PROFESSIONAL SERVICES AGREEMENT  
between  
TEXAS A&M UNIVERSITY  
and  
KIMLEY-HORN AND ASSOCIATES, INC.

This Professional Services Agreement ("Agreement") between Texas A&M University, a member of The Texas A&M University System ("TAMUS"), an agency of the State of Texas ("University"), and Kimley-Horn and Associates, Inc., ("Provider"), is made and entered into as of the date of the last party to sign.

This Agreement is for the provision of professional services outlined in the Scope of Work. Provider represents to having the knowledge, ability, skills and resources to provide such services in accordance with the terms and requirements of this Agreement. To any extent required under the Scope of Work, Provider represents that any part of the performance required to be performed by a professional having state licensure in good standing will be performed by such licensed professional.

University and Provider hereby agree as follows:

1. SCOPE OF WORK

A. Provider shall provide services to University related to domestic water system improvements.

B. The scope of the work ("Work") and the time for performance thereof is as set forth in the appendices attached hereto and made a part hereof for all purposes including the HUB subcontracting plan and any reports required thereunder. The appendices are as follows:

   Appendix A: Texas A&M RFQ 17-0009
   Appendix B: Kimley-Horn Statement of Qualifications
   Appendix C: Project Scope

Upon execution of this Agreement, all services previously performed by Provider on behalf of University and included in the description of the Work, shall become part of the Work and shall be subject to the terms and conditions hereof.

C. University shall take reasonable precautions to verify the accuracy and suitability of any drawings, plans, sketches, instructions, information, requirements, procedures, requests for action, and other data supplied to Provider for use in the Work under this Agreement. Provider shall use reasonable efforts to verify the accuracy and suitability of any information supplied to Provider by University, or any other party, that Provider uses for the Work. Provider shall identify to the University in writing any such documents or data which, in Provider's professional opinion, are unsuitable, improper, or inaccurate in connection with the purposes for which such documents or data are furnished. University does not warrant the accuracy or suitability of such documents or data as are furnished unless Provider advises University in writing that, in Provider's professional opinion, such documents or data are unsuitable, improper, or inaccurate and University confirms in writing that it wishes Provider to proceed in accordance with the documents or data as originally given.
D. Provider agrees and acknowledges that University is entering into this Agreement in reliance on Provider’s represented professional abilities with respect to performing the services, duties, and obligations under this Agreement. Provider shall perform its services in accordance with the usual and customary professional standards of care, skill and diligence consistent with its industry and like firms in Texas that provide professional services for projects that are similar in size, scope, and budget to the Project (the “Standard of Care”). Subject to this Standard of Care, Provider shall interpret and apply applicable national, federal, state, and municipal laws, regulations, codes, ordinances, and orders in effect at the time the services are provided. There are no obligations, commitments, or impediments of any kind known to the Provider that will limit or prevent performance by Provider of its services.

E. Provider shall allocate adequate time, personnel, internal administration, supervision, and resources as necessary to perform its services in an expeditious and economical manner consistent with the interests of the University. Provider’s Principal(s) responsible for managing the Work is identified in Section 8 and, while employed by Provider, shall not be changed without the prior written approval of the University.

F. University’s approval or acceptance of Provider’s services shall not relieve Provider of any of its professional duties nor release Provider from any liability for negligent delivery of such services because University is, at all times, relying upon Provider’s skill and knowledge in performing Provider’s services. University shall have the right to reject any of Provider’s services due to any material errors or omissions in any deliverables prepared by Provider or its consultants. Upon notice of any such errors or omissions, Provider shall promptly provide any and all services necessary to correct or remedy them at no additional cost to the University. Provider’s obligation to correct its errors and omissions is in addition to, and not in substitution for, any other remedy for defective services which University may have at law or in equity, or both.

2. TIME FOR COMMENCEMENT AND COMPLETION

It is understood that time is of the essence in the Work to be performed under this Agreement and that Provider shall complete all authorized Work in accordance with the time for performance described for the Work, and in a minimum of time consistent with the customs, standards, and practices of Provider’s business or profession. Work is to commence upon full execution of this Agreement and will be completed no later than August 31, 2018. Times for performance may be extended as necessary, and neither party is required to perform any term, condition, or covenant of this Agreement, if performance is prevented or delayed by a natural occurrence, a fire, an act of God, an act of terrorism, or other similar occurrence, the cause of which is not reasonably within the control of such party and which by due diligence it is unable to prevent or overcome.

3. PAYMENT TERMS AND MAXIMUM CONTRACT SUM

A. For the satisfactory performance of the Work, University shall pay Provider an amount not to exceed Nine Hundred Fifty-six Thousand Dollars ($956,000.00). Provider’s Standard Rate Schedule is included in the attached Appendix C. University reserves the right to increase the scope of this engagement as necessary.

B. Payments of the amount due to Provider will be provided by University upon receipt of an invoice which details the date of service, description of work performed, billing rate as set forth in Appendix C, and provides supporting documentation for reimbursable expenses relating to Work requested by University, if any. The invoice must be signed by the Provider and submitted to
University at the address specified in Section 8 below. Payment for travel related expenses shall be in accordance with State of Texas Travel Guidelines.

C. University makes no representations regarding the amount or type of services, if any, that Provider will be asked to provide to University during the term(s) of this Agreement. It is expressly understood that the University is under no obligation to request any services from Provider and no minimum amount of work is required or contemplated under this Agreement. All service requests will be made by the University on an as-needed basis, subject to future agreement on the scope of the work and the fee.

4. DEFAULT AND TERMINATION

A. In the event of substantial failure by a party hereunder to perform in accordance with the terms hereof, the other party may terminate this Agreement upon fifteen (15) days written notice of termination setting forth the nature of the failure (the termination shall not be effective if the failure is fully cured prior to the end of the fifteen-day period), provided that said failure is through no fault of the terminating party.

B. University may, without cause, terminate this Agreement at any time upon giving thirty (30) days advance notice to Provider. Upon termination pursuant to this paragraph, Provider shall be entitled to payment of such amount as shall compensate Provider for the services satisfactorily performed from the time of the last payment date to the termination date in accordance with this Agreement, provided Provider shall have delivered to University a final report describing the work completed to the date of termination. University shall not be required to reimburse Provider for any services performed or expenses incurred after the date of termination notice.

5. UNIVERSITY FACILITIES

University will provide Provider with office space, as needed, to carry out Provider’s duties under this Agreement. Any non-consumable items provided by University will remain University property at the termination of this Agreement unless otherwise agreed in writing. Provider and its employees will be permitted access to and use of the allocated office space, but University reserves the right to enter the premises to conduct University business, as may be reasonably necessary or for health and safety purposes.

6. INSURANCE

Provider shall obtain and maintain, for the duration of this Agreement or longer, the minimum insurance coverage set forth below. With the exception of Professional Liability (E&O), all coverage shall be written on an occurrence basis. All coverage shall be underwritten by companies authorized to do business in the State of Texas or eligible surplus lines insurers operating in accordance with the Texas Insurance Code and have a financial strength rating of A- or better and a financial strength rating of VII or better as measured by A.M. Best Company or otherwise acceptable to University. By requiring such minimum insurance, University shall not be deemed or construed to have assessed the risk that may be applicable to Provider under this Agreement. Provider shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverage. Provider is not relieved of any liability or other obligations assumed pursuant to this Agreement by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types. No policy will be canceled without
unconditional written notice to University at least ten days before the effective date of the cancellation.

**Insurance:**

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Limit</th>
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<tbody>
<tr>
<td><strong>A. Worker’s Compensation</strong></td>
<td></td>
</tr>
<tr>
<td>Statutory Benefits (Coverage A)</td>
<td>Statutory</td>
</tr>
<tr>
<td>Employers Liability (Coverage B)</td>
<td>$1,000,000 Each Accident</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 Disease/Employee</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 Disease/Policy Limit</td>
</tr>
</tbody>
</table>

Workers’ Compensation policy must include under Item 3.A. on the information page of the workers’ compensation policy the state in which work is to be performed for University. Workers’ compensation insurance is required, and no “alternative” forms of insurance will be permitted.

**B. Automobile Liability**

Business Auto Liability Insurance covering all owned, non-owned or hired automobiles, with limits of not less than $1,000,000 Single Limit of liability per accident for Bodily Injury and Property Damage;

**C. Commercial General Liability**

- Each Occurrence Limit $1,000,000
- General Aggregate Limit $2,000,000
- Products / Completed Operations $1,000,000
- Personal / Advertising Injury $1,000,000
- Damage to rented Premises $300,000
- Medical Payments $5,000

The required commercial general liability policy will be issued on a form that insures Provider’s or its subcontractors’ liability for bodily injury (including death), property damage, personal and advertising injury assumed under the terms of this Agreement.

**Additional Endorsements**

The Auto and Commercial General Liability Polices shall name The Texas A&M University System Board of Regents for and on behalf of The Texas A&M University System and Texas A&M University as additional insured’s.

**D. Architect/Engineer Professional Liability (Errors & Omissions)**

Provider shall maintain Professional Liability in the amount of $1,000,000 each claim/$2,000,000 aggregate covering wrongful acts, errors and/or omissions, including design errors of Provider for damages sustained by reason of or in the course of performance of this Agreement for three (3) years after the Work is substantially complete.
E. Provider will deliver to University:

Evidence of insurance on a Texas Department of Insurance approved certificate form verifying the existence and actual limits of all insurance after the execution and delivery of this Agreement and prior to the performance of any services by Provider under this Agreement. Additional evidence of insurance will be provided on a Texas Department of Insurance approved certificate form verifying the continued existence of all required insurance no later than thirty (30) days after each annual insurance policy renewal.

All insurance policies, with the exception of worker’s compensation, employer’s liability and professional liability will be endorsed and name The Board of Regents for and on behalf of The Texas A&M University System, The Texas A&M University System and Texas A&M University as Additional Insureds up to the actual liability limits of the policies maintained by Provider. Commercial General Liability and Business Auto Liability will be endorsed to provide primary and non-contributory coverage. The Commercial General Liability Additional Insured endorsement will include on-going and completed operations and will be submitted with the Certificates of Insurance.

All insurance policies will be endorsed to provide a waiver of subrogation in favor of The Board of Regents of The Texas A&M University System, The Texas A&M University System and Texas A&M University. No policy will be canceled without unconditional written notice to University at least ten days before the effective date of the cancellation. All insurance policies will be endorsed to require the insurance carrier providing coverage to send notice to University ten (10) days prior to the effective date of cancellation, material change, or non-renewal relating to any insurance policy required in this section.

Any deductible or self-insured retention must be declared to and approved by University prior to the performance of any Work by Provider under this Agreement. Provider is responsible to pay any deductible or self-insured retention for any loss. All deductibles and self-insured retentions will be shown on the Certificates of Insurance.

Certificates of Insurance and Additional Insured Endorsements as required by this Agreement will be mailed, faxed, or emailed to the following University contact:

Department of Contract Administration
Texas A&M University
1182 TAMU
College Station, Texas 77843-1182
Facsimile: (979) 862-7130
Email: contracts@tamu.edu

The insurance coverage required by this Agreement will be kept in force until all Work has been fully performed and accepted by University in writing.
7. OWNERSHIP AND USE OF DOCUMENTS

All documents prepared by the Provider under this Agreement, and the ideas and designs contained therein, shall be property of the University. Provider shall be permitted to retain copies, including reproducible copies, of all documents prepared by the Provider for information and reference in connection with the Work.

8. NOTICES

Any notice required or permitted under this Agreement must be in writing, and shall be deemed to be delivered (whether actually received or not) when deposited with the United States Postal Service, postage prepaid, certified mail, return receipt requested, and addressed to the intended recipient at the address set out below. Notice may also be given by regular mail, personal delivery, courier delivery, facsimile transmission, email, or other commercially reasonably means and will be effective when actually received. University and Provider can change their respective notice address by sending to the other party a notice of the new address. Notices should be addressed as follows:

University:  
Texas A&M University  
Procurement Services  
1477 TAMU  
College Station, TX 77843-1477  
ATTN: Clyde Oberg, Assistant Director  
Telephone: (979) 845-1042  
Fax: (979) 845-5129  
Email: co@tamu.edu

Provider:  
Kimley-Horn and Associates, Inc.  
2800 South Texas Avenue, Suite 201  
Bryan, TX 77802  
ATTN: Sean Mason  
Telephone: (979) 775-9595  
Email: sean.mason@kimley-horn.com

9. PUBLIC INFORMATION

A. Provider acknowledges that University is obligated to strictly comply with the Public Information Act, Chapter 552, Texas Government Code, in responding to any request for public information pertaining to this Agreement, as well as any other disclosure of information required by applicable Texas law.

B. Upon University’s written request, Provider will provide specified public information exchanged or created under this Agreement that is not otherwise excepted from disclosure under Chapter 552, Texas Government Code, to University in a non-proprietary format acceptable to University. As used in this provision, “public information” has the meaning assigned Section 552.002, Texas Government Code, but only includes information to which University has a right of access.
C. Provider acknowledges that University may be required to post a copy of the fully executed Agreement on its Internet website in compliance with Section 2261.253(a)(1), Texas Government Code.

10. CONFLICT OF INTEREST

By executing and/or accepting this Agreement, Provider and each person signing on behalf of Provider certifies, and in the case of a sole proprietorship, partnership or corporation, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief, no member of TAMUS or TAMUS Board of Regents, nor any employee, or person, whose salary is payable in whole or in part by University or TAMUS, has direct or indirect financial interest in the award of this Agreement, or in the services to which this Agreement relates, or in any of the profits, real or potential, thereof.

11. DISPUTE RESOLUTION

The dispute resolution process provided in Chapter 2260, Texas Government Code, and the related rules adopted by the Texas Attorney General pursuant to Chapter 2260, shall be used by University and Provider to attempt to resolve any claim for breach of contract made by Provider that cannot be resolved in the ordinary course of business. Provider shall submit written notice of a claim of breach of contract under this Chapter to the University Contracts Officer of Texas A&M University, who shall examine Provider’s claim and any counterclaim and negotiate with Provider in an effort to resolve the claim.

12. HUB SUBCONTRACTING

It is the policy of the State of Texas, the Texas Procurement and Support Services and TAMUS to encourage the use of Historically Underutilized Businesses (HUBs) in our prime contracts, subcontractors and purchasing transactions. The goal of the HUB program is to promote equal access and equal opportunity in TAMUS contracting and purchasing. The Provider having been awarded this Agreement in part by complying with the Historically Underutilized Business (HUB) Certification Program, Chapter 111, Subchapter B, 1 T.A.C., shall continue to comply with the program and its accepted HUB Subcontracting Plan.

