



505 East Huntland Drive
Suite 250
Austin, Texas 78752

t 512.454.8716
TRCcompanies.com
T.B.P.E. #F-8632

March 20, 2025

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

**RE: Ground Water/Surface Water Interconnect Project
Engineering Services Proposal**

Dear Mr. Howe and Ms. Ruckstuhl:

At the request of the City of Seguin, TRC Engineers, Inc. (TRC) has prepared this proposal for professional engineering services for the Ground Water/Surface Water Interconnect Project.

PROJECT DESCRIPTION

The project description and limits are as follows:

1. An 18" PVC water main beginning with a connection to the proposed 20" ductile iron water main on north side of Union Pacific Railroad and New Braunfels St extending north toward IH-10 then east crossing 8th Street, connecting to proposed 18" PVC water main that is part of the Groundwater/Surface Water Line Loop project, for a total length of approximately 3,900 linear feet.
2. Five (5) isolation butterfly valves.
3. Nine (9) fire hydrants with 6" PVC piping and isolation valves.
4. Connections to the proposed West Booster 20" ductile iron water main and proposed Groundwater/Surface Water 18" PVC water main.
5. Bore under 8th Street.

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, to include:
 - a. Detailed survey including utility locates (as furnished by the specific utility provider) within the project limits described above.
 - b. Provide subsurface utility engineering (SUE) for utility locates (quality level C and D).

2. Set horizontal and vertical primary control points.
 - a. Primary control points shall be set at an approximate spacing of 500 ft. 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 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 ft contours, accompanied by a point file in .csv format and digital terrain model in .xml format.
4. Surveyor will perform necessary research to acquire ROW maps, current adjoining property deeds and subdivision plats for properties affected by the project limits.
 - a. Field boundary reconnaissance will be performed to locate found subject property and adjoining property corner monumentation.

- b. Results will be compared, and boundary resolutions determined for affected rights-of-way and properties adjoining the project limits.
 - c. Existing easements of record discovered during abstracting will be shown on the survey.
 - d. Deliverable will be PDF copies of property research and an AutoCAD .dwg file showing established ROW lines, adjoining property lines, found easements and record property ownership information.
5. Provide survey field notes for:
- a. A maximum of three (3) land acquisitions including permanent easement and construction access (two sets of field notes for each property), to include ownership/existing easement title work.
6. Existing Buried Utility Locates
- a. Provide field locates (horizontal and vertical location) of existing buried utilities using non-destructive, hydro/vacuum excavation.
 - b. TRC's cost includes a maximum of six (6) hole locations, each with a maximum depth of ten (10) feet. The work is to be performed in one (1) mobilization.
 - c. TRC's surveyor will be present to shoot the encountered utilities.
 - d. Costs do not include traffic control.
 - e. Utility locates are assumed to be outside the pavement and TRC's cost does not include pavement repair.

B. Environmental

TRC will perform the following Environmental Scope of Work:

Task 1: Cultural Resources Desktop Study and Texas Historical Commission (THC) Coordination

TRC will perform a desktop-level review to identify existing conditions, previous cultural resource investigations and documented cultural resources within 1.6 km (1.0 mile) of the Project Area or area of potential effect (APE). TRC will conduct an archeological file search using the Texas Historical Commission (THC) Archeological Sites Atlas (THC Atlas) to compile current information on recorded cultural resources. TRC will review appropriate data sets to determine the potential for undocumented resources to be present within or immediately adjacent to the Project Area. Data reviewed may include but are not limited to the following: Current and historic aerial imagery, USGS topographic maps, Sanborn maps, USGS NHD data, NRCS Soil Survey data, cemetery records, and other readily available cultural and archaeological resources

and data. The results of the desktop-level study will be summarized in a Cultural Resources Desktop Study Report and submitted to the THC to initiate Project Review and determine what level of cultural resources investigations may be required.

Task 2: Wetlands and Other Waters and Protected Species Desktop Review

The Project may be subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act if Waters of the United States (WOTUS) are present on-site and impacts to them cannot be avoided. The Endangered Species Act protects plants and animals that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service (NMFS). Bald and Golden Eagles are federally protected under the Bald and Golden Eagle Protection Act (BGEPA) and over 1,000 species of migratory birds are federally protected under the Migratory Bird Treaty Act (MBTA). Texas state laws and regulations provide additional protections to state listed species listed by the TPWD.

