

AGREEMENT  
FOR  
ENGINEERING SERVICES

This AGREEMENT, between the Norman Utilities Authority (OWNER) and RJN GROUP, INC., (ENGINEER);

WITNESSETH

WHEREAS, OWNER intends to complete temporary wastewater flow monitoring at specified locations within the collection system for provide current sewer flow information as necessary to provide current information to calibrate and updated hydraulic model for upcoming wastewater master planning efforts;

WHEREAS, OWNER requires engineering, installation and maintenance services more fully described in Attachment B in connection with the 2023 Temporary Wastewater Flow Metering Project (the SERVICES); and,

WHEREAS, ENGINEER is prepared to provide said SERVICES; and.

NOW THEREFORE, in consideration of the promises contained in this AGREEMENT, OWNER and ENGINEER agree as follows:

**ARTICLE 1 - EFFECTIVE DATE**

The effective date of this AGREEMENT shall be \_\_\_\_\_.

**ARTICLE 2 - COMPLETION DATE**

ENGINEER shall complete the SERVICES in accordance with Attachment A, Project Schedule.

**ARTICLE 3 - GOVERNING LAW**

The laws of the state of Oklahoma shall govern this AGREEMENT.

**ARTICLE 4 - SERVICES TO BE PERFORMED BY ENGINEER**

ENGINEER shall perform the SERVICES described in Attachment B, Scope of Services.

**ARTICLE 5 - COMPENSATION**

OWNER shall pay ENGINEER in accordance with Attachment C, Compensation.

**ARTICLE 6 - OWNER'S RESPONSIBILITIES**

- 6.1. OWNER-Furnished Data: Upon request, OWNER will provide to ENGINEER all data in OWNER's possession relating to ENGINEER's SERVICES on the PROJECT. Such data may include electronic data available from the OWNER's Geographic Information System (GIS), data generated by OWNER's water distribution system model and existing water quality data. ENGINEER will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by OWNER. OWNER's data is provided for temporary use or copying by ENGINEER.
- 6.2. Access to Facilities and Property: OWNER will make its facilities accessible to ENGINEER as required for ENGINEER's performance of its SERVICES.
- 6.3. Timely Review: OWNER will examine ENGINEER's studies, reports, sketches, drawings, specifications, proposals, and other documents; and transmit OWNER comments or other decisions to ENGINEER in a timely manner.
- 6.4. Meetings: OWNER will participate in monthly progress meetings or other meetings with ENGINEER or contractor(s) defined in Scope of Services.
- 6.5. Advertisements, Permits, and Access: Unless otherwise agreed to in the Scope of Services, OWNER will obtain, arrange, and pay for all advertisements for bids; permits and licenses required by local, state, or

federal authorities; and land, easements, rights-of-way, and access necessary for ENGINEER's SERVICES or PROJECT construction.

- 6.6. Hazardous Substances: If hazardous substances in any form are encountered or suspected, ENGINEER will stop its own work in the affected portions of the PROJECT to permit testing and evaluation. ENGINEER will, if requested by OWNER, conduct tests to determine the extent of the problem and will perform the necessary studies and recommend necessary remedial measures at an additional fee with contract terms to be negotiated.

**ARTICLE 7 - STANDARD OF CARE**

ENGINEER shall exercise the same degree of care skill and diligence in the performance of the SERVICES as is ordinarily possessed and exercised by a professional engineer under similar circumstances. ENGINEER shall correct the SERVICES that fail to satisfy this standard of care. No warranty, express or implied is included in this AGREEMENT or in any drawing, specifications, report or opinion produced pursuant to this AGREEMENT.

