

**TCEQ SSO INITIATIVE
ON-GOING INFILTRATION/INFLOW
REDUCTION PROGRAM**

**Sewer Line SSES Phase 5
Basins 13,24,25,28 and 34**

Contract for Professional Services



CITY OF KILLEEN, TEXAS



**Pipeline Analysis, LLC
1115 Main Street
Garland, Texas 75040**

**May 2, 2018
Rev. 2**

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

Issued and Published Jointly By

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AMERICAN SOCIETY OF CIVIL ENGINEERS

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 _____, 2018 (“Effective Date”) between
_____CITY OF KILLEN TEXAS_____ (“OWNER”)
and _____PIPELINE ANALYSIS, LLC_____ (“ENGINEER”).

OWNER intends to continue with the TCEQ Sanitary Sewer Overflow Initiative and continue with this next phase of field testing and inspection to include smoke testing and closed circuit television (CCTV) inspection to locate defects, establish least cost repair cost estimates and prepare a rehabilitation plan. The information gathered during this project will locate system defects, specify the type of repairs to be made, estimate the costs and prioritize the recommended repairs. This information will then be used by both the City staff and outside contractors to make necessary wastewater collection system improvements to restore wastewater system integrity. The results of this program will extend the useful life of the collection system assets.

OWNER and ENGINEER in consideration of their mutual covenants as set forth herein agree 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. (Note: Not anticipated for this contract.)

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 therefore, 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 therefore, 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, and 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, and 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 12 pages.

B. Exhibit B, "OWNER's Responsibilities," consisting of 1 page.

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 1 page.

E & F. Exhibit E and Exhibit F, "Notice of Acceptability of Work," and "Construction Cost Limit," consisting of 1 page.

G. Exhibit G, "Insurance," consisting of 2 pages.

H. Exhibit H, "Special Provisions," consisting of 1 page.

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:

ENGINEER:

By: Ronald L. Olson, City

By: James H. Forbes, Jr., P.E.

Title: City Manager

Title: President

Date Signed: _____

Date Signed: _____

Address for giving notices:

Address for giving notices:

P.O. Box 1329

1115 Main Street

Killeen, TX 76540-1329

Garland, Texas 75040

Designated Representative (paragraph 6.02.A):

Designated Representative (paragraph 6.02.A):

Steve Kana, P.E.

James H. Forbes, Jr., P.E.

Title: Director of Water & Sewer Utilities

Title: President

Phone Number: 254-501-7623

Phone Number: 800-637-0164

Facsimile Number: 254-501-6321

Facsimile Number: 972-479-0659

E-Mail Address: skana@ci.killeen.tx.us

E-Mail Address: jforbes@pipelineanalysis.com

This is **EXHIBIT A**, consisting of 12 pages, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____
ENGINEER _____

ENGINEER's Services

Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. ENGINEER shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

CITY OF KILLEEN

TCEQ SSO INITIATIVE ON-GOING INFILTRATION/INFLOW REDUCTION PROGRAM – SEWER LINE SSES PHASE 5 OF BASINS 13,24,25,28 and 34

The Project Approach to the Killeen Sewer System Evaluation is organized around the objectives for this project:

- Regulatory compliance
- Attainment of long-term I/I solutions
- Customer satisfaction
- Cost control

Attainment of long-term I/I solutions

The goal of the City and TCEQ is to develop long-term solutions to infiltration/inflow (I/I) and sanitary sewer overflows (SSO's). The first step in achieving this goal is to establish the magnitude and location of the problem. City-wide temporary flow monitoring was completed in March 2009. This flow analysis established dry and wet weather flows at key locations across the city. In addition, flow meters isolated the areas of the collection system that contribute to excessive rainfall dependent infiltration/inflow (RDII) that enters through poor fitting manhole castings, vented manhole covers in ponding areas, holes in pipes, open or defective cleanouts, yard drains, storm sewer cross connections, etc. The results of this field testing provided a ranking of basins by priority. This scope of work builds on the previous flow monitoring and master plan efforts and is the next phase of field testing to locate defects, establish least cost repair cost estimates and prepare a collection system rehabilitation report.