Provider agrees on allocating work to subcontractors (consultants) as listed (or indicated) on their HUB Subcontracting Plan, in accordance with TAMUS policy on HUBs. No changes to the HUB Subcontracting Plan may be made unless approved in writing by University. While this Agreement is in effect and until the expiration of one year after completion, University may require information from Provider, and may conduct audits, to assure that the HUB Subcontracting Plan is followed.

13. MISCELLANEOUS

A. **Provider agrees to indemnify and hold harmless University from any claim, damage, liability, expense or loss to the extent arising out of Provider’s negligent or intentional wrongful acts or omissions in performance under this Agreement.**

B. Provider shall neither assign its rights nor delegate its duties under this Agreement without the prior written consent of University.
C. Provider shall be an independent contractor, and neither Provider nor any employee of Provider shall be deemed to be an agent or employee of University. As an independent contractor, Provider will be solely responsible for determining the means and methods for performing the services described. Provider shall observe and abide by all applicable laws and regulations, policies and procedures, including but not limited to, those of University relative to conduct on its premises.

D. This Agreement constitutes the sole agreement of the parties and supersedes any other oral or written understanding or agreement. This Agreement may not be amended or otherwise altered except upon the written agreement of both parties.

E. The validity of this Agreement and all matters pertaining to this Agreement, including but not limited to, matters of performance, non-performance, breach, remedies, procedures, rights, duties, and interpretation or construction, shall be governed and determined by the Constitution and the laws of the State of Texas. Pursuant to Section 85.18, Texas Education Code, venue for any suit filed against University shall be in the county in which the primary office of the chief executive officer of University is located.

F. If Provider is a taxable entity subject to the Texas Franchise Tax (Chapter 171, Texas Tax Code), then Provider certifies that it is not currently delinquent in the payment of any franchise (margin) taxes or that Provider is exempt from the payment of franchise (margin) taxes.

G. University may request a consultant to perform a criminal background check on any employee and/or representative of Provider who conducts business pursuant to this Agreement on the campus of University.

H. Under Section 231.006, Texas Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

I. Pursuant to Section 2252.903, Texas Government Code, Provider agrees that any payments owing to Provider under this Agreement may be applied directly toward certain debts or delinquencies that Provider owes the State of Texas or any agency of the State of Texas regardless of when they arise, until such debts or delinquencies are paid in full.

J. Provider expressly acknowledges that University is an agency of the State of Texas and nothing in this Agreement will be construed as a waiver or relinquishment by University of its right to claim such exemptions, privileges, and immunities as may be provided by law.

K. Provider acknowledges and understands that Section 2252.901, Texas Government Code, prohibits University from using state appropriated funds to enter into any employment contract, consulting contract, or professional services contract with any individual who has been previously employed, as an employee, by the agency within the past twelve (12) months. If Provider is an individual, by signing this Agreement, Provider certifies that Section 2252.901, Texas Government Code, does not prohibit the use of state appropriated funds for satisfying the payment obligations herein.

L. Performance by University under this Agreement may be dependent upon the appropriation and allotment of funds by the Texas State Legislature (the "Legislature"). If the Legislature fails to appropriate or allot the necessary funds, University will issue written notice to Provider and
University may terminate this Agreement without further duty or obligation hereunder. Provider acknowledges that appropriation of funds is beyond the control of University.

M. Each provision of this Agreement is severable. If any provision is rendered invalid or unenforceable by statute or regulations or declared null and void by any court of competent jurisdiction, the remaining provisions will remain in full force and effect if the essential terms of this Agreement remain valid, legal, and enforceable.

IN WITNESS WHEREOF, the parties have signed this Agreement on the date indicated below their signatures.

TEXAS A&M UNIVERSITY

Jerry R. Strawser  
Vice President for Finance and Administration and Chief Financial Officer

02/28/17  
Date

KIMLEY-HORN AND ASSOCIATES, INC.

Signature  
Eric Z. Smith

Name  
Assistant Secretary

Title  
Date  03/06/17
APPENDIX A

TEXAS A&M RFQ 17-0009
REQUEST FOR QUALIFICATIONS

RFQ MAIN 17-0009
DOMESTIC WATER SYSTEMS IMPROVEMENTS

Submittal Deadline: November 18, 2016 @ 2:00 PM

MAIL QUALIFICATIONS TO:
Texas A&M University
Procurement Services
P. O. Box 30013
College Station, TX 77842-3013

HAND DELIVER AND/OR EXPRESS MAIL TO:
Texas A&M University
Procurement Services
1477 TAMU Agronomy Road
College Station, TX 77843-1477

Show RFQ Number, Opening Date, and Time on Return Envelope

NOTE: RESPONSE must be time stamped at Texas A&M University’s Department of Procurement Services before the hour and date specified for receipt of response. Sealed responses will be received until the date and time established for receipt. After receipt, only the names of proposers will be made public. Other details will only be divulged after the contract award, if one is made. All questions related to the RFQ shall be in writing via e-mail to the contact provided below.

REFER INQUIRIES TO:
Clyde Oberg, Assistant Director
Texas A&M University
Procurement Services
979-845-1042
E-mail: co@tamu.edu

All qualification statements shall become the property of the State of Texas upon receipt.

P.O. Box 30013
1477 TAMU
College Station, TX 77842-3013

Tel. 979.845.4570 Fax. 979.845.3800
http://purchasing.tamu.edu
SECTION 1
Introduction

1.1 Introduction

The Utilities and Energy Services Department (UES) of the Division of Finance and Administration at Texas A&M University in College Station, TX is seeking qualification statements from qualified Architectural/Engineering firms, with experience in the design and installation of water transmission and distribution systems.

1.2 Tentative Timetable

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFQ available</td>
<td>10/21/2016</td>
<td>5:00 p.m.</td>
</tr>
<tr>
<td>Deadline for questions</td>
<td>10/27/2016</td>
<td>5:00 p.m.</td>
</tr>
<tr>
<td>Response to questions from Purchasing</td>
<td>11/2/2016</td>
<td>5:00 p.m.</td>
</tr>
<tr>
<td>Proposals due</td>
<td>11/18/2016</td>
<td>2:00 p.m.</td>
</tr>
</tbody>
</table>

1.2 Scope of Work

The project Scope of Work (SOW) includes:

1. Domestic Water System Upgrades/Replacements – A/E will be responsible for the design, cost estimates, assistance with bidding, and implementation of approximately 5 sub-projects valued at slightly less than $10MM. These include:

   a. A 17 mile domestic water transmission line replacement from the well field to the F&B pumping station.

   b. Perform a condition assessment of the interior and exterior of the ground storage tanks on F&B road as part of the design work. Base bid is to paint the exterior of the tanks and any external repairs. As an alternate, perform any interior tank maintenance necessary and paint the interior of the tanks. The only window available is November through April.

   c. Add CIPP slip liner to the 24" pipe that originates near the intersection of Wellborn and Stotzer, continuing west along Stotzer to the intersection of 2818. The lining will be a cure in place process to prevent future leaks.

   d. Upsize the existing 6" domestic water line to 8" from Stotzer at 2818 to Easterwood Operations.

   e. Design a new 8" domestic water line from Poultry Science to existing domestic water line on Nuclear Science Road.

The Project Architect/Engineer (Project A/E) team is responsible for the design as requested for this project, to effectively allow for competitive sealed proposal (CSP) construction bidding when requested.

The Scope of Work is intended only to establish basic design criteria. This RFQ does not include all User requirements that may be identified in the project during the design process. Further, the RFQ is to be used in conjunction with TAMU Utilities and Energy Design Standards to ensure all requirements are achieved. The design team shall make professional evaluations of design problems and issues related to this project, analyze the advantages and disadvantages of each, evaluate and recommend solutions to the design issues during the design process.

It is emphasized that the Project A/E team is responsible to the UES Manager for Technical Services for performing professional evaluations and any needed detailed studies using sound architectural and engineering principles required to establish the most functional, economical, and efficient use of
materials, the site and construction methods in order to provide the requested facilities within an approved budget during the design phases. The project will use the Competitive Sealed Proposal (CSP) delivery method.

The Project A/E team is charged with the responsibility of establishing the final locations, configuration and layout taking into consideration site conditions and requirements established in this program.

Project Requirements:

- The Project A/E team will provide all geotechnical, site survey and construction phase services including project meetings and reports required to ensure proper installation of the design of this project.

- This project has a very tight schedule (see below). A/E firms will have to demonstrate their ability to commit the resources required to meet this schedule in order to be considered for this project.

Project Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 21, 2016</td>
<td>RFQ Posted to Hire A/E</td>
</tr>
<tr>
<td>November 18, 2016</td>
<td>RFQ Due</td>
</tr>
<tr>
<td>December 15, 2016</td>
<td>A/E Contract Signed</td>
</tr>
<tr>
<td>February 16, 2017</td>
<td>50% CDs for Review</td>
</tr>
<tr>
<td>April 14, 2017</td>
<td>75% CDs for Review including initial Cost Estimates</td>
</tr>
<tr>
<td>June 8, 2017</td>
<td>100% CDs for Review including final cost estimates</td>
</tr>
<tr>
<td>June 22, 2017</td>
<td>Issue Request for CSP</td>
</tr>
<tr>
<td>July 20, 2017</td>
<td>CSP Due</td>
</tr>
<tr>
<td>July 31, 2017</td>
<td>Chancellor Approval of Ranked Order</td>
</tr>
<tr>
<td>August 17, 2017</td>
<td>BOR Approval</td>
</tr>
<tr>
<td>September 1, 2017</td>
<td>Issue Construction Notice to Proceed</td>
</tr>
<tr>
<td>August 31, 2018</td>
<td>Project Substantial Completion</td>
</tr>
</tbody>
</table>

1.4 Qualifications

The Texas Engineering Practices Act defines the practice of engineering as performing any public or private service or creative work which requires engineering education, training, and experience in applying special knowledge or judgment of the mathematical, physical or engineering sciences to that service or creative work.

Detailed engineering calculations as described above are required for this scope of work and hence the services of a licensed professional engineer are required.
A professional engineer licensed to practice in the State of Texas shall be responsible for and in charge of all work performed on this project.

1.5 **Electronic State Business Daily**

This RFQ has been posted on the Electronic State Business Daily at [http://esbd.cpa.state.tx.us/](http://esbd.cpa.state.tx.us/). It is the responsibility of proposers who download this RFQ from the Electronic State Business Daily to check the website for any addenda for this RFQ. All such addenda issued by Texas A&M prior to the time that responses are received shall be considered part of the RFQ, and the Respondent shall consider and acknowledge receipt of such in their response.

SECTION 2
Requirements

2.1 **Statement of Qualifications Content**

Statement of Qualifications shall contain the following information in the same order in which they are set forth below. Respondents must present all information, in adequate detail, necessary to demonstrate how they best satisfy the evaluation criteria for establishing the most qualified professional engineering firm to provide the requested services.

Interested respondents shall present for consideration one original, two (2) copies and one (1) Virus Free Flash Drive of response document including, as a minimum, all of the following:

2.2.1 Statement to indicate interest and availability to provide the required services and include credentials to perform requested services.

2.2.2 Provide a general overview of the organization and its professional staffing, including:

- Total staff
- Number of Civil Engineers
- Quantity of Project Managers

2.2.3 Please include the following information regarding any previous experience:

- Name of Owner
- Completion Date
- Time from notice to proceed to construction documents
- Total Installed Cost

2.2.4 For Projects that involved project phasing including drawing examples

2.2.5 Provide examples of actual project inspection notes

2.2.6 Provide credentials and/or certification of everyone who will be assigned to this project. Identify all individuals by name and title that will provide support to the project including their locations, position, specific responsibilities, educational background, experience, and technical capabilities.

2.2.7 List and description of services provided.

2.2.8 References related to services as outlined in this RFQ. References shall include all contact information (Name, address, phone number, fax number, e-mail, etc)
2.2.9 Three (3) hard copies (one original in the three) and one (1) Virus Free Flash Drive copy of the complete response is required. The flash Drive copy must either be in Microsoft Office software or Adobe Portable Document Format (PDF). All image files must be in one of the following formats: .jpg, .gif, .bmp, or .tif. We prefer image files to already be inserted as part of a document such as Word. Individual image files on the flash Drive must be clearly named and referenced in your proposal.

Any additional information that is submitted shall be included in the bound document with the information described above.

2.2 HUB SUBCONTRACTING (HSP)

It is the policy of the State of Texas and Texas A&M University (TAMU) to encourage the use of Historically Underutilized Businesses (HUBs) in our prime contracts, subcontractors, and purchasing transactions. The goal of the HUB Program is to promote equal access and equal opportunity in TAMU contracting and purchasing.

Subcontracting opportunities are anticipated for this Request for Qualifications and therefore a HUB Subcontracting Plan (HSP) is required. Failure to submit a comprehensive, acceptable HSP will be considered a material failure to comply with the requirements of the Request for Qualifications and will result in rejection of the submittal. Prepare the HUB Subcontracting Plan in accordance (Appendix C – attached) and submit one copy to the Buyer at the address and by the submittal deadline given in the Request for Qualifications. The HUB Subcontracting Plan shall be submitted as a separate document appropriately tabbed for easy reference.

Documents attached (Appendix B) are the State of Texas HUB Subcontracting Plan form, an HSP checklist, and HUB Subcontracting Plan Instructions.

A completed HUB Packet shall be required ONLY of the successful responder.

Should there be any questions regarding completing this document, contact Clyde Ober at the information listed above.

For information regarding the TAMU HUB Program and HUB Subcontracting Plan requirements, please contact Clyde Ober at 979-845-1042 or via email at co@tamu.edu.

SECTION 3
EVALUATION CRITERIA

3.1 Selection Criteria

The professional engineering firm/individual will be selected based on the following criteria:

1. Experience in the specifying and design of water transmission and distribution systems.
2. Demonstrated ability to complete projects of a similar nature on time and within budget.
3. Ability to provide the manpower and other resources required to complete this project in a timely fashion per the schedule in this RFQ.
4. References
3.2 Selection

The University will select the responder or respondents based on the responders' demonstrated competence and qualifications for the type of services to be performed. The University shall be the sole judge in evaluating a respondent's demonstrated competence and qualifications. Upon identification of the most qualified response(s), the University will attempt to negotiate an agreement for the work with the potential provider(s).

SECTION 4
GENERAL INFORMATION

4.1 Submittal Deadline and Location

4.1.1 All responses must be received prior to 2:00 p.m. on November 18, 2016. Response envelope or box must indicate firms name, the submittal deadline date, and RFQ number.

4.1.2 Responses are to be submitted to:

U. S. POSTAL SERVICE:
Texas A&M University
Procurement Services
Attn: Clyde Oberg
P. O. Box 30013
College Station, TX 77842-3013

HAND DELIVER AND/OR EXPRESS MAIL TO:
Texas A&M University
Procurement Services
Attn: Clyde Oberg
1477 TAMU Agronomy Road
College Station, TX 77843-1477

Late responses properly identified will be returned to respondent unopened. Late responses will not be considered under any circumstances.

