

**FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT
FOR
CIVIL ENGINEERING DESIGN SERVICES FOR THE STORM WATER REGIONAL
MASTER PLAN PHASE II PROJECT**

This Amendment (herein called the “Amendment”) to the Professional Services Agreement is entered into by and between the City of San Antonio (herein called the “City”), a Texas municipal corporation, acting by and through its Director of Transportation and Capital Improvements and Brown & Gay Engineers, Inc. (herein called “Consultant”), acting by and through its duly authorized corporate representative, as set out below.

WITNESSETH:

WHEREAS, on May 31, 2018, through Ordinance 2018-05-31-0403, the City of San Antonio and Brown & Gay Engineers, Inc. entered into a Professional Services Agreement for an amount not to exceed \$165,995; and

WHEREAS, this amendment increases the total not to exceed Agreement amount by \$247,585 to \$413,580 for additional services to support the City’s development of preliminary drainage planning studies providing for preliminary planning designs, costs for projects and addressing drainage issues of streets, properties and structures throughout the City;

NOW THEREFORE, in consideration of the terms, covenants, agreements and demises herein contained each to the other given, the sufficiency and receipt of which are hereby acknowledged, the Agreement, as previously amended, entered into by and between the City and the Consultant is amended as follows:

The Compensation for all services included in this Agreement **SHALL NOT EXCEED, FOUR HUNDRED THIRTEEN THOUSAND FIVE HUNDRED EIGHTY & No/100 DOLLARS (\$413,580.00)**.

Except as amended hereby, all other provisions of the Agreement are hereby retained in their entirety and remain unchanged.

-----*Signature page to follow*-----

EXECUTED AND AGREED TO this _____ day of _____, 2019.

City Of San Antonio

Brown & Gay Engineers, Inc.

(Signature)

Charles R. Harris
(Signature)

Printed Name: _____

Printed Name: CHARLES R. HARRIS

Title: _____

Title: SR. VICE PRESIDENT

Date: _____

Date: 3/19/19

Approved as to Form:

Assistant City Attorney



February 4, 2019

Attn: Mendi Litman, PE, CFM
Storm Water Engineer
Transportation & Capital Improvements
114 W. Commerce St., 7th Floor
San Antonio, TX 78283-3966

**Subject: Storm Water Regional Master Plan Phase III - San Antonio River Watershed
Additional Services
Scope & Fee Proposal**

Dear Mrs. Litman:

BGE, Inc. is pleased to submit an additional services proposal to the Transportation and Capital Improvements (TCI) department for the Storm Water Regional Master Plan Phase III for the San Antonio River Watershed. The purpose of the study is to perform a comprehensive condition assessment, model simulation, problem area identification, problem source/cause, and a conceptual solution at those locations identified by TCI within the San Antonio River Watershed.

The scope of services in Attachment A includes tasks necessary to prepare documentation that will detail study activities and recommended improvements. Attachment B includes a breakdown of hours anticipated for the execution of each project. Attachment C includes a breakdown of hours anticipated for the execution of each project performed by our Sub-Consultant, Young Professional Resources. BGE will finalize the ten proposed projects by November 1st, 2019, assuming the Notice to Proceed is received by February 11th, 2019. BGE anticipates completing one project per 28 working days following a semi-concurrent schedule as presented in Attachment D. It is anticipated that TCI will determine which projects should be completed each month based on its priority list.

Thank you very much for this opportunity and we look forward to the successful completion of your Project. Please feel free to contact me should you have any questions or would like to discuss in more detail.

Sincerely,

A handwritten signature in black ink, appearing to read 'Francisco Arce', written in a cursive style.

Francisco Arce, P.E., CFM
BGE, Inc.

ATTACHMENT A **Scope of Services**

Project Background

The purpose of the study is to analyze areas prone to flooding as identified by the Transportation and Capital Improvements (TCI) department within the San Antonio River Watershed. This study will recommend the most efficient cost effective solution for these problem areas to TCI. The proposed Future Projects are summarized below:

1. #2681.01 – West Ave. Area Drainage Project
2. #1089.01 – Donare Place
3. #1058.01 – Weaver/Palo Blanco Drainage Improvement
4. #73.02 – Thames Dr. Drainage Enhancement
5. #73.06 – Barbara Dr. Phase III
6. #2107.01 – Hamilton Wolf Drainage Project
7. #1074.01 – Ligustrum
8. #2268.01 – Blue Ridge Project
9. #2054.01 – Overbrook Outfall Future Project
10. #2370.01 – Apache Creek / Elmendorf Lake Dam-Diversion

Scope of Services

The following Scope of Services is proposed for the completion of the above-mentioned Projects.

