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January 9, 2023

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

**RE: Water Treatment Plant High Service Pump Replacement
West Booster Station and Storage Tanks
Engineering Services Proposal**

Dear Mr. Howe:

As requested by the City of Seguin (City), TRC Engineers, Inc. (TRC) has prepared this proposal for professional engineering and related services (as discussed herein) for the above-referenced project, to include:

1. The replacement of two (2) potable water high service pumps and motor controls located in the plant round house at the City's Water Treatment Plant (WTP).
2. The replacement of three (3) variable frequency drives for the existing surface water booster pumps at the WTP.
3. The proposed potable water West Booster Station and ground storage tanks located along Huber Road (between IH-10 and New Braunfels Street).

PROJECT SUMMARY

The project will consist of professional engineering services in support of the following projects, which will be designed and constructed as one (1) single project:

1. WTP High Service Pump Replacement
 - a. Remove and replace two (2) 1,500 GPM split-case centrifugal pumps. New pumps will be supported by the existing concrete bases. No structural concrete modifications are proposed for the new pump/piping installation.
 - b. Remove and replace hydraulic (Cla-Val) pump control valves.
 - c. Remove and replace pump suction/discharge piping to facilitate the new pumps and valves.
 - d. Remove and replace the pump motor controls/starters, located in the round house, to include the motor starters for the two (2) proposed pumps and the four (4) existing raw water pumps, with new electrical conduit/wiring between the starters and pump motors. New starter panels will be installed in the same location as the existing panels.
2. WTP Surface Water Booster Pumps VFD Replacement
 - a. The construction project will include replacement of three (3) variable frequency drives for the surface water booster pumps at the Water Treatment Plant. The design for this has

been previously completed by TRC and the original drawings/specifications would be inserted into the bid package. TRC's services for this item would be limited to bidding and construction administration.

3. West Booster Station, Storage Tanks and Water Main

a. Ground Storage Tanks

- 1) Two (2) 250,000 gallon ground storage tanks, with painted steel shell/roof and concrete slab, sized approximately 45 ft. diameter x 24 ft. shell height.
- 2) One (1) buried concrete vault with two (2) automatic control valves (1-duty, 1-standby) for filling the tanks.
- 3) Provide manually controlled bypass piping/valves to allow feeding directly into the upper pressure plane from the lower pressure plane (bypassing the tanks and pumps), in the event of emergency low pressure conditions in the upper plane.
- 4) Tank level controls.

b. Booster Pumps

- 1) Three (3) 1,000 GPM vertical turbine booster pumps in buried suction cans, mounted on a concrete pad, pulling suction from the two (2) GSR's. The cans will be connected to a buried common manifold feeding from the two ground storage tanks.
- 2) Pump common discharge manifold.
- 3) Pump discharge hydraulic (Cla-Val) control valve with temperature-controlled housing, similar to the Vetter Station.
- 4) Suction/discharge pipe, valves and fittings.
- 5) Surge anticipation valve (hydraulic type).

c. Control Building

- 1) One (1) building structure to house the pump motor controls, sized approximately 10 ft. wide x 25 ft. long, constructed of split-face CMU walls on a concrete pad adjacent to the pump pad.
- 2) The MCC/Control room will have variable speed drives for pump speed control.
- 3) Building HVAC consisting of heating and air conditioning.
- 4) Building electrical and lighting.
- 5) Pump controls.
- 6) SCADA communication system to include radio tower, if required.

d. Sitework

- 1) Concrete roads and sidewalks. Roads shall allow areas for the City's crane truck to turn around.