Telephone and/or facsimile (Fax) responses to this RFQ are not acceptable.

4.2 Questions

Any questions regarding this Request for Qualifications are to be directed in writing to Clyde Oberg, Assistant Director, at co@tamu.edu by Friday October 27, 2016, 5:00 p.m. Texas A&M specifically requests that respondents restrict all contact and questions regarding this RFQ to the above named individual. Responses to any submitted questions are due back to bidders by Tuesday November 2, 2016 at the close of the business day.

4.3 Inquiries and Interpretations

Responses to inquiries which directly affect an interpretation or change to this RFQ will be issued in writing by addendum (amendment) and mailed and or faxed to all parties recorded by Texas A&M as having received a copy of the RFQ. All such addenda issued by Texas A&M prior to the time that proposals are received shall be considered part of the RFQ, and the respondent shall consider and acknowledge receipt of such in their response.

Only interpretations or clarifications which are made by formal written addendum shall be binding. Oral and other interpretations or clarification will be without legal effect.
4.4 Open Records

Texas A&M considers all information, documentation and other materials requested to be submitted in response to this solicitation to be of a non-confidential and/or non-proprietary nature and therefore shall be subject to public disclosure under the Texas Public Information Act (Texas Government code, Chapter 552) after an agreement is entered into.

Respondents are hereby notified that Texas A&M strictly adheres to all Statutes, court decisions and the opinions of the Texas Attorney General regarding the disclosure of RFQ information.

4.5 Insurance Requirements

The selected A/E firm shall be responsible for providing a Certificate of Insurance which meets or exceeds the requirements listed on Appendix A – Insurance Requirements.

RFQ ATTACHMENTS

APPENDIX A – TAMU INSURANCE REQUIREMENTS

APPENDIX B – HUB SUBCONTRACTING PACKET
APPENDIX A – TAMU INSURANCE REQUIREMENTS

[Vendor] shall obtain and maintain, for the duration of this Agreement or longer, the minimum insurance coverage set forth below. With the exception of Professional Liability (E&O), all coverage shall be written on an occurrence basis. All coverage shall be underwritten by companies authorized to do business in the State of Texas or eligible surplus lines insurers operating in accordance with the Texas Insurance Code and have a financial strength rating of A- or better and a financial strength rating of VII or better as measured by A.M. Best Company or otherwise acceptable to Texas A&M University. By requiring such minimum insurance, the Owner shall not be deemed or construed to have assessed the risk that may be applicable to [Vendor] under this Agreement. [Vendor] shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverage. [Vendor] is not relieved of any liability or other obligations assumed pursuant to this Agreement by reason of its failure to obtain or maintain insurance in sufficient amounts, duration, or types. No policy will be canceled without unconditional written notice to Texas A&M University at least ten days before the effective date of the cancellation.

Insurance:

<table>
<thead>
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<tr>
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<tr>
<td>Statutory Benefits (Coverage A)</td>
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<tr>
<td>Employers Liability (Coverage B)</td>
<td>$1,000,000 Each Accident</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 Disease/EmpLOYEE</td>
</tr>
<tr>
<td></td>
<td>$1,000,000 Disease/Policy Limit</td>
</tr>
</tbody>
</table>

Workers’ Compensation policy must include under Item 3.A. on the information page of the workers’ compensation policy the state in which work is to be performed for Texas A&M University. Workers’ compensation insurance is required, and no “alternative” forms of insurance will be permitted.

**B. Automobile Liability**

Business Auto Liability Insurance covering all owned, non-owned or hired automobiles, with limits of not less than $1,000,000 Single Limit of liability per accident for Bodily Injury and Property Damage;

**C. Commercial General Liability**

<table>
<thead>
<tr>
<th>Each Occurrence Limit</th>
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</thead>
<tbody>
<tr>
<td>General Aggregate Limit</td>
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<tr>
<td>Medical Payments</td>
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</tr>
</tbody>
</table>

The required commercial general liability policy will be issued on a form that insures [Vendor's] or its subcontractors' liability for bodily injury (including death), property damage, personal and advertising injury assumed under the terms of this Agreement.

**Additional Endorsements**

The Auto and Commercial General Liability Policies shall name the Texas A&M University System Board of Regents for and on behalf of The Texas A&M University System and the Texas A&M University as additional insured’s.

D. [Vendor] will deliver to Texas A&M University:
Evidence of insurance on a Texas Department of Insurance approved certificate form verifying the existence and actual limits of all insurance after the execution and delivery of this Agreement and prior to the performance of any services by [Vendor] under this Agreement. Additional evidence of insurance will be provided on a Texas Department of Insurance approved certificate form verifying the continued existence of all required insurance no later than thirty (30) days after each annual insurance policy renewal.

**All insurance policies**, with the exception of worker’s compensation and employer’s liability will be endorsed and name The Board of Regents for and on behalf of The Texas A&M University System, The Texas A&M University System and Texas A&M University as Additional Insureds up to the actual liability limits of the policies maintained by [Vendor]. Commercial General Liability and Business Auto Liability will be endorsed to provide primary and non-contributory coverage. The Commercial General Liability Additional Insured endorsement will include on-going and completed operations and will be submitted with the Certificates of Insurance.

**All insurance policies** will be endorsed to provide a waiver of subrogation in favor of The Board of Regents of The Texas A&M University System, The Texas A&M University System and Texas A&M University. No policy will be canceled without unconditional written notice to Texas A&M University at least ten days before the effective date of the cancellation. **All insurance policies** will be endorsed to require the insurance carrier providing coverage to send notice to Texas A&M University ten (10) days prior to the effective date of cancellation, material change, or non-renewal relating to any insurance policy required in this section.

Any deductible or self-insured retention must be declared to and approved by Texas A&M University prior to the performance of any services by [Vendor] under this Agreement. [Vendor] is responsible to pay any deductible or self-insured retention for any loss. All deductibles and self-insured retentions will be shown on the Certificates of Insurance.

Certificates of Insurance and Additional Insured Endorsements as required by this Agreement will be mailed, faxed, or emailed to the following Texas A&M University contact:

Name: Clyde Oberg

Address: Texas A&M University  
Dept of procurement Services  
1477 TAMU Agronomy Road  
College Station, TX 77843-1477

Fax Number: 979-845-8171

Email Address: co@tamu.edu

The insurance coverage required by this Agreement will be kept in force until all services have been fully performed and accepted by Texas A&M University in writing.
APPENDIX B

Kimley-Horn Statement of Qualifications
November 18, 2016

Mr. Clyde Oberg
The Texas A&M University System
Procurement Services
1477 TAMU Agronomy Road
College Station, Texas 77843-1477

Re: Texas A&M University System
Request for Qualifications for Domestic Water System Improvements | Project No. 17-0009

Dear Mr. Oberg and Selection Committee Members:

As Texas A&M University (TAMU) continues to grow, so does the need to maintain and improve its water system to protect the University System's infrastructure as well as plan for future needs. Kimley-Horn is highly qualified to provide professional services for the TAMU domestic water system improvements because of our experience completing water transmission and tank rehabilitation projects within tight schedule requirements aligns with your needs. We are dedicated and available to serve the University and your staff.

Kimley-Horn has had the privilege to serve Texas A&M Transportation Services with on-call services for nine years as well as serving on various TAMU projects. Through these engagements, we hope we conveyed to you our level of service, strength, ability, and creativity in providing innovative, high quality designs completed within budget and on schedule. As you read our qualifications, please keep the following characteristics of a Kimley-Horn team in mind:

- **Water Infrastructure Expertise** — Kimley-Horn's water infrastructure design and rehabilitation experience includes water main design for the City of College Station, water transmission and urban relocations for the City of Fort Worth, relocation projects for North Texas Municipal Water District (NTMWD), complicated storage tank improvements for San Antonio Water System (SAWS), and GRP pipeline design for San Jacinto River Authority (SJRA). TAMU benefits from our understanding of what works and what doesn't for different clients in various circumstances.

- **Local Presence and Commitment** — Kimley-Horn has been committed to serving Texas A&M University and becoming a trusted partner since opening our Bryan/College Station office in 2006. We offer you the individual, personal service that you would expect from a local firm, with the manpower and technical resources of a nationally-ranked engineering firm.

- **Experience with the Texas A&M University System** — Our prior experience with Texas A&M University and the University System provides us with a unique position of having knowledge of your goals, your challenges, and working within your existing framework. **This allows us to deliver solutions to your challenges with no learning curve, taking full advantage of our prior experience and our local office know-how.**

I look forward to the opportunity to become a partner in your success on the domestic water system improvements projects. Please contact me directly at (512) 418-4502 or sean.mason@kimley-horn.com or contact Chris Harris at (979) 307-5040 or chris.harris@kimley-horn.com if you have any questions, additional requests for information, or comments.

Sincerely,

Kimley-Horn and Associates, Inc.

Sean Mason, P.E./Project Manager

Chris Harris, P.E., CFM, Associate
2.2.1 Statement to indicate interest and availability to provide the required services and include credentials to perform requested services

Kimley-Horn’s Water Group is committed to providing clients with time-saving and cost-effective solutions. Water infrastructure – including transmission and distribution, system planning and design, storage reservoirs, and pump stations – is a key component of our Water Group’s expertise. Through our experience providing similar services for clients across Texas, including SAWS, City of College Station, Dallas Water Utilities, and City of Fort Worth, we understand the key water-related issues Texas A&M University is currently facing and can meet your scheduling needs, minimize your hassles, provide solutions, and maximize your dollars.

We pride ourselves on our responsiveness and commitment to achieving our client’s goals. We believe that success is defined by our client, and we recognize that definition may include short time schedules, tight budgets, and stakeholder buy-in. Our team is confident that we have the breadth of staff and depth of experience to be readily available to meet TAMU’s requirements.

Availability

Kimley-Horn and our consultants are prepared to commit the resources to bring about the timely success of your water system improvements. We have analyzed our current workload and determined that the proposed staff can be available for TAMU’s water improvement projects. We know that professional expertise alone is not enough; our team members must also have the time to devote to your projects for their expertise to be of value to you.

We are committed to meeting the project schedule. Operating as one profit center, Kimley-Horn has the resources and ability to shift staff to supplement the project team, as necessary, to meet the schedule. Kimley-Horn uses an effective regional “cast-ahead” workload forecasting process to determine the appropriate staffing to accommodate the workload for each office and project team.

For this project, you’ll have the following resources available to you:

- Water resources professionals from multiple Kimley-Horn offices in Texas
  - To meet this demanding schedule, Sean Mason, Marty Paris, and Tyler Lewis are committed to this project. In addition, Kimley-Horn has a deep bench of water professionals throughout the State that can supplement our project team, if needed, to stay on schedule.

- Local Project Management Assistance from our Bryan/College Station office
  - By having Chris Harris and Tyler Lewis in our local office, you can have an immediate resource to quickly meet in the field to discuss and review whatever may come up. They are also familiar with your policies and procedures, so you will not need to spend time retraining staff members on your expectations.

- Subconsultants that have a track record of working with Kimley-Horn
  - By having subconsultants teamed with us that we commonly work with on projects in Brazos County, they understand how to best work with our firm and have a track record of meeting our schedule and budget needs.
Credentials
Kimley-Horn is licensed to do business in the State of Texas. Our professional licenses include:

- Secretary of State 48819-6
- Board of Professional Engineers F-000928
- Board of Architectural Examiners BR1030
- Board of Professional Land Surveying 10115500

Project Manager, Sean Mason, is a Professional Engineer in Texas (#110102), along with Principal-in-Charge, Marty Paris, P.E. (#84766) and Water Transmission/Distribution Task Lead, Tyler Lewis, P.E. (#115838). Credentials for additional team members are listed on their resumes starting in Section 2.2.6.

2.2.2 General overview of the organization and its professional staffing
Kimley-Horn was founded in 1967 by transportation planners and traffic operations experts in Raleigh, North Carolina. Today, Kimley-Horn is a privately-held, full-service consulting firm with more than 2,800 professionals nationwide including over 500 employees in the Texas Region. Much of our growth extends from the confidence and trust that clients have in us. Kimley-Horn’s long record of technical achievements is enhanced by our reputation for effective management and personal service. We are a fully-integrated consulting firm offering a variety of multidiscipline in-house services, including the following:

- Water/Wastewater (Water Conveyance and Storage, Wastewater Interceptors, Lift Stations, and Treatment)
- Drainage
- Traffic Engineering and Operations
- Transportation Planning
- Roadway
- Landscape Architecture
- Bicycle and Pedestrian Planning and Design
- Aviation
- Master Planning and Land Use

We have over 75 offices grouped into six regions, and each region is managed by a regional team that provides production, business, marketing, and practice support. The Texas Region has 12 offices including our local office in Bryan/College Station.

Our Texas Region offices have been serving university systems for years. Through this experience, we understand the key issues facing the Texas A&M University System and know how to meet your needs.

Established: 1967
Type of Ownership: Privately-Held Corporation
Office Locations: Please see locations map to the right
Office Location Managing the Project: Bryan and Austin
Civil Engineers: 1,032
Project Managers: 178

Kimley-Horn Office Locations
Professional Staff by Discipline:

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Staff</th>
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</thead>
<tbody>
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<td>Administrative</td>
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<tr>
<td>Aviation</td>
<td>6</td>
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<tr>
<td>Environmental</td>
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</tr>
<tr>
<td>Finance/Accounting/Business</td>
<td>13</td>
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<tr>
<td>Human Resources</td>
<td>4</td>
</tr>
<tr>
<td>Hydrology/Hydraulics</td>
<td>13</td>
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<tr>
<td>Information Systems</td>
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<tr>
<td>Regional Leadership</td>
<td>2</td>
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<td>Roadway</td>
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<td>Structural</td>
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</tr>
<tr>
<td>Survey/Mapping</td>
<td>15</td>
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<tr>
<td>Transportation</td>
<td>51</td>
</tr>
<tr>
<td>Water/Wastewater</td>
<td>49</td>
</tr>
</tbody>
</table>

2.2.3 Previous Experience

Dallas Water Utilities 2010 Water and Wastewater Replacements – Dallas, Texas

Dallas Water Utilities (DWU) hired Kimley-Horn to design approximately 72,000 LF of 8- to 16-inch water and 8- to 42-inch wastewater replacements in approximately 20 locations throughout Dallas. The project scope included preparation of design reports, survey for design, base mapping, and preliminary and final design. Easements were necessary at five locations. Several of the replacements were designed to be replaced using trenchless technology like pipe bursting and cured-in-place pipe (CIPP). The following segments were rehabilitated using CIPP:

- Lake Highlands Park 1,800 LF 33-inch Wastewater RCP
- Fair Oaks Park 180 LF 36-inch Wastewater RCP
- Marsh Lane 440 LF 18-inch Wastewater RCP
- Blackburn Street 110 LF 24-inch Wastewater RCP and 110 LF 24-inch Cast Iron Water

Name of Owner: Dallas Water Utilities

Completion Date: 10/1/2011

Time from notice to proceed to construction documents: 6 to 12 months with multiple phases for construction

Total Installed Cost: $16,600,000

DWU Water and Wastewater Rehabilitation between Plymouth Road and Mayflower Drive – Dallas, TX

The project is located in the south Dallas neighborhood of Kessler Park and included 1,500 linear feet of 6-inch water and 6-inch wastewater in need of replacement and/or rehabilitation. The water and wastewater mains are located in an existing 10-foot easement along with a 6-inch gas main and overhead power lines behind the homes along the back-lot lines with no alley for access. The existing easement also included multiple encroachments of fences, trees, garages, retaining walls and other structures. The preliminary design evaluated several replacement and rehabilitation alternatives, including CIPP, pipe bursting, horizontal directional drilling, open cut and alternate alignment relocations. Final design included CIPP rehabilitation of the existing wastewater line and water line.
Buena Vista and Cambrick Street Sanitary Sewer Replacement – Dallas, Texas

This project is located just north of downtown Dallas and included the design of approximately 2,000 feet of 24-, 21-, 20-, and 18-inch sanitary sewer main along Buena Vista and Cambrick Street to replace existing 21-inch, 15-inch, and 8-inch mains. During the preliminary investigation and analysis, we identified and alternate alignment along a concrete street and parking lot for a portion of the main that would provide better access for maintenance and minimize the disruption during construction. A portion of the line was rehabilitated utilizing non-destructive trenchless methods, while the remainder of the line was replaced by open cut construction within public right-of-way and a 20-foot easement.

