

BGE, INC.

By: 

Brian D. Rice

1/17/2024

Date

CITY OF ROUND ROCK

APPROVED AS TO FORM:

By: _____
Craig Morgan, Mayor

Stephanie L. Sandre, City Attorney

Date

ADDENDUM TO EXHIBIT A - CITY SERVICES

- City of Round Rock will provide all available record drawings for the pipeline and associated documents to the Engineer, as needed.
- City of Round Rock will facilitate discussions with the City of Georgetown and TxDOT, as needed.
- City of Round Rock will provide any records available which would assist in the completion of the project development.
- City of Round Rock will provide timely reviews and decisions necessary to maintain the project work schedule.

ADDENDUM TO EXHIBIT B – ENGINEERING SERVICES

Project Background

The Texas Department of Transportation (TxDOT) has developed 30% plans for the proposed roadway widening project, known as the State Highway Improvement - SH 29 (Project). The City of Round Rock (City) has received subsurface utility identifying the existing 30" raw waterline as a conflict with the proposed improvements within the project's limits of construction. The City's request for professional services proposal includes investigating and designing the relocation of the following water facilities within the limits of the Project (unless otherwise noted):

Water Infrastructure

- Abandon and relocate approximately 2,880' LF of 30" raw waterline, including the air release valve, from Sta 155+50 to 184+50.

Scope of Services

The following Scope of Services is proposed for the completion of the Project. It is assumed the water line design will be bid and constructed before the roadway plans. The various tasks and deliverables are to be performed and submitted in accordance with the Project's approved schedule.

1. Project Management and Meetings

- a. Project Management: All communication and submittals to the City will be directed through the team's Project Manager unless specifically authorized otherwise. The project management activities shall include task leadership and direction, telephone and written communication, project updates and status reports, project schedule, and personnel and data management along with other general project management activities.
- b. Meetings and Site Visits: BGE to provide agendas & meeting minutes. Meetings will include submittal discussions, schedule updates, and overall project coordination. Three (3) 2-hour site visits during design are included in this task. It is assumed that Project design and bidding will occur over a 7-month period with a periodic 1-hour coordination meeting with Utility staff. Meetings will also be held with TxDOT and their roadway design consultants. Coordination with other utilities, including dry utilities, are included as necessary during design and construction. Additional meetings may be held during bid-phase and construction phase services, as defined below.

2. 30% Design

BGE will complete the 30% design submittal, which includes the following:

- a. Regulations research, background conflict research, and minimum design guidelines to be reflected in the 30% design phase deliverable. Determine horizontal pipeline alignment.
- b. Preparation of 30% plans showing plan view only.
- c. Deliverables
 - i. 30% Drawings showing plan view only. 1 PDF for CORR.

3. 60% Design

BGE will complete the 60% design submittal, which includes the following:

- a. Regulations research, background conflict research, and minimum design guidelines to be reflected in the 60% design phase deliverable. Determine horizontal and vertical pipeline alignment(s) - Includes preparation of overall water plan showing proposed alignment and associated appurtenances (valves, etc.).
- b. Preparation of plan sheets and notes. It is assumed that the compilation of the City's standard water details will be included in the construction documents, as necessary. It is assumed that the Project will include the City's general standard notes, which will not be amended by the Engineer for this Project.
- c. Develop 60% Opinion of Probable Construction (+/- 20%).
- d. Quality control and assurance, will be conducted for all deliverables prior to final submittal to the City.
- e. Develop revised 60% submittals for TxDOT review and hold review meeting with TxDOT.
- f. Deliverables
 - i. 60% Engineering Plans. 1 PDF each for CORR and TxDOT.
 - ii. 60% OPCC. 1 PDF.
 - iii. One (1) written response to 60% comments and submittal update.

4. 90% Design

BGE will complete the 90% design submittal, which includes the following:

- a. Preparation of plan sheets and notes. It is assumed that the compilation of City's standard water details will be included in the construction documents, as necessary. Similarly, it is assumed that the Project will include the City's general standard notes, which will not be amended by the Engineer for this Project.
- b. Project technical specifications – compile, review, and produce project technical specifications.
- c. Front-end contract requirements – City front end documents will be used for the bid package.
- d. Preparation of a 90% Opinion of Probable Construction Cost (+/- 20%).
- e. Quality control and assurance, per the pre-approved QA/QC plan, will be conducted for all deliverables prior to final submittal to the City.
- f. Develop revised 90% submittals for TxDOT review, including traffic control plans, and hold review meeting with TxDOT.
- g. Deliverables
 - i. 90% Engineering Plans. 1 PDF each for CORR and TxDOT.
 - ii. 90% OPCC. 1 – PDF.
 - iii. 90% Specifications. 1 – PDF.
 - iv. One (1) written response to 90% comments and submittal update.