- 2) Tank overflow discharge routed into the on-site stormwater detention pond.
 - 3) Eight (8) foot tall concrete perimeter security fence with automatic entry gate, keypad (badge/fob access), and video monitoring.
 - 4) Site electrical including LED lighting.
 - 5) Site piping.
- e. Emergency Electrical Generator
- 1) Pad-mounted, natural gas fed electrical generator with automatic transfer switch for automatic initiation upon power failure.
- f. Stormwater Detention Pond
- 1) A single earthen detention pond with concrete discharge structure, sized to detain the increased stormwater runoff flow for the 2-, 10-, 25-, 50- and 100-year storm events. The stormwater pond will discharge into walnut branch (due east of the station) through a discharge pipe or open channel. The length of the pipe/channel will be limited to 200 feet from the pump station.
- g. Off-Site Water Mains
- 1) TRC's scope of work will include a 20" water main extension from the existing 16" water main located on the north end of Fleming Drive to feed into the station site and discharge into the two (2) storage tanks. This will include a single utility bore/casing (jack-and-bore method) for crossing both Hwy. 78 (New Braunfels Street) and the Union Pacific Railroad.
 - 2) TRC's scope of work will include an 18" water main extension connecting to the existing surface water main located north of the Union Pacific Railroad and east of Walnut Branch, extending approximately 1,800 linear feet into the booster station site, to allow blending of surface water into the two (2) ground storage tanks. The water main would include a buried vault (located inside the station site) with automatic control valve and flow meter (rate-of-flow controller) and SCADA communication. This will include a utility bore/casing (jack-and-bore method) for crossing under Walnut Branch.
 - 3) The 16" discharge pipe from the station pumps will exit the station on the north side of the site and terminate at the southern right-of-way line for the I-10 TxDOT right-of-way, for connection to the 16" Huber Road water main (to be designed by others).

SCOPE OF WORK/WORK TASKS

Task 100. General Requirements

101. Attend kickoff meeting with the City to set major milestone dates, establish design standards and confirm goals and deliverables for the project. TRC will provide meeting minutes to establish agreed-upon determinations.

102. Obtain and Review Available Data, including:
 - a) Historical operational data.
 - b) Maps and Data Sources for review of the Design, as provided by the City.
 - c) Soil Surveys.
 - d) USGS 7.5-minute Quadrangle Maps.
 - e) FEMA Firm Map.
103. Conduct Field Review of Project – Conduct a single field review onsite with representatives of the City to ensure avoidance or minimization of environmental, permitting, and engineering issues and determine presence of any additional constraints.
104. Arrange for and participate in informal meetings with the City throughout the design phase to review progress and exchange ideas and information. A maximum of six (6) meetings is included in this scope or work.
105. Maintain a log of issues on the design and the party responsible for resolution.
106. Submit applications and/or permits for:
 - a) City of Seguin Engineering Department.
 - b) Texas Commission on Environmental Quality (TCEQ).
 - c) Water main crossing of Union Pacific Railroad. This will include the right-of-entry fee of \$1,000, a flagger for one (1) day for surveying, \$10,000 fee for the permit application, and permit application preparation and correspondence with UPRR.
 - d) Water main crossing of Texas Department of Transportation (TxDOT) for Hwy 78 (New Braunfels Street).
107. Prepare construction plans/specifications for the proposed project including all details. Construction plans shall include the following primary disciplines, as a minimum:
 - a) General
 - b) Demolition
 - c) Civil
 - d) Mechanical
 - e) Structural
 - f) Electrical and HVAC
 - g) Process control description for SCADA and P&ID's
 - h) Landscaping (area limited to within 30 feet of the booster station perimeter fence)
 - i) Miscellaneous details
 - j) SWPPP and erosion control plan

108. One (1) construction bid packet will be developed and constructed to include both projects, as listed above.
109. Provide design submittals to the City for review for 30%, 60%, and 100% completion milestones.

Task 200. Environmental

The following environmental services will be provided:

201. TRC will conduct an archeological file search and cultural review of sources of the Area of Potential Effects (APE) of the proposed booster pump station and water line to ensure compliance with the Antiquities Code of Texas (ACT) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, if U.S. Army Corps of Engineers (USACE) permitting is required. A consultation letter summarizing the results of the background studies will be sent to the Texas Historical Commission (THC) for review.
202. Cultural Resources Desktop Study and Letter Report:
 - a) This data will be summarized in a letter of consultation and submitted to the THC for review.
 - b) TRC will perform a desktop review of the APE to identify existing conditions and identify documented cultural resources within the APE and within a one kilometer of the APE. This includes an archeological file search and review of sources, as well as consultation with the THC. The file search will be performed using the THC Archeological and Historic Sites Atlas. Other documents that will be consulted as appropriate include historic aerial photographs and topographic maps, Sanborn maps, and cemetery records. The results of the background review will be compiled in a letter report to be reviewed by the City and then sent to the THC for review for compliance with the ACT and Section 106 of the NHPA, if applicable.

