This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

## STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

Prepared by

#### ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

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This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 Edition) of the Engineers Joint Contract Documents Committee. Their provisions are interrelated, and a change in one may necessitate a change in the other. For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition). For guidance on the completion and use of this Agreement, see EJCDC Users Guide, No. 1910-50.

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## STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

THIS IS AN	AGREEMENT effective as of,	_("Effective Date") between
	The City of Killeen, Texas	("OWNER")
and	Mitchell & Associates, Inc.	("ENGINEER").
OWNER intends to	provide surveying and engineering to develop PS&E for the extens	ion of Rosewood Drive to
Chaparral Drive. The	improvements include pavement, sidewalk, drainage, and a bridge of	crossing of Trimmier Creek.
("Project).		
OWNER and ENGINE	FR in consideration of their mutual covenants as set forth herein agre	e as follows:

#### ARTICLE 1 - SERVICES OF ENGINEER

## 1.01 Scope

- A. ENGINEER shall provide the Basic and Additional Services set forth herein and in Exhibit A.
- B. Upon this Agreement becoming effective, ENGINEER is authorized to begin Basic Services as set forth in Exhibit A.
- C. If authorized by OWNER, ENGINEER shall furnish Resident Project Representative(s) with duties, responsibilities and limitations of authority as set forth in Exhibit D.

#### **ARTICLE 2 - OWNER'S RESPONSIBILITIES**

#### 2.01 General

A. OWNER shall have the responsibilities set forth herein and in Exhibit B.

#### **ARTICLE 3 - TIMES FOR RENDERING SERVICES**

## 3.01 General

- A. ENGINEER's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion. Unless specific periods of time or specific dates for providing services are specified in this Agreement, ENGINEER's obligation to render services hereunder will be for a period which may reasonably be required for the completion of said services.
- B. If in this Agreement specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided, and if such periods of time or dates are changed through no fault of ENGINEER, the rates and amounts of compensation provided for herein shall be subject to equitable adjustment. If OWNER has requested changes in the scope, extent, or character of the Project, the time of performance of ENGINEER's services shall be adjusted equitably.
- C. For purposes of this Agreement the term "day" means a calendar day of 24 hours.

## 3.02 Suspension

- A. If OWNER fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, or if ENGINEER's services are delayed through no fault of ENGINEER, ENGINEER may, after giving seven days written notice to OWNER, suspend services under this Agreement.
- B. If ENGINEER's services are delayed or suspended in whole or in part by OWNER, or if ENGINEER's services are extended by Contractor's actions or inactions for more than 90 days through no fault of ENGINEER, ENGINEER shall be entitled to equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect, reasonable costs incurred by ENGINEER in connection with, among other things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

#### **ARTICLE 4 - PAYMENTS TO ENGINEER**

# 4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER

- A. For Basic Services. OWNER shall pay ENGINEER for Basic Services performed or furnished under Exhibit A, Part 1, as set forth in Exhibit C.
- B. For Additional Services. OWNER shall pay ENGINEER for Additional Services performed or furnished under Exhibit A, Part 2, as set forth in Exhibit C.
- C. For Reimbursable Expenses. In addition to payments provided for in paragraphs 4.01.A and 4.01.B, OWNER shall pay ENGINEER for Reimbursable Expenses incurred by ENGINEER and ENGINEER's Consultants as set forth in Exhibit C.

## 4.02 Other Provisions Concerning Payments

- A. Preparation of Invoices. Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to OWNER by ENGINEER, unless otherwise agreed. The amount billed in each invoice will be calculated as set forth in Exhibit C.
- B. Payment of Invoices. Invoices are due and payable within 30 days of receipt. If OWNER fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefor, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In

addition, ENGINEER may, after giving seven days written notice to OWNER, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.

C. Disputed Invoices. In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.

#### D. Payments Upon Termination.

- 1. In the event of any termination under paragraph 6.06, ENGINEER will be entitled to invoice OWNER and will be paid in accordance with Exhibit C for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination.
- 2. In the event of termination by OWNER for convenience or by ENGINEER for cause, ENGINEER, in addition to invoicing for those items identified in subparagraph 4.02.D.1, shall be entitled to invoice OWNER and shall be paid a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with ENGINEER's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C. Engineer shall not incur additional expenses after receipt of notice of termination, and shall make reasonable efforts to minimize costs.
- E. Records of ENGINEER's Costs. Records of ENGINEER's costs pertinent to ENGINEER's compensation under this Agreement shall be kept in accordance with generally accepted accounting practices. To the extent necessary to verify ENGINEER's charges and upon OWNER's timely request, copies of such records will be made available to OWNER at cost.
- F. Legislative Actions. In the event of legislative actions after the Effective Date of the Agreement by any level of government that impose taxes, fees, or costs on ENGINEER's services or other costs in connection with this Project or compensation therefor, such new taxes, fees, or costs shall be invoiced to and paid by OWNER as a Reimbursable Expense to which a Factor of 1.0 shall be applied. Should such taxes, fees, or costs be imposed, they shall be in addition to ENGINEER's estimated total compensation.

## **ARTICLE 5 - OPINIONS OF COST**

## 5.01 Opinions of Probable Construction Cost

A. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If OWNER wishes greater assurance as to probable Construction Cost, OWNER shall employ an independent cost estimator as provided in Exhibit B.

#### 5.02 Designing to Construction Cost Limit

A. If a Construction Cost limit is established between OWNER and ENGINEER, such Construction Cost limit and a statement of ENGINEER's rights and responsibilities with respect thereto will be specifically set forth in Exhibit F, "Construction Cost Limit," to this Agreement.

## 5.03 Opinions of Total Project Costs

A. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.

## **ARTICLE 6 - GENERAL CONSIDERATIONS**

#### 6.01 Standards of Performance

- A. The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.
- B. ENGINEER shall be responsible for the technical accuracy of its services and documents resulting therefrom, and OWNER shall not be responsible for discovering deficiencies therein. ENGINEER shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in OWNER-furnished information.

- C. ENGINEER shall perform or furnish professional engineering and related services in all phases of the Project to which this Agreement applies. ENGINEER shall serve as OWNER's prime professional for the Project. ENGINEER may employ such ENGINEER's Consultants as ENGINEER deems necessary to assist in the performance or furnishing of the services. ENGINEER shall not be required to employ any ENGINEER's Consultant unacceptable to ENGINEER.
- D. ENGINEER and OWNER shall comply with applicable Laws or Regulations and OWNER-mandated standards. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to OWNER's responsibilities or to ENGINEER's scope of services, times of performance, or compensation.
- E. OWNER shall be responsible for, and ENGINEER may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by OWNER to ENGINEER pursuant to this Agreement. ENGINEER may use such requirements, reports, data, and information in performing or furnishing services under this Agreement.
- F. OWNER shall make decisions and carry out its other responsibilities in a timely manner and shall bear all costs incident thereto so as not to delay the services of ENGINEER.
- G. Prior to the commencement of the Construction Phase, OWNER shall notify ENGINEER of any variations from the language indicated in Exhibit E, "Notice of Acceptability of Work," or of any other notice or certification that ENGINEER will be requested to provide to OWNER or third parties in connection with the Project. OWNER and ENGINEER shall reach agreement on the terms of any such requested notice or certification, and OWNER shall authorize such Additional Services as are necessary to enable ENGINEER to provide the notices or certifications requested.
- H. ENGINEER shall not be required to sign any documents, no matter by whom requested, that would result in the ENGINEER's having to certify, guarantee or warrant the existence of conditions whose existence the ENGINEER cannot ascertain. OWNER agrees not to make resolution of any dispute with the ENGINEER or payment of any amount due to the ENGINEER in any way contingent upon the ENGINEER's signing any such certification.

- I. During the Construction Phase, ENGINEER shall not supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.
- J. ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.
- K. ENGINEER shall not be responsible for the acts or omissions of any Contractor(s), subcontractor or supplier, or of any of the Contractor's agents or employees or any other persons (except ENGINEER's own employees) at the Site or otherwise furnishing or performing any of the Contractor's work; or for any decision made on interpretations or clarifications of the Contract Documents given by OWNER without consultation and advice of ENGINEER.
- L. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (Document No. 1910-8, 1996 Edition) unless both parties mutually agree to use other General Conditions as specifically referenced in Exhibit H.