5. 100% Design

BGE will complete the 100% submittal, which includes the following:

- a. Address 90% comments and finalize engineering drawings and Project specifications; to include City-provided standard technical specifications. BGE to provide any additional needed specifications.
- b. Obtain City approval and clearance of final comments.
- c. Develop 100% OPCC (+/- 10%).

- d. Quality control and assurance will be conducted for all deliverables prior to final submittal to the City.
- e. Develop revised 100% submittals for TxDOT review, including traffic control plans, and hold review meeting with TxDOT.
- f. Deliverables
 - i. 100% Signed and Sealed Engineering Plans. 1 PDF each for CORR and TxDOT.
 - ii. 100% Specifications. 1 – PDF.
 - iii. One (1) written response to 100% comments and submittal update.
 - iv. TxDOT RULIS permit.

6. Subsurface Utility Engineering

BGE's subconsultant, TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication ASCE/UESI/CI 38-22 "Standard Guideline for Investigating and Documenting Existing Utilities". SUE Quality Level definitions and data limitations are included in Exhibit C, attached to this proposal.

The scope of this proposal includes QLB and QLA SUE services to include:

In general, QLB SUE services are requested within the limits of the SH29 Raw Waterline project as shown in red on Exhibit D (fee spreadsheet). TRG is being requested to provide QLB SUE for approximately 340' on either end of the proposed raw waterline. The following areas are specifically excluded from the scope of work of this proposal: private property.

TRG has made the following assumptions for the QLB SUE Services on this project:

- TRG will attempt to designate the following utilities within this area: potable water, reclaimed water, chilled water, natural gas/crude oil/refined product pipelines, communication duct banks, fiber optic, cable television, telephone, traffic signal cables, street lighting, TxDOT CTMS cables, and electric.
- Wastewater and storm drain facilities will be inverted at manholes and will be depicted as QLC information.
- TRG will attempt to designate utility service lines, however, because these lines are often non-conductive and not shown on records TRG cannot guarantee all service lines will be included in the final deliverables.

The following facilities/items are specifically excluded from the scope of work of this proposal: overhead utilities, private service lines, irrigation lines.

- TRG will attempt to provide Electronic Depth readings calculated by TRG's geophysical equipment. If Electronic Depth readings can be obtained, they will be provided every 50 feet. However, due to the inconsistency with Electronic Depth readings, TRG cannot guarantee the accuracy of the information. Data will be provided for informational purposes only.

This proposal also includes up to nine (9) QLA SUE test holes at locations that will be provided by the Client following a review of the QLB SUE information. TRG has made the following assumptions related to test hole excavations on this project:

- Test holes will be excavated using vacuum excavation equipment.

- All test holes will be accessible to truck/trailer-mounted vacuum excavation equipment. Any improvements required to access test hole locations (clearing, grading, mat installation, etc.) will be provided by others at no cost to TRG).
- Right-Of-Way (ROW) permits from the City of Georgetown (City) and/or the Texas Department of Transportation (TxDOT) will be required. TRG will obtain all required permits and ensure that coordination and compliance with the City is provided.
- Designed traffic control plans will not be required.
- Traffic control measures will be required. TRG will acquire the services of a qualified Maintenance-Of-Traffic (MOT) Subcontractor and ensure that adequate traffic control is provided.
- The following items are specifically excluded from this scope of work: flowable fill for backfill of test holes, full-section pavement repair (including sidewalks)
- Due to the risk of damage, TRG will not attempt to probe or excavate test holes on AC water lines unless approval is obtained from the owner in advance.
- Excavation in rock, or to a depth greater than 18 feet, is considered beyond the scope of this proposal.
- The survey of SUE field markings and test hole locations is also included in this scope of work.

Deliverables

TRG will provide the following as a final deliverable:

- A utility file in CAD format depicting all SUE data documented on the project.
- A summary sheet of all test hole coordinate data and depth information.
- 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These forms will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- 11" x 17" SUE Plan Sheets depicting all SUE data documented on the project. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.

A Utility Report containing metadata (e.g. scope of work, work limits, dates of performance, survey control, etc.), information about the Utility Investigation not otherwise conveyed in other project deliverables, and recommendations to address data deficiencies.

7. Geotechnical Investigation

BGE's subconsultant, Balcones Geotechnical, will perform the geotechnical investigation for the project. The geotechnical investigation and report for this project will include field, laboratory, and engineering phases. The following sections of this proposal include the scope of our services in three study phases, a cost estimate, an estimated schedule, and proposed terms and conditions.