Task 300. Limited Asbestos and Lead Survey

301. Asbestos-Containing Materials (ACM)
 - a) TRC will conduct a limited asbestos survey. Regulated materials of concern include asbestos-containing materials (ACMs) and asbestos-containing building materials (ACBMs). Survey activities will be conducted in accordance with Occupational Safety and Health Administration (OSHA) regulations, 29 CFR 1926.1101, National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, asbestos compliance issues for demolition and renovation, and 40 CFR Part 763 Asbestos Hazard Emergency Response Act (AHERA) and Texas Asbestos Health Protection Rules (TAHPR).
302. Lead-Containing Paint (LCP)

- a) The TRC Team will conduct a limited lead-containing paint (LCP) survey in compliance with regulations set forth by OSHA for contractors and their employees working with lead.
- b) The LCP survey scope of work will include testing and assessment of painted and coated surfaces in and on all painted structures, and other components within the planned replacement project work areas. The TRC Team will conduct the sampling and identification of suspect LCP using the principles described in the Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing by HUD, Title X. TRC anticipates up to 10 paint chip samples will be submitted to the laboratory at a standard turn-around time (TAT), upon receipt by the laboratory, will be requested unless otherwise directed and approved by the Client.

303. Asbestos Abatement Specifications Preparation (if required)

- a) Following receipt of laboratory results, if asbestos is reported in any of the sampled materials expected to be disturbed by the pump booster replacement project TRC will include preparation of specifications written by a TDSHS licensed Individual Asbestos Consultant (IAC).

Task 310. Topographical Surveying

- 311. Acquire field topographical data for the design portion of the project on City's coordinate system, to include detailed survey including utility locates (as furnished by the specific utility provider). TRC will provide level C and D for SUE utility locating.
- 312. Locate and/or set property corners for City owned property for booster pump station site.

Task 320. Geotechnical Services

- 321. Provide geotechnical engineering services for the booster pump station site consisting of a maximum of five (5) bores at 50 feet deep each for the booster station site and two (2) bores at 30 feet deep each for the water main bore across Hwy. 78 and UPRR.
- 322. Field Investigation – Provide geotechnical exploratory for soil borings in accordance with ASTM D1586, D1587 and D2113. Groundwater observations will be made at boring completion.
- 323. Laboratory Tests – Unconfined compression tests of soil and rock, liquid limit, plastic limit, sieve analysis, direct shear and triaxial compression test, as applicable, one-dimensional consolidation test, moisture content and penetrometer test will be performed on soils, rock formations, and other subsurface conditions, which are required to provide information for design.
- 324. Upon completing the field and laboratory testing, TRC's engineering staff will summarize the work completed and prepare a Geotechnical Engineering Report (electronic PDF copy). The geotechnical engineering report will summarize TRC's understanding of the proposed construction, site conditions, exploration activities, subsurface conditions and impacts on the

proposed construction, and address project specific concerns including but not be limited to issues such as:

- a) Recommended foundation system(s) and criteria to be used in the design thereof for the proposed tanks and booster pump and generator pads including allowable bearing capacities and the proposed bearing levels including anticipated settlements and relevant properties.
- b) Expansive potential of in-situ soils.
- c) Foundation constructability concerns.
- d) Corrosivity of buried metals.
- e) Groundwater conditions including perched conditions and control of groundwater during construction, as applicable.
- f) Seismic Site Class parameters as determined by the 2018 International Building Code (ASCE 7-16).
- g) Recommendations for rigid pavements, including recommendations for light-duty and heavy-duty concrete sections.
- h) Other construction-related concerns, as warranted based on site subsurface conditions, based on the proposed construction.
- i) Copies of typed test boring logs, a test boring location plan, and the laboratory test results will be included as appendices to the report.

