLUTION

- 11.01 In the event of a dispute related to the breach of this Agreement that cannot be settled through negotiation, County and Engineer agree to submit the dispute to mediation.
- 11.02 In the event County or Engineer desire to mediate any dispute, that party shall notify the other party in writing of the dispute desired to be mediated. If the parties are unable to resolve their differences within 10 days of the receipt of such notice, such dispute shall be submitted for mediation.
- 11.03 All expenses associated with mediation shall be shared 50 percent (50%) by each party.
- 11.04 The requirement to seek mediation shall be a condition required before filing an action at law or in equity.

XII NOTICE

- 12.01 Any notice required to be given under the provisions of this Agreement shall be in writing and shall be duly served when it shall have been deposited, enclosed in a wrapper with the proper postage prepaid thereon, and duly registered or certified, return receipt requested, in a United States Post Office, addressed to County or Engineer at the addresses set forth below.
- 12.02 If mailed, any notice or communication shall be deemed to be received three days after the date of deposit in the United States Mail.
- 12.03 Unless otherwise provided in this Agreement, all notices shall be delivered to the following addresses:

A. If to Engineer:

Lyle E. Henkel, P. E.,
TERRA Associates, Inc.
1445 North Loop West, Suite 450
Houston, Texas 77008

B. If to County notice must be sent to the County Project Manager:

D. Jesse Hegemier
County Engineer
1124 Blume Road
P.O. Box 1449
Rosenberg, Texas 77471

- 12.04 Either party may designate a different address by giving the other party ten (10) days written notice.

SECTION XIII REPORTS OF ACCIDENTS

- 13.01 Within 24 hours after the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of Engineer), Engineer shall send a written report of such accident or other event or County, setting forth a full and concise statement of the facts pertaining thereto.
- 13.02 Engineer shall also immediately send County a copy of any summons, subpoena, notice, other documents served upon Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from Engineer's performance of work under this Agreement.

SECTION XIV WORK AUTHORIZATIONS

- 14.01 County will issue Work Authorizations using the form included in Attachment B-1 to authorize all work provided by Engineer under this agreement. Engineer must sign and return a work authorization to County within seven (7) working days after receipt. Refusal of Engineer to accept a Work Authorization shall be grounds for termination of this Agreement by County.
- 14.02 This Agreement authorizes County Project Manager to execute and approve all Work Authorizations on behalf of County.
- 14.03 Engineer shall not begin any work until County Project Manager and Engineer have executed a Work Authorization. Costs incurred by Engineer before a Work Authorization is fully executed or after the completion date specified in the Work Authorization shall not be subject to payment or reimbursement.
- 14.04 All services provided by Engineer must be completed on or before the completion date specified in the Work Authorization, and no Work Authorization completion date shall extend beyond the contract period set forth in Section III of this Agreement.
- 14.05 The maximum time is the time needed to complete all Work Authorizations that will be issued.
- 14.06 Each Work Authorization shall specify the types of services to be performed and will include: (A) a period of performance with a beginning and ending date; (B) a full description of the work to be performed; (C) a work schedule with milestones; (D) a cost not to exceed amount; (E) the basis of payment (i.e. cost plus fixed fee, unit cost, lump sum, or specified rate; and (F) a Work Authorization budget calculated using rates set forth in Attachment A-1, Scope of Work and Basic Fee Calculations for Traffic Signal Design.
- 14.07 Engineer shall not include additional terms and conditions in the Work Authorization. In the event of any conflicting terms and conditions between the Work Authorization and this Agreement, the terms and conditions of this Agreement shall prevail and govern the work and costs incurred.
- 14.08 A Work Authorization budget shall set forth in detail (A) the computations of the estimated cost of the work as described in the work authorization; (B) the estimated time (hours) required to

complete the work at the hourly rates established in Attachment A-1, Scope of Work and Basic Fee Calculations for Traffic Signal Design; (C) a work plan that includes a list of the work to be performed; (D) a stated maximum number of calendar days to complete the work; and (E) a cost-not-to-exceed-amount or unit or lump sum cost and the total cost or price of the Work Authorization.