To facilitate Project planning and environmental due diligence and compliance with applicable federal laws and regulations protecting WOTUS and federal and state laws and regulations protecting plants and animals, TRC will perform a desktop-level review to assess the Project's potential for impacting potentially jurisdictional WOTUS and protected species and/or their habitat(s). The desktop review will include review of readily available data and resources including, but not limited to, the following:

- Current and historic aerial imagery,
- U.S. Geological Survey (USGS) topographic maps,
- USGS National Hydrography Dataset (NHD) data,
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data,
- U.S. Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) soil survey data,
- Federal Emergency Management Agency (FEMA) flood hazard maps and data,
- USFWS Information for Planning and Consultation (IPaC) project planning tool,
- Texas Parks and Wildlife Department (TPWD) Annotated County Lists of Rare Species,
- TPWD Texas Natural Diversity Database (TXNDD), and
- Other readily available resources and data.

Task 3: Site Visit

Following the background desktop-level data review (Task 2), a TRC biologist (1) will conduct an in-person site visit to confirm and verify the findings of the desktop review. During the site visit, the TRC biologist will document on-site conditions, the presence/absence of any on-site aquatic resources, and the presence/absence of potentially suitable protected species habitat(s).

Task 4: Summary Memo of Findings and Regulatory Considerations

Following the Site Visit (Task 3), TRC will prepare a memorandum summarizing the results of the desktop review and site visit. The memo will address any regulatory considerations that may be applicable to the Project and will include TRC's recommended next steps, if necessary. If additional services are identified as necessary, TRC will prepare a separate SOW and cost estimate for additional services, if requested. TRC will provide a draft TRC Summary Memo of Findings and Regulatory Considerations for DMS and/or the City of Seguin to review in electronic PDF format and will provide one (1) round of edits following receipt of review comments to produce a final Summary Memo of Findings and Regulatory Considerations.

C. Engineering

1. Attend design kickoff meeting with the City personnel 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. Prepare opinion of probable project cost, with unit costs based on recent projects bid within the area, including discussions with contractors and pipe vendors on any expected cost fluctuations.
5. Attend a maximum of three (3) 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. Technical specifications, bidding and contract documents.
 - b. General sheets, including general construction notes.
 - c. Water pipeline plan and profile drawing sheets.
 - d. Phased traffic control plan to maintain traffic during construction, if required.
 - e. Erosion control plan.
 - f. Standard Construction Details.
 - g. Miscellaneous details.
2. Submit 60%, 90% and 100% construction documents to City for review/approval, and meeting with City Staff to discuss each.
3. Provide final set of construction documents for bid.

F. Bidding Support

1. Organize and participate in construction pre-bid meeting.
2. Address contractor questions during the bidding process and submit bid addendums as applicable.
3. Assist the City in bidding process including preparation of advertisement document, opening and tabulation of bids, and award recommendation letter.
4. Attend City Council meeting for construction award.
5. Prepare construction contract documents.

G. Construction Support

1. Organize and conduct the pre-construction meeting.
2. Provide contractor correspondence, submittal review, request for information review, and pay request review.
3. Organize and attend monthly construction meetings and/or periodic construction inspections (maximum of 6) and provide meeting minutes.
4. Organize and attend final inspection and prepare contractor punch list.
5. Prepare documents for project closeout including certificate of construction completion, which will set the construction warranty period.

6. 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.

H. Construction Inspection

1. TRC will provide periodic construction inspection of the project by registered professional engineer at one (1) time per month for a maximum of four (4) hours per day for six (6) months after the start date of the project, for a maximum total of six (6) inspections.
2. Construction inspection is included as a separate cost in the Compensation for Services provided below, and is described as follows:
 - a. Services will be provided for a consecutive 6-month construction period.
 - b. Services assume a maximum 8 hours per work week, Monday through Friday.
 - c. TRC's on-site inspector will not be a registered professional engineer but will have communication with the registered senior design engineer responsible for the project.

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. 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.
2. Subsurface Utility Engineering provided will not relieve the contractor from the duty to comply with applicable utility damage prevention laws and regulations, including, but not limited to, giving notification to utility owners or "One-Call Notification Centers" before excavation.
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) bid/construction project.
5. The 8th Street bore will be installed by the Jack-and-bore method with steel casing pipe.

6. Right-of-way services is based on completing 30-year titles.
7. TRC's effort and costs for construction administration 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.
8. TRC's standard specification and drawing format will be used.