Task 330. Design Memorandum

- 331. Prepare the Basis of Design Memorandum to establish the design parameters for the items listed under Project Summary above. The memorandum will be in accordance with TCEQ's design requirements (Chapter 290, Subchapter D) and include a flow schematic, site plan, layout of proposed buildings, structures and streets, description of the proposed facilities, and preliminary design calculations. A single Memorandum will be provided.
- 332. Meet with the City obtain comments in a single meeting. Resolve any issues if necessary and resubmit three (3) final copies to the City.
- 333. Submit the final Design Memorandum to TCEQ for review. Address comments from TCEQ, as applicable.
- 334. As a separate document to the Design Memorandum, prepare engineering documents for discharging the booster station site stormwater runoff into Walnut Branch. All drainage systems shall be designed, analyzed, and constructed in accordance with the City's UDC Technical Criteria Manual and the City of Seguin. Services will include:
 - a) Determining/calculating the existing and proposed stormwater flows that enter Walnut Branch from the proposed site. This will follow Section 4.6 of the Stormwater and

Drainage Standards and Section 90-134 of the Design Criteria for Drainage of the City of Seguin Municipal Code.

- b) Acquiring the FEMA HEC-RAS model via the FEMA library.
- c) Entering the existing/proposed flows into the model, determining the water surface elevations and preparing a no-rise study that follows the City of Seguin Code Section 2.10 of the Floodplain Development Permit. The model will show the flow rates for pre- and post-development of the 2-, 10-, 25-, 50-, and 100-year storm events and an evaluation of downstream conditions for both the pre- and post-development.

TRC's services would not include letters of map revisions or coordination with any changes to existing flood insurance studies.

Task 400. Construction Contract Documents

Task 410. Level 1 (30%) Design

- 411. Provide sketches and drawings showing conceptual plan views of processes and structures.
- 412. Provide a site plan showing the location of paving and structures and major pipelines.
- 413. Provide a preliminary P&ID.
- 414. Provide selected cut-section views of structures for clarification as appropriate.
- 415. A total of three (3) sets of Level 1 documents will be submitted to the City for review.
- 416. The City will provide a written response to TRC regarding review comments.
- 417. A single meeting will be conducted with the City to review the comments for each of the projects.

Task 420. Level 2 (60%) Design

- 421. Provide drawings showing standard details.
- 422. Provide drawings showing the details of pipelines, mechanical equipment, processes and structures to be included in the project.
- 423. Major electrical equipment will be shown on background drawings to indicate preliminary design concepts. Provide site electrical loads to the City for electrical distribution service to the site.
- 424. Structural drawings and notes will be provided on the major structures.
- 425. Provide preliminary equipment specifications in CSI format including Divisions 0 and 1.

- 426. A total of three (3) sets of Level 2 documents will be submitted to the City for review.
- 427. The City will provide a written response to TRC regarding review comments.
- 428. A single meeting will be conducted with the City to review the comments for each of the projects.
- 429. Update the opinion of probable construction cost based on new information provided.

Task 430. Final Drawings and Specifications

- 431. Provide substantially complete drawings showing the details of all facilities. All drawings will be produced in AutoCAD. Completed standard and general detail sheets will be provided.
- 432. Completed technical specifications and front-end documents will be included. Specifications will include construction sequences and schedules as appropriate. Specifications will be in word format.
- 433. A total of three (3) sets of Level 3 documents will be submitted to the City for review.
- 434. The City will provide a written response to TRC regarding review comments.
- 435. A single meeting will be conducted with the City to review the comments for each of the projects.
- 436. Update the opinion of probable construction cost based on new information provided.
- 437. Incorporate all of the City's comments into a final set of drawings and specifications ready for bidding. Provide three (3) sets of documents to the City.
- 438. Submit final documents to the City, TCEQ, TxDOT, and UPRR for review, as applicable.