- 14.09 County will not pay any items of cost that are not included in an executed Work Authorization.
- 14.10 Work Authorizations are issued at the discretion of County. While it is County's intent to issue Work Authorizations hereunder, Engineer shall have no cause of action conditioned upon the lack or number of Work Authorizations issued.
- 14.11 Each work authorization shall be signed by all parties and shall become a part of this Agreement. No work authorizations will waive County or Engineer's responsibilities and obligations established in this Agreement. Engineer shall promptly notify County of any event that will affect completion of the Work Authorization.
- 14.12 Before additional work may be performed or additional costs incurred, a change in a Work Authorization shall be enacted by a written Supplemental Work Authorization, attached hereto as Attachment B-2. All parties must execute a Supplemental Work Authorization within the period of performance specified in the Work Authorization. County shall not be responsible for actions by Engineer or any costs incurred by Engineer relating to additional work not directly associated with the performance or prior to the execution of the Work Authorization. Engineer shall allow adequate time for review and approval of the Supplemental Work Authorization by County prior to expiration of the Work Authorization. Under no circumstances shall a Work Authorization be allowed to extend beyond this Agreement's expiration date as detailed in Section III, nor will the total amount of funds exceed the not-to-exceed amount set forth in Section II of this Agreement.
- 14.13 In the event Engineer determines or reasonably anticipates that the work authorized in a Work Authorization cannot be completed before the specified completion date, Engineer shall promptly notify County and County may, at its sole discretion, extend the Work Authorization period by execution of Supplemental Authorization, a sample of which is attached as Attachment B-2.
- 14.14 Any changes that may modify the scope of services authorized in a Work Authorization must be enacted by a written Supplemental Work Authorization. Engineer shall allow adequate time for County to review and approve any request for a time extension prior to expiration of the Work Authorization. If the change in scope affects the amount payable under the Work Authorization, Engineer shall prepare a revised work authorization budget for County's consideration.
- 14.15 In the event Engineer does not complete the services authorized in a Work Authorization before the specified completion date and has not requested a Supplemental Work Authorization, the Work Authorization shall terminate on the completion date. At the sole discretion of County, County may issue a new Work Authorization to Engineer for the incomplete work using the unexpended balance of the preceding Work Authorization for the project. If approved by County, Engineer may calculate any additional cost for the incomplete work using the rates set forth Attachment A-1.
- 14.16 County, at its sole discretion, may accept Engineer's signature on a faxed copy of the work authorization as satisfying the requirements for executing the Work Authorization, provided that the signed original is received by County within five business days from the date on the faxed

- copy. Any payments owed to Engineer by County shall not be processed until the requirements of this Section have been fulfilled by Engineer.
- 14.17 Upon satisfactory completion of the Work Authorization as determined by County, Engineer shall submit the deliverables as specified in the executed Work Authorization to County for review and acceptance.

SECTION XV LIMITATIONS

Notwithstanding anything herein to the contrary, all covenants and obligations of County under this Agreement shall be deemed to be valid covenants and obligations only to extent authorized by the Act creating County and permitted by the laws and the Constitution of the State of Texas. This Agreement shall be governed by the laws of the State of Texas, and no officer, director, or employee of County shall have any personal obligation hereunder.

SECTION XVI LIMIT OF APPROPRIATION

- 16.01 Prior to the execution of this Agreement, Engineer has been advised by County, and Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that County shall have available the total maximum sum of \$83,692.63, including reimbursable expenses, if any, specifically allocated to fully discharge any and all liabilities which may be incurred by County.
- 16.02 Engineer does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Engineer may become entitled to hereunder and the total maximum sum that County shall become liable to pay to Engineer hereunder shall not under any conditions, circumstances or interpretations thereof exceed the sum of \$83,692.63 for described scope of services in all executed Work Authorizations.

SECTION XVII SUCCESSORS AND ASSIGNS

- 17.01 County and Engineer 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 such other party, in respect to all covenants of this Agreement.
- 17.02 Neither County nor Engineer shall assign, sublet or transfer its interest in this Agreement without the prior written consent of the other.

SECTION XVIII PUBLIC CONTACT

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

SECTION XIX
MODIFICATIONS

This instrument contains the entire Agreement between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent written modification signed by both parties hereto.

SECTION XX
MISCELLANEOUS

- 20.01 By entering into this Agreement, the parties do not intend to create any obligations, express or implied, other than those specifically set out in this Agreement.
- 20.02 Nothing contained in this Agreement shall create any rights or obligations in any party who is not a signatory to this Agreement.
- 20.03 Engineer agrees and understands that: by law, the Fort Bend County Attorney's Office may only advise or approve contracts or legal documents on behalf of its clients; the Fort Bend County Attorney's Office may not advise or approve a contract or other legal document on behalf of any other party not its client; the Fort Bend County Attorney's Office has reviewed this document solely from the legal perspective of its client; the approval of this document by the Fort Bend County Attorneys Office was offered solely to benefit its client; Engineer and other parties should not rely on this approval and should seek review and approval by their own respective legal counsel.
- 20.04 The captions of subtitle of the several sections and divisions of this Agreement constitute no part of the content hereof, but are only labels to assist in locating and reading the provisions hereof.
- 20.05 This Agreement shall be governed and construed in accordance with the laws of the State of Texas. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.
- 20.06 Engineer 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, Engineer shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

SECTION XXI
APPENDICES

The Appendices attached to this Agreement, which consists of the following and are incorporated herein by reference as if set forth verbatim:

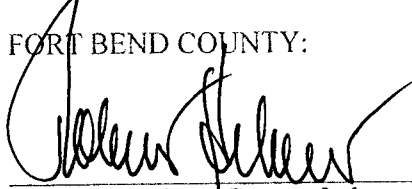
Attachment A-1	Scope of Work and Basic Fee Calculations for Traffic Signal Design
Attachment B-1	Sample Work Authorizations
Attachment B-2	Supplemental Work Authorizations

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SECTION XXII
EXECUTION

This Agreement shall not become effective until executed by all parties hereto.

