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January 26, 2024

Mr. Tim Howe  
Director of Water/Wastewater  
City of Seguin  
P.O. Box 591  
Seguin, Texas 78156-0591

**RE: Friesenhahn Sanitary Sewer Lift Station  
Abandonment and Sanitary Sewer Relief Project  
Engineering Services Proposal**

Dear Mr. Howe:

TRC Engineers, Inc. (TRC) has prepared this proposal for professional engineering services for the design of a sanitary sewer project for the abandonment of the Friesenhahn Sanitary Sewer Lift Station.

**PROJECT DESCRIPTION**

The project description and limits are as follows:

1. An 18" PVC gravity sanitary sewer extending from the Friesenhahn Sewer Lift Station routed in a southwesterly direction, parallel to I-10, for a distance of 2,600 linear feet, connecting to and terminating at the existing sanitary sewer main located on the north side of I-10.
2. Abandonment of the Friesenhahn Sewer Lift Station, consisting of removing all ground surface items and backfilling the wet well and valve vault.
3. Abandonment (in place) of approximately 1,800 linear feet of sanitary sewer force main, extending from the lift station, under I-10 and terminating on CH Matthies Drive.

**SCOPE OF WORK**

TRC will perform the following Scope of Work:

**A. Topographical Survey**

1. Acquire field topographical data for the design portion of the project on City's coordinate system, for a 40-foot wide area centered on the proposed utility line, to include:
  - a. Detailed survey including utility locates (as furnished by the specific utility provider) within the project limits described above.
2. Set horizontal and vertical primary control points.
  - a. Primary control points shall be set at an approximate spacing of 500 feet and inter-visible with each other where possible, away from possible disturbance from construction activity.

- b. Primary control points shall be used as the primary horizontal and vertical control for the project and as benchmarks for the project.
  - c. Horizontal and vertical data for primary control shall be based on Static RTK observations using the Leica Smartnet Network.
  - d. The horizontal datum shall be based on NAD83 (2011) using the Texas Coordinate System, Central Zone (4203).
  - e. The vertical datum shall be based on NAVD88 using Geoid 12B.
  - f. Secondary control points shall be set as necessary for conventional ground surveying and terrestrial LiDAR scans.
3. Provide design level topographic survey data within the project survey limits.
- a. The survey will be performed on the ground utilizing a combination of terrestrial LiDAR with traditional field observation methods to locate found visible features, both horizontally and vertically, including existing on-site structures, drainage features, adjacent and onsite sidewalks, curb lines, pavement, roadway paint striping, driveways, fences and visible above-ground utility appurtenances within the survey limits.
  - b. The survey will obtain topographic field elevations throughout the project site at 50-foot station intervals for use in developing a digital terrain model.
  - c. Markings from franchise utility services and city utilities will be located at time of survey.
  - d. Flowline elevations of found storm water and sanitary sewer manhole inlet structures immediately adjoining the site will be identified.
  - e. The survey will field locate found protected trees six (6) inches or greater in trunk diameter measured at breast height, in accordance with municipal code. Trees will be tagged in the field and shown on the survey noting trunk diameter, species and canopy size.
  - f. Survey deliverable will be an AutoCAD .dwg file showing topographic points, features and 1 foot contours, accompanied by a point file in .csv format and digital terrain model in .xml format.

B. Environmental

TRC will perform the following Environmental Scope of Work:

***Background Research, Antiquities Permit Application, and Research Design/Scope of Work***

TRC archeologists will perform a background study of the APE utilizing the THC Archeological and Historic Sites Atlas; topographic, geology, and soils maps; historic to recent aerials; and other sources to identify previously recorded cultural resources, as well as to assess the

potential to encounter cultural deposits within or adjacent to the APE. Results of a background study will be incorporated into the Research Design/Scope of Work to accompany the Antiquities Permit Application. The Research Design will outline the proposed archeological survey methodology, reporting, and curation requirements. Once completed, TRC will send the permit application packet to the City of Seguin (the City) for review and signature. Following the City's review and comment, TRC will make any revisions, and submit the permit application packet to the THC who will assign a permit number for the Project. Fieldwork may not proceed until the THC issues a permit number for the Project.