Task 440. Pre-award Services

- 441. Coordinate bid letting date, time and place with the City and prepare final Invitation to Bid.
- 442. Assist and advise the City in placing the advertisements of the Invitation to Bid.
- 443. Identify potential contractors and suppliers acceptable to the City and distribute copies of Invitation to Bid.
- 444. Distribute copies of Invitation to Bid to plan rooms and contractor organizations.
- 445. Set up the project on CivCastusa.com to distribute the contract documents to prospective bidders and plan rooms.

- 446. Distribute plan holders list to recipients of contract documents prior to bid opening. Maintain a record of prospective bidders and suppliers to whom contract documents have been issued.
- 447. Interpret construction contract documents. Prepare and issue project addenda to the construction contract documents when required.
- 448. Coordinate pre-bid conference date, time and place with the City, facilitate pre-bid meeting and prepare meeting minutes issued as a project bid addendum.

Task 450. Bid Processing

- 451. Assist the City during bid opening, make preliminary tabulation of bids and review bids for completeness.
- 452. Review and evaluate the qualifications of the apparent successful bidder. The review and evaluation will include such factors as work previously completed, equipment and staffing that is available for the work, publicly available financial resources, technical experience and responses from references.
- 453. If applicable, attend one (1) meeting for contractor qualification interviews with City Staff and contractor personnel.
- 454. Prepare and distribute formal bid tabulation sheets, evaluate bids, and make written recommendation to the City concerning contract award.
- 455. Prepare conformed set of construction documents to reflect any project addendums or modifications.

Task 500. Pre-Construction & Construction Phase Services

- 501. Review the Contractor's insurance certificates and forward the certificates to the City for acceptance by the City's legal counsel. Engineer's review of the insurance certificates is only for the purpose of determination if the Contractor maintains the general types and amounts of insurance required by the contract documents and is not a legal review to determine if the Contractor's insurance coverage complies with all applicable requirements.
- 502. Prepare and distribute five (5) sets of the construction contract documents, to include furnishing to the contractor unsigned documents, review for conformance with contract requirements and transmitting the documents to the City for signature and distribution.
- 503. At a date and time selected by the City and at a facility provided by the City, attend the preconstruction conference and assist the City during the conference. Prepare an agenda for the conference. The preconstruction conference shall include a discussion of the Contractor's tentative schedules, procedures for transmittal and review of the Contractor's submittals, processing payment applications, critical work sequencing, change orders,

record documents, the City's expectations of the Contractor throughout construction, and the Contractor's responsibilities for safety and first aid.

504. Project Administration – Perform project administration services during the pre-construction and construction phases of the project by performing the services described herein. The Engineer shall not have the authority or responsibility to supervise, direct, or control the Contractor's work or the Contractor's means, methods, techniques, sequences, or procedures of construction.
505. The Engineer shall not have the authority or responsibility for safety precautions and programs incident to the Contractor's work or for any failure of the Contractor to comply with laws, regulations, rules, ordinances, codes, or orders applicable to the Contractor furnishing and performing the work.
506. Review and comment on the Contractor's preliminary and baseline schedule and advise the City as to acceptability.
507. Analyze the Contractor's construction schedule, schedule of values, activity sequence, and construction procedures.
508. Review the Contractor's initial and updated schedule of estimated monthly payments and advise the City as to acceptability.
509. Provide inspections/meetings 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 eighteen (18) inspections/meetings by a registered engineer. It is acknowledged that some amount of inspections/meetings may be required that is over and above this amount and if additional inspections/meetings are desired by the City, TRC will submit a separate proposal to address this additional need.
510. Review drawings and other data submitted by the Contractor as required by the construction contract documents. Engineers review shall be for general conformity with the construction contract documents and shall not relieve the Contractor of any of his contractual responsibilities. Such reviews shall not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions and programs incident thereto.
511. Interpret construction contract documents when requested by the City or the Contractor.
512. Review the Contractor's monthly payment requests. Review shall be for the purpose of making a full independent mathematical check of the Contractor's payment request. Verify the quantities of work which are the basis of payment requests. Provide certification of the payment request to the City.
513. Provide documentation and administer the processing of change orders, including applications for extension of construction time. Evaluate the cost and scheduling aspects of all changes.

