

March 7, 2025

Scott Sandman
Wastewater Utilities Superintendent
City of McKinney
1550 S. College Street
McKinney, TX 75069

SUBJECT: PROPOSAL FOR PROFESSIONAL ENGINEERING SERVICES

**BASIN 24 SMOKE TESTING** 

Dear Mr. Sandman:

RJN Group, Inc. is pleased to submit this proposal to the City of McKinney for smoke testing services.

RJN, established in 1975, is a professional engineering consulting firm focused on providing innovative engineering solutions and field services. With more than 90% of our clients being municipalities and public utilities, and over 85% of our work focused on sewer collection systems, we are uniquely qualified for this project.

### Key Project Goals and Objectives

Based on recent flow studies the City of McKinney has elected to conduct smoke testing activities in Basin 24. With the goal of identifying and reducing inflow and infiltration entering the wastewater system in this basin.

Following the completion of this project, the City will have documented locations of potential inflow and infiltration (I/I) sources along with a prioritized plan to reduce I/I.

### FIRM EXPERIENCE

# Experience

In the past 49 years, RJN has completed over 2,000 sewer programs and evaluated 291 million feet of pipeline, resulting in nearly \$400 million in construction improvement projects across the country.

#### **ASSURING QUALITY AND SAFETY**

## **Quality Assurance**

RJN is committed to providing **quality** deliverables. The completion of these inspections is critical in providing actionable results for the City. As collection system specialists, RJN has built data review processes that ensure that all data is accurate. Our engineers and field inspection crews hold industry-standard NASSCO certifications for defect coding, and are extensively trained on all field inspection tasks. RJN's internal Quality Control tools, as well as our corporate training and Quality Assurance processes in place, will ensure that the program will provide value for the City.

### Safety

As an employee-owned firm, RJN's commitment to the **safety** of our employees, City staff, and the public is paramount. RJN demonstrates that commitment to safety in our internally developed and audited safety program where our goal is to have all field staff, engineers, and project managers "RJN Safety Certified." Every project follows RJN's health and safety guidelines when completing any field work.

### PRICE AND SCHEDULE SUMMARY

This project will be invoiced on a unit price and lump sum, percent complete basis for a total not-to-exceed fee of \$128,952.00. RJN will complete the study within twelve (12) months of an Agreement. Complete Scope of Services, Pricing, and Schedule are provided in the following exhibits:

- Exhibit A Scope of Services
- Exhibit B Pricing
- Exhibit C Schedule
- Exhibit D Maps

We are looking forward to the opportunity to work with the City of McKinney on this important project. It is our pleasure to submit this proposal to you. Please feel free to contact Terrace Stewart at 214.998.4831 if you would like to discuss this proposal or have any questions.

Sincerely,

Terrace Stewart, PE
Director of Infrastructure

(214) 998-4831



RJN is proposing the following scope of services to conduct smoke testing operations in Basin 24.

### **Project Administration and Management**

## **Project Administration**

- 1. Meet with City staff to discuss progress of the various tasks throughout the project. Meetings will be held periodically at significant project milestones with written documentation of each meeting provided.
- 2. Prepare schedule of work activities and maintain throughout project with monthly milestone status reports and projections provided to the City via SharePoint and/or RJN Clarity platform.
- Tailor RJN's standard operating procedures to accommodate project requirements and establish internal project controls to ensure schedule, budget and quality control procedures are being maintained.
- 4. Perform administration and coordination of sub-consultants including, but not limited to ensuring City's contracting rules for procurement and services are met, contract finalization, performance coordination, quality control and payment request verification.

### **Condition Assessment**

### **Public Relations and Notifications**

- RJN will prepare and deliver notices necessary for the performance of smoke testing. Every reasonable effort will be made to distribute notices two (2) days prior to smoke testing; however, City will allow the RJN to distribute notices up to a minimum of one day in advance of smoke testing.
- 2. RJN may distribute notices up to a maximum of fourteen (14) days prior to smoke testing. If conditions do not allow smoke testing to be performed during this period, RJN will redistribute notices. If redistribution of smoke notices is required, testing may be performed within one (1) day of noticing.
- 3. RJN, City, City of McKinney Fire Department, and City of McKinney Police Departments will be notified daily of smoke testing via email.