**ARTICLE 8 - LIABILITY AND INDEMNIFICATION**

- 8.1 General. Having considered the potential liabilities that may exist during the performance of the SERVICES, the benefits of the PROJECT, the ENGINEER's fee for the SERVICES and in consideration of the promises contained in this AGREEMENT, OWNER and ENGINEER agree to allocate and limit such liabilities in accordance with this Article.
- 8.2 Indemnification and Liability. The ENGINEER agrees to defend, indemnify, and hold harmless the OWNER, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the ENGINEER in the performance of services under this Agreement. OWNER agrees to defend, indemnify, and hold harmless the ENGINEER, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the OWNER in the performance of services under this Agreement, provided such indemnification shall be applicable only to the extent sovereign immunity has been waived pursuant to Oklahoma law. The ENGINEER and the OWNER each agree to promptly service notice on the other party of any claims arising hereunder, and shall cooperate in the defense of such claims. The acceptance by OWNER or its representatives of any certification of insurance providing for coverage other than as required in this Agreement to be furnished by the ENGINEER shall in no event be deemed a waiver of any of the provisions of this indemnity provision. None of the foregoing provisions shall deprive the OWNER of any action, right, or remedy otherwise available to OWNER at common law.
- 8.3 Employee Claims. ENGINEER shall indemnify OWNER against legal liability for damages arising out of claims by ENGINEER's employees. OWNER shall indemnify ENGINEER against legal liability for damages arising out of claims by OWNER's employees.
- 8.4 Consequential Damages. To the fullest extent permitted by law, ENGINEER shall not be liable to OWNER for any special, indirect or consequential damages resulting in any way from the performance of the SERVICES.
- 8.5 Survival. Upon completion of all SERVICES obligations and duties provided for in this AGREEMENT or if this AGREEMENT is terminated for any reason the terms and conditions of this Article shall survive.

**ARTICLE 9 - INSURANCE**

During the performance of the SERVICES under this AGREEMENT ENGINEER shall maintain the following insurance:

- 9.1 Worker's compensation insurance for ENGINEER's employees as required by Oklahoma Workers Compensation Statutes.

- 9.2 Comprehensive general liability insurance with a minimum of \$125,000 per accident for bodily injury or death and \$25,000 per occurrence for property damage.
- 9.3 Comprehensive automobile liability insurance with a minimum of \$125,000 per accident for bodily injury or death and \$25,000 for property damage.
- 9.4 Professional Liability (errors and omissions) insurance with a minimum policy value of \$1,000,000.

ENGINEER shall furnish OWNER certificates of insurance that shall include a provision that such insurance shall not be canceled without at least thirty days written notice to OWNER. All PROJECT contractors shall be required to include OWNER and ENGINEER as additional insured on their General Liability Insurance policies.

ENGINEER and OWNER each shall require its insurance carriers to waive all rights of subrogation against the other and its directors, officers, partners, commissioners, officials, agents and employees for damages covered by property insurance during and after the SERVICES. A similar provision shall be incorporated into all contractual arrangements entered into by OWNER and shall protect OWNER and ENGINEER to the same extent.

#### **ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY**

ENGINEER shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures or safety precautions and programs in connection with the PROJECT; (2) the failure of any contractor, subcontractor, vendor or other PROJECT participant, not under contract to ENGINEER, to fulfill contractual responsibilities to the OWNER or to comply with federal, state or local laws, regulations, and codes; or (3) procuring permits, certificates and licenses required for any construction unless such responsibilities are specifically assigned to ENGINEER in Attachment B, Scope of Services.

#### **ARTICLE 11 - OPINIONS OF COST AND SCHEDULE**

Since ENGINEER has no control over the cost of labor, materials or equipment furnished by others or over the resources provided by others to meet PROJECT schedules, ENGINEER's opinion of probable costs and of PROJECT schedules shall be made on the basis of experience and qualifications as a professional engineer. ENGINEER does not guarantee that proposals, bids, or actual PROJECT costs will not vary from ENGINEER's cost estimates.

#### **ARTICLE 12 - REUSE OF DOCUMENTS**

Upon OWNER's request ENGINEER shall furnish OWNER with deliverables and/or other data on electronic media. All documents, including but not limited to, drawings, specifications and computer software prepared by ENGINEER pursuant to this AGREEMENT are instruments of Service in respect to the PROJECT. Said documents are not intended or represented to be suitable for reuse by OWNER or others on extensions of the PROJECT or on any other PROJECT.