Field Investigation

Based on geologic mapping and area experience, the project site is likely underlain by surficial clay remnants and limestone of the Edwards and Comanche Peak formations. Based on our understanding of the proposed construction, we propose the following drilling scope. A Plan showing the proposed boring locations is shown in Exhibit D (Fee Spreadsheet).

Boring Designation	Boring Depth	Total	Location
B-1, B-3, B-5	20 ft	60 ft	Alignment
B-2, B-4	25 ft	50 ft	Trenchless Crossings
TOTAL DRILLING FOOTAGE		110 ft	

Borings will be advanced using a truck mounted drilling rig equipped with augering and sampling techniques. The limestone stratum will be continuously core sampled where competent limestone is encountered. Soils will be sampled by either pushing a thin-walled tube (ASTM D1587) or with a split barrel sampler while performing the Standard Penetration Test (ASTM D1586). Rotary rock coring will be performed in general accordance with ASTM D2113.

Laboratory Testing

Laboratory testing will be performed on recovered soil and rock samples selected by the geotechnical engineer to aid in soil classification and to measure engineering properties. Laboratory testing is expected to include moisture content, Atterberg limits, fines content (percent passing the No. 200 sieve), and unconfined compression strength testing of clay and limestone samples. Analytical testing will include pH, soluble sulfates, soluble chlorides and box resistivity for corrosion potential analysis by others. The actual laboratory program will depend upon the type of soils and rock encountered.

Engineering Report

The Geotechnical Report will be prepared by a professional engineer licensed in the State of Texas, and specifically, will include:

1. Description of subsurface conditions encountered in the borings, including boring logs with descriptions of strata, summaries of laboratory test results, and water levels obtained at the time of drilling.
2. Boring location plan.
3. Results of laboratory testing.
4. General discussion of geology and groundwater conditions.
5. Geotechnical design parameters including modulus of soil reaction, E' , for buried pipelines, and bedding and backfilling recommendations.
6. Recommendations for OSHA temporary slopes and excavation potential.
7. Comments regarding proposed construction and earthwork.

An electronic copy (PDF) of the report will be submitted unless otherwise requested.

8. Bid Phase Services

Bid Phase services includes the following:

- a. Attendance at the pre-construction conference.
- b. Response to contractor questions via project addenda (assume 2 addenda).

- c. It is assumed that the review of all bidders will be conducted by the City and that BGE will review low bidder and/or their sub-contractor for general qualifications and check associated references in relation to water pipeline installations.
- d. Analysis of variations in bid (compared to estimate) and recommendation of award.
- e. Issuance of conformed construction documents resulting from project addenda.
- g. Deliverables
 - v. 100% Signed and Sealed Engineering Plans. 1 PDF and 4 – 11x17 copies.
 - vi. 100% Specifications. 1 PDF and 4 8-1/2 x 11 copies.

9. Construction Phase Services

It is assumed that construction duration for the City's component of the Project is approximately six (6) months (from NTP to the raw water line project completion). BGE will support the Project during construction as follows:

- a. Project Management / Coordination
- b. Attend pre-construction conference and provide meeting minutes.
- c. Project meetings / construction observation including construction observation reports. Assume representation of weekly meetings by BGE construction administration staff with one of those meetings attended by a Professional Engineer. Also assumes up to two additional meetings, as needed.
- d. Construction material submittal reviews.
- e. Respond to requests for Information (RFIs)/modifications.
- f. Review contractor or City initiated change orders and provide responses.
- g. Final walkthrough and issuance of punch list items.
- h. Deliverables
 - i. Construction observation reports in pdf format
 - ii. Shop drawing submittal log in pdf format
 - iii. Change order log in pdf format
 - iv. Monthly pay estimate concurrence in pdf format
 - v. Record Drawings in pdf, shape file, and AutoCAD format.

10. Compensation

Reference Exhibit "D" for a breakdown of services.

11. Schedule

BGE's submittals to the City will generally follow the durations below based on NTP (assuming 2 week or less turn around reviews from the City). Note that each submittal includes subsequent partial revision and review from TxDOT (10 days for review). To meet the overall schedule, design will continue during TxDOT review periods. TxDOT letting schedule for the roadway project is 03/10/2025. This schedule shows the substantial completion after the roadway letting.

