

STATE OF TEXAS           §  
                                      §  
 COUNTY OF FORT BEND §

**PROFESSIONAL ENGINEERING SERVICES AGREEMENT  
 BRIDGE REPLACEMENT - KROESCHE ROAD & BUSHNELL 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 AIA ENGINEERS, LTD., (hereinafter referred to as "Engineer,") authorized to conduct business in the State of Texas.

**WITNESSETH**

WHEREAS, County proposes to replace existing bridges on Kroesche Road and Bushnell Road; the Kroesche Road bridge will be multi-span, 2-lane concrete bridge consisting of approach slabs, roadway sections, asphalt transition, and possible relocation of existing outfalls and the Bushnell Road bridge will be a concrete box culvert and approach roadway work, both bridges 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 Attachments A-1, A-2, A2-1, A2-2, A2-3, A2-4, A2-5, and as provided for in executed Work Authorization, a sample of which is attached as Attachment B-1.
- 1.02 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.
- 1.03 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.

- 1.04 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.
- 1.05 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's 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 \$104,787.00, 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 its 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) and 9.01(D). 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:

AIA Engineers, LTD.  
Attn: Steve Lewis  
15310 Park Row  
Houston, TX 77084  
281-493-4140x255

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

D. Jesse Hegemier  
County Engineer  
1124-52 Blume Road  
Rosenberg, Texas 77471

- 12.03 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.
- 14.03 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.
- 14.04 The maximum time is the time needed to complete all Work Authorizations that will be issued.
- 14.05 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, Basis of Fee Calculation.
- 14.06 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.
- 14.07 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, Basis of Fee Calculation; (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.
- 14.08 County will not pay any items of cost that are not included in an executed Work Authorization.
- 14.09 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.
- 14.10 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.
- 14.11 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.
- 14.12 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.
- 14.13 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.
- 14.14 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.

- 14.15 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.
- 14.16 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 \$104,787.00, 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 \$104,787.00 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 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.
- 20.04 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.
- 20.05 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 for Engineering Design Services
Attachment A-2	Basis of Fee Calculations
Attachment A2-1	Labor Rates
Attachment A2-2	Fee Schedule
Attachment A2-3	Survey Fee Schedule
Attachment A2-3	Geotechnical Fee Schedule
Attachment A2-5	Environmental Fee Schedule
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.

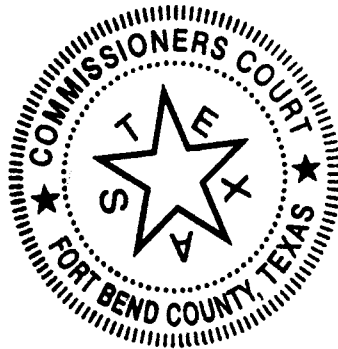
FORT BEND COUNTY:

  
Robert E. Hebert, County Judge

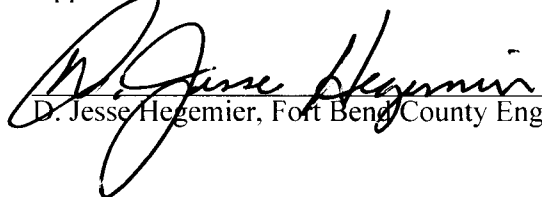
May 10, 2011  
Date

Attest:


  
Dianne Wilson, County Clerk



Approved: COUNTY PROJECT MANAGER

  
D. Jesse Hegemier, Fort Bend County Engineer

ENGINEER: AIA ENGINEERS, LTD

  
Signature

April 12, 2011  
Date

Ashraf Islam, P.E.  
Printed Name

Principal  
Title

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$104,787.00 to accomplish and pay the obligation of the Fort Bend County under this contract.

  
Ed Sturdivant, Fort Bend County Auditor

## **ATTACHMENT "A-1"**

### **PROPOSED SCOPE OF WORK FOR ENGINEERING DESIGN SERVICES KROESCHE ROAD OVER COON CREEK BUSHNELL ROAD OVER DRAINAGE DITCH**

The following outlines the scope of services, compensation, and the time frame proposed for the project.