Wilson Creek Interceptor Improvements, Phase 2 – McKinney, Texas

North Texas Municipal Water District hired Kimley-Horn to perform a condition assessment and rehabilitation design services on approximately 17,400 linear feet of the existing 42-inch Wilson Creek Interceptor. The project scope includes CCTV inspection, survey, preliminary and final design. The design also includes the development of a bypass pumping plan, access plan and technical specifications for the cured-in-place pipe rehabilitation.

Wylie-Rockwall-Farmersville 36- and 48-inch Water Line – Wylie, Texas

North Texas Municipal Water District (NTMWD) has an existing 36-inch water line beginning at their Water Treatment Plant (WTP) that currently has a pressure rating of 100 psi. The District is looking to make improvements to their pump station which would require the water line to be rated to 150 psi. Due to construction restraints within the WTP, carbon fiber reinforced polymer (CFRP) rehabilitation was recommended within the plant, and new 36-inch water line was recommended for the remainder of the project. The project involved the construction of approximately 6,900 LF
of 36-inch C303 water line, 900 LF of 36-inch CFRP water line rehabilitation, 950 LF of hand tunnel and 60-inch tunnel liner plate, 570 LF of guided auger bore and 48-inch steel casing pipe, flow meter improvements at the Wylie-Rockwall-Farmersville (WRF) Discharge Meter Vault, and actuator modifications at the Wylie 1A delivery site. Estimated completion date is September 2016.

Name of Owner: North Texas Municipal Water District
Completion Date: 10/31/2016
Time from notice to proceed to construction documents: 8 months
Total Installed Cost: $7,230,000

Health Science Center 18-Inch Water Main Extension – College Station, Texas

Kimley-Horn designed an 18-inch water main with a SCADA controlled emergency interconnect to the City of Bryan water system to maintain fire flow pressures at the edge of the College Station system. This approximately 6,500 linear-foot project was completed concurrently with the Health Science Center Parkway design to serve the emerging Research Valley BioCorridor. Kimley-Horn facilitated design coordination meetings with both the city of College Station and Bryan as it was completed through an inter-local agreement. Design of the water line also included hydraulic modeling of several demand scenarios for the system, as well as SCADA management schemes for current and future demands, and fiber optic conduit layout parallel to the water main. The project included survey and preparation of plans, specifications, and cathodic protection.

Name of Owner: City of College Station
Completion Date: 2/15/2014
Time from notice to proceed to construction documents: 4.5 months
Total Installed Cost: $1,169,504

SJRA Ground Reduction Plan C-3 Conroe Water Transmission Line – Conroe, Texas

As part of San Jacinto River Authority’s (SJRA) Groundwater Reduction Program (GRP), Kimley-Horn performed preliminary design, final design, and construction phase services for Transmission Line C3 consisting of 23,000 linear feet of 16 to 20-inch water line. The C-3 segment was one of 11 total segments related to the GRP Transmission Project. Preliminary Design included extensive routing and alignment corridor analysis to determine the most feasible alignment for SJRA to proceed with for Final Design. Kimley-Horn prepared a Preliminary Engineering Report (PER) addressing items such as: Alignment Alternatives, Alignment Recommendations, and Engineering Analysis. Engineering Analysis reviewed each alignment alternative with respect to adjacent roadways, railroads, drainage ways, utilities, trees, easement, permitting, environmental considerations, as well as design and construction considerations. Preparation of the PER, was a critical component for preparation for and completion of the Final Design and the Final Design Report. The project design included extensive coordination with property owners, Union Pacific Railroad, City of Conroe, Montgomery County, and TxDOT. Aside from preparation of final construction plans and specifications,
other services provided as part of the project included the preparation of easement documents along the entire alignment, permit coordination with City and County requirements, and preparation of opinions of probable construction cost. Due to unstable soil conditions in the vicinity of the Union Pacific Railroad, the design required microtunneling for the railroad crossing.

Name of Owner: San Jacinto River Authority
Completion Date: 12/31/2014
Time from notice to proceed to construction documents: 12 months
Total Installed Cost: $7,200,000

Pintail 1.0 MG and 2.0 MG Ground Storage Tank Repair and Repaint – Flower Mound, Texas

The work for this project was completed on the 1.0 MG and 2.0 MG Ground Storage Tanks for the Town of Flower Mound. Kimley-Horn specified new coating systems, which included overcoat systems for the exterior of the tanks. This project also necessitated the design of extensive structural repairs for both tanks, including a new roof for the 1.0 MG and a new roof support structure for the 2.0 MG that will help in preventing corrosion. In addition, the tank openings and ladders were updated to meet OSHA and TCEQ requirements. Construction contract administration was also provided to aid the Town during the construction process.

Name of Owner: Town of Flower Mound
Completion Date: 12/28/2014
Time from notice to proceed to construction documents: 3 months
Total Installed Cost: $500,000

Big Town Elevated Storage Tank Rehabilitation – Mesquite, Texas

This project consisted of rehabilitating the interior and exterior of the existing Big Town 2.0 MG storage tank as well as related improvements. The project began with an inspection completed by a NACE-certified inspector and an engineering report that summarized the recommended rehabilitation and opinion of probable construction cost (OPCC). The design of the project included painting and coating, structural modifications to the tank, and site improvements. Painting consisted of surface preparation, coating, painting of the interior (wet and dry) and exterior of the tank, including provisions for remediation of lead contamination. Our team designed structural modifications to the tank, including replacement of ladders, access tube extension, vent replacement, replacement and additional manways, addition of electrical conduits, balcony and platform modifications, and weir replacement. We also designed site improvements, such as grading, fence modification, overflow and valve vault modifications, and soil monitoring lead contamination and remediation. Construction services will also be provided, including a NACE-certified resident project representation and construction administration.

Name of Owner: City of Mesquite
Completion Date: Under design
Time from notice to proceed to construction documents: 4 months
Total Installed Cost: $2,200,000 (OPCC)
5.0 MG Mission Ground Storage Tank and 0.25 MG Judson Elevated Storage Tank Rehabilitation and Repaint Project – San Antonio, Texas

Kimley-Horn provided tank inspection, design, bidding, and construction phase services associated with the rehabilitation and repainting of the 5.0 MG Mission Ground Storage Tank and the 0.25 MG Judson Elevated Storage Tank. A Preliminary Engineering Report Phase was completed for both tanks, and it involved full TCEQ (Texas Commission on Environmental Quality), AWWA (American Water Works Association), and OSHA (Occupational Safety and Health Administration) deficiencies inspections; soil and paint testing for cadmium, chromium, and lead; ultrasonic testing of tank welds; and Preliminary Engineering Reports (PER) for both tanks. The PERs included recommendations for all non-compliant appurtenances replacements, safety systems upgrades, inlet/outlet piping, overflow system and site drainage components, relocation/replacement of electrical systems and cathodic protection equipment, and removal and replacement of existing interior and exterior coating systems. Due to internal coating system failures and structural degradation being observed during the inspection of the 5.0 MG Mission Ground Storage Tank, removal and replacement of the existing roof with an aluminum geodesic roof was also analyzed. In addition, budgetary numbers and projected life spans were provided in the PER for all tank rehabilitation options as well as for the complete replacement of the tanks.

Following the PER phase, Kimley-Horn prepared plans and specifications for all upgrades, structural repairs, and coating systems to be used for the Mission Ground Storage Tank as well as rehabilitation of the existing picnic pavilion at the mission site. During the design phase, SAWS requested that we develop the construction project so that contractors would submit proposals using an alternative delivery method. Kimley-Horn based the plans and specifications upon a competitive sealed proposal delivery method. Using the evaluation criteria and weighting system developed for the project, it was determined that the contractor who provided the “best value” to SAWS was not the low bidder. Therefore, the project was awarded to the “best value” contractor.

The project was constructed with Kimley-Horn providing construction contract administration phase services as well as a NACE-certified resident field inspection services.

- Name of Owner: San Antonio Water Systems
- Completion Date: 12/31/2012
- Time from notice to proceed to construction documents: 15 months
- Total Installed Cost: $1,360,000

2.2.4 Drawing examples for projects that involved project phasing

On the following page is an example of detailed phasing from the Wylie-Rockwall-Farmersville 36-inch Water Line project (included in Section 2.2.3).
2.2.4 Drawing Examples for Projects that involved project phasing

11X17 placeholder
2.2.5 Examples of actual project inspection notes

The following are sample project inspection progress and daily inspection reports from the San Jacinto River Authority Elevated Storage Tank No. 7 project.

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</tr>
</thead>
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</tr>
<tr>
<td>Work Underway / Inspection Item</td>
<td>Surface Preparation</td>
</tr>
<tr>
<td>Equipment &amp; Materials Used</td>
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</tr>
<tr>
<td>Quality of Work / Inspection Result</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Remarks</td>
<td>Met with George on site to discuss scope of work and air vent change order. The dimensions of air vent on site are as specified in scope of work. Requested that George provide a detailed change order as to how they will accommodate this issue. The dehumidifier arrived on site along with a compatible generator. George will also inform us as soon as the welding crew gets in contact with him in regards to further welding repairs. The lower portion of tank at dome and riser has an acceptable average of 2.4 mils DFT prime coat application. Requested that George provide proof of certification in order to apply TNEMEC Series FC22 coating and proper equipment. An acceptable SP10 blast was achieved on the interior roof and remaining half of riser pipe at overflow weir box and pipe. In addition, an acceptable average of 2.53 mils DFT prime coat application was achieved on roof and other half of riser pipe. Areas of welding repair on riser pipe will require Sikaflex around edges prior to next coating.</td>
</tr>
<tr>
<td>Instructions to Contractor</td>
<td>Keep me informed of schedule</td>
</tr>
<tr>
<td>Inspector’s Initials</td>
<td>AS</td>
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## Attributes

<table>
<thead>
<tr>
<th>Inspection Item</th>
<th>Surface Preparation</th>
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<tbody>
<tr>
<td>Notes</td>
<td>Acceptable SP10 blast on interior roof and rafters.</td>
</tr>
<tr>
<td>Inspector</td>
<td>Andrew Sciba</td>
</tr>
<tr>
<td>Attributes</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Inspection Item</td>
<td>Surface Preparation</td>
</tr>
<tr>
<td>Notes</td>
<td>Acceptable SP10 blast on remaining half of riser and overflow weir box and pipe.</td>
</tr>
<tr>
<td>Inspector</td>
<td>Andrew Sciba</td>
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### Attributes

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<tr>
<td>Notes</td>
<td>Acceptable average of 2.53 mils DFT prime coat application on interior roof and riser pipe.</td>
</tr>
<tr>
<td>Inspector</td>
<td>Andrew Sciba</td>
</tr>
</tbody>
</table>
### DAILY INSPECTION REPORT

**REPORT DATE:** 4/28/2016  
**REPORT NUMBER:** 15  
**PROJECT NAME:** ERT / REHABILITATION  
**PROJECT LOCATION:** THE WOODLANDS, TEXAS  
**PROJECT NUMBER:** WDPR0086.1002.2N001

<table>
<thead>
<tr>
<th>WEATHER CONDITIONS</th>
<th>Wind:</th>
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<tr>
<td>PM</td>
<td>High: Q Light: Q Calm:</td>
</tr>
</tbody>
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### ACTIVITIES:

<table>
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<tr>
<th>Activity ID</th>
<th>Structure / Work Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Met with George on site to discuss areas that have been blasted on the interior of tank. The contractors have achieved an SP10 blast on one full dip from upper portion of knuckle and down the sidewall. In addition to this one dip, the contractors have also completed blasting around the entire knuckle of the tank. An acceptable SP10 blast was achieved on the lower and middle portion of knuckle. However, the upper portion of knuckle was rejected for not completing a clean uniformed blast. Requested contractors brush blast over these areas prior to prime coating.</td>
</tr>
</tbody>
</table>

### EQUIPMENT & LABOR:

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Craft / Labor</th>
<th>No.</th>
<th>His</th>
<th>Company</th>
<th>Equipment</th>
</tr>
</thead>
</table>

### QUALITY ASSURANCE / QUALITY CONTROL / TESTING LABORATORY ACTIVITIES:

<table>
<thead>
<tr>
<th>Work / Material</th>
<th>Test</th>
<th>Test / Sample Quantity</th>
<th>Time Arrive / Time Depart</th>
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<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
2.2.6 Credentials and/or certification of everyone who will be assigned to this project

Organization Chart

- **Project Manager**
  - Sean Mason, P.E.

- **Principal in Charge**
  - Marty Paris, P.E.

- **QC/QA**
  - Glenn Cary, P.E.

- **Survey**
  - Strong Surveying
  - Dallas Aerial Surveys

- **Geotechnical**
  - CME Testing and Engineering

- **Reproduction**
  - Angonia Print & Copy Services

- **Subsurface Utility Engineering**
  - Hayden Consultants

- **Corrosion/Cathodic Engineering**
  - V&A Consulting Engineers

- **Water Transmission/Distribution**
  - Tyler Lewis, P.E.*
  - Marty Paris, P.E.

- **Tank Rehab**
  - Sean Mason, P.E.*
  - Ryan Sowa, P.E.