## 6.02 Authorized Project Representatives

A. Contemporaneous with the execution of this Agreement, ENGINEER and OWNER shall designate specific individuals to act as ENGINEER's and OWNER's representatives with respect to the services to be performed or furnished by ENGINEER and responsibilities of OWNER under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

## 6.03 Design without Construction Phase Services

A. Should OWNER provide Construction Phase services with either OWNER's representatives or a third party, ENGINEER's Basic Services under this Agreement will be considered to be completed upon completion of the Final Design Phase or Bidding or Negotiating Phase as outlined in Exhibit A.

B. It is understood and agreed that if ENGINEER's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, and that such services will be provided by OWNER, then OWNER assumes all responsibility for interpretation of the Contract Documents and for construction observation or review and waives any claims against the ENGINEER that may be in any way connected thereto.

#### 6.04 Use of Documents

- A. All Documents are instruments of service in respect to this Project, and ENGINEER shall retain an ownership and property interest therein (including the right of reuse at the discretion of the ENGINEER) whether or not the Project is completed.
- B. Copies of OWNER-furnished data that may be relied upon by ENGINEER are limited to the printed copies (also known as hard copies) that are delivered to the ENGINEER pursuant to Exhibit B. Files in electronic media format of text, data, graphics, or of other types that are furnished by OWNER to ENGINEER are only for convenience of ENGINEER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- C. Copies of Documents that may be relied upon by OWNER are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to OWNER are only for convenience of OWNER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- D. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by OWNER.
- E. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Project.

- F. OWNER may make and retain copies of Documents for information and reference in connection with use on the Project by OWNER. Such Documents are not intended or represented to be suitable for reuse by OWNER or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at OWNER's sole risk and without liability or legal exposure to ENGINEER or to ENGINEER's Consultants. OWNER shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.
- G. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- H. Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle ENGINEER to further compensation at rates to be agreed upon by OWNER and ENGINEER.

#### 6.05 Insurance

- A. ENGINEER shall procure and maintain insurance as set forth in Exhibit G, "Insurance."
- B. OWNER shall procure and maintain insurance as set forth in Exhibit G, "Insurance." OWNER shall cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by OWNER which are applicable to the Project.
- C. OWNER shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project
- D. OWNER and ENGINEER shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of ENGINEER's services and at renewals thereafter during the life of the Agreement.
- E. All policies of property insurance shall contain provisions to the effect that ENGINEER's and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder.

F. At any time, OWNER may request that ENGINEER, at OWNER's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by OWNER, with the concurrence of ENGINEER, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by OWNER, and Exhibit G will be supplemented to incorporate these requirements.

#### 6.06 Termination

A. The obligation to provide further services under this Agreement may be terminated:

#### 1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

## b. By ENGINEER:

- 1) upon seven days written notice if ENGINEER believes that ENGINEER is being requested by OWNER to furnish or perform services contrary to ENGINEER's responsibilities as a licensed professional; or
- 2) upon seven days written notice if the ENGINEER's services for the Project are delayed or suspended for more than 90 days for reasons beyond ENGINEER's control.
- 3) ENGINEER shall have no liability to OWNER on account of such termination.
- c. Notwithstanding the foregoing, this Agreement will not terminate as a result of such substantial failure if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

#### 2. For convenience,

- a. By OWNER effective upon the receipt of notice by ENGINEER.
- B. The terminating party under paragraphs 6.06.A.1 or 6.06.A.2 may set the effective date of termination at a time up to 30 days later than otherwise provided to allow ENGINEER to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

#### 6.07 Controlling Law

A. This Agreement is to be governed by the law of the state of Texas and venue shall be in Bell County.

## 6.08 Successors, Assigns, and Beneficiaries

- A. OWNER and ENGINEER each is hereby bound and the partners, successors, executors, administrators and legal representatives of OWNER and ENGINEER (and to the extent permitted by paragraph 6.08.B the assigns of OWNER and ENGINEER) are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.
- B. Neither OWNER nor ENGINEER may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:
  - 1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by OWNER or ENGINEER to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.
  - 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and

exclusive benefit of OWNER and ENGINEER and not for the benefit of any other party. The OWNER agrees that the substance of the provisions of this paragraph 6.08.C shall appear in the Contract Documents.

#### 6.09 Hazardous Environmental Condition

- A. OWNER represents to Engineer that to the best of its knowledge a Hazardous Environmental Condition does not exist.
- B. OWNER has disclosed to the best of its knowledge to ENGINEER the existence of all Asbestos, PCB's, Petroleum, Hazardous Waste, or Radioactive Material located at or near the Site, including type, quantity and location.
- C. If a Hazardous Environmental Condition is encountered or alleged, ENGINEER shall have the obligation to notify OWNER and, to the extent of applicable Laws and Regulations, appropriate governmental officials.
- D. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Environmental Condition. In the event ENGINEER or any other party encounters a Hazardous Environmental Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (ii) warrants that the Site is in full compliance with applicable Laws and Regulations.
- E. OWNER acknowledges that ENGINEER is performing professional services for OWNER and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the Site in connection with ENGINEER's activities under this Agreement.
- F. If ENGINEER's services under this Agreement cannot be performed because of a Hazardous Environmental Condition, the existence of the condition shall justify ENGINEER's terminating this Agreement for cause on 30 days notice.

## 6.10 Allocation of Risks

#### A. Indemnification

- 1. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless OWNER, OWNER's officers, directors, partners, and employees from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER's officers. directors. partners, employees, ENGINEER's Consultants in the performance and furnishing of ENGINEER's services under this Agreement.
- 2. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, ENGINEER's officers, directors, partners, employees, and ENGINEER's Consultants from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of OWNER or OWNER's officers, directors, partners, employees, and OWNER's consultants with respect to this Agreement or the Project.
- 3. In addition to the indemnity provided under paragraph 6.10.A.2 of this Agreement, and to the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER and its officers, directors, partners, employees, ENGINEER's Consultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from a Hazardous Environmental Condition, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph 6.10.A.4. shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.
- 4. The indemnification provision of paragraph 6.10.A.1 is subject to and limited by the provisions agreed to by OWNER and ENGINEER in Exhibit I, "Allocation of Risks," if any.

#### 6.11 Notices

A. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

#### 6.12 Survival

A. All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.

## 6.13 Severability

A. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

#### 6.14 Waiver

A. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

#### 6.15 Headings

A. The headings used in this Agreement are for general reference only and do not have special significance.

#### **ARTICLE 7 - DEFINITIONS**

## 7.01 Defined Terms

- A. Wherever used in this Agreement (including the Exhibits hereto) and printed with initial or all capital letters, the terms listed below have the meanings indicated, which are applicable to both the singular and plural thereof:
  - 1. Addenda--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Documents.

- 2. Additional Services—The services to be performed for or furnished to OWNER by ENGINEER in accordance with Exhibit A, Part 2 of this Agreement.
- 3. Agreement--This "Standard Form of Agreement between OWNER and ENGINEER for Professional Services," including those Exhibits listed in Article 8 hereof.
- 4. Application for Payment--The form acceptable to ENGINEER which is to be used by Contractor in requesting progress or final payments for the completion of its Work and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
- 5. Asbestos--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
- 6. Basic Services—The services to be performed for or furnished to OWNER by ENGINEER in accordance with Exhibit A, Part 1, of this Agreement.
- 7. Bid--The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- 8. Bidding Documents--The advertisement or invitation to Bid, instructions to bidders, the Bid form and attachments, the Bid bond, if any, the proposed Contract Documents, and all Addenda, if any.
- 9. Change Order--A document recommended by ENGINEER, which is signed by Contractor and OWNER to authorize an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Construction Agreement.
- 10. Construction Agreement--The written instrument which is evidence of the agreement, contained in the Contract Documents, between OWNER and Contractor covering the Work.
- 11. Construction Contract--The entire and integrated written agreement between the OWNER and Contractor concerning the Work.
- 12. Construction Cost—The cost to OWNER of those portions of the entire Project designed or specified by ENGINEER. Construction Cost does not include costs of services of ENGINEER or other

- design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or OWNER's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to OWNER pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.
- 13. Contract Documents--Documents that establish the rights and obligations of the parties engaged in construction and include the Construction Agreement between OWNER and Contractor, Addenda (which pertain to the Contract Documents), Contractor's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the notice of award) when attached as an exhibit to the Construction Agreement, the notice to proceed, the bonds, appropriate certifications, the General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Construction Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Construction Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- 14. Contract Price--The moneys payable by OWNER to Contractor for completion of the Work in accordance with the Contract Documents and as stated in the Construction Agreement.
- 15. Contract Times--The numbers of days or the dates stated in the Construction Agreement to: (i) achieve Substantial Completion, and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.
- 16. *Contractor*—An individual or entity with whom OWNER enters into a Construction Agreement.
- 17. Correction Period--The time after Substantial Completion during which Contractor must correct, at no cost to OWNER, any Defective Work, normally one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee or specific provision of the Contract Documents.