Task Name	Duration	Start	Finish
NTP	1 day	Mon 2/5/24	Mon 2/5/24
30% Design	3 days	Tue 2/6/24	Thu 2/8/24
NTP to Subconsultants (SUE and Geotech)	1 day	Tue 2/6/24	Tue 2/6/24
30% CORR Review	5 days	Wed 2/7/24	Tue 2/13/24
ROW Permit from TxDOT for SUE Level B Effort	3 days	Wed 2/14/24	Fri 2/16/24
Perform and Receive SUE Level B Effort	20 days	Mon 2/19/24	Fri 3/15/24
Receive ROW Permit for Level A SUE Effort	3 days	Mon 3/25/24	Wed 3/27/24
Receive ROW Permit for Geotechnical Investigation	3 days	Mon 3/25/24	Wed 3/27/24
Perform Geotechnical Investigation	10 days	Thu 3/28/24	Wed 4/10/24
Perform and Receive Level A SUE Effort	20 days	Thu 3/28/24	Wed 4/24/24
60% Design	20 days	Wed 2/14/24	Tue 3/12/24
60% CORR Review	5 days	Wed 3/13/24	Tue 3/19/24
60% Revisions for TxDOT Submittal	5 days	Wed 3/20/24	Tue 3/26/24
60% TxDOT Review	20 days	Wed 3/27/24	Tue 4/23/24
90% Design	20 days	Thu 4/25/24	Wed 5/22/24
90% CORR Review	5 days	Thu 5/23/24	Wed 5/29/24
90% Revisions for TxDOT Submittal	3 days	Thu 5/30/24	Mon 6/3/24
90% TxDOT Review	10 days	Tue 6/4/24	Mon 6/17/24
100% Design and Specs	15 days	Tue 6/4/24	Mon 6/24/24
100% CORR Review	7 days	Tue 6/25/24	Wed 7/3/24
100% Revisions for TxDOT Submittal	3 days	Thu 7/4/24	Mon 7/8/24
Finalize Plans and Specs	10 days	Tue 7/9/24	Mon 7/22/24
Post for Bid	1 day	Tue 7/23/24	Tue 7/23/24
Bid	15 days	Wed 7/24/24	Tue 8/13/24
Select Contractor	5 days	Wed 8/14/24	Tue 8/20/24
Contracts and Council for Selection	17 days	Wed 8/21/24	Thu 9/12/24
Contractor Notice to Proceed	22 days	Fri 9/13/24	Mon 10/14/24
Contractor Order Pipe (12 week delivery projected)	2 days	Mon 11/4/24	Tue 11/5/24
Contractor Mobilize	10 days	Fri 11/22/24	Thu 12/5/24
Construction	80 days	Fri 12/6/24	Thu 3/27/25
Substantially Complete	1 day	Fri 3/28/25	Fri 3/28/25
TxDOT Letting of SH 29 Expansion	1 day	Mon 3/10/25	Mon 3/10/25

12. Assumptions

- a. Subsurface Utility Engineering (SUE). It is assumed that all available SUE data will be provided by TxDOT. Additional SUE data is required for approximately 300' north and south of TxDOT's information. That SUE effort is included in this engineering scope and fee (see Item 6) to be provided by TxDOT's SUE contractor, The Rios Group.
- b. Environmental and Archeological professional services are not necessary for the construction of the City's portion of the project. All environmental and/or archeological permitting associated with pipeline relocations will be incorporated with the overall roadway improvement project managed by TxDOT and will not be the responsibility of BGE.
- c. Topographic and tree surveying. BGE will utilize field survey provided by the TxDOT (via TxDOT's engineer) related to TxDOT's road improvements project for base mapping purposes. BGE has been provided design files that include survey information sufficient for the raw water line design project.
- d. All TxDOT permitting associated with pipeline relocations will be performed by BGE with support from City.
- e. A temporary water main will not be included as part of the overall design to keep water service available to the City's customers. Each main will be isolated and shut off from the rest of the system during pipeline relocation. If it is determined that a temporary main is necessary, an additional services scope and fee proposal will be submitted to the City for review and approval.
- f. The Project scope document and associated fee hours were prepared with the assumption that the Project's construction phase is 4-months in duration. If the construction period is extended, an additional services proposal will be submitted to the City for the anticipated extended time period for staff consideration and approval.