- **Assessment**
  - Brian Lafoy, P.E.

- **Inspection**
  - Dunham Engineering

- **Construction Phase Services / Estimating**
  - Brad Rusk

* Task Leader
■ HUB Consultant
Sean Mason, P.E. — Project Manager
Tank Rehab Task Leader

Sean has more than nine years of experience in water and wastewater infrastructure design. His experience includes comprehensive master planning, water distribution and pumping system design, water modeling, wastewater collection systems, lift stations, wholesale water meter stations, and elevated storage tank design as well as construction contract administration. Sean is familiar with permitting requirements for local, state, and multiple regulatory agencies.

Project Experience
Big Town Elevated Storage Tank Rehabilitation, Mesquite, TX — Project Manager. This project consisted of rehabilitating the interior and exterior of the existing Big Town 2.0 MG storage tank as well as related improvements. The project began with an inspection completed by a NACE-certified inspector and an engineering report that summarized the recommended rehabilitation and Opinion of Probable Construction Cost (OPCC). The design of the project included painting and coating, structural modifications to the tank, and site improvements. Painting consisted of surface preparation, coating, painting of the interior (wet and dry) and exterior of the tank, including provisions for remediation of lead contamination. Our team designed structural modifications to the tank, including replacement of ladders, access tube extension, vent replacement, replacement and additional manways, addition of electrical conduits, balcony and platform modifications, and weir replacement. We also designed site improvements, such as grading, fence modification, overflow and valve vault modifications, and soil monitoring for lead contamination and remediation. Construction services will also be provided, including a NACE-certified resident project representation and construction administration.

Additional Experience
- Caylor 5.0 MG Ground Storage Tank (5 MG AWWA D 110 GST), Fort Worth
- Northside III 2.0 MG EST and 36-Inch Water Transmission Main (20 MG Composite EST and 5,800 LF of 36-inch water line), Fort Worth
- Trinity Basin Transmission Facilities (10 MGD and 12 MGD pump stations with 1 MG GSTs and 6 delivery points), Johnson County Special Utility District
- Wurzbach Parkway Utilities Relocation, San Antonio
- Cultural District/Will Rogers Water and Sanitary Sewer Improvements, Fort Worth
- Medical District Water Distribution Improvements, Part 4, Part 7, Morningside, and Part 9 (13,000+ LF of 12- to 42-inch water line and 2,000 LF of 30-inch sewer line), Fort Worth
- 30-Inch to 42-Inch South Holly WTP to Medical District, Fort Worth
- Transmission Main Route Study, Mesquite
- Wholesale Water Metering Station Rehab for Forest Hill, Trophy Club, Hurst No. 1 and Hurst No. 2, Fort Worth
- Johnson County 24-Inch Corrosion Protection Study and Design, Johnson County Special Utility District
Marty Paris, P.E. — Principal-in-Charge
Water Transmission/Distribution

Marty has 24 years of experience in the design of water and wastewater rehabilitation projects. Marty has worked on large and small diameter water and wastewater pipeline projects throughout the state and has assisted multiple municipalities with planning, design, and construction phases. He understands all project challenges and issues, ranging from the operations level to the administrative level. His experience includes most trenchless replacement/rehabilitation methods, including cured-in-place, pipe bursting, horizontal directional drilling, microtunneling, fold and form, slip lining, tunneling, and horizontal auger boring.

Relevant Experience:
SJRA Ground Reduction Plan C-3 Water Transmission Line, Conroe, TX — Project Manager. Oversaw the preliminary design, final design, and construction phases for Transmission Line C-3 consisting of 23,000 LF of 16 to 20-inch waterline. The C-3 segment was one of 11 total segments related to the GRP Transmission Project. Preliminary Design included extensive routing and alignment corridor analysis to determine the most feasible alignment for SJRA to proceed with for Final Design.

Ritchie Road 24-inch Waterline, Waco, TX — Project Manager. Designed 12,000 linear feet of 24-inch water transmission line along existing and proposed right-of-way of Ritchie and Old McGregor Roads. Included a 185-foot bore to cross the Union Pacific Railroad and a connection to the Ritchie Road Elevated Storage Tank. The project involved survey and preparation of plans, specifications, and easements.

Preston Road 24-inch Water Transmission Line, Frisco, TX — Project Manager. Design of 6,100 linear feet of 24-inch water transmission line along Preston Road (SH 286) from Stonebrook Parkway to Main Street (FM 720). The project also included the design of a 2.5 million gallon elevated storage tank. Kimley-Horn performed an alignment study to evaluate potential pipeline routes for the transmission line.

Additional Experience
- Eastgate Phase IV Water and Wastewater Replacements, College Station
- Bee Creek Sanitary Sewer, College Station
- DWU 2014 Water and Wastewater Replacements, Dallas
- DWU 2010 Water and Wastewater Replacements, Dallas
- Northwest Frisco Water and Wastewater Improvements, Frisco
- Rockhill Parkway 24-inch and 30-inch Water Transmission Line, Frisco
- Mt. Carmel 43-inch Water Transmission Line, Waco
Glenn Gary, P.E.
QC/QA Manager

Glenn has 27 years of municipal civil engineering experience. His responsibilities include project management and QC/QA facilitation for a wide range of civil engineering projects focused mainly on water utilities. Glenn specializes in water transmission and distribution systems and ground storage tank rehabilitation. A majority of his water pipeline experience involves trenchless design methods, including CIPP. His overall project experience encompasses water, wastewater, and paving and drainage design; capital improvement planning; impact fee studies; bond program creation and administration; utility rate studies; and comprehensive master planning.

Project Experience
SJRA - Groundwater Reduction Plan - Water Transmission Line C3, Conroe, TX — QC/QA Reviewer. As part of San Jacinto River Authority’s (SJRA) Groundwater Reduction Program (GRP), Kimley-Horn performed preliminary design, final design, and construction phase services for Transmission Line C3 consisting of 23,000 linear feet of 16- to 20-inch water line. The C-3 segment was one of 11 total segments related to the GRP Transmission Project. Preliminary Design included extensive routing and alignment corridor analysis to determine the most feasible alignment for SJRA to proceed with for final design. Kimley-Horn prepared a Preliminary Engineering Report (PER) addressing items such as alignment alternatives, alignment recommendations, and engineering analysis. Engineering analysis reviewed each alignment alternative with respect to adjacent roadways, railroads, drainage ways, utilities, trees, easement, permitting, environmental considerations, as well as design and construction considerations.

Additional Experience
- SJRA Elevated Storage Tank #7 Rehabilitation, The Woodlands
- Fort Worth Medical District Water Distribution Improvements Parts 1-9 (30,000+ LF of 12- to 42-inch water line), Fort Worth
- Cultural District/Will Rogers Water Improvements, Parts 1-4 (35,000 LF of 12- to 36-inch water line), Fort Worth
- 36-Inch Northside III Transmission Main (15,000 LF of 36-inch water line), Fort Worth
- Hulen to Como 48-inch Transmission Main Relocation, Part 1 (2,225 LF of 48-inch transmission pipeline), Fort Worth
- NTMWD Stacy Road 42- to 24-Inch Water Line Relocation (10,000 LF of 42-inch to 24-inch water line), Allen
- 5.0 MG Mission Ground Storage Tank Rehabilitation and Repaint Project, San Antonio
- Como 6.0 MG Ground Storage Tank Rehabilitation and Recoil, Fort Worth
- Pintail 1.0 MG and 2.0 MG Ground Storage Tank Repair and Repaint, Flower Mound
- Stone Hill Pump Station and 10 MG Ground Storage Tank, Flower Mound
- 5.0 MG Southside Ground Storage Tank, Fort Worth
- Water Plants #19 and #21 Ground Storage Tank Repair and Repaint, Johnson County
Chris Harris, P.E., CFM
Project Director

Chris provides a full range of civil engineering for both municipal and higher education projects. With more than 18 years of project experience, Chris’ municipal experience includes floodplain management, roadway, utility and drainage design, master planning, and construction contract administration. Chris also focuses on serving university clients across the state. He has worked on numerous new building designs as well as renovation and campus improvement projects.

Relevant Experience:
Health Science Center 18-Inch Water Main Extension, College Station, TX – Project Manager. Kimley-Horn designed an 18-inch water main with a SCADA controlled emergency interconnect to the City of Bryan water system to maintain fire flow pressures at the edge of the College Station system. This approximately 6,500 linear-foot project was completed concurrently with the Health Science Center Parkway design to serve the emerging Research Valley BioCorridor. Kimley-Horn facilitated design coordination meetings with both the city of College Station and Bryan as it was completed through an inter-local agreement. Design of the water line also included hydraulic modeling of several demand scenarios for the system, as well as SCADA management schemes for current and future demands, and fiber optic conduit layout parallel to the water main. The project included survey and preparation of plans, specifications, and cathodic protection.

SH 21 Sewer Study and Extension, Bryan, TX – Project Engineer. Kimley-Horn evaluated 3 options for extending sewer service to the properties along SH 21 from the east city limits to Coulter Airfield. We then coordinated easement acquisitions and prepared construction plans and specifications for the city selected alignment. The design included approximately 13,000 linear feet of 12 to 18-inch sanitary sewer line with 2 TxDOT roadway crossings and 3 city street crossings.

Additional Experience:
- Health Science Center Parkway phase 2A and 1B Roadway, Bryan
- Rock Prairie Road Reconstruction, College Station
- Francis Drive Reconstruction and Utility Upgrades, College Station
- Texas A&M University Gardens Apartments off-Site Utility Corridor Design, College Station
- Texas A&M University Veterinary School Expansion, College Station
- Texas A&M University Hullabaloo Hall Construction, College Station
- Texas A&M University Transportation Services Multi-Task / On-Call Contract, College Station
- Texas A&M University Gardens Apartments; Phase I&II, College Station
- Sam Houston State University South Residential Complex, Huntsville
- Texas State University West Campus Housing, San Marcos
- Texas State University Moore Street Housing, San Marcos
- Texas State University West Campus Utility Upgrades, San Marcos
- Texas State University Moore Street Realignment and Entry Monument, San Marcos
- Texas State University, Jones Dining Hall Renovation, San Marcos
- Texas State University Civil IDIQ, San Marcos
- Hutchins Northwest Sanitary Sewer Interceptor, Hutchins
Tyler Lewis, P.E.
Water Transmission/Distribution Task Leader

Tyler has over eight years of project experience specializing in water resources, roadway, and hydraulics and hydrology. His experience includes water and wastewater infrastructure, roadways and associated infrastructure, detention and drainage plans, grading, pavement rehabilitation, and floodplain modeling. He has also produced construction specifications, managed construction phase services, prepared design reports, and had involvement with easement acquisition.

Relevant Experience:

Health Science Center 18-Inch Water Main Extension, College Station, TX — Project Engineer. Kimley-Horn designed an 18-inch water main with a SCADA controlled emergency interconnect to the City of Bryan water system to maintain fire flow pressures at the edge of the College Station system. This approximately 6,500 linear-foot project was completed concurrently with the Health Science Center Parkway design to serve the emerging Research Valley BioCorridor. Kimley-Horn facilitated design coordination meetings with both the city of College Station and Bryan as it was completed through an inter-local agreement. Design of the water line also included hydraulic modeling of several demand scenarios for the system, as well as SCADA management schemes for current and future demands, and fiber optic conduit layout parallel to the water main. The project included survey and preparation of plans, specifications, and cathodic protection.

Eastgate Water and Waste Water Rehabilitation, College Station, TX — Project Engineer. The Eastgate Rehabilitation Project Phase IV involves the replacement and/or rehabilitation of approximately 11,700 linear feet of existing 1-inch to 6-inch water lines and 10,000 linear feet of 4-inch to 6-inch wastewater lines in the Eastgate neighborhood bounded by Lincoln Avenue to the north, Ashburn Avenue to the east, Francis Drive to the south, and Texas Avenue to the west. The Eastgate neighborhood was established in 1938 and many of the existing water and wastewater lines are substandard size and at the end of their design life. Kimley-Horn prepared a preliminary engineering report and facilitated two public meetings to present alternatives and solicit feedback. The design includes plan and profile preparation, details, technical specifications and opinions of probable construction cost.

Additional Experience:

- Health Science Center Parkway Phase 1B and 2A, Bryan
- Blinn College Master Plan, Bryan
- Eastgate Water and Waste Water Rehabilitation, College Station
- Texas A&M Gardens Apartments, College Station
- Texas A&M Veterinary Hospital Expansion, College Station
- Texas A&M Research Valley BioCorridor Concept Master Plan, College Station
- Texas A&M University Parking Reconstructions, College Station
- Texas State University West Campus Utility Improvements, San Marcos
- Texas State University West Student Housing, San Marcos
- Texas State University Moore Street Housing, San Marcos
- Texas A&M Hullabaloo Hall, College Station
- Sam Houston State University South Residence Hall, Huntsville
Ryan Sowa, P.E.
Tank Rehabilitation

Ryan has 17 years of municipal civil engineering experience. His responsibilities include project management for infrastructure improvements, design and construction contract administration. Ryan’s municipal projects include water distribution, wastewater collection, storage, and treatment, drainage design, capital improvement planning, subdivision rules and regulations, and subdivision review.

Relevant Experience
SAWS Naco Pump Station Improvements, San Antonio, TX — Project Manager. Kimley-Horn provided preliminary engineering, design, bidding and construction phase services. The improvements project consisted of installing five new high service pumps for Service SL 9 along with the associated piping and valves in order to provide a total pumping capacity of 41.5 MGD. The relocation of the existing SL 9 pressure relief valve to an adjacent concrete slab and a new 5.0 million gallon ground storage tank were also implemented during this process. All of the existing pump station electrical equipment (all Service Levels and wells) and chlorine and fluoride feed systems, which included replacement of the chlorine system with a 84.6 MGD onsite generation system, were replaced and then moved to a new location. This design also included a new building to house the onsite generation feed system, as well as a new building for the electrical equipment. Some of the additional upgrades include the replacement of all flow meters with MAG meters (all Service Levels), and the milling and overlaying of the existing asphalt road between the service center and Nacogdoches Road. A new security fence and enhanced site security will surround the perimeter of the pump station.

Several critical components of this project include: phased demolition to allow contractor staging and work areas on a constrained active pump station site; avoidance of conflicts with existing onsite buried utilities; and multiple sequencing and startup plans to allow for the switch-out of electrical to the 10 SL 5 and SL 6 pumps to remain along with five new SL 9 pumps while keeping the entire Naco Pump Station, all Service Levels, operational throughout the entire construction project.