#### **ARTICLE 13 - TERMINATION**

This AGREEMENT may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms of this AGREEMENT. The non-performing party shall have fifteen (15) calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may terminate or suspend performance of this AGREEMENT for OWNER's convenience upon written notice to ENGINEER. ENGINEER shall terminate or suspend performance of the SERVICES on a schedule acceptable to OWNER. If termination or suspension is for OWNER's convenience, OWNER shall pay ENGINEER for all the SERVICES performed to date, amount not to exceed the normal fee amount due for the SERVICES rendered and termination or suspension expenses. Upon restart, an equitable adjustment shall be made to ENGINEER's compensation.

**ARTICLE 14 - DELAY IN PERFORMANCE**

Neither OWNER nor ENGINEER shall be considered in default of this AGREEMENT for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this AGREEMENT, such circumstances include, but are not limited to abnormal weather conditions; floods; earthquakes; fire; epidemics; war; riot and other civil disturbances; strikes, work slowdowns and other labor disturbances; sabotage; judicial restraint; and inability to procure permits, licenses, or authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or SERVICES required to be provided by either OWNER or ENGINEER under this AGREEMENT.

Should such circumstances occur the non-performing party shall, within a reasonable period after being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this AGREEMENT.

**ARTICLE 15 - COMMUNICATIONS**

Any communication required by this AGREEMENT shall be made in writing to the address specified below:

ENGINEER: Adam Burk, P.E., Project Manager  
RJN GROUP, INC.  
4150 S. 100th E. Avenue, Suite 106  
Tulsa, OK 74146  
918-627-9737  
[aburk@rjnmail.com](mailto:aburk@rjnmail.com)

OWNER: Nathan Madenwald, Utilities Engineer  
City of Norman – Utilities Department  
225 N Webster Avenue  
P.O. Box 370  
Norman OK 73069 / 73070  
405-366-5426  
[nathan.madenwald@normanok.gov](mailto:nathan.madenwald@normanok.gov)

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and OWNER.

**ARTICLE 16 - WAIVER**

A waiver by either OWNER or ENGINEER of any breach of this AGREEMENT shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

**ARTICLE 17 - SEVERABILITY**

The invalidity, illegality, or unenforceability of any provision of this AGREEMENT or the occurrence of any event rendering any portion or provision of this AGREEMENT void shall in no way affect the validity or enforceability of any other portion or provision of this AGREEMENT. Any void provision shall be deemed severed from this AGREEMENT, and the balance of this AGREEMENT shall be construed and enforced as if this AGREEMENT did not contain the particular portion or provision held to be void. The parties further agree to amend this AGREEMENT to replace any stricken provision with a valid Provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire AGREEMENT from being void should a provision, which is of the essence of this AGREEMENT, be determined void.

**ARTICLE 18 – NON-DISCRIMINATION**

In connection with the performance of work under this contract, the ENGINEER agrees as follows:

- A. The ENGINEER agrees not to discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, age, place of birth, disability, sex, sexual orientation, gender identity or expression, familial status, or marital status, including marriage to a person of the same sex. The ENGINEER shall take affirmative action to ensure that employees are treated without regard to their race, color, religion, ancestry, national origin, age, place of birth, disability, sex, sexual orientation, gender identity or expression, familial status, or marital status, including marriage to a person of the same sex. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruiting or recruitment, advertising, lay-off, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The ENGINEER and any companies subcontracted shall agree to post in a conspicuous place, available to employees and applicants for employment, notices to be provided by the City Clerk of the City of Norman setting forth the provisions in this section.
- B. In the event of the ENGINEER's noncompliance with this nondiscrimination clause, the contract may be canceled or terminated by the City Council. The ENGINEER may be declared by the City Council ineligible for further contracts with the said agency until satisfactory proof of intent to comply shall be made by the ENGINEER.
- C. The ENGINEER agrees to include this nondiscrimination clause in any subcontracts connected with the performance of this agreement.