FORT BEND COUNTY:



Robert E. Hebert, County Judge

9-28-2010

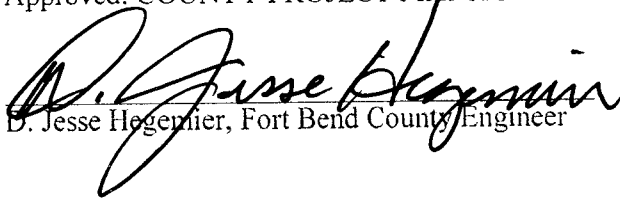
Date

Attest:



Dianne Wilson, County Clerk

Approved: COUNTY PROJECT MANAGER



D. Jesse Hegenier, Fort Bend County Engineer

ENGINEER: TERRA Associates, Inc.



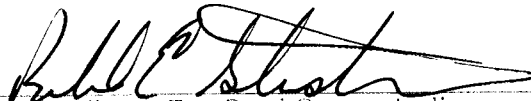
Date

Attest:



AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$83,692.63 to accomplish and pay the obligation of the Fort Bend County under this contract.



Ed Sturdivant, Fort Bend County Auditor

ATTACHMENT A-1

**SCOPE OF WORK AND BASIC FEE CALCULATIONS
FOR
TRAFFIC SIGNAL DESIGN
Intersection of
Mason Road at Northmoor Drive
Highland Knolls Drive at Greenway Village Drive
Cinco Ranch Boulevard at Gaston Road**

Precinct No.: 3

**Project Location:
Intersection of:**

**Mason Road at Northmoor Drive
Highland Knolls Drive at Greenway Village Drive
Cinco Ranch Boulevard at Gaston Road**

Traffic Signal Design Engineer herein called Consultant: Fort Bend County Engineering Department herein called (FBCED).

PROJECT DESCRIPTION:

Traffic Signal Design for the above mentioned intersection(s) shall consist of:

The design for traffic signal equipment including but not limited to traffic signal controllers ("Naztec" type controllers), traffic and pedestrian heads, GPS devices, pedestrian push button actuated (if necessary), embedded loop and/or camera design, road name signs, span wire, signal support poles and supporting structures (if necessary). Radio Interconnect Design (if necessary), compatible with Naztec type controllers, utilizing TxDot Standards & Specifications.

Roadway Design shall include: A minimum of geometric design including but not limited to signage and striping as required to create a functional signalized intersection for the interim period until major improvements are completed under the FBC Mobility Plan. Also, include plan layout and details for wheelchair ramps, pedestrian sidewalks in accordance with ADA requirements and TxDot Standards.

PROJECT MANAGER:

-or-

FORT BEND COUNTY ENGINEERING
Nathan D. Hatcher
Assistant to County Engineer
P. O. Box 1449
1124 Blume Road
Rosenberg, Texas 77471
Phone 281•633•7515 Fax 281•342•7366
E-mail: ndh@co.fort-bend.tx.us

FORT BEND COUNTY ENGINEERING
Louis E. Hood, P. E.
First Assistant County Engineer
P. O. Box 1449
1124 Blume Road
Rosenberg, Texas 77471
Phone 281•633•7510 Fax 281•342•7366
E-mail: leh@co.fort-bend.tx.us

Web site: www.fortbendcountygov.com

Design and develop traffic signal contract plans, proposal package, engineering documents, and related work necessary for new installation of electronic traffic signal control devices to be accomplished by contract bid letting. New traffic signal work typically includes installation of: signal support poles and/or pedestals, mast arm, traffic and pedestrian signals, and traffic signal controller. If it is determined during construction, the design is not constructible due to consultant design error; the signal design consultant will be responsible for correcting the design at no additional cost to County. If the constructability is based on changes made by the County, the consultant will be compensated.

The name and qualifications of the proposed Project Manager and Design Engineer must be submitted with the traffic signal design proposal.

CONSULTANT PAYMENT –Fixed Fee

Compensation for the Basic Services for this project shall be on a **fixed fee** basis. The proposal shall typically include an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee for each task listed.

All payment for services will be paid monthly based on the percentage of completion of each task.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 30 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to specific contract terms for payment will be contained in the Professional Services Agreement.

Only direct expenses listed, will be paid. All other expenses are considered part of the base fixed fee. Supporting documentation must be submitted with the billing for all eligible expenses on the project. Charges for this contract are those that are directly attributable to the activities of this project.

CONSULTANT RESPONSIBILITIES

A) Specific Responsibilities:

- 1) The Design Consultant shall arrange for a design kick-off meeting with, Fort Bend County Engineering & Road & Bridge to review the proposed signal design plans.