Task 1 – Project Management, Project Initiation and Oversight

- 1.1 Project Planning: BGE, Inc. (BGE) will develop a project plan consisting of a chronological list of activities and action items. The project plan will clearly define key steps and schedule of activities necessary to achieve the preparation of the studies. The plan will also clearly define the roles and responsibilities of both TCI and BGE for each activity. BGE will meet with TCI staff and review the checklist to clearly identify all required steps for meeting the project objectives.
- 1.2 Coordination Meetings: One (1) Kickoff/Scoping Meeting, agenda, and meeting minutes. By-weekly general coordination meetings will be conducted, including preparation of an agenda and meeting minutes. A total of 10 meetings are anticipated.

Task 2 –Preliminary Planning Report

The following activities will be performed for each sub-project identified by TCI.

- 2.1 Site Visit, Data Collection and Review: Research available as-builts, GIS datasets, future land use maps, LiDAR data, aerial photographs, and existing hydrologic and hydraulic models/studies. One (1) site visit will be performed at each site to visually inspect each specific problem area and drainage features identified in the initial review and data collection. BGE will document the initial site visit with a field observation report and corresponding photographs.

- 2.2 Hydrologic Modeling: BGE will develop the existing conditions hydrology including drainage areas, rainfall hyetographs, and hydrologic parameters. Drainage areas from previous studies will be confirmed and new areas delineated as necessary within the study area. Delineations will be based on LiDAR data, as-builts, existing survey, and site visit information. Hydrologic parameters for drainage areas will be confirmed and modified as necessary from previous studies for runoff volume determination and routing. The time of concentrations from previous studies will be confirmed and determined as necessary for each drainage area, and will be calculated per City of San Antonio design standards. Runoff hydrographs will be confirmed and developed as necessary, and will be developed for 2-, 5-, 10-, 25-, and 100-year storm events.
- 2.3 Hydraulic Modeling: Model runs will be simulated based on the type of flooding that occurs and the subsequent solution proposed. BGE will develop, run, and debug the existing conditions models for the 2-, 5-, 10-, 25- and 100-year storm frequencies. Model errors and warnings will be reviewed and addressed as necessary. The model will be checked for reasonableness and compared to the known drainage complaints. BGE will establish target design criteria for improvements.
- This task involves coordination with TCI staff to identify target design criteria and the level of service year for proposed improvement alternatives. BGE will develop conceptual solution alternative schematics based on existing City ROW, advantageous outfall locations, and expected utility conflicts to relieve problem areas. Improvement alternatives will be evaluated on the potential benefit in reducing of flooding extents, the improvement type (roadway, ditch, storm sewer, open channel), and the amount of construction disruption.
- 2.4 Modeling Validation: Modeling validation will consist of comparing computed water surface profiles with observed data to improve the accuracy of the hydraulic model under varying hydraulic conditions.
- 2.5 Engineer's Opinion of Probable Construction Cost (EOPCC): BGE will develop planning level cost estimates for each of the recommended alternatives using the template provided by TCI. The cost estimates will include all major project items with an overall 30% contingency. It is assumed that unit costs will be provided by TCI. Cost estimates are made based on BGE's knowledge, experience, and qualifications, and represent BGE's judgment as an experienced professional engineer. BGE does not guarantee that actual total project costs will not vary from the EOPCC.

2.6 Preliminary Planning Summary

2.6.1 Preliminary Planning Summary: BGE will develop and create a Preliminary Planning Summary for each problem area, and will include the following:

- Discussion of the work performed, the study's goals, and the general methodology and assumptions applied during the study
- Identification of reported drainage problems
- Possible flooding due to structural failures or constraints
- Findings and recommendations
- Environmental and permitting requirements
- Engineer's Opinion of Probable Construction Costs.

A draft summary will be compiled to include study discussion, model output, exhibits, and appendices for TCI's review. One (1) round of TCI comments will be addressed, and a final summary will be submitted. All documents used to generate both summaries, the final models, shapefiles, databases, and worksheets will be included on a DVD and submitted to TCI.

2.6.2 Quality Assurance / Quality Control: QA/QC review process will be documented at major milestones and will be available for audit by TCI staff.

Services Not Provided by Engineer

- Topographic or Boundary Surveys
- Design, Bid, or Construction Phase Services
- Right-of-Way, Land, or Easement Acquisition or Investigation Services
- Stakeholder or Public Coordination or Presentations
- Environmental, Archeological, Geotechnical, or underground utility location services