The Killeen collection system consists of approximately 530 miles of mainline gravity sewer and 334 miles of private service laterals. These assets have a replacement value of approximately \$280 million. Stretched end to end, the collection system would connect Killeen with Atlanta, Georgia. The purpose of this project is to initiate field testing to locate defects in high priority areas of the city. With a design life of 75 to 100 years, some of the Killeen system has reached its design life. Infiltration/inflow is a symptom of aging collection systems. We must identify specifically where the deterioration is occurring and develop a plan to locate and repair these City assets. The City of Killeen (like all municipalities) cannot afford to wait for system failure and replace the collection system. The least cost strategy will be to locate system defects early while trenchless repair methods can be used.

Regulatory Compliance

The City of Killeen was invited to join the TCEQ SSO Initiative and the City responded with an acceptance letter to voluntarily participate in the program. TCEQ has officially notified the City of its acceptance into the program and the City is currently implementing the approved comprehensive plan and schedule. This project is identified in the TCEQ SSO Initiative.

Customer Satisfaction

Educating the customer on the vast investment sitting “out of sight, out of mind” and the need to repair these assets can be facilitated throughout the various phases of the project. Effectively presenting the findings in easy to understand graphics and language will help the customers acknowledge the need for repairs and the costs associated with it. Benchmarking with other similar cities can show the city leaders and public that the problems being faced are not unique to Killeen. Using the team’s technical expertise in trenchless rehabilitation, the impact to residents during construction can be minimized and least cost solutions recommended.

Cost Controls

The field testing of the collection system will identify various deficiencies that must be prioritized and recommended for repair. Developing the most cost-effective methods of repair will minimize the impact and cost to customers. Table 1 presents a summary of smoke testing completed to date and the proposed Sewer Line SSES Phase 5 included in this scope of work. Figure 1 presents the Study Area Map.

Table 1
Sanitary Sewer Evaluation Summary

Flow Meter Basin	Manhole Inspection	Smoke Testing	Clean & CCTV	Mainline Linear Feet	Phase 5 Proposed
1	x	x	x	27,411	
2	x	x	x	42,183	
3	x	x	x	45,307	
4	x	x	x	25,338	
5	x	x	x	54,531	
6	x	x	x	33,593	
7	x	x	x	65,755	
8	x	x	x	32,264	
9	x	x	x	59,889	
10	x	x	x	20,755	
11	x	x	x	95,110	
12	x	x	x	53,106	
13	x	Phase 5	Phase 5	88,009	88,009
14	x	x	x	43,851	
15	x	x	x	19,739	
16	x	x	x	98,678	
17	x	x	x	53,265	
18	x	x	x	82,339	
19	x	x	x	158,226	
20	x	x	x	25,108	
21	x	x	x	52,273	
22	x	x	x	261,976	
23	x	x	x	18,292	
24	x	Phase 5	Phase 5	122,215	122,215
25	x	Phase 5	Phase 5	144,111	144,111
26	x	x	x	58,321	
27	x	x	x	48,545	
28	x	Phase 5	Phase 5	219,500	219,500
29	x	x	x	50,179	
30	x	x	x	73,471	
33	x	x	x	55,316	
34	x	Phase 5	Phase 5	63,335	63,335
35	x	x	x	50,684	
14A	x	x	x	29,039	
15A	x	x	x	44,836	
16A	x	x	x	17,539	
22A	x	x	x	37,984	
23A	x	x	x	140,527	
Note: "x" completed			Total	2,612,597	637,169

TASK 100 MOBILIZATION

Mobilize project team and coordinate startup. Establish personnel assignments and responsibilities. Inventory equipment needs and order expendable supplies. Pipeline Analysis, LLC (PA) will review all relevant existing materials developed for or by the City of Killeen concerning this project, including, but not limited to, the following:

1. Previous studies for the service areas to be investigated
2. Prepare study area field inspection maps

Deliverable:

1. Delivery of equipment and personnel
2. Work maps with delineated boundaries
3. Status report on collection and review of materials supplied

To Be Provided by City:

- Access for placement of equipment and personnel
- Copies of all applicable reports, maps and historical data for the study area at no cost to ENGINEER
- As-built drawings, sewer key maps, street plans, electronic aerial photographs if available and if requested at no cost to ENGINEER

Deliverables:

1. Inclusion in final report of findings from this work task

Measurement of Payment:

Mobilization will be charged as a lump sum.

