

**AGREEMENT  
BROKEN ARROW MUNICIPAL AUTHORITY (BAMA)  
WATER AND SEWER GIS UPDATES, FY2018  
PROFESSIONAL SERVICES AGREEMENT NUMBER 185405, 185427**

**1. Consultant Firm:**

- a. Name: Meshek & Associates, LLC
- b. Telephone No.: 918-392-5620
- c. Address: 1437 South Boulder Avenue, Suite 1550, Tulsa, OK 74119

**2. Project Title and Location:** Water and Sewer GIS Updates, FY2018

**3. Agreement for:** Updating Water and Sewer information in the Geographical Information System (GIS), including a Citywide water and sanitary sewer utility GIS data review and update and a Web-based GIS Data Access Configuration.

**4. Agreement Data:**

- a. Agreement Amount: Ninety-Six Thousand and No/100 Dollars (\$96,000.00).
- b. Liquidated Damages: N/A.
- c. The total time allowed for completion is 150 calendar days.

**5.** The Broken Arrow Municipal Authority ("BAMA"), represented by the City Manager, and the Consultant, identified in paragraph 1 agree to perform this agreement in strict accordance with the clauses, provisions, and the documents identified as follows, all of which are made part of this agreement. In the event of conflict, these documents shall be interpreted in the following order:

- a. This Agreement
- b. Duly Authorized Amendments to this Agreement
- c. Special Provisions set out in this Agreement
- d. Consultant's Proposal for this Agreement

**6. Agreement approved by the Broken Arrow Municipal Authority on: September 19, 2017.**

**BROKEN ARROW MUNICIPAL AUTHORITY (BAMA)**  
**WATER AND SEWER GIS UPDATES, FY2018**  
**PROFESSIONAL SERVICES AGREEMENT NUMBER 185405, 185427**

The Broken Arrow Municipal Authority, a Municipal Trust (BAMA) and Meshek & Associates, LLC (Consultant) with its principal place of business located at 1437 South Boulder Avenue, Suite 1550, Tulsa, Oklahoma 74119, hereby enter into the following Agreement:

The City Manager representing the BAMA desires to employ the professional services of the Consultant to conduct Water and Sewer Geographic Information System (GIS) Updates, FY2018, as outlined in the work plan.

The Consultant shall perform all duties, responsibilities and requirements set out in the Professional Services Agreement Special Provisions Attachment, attached hereto and made a part hereof.

These duties, responsibilities and requirements shall begin upon the execution of this Agreement and shall be completed within One Hundred Fifty ( 150 ) calendar days.

It is agreed that the Consultant shall be compensated at the rate of Ninety-Six Thousand and No/100 Dollars (\$ 96,000.00 ) for the entire Scope of the Professional Services rendered. The Consultant shall submit invoices, requesting payment for services rendered, to the Planning Division Manager in accordance with the progress made over the invoice period. The invoices shall be in a format satisfactory to the Planning Division Manager. Payment will be made following the first eligible BAMA meeting occurring after the date on the invoice.

The Consultant agrees that this professional service shall be treated as an important service to the City and also agrees to commit the time necessary to perform the professional services in a professional manner.

The parties agree that the Consultant's position is not a traditional City employee position, therefore the foregoing constitutes all the benefits and other forms of compensation due the Consultant, acting in the role of an independent contractor, and therefore ineligible for all other benefits paid to regular full-time City employees. The Consultant agrees to abide by and comply with all of the City's Administrative Policies.

The Consultant shall acquire all insurance policies required for professional liability insurance, auto insurance, and/or health insurance. The Consultant shall be responsible for his own vehicle expenses and any other indirect costs incurred in fulfilling the stated agreement requirements.

The foregoing Professional Services Agreement supersedes all previous negotiations and may not be modified except by a written order executed by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers or representatives on the dates set forth below.