- 18. Defective--An adjective which, when modifying the word Work, refers to Work that is unsatisfactory, faulty, or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment.
- 19. Documents--Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by ENGINEER to OWNER pursuant to this Agreement.
- 20. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.
- 21. Effective Date of the Construction Agreement—The date indicated in the Construction Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Construction Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 22. Effective Date of the Agreement--The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 23. ENGINEER's Consultants--Individuals or entities having a contract with ENGINEER to furnish services with respect to this Project as ENGINEER's independent professional associates, consultants, subcontractors, or vendors. The term ENGINEER includes ENGINEER's Consultants.
- 24. Field Order--A written order issued by ENGINEER which directs minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- 25. General Conditions-That part of the Contract Documents which sets forth terms, conditions, and procedures that govern the Work to be performed or furnished by Contractor with respect to the Project.
- 26. Hazardous Environmental Condition--The presence at the Site of Asbestos, PCB's, Petroleum, Hazardous Waste, or Radioactive Materials in such quantities or circumstances that may present a

substantial danger to persons or property exposed thereto in connection with the Work.

- 27. Hazardous Waste--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 28. Laws and Regulations; Laws or Regulations-Any and all applicable laws, rules, regulations, ordinances, codes, standards, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
  - 29. PCB's--Polychlorinated biphenyls.
- 30. Petroleum-Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
- 31. Radioactive Materials--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- 32. Record Drawings--The Drawings as issued for construction on which the ENGINEER, upon completion of the Work, has shown changes due to Addenda or Change Orders and other information which ENGINEER considers significant based on record documents furnished by Contractor to ENGINEER and which were annotated by Contractor to show changes made during construction.
- 33. Reimbursable Expenses--The expenses incurred directly by ENGINEER in connection with the performing or furnishing of Basic and Additional Services for the Project for which OWNER shall pay ENGINEER as indicated in Exhibit C.
- 34. Resident Project Representative--The authorized representative of ENGINEER, if any, assigned to assist ENGINEER at the Site during the Construction Phase. The Resident Project Representative will be ENGINEER's agent or employee and under ENGINEER's supervision. As used herein, the term Resident Project Representative includes any assistants of Resident Project Representative agreed to by OWNER. The duties and responsibilities of the Resident Project Representative are as set forth in Exhibit D.

- 35. Samples--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 36. Shop Drawings--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to ENGINEER to illustrate some portion of the Work.
- 37. Site--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for use of Contractor.
- 38. Specifications--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.
- 39. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 40. Supplementary Conditions--That part of the Contract Documents which amends or supplements the General Conditions.
- 41. Total Project Costs--The sum of the Construction Cost, allowances for contingencies, the total costs of services of ENGINEER or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or OWNER's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to OWNER pursuant to Exhibit B of this Agreement.
- 42. Work--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents with respect to this Project. Work includes and is the result of performing or

furnishing labor, services, and documentation necessary to produce such construction and furnishing, installing, and incorporating all materials and all equipment into such construction, all as required by the Contract Documents.

- 43. Work Change Directive--A written directive to Contractor issued on or after the Effective Date of the Construction Agreement and signed by OWNER upon recommendation of the ENGINEER, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.
- 44. Written Amendment--A written amendment of the Contract Documents signed by OWNER and Contractor on or after the Effective Date of the Construction Agreement and normally dealing with the non-engineering or non-technical rather than strictly construction-related aspects of the Contract Documents.

# ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

#### 8.01 Exhibits Included

- A. Exhibit A, "ENGINEER's Services" consisting of 15 pages.
- B. Exhibit B, "OWNER's Responsibilities," consisting of 3 pages.
- C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 1 page.
- D. Exhibit D, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of 4 pages.
- E. Exhibit E, "Notice of Acceptability of Work," consisting of 2 pages.
- F. Exhibit F, "Construction Cost Limit," consisting of 1 page.
  - G. Exhibit G, "Insurance," consisting of 1 page.

H. Exhibit H, "Special Provisions," consisting of 3 pages.

#### 8.02 Total Agreement

A. This Agreement (consisting of pages 1 to 12 inclusive, together with the Exhibits identified above) constitutes the entire agreement between OWNER and ENGINEER and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER: CITY OF KILLEEN	ENGINEER: MITCHELL & ASSOCIATES, INC
By: Dr. Lillian Anne Farris	By: Mike W. Kriegel, P. E., R.P.L.S.
Title: Interim City Manager	Title: Vice President
Date Signed:	Date Signed: 8-23-1C
Address for giving notices:	Address for giving notices:
P.O. Box 1329	102 N. College
Killeen, TX 76540-1329	P.O. Box 1088
	Killeen, Texas 76541
Designated Representative (paragraph 6.02.A):	Designated Representative (paragraph 6.02.A):
David Olson, P.E.	Ben Wilson, EIT
Title: Director of Transportation	Title: Project Manager
Phone Number: 254-616-3180	Phone Number: 254-634-5541
Facsimile Number: 254-616-3182	Facsimile Number: 254-634-2141
E-Mail Address: dolson@killeentexas.gov	E-Mail Address: bwilson@mitchellinc.net

		part of the Agreement between for Professional Services dated	OWNER and ENGINEER
			Initial: OWNER ENGINEER
ENGINEER's Services			
	nent is amended and supp Basic and Additional Service	plemented to include the following	g agreement of the parties.
PART 1 BASIC SERVI	CES		
A1.01 Study and Report	Phase - NOT APPLICAL	BLE	
A. ENGINEER shall:			
1. Consult with	OWNER to define and clar	rify OWNER's requirements for the I	Project and available data.
	nich are not part of ENGIN	COWNER's providing data or serving terms of the services, and assist OV	- 1
the portions		rements of governmental authorities l specified by ENGINEER, including lassessment.	• • • • • • • • • • • • • • • • • • • •
with OWN		alternate solutions available to OW NER those solutions which in El	
conceptual dinvolved, an Report will be recommende will be separ the estimated basis of info	lesign criteria with appropri- id those alternate solutions be accompanied by ENGINI and for the Project with each rately itemized: opinion of I total costs of design, profe	n will, as appropriate, contain sche ate exhibits to indicate the agreed to available to OWNER which ENG EER's opinion of Total Project Costs a component separately itemized, in probable Construction Cost, allowaressional, and related services provide NER, allowances for other items and	requirements, considerations GINEER recommends. This for each solution which is so cluding the following, which is for contingencies and for d by ENGINEER and, on the
6. Perform or p	rovide the following addition	onal Study and Report Phase tasks or	<del>deliverables:</del>
7. Furnishservices and	review copies of the review it with OWNER.	Report to OWNER within da	ys of authorization to begin
	copies of the revised Report	NER's and other parties' comments t to the OWNER within days aft	
	rvices under the Study and revised Report have been o	Report Phase will be considered ed delivered to OWNER.	omplete on the date when the

## A1.02 Preliminary Design Phase

- 1. Consult with OWNER to define and clarify OWNER's requirements for the Project and available data.
- Advise OWNER as to the necessity of OWNER's providing data or services of the types described in Exhibit B which are not part of ENGINEER's Basic Services, and assist OWNER in obtaining such data and services.
- 3. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by ENGINEER
- 4. Provide the necessary research and field surveys to accurately locate the existing Right of Way, and perform topographic and utility mapping adequate for performance of schematic design for the project. Utility mapping will be based upon information obtained from utility owners.
- 5. Work collaboratively with the Owner to Identify and evaluate alternate solutions available to OWNER and, after consultation with OWNER, recommend to OWNER those solutions which in ENGINEER's judgment meet OWNER's requirements for the Project, as described below:
  - a. Provide preliminary design of Rosewood Drive based on the Owner's preliminary alignment as shown in the attached Exhibit H.
  - b. Provide preliminary hydraulic and hydrologic (H & H) design / revised FEMA model as shown in Item 9 below.
  - c. Provide preliminary bridge layout based on the H & H design.
- 6. Upon approval of the schematic concept collaboratively developed and prior to completion of the Preliminary Design Phase the Engineer shall be authorized to begin Final Design of the Project.
- 7. Complete topographic and utility mapping surveys adequate to complete final design of the project.
- 8. Based on the information contained in the Preliminary Design Phase documents, submit a revised opinion of probable Construction Cost and any adjustments to Total Project Costs known to ENGINEER.
- 9. Perform or provide the following additional Preliminary Design Phase tasks or deliverables:

## Hydrology and Hydraulics Study:

- A. Hydrology and Hydraulic Studies Report
  - 1. Data Collection
    - a. ENGINEER will verify that the FEMA Effective Model and work maps, obtained in 2013, have not been updated and are appropriate for final design. If updated data is available ENGINEER will obtain from FEMA. FEMA usually takes 2 to 6 weeks to supply the models and work maps.
    - b. We anticipate some field surveys will be necessary for determination of the impacts to the existing floodplain.
    - c. A site visit will be made to verify / determine hydrologic and hydraulic conditions and parameters to allow for updating the hydraulic parameters of the effective model.
    - d. OWNER specific requirements will be coordinated.
    - e. ENGINEER will provide record drawings, based on as-built information provided by the Contractor, of the completed project certified by a Registered Professional Engineer for use in LOMR submittals.
    - f. OWNER will provide Compaction Certification of all fill placed in the FEMA Effective floodplain. This certification must show the fill was compacted to a minimum of 95%

## Standard Proctor Dry Density.

## 2. Hydrologic Analyses

- a. Analyses will use the effective hydrologic models obtained from FEMA.
- b. Determine ultimate land use conditions in the watershed by obtaining zoning and land use plans from the OWNER. If zoning or land use maps are unavailable, we will conduct one meeting with the OWNER planning department to document and prepare ultimate land use assumptions for the watersheds.
- c. Update the effective model curve numbers and impervious cover percentages based on ultimate land use assumptions.
- d. Develop the ultimate conditions hydrologic model for describing the expected storm run- off through the study limits.
- e. Proposed bridge design will be based on the ultimate land use floodplain elevation plus OWNER required freeboard.
- f. Approved hydrology completed in previous FEMA models will be used without alteration for any existing land use model comparisons.

#### 3. Corrective Effective Model

- a. Run effective floodplain and floodway models on in-house computer to duplicate results published in the FIS.
- b. Evaluate the model for errors within the project limits. These errors will be corrected if possible and the resulting corrected effective floodplain and floodway models will be compared to the FIS to insure the project models tie into the effective models.
- c. Add sections to FEMA model to adequately describe the existing topography of the study area including new sections that will be needed to evaluate the impact of a new bridge.
- d. Based on the above data, validate the corrective effective models and include: water Surface Profile Plots; Cross Section Plots; Floodplain Delineation; HEC-RAS Computer Models for the existing and ultimate land use assumptions.

## 4. Proposed Condition Hydraulic Analyses

- a. Modify the corrective effective model to include proposed changes to cross-sections and the proposed bridge to develop a proposed hydraulic model of the revised conditions through the site.
- b. Develop a proposed condition analysis and compare the results to the existing condition and ultimate condition flood levels and velocities to determine if there are any increases in 100-year flood levels or erosive velocities.
- c. Where 100-year flood levels increase or where erosive conditions existing coordinate with the OWNER and community to determine if these conditions are acceptable.
- d. Based on the above data complete: Water Surface Profile Plots; Cross Section Plots; Floodplain Delineation; Computer printouts of hydraulic models for the existing land use and ultimate land use conditions.
- e. Based on the results of preliminary bridge design, ENGINEER will develop proposed channel modifications to meet the goals for floodplain reclamation and/or reshaping.

Since it is possible to develop many designs that accomplish the same purpose we have included developing one design in the proposal.

## 5. Hydrology and Hydraulic Studies Final Report

ENGINEER will develop proposed channel modifications to meet the goals for floodplain reclamation and/or reshaping. Since it is possible to develop many designs that accomplish the same purpose we have included developing one design in the proposal. (It is understood that the ENGINEER will NOT prepare a submittal request to FEMA in support of a Conditional Letter of Map Revision (CLOMR) for approval of the design, but will be the responsibility of the City).

#### a. Revised Proposed Condition Hydraulic Analyses

- Modify the proposed conditions hydraulic model to include proposed changes to cross-sections within the study area to achieve floodplain reclamation or reshaping goals developed earlier.
- 2. Develop a revised proposed condition analysis and compare the results to the existing condition and ultimate condition flood levels and velocities to determine if there are any increases in 100-year flood levels or erosive velocities.
- Where 100-year flood levels increase or where erosive conditions exist coordinate with the CITY and community to determine if these conditions re acceptable.
- 4. Based on the above data complete: Water Surface Profile Plots; Cross Section Plots; Floodplain Delineation; Computer printouts of hydraulic models for the existing land use and ultimate land use conditions.

## b. Report Preparation

1. Prepare three (3) copies of the report explaining the methodologies and results of the study and containing appropriate charts, graphs, plots, exhibits and printouts to describe the study.

#### c. Coordination

 Provide necessary coordination with the OWNER to provide technical information in support of the report. Individual notification of impacted property owners is beyond the scope of the basic services. OWNER will coordinate and handle any CLOMR / LOMR revisions with FEMA and pay submittal and review costs directly.

## **Geotechnical Investigations**

- A. Select the specific boring locations and provide to OWNER to mark locations. ENGINEER will then locate underground utilities using the Texas811 system.
- B. Subcontract with a geotechnical engineering firm to investigate the subsurface soil, rock and groundwater conditions along the proposed alignment by drilling test borings utilizing truck-mounted drilling equipment. It is anticipated that the subcontractor will drill a total of 3 borings to a depth of 50 feet for the bridge, and drill 4 additional borings of up to 15 feet along the roadway.

The subcontractor will complete the test borings utilizing air-rotary drilling methods due to subsurface lithologies anticipated to exist along the proposed alignment (Walnut Formation). During the test boring drilling operations, soil and rock samples will be obtained at 2-foot intervals to a depth of approximately 10-feet, and at approximately 5-foot intervals thereafter, or until competent limestone rock materials are encountered. Competent limestone samples will be

recovered utilizing rock-coring drilling methods. Texas Cone Penetration (TCP) tests will be performed at approximately 5-foot intervals within the test borings drilled for the proposed bridge crossing Trimmier Creek, in accordance with TxDOT Item 132-E.

The subcontractor will also measure the in-place strength properties of the subgrade soils by performing Dynamic Cone Penetrometer (DCP) tests at two (2) selected boring locations within the proposed roadway extension alignment. Additionally, a bulk sample of the subgrade soil from two (2) boring locations will be obtained in order to perform moisture/density and California Bearing Ratio (CBR) testing in the laboratory, as well as lime series curves and sulfate determinations.

Laboratory Testing Services - The laboratory-testing program may consist of the following:

- Visual soil classification (ASTM D2487) (all samples)
- Water content (ASTM D2216) (all samples)
- Atterberg limits (ASTM D4318) (3 per 15-foot test boring, 5 per 50-foot test boring)
- Percent finer than #200 sieve test (ASTM D1140) (3 per 15-foot test boring, 5 per 50-foot test boring)
- Unconfined compressive strength tests of cohesive soil (ASTM D2166) (as rock-core sample quality allows)
- Unconfined compressive strength tests of intact rock core specimens (ASTM D7012) (as rock-core sample quality allows)
- Laboratory California bearing ratio test (CBR) (ASTM D1883) (2 bulk samples)
- Standard Proctor test (ASTM D698) (2 bulk samples)
- Lime series test (TxDOT Method 121-E) (2 bulk samples)
- Sulfate content determination test (TxDOT Method 620-J) (2 bulk samples)
- pH test (EPA Methods 9045D) (2 bulk samples)

The phases of the laboratory-testing program will be performed in general accordance with applicable ASTM Specifications and will be performed at ambient room temperature and atmospheric pressure. All field and laboratory test results will be included on the boring logs or in the completed geotechnical engineering report.

<u>Geotechnical Engineering Services</u> - In addition to the field and laboratory testing, a geotechnical engineering report will be prepared and reviewed by a Professional Engineer licensed in the State of Texas. The geotechnical report will include the following:

- Subsurface soil, rock, and groundwater conditions encountered at the test boring locations
- A discussion of local geology based on a review of the Geologic Atlas of Texas
- DCP results and in-place CBR values
- · Analytical test results
- Compressive strength of in-tact rock core specimens
- Rock Quality Designation (RQD) and rock competency of in-tact rock core specimens
- Existing pavement constituent thicknesses for the paved section of Rosewood Drive
- Pavement design recommendations for the proposed Rosewood Drive Extension
- Roadway embankment recommendations
- Drilled pier foundation and site preparation recommendations for the proposed bridge structure
- Subgrade compaction and stabilization recommendations
- Fill materials, utility trench backfill placement, and compaction recommendations
- · General excavation considerations
- General discussion of expected construction related issues
- Boring location plan
- · Logs of Boring with soil key for symbols used

## Environmental Evaluation

The scope outlined below assumes that there is no major opposition in the permitting process and that there are no unusual permitting problems. If opposition develops or permitting problems occur, the scope and fee limit will be revised and submitted to OWNER for approval. The scope of work does not include studies, reports, permit applications, etc. for electrical power line or other utility easements.