TASK 200 SMOKE TESTING OF STUDY AREA

Smoke testing will provide detailed information on wet weather inflow sources for the study area. In order to identify defects in the lines, a non-toxic smoke will be forced into the sewer by high capacity blowers. Data documentation includes measurements from two permanent points and will be sufficient to establish the location of each defect and determine the best repair method and priority. In addition, sub-meter GPS coordinates are obtained for smoke defects. Color digital photographs will be taken to document each defect during the smoke test.

Forty-eight (48) hours prior to testing, door hangers will be used to notify residents. A local telephone number will be provided for those individuals with questions or for anyone requiring special assistance. Each day the fire department will be notified of the crew location since smoke may enter homes through

defective plumbing. Pipeline Analysis will be responsible for public awareness, distribution of smoke notices, field questions from residents, coordinating with City staff for residents requiring special assistance and mapping associated with this phase of field testing.

To Be Provided by City:

- Review and approval of Notice to Residents
- Letter of introduction to be carried by field crews (Example to be supplied by Pipeline Analysis)

Deliverables:

- Defects listing and spreadsheets
- Defect location sketches
- Digital photographs
- Smoke Notification Flyers and Notification of Residents

Measurement of Payment:

Payment for this work task shall be a unit price for each linear foot of mainline sewer smoke tested. A summary listing of the database for line segments smoke tested will serve as the basis for the periodic partial payment requests.



Draft Copy

SMOKE TESTING NOTICE TO RESIDENT

For the next few days, inspection crews will conduct a physical survey of the wastewater collection system. Pipeline Analysis will perform this study, which involves opening manholes in the streets and backyard utility easements. Information gained from this study will be used to repair and improve the wastewater collection system.

One important task of the survey will be **smoke testing** of sewer lines to locate breaks and defects in the system. During this testing, white smoke will exit through vent pipes on the roofs of homes and through sewer line breaks. **The smoke is non-toxic, leaves no residue, and creates no fire hazard.** The smoke should not enter your home unless defective plumbing exists or drain traps are dry.

If you have seldom-used drains, please pour a gallon of water in the drain to fill the drain trap. This procedure will help prevent the possibility of smoke entering your living areas through those drains.

Field crews will perform testing of all sewers in the area. **At no time will field crews have to enter your business or residence.**

Your cooperation is appreciated. Should you have any additional questions concerning this study or if you desire special assistance, please phone:

800-637-0164



TASK 300 DYE FLOODING

Dye water testing can be anticipated to assist in the location of specific defects during the evaluation. Non-toxic dye will be introduced as a powder or liquid. Cross-connections, roof drains and area drains that are suspected of being connected to the sanitary sewer will be positively identified using the dye tracer procedure. Field documentation and photographs will be used to record all findings. Internal inspection will determine the exact source of the 'cross-connection' and establish the best repair option (i.e., point repair, direct connection, etc.).

To Be Provided by City:

- Water for dye flooding at no cost to ENGINEER

Measurement of Payment:

Payment for this work task shall be a unit price for each dye flood test site. Dye test records that document the dye test location and results will serve as the basis for the periodic partial payment requests.

TASK 400 PREPARATORY CLEANING **TASK 500 CLOSED CIRCUIT TV INSPECTION (CCTV)** **TASK 501 ZOOM CAMERA CCTV**

Preparatory cleaning shall consist of hydraulic jet cleaning to facilitate the internal CCTV inspection. The City of Killeen will have the option to perform this phase of the work in close coordination with the CCTV operator. Debris will be removed from the line and transported for disposal. CCTV investigation is critical in establishing best practical repair methods. Knowing the conditions, locations of services, degree of pipe deterioration, etc. is paramount in developing the least cost alternatives for subsequent repairs. Where right of way will not permit placement of cleaning and/or CCTV equipment, the Engineer may utilize a portable zoom camera (Task 501) to inspect mainline sewers recommended for CCTV. The portable self-contained zoom camera will record digital video to obtain as much information as possible on the condition of the pipeline being inspected. Recorded data will be reviewed and recommendations on the rehabilitation method(s) will be determined where possible. The following information will be provided:

1. Field forms, equipment, supplies and oversight QA/QC
2. Document findings. Data to include:
 - a. Date inspected
 - b. Line segment being inspected
 - c. Project name
 - d. Location (Address)
 - e. Footage location from manhole

- f. Defect code and/or type and severity rating using the national Pipeline Assessment Certification Program (PACP) codes
 - g. Pipeline surface cover
3. Review video and logs
4. Provide reports on disk (CD, DVD or hard drive) of segments televised
5. Summary of line segments cleaned and CCTV'd
6. Results of TV inspection provided on printed logs
7. Prepare prioritized mainline rehabilitation plan

To Be Provided by City:

- Hydraulic jet cleaning (at City of Killeen option) of line segments designated by Pipeline Analysis in preparation of internal closed circuit television inspection
- Access to site of work for placement of equipment and personnel
- Disposal of any debris removed from the sewer system
- Water for cleaning and dye testing at the nearest hydrant at no charge to ENGINEER
- Water meter (if required) for recording volume of water used at no charge to ENGINEER
- City will provide at no cost to ENGINEER removal and site restoration of any camera or cleaning equipment that becomes lodged in the sewer, provided it can be determined that ENGINEER has exercised reasonable caution.

Measurement of Payment:

The City may elect to perform preparatory cleaning ahead of the CCTV inspection. Should the City elect not to perform the preparatory cleaning, then Pipeline Analysis will invoice for the actual linear feet of sewer cleaned per the unit price specified in Exhibit C. In the case of CCTV, should the camera not be able to pass the entire length of the segment (due to protruding taps, roots, dropped joints, etc.), then an attempt will be made from the opposite direction (if possible). Where a reverse setup was attempted, then the entire segment length will be billed at the unit price specified. If a reverse setup cannot be performed, then the actual segment footage CCTV'd will be billed. Where access will not allow placement of cleaning or CCTV equipment, Engineer may utilize a zoom portable camera to inspect the sewer. Payment for use of the zoom camera will be on a per set up basis. Summary listings of the database with field logs will serve as the basis for the periodic partial payment requests.

TASK 600 ADMINISTRATION AND PROJECT MANAGEMENT

This task includes internal project administration and oversight including scheduling, budget, quality assurance and control meetings and reporting. The project schedule will be reviewed and milestones for the completion of each task will be assigned. The project schedule will be reviewed and updated monthly to ensure that all tasks are completed in a timely and organized fashion.

Management work items include:

1. Field crew supervision and project planning

2. Obtain initial maps for field use and verification
3. Prepare monthly billings
4. Schedule equipment and order supplies
5. Monthly meetings and progress reports

Major system deficiencies that are identified during the field inspections that, if corrected, would result in significant reduction in I/I or is deemed to be of a safety concern will be recorded and forwarded as soon as possible to City's designated project manager. Likewise, should City undertake a major repair within the study area, they will immediately notify ENGINEER to determine the impact on data analysis.

Deliverables:

1. Monthly invoice
2. Status reports
3. Project schedule and updates
4. Project meetings and presentations

To Be Provided by City:

- All reports or materials deemed necessary by ENGINEER and identified during the course of the project that is not specifically stated above will be provided at no additional cost to the ENGINEER

Measurement of Payment:

Payment for this work task shall be a lump sum and billed based on the percentage completion of the work task.

TASK 700 DEFECT ANALYSIS/ REHABILITATION

This project will generate a considerable amount of data that will require proper entry and quality control. Pipeline Analysis has developed a system to enter smoke test data using a pen-based computer system that has the computing power to perform quality control checks in the field while data is being entered. Data collection will include the following:

1. Defect data will be presented graphically (data visualization) within the City GIS system.
2. Using industry standard descriptions of source defects, Pipeline Analysis staff will prioritize defects and recommend rehabilitation
3. Evaluate the various rehabilitation options (including trenchless methods) based on the soils, line cover, pipe depth, easement restrictions, pipe material and defects identified.
4. Since private sector defects can contribute to excessive inflow, proper documentation for subsequent repair is important. Property owner address, photograph and sufficient information to document the defect will be recorded. Private sector defects will be prioritized and repair methods/costs established.
5. Rehabilitation recommendations will consider the best repair for the particular asset being rehabilitated.
6. Estimated cost to make both public and private sector repairs.