B) General Responsibilities:

- 1) Proposed plan views must have a 1"=30' scale when plotted to 11"x17".
- 2) Perform design service including the design and preparation of base plans, preliminary (75%) plans, final plans, specifications, wiring diagrams, interconnect drawings, bills of materials, measurement and payment items, and cost estimates for all construction work for this project, including necessary alterations to power, lighting, and interconnect facilities. Traffic signal work may include installation of: signal support poles and/or pedestals, mast arm, traffic and pedestrian signals, and traffic signal controller, traffic loops, handholes, wireless interconnect, and video detection.
- 3) Utility coordination for this project will be done by the Traffic Signal Design Engineer with assistance from the Fort Bend County Engineering Department. The consultant must incorporate both private and public utility information into the design plans (both existing and proposed plans). The consultant should anticipate attending utility coordination meetings as required (including on-site field meetings with the utility engineer and the affected utility companies in the area), and a plan review meeting. The consultant will provide meeting minutes of all meetings for matters pertaining to traffic signal design.
- 4) Perform Design Service for drilled shaft foundations, as required, including soil boring information, identification of any suspected contamination of the boring site, and preliminary foundation investigation. The following information must be provided for proper analysis of strain or cantilever pole foundations:
 - a) Accurate pole location information
 - b) Soil classification
 - c) Standard penetration values every 2.5 feet (750 mm) extending 20 feet (6.1 m) below the ground surface elevation (blows/foot in accordance with ASTM D1586).
 - d) Unconfined compressive shearing resistance (PSF, for cohesive soils)
 - e) Ground water table elevation
- 5) Perform strain pole or cantilever foundation design as required. A special foundation design may be necessary depending on site specific soil properties and proposed signal layout and geometry.
- 6) The Consultant shall contact the Fort Bend County Engineering Department before proceeding with any geotechnical work.

- 7) In the performance of design service, govern all project design and plan work by the applicable codes, standards, and practices of the Texas Department of Transportation, or other approved standards hereinafter referred to as the department, and the current *Texas Manual of Uniform Traffic Control Devices*.
- 8) All documents prepared by the Consultant, including, drawings, estimates, specifications, field notes, investigation studies, etc., are the property of the County.
- 9) All plan sheets shall be developed using computer-aided drafting technology. The system shall be AutoCad version 2004 or higher, or one that processes data exactly as AutoCad, no translations or system revisions being necessary by the FBCED.
- 10) Perform any design/coordination tasks with any railroad company involved within the project limits, including (but not limited to): (if applicable).
 - a) Determine railroad contact person(s)
 - b) Complete any applications required by the railroad company to perform the proposed traffic signal work.
 - c) Include related notes and special provisions as required in the proposal.
- 11) Any existing or proposed pedestrian pushbuttons and ramps must be accessible per ADA guidelines and TxDOT design practices including:
 - a) Pushbutton must be within 24" from edge of sidewalk
 - b) The pushbutton must be located in the middle of a 4' pushbutton landing (maximum slope of 2%).
 - c) ADA ramps are required at every crosswalk controlled by a pedestrian signal head.
 - d) A sidewalk is required to connect ADA ramps on a each quadrant.
- 12) Perform sidewalk and ramp survey and design if not included in scope of road project on an as needed basis to comply with TxDOT design practices and ADA requirements. For all stop and go traffic signals, all ADA ramps will be replaced unless the existing ramps are compliant with the County's design practices and ADA guidelines. For flashing signals, pedestrian ramps will not be replaced unless they are disturbed. (Refer to Surveying Scope of Work).
- 13) The ADA ramp survey data must be sufficient for ramp and pushbutton design including (but not limited to):
 - a) Relative elevations, including at least two horizontal and vertical control points for future layout control for construction staking
 - b) Curb (top back of curb) & gutter (at flow line and at edge) is to be collected through the curves with observations every 3 feet along the arc near existing or proposed ADA ramps. Outside existing or proposed ADA ramp areas, curb and gutter observations may be every 5 feet.

- c) Drainage structures (and any other public and/or private utility located in or adjacent to the curb and gutter) near existing or proposed ADA ramps must be located because they can affect ADA ramp design.
- d) If an ADA ramp exists, enough information must be collected to properly define the existing conditions.
- e) Both ends of existing sidewalk joints must be mapped to determine limits of sidewalk replacement during ADA ramp design.

Task 1: Base Plan Preparation

- 1) Design and develop contract base plans necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by contract bid letting. Base plans include (but are not limited to):
 - a) Existing road rights-of-way (ROW)
 - b) Field measured/surveyed road and lane geometry and posted speed limits
 - c) Field measured/surveyed locations of any visible utilities
 - d) Proposed types and locations of poles and controller
 - e) Proposed traffic and pedestrian signal head types and locations
 - f) Proposed pushbuttons, traffic loops, and antennas
 - g) Proposed traffic signal removal (if required) and installation plan(s)
 - h) Proposed phasing (as required)
 - i) Point of Contact Height (POCH) diagram for proposed attachments to wood poles (not required for steel pole attachments)
- 2) Where applicable, the intersection and ADA ramp survey will be used to develop base plans.
- 3) If existing or proposed pole locations appear to be outside existing right-of-way, contact Nathan D. Hatcher (281-633-7515), Fort Bend County Engineering.

