



July 24, 2024

Ms. Terri Lynn Ruckstuhl, P.E.
Utility Engineer, City of Seguin
3027 N. Austin St.
Seguin, TX 78155

RE: City of Seguin: Guadalupe River Drive Lift Station Decommissioning Project Proposal

Dear Ms. Ruckstuhl:

Trihydro Corporation (Trihydro) is submitting this professional engineering scope of work and fee estimate for the Guadalupe River Drive Lift Station (Guadalupe Lift Station) Decommissioning Project for the City of Seguin (City). This project is the recommended and preferred option selected by the City as a result of the recent Guadalupe Lift Station evaluation. Project components include decommissioning the Guadalupe Lift Station; conveying sewage to the Fairway Apartment Lift Station (Fairway Lift Station) via approximately 2,000 linear feet of gravity sewer pipeline; and renovating the Fairway Lift Station to accommodate the increased loading from the Guadalupe Lift Station.

Trihydro's proposed scope of work and project approach are presented below. We welcome an opportunity to review and refine our proposed scope of work and fee estimate to best meet your expectations and project objectives.

SCOPE OF WORK

The scope of work includes preliminary design, 60% design, 90% design, final design, permitting, bidding services, construction administration services, and Resident Project Representative (RPR) services for the following:

- Decommissioning the Guadalupe Lift Station.
- Installing approximately 2,000 linear feet of sanitary sewer pipeline from the Guadalupe Lift Station to the Fairway Lift Station.
- Expanding the Fairway Lift Station to accommodate the increased loading from the Guadalupe Lift Station.

Mr. Nash Mock will serve as Trihydro's Project Manager (PM) and primary point of contact. Mr. Mock will provide design oversight, management of subconsultants, quality assurance/quality control (QA/QC) reviews, client updates, and project administrative duties. Mr. Jason Vreeland will serve as the Project



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Director supporting Nash with QA/QC reviews and providing staff resources for successful contract completion.

The tasks for this project are listed below. Project management activities are integrated into each task. Project management will include, but is not limited to, coordination with the client, project team, and subconsultants; daily task assignments; a kick-off meeting; and progress meetings. All meetings will include the preparation of an agenda and follow-up meeting minutes of the discussions from the meeting.

Phase 1: Surveying and Design

The project is divided into two separate phases; the initial phase will involve surveying services and project design. The second phase includes bidding, construction administration, and RPR services.

Task A100 – Surveying and Field Investigation

Our surveyors will complete topographical surveying to develop a base map for design purposes. Base mapping is required to design the proposed gravity sanitary sewer pipeline from the Guadalupe Lift Station to Fairway Lift Station as well as any improvements at the new site. The proposed pipeline location is within the existing Guadalupe River Drive and Chapparral Drive right-of-way (ROW). Trihydro will collect survey data including topography, visible site features, and existing visible utilities (to the extent possible) within the estimated 60 feet-ROW and at the Fairway Lift Station. Additionally, we will verify invert elevations at the Guadalupe Lift Station and the Fairway Lift Station for connection purposes. This task includes:

- Reviewing City and utility mapping to identify utility locations and potential conflicts.
- Performing a project walk-through to confirm utility surface features match those shown in the mapping and investigate identified conflict areas.
- Facilitating a project kick-off meeting prior to surveying and field investigation activities.
- Surveying the project corridor to collect topography, visible improvements and utilities, boundaries, and manhole lid and invert elevations, as necessary.

Trihydro made the following assumptions:

- The project kick-off meeting will last two hours and will include up to three Trihydro team members.
- Trihydro will provide a maximum of two survey benchmarks.
- Trihydro will be responsible for any potholing or hydro-excavation.
- The proposed pipeline alignment will be entirely within the existing right-of-way.



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The following deliverables will be prepared during this task:

- Kick-off meeting agenda and follow-up meeting minutes.
- Potholing plan to the City for review.

Task A200 – Preliminary Design

Following the Surveying and Field Investigation task, Trihydro will begin the preliminary design phase to identify the preferred gravity sanitary sewer pipeline alignment and design the expansion of the Fairway Lift Station.

