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April 28, 2025

Ms. Terri Lynn Ruckstuhl, P.E.
Senior Utilities Engineer
City of Seguin
P.O. Box 591
Seguin, Texas 78156-0591

**RE: Water Treatment Plant**
**Proposed Solids Contact Clarifier No. 3**
**Addition of Pump Station Improvements**
**Engineering Services Contract Amendment No. 1 (Revision 1.0)**

Dear Ms. Ruckstuhl:

As requested by the City of Seguin (City), TRC Engineers, Inc. (TRC) has prepared this Contract Amendment No. 1 for professional engineering and related services (as discussed herein) for the above-referenced project, which will be an amendment to the approved engineering services proposal for the Solids Contact Clarifier No. 3 (dated June 3, 2024). This amendment will include pump station improvements at the City's Water Treatment Plant, consisting of four areas, summarized as follows:

1. The replacement of two (2) existing pumps with larger pumps in Raw Water Pump Station 2.

2. The replacement of four (4) groundwater high service pumps located in Plant 2.

3. The replacement of one (1) surface water (industrial) high service pump.

4. The construction of an elevated concrete structure with two (2) new surface water (industrial) high service pumps and elevated building with pump motor controls (VFD's).

## PROJECT SUMMARY

The project will consist of professional engineering services in support of the following areas, which will be designed and constructed as one (1) single project to be bid/constructed as part of the proposed clarifier project currently under design by TRC:

1. Raw Water Pump Station 2
   a. Remove two (2) existing 2,500 GPM pumps and install two (2) new 3,700 GPM pumps. Relocate the pump slots for the new pumps for additional spacing between pumps.
   b. Install new motor starters in Plant 2 for the larger pumps.
   c. To provide additional space needed for the larger pumps, remove the ship ladder and install an external stairway, retaining wall and door for pump room access.
   d. Remove and replace pump discharge piping and valves for the new pumps.

e. Remove and replace the existing 24” pump discharge manifold and yard piping, sized for the future 16.0 MGD flowrate. Yard piping replacement limits will be the connection to the 36” proposed pipe (currently under design for the proposed clarifier) for feeding the proposed clarifier flow split box.

f. Relocate pump 8 to the pump 6 slot.

g. Provide temporary pump plan for bypassing the pump station during pump installation.

2. Plant 2 Groundwater High Service Pump Replacement

a. Remove and replace four (4) groundwater high service pumps in Plant 2. Proposed pumps will be of same capacity as existing and replacement will extend from and include the isolation valves on the suction and discharge pipes. Pump control valve on the discharge will be a Cla-val similar to the newest pump.

b. Remove and replace the surge valve and related piping extending from the discharge manifold.

c. Motor starter replacement is excluded and not expected to be required as the new pumps are expected to have the same horsepower requirement as the existing. The starters were replaced within the past ten (10) years.

3. Surface Water High Service Pump Replacement

a. Remove and replace one (1) surface water high service pump and motor, for installation in the existing pump can. The proposed pump would be of the same capacity as the existing. Valves and discharge piping would not be replaced.

4. Surface Water Pump Structure

a. Construct a new elevated concrete structure to include two (2) new 2,800 GPM vertical turbine pumps, of similar design to the existing elevated structure. The operating platform will be located one (1) foot above the 100-year floodplain elevation.

b. The platform will include pump discharge piping/valves and discharge manifold. The discharge piping will be routed to extend to the existing high service pump piping.

c. Suction piping to the new pumps will be connected to the existing piping from the 2.0 Mgal ground storage tank.

d. Discharge piping will extend to the existing 24” piping from the existing pump station.

e. Replace the pressure reducing and surge valve stations, if necessary.

f. The platform will contain an enclosed room to house the pump motor controls and variable frequency drives. The room will be conditioned to maintain temperatures for the motor controls. The room will be a metal or CMU building as directed by the City.

g. The pumps will be connected to and controlled by the existing plant SCADA system.

## 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 four (4) 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).

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) Miscellaneous details

i) SWPPP and erosion control plan

108. One (1) construction bid packet will be developed and constructed to include both projects (clarifier and pump project), as listed above.

109. Provide design submittals to the City for review for 30%, 60%, and 100% completion milestones.

**Task 200. Topographical Surveying**

201. 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.

**Task 300. Design Memorandum**

301. Prepare the Basis of Design Memorandum to establish the design parameters for the items listed under Project Summary above, as described in the original proposal for the clarifier project.

**Task 400. FEMA Model**

401. Update the hydraulic model of the Guadalupe River to account for the additional elevated pump station (surface water pumps). The HEC-RAS model, previously used for modeling the Seguin Water Treatment Plant, will be applied. The proposed model will include the new structure along with other planned structures. A comparison will be made between the proposed and existing conditions, using the HEC-RAS model of the existing plant prior to any modifications.

402. The report submitted for the No Rise for the proposed clarifier will be updated to include this new structure.

**Task 500. Construction Contract Documents**

**Task 510. Level 1 (30%) Design**

511 Provide sketches and drawings showing conceptual plan views of processes and structures.

512 Provide a site plan showing the location of paving and structures and major pipelines.

513 Provide a preliminary P&ID.

514 Provide selected cut-section views of structures for clarification as appropriate.

515 A total of three (3) sets of Level 1 documents will be submitted to the City for review.

516 The City will provide a written response to TRC regarding review comments.

517 A single meeting will be conducted with the City to review the comments for each of the projects.

**Task 520. Level 2 (60%) Design**

521. Provide drawings showing standard details.

522. Provide drawings showing the details of pipelines, mechanical equipment, processes and structures to be included in the project.