ADDENDUM TO EXHIBIT C
Work Schedule

Attached Behind This Page

EXHIBIT C - PROJECT SCHEDULE

Task Name	Duration	Start	Finish
NTP	1 day	Mon 2/5/24	Mon 2/5/24
30% Design	3 days	Tue 2/6/24	Thu 2/8/24
NTP to Subconsultants (SUE and Geotech)	1 day	Tue 2/6/24	Tue 2/6/24
30% CORR Review	5 days	Wed 2/7/24	Tue 2/13/24
ROW Permit from TxDOT for SUE Level B Effort	3 days	Wed 2/14/24	Fri 2/16/24
Perform and Receive SUE Level B Effort	20 days	Mon 2/19/24	Fri 3/15/24
Receive ROW Permit for Level A SUE Effort	3 days	Mon 3/25/24	Wed 3/27/24
Receive ROW Permit for Geotechnical Investigation	3 days	Mon 3/25/24	Wed 3/27/24
Perform Geotechnical Investigation	10 days	Thu 3/28/24	Wed 4/10/24
Perform and Receive Level A SUE Effort	20 days	Thu 3/28/24	Wed 4/24/24
60% Design	20 days	Wed 2/14/24	Tue 3/12/24
60% CORR Review	5 days	Wed 3/13/24	Tue 3/19/24
60% Revisions for TxDOT Submittal	5 days	Wed 3/20/24	Tue 3/26/24
60% TxDOT Review	20 days	Wed 3/27/24	Tue 4/23/24
90% Design	20 days	Thu 4/25/24	Wed 5/22/24
90% CORR Review	5 days	Thu 5/23/24	Wed 5/29/24
90% Revisions for TxDOT Submittal	3 days	Thu 5/30/24	Mon 6/3/24
90% TxDOT Review	10 days	Tue 6/4/24	Mon 6/17/24
100% Design and Specs	15 days	Tue 6/4/24	Mon 6/24/24
100% CORR Review	7 days	Tue 6/25/24	Wed 7/3/24
100% Revisions for TxDOT Submittal	3 days	Thu 7/4/24	Mon 7/8/24
Finalize Plans and Specs	10 days	Tue 7/9/24	Mon 7/22/24
Post for Bid	1 day	Tue 7/23/24	Tue 7/23/24
Bid	15 days	Wed 7/24/24	Tue 8/13/24
Select Contractor	5 days	Wed 8/14/24	Tue 8/20/24
Contracts and Council for Selection	17 days	Wed 8/21/24	Thu 9/12/24
Contractor Notice to Proceed	22 days	Fri 9/13/24	Mon 10/14/24
Contractor Order Pipe (12 week delivery projected)	2 days	Mon 11/4/24	Tue 11/5/24
Contractor Mobilize	10 days	Fri 11/22/24	Thu 12/5/24
Construction	80 days	Fri 12/6/24	Thu 3/27/25
Substantially Complete	1 day	Fri 3/28/25	Fri 3/28/25
TxDOT Letting of SH 29 Expansion	1 day	Mon 3/10/25	Mon 3/10/25

ADDENDUM TO EXHIBIT D
Fee Schedule

Attached Behind This Page

PROJECT NAME:

EXHIBIT D-1 - FEE SCHEDULE

SH 29 RAW WATERLINE RELOCATION

January 8, 2024

TASK	DESCRIPTION	BGE	Balcones	The Rios Group	TOTAL
1	PROJECT MANAGEMENT	\$ 14,214.00			\$ 14,214.00
2	30 PERCENT DESIGN	\$ 10,945.00			\$ 10,945.00
3	60 PERCENT DESIGN	\$ 61,757.00			\$ 61,757.00
4	90 PERCENT DESIGN	\$ 44,072.00			\$ 44,072.00
5	100 PERCENT DESIGN	\$ 41,497.00			\$ 41,497.00
6	BID SERVICES	\$ 3,605.00			\$ 3,605.00
7	CONSTRUCTION PHASE SERVICES	\$ 21,250.00			\$ 21,250.00
8	GEOTECHNICAL INVESTIGATION (Balcones Geotechnical)		\$14,845.00		\$ 14,845.00
9	SUBSURFACE UTILITY ENGINEERING (SUE) (TRG)			\$ 38,084.18	\$ 38,084.18
10	OTHER DIRECT EXPENSES	\$674.75			\$674.75
	Total				\$ 250,943.93