Additional Experience
- SAWS Jones-Maltsberger and Bitters GST Rehabilitation Study, San Antonio
- SAWS 1.0 MG Watson Road Elevated Storage Tank, San Antonio
- SAWS 7.5 MGD Shields High-Service Pump Station, San Antonio
- SAWS PRV Flow Monitoring and Pressure Monitoring, San Antonio
- SAWS Cedar Creek Pump Station, San Antonio
- SAWS 5.0 MG Mission Ground Storage Tank and 0.25 MG Judson Elevated Storage Tank Rehabilitation and Repaint Project, San Antonio
- SAWS Huebner Creek Enhanced Conveyance LC-17 Project, San Antonio
- Pintail 3.0 MG Ground Storage Tank, Flower Mound
- 2007 1.0 MG Ground Storage Tank and Pump Station, Decatur
- Gainesville/GTUA 0.5 MG Ground Storage Tank, Gainesville
Brad Rusk, AC, CCCA, ENV SP
Construction Phase Services /Estimating

Brad Rusk has over 17 years of construction related experience. Brad has worked for contractors in addition to performing construction management services for consulting engineering and brings a real-world approach to design phase and construction phase services. That has helped to identify and overcome constructability issues during design and to address minor issues that lead to confusion and change orders. It has also assisted during construction phase services to initiate appropriate conversations in a timely manner to assist with contract administration and to address contractor questions before they impact productivity and the project critical path.

Brad is involved throughout all phases of design and construction. His involvement has included constructability reviews, generating Opinions of Probable Construction Cost, and coordinating contractor access and phasing of work. In addition, he is experienced in generating bid forms and specifications and coordinating all bidding activities from advertising, to issuing addenda, to opening bids. Finally, Brad is experienced in administering construction contracts from notice of award letters and preconstruction meetings through punch lists and project closeout activities. For some clients and projects Brad has led the bidding and construction phase activities. For other clients, Brad has been a ready resource to project owners to assist when his help is needed.

Brad is experienced with scheduling software Oracle Primavera P6 and Microsoft Project, as well as project management platforms such as Projectmates, SharePoint, ProjectWise, Buzzsaw, and Prolog.

Relevant Experience

**Water Storage Tank Engineering Inspection & Evaluation Professional Services, Irving, TX** — Construction Manager for the structural evaluation and rehabilitation of eight elevated storage tanks and ten ground storage tanks for the City of Irving. Responsibilities include structural condition assessment, development of a design / condition report, and development of an asset management and maintenance program for the City to use in prioritizing repair and extending the service life of each tank.

**Westland Ground Storage Tank Rehabilitation, Fort Worth, TX** — Construction Manager for rehabilitation of a 5-million gallon steel ground storage tank. Responsibilities included performing a condition assessment, developing a preliminary design report (PDR), and developing structural repair plans and specifications. The condition assessment was performed with the tank full (2 feet below the overflow). Design repairs were developed for the roof dome and exterior, including replacement of dome ratters, bearing plates, kickers, hardware, interior columns, and ring ratters. The tank was retrofitted to meet current TCEQ requirements for such elements as manway openings, ladders, and other appurtenances.

**Integrated Pipeline Project Segment 15-1 -Tarrant Regional Water District** — Construction Manager for approximately 15 miles of 108” raw water pipeline in Navarro County, Texas. Brad provided constructability reviews, construction scheduling and phasing, construction haul route assessments, and construction cost opinions during the design phase.
Brian LaFoy, P.E., ENV SP
Tank Assessment

Brian has over 23 years of design and construction experience on a wide variety of structural infrastructure projects for both public and private agencies as well as for contractors. He has served clients as a project engineer and manager for a heavy civil construction contractor working directly with multiple state and local agencies, and over 19 years in consulting engineering. Throughout his professional career he has worked on complex engineering and construction projects, including ground and elevated storage tank rehabilitation, water, pump stations and vaults, treatment facilities and lift stations, large diameter pipelines, tower rehabilitation, slope and creek stabilizations, dam and drop structure design, various retaining wall designs, and other specialty structures. Brian is experienced with all phases of design and construction. He is also experienced with design/build projects and projects with limited access, difficult project constraints and timelines, and public safety concerns.

Relevant Experience

Westland Ground Storage Tank Rehabilitation, Fort Worth, TX — Project Manager and Structural Engineer for rehabilitation of a 5-million gallon steel ground storage tank. Responsibilities included performing a condition assessment, developing a preliminary design report (PDR), and developing structural repair plans and specifications. The condition assessment was performed with the tank full (2 feet below the overflow). Design repairs were developed for the roof dome and exterior, including replacement of dome rafters, bearing plates, kickers, hardware, interior columns, and ring rafters. The tank was retrofitted to meet current TCEQ requirements for such elements as manway openings, ladders, and other appurtenances.

Water Storage Tank Engineering Inspection & Evaluation Professional Services – Irving, TX — Project Manager and Structural Engineer for the structural evaluation and rehabilitation of eight elevated storage tanks and ten ground storage tanks for the City of Irving. Responsibilities include structural condition assessment, development of a design/condition report, and development of a maintenance program for the City to use in prioritizing repair and extending the service life of each tank.

Capital Improvements Plan – Water Storage Facilities, Addison, TX — Project Manager and Structural Engineer for the evaluation and rehabilitation of three storage tanks – two concrete ground storage tanks and one hydropillar – for the Town of Addison. Responsibilities include structural condition assessment, development of a design/condition report, and development of a maintenance program for the Town to use in prioritizing repair and extending the service life of each tank.

Additional Experience
• Como GST Evaluation, Fort Worth
• Abrams Ground Storage Tank Rehabilitation-Dallas Water Utilities, Dallas
Strong Surveying, LLC

Curtis Strong began surveying in 1982. After much experience and working as a surveying manager for various companies, he and his wife began Strong Surveying in 1994. As owner and operator of Strong Surveying, LLC, he was one of the first surveyors in the Brazos Valley Area to include GPS into his everyday surveying practice. Since 1995, he has worked with most of the cities and counties in the Brazos Valley helping in their monumentation efforts. He has stayed on top of his profession through continuing education and by utilizing the most state of the art equipment such as Topcon digital levels, Trimble GPS equipment (real-time surveying and static) and Leica conventional and robotic total stations. Curtis has been trained for and is proficient in Autocad and third party coordinate geometry programs, Trimble Geomatics, Trimble GPSurvey adjustment software and other surveying solution software programs. His vast surveying experience includes major pipeline surveys, highway and street R.O.W. surveys, topographic surveys, oil and gas surveys, monumentation and mapping projects, electrical line route surveys, water, sewer and street surveys, boundary and title surveys, subdivision platting and layout, GPS surveying, all types of route surveys, accident site surveys, cemetery layouts, bathymetric surveys, swimming pool length record certification surveys, aerial mapping target surveys and establishing control for volcano topographic survey.

Dallas Aerial Surveys, Inc.

Dallas Aerial Surveys was established in 1977. For nearly 40 years DAS has provided expert aerial photogrammetry services to the planning, design and engineering communities throughout the United States. DAS is dedicated to delivering sophisticated real-time geospatial mapping and aerial data by utilizing state-of-the-art technologies and software. Our skilled staff has over 300-combined years of aerial mapping and photogrammetry experience, bringing specialized expertise to every aspect of our imagery and aerial mapping production.

Mr. Bill Johnson will assume the role of project manager for any Aerial Geospatial Services required under this contract. Mr. Johnson has 37 years of experience in Aerial Geospatial Services, including 31 years as Production Manager. His management experience includes projects across the U.S., from California to North Carolina, and Michigan to Texas.

CME Testing and Engineering, Inc.

CME Testing & Engineering, Inc. is a consulting engineering firm where superior and personalized service becomes the model others strive to achieve. CME's disciplined business approach allows us to effectively provide professional engineering services in the specialized areas of geotechnical engineering, construction materials engineering and testing, and environmental engineering. Our owners, consultants and professional and technical staff offer our clients technical expertise and diversity. Our staff and business philosophy allows us to maintain our reputation as a young company recognized as a leader in its field, its service and commitment to clients, for ethical conduct, for reliability and for technical knowledge and competence.
Angonia Print & Copy Services, LLC

As residents of the Brazos Valley since 1885, it is important to us to provide the Bryan/College Station area with a print and copy center that exceeds your needs and expectations. Our over 30 combined years in the copying and printing industry guarantees the continued quality, customer service and dedication our customers have come to expect and enjoy.

With the majority of high capacity print and copy centers located in College Station, we are excited to offer superior quality services now conveniently located in Bryan. From black and white printing, color copies, custom tabs, and transparencies to bookbinding and lamination, our state-of-the-art equipment will always give you the quality products you can depend on and at competitive prices. We specialize in manuals, brochures, full-color presentations, engineering copies, invitations and promotional products.

Hayden Consultants, Inc.

Hayden Consultants is a trusted municipal, state and private industry engineering partner, supporting infrastructure improvements statewide. Hayden Consultants provides exceptional civil, transportation engineering design services and survey for projects ranging from small site development projects to complex highways and transit facilities.

Beyond delivering exceptional engineering and consulting solutions for projects, we build lasting client relationships. Our innovative designs result in efficient, problem-free construction for our clients. Hayden Consultants' clients have included Dallas Area Rapid Transit, the Texas Department of Transportation and various municipalities in the state of Texas. Our highly qualified team is registered with the Texas Board of Professional Engineers and holds multiple TxDOT precertifications. Trust Hayden Consultants to work with you honestly and responsively, and to get the job done on time, on budget and to your specifications.

V&A Consulting Engineers, Inc.

V&A Consulting Engineers, Inc. (V&A) is a consulting firm with a reputation and long-established history providing responsive service and successful solutions focused on corrosion engineering. We provide the information our clients need to make informed decisions based on carefully and methodically collected data. Our service lines/areas of discipline are comprised of Corrosion Engineering, Condition Assessment, Flow Monitoring, Coating Systems Management, Odor Control, and Asset Management. V&A engineers assist clients in protecting their assets from a shortened service life due to the damaging effects of corrosion. We pinpoint the causes of corrosion, whether atmospheric, immersed, or buried, and recommend solutions for mitigating their damaging effects. Our process approach incorporates evaluation of assets to determine the extent of corrosion, design corrosion control/cathodic protection system, and finally plan master corrosion control plans for long-term protection and operation.
Dunham Engineering, Inc.

Jimmy Dunham has over 30 years of general engineering experience, including 21 years with the U.S. Army Corp of Engineers. Jimmy is recognized as one of the top storage tank engineers in Texas. He has designed and supervised over 500 water tank construction and rehabilitation projects, plus 25 composite elevated water tank projects. Jimmy founded Dunham Engineering in 1992 and has grown the company into one of the premier structural and storage tank engineering boutique firms in the Gulf Coast.

Dunham Engineering can design and implement a personalized maintenance and compliance plan to ensure compliance with State Regulations and industry best practices. Inspection is a key component of all of our designs to ensure the Owner gets what he is paying for and the project is constructed as designed. We have completed hundreds of construction, rehabilitation and lead abatement projects for various water and wastewater structures, and we know what it takes to maximize value to the Owner, and ensure the job is done right.
2.2.7 List and description of services provided

Kimley-Horn recognizes Texas A&M University's commitment to improving the water system that serves the university and its nearly 60,000 students. This system consists of groundwater plants, connected by a well collections and transmission system to ground water storage tanks and the distribution system.

Kimley-Horn understands the following project categories will be included:

- Ground Storage Tank Rehabilitation
- Water Transmission and Well Collection Lines
- Potable Water Distribution Lines
- Water Line CIPP Trenchless Rehabilitation

Kimley-Horn has experience with each of these types of projects and extensive experience with the TAMU campus and system project managers and staff. We have focused the following approach specifically toward Ground Storage Tank Rehabilitation and the various Water Line projects.

Overall Project Approach

Kimley-Horn has an excellent track record of tackling challenging projects and meeting our commitments, especially in high-profile and sensitive locations like TAMU. We have high expectations for quality and timeliness on every project because we strive to be a benefit to our clients and their customers. We are ready and equipped to provide TAMU with high-quality work that is timely and efficient, even when faced with obstacles.

A successful project begins with a thorough understanding of the project's challenges and risks, which provides the foundation for determining solutions that maximize the owner's ability to mitigate risk. Water infrastructure projects in developed and urban/suburban environments present several major challenges and risks, including the following:

Challenges
- Schedule
- Maintaining water service
- Traffic control
- Easement acquisition
- Continued business and residence access
- Safety near the University, businesses and neighborhoods
- Utility conflicts
- Tree preservation
- Highway crossings
- Creek crossings
- Pavement preservation and replacement
- Working space
- Noise, dust, and mud

Risks
- Customer complaints
- Traffic delays and/or accidents
- Increased costs and project delays
- Business complaints or lawsuits
- Public harm
- Utility service disruption
- Tree loss and environmental complaints
- Highway damage and permitting delays
- Creek erosion or pollution
- Pavement failures
- Private property damage
- Community complaints and/or opposition

Because we understand this project has an aggressive schedule, we have identified the following potential solutions to mitigate this risk:

- Water Line and Transmission Project – Our surveying team includes an aerial surveyor and a local surveyor to ensure that the survey time is reduced in order to survey the expansive area in the allotted time.

- Tank Rehabilitation Project – We could proceed from the inspection directly into 75% construction drawings because of our experienced team of tank rehabilitation experts.
• **Water Line CIPP Project** – We could proceed from a review of the CIPP project with specialized contractors directly into 75% construction drawings because of our team’s experience and relationships with CIPP contractors.

• **All Projects** – Kimley-Horn operates as a single profit center, so we can temporarily shift personnel from other offices to meet tight deadlines. Communication is imperative throughout design and construction to proactively identify these challenges and risks. Kimley-Horn prides itself in maintaining constant and consistent communication throughout the duration of the project. Our staff is equipped with the tools needed to tackle technical issues, and to provide the communication needed for a successful project. Our approach involves identifying these challenges and risks early in the design process to incorporate design solutions that mitigate the university’s risk. The following design solutions have been utilized on similar projects to mitigate risk:
  - Trenchless construction (boring, tunneling, and directional drilling)
  - Extensive Subsurface Utility Engineering (SUE)
  - Regular stakeholder meetings
  - Extensive traffic control plans
  - Detailed sequencing plans to provide tight schedule control in critical areas
  - Specifying maximum allowable working days in high visibility areas (TAMU, Adjacent to Businesses)
  - Specifying maximum allowable water main shutdown periods

Kimley-Horn’s approach for these projects includes the following tasks and services outlined below:

• **Data Collection**
  - Collect data
  - Log data
  - Investigate site conditions

• **Design Report** *(If necessary)*
  - Analyze data
  - Hydraulic modeling
  - Prepare preliminary report and recommendations
  - Present preliminary report and recommendations to Owner
  - Finalize report and recommendations

• **Surveying and Base Mapping**
  - Contact Utility Locate Representatives
  - Send out Right-of-Entry letters
  - Submit survey requests
  - Perform field survey
  - Prepare base map
  - Verify base map in the field

• **Preliminary Design (50% CDs)**
  - Prepare horizontal layout on base map
  - Identify conflicts, challenges, and risks
  - Identify need for easements, permits, and SUE
  - Review horizontal layout with Owner
  - Begin work on easements, permits, and SUE
  - Prepare and submit preliminary design (50% CDs) to Owner and franchise utility companies
  - Prepare and submit preliminary OPCC

• **Final Design** *(75% and 100% CDs)*
  - Meet with Owner to discuss preliminary review comments
  - Meet with franchise utilities to receive preliminary review comments
  - Address preliminary review comments
  - Incorporate SUE information
  - Prepare and submit 75% design with OPCC
  - Prepare and submit 75% technical specifications
  - Meet with Owner to receive 75% review comments
  - Finalize easements and permits
  - Prepare and submit 100% design with OPCC

Kimley-Horn is also regularly involved in the bidding and construction phases of projects to assist TAMU with project administration and implementation. During these phases of the project, we tailor our services to meet your needs. While larger projects may require more frequent progress meetings, site visits, and shop drawing reviews; you may have other projects that are either smaller, or less complicated, that require little
assistance from outside consultants. We understand these differences and will work with you to determine the appropriate level of detail needed for each project. We also understand the importance of “seeing” our projects constructed. Designing projects is a learning process. However, there is no better learning tool than to see your project be constructed in the field. It is imperative that our engineers experience this learning tool, so we make every effort to involve the team that completed the design to be the same team that sees the project through construction. We feel that this is one of the best tools available to learn what works well in the field, as well as to identify items that can be improved upon.