#### A. Site Visit

Prior to making a field visit, ENGINEER will obtain information for the vicinity such as
soils maps, National Wetland Inventory maps, topographic maps, floodplain maps, and
other readily available, pertinent data. This information will be evaluated to guide the field
survey described below. ENGINEER's scientists will conduct a pedestrian survey of the
proposed area of work associated with the Rosewood Bridge at Trimmier Creek to identify
environmental issues and document baseline conditions, including delineation of wetlands
and identification of waters of the U.S.

#### B. Section 404 Permitting

1. Waters of the U. S. are regulated by the USACE and require a permit for activities conducted within the jurisdictional boundaries. The presence of jurisdictional waters such as ephemeral, intermittent, or perennial streams; wetlands; or other open waters will be documented and mapped. ENGINEER will prepare a technical memorandum that will include a description of field observations described above; an opinion of whether or not jurisdictional waters are present, and if so, the type(s) of waters; an estimate of the area of impact to waters of the U.S.; and a discussion of potential USACE 404 permit options. If a Letter of Map Revision (LOMR) or Conditional Letter of Map Revision (CLOMR) is necessitated by FEMA then coordination with U.S. Fish and Wildlife Services (USFWS) is required.

## C. Threatened and Endangered Species

Threatened and Endangered Species. Conduct reconnaissance-level field surveys within
the area of the proposed pipeline corridor to identify potential habitat and document any
threatened or endangered (T&E) species encountered. Emphasis will be on federally listed
species, but the Texas Parks and Wildlife Department T&E species database will be
reviewed and documented. The results of the T&E species review will be documented in a
site visit memorandum.

#### D. Texas Antiquities Code Compliance

- 1. The Antiquities Code of Texas was passed in 1969. It requires that the Texas Historical Commission staff review any action that has the potential to disturb historic and archeological sites on public land.
- Additional actions that need review under the Antiquities Code of Texas include any construction program that takes place on land owned or controlled by a state agency or a state political subdivision, such as a city or a county.

## 3. Projects that *require review* include:

- a. Reservoirs constructed by river authorities and water districts;
- b. Construction of recreational parks or the expansion of existing facilitates by city governments;
- c. Energy exploration by private companies on public land; and
- d. Construction by a city or county government that exceeds 5 acres or 5,000 cubic yards,

- whichever comes first. If the activity occurs inside a designated historic district or affects a recorded archeological site, it needs to be reviewed, regardless of project size.
- 4. If there is a requirement for a Section 404 permit, compliance with the conditions of the National Historic Preservation Act is required. No activity which may affect historic properties listed or eligible for listing in the National Register of Historic Places can be authorized until the USACE District Engineer has complied with the provisions of 33 CFR part 325, Appendix C.
- 5. ENGINEER will provide coordination with Texas Historic Commission (THC) to determine if additional site investigation is required. Subsequent activities, potentially including shovel test and/or backhoe trenching, may require the services of a qualified archeologist, as an additional service.
- E. Texas Parks and Wildlife Aquatic Resource Relocation Plans
  - 1. ENGINEER will provide coordination with Texas Parks and Wildlife and provide a relocation plan for fish in the Trimmier Creek that could be impacted by the construction. Implementation of the plan and relocation of fish will be conducted by the City of Killeen. The plan will cover the following items:
    - Exact location.
    - · Purpose of the activity.
    - Notification in advance to develop plan.
    - Method of collecting and moving the aquatic life.
    - Types and sizes of containers to be used.
    - Transportation methods and destination.
    - Documentation and disposal of dead and non-native fishes.
    - The best management practices (BMPs).
    - Estimation of the time expected to complete the fish and mussel removal operation.
    - Identify any state or federally threatened or endangered species that may occur.
    - Identify all freshwater mussels that may become stranded due to the operation. Explain what methods will be used to protect the mussels.
- 10. Furnish the Preliminary Design Phase documents to and review them with OWNER.
- 11. Submit to OWNER one final copy of the Preliminary Design Phase documents (Schematic, H & H, Preliminary Bridge Layout, and Geotechnical Only; Environmental tasks are excluded from this date as coordination efforts can last several months) and revised opinion of probable Construction Cost within 150 (one-hundred, fifty) days after authorization to proceed with this project.
- B. ENGINEER's services under the Preliminary Design Phase will be considered complete on the date when final copies of the Preliminary Design Phase documents have been delivered to OWNER.

## A1.03 Final Design Phase

- A. After authorization by the Owner to begin Final Design and in keeping with the Preliminary Design Phase documents and revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, but subject to any OWNER-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from OWNER, ENGINEER shall:
  - On the basis of the above acceptance, direction, and authorization, prepare final Drawings indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. Specifications will be prepared, utilizing TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2004 Edition for all roadway materials and activities. For other materials and activities specifications shall be in general conformance with the City of Killeen Transportation Details and Specifications.

- 2. Provide technical criteria, written descriptions, and design data for OWNER's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project and assist OWNER in consultations with appropriate authorities.
- Advise OWNER of any adjustments to the opinion of probable Construction Cost and any adjustments to Total Project Costs known to ENGINEER.
- 4. Perform or provide the following additional Final Design Phase tasks or deliverables:
  - a. The Engineer will prepare all necessary drawings required to issue a bid set for construction. Drawings will be prepared for reproduction on 11"x17" plan sheets.
  - b. Coordination and Submittals The Engineer will coordinate all permits with the City of Killeen. Submission of the final plans to the City of Killeen will include bid specifications (2 copies), opinion of engineer's opinion of probable cost,; and, if applicable, a coordination letter and registration number assigned with the Texas Department of Licensing and Regulation (TDLR) for ADA compliance.
  - c. The general conditions for the bid documents will be the City of Killeen Standard General Conditions for Construction Contracts.
- 5. Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors, and assist Owner in the preparation of other related documents within 150 (One-Hundred, fifty) calendar days of authorization to proceed with this project, and review them with Owner. Within 15 days of receipt, Owner shall submit to Engineer any comments and, subject to the provisions of Paragraph 6.01.G, instructions for revisions.
- 6. Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit 3 final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 30 calendar days after receipt of Owner's comments and instructions.
- B. In the event that the Work designed or specified by ENGINEER is to be performed or furnished under more than one prime contract, or if ENGINEER's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), OWNER and ENGINEER shall, prior to commencement of the Final Design Phase, develop a schedule for performance of ENGINEER's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.
- C. The number of prime contracts for Work designed or specified by ENGINEER upon which the ENGINEER's compensation has been established under this Agreement is TWO.
- D. ENGINEER's services under the Final Design Phase will be considered complete on the date when the submittals required by paragraph A1.03.A.6 have been delivered to OWNER.

## A1.04 Bidding or Negotiating Phase

- A. After acceptance by OWNER of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by OWNER to proceed, ENGINEER shall:
  - 1. Assist OWNER in advertising for and obtaining bids or negotiating proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend

pre-Bid conferences, if any, and receive and process Contractor deposits or charges for the Bidding Documents.

- 2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents. Addenda will require submission, review, and approval by the City of Killeen and TxDOT (approval from TxDOT only if the project obtains TxDOT funding).
- Consult with OWNER as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by Contractor for those portions of the Work as to which such acceptability is required by the Bidding Documents.
- 4. Perform or provide the following additional Bidding or Negotiating Phase tasks or deliverables:
  - a. The ENGINEER will provide technical interpretation of the contract bid documents and will prepare proposed responses to all bidders' questions and requests, in the form of addenda.
  - b. When substitution prior to award of contracts is allowed in the contract documents, the ENGINEER will advise the OWNER as to the acceptability of alternate materials and equipment proposed by bidders.
  - Incorporate all addenda into the contract documents and issue conformed sets.

#### **ASSUMPTIONS**

- a. The project will be bid only once and awarded to one contractor.
- OWNER will perform all bid phase services not specifically listed above, including advertising, prebid meeting, bid opening, conformed construction documents, and bid award.
- 5. Attend the Bid opening, prepare Bid tabulation sheets, and assist OWNER in evaluating Bids or proposals and in assembling and awarding contracts for the Work.
- B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective Contractors.