514. Interpret claims of the City and the Contractor relating to the acceptability of the work or the requirements of the construction contract documents.
515. Analyze data from performance testing of equipment by the Contractor or supplier when the construction contract documents require the equipment to be tested after installation. Submit conclusions to the City.
516. Receive and review guarantees, bonds and certificates of inspection, which are to be assembled by the Contractor and transmit them to the City.
517. Review and approve equipment O&M manuals and require Contractor to deliver the approved manuals to the City in 3-ring binder sets.
518. Upon substantial completion, in conjunction with the City, prepare a punch list of those items to be completed or corrected before final completion of the project. Submit results of the observation to the City and the Contractor.
519. Upon completion of the items of work on the punch list, conduct a final observation with the City and Contractor to determine if the work is completed. Provide to the City written recommendations concerning final payment, including a list of items, if any, to be completed prior to making such payment.
520. Upon completion of the project, revise the construction contract drawings to conform to the construction records. Record drawings will be based on the information furnished by the contractor, reflecting changes in the project made during construction. TRC will not provide field verification of the record drawings. Submit four copies of the prints and an electronic version (CD format) to the City.
521. Prior to acceptance of the project, obtain all lien releases, warranty's, and any additional requirements per the contract specifications prior to acceptance.
522. Prepare acceptance letter along with established date for retention release.
523. Submit notice of completed project to TCEQ.

ASSUMPTIONS

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

1. TRC is not responsible for the time required by regulatory authorities or other parties for the approval process of permits, review of engineering documents, etc. TRC cannot guarantee the issuance of any permits or approvals and costs to file appeals or respond to permit challenges are not included.

2. TRC's standard construction contract documents, specifications and drawings will be used for the project. The specifications format will be CSI.
3. The City will acquire and provide to TRC access agreements for unfettered access to all private properties (excluding UPRR) by TRC representatives.
4. Subconsultants for the use of project design will be selected by TRC.
5. There will be one design/construction project.
6. TRC's effort and costs for construction services are based on an eighteen (18) month construction project duration. If the construction period exceeds these time limits, TRC will provide an additional task order based on then-existing time-and-materials rates.
7. Drawings will be prepared utilizing AutoCad drawing software (two dimensional drawings only).
8. TRC is responsible for the health and safety of its employees; overall site health and safety is the responsibility of the contractor or other third parties.
9. There are no anticipated owner-supplied materials or equipment for this project or preparation of separate bid packages for such.
10. The general contractor will provide the project commissioning, which will be documented as a requirement in the construction contracts, including but not limited to vendor/manufacture equipment training/O&M, PLC/SCADA troubleshooting, and equipment startup.
11. TRC is not responsible for the permit preparation or related construction activities for the TPDES stormwater permit issued to the City and Contractor, if required, for the new booster station site. The Contractor will be responsible to manage, inspect and maintain the permit and required field devices.
12. The construction contractor will provide all requirements of the UPRR during construction, including but not limited to providing flaggers during construction, topo survey for potential track settlement, etc.

TRC proposes to complete the services described in the environment task with the following assumptions:

13. This scope covers a prescribed level of effort through the archeological site file search and THC consultation. If after consultation the THC requires additional work in the form of an archeological survey, deep testing investigations, archeological testing, and/or monitoring, TRC will prepare a separate scope and cost estimate for additional services and submit to the City for approval.
14. No additional environmental services or studies (e.g., USACE waters of the U.S. delineation survey or reporting, ASTM Phase I Environmental Site Assessment, T&E species-specific

surveys, biological monitoring, etc.) beyond those already outlined in this scope will be performed. Should additional environmental studies be required, TRC will prepare a separate scope and cost estimate for additional services and submit to the City for approval.