#### **PROJECT OBJECTIVE**

Fort Bend County desires to have preliminary, design and construction phase engineering services to construct a new replacement bridges on Kroesche Road and Bushnell Road. The Kroesche Road bridge will be a multi-span, 2-lane concrete bridge consisting of approach slabs, roadway sections, asphalt transition, and possible relocation of existing outfalls. The Bushnell Road bridge will be a concrete box culvert and approach roadway work.

#### **SCOPE OF SERVICES**

##### **BASIC DESIGN SERVICES**

The scope of service to include preliminary engineering, final design, contract phase services, and all coordination with Fort Bend County Drainage District and Engineering Department Engineers.

##### **A. PRELIMINARY PHASE**

After written authorization by the County Engineer to proceed with the Preliminary Phase, the Engineer shall:

1. Attend preliminary conferences with the County Engineer and regulatory agencies as required to establish the design parameters of the Project.
2. Submit a preliminary bridge layout prepared in accordance with ASSHTO Guidelines and as directed by the County Engineer.
3. Prepare and submit the County three (3) copies of the preliminary bridge layout for comments and approval.
4. Prepare an opinion of probable construction cost of proposed construction.
5. Prepare a minimum of two design options (if feasible).

##### **B. DESIGN PHASE**

After prior written authorization by the County Engineer to proceed with the Design Phase, the Engineer shall:

1. On the basis of the accepted preliminary design and the updated opinion of probable construction cost, prepare final construction drawings and specifications for construction authorized by the County. Construction Drawings shall be prepared in accordance with AASHTO Guidelines.
2. Furnish to the County three (3) sets of construction Drawings for review purposes when 30% , 90%, and 100% complete.
3. Prepare construction specifications and Bid Documents for the construction authorized by the County.
4. Prepare a bidder's proposal form and a revised opinion of probable construction costs for the construction authorized by the County.

5. Furnish the County with a set of reproducible record drawings, and also one set of all drawings in AutoCad 2004 (or higher), DWG or DXF, or PDF format, on CD-Rom media, flash drive, or email.
6. Prepare and furnish the County with a copy of the construction specifications and all bidding documents, suitable for reproduction.
7. Attend pre-bid conferences and respond to all contractor questions/comments in written format.
8. Provide approach roadway and storm sewer interception structure drawings.

**C. CONTRACT PHASE**

The Engineer shall:

1. Assist the County in obtaining bids.
2. Assist the tabulation and analysis of bids and furnish recommendations on the award of the construction contract.

**D. CONSTRUCTION PHASE**

The Engineer shall:

1. Attend and assist County in pre-construction conferences.
2. Provide three (3) on call field inspections for each bridge as required by the County.
3. Review proposed substitutions that may result in a cost savings to the County.
4. Review and approve selected project submittals.
5. Conduct a final inspection for each bridge and issue a punch list of deficiencies that shall be corrected by the contractor and issue a letter of completion.

**E. ADDITIONAL SERVICES THAT MAY BE REQUIRED**

1. Traffic control.
2. Storm water pollution prevention plan.
3. Hydraulic or scour analysis.
4. Extensive roadway reconstruction plans.
5. Right-of-way drawings.
6. Demolition plans.
7. Channel improvements beyond what is within road right-of-way.
8. Topographic survey and Right-of-way limits research.
9. Soil boring logs and geotechnical report indicating slope, stability of banks, and pile capacity curves.
10. Setting profile grade elevations. Approach roadway alignments, drainage, approach rails.
11. Appropriate permanent signing, striping, and traffic control plans.
12. Hydrologic/hydraulic study and data, if required.
13. Existing high water elevations and studies, if any.
14. Research possible utility conflicts.