### **Smoke Testing**

- 1. Smoke testing will be conducted using dual axial blowers. Each 12-inch diameter and smaller segment shall be isolated by sandbagging, up to two segments at a time. Smoke testing lengths shall be limited to two-line segments between the upstream and downstream blower locations. Smoke testing will be performed only during dry ground periods.
- Flags shall be placed at observed smoke locations and digital images shall be captured. Smoke
  defect locations shall be recorded by obtaining GPS coordinates. Private sector smoke defect
  images shall be entered into the field inspection database.

3. Main line defects and service lateral defects shall be carefully scrutinized to ensure that a conservative determination of public vs. private side defects is made. If necessary, the line shall be earmarked for television inspection.

### **Data Management**

- 1. Collect and review existing information including maps, as built records, and other pertinent information. City will provide updated ArcGIS shape files of the wastewater system. RJN shall prepare preliminary field maps for project use from existing City shape files.
- 2. Update the maps as differences are found during the field investigations and provide them to the City. Updates shall include new lines, manholes, and mainline cleanouts, which will be provided electronically in the form of shapefiles to be compatible with GIS.
- 3. Data shall be recorded by field crews on RJN's electronic forms for each specified activity. Field inspection data shall be entered into a computerized data management system from which rehabilitation recommendations shall be made. Field inspection data and photos will be provided in digital format to the Town.
- 4. Clarity® is RJN's secure, proprietary project and data management reporting platform that provides our clients accessible data and powerful analytical tools in easily interpreted GIS map format. Live basin data is accessible via most web-capable devices.

### **Defect Analysis**

- 1. At the conclusion of the field investigation services, an engineering analysis of field survey data shall be performed to develop recommendations for prioritizing I/I source repairs. A description of field investigations, engineering analysis, and recommended action to reduce I/I will be included in the report. RJN shall deliver a comprehensive rehabilitation and improvement strategy as coordinated with the City.
- 2. Defects recorded during smoke testing will be evaluated to ensure quality and accuracy. The recorded defects will be assigned an inflow/infiltration rate where applicable.

### Reporting

 Reports will be prepared at key points during the Project to summarize completed tasks. In addition to the Project status meetings, a meeting will be held with the City of McKinney prior to the delivery of the draft report to discuss the outline and general content of the report. The draft report will contain estimated costs for recommendations presented. The final report will incorporate comments from the City and recommendations and cost estimates will be updated accordingly.

### ITEMS REQUESTED FROM THE CITY

- 1. Access to sanitary structures for inspection. Assistance locating or opening seized/buried manholes as required.
- 2. Assistance with traffic control in high traffic areas, as necessary.



Pricing for the Basin 24 Smoke Testing project is as follows:

Pricing Terms for Invoicing: Unit Price/ Lump Sum

Not-To-Exceed Total Cost: \$128,952.00

### **COST SCHEDULE**

Task	Unit Price	Units	Fee
Project Administration	Lump Sum		\$9,900.00
Public Relations	\$0.12/LF	115,260 LF	\$13,831.20
Smoke Testing	\$0.58/LF	115,260 LF	\$66,850.80
Data Management and QA/QC	Lump Sum		\$23,670.00
Data Analysis and Reporting	Lump Sum		\$14,700.00
Total			\$128,952.00

## **PROPOSAL OPTION**

This Proposal can be amended to include additional work upon joint approval by the City and RJN.



RJN is prepared to start work immediately upon an Agreement.

Task	Timeline
Public Relations	Within 3 months (Anticipated from June through August 2025).
Smoke Testing	Within 3 months (Anticipated from June through August 2025).
Data Management and QA/QC	Within 1 month of completing inspections.
Data Analysis and Reporting	Within 2 months of completing inspections.