TASK DESCRIPTION	Senior Project Mgr	Project Manager	Project Engineer	EIT	Senior CADD Op	CADD Tech	Construction PM	Construction Inspector I	QA/QC	Admin / Clerical	Total	TOTAL LABOR HRS. & COSTS
1 PROJECT MANAGEMENT												\$14,214.00
Contract Administration		24	12							6	42	\$8,994.00
Periodic design meetings (6)		12	12								24	\$5,220.00
												\$0.00
2 30 PERCENT DESIGN												\$10,945.00
Data Collection			8		8						16	\$2,360.00
Develop horizontal pipeline alignments		4	12	12	16						44	\$6,720.00
Preparation of plan sheets and notes											0	\$0.00
Overall Plan and sheet view (1)		1	3		8						12	\$1,865.00
3 60 PERCENT DESIGN												\$61,757.00
Data Collection			8		8						16	\$2,360.00
Develop horizontal and vertical pipeline alignments		4	12	12	16						44	\$6,720.00
Preparation of plan sheets and notes											0	\$0.00
Overall Plan and sheet view (1)		1	3		8						12	\$1,865.00
Abandonment and Plan (3)		2	8		4	8				4	26	\$3,596.00
P&P for 30" WL Relocation (6)		6	25	15	65						111	\$16,530.00
E&S Plan and Details (5)			4	20	20						44	\$5,920.00
Standard Utility Details (3)		3	5		4	4					16	\$2,655.00
Coordination with TxDOT Designer and Georgetown		4	12								16	\$2,980.00
Develop technical specifications		3	6							4	13	\$2,046.00
Develop 60% OPCC		2	4	8		4					18	\$2,660.00
QA/QC									16		16	\$4,480.00
QA / QC of documents and reconciliation		4	6		10				2		22	\$4,010.00
60% Review Meeting with City		2	3								5	\$1,025.00
Revise for TxDOT Review		2	6		16						24	\$3,730.00
60% Review Meeting with TxDOT		2	4								6	\$1,180.00
											0	\$0.00
4 90 PERCENT DESIGN												\$44,072.00
Data Collection											0	\$0.00
Develop horizontal and vertical pipeline alignments											0	\$0.00
Preparation of plan sheets and notes											0	\$0.00
Overall Plan and sheet view (1)		1	2		8						11	\$1,710.00
Abandonment and Plan (3)		2	6		2	6				4	20	\$2,766.00
P&P for 30" WL Relocation (6)		6	25	15	40						86	\$13,030.00
E&S Plan and Details (5)			4	8	10						22	\$3,020.00
Standard Utility Details (3)		3	4		6	6					19	\$3,020.00
Coordination with TxDOT Designer and Georgetown		4	12								16	\$2,980.00
Develop technical specifications		3	3							4	10	\$1,581.00
Develop 90% OPCC		2	4	8		4					18	\$2,660.00
QA/QC									12		12	\$3,360.00
QA / QC of documents and reconciliation		4	6		10				2		22	\$4,010.00
90% Review Meeting with City		2	3								5	\$1,025.00
Revise for TxDOT Review		2	6		16						24	\$3,730.00
90% Review Meeting with TxDOT		2	4								6	\$1,180.00
												\$0.00
5 100 PERCENT DESIGN												\$41,497.00
Response to 90% Comments											0	\$0.00
Final preparation of plan sheets and notes											0	\$0.00
Overall Plan and sheet view (1)			1			1					2	\$275.00
Abandonment and Plan (3)		2	3			6					11	\$1,745.00
P&P for 30" WL Relocation (6)		6	15	5	20						46	\$7,430.00

PROJECT NAME: SH 29 RAW WATER LINE RELOCATION

E&S Plan and Details (5)			2	4	4							10	\$1,370.00
Standard Utility Details (3)		1	3		2	2						8	\$1,265.00
Coordination with TxDOT Designer and Georgetown		4	8									12	\$2,360.00
Final Technical Specifications and Project Manual		1	8								4	13	\$1,796.00
Develop 100% OPCC		1	4	6		4						15	\$2,130.00
QA/QC										20		20	\$5,600.00
QA / QC of documents and reconciliation		4	6		10				2			22	\$4,010.00
Submit Final Project Manual to the City		2	6	4							4	16	\$2,266.00
Revise for TxDOT Review		2	6		16							24	\$3,730.00
90% Review Meeting with TxDOT		2	4									6	\$1,180.00
Final 100% Package		4	12		24							40	\$6,340.00
6 BID SERVICES													\$3,605.00
Pre-Bid Meeting			3				3					6	\$1,155.00
RFI Response		1	4	2			1					8	\$1,380.00
Evaluate Bids		1	2	2			1					6	\$1,070.00
7 CONSTRUCTION PHASE SERVICES													\$21,250.00
RFI Response/Submittal Reponse							15	8				23	\$4,650.00
Site Visit Meetings (Pre-bid, 4-month project duration)				12				36				48	\$6,900.00
Monthly Pay Estimates and Change Orders,							16	8					\$4,880.00
Project Closeout (Final Walk, RR closeout documents)				12			4	16				32	\$4,820.00
HOURS SUB-TOTALS	0	138	319	145	351	45	40	68	54	30	1166	1190	
CONTRACT RATE PER HOUR	\$265.00	\$280.00	\$155.00	\$125.00	\$140.00	\$120.00	\$230.00	\$150.00	\$280.00	\$69.00			
TOTAL LABOR COSTS	\$0.00	\$38,640.00	\$49,445.00	\$18,125.00	\$49,140.00	\$5,400.00	\$9,200.00	\$10,200.00	\$15,120.00	\$2,070.00			\$197,340.00
SUBTOTAL													\$197,340.00

