EXHIBIT
"A"

STATE OF TEXAS

§

COUNTY OF WILLIAMSON

§ §

SUPPLEMENTAL CONTRACT NO. 1 TO CONTRACT FOR ENGINEERING SERVICES

FIRM:

BGE, INC.

("Engineer")

ADDRESS:

101 West Louis Henna Boulevard, Suite 400, Austin, TX 78728

PROJECT:

Red Bud Lane North

This Supplemental Contract No. 1 to Contract for Engineering Services is made by and between the City of Round Rock, Texas, hereinafter called the "City" and BGE, Inc., hereinafter called the "Engineer".

WHEREAS, the City and Engineer executed a Contract for Engineering Services, hereinafter called the "Contract", on the 12th day of September, 2019 for the Red Bud Lane North Project in the amount of \$436,411.52; and

WHEREAS, it has become necessary to amend the Contract to modify the provisions for the scope of services and to increase the compensation by \$689,788.50 to a total of \$1,126,200.02;

NOW THEREFORE, premises considered, the City and the Engineer agree that said Contract is amended as follows:

I.

Article 2, Engineering Services and Exhibit B, Engineering Services shall be amended as set forth in the attached Addendum to Exhibit B. Exhibit C, Work Schedule shall be amended as set forth in the attached Addendum to Exhibit C.

II.

Article 4, Compensation and Exhibit D, Fee Schedule shall be amended by increasing by \$689,788.50 the lump sum amount payable under the Contract for a total of \$1,126,200.02, as shown by the attached Addendum to Exhibit D.

IN WITNESS WHEREOF, the City and the Engineer have executed this Supplemental Contract in duplicate.

[signature pages follow]

BGE, INC.

By:

Director of Transportation

2-5-21

Date

APPROVED AS TO FORM:
Stephan L. Sheets, City Attorney

ADDENDUM TO EXHIBIT B Engineering Services

The work to be performed by the ENGINEER under this contract consists of providing engineering services required for the development of construction plans for the widening and reconstruction of **Red Bud Lane from US 79 to Paloma Lake Blvd** and along CR 122 approximately 500' and along Old Settler's Road approximately 600LF. The project consists of reconstructing approximately 1.5 miles of the existing 3-lane roadway section to a 4-lane divided facility and adding a right turn lane on CR 122. This project involves surveying, geotechnical, environmental, public involvement, engineering analyses, and associated details necessary to produce **PS&E to a 100% design**.

The ENGINEER shall perform all work and prepare all deliverables in accordance with the latest version of the City of Round Rock criteria.

The ENGINEER shall perform quality control and quality assurance (QA/QC) on all deliverables associated with this project.

The ENGINEER shall provide traffic control in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD) when performing onsite activities associated with this contract.

ENVIRONMENTAL COMPLIANCE AND PUBLIC INVOLVEMENT (Function Code 120) (BGE)

This project is projected to be locally funded and is not on the TxDOT system; therefore, it will not be governed by National Environmental Policy Act (NEPA) requirements.

Under a previous contract, the ENGINEER prepared an Environmental Constraints Map, Local Government Environmental Compliance Memorandum, and a Cultural Resources Letter Report (in order to initiate consultation with the Texas Historical Commission [THC] in compliance with the Antiquities Code of Texas). The scope and limits of the project previously documented by these deliverables has changed, and the services to be provided by the ENGINEER under this contract include updating the previously prepared documents to reflect the changed project scope and limits.

Additionally, the project requires acquisition of ROW from a parcel which contains a fueling station with underground petroleum storage tanks. Services to be provided by the Engineer include a Phase I Environmental Site Assessment (ESA) for that property.

1. Data Collection and Environmental Constraints Mapping

- A. Obtain and review existing and available environmental data for the revised project limits.
- B. Update environmental inventory constraints map to include the revised project limits and additional environmental constraints.
- C. Perform field reconnaissance of the revised project limits to identify environmental features.

2. Environmental Compliance Documentation

- A. The project will not be governed by NEPA. The ENGINEER will conduct a regulatory database review and site visit Section 404 of the Clean Water Act, the Endangered Species Act and Texas Parks and Wildlife Code to determine if federal or state protected species habitat is present within the project area. One site visit will be conducted by a biologist. A previously prepared memorandum will be revised to document the results and recommended best management practices for compliance with applicable state and federal regulations.
- B. Cultural Resources One site visit will be conducted by a cultural resources' specialist. The Engineer will revise the prepared letter report for coordination with the Texas Historical Commission under the Antiquities Code of Texas using the online eTRAC system.