EXCLUSIONS

The following items are specifically excluded from TRC's scope of work:

1. Design of offsite utilities extending outside of the booster pump security fencing, unless otherwise noted above, including but not limited to fiber communication (if applicable), electrical supply to the site and natural gas supply for the generator.
2. Continuous construction inspections.
3. SCADA programming. This will be provided by the general contractor.
4. Preparation of application to TDLR for handicap accessibility requirements.
5. Any services required for the Union Pacific Railroad utility crossing during construction. This service will be provided by the general contractor.
6. Preparation of specific operation and maintenance (O&M) manuals or process O&M's. The equipment/material O&M's will be provided by the general contractor.
7. Design of sanitary sewer or site drain piping (none is anticipated).
8. Preparation of easements, field notes or survey plats. Detailed title search or title policy, attendance at or preparation for condemnation hearings, landowner contact or easement negotiations.
9. Improvements or relocations for franchise utilities, if applicable.
10. Abatement, demolition, and means and methods of construction contractor or the work of the construction contractor.
11. Environmental or cultural review of project limits (other than listed above), archaeological surveys, endangered species mitigation plan/costs, species-specific threatened and endangered survey, Clean Water Act Section 404 individual permit and NWP 12 Pre-Construction Notification. Environmental assessment of the new booster station site, including but not limited to Phase 1 or 2 assessments or others.
12. Hazardous materials assessment and abatement and demolition management/oversight.
13. Remediation plan for excavated soil or liquid in the event that it is contaminated.
14. GIS mapping.

15. Construction survey and staking, post construction survey, or quality assurance testing for construction.
16. Services for zoning modifications or rezoning of the booster station property, if applicable.
17. Determination of the FEMA flood plain level (including CLOMR, LOMR, etc.) for the sites.
18. Services required to rebid the project for any reason or to resolve bid protests.
19. Storm sewer design, other than that required for the stormwater detention pond discharge into Walnut Branch.
20. Level A or B subsurface utility engineering (for surveying).
21. Payment of ADA/TDLR application or inspection fees (none are anticipated).
22. PLC logic description and design, arc flash testing, and breaker coordination for electrical equipment/devices.
23. Design of bid alternates or multiple bid packages, unless specifically stated herein.
24. Engineering studies of alternative systems and equipment locations.
25. Value engineering design services after approval of 100% Construction Documents.
26. Any items not reflected in the scope of work/work tasks.
27. During the construction phase - Investigations, analyses, studies or design for substitutions of equipment or materials, corrections of defective or deficient work of the contractor or other deviations from the construction contract documents, providing shop, mill, field, laboratory or factory inspection of materials and equipment, analytical testing or third party testing for construction QA/QC.
28. Procurement services.
29. Preparing data and reports for assistance to the City in preparation for hearings before regulatory agencies, courts, arbitration panels or mediators, giving testimony or expert representation or preparations therefore.
30. Making revisions to drawings, specifications or other documents when such revisions are not consistent with approvals or instructions previously given to TRC or due to other causes not within the control of TRC.
31. Contractor payroll certifications, audits or field interviews of contractor employees related to salaries.
32. Payment of fees for permit applications, unless noted above.

33. Operator training or O&M instruction services. This will be provided by the individual equipment vendors and manufacturers as part of the construction project.

COMPENSATION FOR SERVICES

The cost to provide the engineering services will be invoiced as a lump sum project on a percent-complete basis, invoiced as follows:

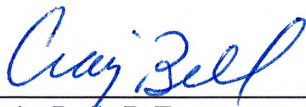
Topographical Surveying for Design:	\$22,655.00
Geotechnical Bores/Report:	\$27,365.00
Environmental/Cultural:	\$12,640.00
UPRR Permit (Including Application Fee):	\$30,000.00
FEMA Study (Task 334):	\$24,862.00
Engineering Design:	\$1,117,943.00
Bidding/Construction Administration:	\$262,539.00
WTP VFD's Bidding/Construction Admin.:	\$2,780.00
Contingency Allowance ⁽¹⁾ :	<u>\$50,000.00</u>
Total:	\$1,550,784.00 (lump sum)

(1) 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 Director of Water/Wastewater.

Services will be provided in accordance with the Master Service Agreement (dated December 16, 2003) executed by the City and TRC. Fees for services quoted in this proposal are valid for a period of time not to exceed 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.

Sincerely,



H. Craig Bell, P.E.
Austin CES Practice Leader

City of Seguin

January 9, 2023

Date

Date