### **SECTION III**

#### **SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER OR SUBCONTRACTOR**

- A. Environmental.
- B. Geotechnical.
- C. Survey.
- D. Right-of-way.

- E. Traffic Control.
- F. SW3P.

#### **SECTION IV**

##### **TIME FOR PERFORMANCES**

Engineer agrees to prosecute the work to be performed hereunder diligently and to complete the project design within (120) days from the date of execution of this agreement. Upon written request of the Engineer, the County may grant time extensions to the extent of any delay caused by the County or other agencies with whom the work must be coordinated and over whom the Engineer has no control.

**Attachment "A-2"**  
**BASIS OF FEE CALCULATIONS**

**KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK**  
**BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH**

**BASIC FEE:**

Preliminary (40%)      Design (40%)              Contract (5%)              Construction (15%)

Level of effort fee (does not include Traffic Control or SWPPP):

1. Kroesche Road Bridge - \$31,457
2. Bushnell Road Bridge - \$ 12,235

TOTAL                      \$43,692

Preliminary Phase 40% =      \$ 17,477

Design Phase 40% =              \$ 17,477

Contract Phase 5% =              \$ 2,184

Construction Phase 15% =      \$ 6,554

**ADDITIONAL SERVICES AND CHARGES:**

The Engineer, upon prior written authorization from the County, shall furnish the following additional services, and the County shall compensate the Engineer as set forth below. Subcontract Expense is that incurred by the Engineer in employment of outside firms for services such as surveying, soil borings and tests, aerial photography, construction of physical models, environmental and similar services and shall incur a 10% markup for management of subconsultant.

<u>SERVICES</u>	<u>BASIS OF COMPENSATION</u>
A. Topographic survey (Civil Corp) 1. Kroesche Road - \$8,500 2. Bushnell Road - \$8,000	Lump sum amount of \$18,150. (includes 10% markup for management of subconsultant)
B. Geotechnical Services (Tolunay-Wong) 1. Kroesche Road - \$11,900.31 2. Bushnell Road - \$7,914.02	Lump sum amount of \$21,795 (includes 10% markup for management of subconsultant)
C. Environmental Services (Berg Oliver Associates, Inc.)	Lump sum amount of \$4,400 (includes 10% markup for management of subconsultant)
D. SWPPP 1. \$1,500 per bridge	Lump sum amount of \$3,000
F. Traffic Control Plan	Lump sum amount of \$3,000

1. Kroesche Road - \$1,000 2. Bushnell Road - \$2,000	
F. Special Services – Prepare ROW acquisition support documents (Civil Corp)	Lump sum amount of \$2,750 (includes 10% markup for management of subconsultant)
G. Prepare "record drawings" utilizing red lined drawings provided by the contractor of significant changes made in the Work during the construction of the Project. 1. \$2,000 per bridge	Hourly as shown on Exhibit B, not to exceed \$4,000.
H. Changes in the scope or work outside the scope of services requested by the County. 1. \$2,000 per bridge	If changes are due to error or omission of Engineer, no additional compensation. Otherwise, Direct Labor for services performed by the Engineer's employees and sub-consultant's employees (estimated \$4,000)
<b>TOTAL ADDITIONAL SERVICES</b>	<b>\$61,095</b>

**TOTAL FEE FOR PROJECT:**

Basic Fee                   \$ 43,692

Additional Services   \$ 61,095

Total Fee               \$ 104,787

Attachments: A-2-1 Labor Rates  
A-2-2 Engineering Fee Schedule  
A-2-3 Survey Services Fee Schedule  
A-2-4 Geotechnical Fee Schedule  
A-2-5 Environmental Fee Schedule

**Attachment "A2-1"**  
**LABOR RATES**

**KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK**  
**BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH**