3. Phase I ESA

The ENGINEER will perform a Phase I ESA on one property to identify, to the extent feasible, the potential for recognized environmental conditions under the processes prescribed in the American Society for Testing and Materials (ASTM) E1527-13 guidance document, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* "Recognized environmental conditions" (RECs) are defined in ASTM E 1527-13 as the presence or likely presence of hazardous substances or petroleum products on a property that indicate an existing release, past release, or material threat of a release of any hazardous substances or petroleum products in to structures on the property or into the ground, groundwater, or surface water of the property.

The intent of conducting a Phase I ESA is to constitute all appropriate inquiry to permit the user to satisfy the requirements and qualify for the innocent landowner limitations on Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) liability, with the standards and practices set forth in 40 CFR Part 312.

The Phase I ESA will include a regulatory review, one field investigation, interview with owners, background research, and a final report with findings and recommendations.

4. Environmental Permits, Issues, and Commitments (EPIC) Sheet

The ENGINEER will prepare an EPIC sheet to communicate environmental issues, commitments and best management practices to the contractor, to be included in the PS&E.

5. Deliverables:

- Revised Environmental Constraints Map
- Revised Local Government Environmental Compliance Memorandum
- Revised Letter Report and Coordination with THC

- Phase I ESA Report
- EPIC Sheet for inclusion in the PS&E

6. Public Involvement

- A. The ENGINEER will plan, schedule, conduct and facilitate four meetings with affected property owners (MAPOs) to share project information with and collect feedback from affected property owners as determined by the City and the team through the project.
- 7. Environmental Exclusions The following are excluded, and if deemed necessary, additional tasks can be conducted under a separate or supplemental work authorization.
 - Preparation of a NEPA document
 - All surveys, field studies, or other tasks not identified in the scope of services.

RIGHT OF WAY DATA (Function Code 130)

1. Utility Coordination (Halff Associates, Inc.)

- A. The Engineer shall perform Subsurface Utility Engineering (SUE) Quality Level B and A, Utility Coordination, and Utility Engineering services for approximately thirteen (13) utilities as listed below on the Red Bud Lane Project:
 - AT&T Telephone
 - AT&T Fiber Optic Cable
 - Grande Communications Fiber Optic Cable
 - FiberLight Communications Fiber Optic Cable
 - Round Rock ISD Fiber Optic Cable
 - City of Round Rock Water
 - City of Round Rock Wastewater
 - City of Round Rock Storm Sewer
 - City of Round Rock Lighting/traffic signal
 - Spectrum Cable TV
 - Atmos Energy Gas
 - Oncor Electric Delivery Distribution Electric
 - Austin Energy Transmission Electric
- B. The work to be performed by the Engineer under this contract shall consist of providing engineering services required for SUE Quality Level B and A, Utility Coordination and Utility Engineering on the Redbud Lane Project.
- C. Initiate one-call (811) and coordinate with utility companies. Halff will initiate utility companies to mark their lines. Markings will be surveyed by Inland Geodetics.
- D. These services include as needed SUE, utility adjustment coordination, and utility engineering activities including obtaining record information on existing utilities from utility owners to identify all known existing public utilities, updating the Quality level C and D base map depicting the horizontal utility locations, updating and maintaining a Utility Conflict Matrix (UCM) and Utility Layout identifying potential known conflicts.