**ARTICLE 19 - INTEGRATION**

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and ENGINEER. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT. This AGREEMENT, including its attachments and schedules, may only be changed by a written amendment executed by both parties. The following attachments and schedules are hereby made a part of this AGREEMENT:

- Attachment A - Schedule
- Attachment B - Scope of Services
- Attachment C - Compensation
- Exhibit 1 – Project Location Map

**ARTICLE 20 - SUCCESSORS AND ASSIGNS**

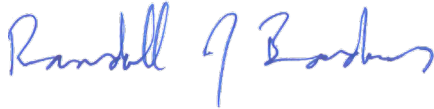
OWNER and ENGINEER each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party to this AGREEMENT and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this AGREEMENT.

IN WITNESS WHEREOF, OWNER and ENGINEER have executed this AGREEMENT.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

**RJN GROUP, INC. - ENGINEER**

ATTEST



By: \_\_\_\_\_  
Vice President  
Title: \_\_\_\_\_

\_\_\_\_\_   
Project Manager  
\_\_\_\_\_

**Norman Utilities Authority- OWNER**

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
City Attorney

APPROVED by the Trustees of the Norman Utilities Authority this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

ATTEST

By: \_\_\_\_\_  
Title: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**ATTACHMENT A**  
**SCHEDULE**

The service and data management period under this contract will be from April 3, 2023 through August 31, 2023.

If new equipment installation or relocation of existing metering or telemetry equipment is requested and authorized by the OWNER as Additional Services, the ENGINEER shall mobilize within 21 days of receipt of the written Notice to Proceed and shall achieve Substantial Completion of equipment installation at the approved site locations within 60 days of the Notice to Proceed. Upon Substantial Completion, the annual Service and Data Management Period shall commence on a site-by-site basis.

## ATTACHMENT B SCOPE OF SERVICES

RJN will coordinate its activities with NUA to ensure operation and maintenance activities are coordinated and that selected flow monitoring locations are appropriate for model calibration and verification.

The work will include the following activities:

### A. Mobilization & Project Management

1. **Project Team** – RJN’s project team will include:
  - a. A **Project Manager** to coordinate the Consultant’s activities with NUA, including monthly progress meetings and data deliverables.
  - b. A **Data Manager** to direct the processing, finalization and reporting of data.
  - c. A **Field Manager** to supervise the installation and maintenance of the flow monitoring equipment utilizing equipment manufacturer’s procedures.
  - d. **Field Crews** and **Data Technicians** trained in the proper installation, operation, and maintenance of the equipment and in the tasks associated with this project.
2. **Safety Equipment - RJN** will ensure that all personnel are certified in confined space entry. RJN will provide the required and necessary confined space access safety equipment, and the traffic control devices necessary to meet Federal, State and Local requirements.

### B. Flow Meter Site Selection and Installation

1. **Site Selection** –RJN will provide map exhibits of proposed monitoring sites with the Notice to Proceed. Map exhibits shall contain sufficient information to identify target locations and identify alternate installation locations. Sufficient information includes but is not limited to proposed target installation site and at minimum two (2) upstream and two (2) downstream manholes to install the flow meter. The flow monitoring sites will be selected to adequately characterize sanitary sewer flows. A total of 30 temporary flow meters are anticipated.
2. **Site Investigations** – The proposed preliminary flow monitoring locations will be verified by RJN by performing a thorough site investigation, including descending the manhole, verifying hydraulic suitability, pump station operation, and other pertinent items influencing the site. Traffic and other accessibility conditions will also be evaluated during site investigations. The hydraulic conditions at each site, including flow depth and velocity will be evaluated and will dictate the metering equipment selection and optimal sensor placement. If a location is identified as being unsuitable, RJN will coordinate with NUA and investigate up to two (2) alternate sites (upstream or downstream) for consideration. RJN will also check for debris and other operational or maintenance concerns in the manhole that could impact data quality, including sensor fouling, surcharging, and excessive siltation.

A NUA representative will be available at request of RJN field crews to aid in locating and/or accessing meter sites.