Approved as to form:

Broken Arrow Municipal Authority  
A Municipal Trust

*Lesli Myers*  
Assistant City Attorney

By: \_\_\_\_\_  
Michael L. Spurgeon, City Manager

Attest:

Date \_\_\_\_\_

\_\_\_\_\_  
Secretary [Seal]

Meshek & Associates, LLC

By: *Michael Couch*  
1437 South Boulder Avenue, Suite 1550  
Tulsa, OK 74119

Attest:

*N/A*

\_\_\_\_\_  
Corporate Secretary (Seal)

Date: *9/11/17*

### VERIFICATIONS

State of Oklahoma    )  
                                  ) ss.  
County of Tulsa        )

Before me, a Notary Public, on this *11th* day of *September* 20*17*, personally appeared *Michael Couch*, known to me to be the (President, Vice-President, Corporate Officer, Member, Partner or Other: \_\_\_\_\_ (Please circle or specify)) of Meshek & Associates, LLC and to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

My Commission Expires:

*12/17/18*



*Christy Dulaney*  
Notary Public

**BROKEN ARROW MUNICIPAL AUTHORITY  
WATER AND SEWER GIS UPDATES, FY2018  
PROFESSIONAL SERVICES AGREEMENT NUMBER 185405, 185427  
SPECIAL PROVISIONS ATTACHMENT**

**SPECIAL PROVISIONS**

**PROJECT NUMBER 185405, 185427**

**SP - 1.0 SCOPE OF THE PROJECT:**

1.1 Update Water and Sewer information in the Geographical Information System (GIS), including a Citywide water and sanitary sewer utility GIS data review and update and a Web-based GIS Data Access Configuration.

1.2 Summary of the work items is as follows. Consultant's proposal containing more detail is in Exhibit A.

- Phase A, Citywide Water and Sanitary Sewer Utility GIS Data Review and Update.
  - Digitize water and sanitary sewer utility features for 11 subdivisions into GIS, as part of a geometric network for tracing and break analysis.
  - Review each existing water and sanitary sewer utility feature in the City's GIS.
  - Confirm a standardized GIS feature naming scheme for City use in tracking, reporting, analysis, and updating.
  - Ensure proper connectivity between features for tracing and break analysis.
  - Import attributes from existing spreadsheets for sanitary sewer manholes.
  - Reconcile horizontal location of existing GIS features with updated GPS coordinates produced by valve exercise truck.
- Phase B, Web-based GIS Data Access Configuration
  - Configure a Web-enabled GIS service to host synchronized copies of updates to water and utility layers as provided by the City.

**SP - 2.0 SERVICES OF THE CITY: THE CITY WILL:**

2.1 Furnish to Consultant all data, in its possession, necessary for the Consultant to complete the agreement requirements.

2.2 Designate in writing a person to act as its representative in respect to the work to be performed under this agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define the City's policies and decisions with respect to materials, equipment, elements and systems pertinent to the services covered by this agreement.

**SP - 3.0 SCOPE OF SERVICES: THE CONSULTANT SHALL:**

3.1 As outlined in the attached work plan (Exhibit A). The Consultant will submit a revised work schedule after this Agreement has been fully executed by the BAMA.

**EXHIBIT A**  
**CONSULTANT'S PROPOSAL, WORK PLAN, AND RATE SCHEDULE**



## 1 Introduction

Meshek & Associates, LLC, (Meshek) appreciates the opportunity to work with the City of Broken Arrow to provide updates to its GIS database as part of the proposed project, **Water and Sewer GIS Updates FY2018**. Our project approach would ensure subdivisions not already in the City's GIS are entered into the system, review and update and connectivity and locations for water and sewer data city-wide, and provide a web based GIS access for City staff. The detailed scope of work follows.

## 2 Scope of Work

The entire **Water and Sewer GIS Updates FY2018** project can be considered as comprised of two major phases or elements:

- A – Citywide Water and Sanitary Sewer Utility GIS Data Review and Update
- B – Web Based GIS Data Access Configuration

Detailed descriptions of the scope for each of these phases are as follows:

### A. Citywide Water and Sanitary Sewer Utility GIS Data Review and Update

- Receive 11 subdivision utility plans from City
- Digitize water and sanitary sewer utility features from these plans into GIS, with attributes and detail in conformance with existing City schema; all features will be part of a geometric network for tracing and break analysis
- Review each existing water and sanitary sewer utility feature (valve, manhole, hydrant, line, etc.) in the City's GIS
- Confirm a standardized GIS feature naming scheme for use by City in tracking, reporting, analysis, and updating
- Ensure proper connectivity between features for tracing and break analysis
- Import attributes from existing spreadsheets for sanitary sewer manholes
- Reconcile horizontal location of existing GIS features with updated GPS coordinates produced by valve exercise truck

### B. Web Based GIS Data Access Configuration

- Configure a web enabled GIS service to host monthly synchronized copies of updates to water and utility layers as provided by the City, for use by City field crews.