- E. <u>Subsurface Utility Engineering (SUE)</u> including utility investigations subsurface and above ground prepared in accordance with AASHTO standards [ASCE C-1 38-02] and Utility Quality Levels as follows.
 - i. Utility Quality Levels are defined in cumulative order (least to greatest) as follows:
 - Quality Level D Existing Records: Utilities are plotted from review of available existing records.
 - Quality Level C Surface Visible Feature Survey: Quality level "D" information from
 existing records is combined with surveyed surface-visible features (performed by surveyor).
 Includes Quality Level D information. If there are variances in the designated work area of
 Level D then a new schematic or plan layout, if needed, is required showing the limits of the
 proposed project and limits of the work area required for this work authorization; including
 highway stations, limits within existing or proposed right of way, additional areas outside the
 proposed right of way, and distances or areas to be included down existing intersecting
 roadways.
 - Quality Level B Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Incorporates quality levels C and D information to produce Quality Level B. If there are variances in the designated work area of Level D then a new schematic or plan layout, if needed, is required showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right of way, additional areas outside the proposed right of way, and distances or areas to be included down existing intersecting roadways. (10,000 LF of utilities estimated)
 - Quality Level A Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes. Actual locations are tied to survey control (performed by surveyor). Incorporates quality levels B, C and D information to produce Quality Level A. (up to twenty (20) test holes)
- F. <u>Utility Adjustment Coordination</u> including one (1) utility coordination meeting with the City of Round Rock and individual utility companies.
 - i. The Utility Coordinator shall perform utility coordination and liaison activities with involved utility owners, their consultants, and the City of Round Rock.
 - a. The Utility Coordinator shall coordinate all activities with the City of Round Rock, or their designee, and will be responsible for the following:
 - b. The Utility Coordinator shall provide initial project notification letters to all affected utility companies, owners, and other concerned parties, if needed.
 - c. The Utility Coordinator shall provide the City of Round Rock and all affected utility companies and owners a Utility Contact List for each project with all information such as: (a) Owner's Name; (b) Contact Person; (c) Telephone Numbers; (d) Emergency Contact Number; (e) E-mail addresses; (f) as well as all pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.
 - d. The Utility Coordinator shall advise utility companies and owners of the general characteristics of the Project and provide an illustration of the

- project footprint for mark-up of the utility facility locations that occupy the project area.
- e. The Utility Coordinator shall coordinate which utilities will conflict with roadway construction and make the utility company aware of these conflicts.
- f. The Utility Coordinator shall attend monthly City of Round Rock utility status calls to provide update and discussion with Round Rock staff and local utilities.
- G. <u>Utility Engineering</u> including the identification of utility conflicts, coordination, compliance with City of Round Rock standards, and resolution of utility conflicts. The Engineer shall coordinate all activities with the City of Round Rock, or their designee, and will be responsible for the following:
 - i. Existing Utility Layout: The Engineer shall maintain a utility layout in the latest version of AutoCAD Civil 3D used by the City of Round Rock. This layout shall include highlighted existing utilities which are to remain in place or be abandoned, and adjusted utilities. This layout will be utilized to evaluate alternatives. The Engineer will utilize the layout of existing utilities as prepared, if available, and make a determination of the following.
 - a. Facilities in conflict with the proposed project that are to be relocated.
 - b. Facilities to be abandoned in place.
 - c. Facilities to remain in service and in place.
 - d. The Engineer shall be responsible for determining if there are additional facilities, not shown in the Subsurface Utility Engineering (SUE) documents, which require relocation. The Engineer shall coordinate this information with the City of Round Rock immediately upon discovery.
 - ii. Meetings with Utility Companies: As required, to facilitate utility conflict identification and resolution, the Engineer shall:
 - a. Establish contact with all existing utilities within and adjacent to the project limits and set up utility coordination meetings to discuss concepts and options for construction.
 - b. Prepare and present, in collaboration with the City of Round Rock, instruction and orientation sessions as required. The instruction shall introduce the SUE Plans, the proposed utility layout, processes, demonstrate the technology and facilitate the preparation of work orders, billings, and contract related documentation as it pertains to utility adjustment work.
 - iii. Review of Utility's Proposed Adjustments, the Engineer shall:
 - a. Evaluate Alternatives: The Utility Engineer shall evaluate alternatives in the adjustment of utilities balancing the needs of both the City of Round Rock and the Utility.
 - b. Review Estimates and Schedules: The Utility Engineer shall review the utility adjustment estimates for reasonableness of cost and the timely scheduling of the adjustment.
 - c. Review Plans for compliance with City of Round Rock standards and proposed location data. The responsibility for quality and accuracy of Utility adjustment plans will remain with the Utility Company.

d. Prepare a Signed and Sealed Proposed Utility Layout in pdf and the latest version of CAD used by the City that can be overlaid on the base file with drainage.