Trihydro's preliminary design will include the following services:

- Reviewing existing maps, drawings, and reports on file with the City.
- Preparing a preliminary design for decommissioning the Guadalupe Lift Station.
- Preparing a preliminary design for the gravity sanitary sewer pipeline from the Guadalupe Lift Station to the Fairway Lift Station.
- Evaluating the future conditions for the lift station and the adequacy of the existing wet well.
- Preparing an opinion of probable construction cost.
- Conducting a preliminary plan design review meeting.
- Conducting QA/QC review.

Trihydro made the following assumptions for this task:

- The proposed sanitary sewer line will be entirely within the existing right-of-way.
- The Contractor will be responsible for developing bypass pumping plans to ensure continuous operation of the system.
- The design review meeting will last two hours and include up to three Trihydro personnel in attendance.
- The contingency included with the preliminary design submittal will be 30%.



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The following deliverables will be prepared during the preliminary design task:

- Preliminary design review meeting agenda and follow-up meeting minutes.
- Preliminary plans in a PDF format.
- Opinion of probable construction cost (OPCC) based on preliminary design.

Comments received during the preliminary plan review meeting with City of Seguin will be addressed and incorporated into Task A400 (60% Design Phase).

Task A300 – Fairway Lift Station Replacement Wet Well Design

The existing Fairway Lift Station wet well will be evaluated as part of the Preliminary Design task. We assumed it requires replacement; however, we separated the design of the wet well from the preliminary design to provide flexibility in the event the existing lift station is adequate for future conditions. If the existing wet well is adequate, this task will not be used. If the wet well requires replacement, this task will include the following services:

- Collecting survey data and preparing land acquisition exhibits with metes and bounds descriptions for a new Fairway Lift Station wet well.
- Contracting with UES Professional Solutions 45, LLC (UES) to perform a soil boring not to exceed 45 feet in depth for the new wet well and including the findings in the report prepared in Task A700.
- Revisions to the wet well design will be incorporated into Tasks A400 (60% Design Phase), A500 (90% Design Phase), and A600 (Final Design and Permitting).
- Contracting with Encotech Engineering Consultants, Inc. (Encotech) to prepare the structural and foundation design for the new wet well.

Tasks A400 and A500 – 60% and 90% Design Phases

Trihydro will incorporate comments from the preliminary design into the 60% and 90% design phases. The 60% and 90% design submittals will include an OPCC. Trihydro will coordinate design review meetings to discuss comments from the City and design issues or concerns following each submittal. Technical specifications conforming to current City of Seguin standards will be provided with the 60% and 90% submittals. A project manual with front-end documents will be provided with the 90% submittal.

Trihydro performs a comprehensive quality control program that includes a three-tiered review process by which at least three separate project technical personnel perform a complete document review before



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printing and submitting to the client. With each design submittal, Trihydro will complete a QA/QC review of all documents being submitted to the City for review.

Trihydro's 60% and 90% design will include the following services:

- Performing constructability reviews for the 60% and 90% submittals.
- Conducting QA/QC reviews for the 60% and 90% submittals.
- Meeting with City staff to review comments following the 60% and 90% submittals.
- Preparing OPCCs for the 60% and 90% submittals.
- Preparing technical specifications for the 60% and 90% submittals.
- Preparing a project manual with front-end documents for the 90% submittal.
- Submitting design plans to private utilities for review following the 60% submittal.

Trihydro made the following assumptions:

- Design review meetings will be two hours in duration with three Trihydro personnel in attendance.
- Trihydro will address review comments from Seguin's Utilities and Engineering departments.
- The contingency included with the 60% design and 90% design submittals will be 20% and 15%, respectively.

The following deliverables will be prepared during 60% and 90% design task:

- Design review meeting agendas and follow-up meeting minutes.
- 60% and 90% design plans in a PDF format.
- 60% and 90% technical specifications in a PDF format.
- 90% project manual with front-end documents in a PDF format.
- OPCCs based on the 60% and 90% designs.

Task A600 – Final Design and Permitting

The final design task includes the final submittal of the plan set drawings, cost estimate, and project manual. Trihydro will incorporate the 90% design review comments in the final design. A final design review meeting will be held to discuss the plans, project manual, and construction cost estimate.

Comments received from this meeting will be incorporated into the final documents, which will be



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submitted to the City and TCEQ for construction approval. The final bidding documents will incorporate TCEQ comments as necessary for construction approval.