Task 1: Deliverables (Base Plans)

- 1) All traffic signal plan and interconnect sheets (no details required) in the following formats:
 - a) Five 11x17 paper copy
 - b) One 11x17 pdf file
 - c) Distribute as follows:
 - FBC Engineering - Three (3) 11x17 paper copy and pdf file
 - FBC Road & Bridge - Two (2) 11x17 paper copy

Task 2: Utility Documentation

- 1) Show existing utility information (as provided by utility companies) on both removal and proposed signal plans.
- 2) Identify and inform the Fort Bend County Engineering Department of any utilities for which insufficient information was provided, and identify any utilities that may conflict with the proposed construction.

- 3) Attend utility coordination meeting(s) as required and document any additional utility information.

Task 3: Preliminary (75%) Plan Preparation

- 1) Design and develop preliminary (75%) contract plans necessary for new installation or modernization of electronic traffic control devices to be accomplished by contract bid letting. Preliminary (75%) plans include (in addition to base plan information):
 - (a) Location and types of utilities as provided by the utility companies and resulting from utility coordination meeting(s) as required.
 - (b) Separate Interconnect plan sheet (if the scope requires "Radio Interconnect Design")
 - (c) List of Materials and Quantities.
A minimum of at least (2) vendors with appropriate contact information is required if possible).
 - (d) Wiring diagram
 - (e) ADA ramp and pushbutton design (including existing and proposed elevations)
 - (f) Point of Contact Height (POCH) diagram(s)
 - (g) Appropriate note blocks for contact persons, etc.
 - (h) Proper file names, levels, and text sizes
 - (i) Any additional right-of-way required for existing and proposed traffic signal appurtenances
 - (j) Soil boring information including depths, soil description, water level, and depth of foundation (if required)
- 2) Attend plan review meeting at the Fort Bend County Engineering Department office.

Task 3: Deliverables Preliminary (75%) Plans

- 1) All traffic signal plan and interconnect sheets including details.
- 2) All required special provisions, notices to bidders, and specifications in a format including a draft progress clause, a draft coordination clause, and a draft special provision for maintaining traffic.
- 3) Checklist of "typical" signal details to be used
- 4) Format of Task 3 Deliverables
 - a) Five (5) 11x17 paper copies
 - b) One electronic 11x17 pdf file
 - c) One electronic bid quantities proposal form pdf file
- 5) Distribute Task 3 Deliverables as follows:
 - FBC Engineering - Three (3) 11x17 paper copy and pdf file
 - FBC Road & Bridge - Two (2) 11x17 paper copy
 - TxDot - One (1) 11 x 17 paper copy (if required)

Task 4: Utility Coordination

- 1) Actively work with FBCED personnel until utility conflicts are resolved. This includes, but is not limited to:
 - a) Staking proposed foundation locations in the field prior to the utility coordination field review
 - b) Documenting additional utility information on the plans
 - c) Revising plans to avoid utility conflicts

Task 5: Final Plan and Proposal Preparation

- 1) Incorporate the department's comments, (with returned check of list from 75% Preliminary Review Plans), of the plans and prepare complete detailed construction final plans, supplemental specifications, special provisions, measurement and payment items, estimates of quantities, span calculations, and engineer's final estimates of cost for all necessary construction and related work included in this project.
- 2) During preparation of the final plans, make such alterations, corrections, and revisions to said plans and supporting materials as are deemed necessary and desirable by the department to insure conformance of plans to good design and standard practices and to have said plans and other material in proper form for receiving bids.
- 3) During preparation of the proposal, work with the FDCED personnel to obtain final bid proposal documents including progress clause, coordination clause, special provision for maintaining traffic, and utility relocation status (form 2286).
- 4) Attend and provide electronic plans for any meetings. Make any final changes necessary.

Task 5: Deliverables (Final Plans)

- 1) Upon completion of design services for this project and final approval thereof by the department, deliver to the department final plans, proposal and supporting documents. All CAD files must be AutoCad 2004 or higher, and all PDF files must be Adobe Acrobat version 6.

Format of Task 5 Deliverables (Final Plans)

- 1) Five 11"x17" paper copies of the full plan set. The title sheets must have original stamps and signatures and include a map of the area with work locations identified, a list of locations, and other items as determined by FBCED.
- 2) Electronic files of all signal plans
- 3) Electronic (pdf) 11"x17" plan file (filename: Job#PLANHALF.pdf)
- 4) Electronic (pdf) proposal file (filename: Job#PROPOSAL.pdf)
- 5) Electronic (pdf) files of all required supporting documents

- 6) Editable electronic files of all supporting documents and of all files inserted into proposal document. For example, submit the progress clause as a word document in addition to the progress clause (pdf) which will also be inserted in the proposal pdf.
- 7) One set of estimates of cost of construction (8-1/2" x 11" paper copy).
- 8) One copy of all design computations as required for use by the Engineering Department.
- 9) Upon request by the department, make available thereto all notes utilized in preparation of the plans, supplemental specifications, and cost estimates.
- 10) Checklist of "typical" signal details to be used

Distribute Task 5 Deliverables

- FBC Engineering - Three (3) 11x17 paper copy and pdf file
- FBC Road & Bridge - Two (2) 11x17 paper copy

Task 6: Contract Phase

- 1) Assist the County in obtaining bids.
- 2) Attend pre-bid conferences and prepare addendum's, if needed.
- 3) Assist in the tabulation and analysis of bids and furnish recommendations on the award of the construction contract.