H. Deliverables:

- i. Two (2) Proposed Utility Layouts (11"x17") signed and sealed by a Texas Professional Engineer
- ii. Two (2) sets of Test Hole Data Forms (8.5"x11") signed and sealed by a Texas Professional Engineer
- iii. Utility Contact List
- iv. Utility Conflict Matrix/Exhibit
- v. Notification Letters
- vi. Meeting Minutes for one (1) coordination meeting with the City of Round Rock and individual utility companies
- vii. Meeting Minutes for individual coordination meetings with the utility companies
- viii. AutoCAD Civil 3D electronic project files in US feet (2D) format

PROJECT MANAGEMENT (Function Code 145)

1. Meetings

A. Attend and document Progress Meetings at the City of Round Rock office. Assume eight (8) meetings shall be required.

2. General Contract Administration

- A. Develop monthly invoices and progress reports.
- B. Subconsultant coordination and coordination with the adjacent roadway designer.
- C. Design coordination with the City of Round Rock.

3. Quality Assurance and Quality Control (QA/QC) Plan:

- A. Prepare a project specific QA/QC plan and submit to the City within thirty (30) days of notice to proceed.
- B. For each deliverable, provide evidence of their internal review and mark-up of that deliverable as preparation for submittal and in accordance with submitted project specific QA/QC plan.
- C. Provide continuous QA/QC throughout the duration of the scheduled services included herein to appraise both technical and business performance and provide direction for project activities.

FIELD SURVEYING (Function Code 150) (Inland Geodetics)

1. General

A. Surveys provided will be in accordance with the "Texas State Board of Land Surveying" and the applicable City of Round Rock regulations. Additional survey will

be conducted along CR 122 to provide the topographic details required to add the additional right turn lane. Survey will also capture the topographic details along red Bud north of CR177/CR122 for the addition of the lanes requested by the City of Round Rock. Final survey will account for the East and west sides of Old Settler's Blvd not previously captured but required to ensure the roadway geometry is correct and the drainage works as intended.

B. Survey field notes will be submitted if requested by the City of Round Rock.

2. ROW Identification (Inland Geodetics)

A. The Surveyor shall perform sufficient records research to identify the existing owner and boundary limits of the adjacent properties. Property lines and owners should be provided in CAD format and shown on the Schematic.

3. Boundary Surveys

- A. Perform sufficient property records research to obtain current ownership and deed information of affected properties. Surveyor will prepare an individual survey plat and metes and bounds description for each parcel (2 estimated) of land to be acquired for this project. Surveyor will set appropriate monuments in the field as shown in Survey plat and description for each acquired parcel.
- B. Perform revisions to existing boundary surveys of certain parcels that are determined to have changed configuration or ownership either in adjoining properties for the development of acquisition and/or easement documents required to accommodate the proposed feature replacement and/or channel improvements.
- C. Prepare individual parcel plats and descriptions to be used by the City of Round Rock for required right of way acquisition and easement process.

ROADWAY DESIGN CONTROLS (Function Code 160)

1. 30%-100% Design Development

Perform the following items for the project:

- A. Geometric Design Revise the horizontal alignment; vertical profile; pavement cross slopes; front slope, back slope, and ditch configuration that meet acceptable design criteria and remain within the limits of the proposed ROW.
- B. Plan & Profile Drawings (1" =50') Drawings to include critical base map information, control and benchmark data, proposed roadway improvements including horizontal and vertical roadway geometry, pavement edge geometry, drainage, grading and miscellaneous improvements.
- C. **Typical Sections** Prepare existing and proposed typical sections.
- D. **Design Cross Sections** Develop roadway cross sections associated with the proposed horizontal alignment and vertical profile in accordance with acceptable design criteria.

- E. **Pavement Design** Develop a final pavement design based on analysis and materials preferred by the City of Round Rock.
- F. Alignment Data Sheets Prepare horizontal and vertical alignment data sheets with the GEOPAK baseline descriptions.
- G. **Driveway Details** Develop full details for each proposed/existing driveway to ensure each meets design and functional features and requirements. There are 16 existing driveways along Red Bud North and the portion of Old Settlers Blvd included in this proposed PS&E.
- H. Intersection Details Develop full details for each proposed/existing intersection to ensure each meets design and functional features and requirements. Existing intersections for this PS&E include Red Bud at the following streets:
 - SH 79, Mickey Mantle Place/Pioneer Wagon Dr., Tiffany Nicole/Covered Wagon Trail, Joseph St., T.C. Oatts LN, Old Settlers Blvd, Pauling Ln/Loop, CR 117/CR122, and Paloma Lake Blvd
- I. Earthwork Quantities