Ground Storage Tank Rehabilitation Specific Services and Approach

We recommend beginning all tank rehabilitation projects with a quality and thorough certified coating and structural inspection, including diving inspections if a tank cannot be taken out of service. Whether an inspection has already been completed, or one needs to be performed, Kimley-Horn has partnered with Dunham Engineering, a local firm with over 30 years of tank rehabilitation and inspection services. Once the inspection report is complete, Kimley-Horn performs a thorough review of the existing conditions and will sit down with you to discuss any necessary repairs as well as coating strategies.

Kimley-Horn has strong working relationships with the top paint manufacturers and painting contractors in Texas. We work closely with both groups to create a fair and competitive bidding environment that will provide TAMU with the best overall value. We do this by coordinating details of the rehabilitation specifications with each manufacturer. We then develop different rehabilitation options that will provide TAMU with several options based on capital cost and total life cycle cost. Although this example only shows two paint manufacturers, we send this information to as many paint manufacturers as TAMU prefers. We also send manufacturers their competitors’ information. We have found that making this information available up front, prevents complaints and addendums during the competitive sealed proposal bidding process.

In addition to the construction phase services previously outlined, during construction for a project of this type, we have teamed with Dunham Engineering to perform coating and weld testing. We review daily testing logs and discuss any issues that may need to be addressed with you and the contractor during construction.

Water Lines Specific Services and Approach

Around 20-25 years ago, design and construction of potable water lines was seemingly a straight-forward process. However, with the growth that this area has seen since that time, coupled with the influx of underground utility construction, finding an alignment for a new water line can be a daunting task. Design can quickly go from simplistic to very difficult depending upon the number of constraints encountered. We have identified several standard design approach tactics to hopefully eliminate such design constraints, but also help mitigate constraints that may arise. We discuss a few of these examples below:
Subsurface Utility Engineering (SUE) – Identifying the locations of potential utility conflicts is critical for many projects. In fact, depending upon the project, it has become nearly standard practice on urban and renewal type projects to perform Level A, B, and C SUE to more accurately locate utilities and to proactively identify conflicts during design. Using record drawings (Level C) can be helpful, but in tight corridors, or in areas where record drawings are not available, providing Level B (horizontal locates) or Level A (horizontal and vertical locates) may be extremely valuable.

Tree Conflicts and Consideration with Alignment and Design – Kimley-Horn has recent experience on multiple projects related to utility construction impacts to existing trees. We understand the importance of knowing the process and channels of communication necessary to determine whether avoiding a tree in the alignment is imperative, or whether on rare occasions, replacement or removal of the tree might be an option. Kimley-Horn has an on-staff Certified Forester for consultation with the various required entities throughout the project. Our Forester knows the process required for facilitating sensitive tree alignment issues.

Stakeholder Coordination – It cannot be overstated, communication is key to the success of any project. This Kimley-Horn team is well-versed at communicating up front and throughout a project’s duration with the stakeholders. These projects will have several critical stakeholders including TAMU, numerous business, and impacted landowners. For many years, our project team has facilitated coordination meetings with critical stakeholders during planning, design, and throughout construction. Too often, we see other examples where simple coordination measures could have prevented wasted funds. We strive to work together with the stakeholders to make every facet of the project a success.

Complicated Crossings – We have extensive experience with a variety of trenchless crossings, including TxDOT, Railroad, Creek or River Crossings. Many of these projects involved avoiding not only existing, but also future, infrastructure associated with highway expansion projects. Water line alignments, where possible, should be selected to minimize these expensive crossings. Additionally, care should be taken to make sure there is adequate working room required for trenchless methods. This is one point TAMU is already one step ahead as the crossing at Villa Maria and FM 2818 has already been installed for this project during TxDOT recent overpass construction. This is a great example of planning ahead that we seek to incorporate on projects of this nature.

Pipe Rehabilitation (CIPP) – Kimley-Horn has strong working relationships with several cured-in-place pipe (CIPP) specialty contractors. We have worked closely with these Contractors on many water and sewer projects to make sure the project can be completed as designed, service locations and excavation locations are identified, and the project is sequenced such that the Owner gets the best value on their project. We do this by coordinating details of the rehabilitation with multiple contractors early in the process.

Cathodic Protection – Any larger diameter ductile iron, steel, or concrete steel cylinder water lines that may be designed need to be evaluated to determine if cathodic protection measures are needed. Aside from corrosive soil conditions, when existing gas pipelines contain induced current cathodic protection systems, crossing these pipelines can create interference issues when designing the cathodic system for the proposed water line.
Geology – Many pipeline projects encounter a variety of formations and soil types as well as differing groundwater tables. This can create challenges with designing the water line for movement, preventing flotation, as well as constructability concerns. Strategic geotechnical boring locations are recommended during the preliminary phase of the project to identify potential design considerations concerning geotechnical conditions. By gathering geotechnical data early, we use our construction experience to address related challenges during the design phase.

Appurtenance Location – Appropriate sizing and location of appurtenances for larger water lines can be a challenge, with the limited or tight corridors that are anticipated for this project. This is especially important when making sure that adequate isolation and operational flexibility has been provided. We have extensive experience with designing water lines, and are very familiar working in tight difficult areas that require creative solutions for such appurtenances. Additionally, we value the experience working with the operations staff to provide design that allows for operational flexibility and the ability to maintain these crucial appurtenances into the future.

Well Collection and Transmission Considerations – Kimley-Horn understands the intricacies of designing a well collection and transmission system. Although the ultimate design is a basic pipeline, there are many other components that also need to be addressed to achieve an efficiently functional well system. A few of these are outlined below:

- **Hydraulic Coordination, Modeling, and Transient Analysis** – Kimley-Horn will obtain information to evaluate the hydraulic characteristics of the wells, along with the hydraulic requirements of the existing collection system piping, for appropriate sizing of pipelines. We can develop a hydraulic model that balances head losses and velocities for the proposed improvements, if needed. This will allow us to optimize its use with the delivery of water to intended source. Surge pressures can reduce the longevity of the network and severely disrupt the operation and maintenance of the water system. A transient analysis can be developed to analyze various conditions, if necessary.

- **Operational Requirements** – The hydraulics need to be as consistent as possible for ease of operation of the water system. We will review pump start-ups and shut downs to make sure they are coordinated with the system controls as not to create an upset in the hydraulics.

- **System Routing Analysis** – A routing analysis will be required to determine the most effective means of developing the project. This includes reviewing routing and spacing of the water lines in the existing easements, identifying areas where additional easement may be required (if any), and permits are required for crossing of TxDOT or environmental features.

Our experience working on water infrastructure in urban and rural areas will help you implement successful projects. Throughout design and construction our team will focus on:

- **Minimizing disruption** (fewer construction-related complaints)
  - Maintain traffic flow
  - Maintain business operations
  - Sustain residential, business, and access

- **Minimizing costs** (project is a good value)
  - Employ appropriate replacement/rehabilitation measures
  - Develop designs that reduce O&M costs

- **Maintaining and/or improving service** (provides for a long-term benefit to TAMU)
  - Increase capacity where required
  - Increase system flexibility
Kimley-Horn has vast design experience addressing complex projects in urban areas. We understand the importance of identifying the challenges and risks early in the project to help prevent or mitigate the issues while maintaining consistent communication with all parties involved. We have demonstrated these abilities through our previous work with you. We have the technical experience needed to partner with you for any of these upcoming projects and hope to continue working with you.

**Alternative Project Delivery**

The Kimley-Horn team has experienced with the competitive sealed proposal (CSP) method of project delivery and other alternative delivery project methods. These methods include traditional design, bid, build projects, competitive sealed proposal delivery methods, CMAR, and design-build delivery of projects. Our most recent experience was a competitive sealed proposal project delivery for Lubbock’s 54-inch Sanitary Sewer Extension, Mesquite’s: Big Town Tank Rehabilitation, and SAWS: 5.0 MG Mission Ground Storage Tank Rehabilitation and Repaint project. We know that you desire to use this process for this project and we are experienced in its use.
2.2.8 References related to services as outlined in this RFQ

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APPENDIX C

Project Scope
December 23, 2016

Bob Henry, P.E., C.E.M., E.F.P.
Manager – Technical Services
1584 TAMU
College Station, TX 77843-1584

Re: Professional Services Agreement
Domestic Water System Improvements, RFQ # 17-0009
Texas A&M University,
College Station, Texas

Dear:

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "Consultant") is pleased to submit this letter agreement (the "Agreement") to Texas A&M University – Utilities & Energy Services ("Client") for providing professional engineering services for the above referenced project. Our project understanding, scope of services, and fee are listed below.

Project Understanding

The Consultant understands that the Client is in need of engineering design documents, bidding, and construction phase services for the domestic water system, including five (5) specific projects. The following outlines our understanding of the specific project:

- Project A - Water Transmission Main
  - 6 miles of two (2) parallel 24-inch HDPE water mains from the F&B Pump Station to Silver Hill Road
  - 0.5 miles of 18-inch HDPE water main to serve the Rellis Campus
- Project B - Tank Rehabilitation
  - Interior and exterior rehabilitation of the three (3) potable water storage tanks (AWWA D100 Welded Carbon Steel Tanks) located at the F&B Pump Station
- Project C - Trenchless Rehabilitation
  - 1.5 miles of 24-inch water line rehabilitation or replacement by cured-in-place pipe (CIPP)
- Project D - Water Line Upsize
  - 2,500 linear feet of 8-inch water line from Stotzer at 2818 to Easterwood Operations to replace and existing 6-inch water line.
- Project E - New Water Line
  - 3,000 linear feet of new 8-inch water line from Poultry Science to existing water line on Nuclear Science Road.
Scope of Services

Kimley-Horn will provide the services specifically set forth below.

Task 1 – Design Management, Project Meetings, and Data Collection

Design Management
The Consultant will manage the design and work associated with the work described in subsequent sections and provide the following communication and reporting:

- Monthly Email Progress Reports
- Monthly HUB Reporting
- Monthly Invoicing

Communication and reporting is based on an assumed eighteen (18) month project duration.

Design Management
The Consultant will prepare for and attend meetings with the University Staff (the Client), to the extent requested by the Client and budgeted for in this agreement. The following project meetings are anticipated:

- Project Kick-Off Meeting
- 50% Design Review Meeting
- 75% Design Review Meeting
- 100% Design Review Meeting
- Up to four (4) progress meetings to discuss specific design or coordination items associated with the projects

Task Deliverables:
- Meeting Minutes for each meeting attended.

Data Collection
The Client will be responsible for making the following data available in the vicinity of the projects for the Consultant:

- Client Provided Data Collection
  - Client GIS Data
    - Storm
    - Sewer
    - Electrical
    - Water
    - High resolution aerials photography
    - Lidar Contours
  - Client Record Drawings
    - Water
    - Sanitary Sewer
- Electrical
- Storm
- Water Facilities
  - Shop Drawings
    - 16-inch, 18-inch, and 24-inch Water Line to be rehabilitated with trenchless method along Raymond Stotzer Parkway.
    - Tanks to be rehabilitated at F&B Road
- Franchise Coordination by Consultant
  - The Consultant will prepare a data request email notifying each organization, listed below of the proposed project. Consultant will attempt to collect information from the utilities listed:
    - Atmos Energy
    - BTU/CSU
    - Frontier
    - Suddenlink Communication

Project A - Water Transmission Main
The Consultant will provide design services for the two (2) 24-inch water transmission mains from the F&B Road Pump Station to Silver Hill Road (approximately 6 miles) and 18-inch water transmission main to connect the RELLIS Campus (approximately 0.5 miles). Pipelines are intended to be fused HDPE pipe in accordance with Clients design requirements.

Task 2 – Project A - 50% Design
- Design Survey
  - LIDAR
    - Consultant will utilize existing 1-foot area LIDAR and coordinate with on the ground survey.
  - On the ground survey
    - Spot topo at road and creek crossing for width of easement or right-of-way.
    - Existing manholes, valves, inlets, road poles, driveway connections, and other observable above ground existing structures will be located within the project area.
    - Establish control points along the route
- Geotechnical Analysis - The Consultant will perform a geotechnical analysis of the proposed water line alignment utilizing a geotechnical laboratory to determine subsurface conditions and make recommendations regarding embedment, backfill and excavation parameters. The geotechnical analysis will include the following:
  - Subsurface exploration including up to fourteen (14) sample bores at various locations and depths along the proposed line.
  - Laboratory tests for classification purposes and strength characteristics.
  - Engineering services that address soil and groundwater conditions for proposed horizontal boring locations.
Prepare a geotechnical report that presents the results of the field and laboratory data as well as analysis and recommendations. The data contained in the geotechnical report will be made available to contractors during the bidding process for information purposes.

50% Plans – The Consultant will prepare 50% plans for the water lines. These plans will be prepared on 11"x17". Plans will consist of:
- Cover Sheet
- Project Notes and Sheet Index (1 Sheet)
- Project Control Sheet (2 Sheets)
- Overall water layout sheets (1 Sheets)
- Project Access Plan and Contact List (1 sheet)
- Water Plan Sheets, horizontal only at 1"=100' (40 Sheets)
  - Assumption - parallel 24-inch pipeline stationed together and on a shared sheet

50% Contract Documents – A Contract Documents table of contents based upon the Client’s standard documents and requirements for public construction will be provided.