Trihydro's final design task will include the following services:

- Finalizing technical specifications and front-end documents according to City requirements.
- Finalizing plans and permit documents for submission to the City and TCEQ and addressing any comments received.

Trihydro made the following assumptions:

- Trihydro will address one round of comments from TCEQ.
- The contingency included with the final design submittal will be 10%.

The following deliverables will be prepared during the final design and permitting task:

- Final design review meeting agenda and follow-up meeting minutes.
- Final design plans in a PDF format for submission to the City and TCEQ.
- Final project manual with technical specifications in a PDF format.
- OPCC based on the final design.
- Specifications and permit documents for submission to TCEQ.

Task A700 – Geotechnical Design

Trihydro will contract with UES to perform geotechnical engineering services for planning the gravity sanitary sewer. The services performed will include subsurface exploration and field and laboratory testing. Additionally, a geotechnical engineering letter report will be prepared that includes a description of the field exploration and laboratory tests; boring location plan; boring logs; and a discussion of the engineering properties of the subsurface materials encountered.

UES and Trihydro made the following assumptions:

- There will be no more than three borings with a total depth no greater than 60 feet for the sewer line.
- The site will be readily accessible, and the boring locations can be accessed by a truck-mounted drilling rig.
- Asphalt coring will not be performed, but they will auger through existing pavement, as necessary.



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- UES will contact 811 to locate public underground utilities prior to drilling work.
- Limited traffic control including signs and cones will be sufficient.

The following deliverables will be prepared for this task:

- A geotechnical engineering letter report will be prepared for the project that includes a boring location plan, soil and groundwater conditions encountered at the boring locations, construction considerations related to soil and groundwater conditions at the borings, and results of the field and laboratory tests.

Trihydro will coordinate with UES to provide the above referenced geotechnical engineering services and will also provide QA/QC review of the geotechnical report and recommendations to verify thorough investigation and reporting.

Task A800 – Electrical Design

Trihydro will contract with Cleary Zimmermann Engineers (Zimmermann) to prepare the electrical design for the project. The electrical scope consists of decommissioning the existing Guadalupe Lift Station as necessary and redesigning the electrical, controls, and SCADA systems at the Fairway Lift Station. The scope of work above includes the following detailed items:

- Preparing electrical plans for the demolition of the Guadalupe Lift Station, if necessary.
- Coordinating new electric service for the upgraded Fairway Lift Station and with the electric utility.
- Designing a new control panel and SCADA/communications panel and pathway for the Fairway Lift Station.

The following deliverables will be prepared for electrical engineering services:

- Construction drawings, specifications, and OPCCs for each design submittal.
- Final sealed construction drawings and specifications.
- Record drawings generated based on the Contractor's red-lines.

The following assumptions were made for this task:

- The electrical engineer will perform one preliminary site visit to verify existing conditions.



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Phase 2: Bidding, Construction Administration, and Resident Project Representative

Following the Surveying and Design Phase, Trihydro will assist the City with the bidding and construction phase of the project. It was assumed that construction administration services and part time RPR services will be provided for this project.

Task B100 – Bidding Services

Upon completion of the final design, Trihydro will assist the City with the bidding process. Electronic copies of the plans and specifications will be prepared for distribution to potential bidders and plan holders. Trihydro will use BidNet to bid the project and will also maintain a plan-holder's list throughout the bidding process. Trihydro will assist with responses to bidder questions and prepare addenda for electronic distribution through BidNet. Trihydro will facilitate a pre-bid meeting. Once bids are opened, Trihydro will evaluate the bids, prepare a bid tabulation, and prepare a recommendation for award to the lowest qualified bidder.

The following deliverables will be prepared during the bidding services task:

- Issue for bid plans, contract documents, and specifications for Contractors.
- Pre-bid meeting agenda and follow-up meeting minutes.
- A bid tabulation indicating the bid costs from the Contractors.
- A bid recommendation letter highlighting the lowest qualified bidder for acceptance by City Council.

Trihydro made the following assumptions regarding the bidding services task:

- The work will be bid as one project.
- The City of Seguin will coordinate the advertisement of the project.
- Trihydro will facilitate bidding using BidNet and maintain the plan holders' list.
- Trihydro will work with the City to respond to Contractor questions and prepare addenda, as necessary.
- Trihydro will attend the City Council where award of the contract is recommended.