Task 7: Construction Phase

- 1) Attend and assist County in pre-construction conferences.
- 2) Make periodic visits to determine, in general, if the work is proceeding in accordance with the contract documents.
- 3) Review shop and working drawings, furnished by contractors, for compliance with design concepts and specifications and with the information given in the contract documents.
- 4) Review monthly and final estimates on forms provided by the County, for payments to the Contractor.
- 5) Assist in reviewing change order pricing and quantities.

COMPENSATION FOR THE BASIC SERVICES:

WORK TASK BASIC SERVICES	TASK COST	Percentage
TASK 1 - Base Plan Preparation & Deliverables	\$ 11,223.00	23.86%
TASK 2 - Utility Documentation & Coordination	\$ 5,875.50	12.49%
TASK 3 - Preliminary (75%) Plan Preparation & Deliverables	\$ 16,269.00	34.60%
TASK 4 - Final Plan Preparation & Deliverables	\$ 8,646.00	18.39%
TASK 5 - Contract Phase Services	\$ 1,422.00	3.02%
TASK 6 - Construction Phase Services	\$ 3,591.00	7.64%
TOTAL	\$ 47,026.50	100.00%
Reimbursables & Expenses	\$475.00	
TOTAL REIMBURSABLES & EXPENSES	\$475.00	
TOTAL ENGINEERING FEE	\$47,501.50	

**ADDITIONAL SCOPE OF SERVICES
FOR BASIC SERVICES****Additional Services**

The traffic signal design Engineer, upon prior written authorization from the County Engineer, shall furnish the following additional services, and the County shall compensate the Engineer therefore as set forth below:

1. Signal Timing Adjustments subsequent to initial timing @ Highland Knolls Drive/Greenway Village Drive & SH 99/Frontage Roads.
2. Traffic Circulation Improvement Investigation @ Cinco Ranch Road/Gaston Road.
3. Traffic Control Drawings for paving within each intersection.
4. Changes in the drawings and specifications requested by the County, which are outside the scope of the project.
5. A set of 3 mil mylar reproducible record drawings prepared and delivered to the County showing those changes made during the construction period based on change orders, marked up prints, drawings, and other data furnished by the Contractor to the Engineer, and which the Engineer considers significant. The Engineer will also furnish the County a copy of AutoCAD format graphic files of the record drawings when prepared through computer aided drafting and a laminated 11" x 17" sheet showing the "signal layout" as constructed. Also, one set of all drawings in AutoCAD Release 2004 (or higher) DWG or DXF format, CD-ROM media.

COMPENSATION FOR ADDITIONAL SERVICES:

WORK TASK ADDITIONAL SERVICES	TASK COST	Percentage
TASK 1 - Signal Synchronization @ Highland Knolls Drive/Greenway Village Drive & SH 99/Frontage Roads	\$ 3,015.00	20.80%
TASK 2 - Traffic Circulation Improvement Investigation @ Cinco Ranch Road/Gaston Road	\$ 2,943.00	20.30%
TASK 3 - Traffic Control Plans	\$ 5,382.00	37.14%
TASK 4 - Changes to Drawings and/or Specifications	\$ 3,153.00	21.76%
TOTAL	\$ 14,493.00	100.00%
Reimbursables & Expenses	\$100.00	
TOTAL REIMBURSABLES & EXPENSES	\$100.00	
TOTAL ENGINEERING FEE	\$14,593.00	

Any additional services, if required, will be compensated at the following rates:

Classification	Base Rate	Multiplier	Billing Hourly Rate
Project Manager	\$ 48.00	3	\$ 144.00
Design Engineer	\$ 35.00	3	\$ 105.00
CADD Technician	\$ 22.50	3	\$ 67.50
Clerical	\$ 15.00	3	\$ 45.00

Any additional Reimbursable Expenses:

Mileage @ .50 per mile

Printing 8.5 x 11 @ .10 sheet

Printing 11 x 17 @ .20 sheet

TRAFFIC SIGNAL BASIC GEOTECHNICAL SCOPE OF SERVICES

The Design Consultant and its designated geotechnical consultant will perform the geotechnical services at the following intersections in Fort Bend County, Texas. Fort Bend County approval is required for any outside consultant.

The scope of services will be as outlined in the following items:

SEE ATTACHED SCOPE OF SERVICES.

COMPENSATION FOR BASIC GEOTECHNICAL SERVICES:

WORK TASK	TASK COST
Geotechnical Investigation	\$3,750.00
TOTAL GEOTECHNICAL FEE	\$3,750.00

TRAFFIC SIGNAL BASIC SURVEYING SCOPE OF SERVICES

The Design Consultant and its designated surveying consultant will perform the surveying services at the following intersections in Fort Bend County, Texas. Fort Bend County approval is required for any outside consultant.