### Archeological Survey and Report

TRC will perform an intensive archeological survey of APE. This work includes a 100 percent pedestrian survey and subsurface investigations will be performed on those parts of the APE that do not exhibit evidence of severe prior disturbance. Survey methods will consist of excavation of shovel tests spaced 50 to 100 meters apart. TRC will initiate One Calls (Dig-Tess locates) at least 48-hours prior to fieldwork. Work will be performed in accordance with the THC's and Council of Texas Archeologists (CTA) Archeological Survey Standards (2020).

Newly discovered prehistoric and historic archeological sites will be documented in compliance with THC/CTA survey standards and policies including requirements for assessing historical sites and cemeteries. Any structures 45-years or older located within or adjacent to the APE will photo-documented and described in the report.

TRC will follow a "no collection" policy where cultural materials are encountered. Diagnostic and non-diagnostic artifacts (e.g., lithic debitage, burned rock, historic glass) will be described, sketched, and/or photo-documented in the field and replaced in the same location in which the artifacts were found.

The Archeological Survey Report will provide a discussion of the methods and results of the background research and the field investigation. This discussion will include a list of sites identified, the ownership of the land on which the sites are located, their eligibility for the National Register or for formal designation as State Antiquities Landmarks, and the appropriate criteria under which the sites were evaluated. Site forms will be submitted to the Texas Archeological Research Laboratory (TARL) to obtain trinomials. The report will also include recommendations for further work or no further work with appropriate justifications based on the requirements of 13 TAC 26.5(35), 13 TAC 26.20(1), and 13 TAC 26.20(2) and THC/CTA Guidelines. Costs also include curation costs to permanently house records with the Center of Archeological Studies in San Marcos, Texas under stipulations of the ACT.

### C. Engineering

1. Attend design kickoff meeting with city to discuss project goals and milestones.
2. Determine pipeline routing conflicts including franchise utility conflicts. Acquire information from the franchise utilities (gas, telephone, cable, electrical, etc.) and determine need for relocation. The City will provide direct correspondence with the franchise utilities. Design of existing utility relocations shall be provided by others.

3. Prepare preliminary site routing with landowner property designations.
4. Attend a maximum of two (2) design meetings with City Staff throughout the design process.

D. Permitting

1. Submit applications and/or permits for:
  - a. Texas Commission on Environmental Quality (TCEQ) – summary transmittal letter.

E. Construction Documents

1. Prepare construction documents for the proposed project, consisting of:
  - a. General sheets, including general construction notes.
  - b. Sanitary sewer pipeline plan and profile drawing sheets.
  - c. Phased traffic control plan to maintain traffic during construction, if required.
  - d. Erosion control plan.
  - e. City of Seguin Standard Construction Details.
  - f. Miscellaneous details.
2. Submit 100% construction documents (unsealed) to City for review/approval, and meet with City Staff to discuss.
3. Provide final set of construction documents.

F. Construction Support

1. Provide contractor correspondence, submittal review, request for information review.
2. Attend monthly construction meetings (maximum of 6). Meeting attendance will be virtual.
3. Attend final inspection and prepare contractor punch list.
4. Prepare record drawings based on information provided by the Contractor (3 sets of hard copies and one electronic copy PDF). TRC will not validate as-built conditions.

G. Construction Inspection

1. Provide inspections by a registered engineer on an as-needed basis to observe progress of the work and consult with the City and the Contractor concerning problems and progress of the work. The costs provided herein are based on a maximum of four (4) inspections.

## **ASSUMPTIONS**

As the basis for the preparation for this proposal and the associated cost of service, the following assumptions were made which, if found to be incorrect may result in request(s) from TRC for additional compensation:

1. The proposed sanitary sewer main will be located within city of Seguin right-of-way or existing public utility easements.
2. Where necessary, the City will be responsible for arranging property access prior to commencement of the field survey and/or environmental investigations for properties not located within City right-of-way. TRC will not perform any field investigation on properties where access has not been granted.
3. Should the schedule be changed or put on "hold" by the City, all costs incurred by TRC up to notification of change of schedule or "hold" status will be billed to the City. Additional fees that TRC may incur as a result of the change of schedule or "hold" status will be billed to the City once the Project has resumed in addition to the cost of services included in this proposal.
4. The entire project will consist of one (1) construction project.
5. TRC's effort and costs for construction services are based on a six (6) month construction project duration, starting from the date of the Contractor's notice to proceed. If the construction period extends beyond this time period, TRC may request additional compensation.