Task B200 – Construction Administration

The construction administration task involves providing contract administration services. This task will include monitoring contract progress, and reviewing various submittals, field orders, work change directives, change orders, payment applications, and payment recommendations. The following are included in the construction administration task:



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- Attending a pre-construction meeting with the City and the Contractor.
- Providing a pre-construction meeting agenda and follow-up meeting minutes.
- Responding to questions during construction.
- Reviewing payment applications, change orders, and making recommendations to the City.
- Providing construction meeting agendas and follow-up meeting minutes.
- Preparing a list of items to be completed or corrected before final project acceptance.
- Reviewing progress and recommending the issuance of the Certificate of Substantial Completion when complete.
- Preparing as-constructed documents based on Contractor redlines and observation notes.
- Attending bi-weekly construction meetings with the City and the Contractor.
- Site visits by electrical engineer, as necessary.

Trihydro made the following assumptions regarding this task:

- As-built drawings will be provided in PDF and DWG formats only.
- The construction phase duration will last 60 weeks.
- The electrical engineer will perform up to two site visits.

Task B300 – Resident Project Representative Services

The Resident Project Representative (RPR) task involves providing observation personnel onsite during construction to monitor work progress and quality. The RPR is responsible for reporting construction activities and issues that may arise to the Trihydro Project Manager and the City. RPR personnel will observe work and report any deficiencies or components that do not comply with the contract documents or the City's standards. RPR personnel will report directly to the Trihydro Project Manager and will be monitored by Trihydro's senior construction manager. Trihydro's RPR service will include the following services:

- Providing on-site representation during the construction of critical components.
- Performing site observations to monitor quality of construction progress and conformity to the plans and specifications.
- Observing set-ups and start-ups of critical components with a registered engineer.



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- Providing detailed inspection reports to document progress.
- Evaluating the Contractor's proposed modifications to the drawings and/or specifications, and reporting requests to the Project Manager and the City for review.
- Observing and verifying proper construction techniques, hydrostatic testing, and construction tolerances.
- Developing and maintaining a photographic log.
- Reviewing the Contractor's Operation and Maintenance manuals and start-up procedures for the new lift station.
- Reviewing the Contractor's equipment start-up and commissioning schedule.
- Coordinating with Contractor regarding manufacturer's representative on-site schedule for equipment start-up and commissioning.
- Coordinating with subconsultants regarding schedule for equipment and operations testing.
- Participating in the pre-substantial completion inspection with the City and Contractor to review the work and document items for correction prior the new lift station being placed into service. Deficiencies will be noted on a comprehensive punch list.
- Participating in the final completion inspection with the City and Contractor to confirm punch list items are complete.
- Maintaining project records to include but not limited to progress meeting minutes, inspection reports, correspondence, photographs, equipment test and commissioning reports, and close-out documentation.
- Attending biweekly or monthly construction meetings with the City and/or Contractor as determined by the City and Trihydro personnel.

Trihydro made the following assumptions regarding the RPR Task:

- The construction phase duration will last 60 weeks.
- RPR services will be provided 20 hours per week for 60 weeks until substantial completion is achieved.
- Inspection personnel will travel from Trihydro's New Braunfels office.



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The following deliverables will be provided as part of this task:

- Field inspection and observation reports and photos.

FEE ESTIMATE

Our fee is based on the tasks outlined above, hourly rates, and expenses. For Phase 1: Surveying and Design, invoices will be prepared on a lump sum via monthly progress billing; for Phase 2: Bidding, Construction Administration, and Resident Project Representative Services, invoices will be prepared on a time and materials basis with a cost not to exceed the estimated amount without written authorization. The estimated fees for the scope of services are listed below.

Phase 1: Surveying and Design

- Task A100, Surveying and Field Investigation – \$40,000
- Task A200, Preliminary Design – \$69,000
- Task A300, Fairway Lift Station Replacement Wet Well Design – \$103,000
- Task A400, 60% Design – \$68,000
- Task A500, 90% Design – \$55,000
- Task A600, Final Design and Permitting – \$44,000
- Task A700, Geotechnical Design – \$6,000
- Task A800, Electrical Design – \$31,000

Total for Phase 1: Surveying and Design – \$416,000

Phase 2: Bidding, Construction Administration, and Resident Project Representative Services

- Task B100, Bidding Services – \$15,000
- Task B200, Construction Administration – \$29,000
- Task B300, Resident Project Representative Services – \$190,000

Total for Phase 2: Bidding, Construction Administration, and RPR Services – \$234,000

Grand Total for Phases 1 and 2 – \$650,000



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Upon your acceptance of this fee proposal, approved contract, and notice to proceed, we will schedule our team to commence work. Please call us at (830) 626-3588 if you have questions.