523. 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.

524. Structural drawings and notes will be provided on the major structures.

525. Provide preliminary equipment specifications in CSI format including Divisions 0 and 1.

526. A total of three (3) sets of Level 2 documents will be submitted to the City for review.

527. The City will provide a written response to TRC regarding review comments.

528. A single meeting will be conducted with the City to review the comments for each of the projects.

529. Update the opinion of probable construction cost based on new information provided.

**Task 530. Final Drawings and Specifications**

531. 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.

532. 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.

533. A total of three (3) sets of Level 3 documents will be submitted to the City for review.

534. The City will provide a written response to TRC regarding review comments.

535. A single meeting will be conducted with the City to review the comments for each of the projects.

536. Update the opinion of probable construction cost based on new information provided.

537. 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.

538. Submit final documents to the City and TCEQ for review, as applicable.

**Task 540. Pre-award Services**

541. Provide pre-award services as described in the original proposal for the clarifier project.

**Task 550. Bid Processing**

551. Provide bid processing services as described in the original proposal for the clarifier project.

**Task 600. Pre–Construction & Construction Phase Services**

601. Provide pre-construction services as described in items 701-708 and items 710-723 of the original proposal for the clarifier project.

602. As related to the pump replacement project only, 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 eight (8) 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.

**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. Subconsultants for the use of project design will be selected by TRC.

4. There will be one design/construction project.

5. 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.

6. Drawings will be prepared utilizing AutoCad drawing software (two dimensional drawings only).

7. 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.

8. There are no anticipated owner-supplied materials or equipment for this project or preparation of separate bid packages for such.

9. 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/manufacturer equipment training/O&M, PLC/SCADA troubleshooting, and equipment startup.

10. The previous HEC-RAS model used with proposed conditions can be used and compared to the existing conditions, which are assumed to be before the plant was built.

**EXCLUSIONS**

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

1. Design of offsite utilities extending outside of the water treatment plant security fencing, unless otherwise noted above.

2. Continuous construction inspections.

3. Geotechnical borings or report. Previous geotechnical information acquired at the site in the vicinity of the proposed surface water pump station will be utilized for that structure.

4. SCADA programming. This will be provided by the general contractor.

5. 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.

6. Design of sanitary sewer or site drain piping (none is anticipated).

7. 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.

8. Improvements or relocations for franchise utilities, if applicable.

9. Abatement, demolition, and means and methods of construction contractor or the work of the construction contractor.

10. Environmental (cultural and natural resources) review of project limits, archaeological surveys, environmental assessments, endangered species mitigation plan/costs, species-specific threatened and endangered survey, Clean Water Act Section 404 individual permit and NWP 12 Pre-Construction Notification. The need for environmental services is not anticipated.

11. Hazardous materials assessment and abatement and demolition management/oversight.

12. Remediation plan for excavated soil or liquid in the event that it is contaminated.

13. GIS mapping.

14. Construction survey and staking, post construction survey, or quality assurance testing for construction.

15. Determination of the FEMA flood plain level (including CLOMR, LOMR, etc.) for the site.

16. Services required to rebid the project for any reason or to resolve bid protests.

17. Storm sewer or stormwater detention design.

18. Level A or B subsurface utility engineering (for surveying).

19. PLC logic description and design, arc flash testing, and breaker coordination for electrical equipment/devices.

20. Design of bid alternates or multiple bid packages, unless specifically stated herein.

21. Engineering studies of alternative systems and equipment locations.

22. Value engineering design services after approval of 100% Construction Documents.

23. Any items not reflected in the scope of work/work tasks.

24. 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.

25. Procurement services.

26. 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.

27. 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.

28. Contractor payroll certifications, audits or field interviews of contractor employees related to salaries.

29. Payment of fees for permit applications, unless noted above.

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

31. For the FEMA study, a Letter of Map Change (LOMC) will not be prepared and is not anticipated to be required.

## 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: | $4,719.00 |
| FEMA Study (Task 400): | $5,000.00 |
| Engineering Design: | |
| 30% Submittal: | $120,638.00 |
| 60% Submittal: | $168,893.00 |
| 100% Submittal | $112,595.00 |
| Bidding Administration: | $4,868.00 |
| Construction Administration: | $73,818.00 |
| Contingency Allowance(1): | $20,000.00 |
| **Total:** | **$510,531.00 (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 City.

Services will be provided in accordance with the Master Service Agreement (dated September 30, 2024) 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.

This proposal expressly excludes any and all taxes, tariffs, duties, and other similar charges or fees imposed by any governmental authority (collectively, "Taxes and Tariffs"). The prices and fees quoted in TRC's proposal do not include any such Taxes and Tariffs. The Client shall be

solely responsible for the payment of all applicable Taxes and Tariffs arising from or related to the work contemplated by this proposal. If TRC or its subcontractors are required to pay Taxes and Tariffs on behalf of the Client, the Client shall promptly reimburse TRC for the full invoiced amount thereof.

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

H. Craig Bell, P.E.
Austin Infrastructure Engineering Director

Tony A. Rached

Tony Rached, PE
Regional Area Director - Infrastructure

City of Seguin

April 28, 2025
Date

Date