Opinion of Probable Construction Cost (OPCC) – The Consultant will prepare an opinion of probable construction cost for the project. The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor’s methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided are based on the information known to Consultant at the time and represent only the Consultant judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Task Deliverables:
- Two (2) hard copies and a PDF of the geotechnical report
- Three (3) hard copies and a PDF of the 50% plans
- Three (3) hard copies and a PDF of the OPCC

Task 3 – Project A - 75% Design
- Subsurface Utility Engineering
  - The SUE shall be performed in accordance with CI/ASCE 38-02.
    - Level A
      - Location (Test Hole) Services: Locating the horizontal and vertical position of the utility by excavating a test hole using vacuum excavation techniques and equipment. In performing locating (test hole) services Consultant will:
        - Excavate Ten (10) test holes to expose the utility to be measured in such a manner that insures the safety of the excavation and the integrity of the utility to be measured. Excavations will be performed using specially developed
vacuum excavation equipment that is non-destructive to existing facilities. If contaminated soils are discovered during the excavation process, the Consultant will notify the Client. Obtain x, y and z information at each test hole.

- **Level B**
  - Location of underground utilities by obtaining two-dimensional \((x, y)\) information obtained through the application and interpretation of non-destructive surface geophysical methods will be performed for the 5,000 linear feet of utilities in congested areas.

- **75% Plans** – The Consultant will prepare 75% plans for the water lines. These plans will be prepared on \(11''\times17''\). Plans will consist of:
  - Cover Sheet
  - Project Notes and Sheet Index (1 Sheet)
  - Project Control Sheet (2 Sheets)
  - Overall water layout sheets (1 Sheets)
  - Project Access Plan and Contact List (1 sheet)
  - Project Easement and Working Area (1 sheet)
  - Project Sequencing Notes (1 sheet)
  - Water Plan and Profile (40 Sheets)
    - Scale: \(1''=100'\)
    - Parallel 24-inch pipeline stationed and profiled together on the same sheet
  - Water Details (5 Sheets)

- **75% Contract Documents** - Specifications will include technical specifications for materials and installation of the proposed facilities. The Contract Documents will be based upon the Client’s standard documents and requirements for public construction. The contract will be of a competitive sealed proposal (CSP) method in accordance with Texas Government Code 2269.

- **Opinion of Probable Construction Cost** – The Consultant will prepare an opinion of probable construction cost for the project.

**Task Deliverables:**
- Two (2) hard copies and a PDF of the SUE log
- Three (3) hard copies and a PDF of the 75% plans and specifications
- Three (3) hard copies and a PDF of the OPCC
Task 4 – Project A - 100 % Design

- 100% Plans – The Consultant will prepare 100% plans for the water lines following the 75% review.
- 100% Contract Documents - The Consultant will prepare 100% specifications for the water lines following the 75% review.
- Opinion of Probable Construction Cost (OPCC)– The Consultant will prepare an opinions of probable construction cost for the project.

Task Deliverables:
- Three (3) hard copies and a PDF of the 100% plans and specifications
- Three (3) hard copies and a PDF of the OPCC

Task 5 – Project C – Trenchless Water Line Rehabilitation
The Consultant will provide design services for the trenchless rehabilitation of the 24-inch and 16-inch water line along Raymond Stotzer Parkway from Wellborn Road to 2818 for an approximate length of 1.5 miles. The water line is intended to be rehabilitated by means of the cure-in-place pipe method.

- Design Survey
  - On the ground survey
    - Width of easement or right-of-way.
    - Existing manholes, valves, inlets, road poles, driveway connections, and other observable above ground existing structures will be located within the project area.
    - Establish control points along the route including.
- Geotechnical Analysis - The Consultant will perform a geotechnical analysis of the proposed water line alignment utilizing a geotechnical laboratory to determine subsurface conditions and make recommendations regarding embedment, backfill and excavation parameters. The geotechnical analysis will include the following:
  - Subsurface exploration including up to four (4) sample bores at various locations and depths along the proposed line.
  - Laboratory tests for classification purposes and strength characteristics.
  - Engineering services that address soil and groundwater conditions for proposed horizontal boring locations.
  - Prepare a geotechnical report that presents the results of the field and laboratory data as well as analysis and recommendations. The data contained in the geotechnical report will be made available to contractors during the bidding process for information purposes.

- The Consultant will prepare plans for the water lines. These plans will be prepared on 11"x17". Plans will consist of:
  - Cover Sheet
  - Project Notes and Sheet Index (1 Sheet)
• Project Control Sheet (1 Sheets)
• Overall water layout sheets (1 Sheets)
• Water Sheets at 1"=80' (8 Sheets)
• Water Details (3 Sheets)

• Contract Documents - Specifications will include technical specifications for materials and installation of the proposed facilities. The Contract Documents will be based upon the Client's standard documents and requirements for public construction. The contract will be of a competitive sealed proposal (CSP) method in accordance with Texas Government Code 2269.

• Opinion of Probable Construction Cost – The Consultant will prepare an opinion of probable construction cost for the project.

Task Deliverables:
• Two (2) hard copies and a PDF of the geotechnical report
• Three (3) hard copies and a PDF of the 50% plans (no profile), specification table of contents, and OPCC
• Three (3) hard copies and a PDF of the 75% plans, specifications, and OPCC
• Three (3) hard copies and a PDF of the 100% plans, specifications, and OPCC

Task 6 – Projects D and E – Small Diameter Water Lines
The Consultant will provide design services for the two (2) 8-inch water lines at Easterwood Airport. Project D includes replacing the exiting 6-inch water line with an 8-inch water line from Stotzer at 2818 to Easterwood Operations (approximately 2,500 linear feet). Project E includes a new 8-inch domestic water line from Poultry Science to the existing water line on Nuclear Science Road (approximately 3,000 linear feet).

• Design Survey
  • On the ground survey
    ▪ Width of easement or right-of-way.
    ▪ Existing manholes, valves, inlets, road poles, driveway connections, and other observable above ground existing structures will be located within the project area.
    ▪ Establish control points along the route including, up to 2 permanent control points.

• The Consultant will prepare plans for the water lines. These plans will be prepared on 11"x17". Plans will consist of:
  • Cover Sheet
  • Project Notes and Sheet Index (1 Sheet)
  • Project Control Sheet (1 Sheets)
  • Overall water layout sheets (1 Sheets)
  • Water Sheets at 1"=80' (5 Sheets)
  • Water Details (3 Sheets)
Contract Documents - Specifications will include technical specifications for materials and installation of the proposed facilities. The Contract Documents will be based upon the Client's standard documents and requirements for public construction. The contract will be of a competitive sealed proposal (CSP) method in accordance with Texas Government Code 2269.

Opinion of Probable Construction Cost – The Consultant will prepare an opinions of probable construction cost for the project.

Task Deliverables:
- Three (3) hard copies and a PDF of the 50% plans, specification table of content, and OPCC
- Three (3) hard copies and a PDF of the 75% plans, specifications, and OPCC
- Three (3) hard copies and a PDF of the 100% plans, specifications, and OPCC

Task 7 – Project B – Tank Rehabilitation
The Consultant will provide the evaluation and design services for the interior and exterior rehabilitation of the three (3) potable water storage tanks at the F&B Road Pump Station. The tanks are identified as and include the following storage capacities:
- Tank 1 – Two (2) Million Gallons
- Tank 2 – Two (2) Million Gallons
- Tank 3 – Three (3) Million Gallons

Tank Evaluation
- Tank Initial Inspection and Professional Evaluation
  - Consultant proposes to perform a professional evaluation of each tank in accordance with AWWA M42, and TCEQ Chapter 290 rules and regulations. The inspection team will consist of a Professional Engineer, an AWS Certified Welding Inspector and a NACE Certified Coating Inspector. Each tank’s inspection and evaluation will include the following:
    - Visual inspection of interior and exterior surfaces of tank and support structure.
    - Visual inspection of site and surrounding appurtenances.
    - Perform ultrasonic thickness testing on selected interior and exterior surfaces as needed to determine extent of corrosion damage.
    - Perform adhesion testing on the exterior coatings per ASTM 3359.
    - Collect coating samples and test for lead content by weight.
    - Provide written report with pictures of interior and exterior surfaces.
    - Provide recommended scope of work with schedule estimate and detailed opinion of probable construction cost.

Tank Design
The Design is anticipated to include the following:

- Plan Sheets
  - Cover Sheet
• Tank Plan and Section Views (3 Sheets)
• Site Plan (1 Sheet)
• Construction Details (3 Sheets)
• Construction Details – Photos (6 Sheets)
• Tank Coating & Lining Systems
• Electrical Details (Level Sensors)

• Contract Documents - Specifications will include technical specifications for materials and installation of the proposed improvements. The Contract Documents will be based upon the Client's standard documents and requirements for public construction. The contract will be of a competitive sealed proposal (CSP) method in accordance with Texas Government Code 2269.

• Opinion of Probable Construction Cost – The Consultant will prepare an opinion of probable construction cost for the project.

Task Deliverables:
• Three (3) copies of the evaluation
• Three (3) copies of the 75% plans, specifications, and OPCC.
• Three (3) copies of the 100% plans, specifications, and OPCC.

Task 8 - Bidding Services
It is anticipated that the above tasks will bid simultaneously. The Consultant will perform the following professional services for the bidding phase of the project:
• Bidding Tasks
  • Final Contract Documents – The Consultant will print and issue a PDF set of plans and specifications for distribution to the Client.
  • Notice to Bidders – The Consultant will prepare a notice to bidders and/or assist the Client with preparation.
• Pre-Bid Conference – The Consultant will attend a Pre-bid conference.
• Addenda – The Consultant will answer contractor questions during the bid process. The Consultant will issue addenda as required.
• Bid Opening – The Consultant will attend the bid opening, review a tabulation of bids, and assist with competitive sealed proposal scoring as needed.

Task 9 – Traffic Control
• Traffic Control Plan
  • Develop up to six (6) supplemental traffic control drawings as needed for review and approval by the Client, Brazos County, City of Bryan, and the Texas Department of Transportation for the projects as needed.

Task Deliverables:
• Three (3) copies of the preliminary traffic detail
• Three (3) copies of the final traffic control detail
Three (3) copies of the 100% Plans, Specifications, and Opinion of Probable Construction Cost

**Task 10 - Permitting**
Consultant will provide permitting support for the Client to obtain agreements and/or permits normally required, as follows:

- **Environmental Services**
  - The Consultant will prepare one Nationwide Permit related to the proposed crossing of the Creeks/River. Such services are anticipated to include:
    - Assumptions
      - One (1) permits, water
      - Permit preparation will begin after approval of the 50% Design.
    - Deliverables
      - Nationwide 12 permit for water
  
- **Texas Commission on Environment Quality (TCEQ)**
  - The Consultant will submit water plans to TCEQ in accordance with TCEQ 290.
    - Assumptions
      - One (1) submittal
    - Deliverables
      - TCEQ submittal letter
  
- **Texas Department of Transportation (TxDOT) - Utility Installation Review (UIR)**
  - Consultant will submit one utility crossing to TxDOT utilizing the online UIR system.
    - Assumptions
      - One (1) permits, water
      - Permit preparation will begin after approval of the 50% Design.

- **Commission on Environment Quality (TCEQ)**
  - The Consultant will submit water plans to TCEQ in accordance with TCEQ 290.
    - Assumptions
      - One (1) submittal
  
- **Local Jurisdictions**
  - The Consultant will coordinate with Brazos County and the City of Bryan to include utility permit requirements for local permitting entities. These permits are anticipated for the crossing of Leonard Road, Charlotte Lane, and Silver Hill Road.
    - Assumptions
      - Two (2) utility permits
      - Two (2) meetings

The permitting task assumptions are based on an hourly not to exceed 150 hours.
Fee and Expenses

Kimley-Horn will perform the services in Tasks 1 - 6 for the total lump sum fee below. Individual task amounts are informational only. All permitting, application, and similar project fees will be paid directly by the Client.

Task 1 – Design Management, Project Meetings, Data Coll. $34,000

Task 2 – Project A - 50 % Design $273,000
  Design $115,000
  Survey (Strong Surveying) $135,000
  Geotech (CME) $23,000

Task 3 – Project A - 75 % Design $136,000
  Design $101,000
  SUE (Hayden) $35,000

Task 4 – Project A - 100 % Design $88,000

Task 5 – Project C – Trenchless Water Line Rehabilitation $125,000
  Design $103,000
  Survey (Strong Surveying) $15,000
  Geotech (CME) $7,000

Task 6 – Projects D and E – Small Diameter Water Lines $92,000
  Design Coordination and Review $19,000
  Design (Hayden) $58,000
  Survey (Strong Surveying) $15,000

Lump Sum Fee (Tasks 1-6) $748,000

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Payment will be due within 25 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

Kimley-Horn will perform the services in Tasks 7 - 10 on a labor fee plus expense basis. Labor fee will be billed according to the attached rate schedule up to the “Not to Exceed” amount stated for each task below. Reimbursable expenses (out of house printing, courier service, Federal Express, etc.) will be limited to the contract maximum stated below. All permitting, application, and similar project fees will be paid directly by the Client.

Task 7 – Project B – Tank Rehabilitation $147,000
  Design $132,000
  Tank Evaluations (Dunham) $15,000

Task 8 - Bidding Services $20,000
  Bidding Services $18,500
  Reproduction (Angonia Print) $1,500
Task 9 – Traffic Control $14,000
Task 10 - Permitting $27,000

Maximum Fee (Tasks 7-10) $208,000

Payment will be due within 25 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

Total Fee (Tasks 1-10): $956,000

Closure

In addition to the matters set forth herein, our Agreement shall include and be subject to, and only to, the attached Standard Provisions, which are incorporated by reference. As used in the Standard Provisions, "Consultant" shall refer to Kimley-Horn and Associates, Inc. and "Client" shall refer to Texas A&M University – Utilities & Energy Services.

If you concur in all the foregoing and wish to direct us to proceed with the services, please have an authorized person execute both copies of this Agreement in the space provided below, retain one copy, and return the other to us. We will commence services only after we have received a fully executed agreement. Fees and times stated in this Agreement are valid for sixty (60) days after the date of this letter.

To ensure proper set up of your projects so that we can get started, please complete and return with the signed copy of this Agreement the attached Request for Information. Failure to supply this information could result in delay in starting work on your project.

We appreciate the opportunity to provide these services to you. Please contact me if you have any questions.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

[Signature]

By: J. Chris Harris, P.E., CFM
Project Director/Associate
Kimley-Horn

Kimley-Horn and Associates, Inc.
Standard Rate Schedule

(Hourly Rate)
Analyst $145 - $165
Clerical/Administrative Support $70 - $125
Designer $170 - $180
Professional $150 - $205
Senior Professional I $230 - $250
Senior Professional II $190 - $240
Technical Support $65 - $160

Effective July 2016