**AIA 2011 RATE SCHEDULE**

**Labor:**

<b><u>Classification</u></b>	<b><u>Direct Cost</u></b>
Project Manager	\$ <u>170.00</u>
Senior Engineer	\$ <u>148.00</u>
Project Engineer	\$ <u>133.00</u>
Engineering Technician	\$ <u>93.00</u>
Cadd Operator	\$ <u>78.00</u>
Clerical	\$ <u>65.00</u>

**Attachment "A2-2"**  
**ENGINEERING FEE SCHEDULE**

**1.0 KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK**

TASK DESCRIPTION	PROJECT MANAGER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEERING TECHNICIAN	CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>BRIDGE DESIGN</b>									
BRIDGE LAYOUT	4	12	10	8	12		46	1	46
FOUNDATION LAYOUT	2	4	8	8	8		30	1	30
ABUTMENT DETAILS	2	6	8	8	16		40	2	20
INTERIOR BENT DETAILS	2	6	8	8	8		32	1	32
FRAMING PLAN	2	4	8	8	8		30	1	30
SLAB PLAN AND SECTIONS	2	4	8	8	8		30	1	30
BRIDGE STANDARDS		1	4		6		11	6	2
<b>ROADWAY &amp; DRAINAGE DESIGN</b>									
ROADWAY LAYOUT	4	8	8	8	12		40	1	40
ROADWAY & DRAINAGE STANDARDS		1	2		2		5	2	3
<b>MANAGING CONTRACTED PER SERVICES</b>									
PROJECT MANAGEMENT & COORDINATION	8						8	N/A	N/A
HOURS SUB-TOTALS	26	46	64	56	80	0	272	16	
RATE PER HOUR	\$170.00	\$148.00	\$133.00	\$93.00	\$78.00	\$65.00			
TOTAL LABOR COSTS	\$4,420.00	\$6,808.00	\$8,512.00	\$5,208.00	\$6,240.00	\$0.00	\$31,188.00		
% DISTRIBUTION OF STAFFING	9.56%	16.91%	23.53%	20.59%	29.41%	0.00%			
<b>SUBTOTAL</b>							<b>\$31,188.00</b>		

OTHER DIRECT EXPENSES	# OF UNITS	COST/UNIT					
Mileage (# of miles) (current state rate)	50	\$0.510					\$25.50
Courier Services	3	\$25.00					\$75.00
Photocopies 11 x 17	500	\$0.20					\$100.00
Mylar (11 x17)	16	\$4.00					\$64.00
CD Archive	1	\$5.00					\$5.00
							\$0.00
<b>SUBTOTAL DIRECT EXPENSES</b>							<b>\$269.50</b>

<b>SUMMARY</b>	
TOTAL COSTS FOR AIA ONLY	\$31,188.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR AIA ONLY	\$269.50
<b>GRAND TOTAL</b>	<b>\$31,457.50</b>

## ENGINEERING FEE SCHEDULE

### 2.0 BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH

TASK DESCRIPTION	PROJECT MANAGER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEERING TECHNICIAN	CADD OPERATOR	CLERICAL	TOTAL LABOR HRS. & COSTS	NO OF DWGS	LABOR HRS PER SHEET
<b>BRIDGE DESIGN</b>									
BRIDGE LAYOUT (BOX CULVERT)	4	12	10	8	12		46	1	46
BRIDGE STANDARDS		1	3		5		9	5	2
<b>ROADWAY &amp; DRAINAGE DESIGN</b>									
ROADWAY LAYOUT	4	8	8	8	8		36	1	36
ROADWAY & DRAINAGE STANDARDS		1	1		1		3	1	3
<b>MANAGING SERVICES</b>									
PROJECT MANAGEMENT & COORDINATION	6						6	N/A	N/A
HOURS SUB-TOTALS	14	22	22	16	26	0	100	8	
RATE PER HOUR	\$170.00	\$148.00	\$133.00	\$93.00	\$78.00	\$65.00			
TOTAL LABOR COSTS	\$2,380.00	\$3,256.00	\$2,926.00	\$1,488.00	\$2,028.00	\$0.00	\$12,078.00		
% DISTRIBUTION OF STAFFING	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
<b>SUBTOTAL</b>							<b>\$12,078.00</b>		