#### A1.05 Construction Phase

- A. Upon successful completion of the Bidding and Negotiating Phase, it is intended that the ENGINEER'S services are to be complete as it relates to Section 6.03 Design without Construction Phase Services. However, the OWNER will engage the ENGINEER for the following items to help owner in performing the Construction Phase:
  - General Administration of Construction Contract. Consult with OWNER and act as OWNER's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities and authority of ENGINEER as assigned in said General Conditions shall not be modified, except as ENGINEER may otherwise agree in writing. All of OWNER's instructions to Contractor will be issued through ENGINEER, who shall have authority to act on behalf of OWNER in dealings with Contractor to the extent provided in this Agreement and said General Conditions except as otherwise provided in writing.
  - 2. Resident Project Representative (RPR).
  - 3. Selecting Independent Testing Laboratory. Assist OWNER in the selection of an independent testing laboratory to perform the services identified in paragraph B2.01.0.
  - 4. Pre-Construction Conference. Participate in a Pre-Construction Conference prior to commencement of Work at the Site.
  - 5. Baselines and Benchmarks. As appropriate, establish baselines and benchmarks for locating the Work which in ENGINEER's judgment are necessary to enable Contractor to proceed.

- 6. Visits to Site and Observation of Construction. In connection with observations of Contractor's work in progress while it is in progress:
  - a. Make visits to the Site at intervals appropriate to the various stages of construction, as ENGINEER deems necessary, in order to observe as an experienced and qualified design professional the progress of the Work. Such visits and observations by ENGINEER are not intended to be exhaustive or to extend to every aspect of Contractor's work in progress or to involve detailed inspections of Contractor's work in progress beyond the responsibilities specifically assigned to ENGINEER in this Agreement and the Contract Documents, but rather are to be limited to general observation of the Work in order to assist in preparing the As-Built Documents. It is the intent of this contract that the OWNER will provide Construction Management and will engage the Engineer only when needed to answer RFI's and review submittals that require the expertise of the ENGINEER.
  - b. The purpose of ENGINEER's visits to the Site, will be to enable ENGINEER to better carry out the duties and responsibilities assigned to and undertaken by ENGINEER during the Construction Phase. ENGINEER shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to Contractor's work, or for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.
- 7. Defective Work. Recommend to OWNER that Contractor's work be disapproved and rejected while it is in progress if, on the basis of such observations, ENGINEER believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.
- 8. Clarifications and Interpretations; Field Orders. Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. ENGINEER may issue Field Orders authorizing minor variations from the requirements of the Contract Documents.
- 9. Change Orders and Work Change Directives. Recommend Change Orders and Work Change Directives to OWNER, as appropriate, and prepare Change Orders and Work Change Directives as required.
- 10. Shop Drawings and Samples. Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. ENGINEER has an obligation to meet any Contractor's submittal schedule that has earlier been acceptable to ENGINEER.
- 11. Substitutes and "or-equal." Evaluate and determine the acceptability of substitute or "or equal" materials and equipment proposed by Contractor, but subject to the provisions of paragraph A2.02.A.2 of this Exhibit A.
- 12. Inspections and Tests. Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. ENGINEER's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or

approvals comply with the requirements of the Contract Documents. ENGINEER shall be entitled to rely on the results of such tests.

- 13. Disagreements between OWNER and Contractor. Render formal written decisions on claims of OWNER and Contractor relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of Contractor's work when brought to the Engineer by OWNER for such purpose. In rendering such decisions, ENGINEER shall be fair and not show partiality to OWNER or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.
- 14. Applications for Payment. Based on ENGINEER's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
  - a. Determine the amounts that ENGINEER recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute ENGINEER's representation to OWNER, based on such observations and review, that, to the best of ENGINEER's knowledge, information and belief, Contractor's work has progressed to the point indicated, the quality of such work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe Contractor's work. In the case of unit price work, ENGINEER's recommendations of payment will include final determinations of quantities and classifications of Contractor's work (subject to any subsequent adjustments allowed by the Contract Documents). The responsibilities of ENGINEER contained in paragraph A1.05.A.6.a are expressly subject to the limitations set forth in paragraph A1.05.A.6.b and other express or general limitations in this Agreement and elsewhere.
  - b. By recommending any payment, ENGINEER shall not thereby be deemed to have represented that observations made by ENGINEER to check the quality or quantity of Contractor's work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in this Agreement and the Contract Documents. Neither ENGINEER's review of Contractor's work for the purposes of recommending payments nor ENGINEER's recommendation of any payment including final payment will impose on ENGINEER responsibility to supervise, direct, or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the work in progress, materials, or equipment has passed to OWNER free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between OWNER and Contractor that might affect the amount that should be paid.
- 15. Contractor's Completion Documents.
  - a. Receive and review maintenance and operating instructions, schedules, and guarantees.
  - b. Receive bonds, certificates, or other evidence of insurance not previously submitted and required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved as provided under paragraph A1.05.A.10, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such ENGINEER's review will be limited as provided in paragraph A1.05.A.10.
  - c. ENGINEER shall transmit these documents to OWNER.

- 16. Substantial Completion. Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with OWNER and Contractor, conduct an inspection to determine if the Work is Substantially Complete. If after considering any objections of OWNER, ENGINEER considers the Work Substantially Complete, ENGINEER shall deliver a certificate of Substantial Completion to OWNER and Contractor.
- 17. Additional Tasks. Perform or provide the following additional Construction Phase tasks or deliverables:
  - The ENGINEER shall prepare record drawings from information submitted by the inspector and/or Contractor.
  - b. The ENGINEER shall submit a set of sealed conformed Mylar drawings for record storage.
  - c. The ENGINEER shall provide an as-built survey of any changes to the riverine environment (for use by the OWNER in submitting for a LOMR). As-built information to be provided in Autocad and PDF format.
- 18. Final Notice of Acceptability of the Work. Conduct a final inspection to determine if the completed Work of Contractor is acceptable so that ENGINEER may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, ENGINEER shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of paragraph A1.05.A.14.b) to the best of ENGINEER's knowledge, information, and belief and based on the extent of the services provided by ENGINEER under this Agreement.
- B. Duration of Construction Phase. The Construction Phase will commence with the execution of the first Construction Agreement for the Project or any part thereof and will terminate upon written recommendation by OWNER for final payment to Contractors. If the Project involves more than one prime contract as indicated in paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts.
- C. Limitation of Responsibilities. ENGINEER shall not be responsible for the acts or omissions of any Contractor, or of any of their subcontractors, suppliers, or of any other individual or entity performing or furnishing any of the Work. ENGINEER shall not be responsible for failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

## A1:06 Post-Construction Phase - NOT APPLICABLE

- A. Upon written authorization from OWNER, ENGINEER, during the Post-Construction Phase, shall:
  - 1. Provide assistance in connection with the testing and adjusting of Project equipment or systems.
  - 2. Assist OWNER in training OWNER's staff to operate and maintain Project, equipment, and systems.
  - 3. Assist OWNER in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems.
  - 4. Together with OWNER, visit the Project to observe any apparent defects in the Work, assist OWNER in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.
  - 5. Perform or provide the following additional Post Construction Phase tasks or deliverables:
  - 6. In company with OWNER or OWNER's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction.
- B. The Post Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Correction Period.

## **PART 2 -- ADDITIONAL SERVICES**

- A2.01 Additional Services Requiring OWNER's Authorization in Advance
  - A. If authorized in writing by OWNER, ENGINEER shall furnish or obtain from others Additional Services of the types listed below. These services will be paid for by OWNER as indicated in Article 4 of the Agreement.
    - Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
    - 2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by OWNER.
    - 3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by ENGINEER or its design requirements including, but not limited to, changes in size, complexity, OWNER's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond ENGINEER's control.
    - 4. Services resulting from OWNER's request to evaluate additional alternative solutions beyond that identified in the Exhibit H including inclusion of aesthetic treatments (lighting, landscaping, irrigation, etc), trail design, water quality features and design.
    - 5. Services required as a result of OWNER's providing incomplete or incorrect Project information with respect to Exhibit B.
    - 6. Providing renderings or models for OWNER's use.
    - 7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting OWNER in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by OWNER.
    - 8. Furnishing services of ENGINEER's Consultants for other than Basic Services.
    - 9. Services attributable to more prime construction contracts than specified in paragraph A1.03.C.
    - Services during out-of-town travel required of ENGINEER other than for visits to the Site or OWNER's
      office.
    - 11. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review requested by OWNER; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
    - 12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by OWNER for the Work or a portion thereof.