The scope of services will be as outlined in the following items:

1. Surveyor will perform a topographic survey of the intersections listed above. The survey limits will be within the right-of-way at 200 feet North, South, East and West from the intersection of the right-of-ways. The topographic survey will include the following items:
 - The Surveyor will locate right-of-way based on found monuments and record information.
 - The Surveyor will stake a baseline at 100-foot intervals.
 - The Surveyor will locate paving, pavement markings, traffic signals, visible utilities and record utilities, pipelines, fences, and signs indicating type and size.
 - Provide elevations based on an assumed benchmark along curb returns and sidewalks at quadrants of the intersection. Provide elevations along medians located at the intersection.
 - The Surveyor will provide black line copies of plan view drawings at a scale of one inch to twenty feet on a 24 by 36-inch sheet size, half scale drawings on an 11 by 17 inch sheet size and a digital data file in AutoCAD 2004 or higher.
- 2) Perform sidewalk and ramp survey and design if not included in scope of road project on an as needed basis to comply with TxDOT design practices and ADA requirements. For all stop and go traffic signals, all ADA ramps will be replaced unless the existing ramps are compliant with the County's design practices and ADA guidelines. For flashing signals, pedestrian ramps will not be replaced unless they are disturbed. (Refer to Surveying Scope of Work).
- 3) The ADA ramp survey data must be sufficient for ramp and pushbutton design including (but not limited to):
 - a) Relative elevations, including at least two horizontal and vertical control points for future layout control for construction staking
 - b) Curb (top back of curb) & gutter (at flow line and at edge) is to be collected through the curves with observations every 3 feet along the arc near existing or proposed ADA ramps. Outside existing or proposed ADA ramp areas, curb and gutter observations may be every 5 feet.

- c) Drainage structures (and any other utility located in or adjacent to the curb and gutter) near existing or proposed ADA ramps must be located because they can affect ADA ramp design.
- d) If an ADA ramp exists, enough information must be collected to properly define the existing conditions.
- e) Both ends of existing sidewalk joints must be mapped to determine limits of sidewalk replacement during ADA ramp design.

COMPENSATION FOR BASIC SURVEYING SERVICES:

WORK TASK	TASK COST	Percentage
TASK 1 - Establish Horiz. & Vert. Control	\$1,164.39	6.64%
TASK 2 - Utility Research	\$2,491.95	14.20%
TASK 3 - Determine Street ROW Lines	\$3,073.17	17.51%
TASK 4 - Locate Improvements, Utilities, trees, etc	\$10,818.78	61.65%
TOTAL HOURS -	\$17,548.13	100.00%
Reimbursables & Expenses	\$300.00	
TOTAL REIMBURSABLES & EXPENSES	\$300.00	
TOTAL SURVEY FEE	\$17,848.13	

SUMMARY OF COMPENSATION:

Task Description	TOTAL COST
Traffic Signalization Design	\$ 47,026.50
Geotechnical Design	\$ 3,750.00
Survey Design	\$ 17,548.13
<i>TOTAL LABOR COSTS BASIC SERVICES</i>	\$ 68,324.63
Traffic Signalization Design	\$ 475.00
Survey Design	\$ 300.00
<i>TOTAL DIRECT EXPENSES BASIC SERVICES</i>	\$ 775.00
TOTAL BASIC COMPENSATION - Engineering & Survey	\$ 69,099.63
Traffic Signalization Design - <i>ADDITIONAL SERVICES</i>	\$ 14,493.00
<i>TOTAL LABOR ADDITIONAL SERVICES</i>	\$ 14,493.00
Traffic Signalization Design - <i>ADDITIONAL SERVICES</i>	\$ 100.00
<i>TOTAL DIRECT EXPENSES ADDITIONAL SERVICES</i>	\$ 100.00
TOTAL ADDITIONAL SERVICES	\$ 14,593.00
GRAND TOTAL	\$ 83,692.63

FORT BEND COUNTY ENGINEERING RESPONSIBILITIES

County Review:

The Fort Bend County Engineering Department will review and comment on the base plan, the preliminary (75%) plan, and the Final (100%) plan submittals. Additional plan review may be required dependent on completeness and accuracy of the plans submitted. FBCED may also receive comments from TxDot when applicable.

Information services to be provided by the Fort Bend County are:

- Appropriate Traffic and Safety Notes
- Available plans and/or layout drawings for each location
- Available traffic counts and turning movement counts
- Available soil boring information will be provided

Reference Documents and Standards to be Used:

National Manual of Uniform Traffic Control Devices

Texas Manual of Uniform Traffic Control Devices (TMUTCD)

Texas Vehicle Code

Local and national electrical codes

Texas Department of Transportation "Standard Specifications for Construction and Maintenance of Highways, Street and Bridges".

PROJECT COORDINATION

Coordinate design service with Fort Bend County Engineering and Fort Bend County Road & Bridge, overhead and/or underground utility/telephone companies.