OTHER DIRECT EXPENSES	# OF UNITS	COST/UNIT					
Mileage (# of miles) (current state rate)	50	\$0.510					\$25.50
Courier Services	3	\$25.00					\$75.00
Photocopies 11 x 17	100	\$0.20					\$20.00
Mylar (11 x17)	8	\$4.00					\$32.00
CD Archive	1	\$5.00					\$5.00
							\$0.00
							\$0.00
<b>SUBTOTAL DIRECT EXPENSES</b>							<b>\$157.50</b>

SUMMARY	
TOTAL COSTS FOR AIA ONLY	\$12,078.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR AIA ONLY	\$157.50
<b>GRAND TOTAL</b>	<b>\$12,235.50</b>

**Attachment "A2-3"**  
**SURVEY SERVICES FEE SCHEDULE**

**KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK**  
**BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH**

CivilCorp, LLC shall provide Professional Surveying Services for the above referenced project. The limits of the survey shall be as follows:

1. Kroesche Road – survey 200’ on each approach roadway and 100’ upstream and downstream on the channel.
2. Bushnell Road – survey 150’ of roadway and 100’ of channel. The upstream channel includes ditches to the NE and NW of bridge.

**1.0 SCOPE OF SERVICES**

- A. Right-of-Way Services
1. Establish right-of-way lines of Kroesche Road & Bushnell Road and set iron rods at the limits of the project (two rods per right-of-way line).
  2. Merge established right-of-way lines with mapping for design surveys.
- B. Design Survey Services
1. Establish vertical control for project.
  2. Provide existing bridge details
  3. Establish a base line for Kroesche Road & Bushnell Road based on centerline of existing right of way.
  4. Provide existing cross-sections along Coon Creek & Drainage Ditch and existing channel as requested.
  5. Provide final topographic/design mapping of all field data captured.

**2.0 COST**

CivilCorp, LLC shall provide Surveying Services described for the lump sum amount of:

3. Kroesche Road Bridge - \$8,500.00
4. Bushnell Road Bridge - \$8,000.00

**TOTAL FEE =      \$ 16,500**

### 3.0 SPECIAL SERVICES

The Scope of Services does not include Special Services as defined below:

1. Prepare right-of-way acquisition support documents. Documents include plat and field notes for one (1) parcel southeast of the bridge on Kroesche Road at Coon Creek to facilitate a proposed sidewalk.

With authorization, a budget in the amount of **\$2,500** for Kroesche Road plats and field notes is established for this agreement and will not be exceeded without prior authorization by the Client. Fort Bend County would provide the title commitment documents for this work.

**Attachment “A2-4”  
GEOTECHNICAL FEE SCHEDULE**

**KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK  
BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH**

**1.0 INTRODUCTION**

Tolunay-Wong Engineers, Inc. is pleased to submit this proposal to conduct a geotechnical investigation for the above referenced project. The bridge replacement is located on Kroesche Road over Coon Creek & Bushnell Road over Drainage Ditch in Fort Bend County, Texas. Geotechnical Services shall include the following:

**2.0 SCOPE OF SERVICES**

**A. Field Exploration**

We propose the following boring program. The borings will be drilled in general accordance with the criteria set forth by TxDOT.

1. Kroesche Road over Coon Creek – Two (2) borings at 65 foot each for a total of 130 foot.
2. Bushnell Road over Drainage Ditch – Two (2) borings at 20 foot each for a total of 40 foot.

We will obtain soil samples continually to the 20-ft depth and two samples per 5-ft interval thereafter from 20-ft depth to the boring scheduled termination depth. We will sample cohesive subsurface soils with a 3-in. diameter, thin-walled tube (ASTM D 1587). We will perform THD Cone Penetrometer Test (Tex-132) at every 5-ft interval. We will transport representative portions of the recovered samples to our soil mechanics laboratory for testing. Each boring will be grouted to full depth after obtaining final water level measurements.