3. **Flow Meter Installation** – Flow meters will be installed in accordance with manufacturer recommendations at flow metering sites approved by NUA. RJN will use area-velocity flow meters designed to measure flow in sanitary sewer pipes under free-flow and surcharged conditions. The primary depth sensor will be ultrasonic with a resolution to the nearest 0.01 foot. The meter will have level



measurement redundancy in the form of a pressure sensor. The primary velocity sensor will use Doppler technology to measure the flow velocity. The sensors will be securely attached to the pipe by means of metal bands or anchoring hardware designed specifically for that purpose. Based on the results of the site investigations, RJN will select the equipment that is best suited for the application in order to provide accurate and reliable flow data. Metering equipment will be laboratory tested prior to deployment on the project. The proposed equipment allows RJN technicians to view data collected by the meter and to perform on-site comparison testing and calibration to measured flows. All on-site calibrations will be documented as part of the initial meter set-up documentation.

Finalized Installation Site Reports will be submitted to NUA after equipment installation. Finalized Installation Site Reports will include but not be limited to the following:

- Flow meter site location and method of measurement (equipment installed)
  - Velocity and depth sensor locations on pipe (clock position, distance to pipe invert)
  - Sediment depth, if any
  - Monitor level and independently measured level (flow depth)
  - Monitor flow velocity and independently measured velocity
  - On-site adjustments made to calibrate flow meter to in-situ conditions per equipment manufacturer recommendations
  - Map indicating site location
  - Photograph of site location at surface
  - Photograph of installed equipment
4. **Rainfall Measurement** – RJN will prepare seven (7) tipping bucket rain gauges for field installation and conduct a series of performance and calibration tests to verify equipment meets operating standards. RJN will inspect the proposed gauging locations to determine their suitability for installation of the equipment.
  5. **Typical Installation** - A typical flow monitor installation will include: the primary ultrasonic depth sensor mounted at the crown of the pipe, a redundant depth sensor mounted in the invert, and a Doppler primary velocity sensor also mounted in or near the invert. The meter (data logger) and sensor cables will be firmly secured to the manhole walls and/or steps in order to allow ready access by field personnel and to minimize the chances for debris to get caught in the cables.
  6. **Location and Equipment Owner Identification** – Manhole lids where meters are installed will be painted green to alert maintenance crews and others to the presence of monitoring equipment. Installed equipment will also be tagged with RJN contact information with a request to contact RJN prior to disturbing any of the installed equipment.
  7. **Clocks and Equipment Sampling Rate** - All flow meters and rain level monitors will be synchronized in time to the same clock. Flow meters will be programmed to collect depth and velocity data at five-minute (5) minute intervals. Clocks will be programmed to record data at CT minus 5 (central time) for the duration of the flow monitoring period. Adjustments for daylight savings will not be made in the processed data submitted to NUA and will need to be accounted for by the user of the data, as necessary and appropriate.
  8. **Initial Meter Confirmations / Hydraulic Calibrations** - Upon installation and activation of each flow meter, RJN field crews will take manual depth and velocity readings using independent instrumentation to confirm that the in-situ monitor yields data representative of actual field conditions. Field crew(s) will also take manual velocity readings of the cross-section (velocity profile) of flow in order to determine the pipe

hydraulic profile (hydraulic calibrations). All hydraulic calibration measurements, adjustments, and efforts undertaken will be logged on the Meter Installation Site Report specific to that installation.

**C. Monitoring Program Start and Duration**

1. **Monitoring Program Start** – The flow metering period will start upon installation of flow meters at all approved flow monitoring sites.
2. **Monitoring Period** - The monitoring period is estimated to be 60 days. NUA may extend this period by an additional 30 days.