- 13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
- 14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services.
- 15. Providing construction surveys and staking to enable Contractor to perform its work other than as required under paragraph A1.05.A.5.
- 16. Providing Construction Phase services beyond the Contract Times set forth in Exhibit C.
- 17. Providing assistance in resolving any Hazardous Environmental Condition in compliance with current Laws and Regulations.
- 18. Preparing and furnishing to OWNER Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.
- 19. Preparation of operation and maintenance manuals.
- Preparing to serve or serving as a consultant or witness for OWNER in any litigation, arbitration or other dispute resolution process related to the Project.
- 21. Providing more extensive services required to enable ENGINEER to issue notices or certifications requested by OWNER under paragraph 6.01.G of the Agreement.
- 22. Other services performed or furnished by ENGINEER not otherwise provided for in this Agreement.
- 23. Arrange for geotechnical sampling and testing for use with the City of Killeen pavement section determination methodology, TxDOT FPS-19 pavement design, or AASHTO design methodologies.

## A2.02 Required Additional Services

- A. ENGINEER shall perform or furnish, without requesting or receiving specific advance authorization from OWNER, the Additional Services of the types listed below. ENGINEER shall advise OWNER in writing promptly after starting any such Additional Services.
  - Services in connection with Work Change Directives and Change Orders to reflect changes requested by OWNER so as to make the compensation commensurate with the extent of the Additional Services rendered.
  - 2. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the Construction Agreement in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.
  - 3. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.
  - 4. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work, (2) an occurrence of a Hazardous Environmental Condition, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.

Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of any part of the Work by OWNER prior to Substantial Completion.
Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.

	This is <b>EXHIBIT B</b> , consisting of 3 pages, referred to in and part of the <b>Agreement between OWNER and ENGINEER</b> for <b>Professional Services</b> dated,
	·
	Initial:
	OWNER
	ENGINEER
OWNER's Responsibilities	

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties.

- B2.01 In addition to other responsibilities of OWNER as set forth in this Agreement, OWNER shall:
  - A. Provide ENGINEER with all criteria and full information as to OWNER's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which OWNER will require to be included in the Drawings and Specifications; and furnish copies of OWNER's standard forms, conditions, and related documents for ENGINEER to include in the Bidding Documents, when applicable.
  - B. Furnish to ENGINEER any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
  - C. Following ENGINEER's assessment of initially-available Project information and data and upon ENGINEER's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable ENGINEER to complete its Basic and Additional Services. Such additional information or data would generally include the following:
    - 1. Property descriptions.
    - 2. Zoning, deed, and other land use restrictions.
  - 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
  - 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
  - 5. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
  - 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
  - D. Give prompt written notice to ENGINEER whenever OWNER observes or otherwise becomes aware of a Hazardous Environmental Condition or of any other development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.
  - E. Authorize ENGINEER to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.
  - F. Arrange for safe access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform services under the Agreement.

- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by ENGINEER (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as OWNER deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by ENGINEER and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Provide, as required for the Project:
  - 1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
  - 2. Legal services with regard to issues pertaining to the Project as OWNER requires, Contractor raises, or ENGINEER reasonably requests.
  - 3. Such auditing services as OWNER requires to ascertain how or for what purpose Contractor has used the moneys paid.
  - 4. Placement and payment for advertisement for Bids in appropriate publications.
- J. Advise ENGINEER of the identity and scope of services of any independent consultants employed by OWNER to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.
- K. Furnish to ENGINEER data as to OWNER's anticipated costs for services to be provided by others for OWNER so that ENGINEER may make the necessary calculations to develop and periodically adjust ENGINEER's opinion of Total Project Costs.
- L. If OWNER designates a construction manager or an individual or entity other than, or in addition to, ENGINEER to represent OWNER at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of ENGINEER.
- M. If more than one prime contract is to be awarded for the Work designed or specified by ENGINEER, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of ENGINEER as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.
- N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.
- O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of OWNER, prior to their incorporation into the Work with appropriate professional interpretation thereof.
- P. Provide inspection or monitoring services by an individual or entity other than ENGINEER (and disclose the identity of such individual or entity to ENGINEER) as OWNER determines necessary to verify:
  - 1. That Contractor is complying with any Laws and Regulations applicable to Contractor's performing and furnishing the Work.

- 2. That Contractor is taking all necessary precautions for safety of persons or property and complying with any special provisions of the Contract Documents applicable to safety.
- Q. Provide ENGINEER with the findings and reports generated by the entities providing services pursuant to paragraphs B2.01.O and P.
- R. Perform or provide the following additional services:
  - 1. City will provide for and oversee all construction management and inspection.

This is <b>EXHIBIT</b> C, consisting of 1 pages, referred to in and
part of the Agreement between OWNER and ENGINEER
for Professional Services dated

	Initial
OWNER	
ENGINEER_	mik

## Payments to ENGINEER for Services and Reimbursable Expenses

Article 4 of the Agreement is amended and supplemented to include the following agreement of the parties:

#### ARTICLE 4 -- PAYMENTS TO THE ENGINEER

- C4.01 For Basic Services Having A Determined Scope
- A. OWNER shall pay ENGINEER for Basic Services set forth in Exhibit A, as follows:
  - 1. Progress payments in the amount of \$741,623.00 based on the following assumed distribution of compensation:

## **Engineering Services**

a.	Preliminary Design Phase	\$175,035
b.	Final Design Phase	\$408,415
c.	Bidding Phase	\$15,614
d.	Topographic Surveying	\$49,400
e.	H&H Studies	\$33,719
f.	Environmental Evaluations	\$22,840
g.	Geotechnical Investigation	\$21,600
h.	As-built Survey / FIS & Drainage	\$15,000
	Infrastructure update; as-built	
	drawings	

- 2. ENGINEER may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the amount unless approved in writing by the OWNER.
- 3. The amount includes compensation for ENGINEER's services and services of ENGINEER's Consultants, if any. Appropriate amounts have been incorporated in the account for labor, overhead, profit, and Reimbursable Expenses.
- 4. The portion of the amount billed for ENGINEER's services will be based upon ENGINEER's estimate of the proportion of the

total services actually completed during the billing period.

- 5. If more prime contracts are awarded for Work designed or specified by ENGINEER for this Project than identified in Exhibit A, the ENGINEER shall be compensated an additional amount to be negotiated; however, in no case shall the amount of compensation exceed eighteen percent (18%) of the Project's estimated construction costs for all Basic Services for each prime contract added.
- 6. The construction period for this project is 3 calendar months (subject to Paragraph 3.02 (B)).
- Per Exhibit A, A1.03.A.5 delivery of final plans and contract documents for this project to the City of Killeen will be <u>360</u> days following authorization to begin work under this agreement.

	This is EXHIBIT D, consisting of 4 pages, referred to in and part of the Agreement between OWNER and ENGINEER for Professional Services dated	
	Initial:	
	OWNER	
	ENGINEER	
Duties, Responsibilities, and Limitations of Autho	rity of Resident Project Representative	
	upplemented to include the following agreement of the parties:	
O6.02 Resident Project Representative N/A		
A. ENGINEER shall furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist ENGINEER in observing progress and quality of the Work. The RPR, assistants, and other field staff under this Exhibit D may provide full time representation or may provide representation to a lesser degree.		

B. Through such additional observations of Contractor's work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against defects and deficiencies in the Work. However, ENGINEER shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over the Contractor's Work nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected by Contractor, for safety precautions and programs incident to the Contractor's work in progress, for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's performing and furnishing the Work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific limitations set forth in section A.1.05 of Exhibit A of the Agreement are applicable.

C. The duties and responsibilities of the RPR are limited to those of ENGINEER in the Agreement with the OWNER and in the Contract Documents, and are further limited and described as follows:

- General: RPR is ENGINEER's agent at the Site, will act as directed by and under the supervision of
  ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters
  pertaining to the Contractor's work in progress shall in general be with ENGINEER and Contractor,
  keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or
  with the full knowledge and approval of Contractor. RPR shall generally communicate with OWNER
  with the knowledge of and under the direction of ENGINEER.
- 2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with ENGINEER concerning acceptability.
- 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project related meetings, and prepare and circulate copies of minutes thereof:

#### 4. Liaison:

1

- a. Serve as ENGINEER's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Contract Documents.
- b. Assist ENGINEER in serving as OWNER's liaison with Contractor when Contractor's operations affect OWNER's on-Site operations.
- c. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.