Water level measurements will be obtained at least 24 hours after complete of drilling in the open boreholes.

Our field exploration assumes that the existing subsurface soils are not contaminated with any hazardous materials. Environmental procedures may be necessary if contaminated soils are encountered and is not within the scope of this study.

**B. Laboratory Testing**

We will perform soil mechanics laboratory tests to measure physical and engineering properties of selected representative soil samples.

**C. Engineering Analyses**

We will prepare an engineering report that will present our findings and provide geotechnical design construction recommendations for the project, including:

- Soil stratigraphy;
- Groundwater conditions;
- Soil classification in accordance with the United Soil Classification (USC) & TxDOT systems;
- Boring logs will include surveyed station, offset, and elevation data;
- Bridge foundation design using TxDOT design criteria;
- Lateral load response analyses for bridge foundations;
- Box culvert foundation design recommendations;
- Slope stability analyses for the bridge embankments and slopes adjacent to the proposed box culverts.

### **3.0 COST AND SCHEDULE**

We estimate that the fieldwork will be completed in three to four working days. The geotechnical report will be issued within thirty working days after the fieldwork.

Tolunay-Wong Engineers, Inc. shall provide Geotechnical Services described for the lump sum amount of:

1. Kroesche Road Bridge - \$11,900.31
2. Bushnell Road Bridge - \$7,914.02

**TOTAL FEE =      \$ 19,814.33**

**Attachment “A2-5”  
ENVIRONMENTAL FEE SCHEDULE**

**KROESCHE ROAD BRIDGE BRIDGE OVER COON CREEK  
BUSHNELL ROAD BRIDGE BRIDGE OVER DRAINAGE DITCH**

**1.0 INTRODUCTION**

Berg-Oliver Associates is pleased to submit this proposal to conduct a environmental services for the above referenced project. The bridge replacement is located on Kroesche Road over Coon Creek in Fort Bend County, Texas. Environmental Services shall include the following:

**2.0 SCOPE OF SERVICES**

- A. Wetland Delineation – The objective of the Delineation is to evaluate any portion of the site to be classified as a “Jurisdictional Water of the United States” as defined in 33 CFR 328 and subject to U.S. Army Corps of Engineers (USACE) jurisdiction.
- B. Threatened and Endangered Species Assessment – The objective of the Threatened and Endangered Species Assessment is to evaluate the potential for the existence of critical or irreplaceable habitats, which are considered protected under the Endangered Species Act of 1973 and subsequent amendments and listing.
- C. Archeological Records Review – The objective of the Historical, Cultural, and Archeological Records Review is to:
  - 3. Review related historical information, including Texas Historical Commission’s (THC) records; and
  - 4. Based on the review of the THC’s records and property characteristics, determine if the subject tract possesses sufficient criteria to necessitate a detailed study that would evaluate the potential for sites of significant historical, cultural, or archeological public value on the subject property.

**3.0 COST AND SCHEDULE**

The environmental work described in the SCOPE OF SERVICES will be performed for a lump sum fee of **\$ 3,995.00.**

**ATTACHMENT B**  
**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 \_\_\_\_\_  
AIA Engineers, Ltd. \_\_\_\_\_ (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, B and C, 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, Basis of Fee Calculation, 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)  
\_\_\_\_\_  
(Printed Name)  
\_\_\_\_\_  
(Title)  
\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature)  
\_\_\_\_\_  
(Printed Name)  
\_\_\_\_\_  
(Title)  
\_\_\_\_\_  
(Date)

**LIST OF EXHIBITS**

Exhibit A	Scope of Work
Exhibit B	Labor Estimate
Exhibit C	Schedule

**ATTACHMENT B**  
**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 AIA Engineers, Ltd. (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)  
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(Printed Name)  
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