DRAINAGE (Function Code 161)

30%-100% PS&E:

- A. Incorporate all design surveys into computer aided drafting and develop topographies and surfaces. This data shall be utilized to develop drainage areas, hydrology and hydraulics. This shall include topographic working drawings to prepare the final drainage design.
- B. Develop storm water hydrology for the existing and ultimate roadway section throughout the limits of the project. The model shall incorporate the 10%, 4% and 1% annual chance storm (10-year, 25-year, and 100-year) events. Modeling shall develop storm water flows to all cross culverts and roadway conveyances utilizing Atlas 14. Based on the data developed, drainage infrastructure shall be designed for the project area to include a level of detail sufficient to establish cost estimates and required easements and possession and use agreements for the construction of the proposed drainage structures and channel improvements.
- C. Develop designs for one cross-drainage structure throughout the project limits. The cross drainage shall be modeled with GEOPAK Drainage or other appropriate software such as SUDA.
- D. Develop designs for proposed end-to-end storm water collection systems for the proposed curb-and-gutter portion of the project area. Storm sewer designs shall be developed using GEOPAK Drainage or other appropriate software such as SUDA.
- E. Identify potential utility conflicts based on design for the project area.
- F. Develop drainage easement requirements for the project area.
- G. Coordinate the design with the City of Round Rock.

Deliverables:

- Drainage Area Maps
- Hydraulic Data Sheets
- Culvert Layout P&P Sheets
- Storm Sewer P&P Sheets (1" = 50')

Signing, Pavement Markings and Signalization (Function Code 162)

30%-100% PS&E:

- A. **Signing & Pavement Markings** Prepare signage and pavement marking plan sheets, layouts, and associated details.
 - Develop pavement marking and signing layouts.
- B. **Traffic Signal Layouts** Prepare traffic signal plan (sheets, layouts, and associated details:
 - Develop existing intersection layout.
 - Develop traffic signal layouts, showing the proposed traffic signal features, signal pole schedules, vehicle detection systems, signal phasing, conduit and cable schedules, electrical service (layout and detail sheets)
 - Develop signal elevations
 - Assemble standard drawings
 - Adjustments to exiting signal located at the intersection of Mickey Mantle Place/Pioneer Wagon Dr and US 79. This PS&E will include the design of temp signals based on phasing, final signals, and demolition of existing signals.
 - Proposed signal located at Old Settlers Blvd
 - Proposed conduit layout at CR 122/117
- C. **Quantity Summaries** Prepare summary sheets of all signing, pavement markings, and traffic signal quantities.

D. SH 79 Revisions

- Design for the relocation of the drainage outfall on the east side of the intersection (scope and fee are included in the drainage section)
- Relocation of signal poles caused by the widening of the cross section to account for the addition of the NB dedicated lane for the WB SH 79 to NB Red Bud traffic to the northern Wal-Mart driveway.

Realign the SB Red Bud Lanes & splitter island so that they align with the SB lanes on the southside of the intersection.

MISCELLANEOUS (ROADWAY) (Function Code 163)