PROJECT SCHEDULE

Prepare and submit to the FBCED a schedule for each task and total calendar days for completing the project. The work shall be completed commencing from the date of work authorization to the Consultant. The time allocated for any necessary utility coordination meeting, soil boring investigations, and the department review shall be shown in the Consultant's work schedule.

ATTACHMENT B-1

**WORK AUTHORIZATION NO. _____
AGREEMENT FOR ENGINEERING SERVICES**

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section XIV of Professional Engineering Services Agreement entered into by and between Fort Bend County, and TERRA Associates, Inc. (the Engineer), on the ____ day of _____, ____.

PART I. The Engineer will perform engineering services generally described as _____ in accordance with the project description attached hereto and made a part of this Work Authorization. The Engineer's Scope of Work, Labor Estimate, and Schedule are further detailed in Exhibits A, and B, respectively, which are attached hereto and made a part of the Work Authorization.

PART II. The maximum amount payable under this Work Authorization is \$ _____. This amount is based upon fees set forth in Attachment A-1, Scope of Work and Basic Fee Calculations for Traffic Signal Design, of the Agreement and the Engineer's estimated Work Authorization costs included in Exhibit B, Labor Estimate, which is attached and made a part of this Work Authorization.

PART III. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Section II of the Agreement.

PART IV. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate on _____, unless extended by a supplemental Work Authorization as provided in the Agreement.

PART V. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

IN WITNESS WHEREOF, this Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

FORT BEND COUNTY, TEXAS

(Signature)
LYLE HENKEL

(Printed Name)
PRESIDENT

(Title)
AUG. 18, 2010

(Date)

(Signature)

(Printed Name)

(Title)

(Date)

ATTACHMENT B-2

**SUPPLEMENTAL WORK AUTHORIZATION NO. _____
AGREEMENT FOR ENGINEERING SERVICES**

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of hereinafter identified as the "Agreement," entered into by and between Fort Bend County, and TERRA Associates, Inc. (the Engineer).

The following terms and conditions of Work Authorization No. _____ are hereby amended as follows:

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. _____ not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Supplemental Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

FORT BEND COUNTY, TEXAS

(Signature)

(Printed Name)

(Title)

(Date)

(Signature)

(Printed Name)

(Title)

(Date)

- Perform Texas Cone Penetrometer (TCP) testing at 5 foot intervals within the borings. We will collect geotechnical soil samples between the TCP test depths. Samples will be taken using conventional split-spoon and/or thin-wall tube sampling techniques for laboratory testing and analysis.
- Perform laboratory testing that will generally consist of moisture content, grain-size (sieve) analyses, and Atterberg limits.
- Prepare a geotechnical report to include logs of the exploratory borings and results of the laboratory testing. The report will include a cover letter sealed by a Professional Engineer licensed in the State of Texas. The report will include the following:
 - Description of work scope, laboratory, and field procedures;
 - Subsurface soil, rock (if encountered), and groundwater conditions;
 - Maps and boring plans;
 - Excavation characteristics of on-site soils;
 - Earthwork issues;
 - Potential for re-use of on-site soils;
 - Suitable foundation types;
 - Boring logs including laboratory test results.

FEE ESTIMATE

We propose to perform the work scope described above for a lump sum fee of \$3,750 (Three Thousand Seven Hundred Fifty Dollars). Any additional services, not included in the aforementioned scope, will be charged on a time-and-materials basis in accordance with our current Schedule of Fees.

ASSUMPTIONS

We have made the following assumptions in the preparation of this proposal:

- The site is accessible to normal, two-wheel drive, truck-mounted drilling equipment, and site access will be granted.
- The work can be accomplished using hollow-stem augers operating at a normal rate of penetration.


- Groundwater will not be encountered.
- If auger refusal or groundwater is encountered we will terminate the drilling and notify your office.
- The boreholes can be backfilled with the drilling spoils.
- Some ground disturbance should be expected as a result of our field work.
- Minor traffic control measures will be needed for this project (i.e. cones and signage).
- Ninyo & Moore will not be needed to obtain any permits or environmental clearance as a part of this project.
- The ground surface elevations at the boring locations will be estimated from topographic information received from your office.

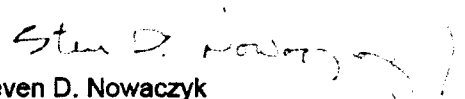
SCHEDULING

We are prepared to initiate this project immediately upon receiving your authorization to proceed. We anticipate issuing a report within about three weeks from the date of authorization. Preliminary recommendations can be provided about one week after the fieldwork is done.

If this proposal meets with your approval, please provide an engagement letter, purchase order, or other convenient authorization vehicle. We appreciate the opportunity to submit this proposal and look forward to working with you on this project.

Sincerely,
NINYO & MOORE


Jay T. Sunderwala, P.E.
Principal Engineer


Steven D. Nowaczyk
Principal

JTS/SDN/tns

Distribution: (1) Addressee (via e-mail)