Environmental scope of work (SOW) assumptions are as follows:

1. TRC assumes funding for the Project is from private sources and there are no state or federal funding sources.
2. TRC assumes the Project is not located on and does not cross any federal property.
3. TRC anticipates the site visit (Task 3) will require one (1) day to complete by one (1) TRC biologist during one (1) mobilization event, plus travel. Should the on-site fieldwork require additional mobilization events due to circumstances outside of TRC's control (e.g., lack or denial of access to the Project Area; request of additional services outside of this SOW; changes to the Project design plans or the Project Area; unforeseen travel circumstances; severe/inclement weather prohibitive of travel or completing field work; etc.), TRC will prepare a separate SOW and cost estimate for additional services.
4. TRC will provide one (1) electronic PDF draft version of all report deliverables described in this SOW for review by the City and will provide one (1) round of edits following receipt of review comments to produce final PDF versions of report deliverables.
5. No additional environmental services or studies (e.g., ASTM Phase I Environmental Site Assessment; species-specific surveys; biological monitoring; on-site cultural resources surveys; etc.) beyond those specifically outlined in this SOW will be performed. Should additional environmental services be required or requested, TRC will prepare a separate SOW and cost estimate for additional services not outlined in this SOW.
6. This SOW 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 the Migratory Bird Treaty Act. If requested, TRC will prepare a separate SOW and cost estimate for additional services.
7. This SOW does not include any agency coordination/consultation beyond that which is specifically outlined in this SOW. If requested, TRC will

prepare a separate SOW and cost estimate for additional services.

8. This SOW assumes that no impacts to potentially jurisdictional WOTUS would occur; therefore, no Section 404 permit would be required. If impacts to jurisdictional WOTUS cannot be avoided, TRC will prepare a separate SOW and cost estimate to provide efforts for a Section 404 permit application.
9. This SOW assumes the project footprint would avoid the USACE Section 408 Reforestation Area immediately east of the proposed alignment; therefore, not requiring USACE Section 408 coordination. If the USACE Section 408 Reforestation Area cannot be avoided, TRC will prepare a separate SOW and cost estimate to provide Section 408 coordination.
10. This SOW does not include tribal coordination. If the Project requires tribal coordination, TRC will prepare a separate SOW and cost estimate for additional services.
11. If the City would like to receive written confirmation from the USACE on the jurisdictional status of waters present within the Project Area, an Approved Jurisdictional Determination from the USACE Fort Worth District would be necessary. This service is not included in this SOW. If requested, TRC will prepare a separate SOW and cost estimate for additional services.
12. 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 ROW. 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 services not listed above, including but not limited to design of landscape or irrigation, street total reconstruction, sidewalks or accessibility, electrical or lighting.
2. Geotechnical bores/reports.
3. Land acquisition services, acquisition of right-of-entries or landowner contact.
4. Any services required by funding agencies.
5. Services for modeling of the water system.
6. Design of improvements or relocations for sanitary sewer lines, electrical lines, gas lines, telephone lines or other franchise utilities.

7. Attendance at or preparation for condemnation hearings, easements (not mentioned above) or plat documents, landowner contact or easement negotiations.
8. Preparation of permits, applications, etc. (not mentioned above).
9. Costs for permitting or application fees or review fees by regulatory authorities.
10. Post-construction topographical survey or GIS system updates.
11. Construction staking or field staking for other purposes.

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:

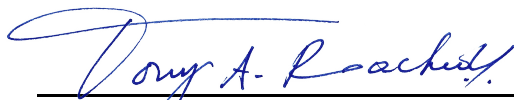
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|--|----------------------|
| Environmental/Cultural Services: | \$ 7,250.00 |
| Topographical Surveying: | \$ 4,900.00 |
| Easement Field Notes including Title Work (6 Easements): | \$ 7,200.00 |
| Engineering Design: | \$ 165,000.00 |
| Bidding/Construction Administration: | \$ 34,500.00 |
| Construction Inspection (max. 6-month period) | \$ 36,750.00 |
| Existing Buried Utility Locates: | \$ 24,316.00 |
| Contingencies ⁽¹⁾ : | \$ 20,000.00 |
| Total (lump sum): | \$ 299,916.00 |

⁽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 of Seguin.

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.

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,



Tony Rached, P.E.
TRC Regional Area Director

City of Seguin

March 20, 2025
Date

Date

