**WORK ORDER NO. 24-02**

This Work Order No. 24-02 is made as of this _____ day of _____, 2024, under the terms and conditions established in the Master Agreement between Client and Professional Consultant dated June 5, 2023 (the "Master Services Agreement" between City of Arkansas City, KS (Client) and Professional Engineering Consultants, P.A. (PEC). Except to the extend modified herein, all terms and conditions of the Master Services Agreement shall continue a full force and effect.

**A. Project Description:**

1. The Project shall consist of completing a street evaluation and making recommendations for street maintenance in a geographic information system (GIS) database for the City of Arkansas City, Kansas.

**B. Anticipated Project Schedule:**

1. The fully executed copy of the contract will serve as PEC's notice to proceed with the services.
2. PEC shall commence its services on the Project within 14 days after receiving CLIENT's notice to proceed.
3. PEC shall complete the scope of services within a mutually agreed upon schedule, anticipated completion to be within 6 months of the Notice to Proceed.
4. CLIENT acknowledges that directed changes, unforeseen conditions, and other delays may affect the completion of PEC's services. PEC will not have control over or responsibility for any contractor or vendor's performance schedule.

**C. Project Deliverables:**

1. This Project Deliverables shall consist of the following:

    a) Pavement Condition Assessment maps in PDF format.
    b) 5-year Pavement Maintenance Plan in PDF format.
    c) Pavement Management System (including Pavement Condition Assessment and pavement Maintenance Plan) in GIS format to CLIENT's ArcGIS Online organization.

**D. Scope of Services:**

1. Project Management:

    a) Provide project correspondence and consultation with CLIENT.
    b) Provide quality control review prior to submission of project deliverables.
    c) Conduct a kickoff meeting with CLIENT to confirm project goals, discuss roles and responsibilities, and review the anticipated schedule.

d) Conduct up to three (3) milestone review meetings with the CLIENT.
e) Configure CLIENT's ESRI ArcGIS Online organization/account to enable accomplishing components 2-4 of this section.

2. Pavement Management System:

a) Create street layer (as lines) for City of Arkansas City maintained arterial, collector, and local streets.

i. Lines will be drawn approximately at the center of the streets.
ii. Lines will be separated into individually identified one block segments and subdivided where a noticeable change of pavement occurs for a substantial length.
iii. Populate width attribute with approximate average dimension.

b) Create WebMap with street layer for use in the Field App and Dashboard.
c) Customize PEC's Pavement Management System Field Data Collection app.
d) Import CLIENT's most recent pavement condition data.
e) Customize PEC's Pavement Management System Dashboard, to include:

i. Approximate quantity estimator.
ii. Interactive Webmap and bar charts/queries for pavement type, functional classification, PASER rating, and 5-year Pavement Maintenance Plan.
iii. Street segment/corridor condition and maintenance history infographic.

f) Provide up to two (2) hours of training to City staff for PEC Pavement Management System Dashboard.

3. Pavement Condition Assessment:

a) Perform site investigation to collect existing pavement conditions (approximately 200 lane miles) in accordance with the PASER Manual using PEC's Pavement Management System App.
b) Review data collected for QA/QC purposes.
c) Provide up to four (4) hours of training to City staff for PEC Pavement Management System Field App and PASER Manual overview.

4. Pavement Maintenance Plan:

Based on assessment of collected data, PEC will develop prioritized recommendations for a 5-year street maintenance plan that includes the following:

a) Summaries of existing pavement conditions based on data collected.
b) In collaboration with CLIENT, establish prioritization criteria such as PASER rating, functional classification, pavement material type, and any other potential factors discussed.

c) Based on the prioritization criteria, develop prioritized recommendations for maintenance and reconstruction projects with corresponding planning level cost estimates.

   i. Street maintenance items will generally include large areas of patching, cracks in pavement exceeding one half of an inch, asphaltic milling and overlaying, application of surface treatments and minor earthwork grading.
   ii. Major reconstruction items will generally include curb and gutter replacement, valley gutter replacement, total street reconstruction, sidewalk construction, stormwater construction and utility relocations.

d) Present overview of Pavement Condition Assessment and draft Pavement Maintenance Plan to City staff.
e) Present final overview of Pavement Condition Assessment and Pavement Maintenance Plan to City Commission, if requested.
f) Configure public-facing app in ArcGIS Online to show existing conditions and maintenance plan, if requested.

**E. Additional Responsibilities of CLIENT:**

The CLIENT agrees to provide the following pursuant to PEC accomplishing the Scope of Services outlined herein.

1. Attend kickoff meeting and all other project meetings.
2. Provide access to CLIENT's historical street condition and maintenance data.
3. Provide one (1) Administrator level user to CLIENT's ArcGIS Online organization.
4. PEC may rely upon information provided by the CLIENT.
5. Provide additional prioritization criteria to establish maintenance/reconstruction priorities.
6. Provide annual budget estimates for street maintenance and reconstruction projects.
7. Review and provide comments of the draft Pavement Maintenance Plan within fourteen (14) days.

**F. Additional Services:**

The following services can be provided by PEC at an additional cost by Supplemental Agreement:

1. Pavement Management System Maintenance. Maintenance agreement can include some or all of the following items, as per CLIENT request:

   a) regular update of base layers (e.g., parcels, city limits), annual re-evaluation of pavement conditions, annual re-assessment of maintenance and capital recommendations, updated cost estimates, written report, and Council presentation.

2. Public Communication Support and Materials: Create public facing StoryMap website in CLIENT's ArcGIS Online account to include general information about purpose and schedule of street assessment project, FAQs, and contact information.
3. Condition assessment of alleys, parking lots, or gravel roads.
4. ArcGIS Online Capital Improvement Plan (CIP) Planning and Tracking Tool.
5. ArcGIS Online Pavement Maintenance Planning and Tracking Tool.

**G. Exclusions:**

The following shall be specifically excluded from this Scope of Services to be provided by PEC.

1. Field surveys, geotechnical investigations, or GPS asset mapping.
2. Design engineering services.
3. Environmental assessments.
4. Construction observation, inspection, and testing services.
5. Cost of ArcGIS Online licensing.
6. Responsibility to ANY changes to ArcGIS software made by ESRI including but not limited to price, licensing structure, and updates that could affect workflows.
7. Responsibility for downtime to ArcGIS Online.
8. Responsibility for downtime associated with online data provided by other sources.
9. Responsibility for loss of data.
10. Responsibility for backing up data.
11. Responsibility for accuracy of data not produced by PEC.
12. Software development (coding) to provide additional capabilities that are not included within GIS.

**H. Payment Provisions:**

1. PEC proposes to perform the described Scope of Services on a lump sum basis in the amount of **$70,000.00**.
2. Taxes are not included in PEC's Fees. CLIENT shall reimburse PEC for any sales, use, and value added taxes which apply to these services.

| | |
|---|---|
| **CITY OF ARKANSAS CITY, KS** | **PROFESSIONAL ENGINEERING CONSULTANTS, P.A** |
| By:_____ | By:_____ |
| Printed Name:_____ | Printed Name: Benjamin M. Mabry, PE |
| Title: _____ | Title: VP Municipal Transportation |
| Date:_____ | Date:_____ |