TASK	TOTAL COSTS	TOTAL DIRECT EXPENSE	TOTAL LABOR COSTS	Senior Project Manager	Project Manager	Project Engineer	EIT	Senior CADD Operator	CADD Tech			QAQC	Admin / Clerical		TOTAL MH BY TASK
	\$198,014.75	\$674.75	\$197,340.00	0	138	319	145	351	45	40	68	54	30	1190	1190
														0	
SUBTOTAL LABOR HOURS				0	138	319	145	351	45	40	68	54	30	1190	1190
SUBTOTAL LABOR EXPENSES	\$198,014.75	\$674.75	\$197,340.00	0.0%	11.6%	26.8%	12.2%	29.5%	3.8%	3.4%	5.7%	4.5%	2.5%		

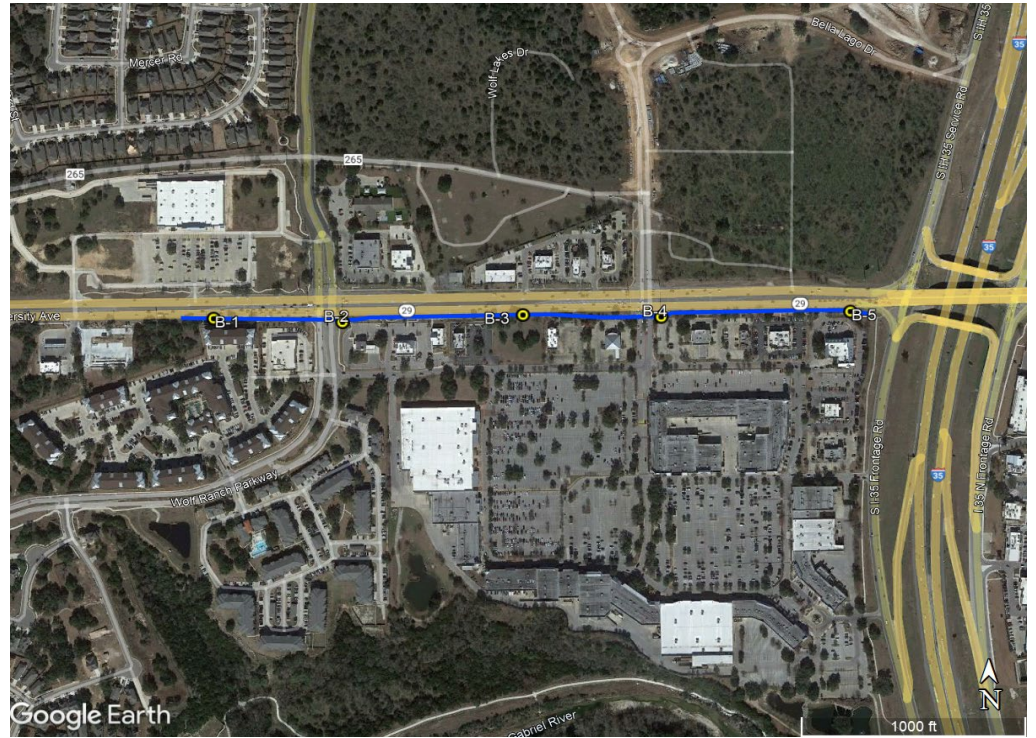
OTHER DIRECT EXPENSES	QUANTITY	UNIT	RATE	
Mileage	600	mile	\$ 0.56	\$336.00
Photocopies B/W (11" X 17")	600	each	\$ 0.20	\$120.00
Photocopies Color (8 1/2" X 11")		each	\$ 0.75	\$0.00
Photocopies Color (11" X 17")		each	\$ 1.25	\$0.00
Geosearch (hazmat)		each	\$ 500.00	\$0.00
Large Format Plotting	0	SF	\$ 2.25	\$0.00
Mileage	350	each	\$ 0.63	\$218.75
DIRECT EXPENSES				\$674.75

SUMMARY	
LABOR COSTS	\$197,340.00
NON-SALARY (OTHER DIRECT EXPENSES)	\$674.75
GRAND TOTAL	\$198,014.75

Geotechnical Investigation Cost Breakdown - Attachment 1
SH29 Waterline Relocation
Round Rock, TX