To Be Provided by City:

- Compliance records for past 12 months and SSO database for past 12 months if requested.
- Review and comments on rehabilitation methods, cost estimates, and alternatives
- Pipeline Analysis will provide electronic files of the City corrected GIS maps in ArcGIS. The City will have the final authority to accept the changes and update their master GIS map files.

Measurement of Payment:

Payment for this work task shall be a lump sum and billed based on the percentage completion of the work task.

TASK 800 FINAL REHABILITATION PLAN REPORT

Prepare and submit five (5) Final Rehabilitation Plan Reports that includes the following:

- Executive Summary
- Description of all tasks
- Pipeline defect summary and preliminary rehabilitations
- Data visualization rehabilitation maps
- Service lateral defect summary
- Smoke defect photos (jpg format)
- Smoke defect sketches (pdf format)
- Recommendations and Cost Estimates for Private and Public sector repairs
- Provide Geodatabase ArcMap version 10.0 with the following feature classes: Main (to include PA pipe ID & City of Killeen unique ID), manhole, and cleanout feature classes. These feature classes will contain updated attribution, smoke test data plus the following columns:
 1. USMH
 2. DSMH
 3. PAPipeID
 4. Location
 5. Type of Defect
 6. Inflow Potential
 7. Surface Cover
 8. Address
 9. Defect GPS Latitude (where possible)
 10. Defect GPS Longitude (where possible)
 11. Defect Photo file name

To Be Provided by City:

- None

Measurement of Payment:

Payment for this work task shall be a lump sum and billed based on the percentage completion of the work task.

PROJECT SCHEDULE

Task	Task Description	Month								
		1	2	3	4	5	6	7	8	9
100	Mobilization									
200	Smoke Testing									
300	Dye Water Flooding									
400	Preparatory Cleaning									
500	Closed Circuit TV Insp.									
501	Zoom Camera Inspection									
600	Admin. Project Mgmt.									
700	Defect Analysis/ Rehab. Est.									
800	Final Report.									

PART 2 -- ADDITIONAL SERVICES –None Anticipated

This is **EXHIBIT B**, consisting of 1 page, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

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:

Task 100 Mobilization

- Access for placement of equipment and personnel
- Copies of all applicable reports, maps and historical data for the study area at no cost to ENGINEER
- As-built drawings, sewer key maps, street plans, electronic aerial photographs if available and if requested at no cost to ENGINEER

Task 200 Smoke Testing

- Current collection system map in electronic format
- Access (if requested) to manholes that are buried or could not be opened.
- Assistance in locating assets (if requested)
- Coordination with Fire Department
- GIS Coordination
- Review of smoke notice and introduction letter

Task 300 Dye Test

- Water for dye testing

Tasks 400, 500 and 501

- Hydraulic jet cleaning (at City of Killeen option) of line segments designated by Pipeline Analysis in preparation of internal closed circuit television inspection
- Access to site of work for placement of equipment and personnel
- Disposal of any debris removed from the sewer system
- Water for cleaning and dye testing at the nearest hydrant at no charge to ENGINEER
- Water meter (if required) for recording volume of water used at no charge to ENGINEER
- City will provide at no cost to ENGINEER removal and site restoration of any camera or cleaning equipment that becomes lodged in the sewer, provided it can be determined that ENGINEER has exercised reasonable caution.

Task 600 Administration/Project Management

- Provide contact person for coordination of database deliverable
- Review format for data delivery

Task 700 Defect Analysis and Rehabilitation

- Compliance records for past 12 months and SSO database for past 12 months if requested.
- Review and comments on rehabilitation methods, cost estimates, and alternatives
- Pipeline Analysis will provide electronic files of the City corrected GIS maps in ArcGIS. The City will have the final authority to accept the changes and update their master GIS map files.