Interpretation of Contract Documents: Report to ENGINEER when clarifications and interpretations of
the Contract Documents are needed and transmit to Contractor clarifications and interpretations as
issued by ENGINEER.

#### 6. Shop Drawings and Samples:

- Record date of receipt of Samples and approved Shop Drawings.
- b. Receive Samples which are furnished at the Site by Contractor, and notify ENGINEER of availability of Samples for examination.
- c. Advise ENGINEER and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by ENGINEER.
- 7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to Contractor in writing decisions as issued by ENGINEER.
- 8. Review of Work and Rejection of Defective Work:
  - a. Conduct on Site observations of Contractor's work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Report to ENGINEER whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

## 9. Inspections, Tests, and System Startups:

- a. Consult with ENGINEER in advance of scheduled major inspections, tests, and systems startups of important phases of the Work.
- b. Verify that tests, equipment, and systems start ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that Contractor maintains adequate records thereof.
- c. Observe, record, and report to ENGINEER appropriate details relative to the test procedures and systems startups.
- d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to ENGINEER.

## 10. Records:

- a. Maintain at the Site orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor, and other Project related documents.
- b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.

- c. Record names, addresses and telephone numbers of all Contractors, subcontractors, and major suppliers of materials and equipment.
- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to ENGINEER.

#### 11. Reports:

- a. Furnish to ENGINEER periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to ENGINEER proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- Eurnish to ENGINEER and OWNER copies of all inspection, test, and system startup reports.
- d. Report immediately to ENGINEER the occurrence of any Site accidents, any Hazardous Environmental Conditions, emergencies, or acts of God endangering the Work, and property damaged by fire or other causes.
- 12. Payment Requests: Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
- 13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to ENGINEER for review and forwarding to OWNER prior to payment for that part of the Work.

#### 14. Completion:

- a. Before ENGINEER issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- b. Observe whether Contractor has arranged for inspections required by Laws and Regulations, including but not limited to those to be performed by public agencies having jurisdiction over the Work.
- c. Participate in a final inspection in the company of ENGINEER, OWNER, and Contractor and prepare a final list of items to be completed or corrected.
- d. Observe whether all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance and issuance of the Notice of Acceptability of the Work.

#### D. Resident Project Representative shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of ENGINEER's authority as set forth in the Agreement or the Contract Documents.

- 3. Undertake any of the responsibilities of Contractor, subcontractors, suppliers, or Contractor's superintendent.
- 4. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
- 5. Advise on, issue directions regarding, or assume control over safety precautions and programs in connection with the activities or operations of OWNER or Contractor.
- 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.
- 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
- 8. Authorize OWNER to occupy the Project in whole or in part.

	part of the Agreement h	petween OWNER and ENGINEER ces dated,
	·	Initial: OWNER ENGINEER
NOTICE (	OF ACCEPTABILITY OF V	VORK
PROJECT:		
OWNER:		
OWNER's Construction Contract Identifica	ation:	
EFFECTIVE DATE OF THE CONSTRUC	TION AGREEMENT:	
CONSTRUCTION CONTRACT DATE:		
ENGINEER:		
To:	OWNER	
And To:	CONTRACTOR	
The undersigned hereby gives notice furnished and performed by CONTRACT provisions of the related Contract Documer	OR under the above Contract is	acceptable, expressly subject to the
Ву:		
Title:		
Dated:,		

## (Reverse side of Notice)

## CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") on the front side of this sheet is expressly made subject to the following terms and conditions to which all persons who receive said Notice and rely thereon agree:

- 1. Said Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
- 2. Said Notice reflects and is an expression of the professional judgment of ENGINEER.
- 3. Said Notice is given as to the best of ENGINEER's knowledge, information, and belief as of the date hereof.
- 4. Said Notice is based entirely on and expressly limited by the scope of services ENGINEER has been employed by OWNER to perform or furnish during construction of the Project (including observation of the CONTRACTOR's work) under ENGINEER's Agreement with OWNER and under the Construction Contract referenced on the reverse hereof, and applies only to facts that are within ENGINEER's knowledge or could reasonably have been ascertained by ENGINEER as a result of carrying out the responsibilities specifically assigned to ENGINEER under ENGINEER's Agreement with OWNER and the Construction Contract referenced on the reverse hereof.
- 5. Said Notice is not a guarantee or warranty of CONTRACTOR's performance under the Construction Contract referenced on the reverse hereof nor an assumption of responsibility for any failure of CONTRACTOR to furnish and perform the Work thereunder in accordance with the Contract Documents.

	This is EXHIBIT F, consisting of 1 page, referred to in and part of the Agreement between OWNER and ENGINEER for Professional Services dated,
	OWNER OWNER
	ENGINEER
Construction Cost Limit	
Paragraph 5.02 of the Agreement is amended and sup	pplemented to include the following agreement of the parties:
F5.02 Designing to Construction Cost Limit N/A	
A. A Construction Cost limit in the amount of	
Dollars (\$) is hereby agreed t	
B. A bidding or negotiating contingency of established.	percent will be added to any Construction Cost limit
	ne during Basic Services of a revised opinion of probable Construction Cost limit will constitute a corresponding increase
the types and quality thereof are to be included	what types of materials, equipment and component systems, and in the Drawings and Specifications and to make reasonable the Project to the extent consistent with the Project requirements within the Construction Cost limit.
Design Phase, or if industry wide prices are changed level of prices or times of delivery in the constructi binding on ENGINEER, and OWNER shall consent	to commenced within three months after completion of the Final because of unusual or unanticipated events affecting the general ion industry, the established Construction Cost limit will not be to an adjustment in such Construction Cost limit commensurate rices in the construction industry between the date of completion posals or Bids are sought.
(1) give written approval to increase such Constru Project within a reasonable time, or (3) cooperate is consistent with the Project's requirements and with shall modify the Contract Documents as necessary to In lieu of other compensation for services in making such services, including the costs of the services of related thereto, and Reimbursable Expenses, but we providing of such services will be the limit of EN ENGINEER shall be entitled to payment for services	exceeds the established Construction Cost limit, OWNER shall action Cost limit, or (2) authorize negotiating or rebidding the n revising the Project's scope, extent, or character to the extent a sound engineering practices. In the case of (3), ENGINEER obring the Construction Cost within the Construction Cost Limit ag such modifications, OWNER shall pay ENGINEER's cost of a ENGINEER's Consultants, all overhead expenses reasonably ithout profit to ENGINEER on account of such services. The NGINEER's responsibility in this regard and, having done so, as and expenses in accordance with this Agreement and will not be lowest bona fide proposal or Bid exceeding the established

Construction Cost limit.

	This is <b>EXHIBIT G</b> , consisting of 1 page, referred to in and part of the <b>Agreement between OWNER and ENGINEER</b>
	for Professional Services dated,
	Initial:
	OWNER
	ENGINEER MY
Insurance	· · · · · · · · · · · · · · · · · · ·

Paragraph 6.05 of the Agreement is amended and supplemented to include the following agreement of the parties.

## G6.05 Insurance

A. The limits of liability for the insurance required by paragraph 6.05.A and 6.05.B of the Agreement are as follows:

## 1. By ENGINEER:

a.	Workers' Compensation:	Statutory	
b.	Employer's Liability		
	1) Each Accident:	\$	1,000,000
	2) Disease, Policy Limit:	\$	1,000,000
	3) Disease, Each Employee:	\$	1,000,000
c.	General Liability		
	Each Occurrence (Bodily Injury and		
	Property Damage):	\$	1,000,000
	2) General Aggregate:	\$	2,000,000
d.	Excess or Umbrella Liability		
	1) Each Occurrence:	\$	2,000,000
	2) General Aggregate:	\$	2,000,000
e.	Automobile Liability		
	1) Combined Single Limit		
	(Bodily Injury and Property Damage):		
	Each Accident	\$	1,000,000

f. Other (specify): On all policies except Workers Compensation and Professional Liability - "City of Killeen is named as Additional Insured on the General Liability and Auto Liability policies."

	part of the Agreement between OWNER and ENGINEER
	for Professional Services dated,
	·
	Initial:
	OWNER
	ENGINEER
Special Provisions	

- Preliminary Alignment Proposed Typical Section

		•	_	page, referred to NER and ENG	
	Professional	Services	dated		,
					Initial:
				OWNER	
				ENGINEER_	ms
OBE Goal					

DBE Goal 0%