### 3 Fee Summary and Project Schedule

We propose the following fees and schedule in Table 1 for the Water and Sewer GIS Updates FY2018 project:

Table 1: Fee and Schedule Summary

Water and Sewer GIS Updates FY2018			
Phase	General Task Description	Schedule	Cost
A	Citywide Water and Sanitary Sewer Utility GIS Data Review and Update	20 weeks	\$94,000
B	Web Based GIS Data Access Configuration	2 weeks	\$2,000
Total (with parallel staff allocation):		20 weeks	\$96,000

We forecast this project to be completed in 20 weeks (5 months). Assuming a notice to proceed by September 20, 2017 this project would be completed by February 7, 2018.

Due to the City's need to complete an updated water model as soon as possible using the results of our work, we will prioritize completion of the water system update and proceed with the sewer update afterward. We would launch the web based GIS access point concurrently with the end of the project. We will hold progress meetings throughout the project, including milestone meetings for the completion of the water and sewer deliverables. This breakout of tasks and scheduling is listed in Table 2 below.

Table 2: Project Schedule Detail

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Water System Update																				
Sewer System Update																				
Web Based GIS Data Access Configuration																				
Meetings: Kickoff, Status (2), Milestone (2)	K				S					M					S					M

Thank you,



Michael Couch, GIS Principal  
 Meshek & Associates, LLC  
 1437 S Boulder Ave, Suite 1550  
 Tulsa, OK 74119

August 25, 2017



CIVIL & WATER RESOURCE ENGINEERING  
GEOGRAPHIC INFORMATION SYSTEMS

Meshek & Associates, LLC  
2017 Rate Schedule

Allowance for Office Work:

Project Principal II	\$	220/hour
Project Principal I	\$	195/hour
Project Manager	\$	130/hour
Senior Project Engineer	\$	120/hour
Project Engineer	\$	110/hour
Engineer Intern	\$	95/hour
Engineering Technician	\$	70/hour
CAD Technician II	\$	90/hour
CAD Technician I	\$	65/hour
Grant Project Manager	\$	160/hour
Planner	\$	100/hour
ROW Project Manager	\$	145/hour
Acquisition/Relocation Agent II	\$	115/hour
Acquisition/Relocation Agent I	\$	105/hour
Real Estate Trainee	\$	80/hour
3 Man Survey Crew	\$	200/hour
2 Man Survey Crew	\$	175/hour
Survey Crew Chief II	\$	115/hour
Survey Crew Chief I	\$	70/hour
Survey Crew Technician	\$	60/hour
GIS Project Principal	\$	190/hour
GIS Project Manager	\$	140/hour
GIS Specialist II	\$	120/hour
GIS Specialist I	\$	100/hour
GIS Analyst	\$	80/hour
GIS Technician	\$	75/hour
Contract Administrator	\$	100/hour
Clerical II	\$	60/hour
Clerical I	\$	50/hour

Allowance for Travel:

Total mileage traveled for field and office visits  
@ Current IRS rate.

Reproduction costs:

<u>In-house reproduction</u>		
8-1/2"x11" black/white	\$	0.08/each
8-1/2"x11" color	\$	0.15/each
8-1/2"x14" black/white	\$	0.10/each
8-1/2"x14" color	\$	0.17/each
11"x17" black/white	\$	0.20/each
11"x17" color	\$	0.35/each
Black and White Plots	\$	2.00/each
Color Plot	\$	5.00/each
Mylars	\$	5.00/each
USB Flash Drive	\$	10.00/each
Per Diem – Meals	@	Current GSA Rate
Per Diem – Lodging	@	Current GSA Rate

Miscellaneous outside expenses and fees: Cost plus 5%

[www.meshekengr.com](http://www.meshekengr.com)

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