Task 800 Final Rehabilitation Plan

- None

This is **EXHIBIT C**, consisting of 1 page, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____
ENGINEER _____

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

PART 1 – BASIC SERVICES

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 not to exceed of \$409,313 based on the following estimated quantities:

Task	Task Description	Contract Quantity	Unit Price	Contract Amount
100	Mobilization	Lump Sum	Lump Sum	\$3,880.00
200	Smoke Testing	637,200	\$0.43	\$273,996.00
300	Dye Water Flooding	5	\$215.00	\$1,075.00
400	Preparatory Cleaning 10% **	63,720	\$1.95	\$0.00
500	Closed Circuit TV Insp. 10%	63,720	\$1.35	\$86,022.00
501	Zoom Camera Inspection	0	\$150.00	\$0.00
600	Admin./ Project Mgmt.	Lump Sum	Lump Sum	\$4,090.00
700	Defect Analysis/ Rehab. Est.	Lump Sum	Lump Sum	\$10,150.00
800	Final Report.	Lump Sum	Lump Sum	\$30,100.00
TOTAL NOT TO EXCEED				\$409,313.00

** *City to Perform line cleaning*

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.

PART 2 -- ADDITIONAL SERVICES --None Anticipated

PART 3 – REIMBURSIBLE EXPENSES – None Anticipated

This is **EXHIBIT D**, consisting of 1 page, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____

ENGINEER _____

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

Paragraph 1.01C of the Agreement is amended and supplemented to include the following agreement of the parties:

D6.02 *Resident Project Representative – Not anticipated in this project.*

This is **EXHIBIT E and EXHIBIT F**, consisting of 1 page, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____
ENGINEER _____

Exhibit E - NOTICE OF ACCEPTABILITY OF CONSTRUCTION WORK – NOT APPLICABLE

Exhibit F - CONSTRUCTION COST LIMIT – NOT APPLICABLE

This is **EXHIBIT G**, consisting of 2 pages, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____
ENGINEER _____

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 -- | |
| 1) Each Occurrence (Bodily Injury and Property Damage): | \$ 1,000,000 |
| 2) General Aggregate: | \$ 2,000,000 |
| d. Excess or Umbrella Liability -- | |
| 1) Each Occurrence: | \$ 1,000,000 |
| 2) General Aggregate: | \$ 1,000,000 |
| e. Automobile Liability -- | |
| 1) Bodily Injury: | |
| a) Each Accident | \$ _____ |
| 2) Property Damage: | |
| a) Each Accident | \$ _____ |
| [or] | |
| 1) Combined Single Limit (Bodily Injury and Property Damage): | |
| Each Accident | \$ 1,000,000 |
| f. Other (specify): | |
| 1) Professional Liability | |
| a) Limit Each Claim | \$ 1,000,000 |
| b) Aggregate | \$ 2,000,000 |

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."



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
4/19/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Davis-Dyer-Max Insurance a Member of the Insurors Group P.O. Box 495429 Garland TX 75049	CONTACT NAME: Sarah Walls PHONE (A/C, No, Ext): (972) 864-0400 FAX (A/C, No): (972) 278-8400 E-MAIL: sarah@davis-dyer-max.com ADDRESS:														
INSURED Pipeline Analysis, LLC 1115 Main Street Garland TX 75040-6130	<table border="1"><thead><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr></thead><tbody><tr><td>INSURER A: Employers Mutual Casualty</td><td>21415</td></tr><tr><td>INSURER B: Phoenix - Travelers</td><td>25623</td></tr><tr><td>INSURER C: Hiscox Insurance Company</td><td></td></tr><tr><td>INSURER D:</td><td></td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></tbody></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Employers Mutual Casualty	21415	INSURER B: Phoenix - Travelers	25623	INSURER C: Hiscox Insurance Company		INSURER D:		INSURER E:		INSURER F:	
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INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES

CERTIFICATE NUMBER: 2017-2018

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS														
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			2N91686	5/21/2017	5/21/2018	<table border="1"><tr><td>EACH OCCURRENCE</td><td>\$ 1,000,000</td></tr><tr><td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td><td>\$ 100,000</td></tr><tr><td>MED EXP (Any one person)</td><td>\$ 5,000</td></tr><tr><td>PERSONAL & ADV INJURY</td><td>\$ 1,000,000</td></tr><tr><td>GENERAL AGGREGATE</td><td>\$ 2,000,000</td></tr><tr><td>PRODUCTS - COMP/OP AGG</td><td>\$ 2,000,000</td></tr><tr><td>Designated Unmanned Aircraft</td><td>\$ 25,000</td></tr></table>	EACH OCCURRENCE	\$ 1,000,000	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000	MED EXP (Any one person)	\$ 5,000	PERSONAL & ADV INJURY	\$ 1,000,000	GENERAL AGGREGATE	\$ 2,000,000	PRODUCTS - COMP/OP AGG	\$ 2,000,000	Designated Unmanned Aircraft	\$ 25,000
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A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			2R91686	5/21/2017	5/21/2018	<table border="1"><tr><td>COMBINED SINGLE LIMIT (Ea accident)</td><td>\$ 1,000,000</td></tr><tr><td>BODILY INJURY (Per person)</td><td>\$</td></tr><tr><td>BODILY INJURY (Per accident)</td><td>\$</td></tr><tr><td>PROPERTY DAMAGE (Per accident)</td><td>\$</td></tr><tr><td>Underinsured motorist BI</td><td>\$ 1,000,000</td></tr></table>	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000	BODILY INJURY (Per person)	\$	BODILY INJURY (Per accident)	\$	PROPERTY DAMAGE (Per accident)	\$	Underinsured motorist BI	\$ 1,000,000				
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Underinsured motorist BI	\$ 1,000,000																				
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			2K91686	5/21/2017	5/21/2018	<table border="1"><tr><td>EACH OCCURRENCE</td><td>\$ 5,000,000</td></tr><tr><td>AGGREGATE</td><td>\$ 5,000,000</td></tr></table>	EACH OCCURRENCE	\$ 5,000,000	AGGREGATE	\$ 5,000,000										
EACH OCCURRENCE	\$ 5,000,000																				
AGGREGATE	\$ 5,000,000																				
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y / N N / A			UB1D761118	5/21/2017	5/21/2018	<table border="1"><tr><td><input checked="" type="checkbox"/> PER STATUTE</td><td><input type="checkbox"/> OTH-ER</td><td></td></tr><tr><td>E.L. EACH ACCIDENT</td><td>\$</td><td>1,000,000</td></tr><tr><td>E.L. DISEASE - EA EMPLOYEE</td><td>\$</td><td>1,000,000</td></tr><tr><td>E.L. DISEASE - POLICY LIMIT</td><td>\$</td><td>1,000,000</td></tr></table>	<input checked="" type="checkbox"/> PER STATUTE	<input type="checkbox"/> OTH-ER		E.L. EACH ACCIDENT	\$	1,000,000	E.L. DISEASE - EA EMPLOYEE	\$	1,000,000	E.L. DISEASE - POLICY LIMIT	\$	1,000,000		
<input checked="" type="checkbox"/> PER STATUTE	<input type="checkbox"/> OTH-ER																				
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E.L. DISEASE - EA EMPLOYEE	\$	1,000,000																			
E.L. DISEASE - POLICY LIMIT	\$	1,000,000																			
C	Professional Liability - Claims Made			ANE1493281.16	9/28/2016	9/28/2017	<table border="1"><tr><td>Limit to Liability</td><td>\$ 2,000,000</td></tr><tr><td>Retention</td><td>\$ 5,000</td></tr></table>	Limit to Liability	\$ 2,000,000	Retention	\$ 5,000										
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Retention	\$ 5,000																				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Any and All Projects

The General Liability Policy include a blanket automatic additional insured endorsement that provides additional insured status to the certificate holder only when there is a written contract between the named insured and certificate holder.

CERTIFICATE HOLDER

City of Killeen
Attn: Ronald L. Olson, City Manager
P.O. Box 1329
Killeen, TX 76540-1329

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Larry Hughston/SW

Larry T. Hughston

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ACORD 25 (2014/01)
INS025 (201401)

The ACORD name and logo are registered marks of ACORD

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between OWNER and ENGINEER for Professional Services** dated _____, 2018.

Initial:

OWNER _____

ENGINEER _____

Special Provisions

No Further Agreements