30%-100% PS&E

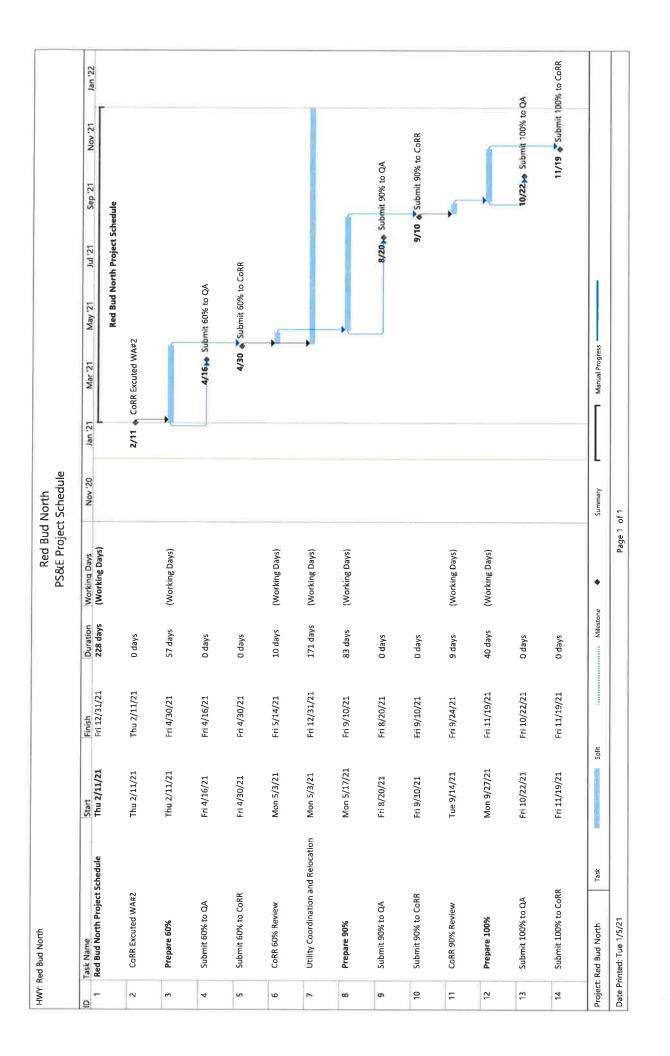
- 1. Traffic Control Plans (TCP) Prepare Sequence of Phased Construction. Prepare TCP cross sections to identify temporary pavement needs. Identify impacts to existing drainage. Prepare plan for temporary signals. TCP will be presented in construction plans.
 - A. Temporary Signals will include (all intersections as necessary):
 - i. Develop temporary signal layouts by each major phase of construction (layout and detail sheets).
 - ii. Develop temporary signal elevations by each major phase of construction.
 - iii. Ensure the removal of existing signal equipment not required for the temporary or proposed signals.
 - B. Prepare Title Sheet, Project Layout (1), Index of Sheets and Summary Sheets
 - C. Cost Estimates Prepare updated construction cost estimates at each milestone submittal.

30%-100% PS&E

- D. Illumination Photometric Study Continuous LED street illumination will be designed in accordance with requirements of City of Round Rock street illumination design criteria and modeled utilizing AGI 32 lighting software.
- E. Illumination Circuit Design, Layouts, and Details— Design conduit runs, circuits, size conductors and electrical services in accordance with Oncor Electric specifications and National Electric Code (NEC). Prepare illumination plan sheets showing illumination intensity cells, illumination pole location, conduit runs, conductor size
- F. Illumination Prepare illumination plan sheets, layouts, and associated details.
 - i. Develop continuous illumination layouts along Red Bud Lane from US 79 to CR 117/122
 - 1. Poles will be placed in the median at a 200 ft to 250 ft pole spacing, ensuring full lighting at each intersection.
 - 2. Design will include pole foundations, conduit, ground boxes, and electrical service.
 - 3. ONCOR to place light poles on foundations.
 - ii. Develop conduit and wiring layouts, circuit diagrams, and electrical service design in accordance with ONCOR standards and NEC.
 - iii. Develop Summary of Quantities
 - iv. Assemble standard details.
- G. Storm Water Pollution Prevention Plans (SW3P) The Engineer shall develop SW3P layouts, on separate sheets from (but in conformance with) the TCP, to minimize potential impact to receiving waterways. The SW3P layouts must include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control.

ADDENDUM TO EXHIBIT C Work Schedule

Attached Behind This Page



ADDENDUM TO EXHIBIT D Fee Schedule

Attached Behind This Page

PROJECT NAME: RED BUD NORTH FROM US 79 TO CR 117

Э.	DESCRIPTION	BGE	Halff	Inland		TOTAL
FC 120	ENVIRONMENTAL	\$ 21,964.00	- \$	\$	⋄	21,964.00
FC 130	ROW	\$ 2,128.00	- \$	\$ 9,040.00	⋄	11,168.00
2012	UTILITY COORDINATION	÷ \$	\$ 116,400.00	\$	⋄	116,400.00
FC 145	GENERAL MANAGEMENT / COORDINATION	\$ 17,089.00	- \$	\$	Ϋ́	17,089.00
FC 150	FIELD SURVEYING	\$ 1,360.00	\$	\$ 14,838.00		
FC 160	ROADWAY DESIGN CONTROLS	\$ 111,935.00	÷ \$, \$		
FC 161	DRAINAGE	\$ 138,812.00	÷ ÷	\$		
FC162	SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION	\$ 104,132.00	\$	\$		
FC 163	MISCELLANEOUS ROADWAY	\$ 151,174.00	- \$	- \$		
	EXPENSES	\$916.50	\$ -	- \$	\$	916.50
	TOTAL	\$549,510.50	\$549,510.50 \$116,400.00 \$23,878.00	\$23,878.00		\$689,788.50