1. Field Investigation				
	Quantity	Unit	Rate	Subtotal
1A Field Coordination, Boring Layout, One-Call				
Field Engineer	8	hr	\$95.00	\$760.00
Trip Charge	1	ea	\$55.00	\$55.00
Senior Geotechnical Engineer (R. Russo)	2	hr	\$195.00	\$390.00
			Task 1A Subtotal	\$1,205.00
1B Drilling and Sampling				
Mobilization / Demobilization	1	l.s.	\$650.00	\$650.00
Rig Stand-by Time, move-time between borings	4	hr	\$225.00	\$900.00
Soil Drilling	25	ft	\$28.00	\$700.00
Rock Drilling	85	ft	\$36.00	\$3,060.00
Logger	30	hr	\$95.00	\$2,850.00
Trip Charge	3	ea	\$55.00	\$165.00
			Task 1B Subtotal	\$8,325.00
			Task 1 Subtotal	\$9,530.00
2. Laboratory Investigation				
	Quantity	Unit	Rate	Subtotal
Grain Size Analysis	5	each	\$75.00	\$375.00
Atterberg Limits	5	each	\$75.00	\$375.00
Unconfined Compression	5	each	\$75.00	\$375.00
Corrosion (pH, Sulfates, Chlorides, box resistivity)	1	each	\$400.00	\$400.00
Specialty Tunnel Testing (Point Load, Tensile, Cerchar, Uuw/ss)	0	each	\$2,500.00	\$0.00
Project Engineer	2	each	\$125.00	\$250.00
			Task 2 Subtotal	\$1,775.00
3. Engineering and Reports				
	Quantity	Unit	Rate	Subtotal
Geotechnical Report				
Project Principal (J. Wooley)	0	hour	\$250.00	\$0.00
Senior Geotechnical Engineer (R. Russo)	4	hour	\$195.00	\$780.00
Project Engineer	16	hour	\$125.00	\$2,000.00
Graduate Engineer	8	hour	\$95.00	\$760.00
			Task 3 Subtotal	\$3,540.00
			Total Estimated Cost	\$14,845.00

Depth	Soil			Rock		
	0-25	25-35	35-50	0-25	25-35	35-50
B-1	20	5			15	
B-2	25	5			20	
B-3	20	5	5		15	
B-4	25	5	5		20	
B-5	20	5			15	
	110	25		0	85	0



TASK/DESCRIPTION				SUPERVISORY ENGINEER	SUE PROJECT MANAGER	PROF. ENGINEER	ASSISTANT PROJECT MANAGER	EIT	SR SURVEY MANAGER RPLS	CADD TECH	ENGINEERING TECH.	FIELD MANAGER	ADMIN SPECIALIST	TOTAL MAN-HOURS	LABOR CHARGES
TASK 1	Hourly Office Labor			2	6	0	10	0	0	40	4	4	0	66	\$6,384
	SUBTOTAL HOURS/COSTS			2	6	0	10	0	0	40	4	4	0	66	\$6,384
TASK 2	Direct Expenses	Rate	QTY												
	ROW Permit	\$ 500.00	1												\$500
	Traffic Control	\$1,000.00	2												\$2,000
	Survey	\$2,500.00	2.5												\$6,250
	SUBTOTAL HOURS/COSTS														\$8,750
TASK 3	QL"B" SUE Designating One Designating Person	Rate	QTY											40	\$6,400
	Two Person Designating Crew	\$ 160.00	40											10	\$2,500
	SUBTOTAL HOURS/COSTS	\$ 250.00	10											50	\$8,900
TASK 4	QL"A" SUE Test Holes	Rate	QTY												
	0-5 ft	\$1,315.00	4												\$5,260
	5-8 ft	\$1,600.00	3												\$4,800
	8-13 ft	\$1,995.00	2												\$3,990
	SUBTOTAL HOURS/COSTS														\$14,050
FEE SUMMARY															
TASK 1	Hourly Office Labor													66	\$6,384
TASK 2	Direct Expenses														\$8,750
TASK 3	QL"B" SUE Designating													50	\$8,900
TASK 4	QL"A" SUE Test Holes														\$14,050
TOTAL HOURS				2	6	0	10	0	0	40	4	4	0	66	
RATES (\$)				\$190.86	\$169.71	\$165.19	\$118.30	\$110.49	\$190.00	\$74.84	\$74.67	\$127.23	\$81.39		
BASE SALARIES & REMB'S TOTAL				\$382	\$1,018	\$0	\$1,183	\$0	\$0	\$2,994	\$299	\$509	\$0		\$38,084