Authorized By: _____
City of Seguin

Authorized Date: _____

The services shall be governed by the terms and conditions of the Master Services Agreement between the Trihydro Corporation and City of Seguin dated June 7, 2022. The attached 2024 Schedule of Charges will be applied for the billing of this project.

Sincerely,

Trihydro Corporation

Nash Mock, P.E.
Project Manager

Jason Vreeland, P.E.
Project Director

P9999-024-0504

Attachment

TRIHYDRO TEXAS SCHEDULE OF CHARGES

JANUARY 1, 2024 - DECEMBER 31, 2024 ^{2, 3, 4}

<u>PERSONNEL</u>	<u>UNIT RATE</u> ^{1,7}
Senior Principal-----	273.00/hour
Principal-----	255.00/hour
Project Principal-----	240.00/hour
Technical Specialist 4-----	290.00/hour
Technical Specialist 3-----	275.00/hour
Technical Specialist 2-----	255.00/hour
Technical Specialist 1-----	236.00/hour
Professional Level 12-----	236.00/hour
Professional Level 11-----	221.00/hour
Professional Level 10-----	205.00/hour
Professional Level 9-----	194.00/hour
Professional Level 8-----	184.00/hour
Professional Level 7-----	174.00/hour
Professional Level 6-----	166.00/hour
Professional Level 5-----	154.00/hour
Professional Level 4-----	142.00/hour
Professional Level 3-----	130.00/hour
Professional Level 2-----	120.00/hour
Professional Level 1-----	110.00/hour
Technician Level 8-----	144.00/hour
Technician Level 7-----	135.00/hour
Technician Level 6-----	125.00/hour
Technician Level 5-----	116.00/hour
Technician Level 4-----	106.00/hour
Technician Level 3-----	97.00/hour
Technician Level 2-----	85.00/hour
Technician Level 1-----	71.00/hour
Administrative 4-----	108.00/hour
Administrative 3-----	90.00/hour
Administrative 2-----	78.00/hour
Administrative 1-----	66.00/hour
 <u>EXPENSES</u>	
Subcontracts (Labor, Equipment and Services)-----	Cost + 15%
Shipping (i.e. Documents, Equipment, Supplies)-----	Cost
 <u>TRAVEL EXPENSES</u>	
Meal Per Diem ⁶ -----	\$59/day/person
Airline Tickets-----	Cost
Hotel/Motel-----	Cost
Rental Vehicle-----	Cost
 <u>FIELD EXPENSES AND EQUIPMENT</u>	
Consumable Field Supplies-----	Cost + 15%
Rental Equipment-----	Cost + 15%
Purchased Equipment-----	Cost + 15%
Company Field Instruments, Equipment, Vehicles, etc.-----	See Project-Specific Proposal
Consumable Field Supplies and PPE-----	See Project-Specific Proposal
Company Vehicles (daily) ⁵ -----	\$95/day min or GSA 67 cents/mile
Company Vehicles (monthly)-----	Project Specific

1. The above charges include fringe benefits, overhead and profit. No multiplier is used for billing.
2. An annual escalation rate less than or equal to 5% will be applied to these rates for multi-year projects and contracts.
3. Payment of invoices shall be due within thirty days; delinquent amounts due shall accrue a late charge of 1 1/2% per month from date of invoice.
4. The rates in this Schedule of Charges are subject to change on December 31, 2024.
5. Minimum charge of \$95/day. Daily mileage exceeding 141 miles is charged at the current IRS rate per mile. Mileage rates are subject to change throughout the year.
6. Any international travel meal per diem will be at cost.
7. Expert testimony services, including but not limited to preparing for and time spent in depositions, arbitration or trial testimony, shall be charged at 3.0 times the individual's billing level. Other expert technical consulting services, including but not limited to research, review, evaluation, and preparation of expert technical opinions and deliverables, shall be charged at 2.0 times the individual's billing level.