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CONTRACT RATE PER HOUR
TOTAL LABOR COSTS
SUBTOTAL MROJECT NAME: RED BUD NORTH FC 120 FC 180 FC 181 FC 162 FC 163 FC 138 FC 148 FC 180

	TOTAL COSTS DIRECT	EXPENSE	TOTAL LABOR COSTS	Project	Manager	Engineer	Manger	EIT	Engineer	CADD
906	\$548,594.00	\$9165	S548.594.00	9*6	757	205	240	1569	18	278
SUBTOTAL LABOR HOURS				148	233	205	240	1569	1301	218
OTHER DIRECT EXPENSES				QUANTITY	TIND	RATE	TOTAL			
Wilespe				8	mile	\$ 056	88488			
CPS-rental					day	\$ 45.00	545.00			
GeoSearch Radius Report					cach	\$ 25000	\$28000			
Photocopies (11'x17')				280	each	\$ 010	\$28.00			
Photocopies BW (11" X 17"				1,000	cach	\$ 020	\$200,00			
Photocopies Color (8 1/2" X 11	(11)			180	cach	\$ 0.75	\$75.00			
Photocopies Color (11" X 17"				81	each	\$ 128	\$125.00			
Large Formal Plotting				95	S	\$ 225	\$11250			
SUBTOTAL DIRECT EXPENSES	1			Ī			\$916.50			
SUMMARY										
TOTAL LABOR COSTS.				\$548,594,00						
NON-SALARY (OTHER DIRECT EXPENSES)				\$916.50						

TOTAL MH BY FC

Admin

Scientist

Senior

TASK/DESCRIPTION		MANAGER	UTILITY SR MANAGER ENGINEER	COORDINATOR		CADD / SR SURVEY SURVEY 2 MAN GIS MANAGER TECH SURVEY	SURVEY TECH 8	2 MAN SURVEY	SUE	1 MAN	2 MAN SUE	CONTRACT	ASSISTANT	TOTAL MAN-	LABOR
					프	RPLS			MANAGER		▔	-		HOLIES	
TASK	SUBSURFACE UTILITY ENGINEERING (SUE)										_				
	SUE LEVEL A (Up to 20 test holes) (\$1,250/hole)													-	\$ 25,000.00
	SUE LEVEL B (10,000 if estimated)	2			16	-	œ	20	æ					85	\$ 12,800,00
	SUBTOTAL HOURS/COSTS	2	0	0	16	-	00	20	•	0	0		-	-	37 800 00
TASK 2	UTILITY ADJUSTMENT COORDINATION/ENGINEERING									İ	İ		†	1	
	COORDINATION OF ENGINEERING ACTIVITIES	12	32	20	40				40			16	4	2	4 23 AAD DO
	MEETINGS (1 public & 2 individual with each utility)	99	30	90	80				!			2	4	1 2	26 120 00
	REVIEW PROPOSED ADJUSTMENTS/COORDINATE COMPLIANCE		40	80	40									3 2	26 980 00
	ATTEND MONTHLY CITY UTILITY CALLS		4	60										2	2 060 00
	SUBTOTAL HOURS/COSTS	2	106	188	88	0	0	0	40	0	•	16	α	: 5	2,000.00
FEE SUMMARY							l	l		t	I		İ	t	
TASK 1	SUBSURFACE UTILITY ENGINEERING (SUE)													86	\$ 37.800.00
TASK 2	UTILITY ADJUSTMENT COORDINATION/ENGINEERING													200	2 78 600 00
TOTAL HOURS		99	106	188	\$	-		20	48	0	0	16	8	289	
RATES (5)		\$215.00	\$195.00	\$160.00	895.00	\$190.00	\$120.00	\$170.00	\$150.00	\$85.00	\$170.00	\$85.00	\$65.00	t	
BASE SALARIES & REIMB'S TOTAL		\$12,040	\$20,670	\$30,080	89,880	\$190	096\$	\$8.500	\$7,200	og S	SO SO	\$1.360	\$520	_	\$116.400.00