Environmental assumptions are as follows:

1. TRC assumes funding for the project is from the City of Seguin and there are no state or federal funding sources.
2. No additional environmental services or studies (e.g., formal wetland and other waters delineation; ASTM Phase I Environmental Site Assessment; species-specific surveys; biological monitoring; cultural resources surveys; regulatory agency permitting, planning, or coordination; etc.) beyond those specifically outlined in this scope of work will be performed. Should additional environmental or cultural resources services be required or requested, TRC will prepare a separate proposal and cost estimate for additional services not outlined in this scope of work. Services for Natural Resources are excluded.
3. This scope of work does not include migratory bird nesting surveys. Should the project need to clear vegetation between March 15 and September 15, migratory nesting bird surveys may be necessary to facilitate compliance with and avoid violation of the Migratory Bird Treaty Act. If requested, TRC will prepare a separate scope of work and cost estimate for additional services.

4. TRC will have timely, complete, and unobstructed access to the Project Area. Access to the Project Area will be coordinated by the City. Where necessary, the City will be responsible for arranging property access prior to commencement of on-site work for properties not located within public right-of-way. TRC will not perform any on-site work on properties where access has not been granted.

## **EXCLUSIONS**

The following items are specifically excluded from the scope of work:

1. Any design services not listed above, including but not limited to design of landscape or irrigation, street total reconstruction, sidewalks or accessibility, electrical or lighting.
2. Preparation of technical specifications. Construction details and requirements will be included in the project drawings.
3. Subsurface utility engineering (SUE).
4. Land acquisition services or acquisition of right-of-entries.
5. Any services required by funding agencies.
6. Geotechnical borings or report.
7. Bidding administration services.
8. Preparation of easement documents, field notes, or metes and bounds.
9. Continuous construction inspections.
10. Design of improvements or relocations for other utilities, electrical lines, gas lines, telephone lines or other franchise utilities.
11. Attendance at or preparation for condemnation hearings, easements (not mentioned above) or plat documents, landowner contact or easement negotiations.
12. Preparation of permits, applications, etc. (not mentioned above).
13. Costs for permitting or application fees or review fees by regulatory authorities.
14. US Army Corps of Engineers (USACE) permit preparation or notification, if applicable.
15. Post-construction topographical survey or GIS system updates.
16. Construction staking or field staking for other purposes.



## **COMPENSATION FOR SERVICES**

TRC will provide the professional engineering services as outlined herein and within the Master Services Agreement executed between the City and TRC (dated December 16, 2003), for a total lump sum fee as follows:

Cultural Services:	\$5,700.00
Topographical Surveying:	\$6,000.00
Engineering Design:	\$79,680.00
Construction Administration:	\$29,250.00
Contingencies <sup>(1)</sup> :	\$20,000.00
<b>Total (lump sum):</b>	<b>\$140,630.00</b>


<sup>(1)</sup>These funds represent a contingency allowance for additional services that may be required but are unforeseen at this time and would only be used upon TRC's receipt of written direction to proceed from the City's Director of Water/Wastewater.

This fee includes labor and material costs associated with the Scope of Work identified above. TRC's fee above is based on a continuous flow of work. Any delays or restrictions, caused by customer or customer's sub consultants, which result in idle-time or inefficiencies, could be cause for additional compensation. The payment schedule will be via monthly progress billing.

Changes in scope, including additional scenarios or modification to the scenarios identified above will be evaluated for additional services and/or materials cost through a formal change order process, which results in approval of the additional cost prior to executing the additional work. Fees for services quoted in this Letter of Agreement are valid for a period of time not to exceed sixty (60) days from the date of this letter.

We appreciate the opportunity to assist with this project and are available to proceed immediately with your written approval. Please review this proposal and, upon acceptance, sign in the space provided below, returning a copy for our files.

Sincerely,



William Wachel, P.E.  
Vice President - DMS Central

\_\_\_\_\_  
City of Seguin

January 26, 2024

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date