SERVICE	ZCREW	3 CKEW	2 CREW 3 CREW 4 CREW IGPS	TGPS		PM RPLS SEN I	SEN IECH	TECH	2	LSLS ADMIN	N DIRECT	REC.(\$	REC.(\$15/Unit/H	VEHICLES(\$60/Unit/Day)	Day)	V's (\$55	's (\$55/Unit/Da	INDIRECT	TOTAL
RATE / HOUR	\$150	\$170	\$190	\$120 \$140		\$135	\$102	\$98	\$1	\$150 \$54		# of Unit	# of Units # of Hours	# of Units	# of Days	s # of Units	# of Units # of Days		
MOBILIZATION/ADMIN					2 HRS 2 HRS	HRS	2 HRS			2 HRS	3 \$ 862,00							69	\$ 862,00
											69							69	П
RECOVER SURVEY CONTROL	2 HRS			2 HRS							\$ 540,00				L			69	\$ 540.00
SET SECONDARY CONTROL	4 HRS			1 HRS							\$ 720.00	_						69	П
											₩							69	П
FIELD SURVEY FOR TOPO											69				L			69	69
DSB SEGMENT	2 HRS			20 HRS		1 HRS			_		\$ 2,835.00							69	\$ 2,835.00
N, RED BUD	32 HRS			8 HRS	_	1 HRS				1 HRS	\$ 5,949.00					L		5	
DATA PROCESSING					1 HRS 2	2 HRS	32 HRS			1 HRS	w								
811 COORDINATON					T	t	2 HRS		H	-	ω,							, ,	
	40 HRS	0 HRS	0 HRS	31 HRS	31 HRS 3 HRS 6 HRS		36 HRS	0 HRS	T C	0 HRS 4 HRS	\$ 14	Del State	COHO		0000	Strength of the	0740	÷ 6	- 13
PROPERTY RESEARCH					f		VOD V		+	-	,	The second		The Company of the Williams		THE PARTY	CINCO		#
					+						П							 69	\$ 678.00
PROPERTY SCHEMATIC	1					1	8 HRS		+	1	69							59	\$ 816.00
FIELD SURVEY BOUNDARY	8 HRS			8 HRS			2 HRS			1 HRS	\$ 2,418.00							69	\$ 2,418,00
BOUNDARY ANALYSIS					2	2 HRS	2 HRS		_		\$ 474.00	_						69	\$ 474.00
ROW RECONSTRUCTION							4 HRS				\$ 408.00							69	\$ 408.00
						\exists					69								69
PARCEL ACQ PACKAGE (1)					2 HRS 4 HRS	HRS	20 HRS			2 HRS	\$ 2,968.00							s	\$ 2,968,00
SET MONUMENTS	4 HRS						2 HRS				\$ 804.00	-						69	\$ 804,00
TITLE REVIEW					2	2 HRS	2 HRS				\$ 474.00							S	\$ 474.00
ROW PRODUCTS	12 HRS	0 HRS	0 HRS	8 HRS	8 HRS 2 HRS 10 HRS		44 HRS	0 HRS	O	0 HRS 3 HRS	69	25,000	0 HRS		0 DAYS		0 DAYS	8	\$ 9.040.00
\$UB-TOTAL	52 HRS	0 HRS	0 HRS	39 HRS	39 HRS 5 HRS 16 HRS	_	80 HRS	0 HRS	0	0 HRS 7 HRS	\$ 23,878.00	TOTAL		TOTAL	0 DAYS	TOTAL	0 DAYS	69	
REIMBURSEABLE ITEMS																_			65
REIMBURSÉABLE SERVICES					t				-										. 6
			1						1	-11-									
ESTIMATED FEE	\$7,800	\$0	\$0	\$4.680 \$700	\$1007\$	\$2,160	\$8,160	0\$	\$0	\$378			\$0		\$0		80		\$ 23,878.00
Cost Variables:	\$15						_	Reimburseable Services Include:	ide:			0	_	Reimburseable Fees Include:					\$23,878
Vehicle	\$60											\$0.05							70.0¢
ATV	\$55											\$0.00							\$0.05
							_	Total:				\$0.00	To.	Total:				i.e.	\$0.00