**D. Monitor Maintenance and Data Collection**

1. **Wireless Remote Data Collection** - RJN will utilize a host software support application program for remote wireless flow meter and rain gauge data collection. The host software will be capable of individually, by group or globally changing the data collection interval including collection after each measurement. The host software will enforce clock synchronization with the host system's clock for all field RTUs, thus ensuring time interval integrity for all collected data. RJN will install, operate, maintain, and remove the telemetry upon the completion of the monitoring period, and will repair any disturbed areas resulting from the wireless telemetry installations.
2. **Data Transfer to Modeling Software** – Monthly flow data submittals will be in .csv file format for use by NUA and its hydraulic modeling consultants.
3. **Data Review** - RJN will utilize trained data analysts experienced in processing and analyzing flow and rainfall data from sanitary sewer systems. RJN will use various analytical tools, such as hydrographs, scattergraphs, and flow balancing methods to verify the accuracy of the flow data. Furthermore, RJN will schedule the data collection activities in a manner to allow data review by a trained data analyst within 24-hours of the data collection or delivery from the field. All measurements, adjustments, and efforts undertaken during site visits will be logged in an installation/maintenance log specific to that installation. Such logs will be made available to NUA at request.
4. **Equipment Operation and Maintenance (O&M)** - Qualified field crews will visit each monitor installation as appropriate to perform maintenance to the equipment. Equipment maintenance requirements are expected to vary considerably depending on the site being monitored and site conditions. However, it is anticipated that each meter site will be visited monthly or as required for battery replacement and data retrieval purposes. All measurements, adjustments, and efforts undertaken during site visits will be logged in a maintenance log specific to that site, which will be available to NUA upon request. The following activities will be performed during each maintenance site visit:
  - Record date, time, weather conditions
  - Review monitor depth and velocity measurements
  - Download depth and velocity measurements from monitoring equipment
  - Take and record independent manual depth and velocity measurements
  - Take and record depth-of-silt measurements, if any
  - Record comparison to monitor depth and velocity measurement
  - Adjust and document monitor depth and velocity measurement adjustment (if necessary)
  - Clean / scrub flow velocity and depth sensors
  - Check battery levels and replace as necessary
  - Record equipment replacement or adjustments, if any

**E. Meter Confirmation**

1. **Model Update Temporary Meters** - In accordance with RJN procedures, RJN will perform dry-weather, independent depth and velocity measurements during dry weather conditions periodically throughout the project duration. Furthermore, RJN will assess meter performance relative to these measurements and make any adjustments as necessary to increase the accuracy of the data with respect to actual conditions. Such meter confirmations will be evenly scheduled and performed a maximum of five (5) times during the 60-day flow monitoring period and three (3) times during the 30-day extension period, including removal. All measurements, adjustments, and efforts undertaken during site visits will be logged in an installation/maintenance log specific to that installation. Such logs will be provided to NUA upon request.
2. **Norman Permanent Meters** – RJN operates and maintains seven (7) NUA owned permanent meter sites under a separate agreement. The seven (7) meters are visited one (1) time per month for maintenance. RJN will provide maintenance as scheduled in the separate agreement.

For the proposed 2023 master plan update, RJN will perform supplemental confirmations on the permanent meter sites one (1) time per month. Such confirmations will not be performed on the same visits of the separate maintenance contract. Such meter confirmations will be evenly scheduled and performed a maximum of two (2) times during the 60-day flow monitoring period and two (2) times during the 30-day extension period, including removal.

**F. Equipment Removal**

1. **Notification** - NUA will give RJN at least a 30-day written notice before the end of the flow monitoring period.
2. **Confirmation** – Prior to removing the equipment, RJN will take manual depth and velocity readings using independent instrumentation to confirm that the in-situ monitor yields data representative of actual field conditions. Field crew(s) will also take manual velocity readings of the cross-section (velocity profile) of flow in order to determine the pipe hydraulic profile. All measurements, adjustments, and efforts undertaken will be logged in the maintenance log specific to that installation.
3. **Site Restoration** - RJN will remove all the flow meters at the completion of the flow-monitoring period and will repair any damage or disturbance from the installation and operation of the flow meters or rain gauges.

**G. Data Analysis & Reporting**

1. **Flow Data Processing** - RJN will provide data processing services for each flow-monitoring site for the entire duration of the flow-monitoring period. Data processing will include a comprehensive review of collected data to identify data gaps, equipment service needs, as well as the conversion of raw flow data into final edited data. An experienced Data Analyst will review the flow data to verify diurnal patterns and reasonable depths and velocities using data diagnostic tools such as hydrographs and scattergraphs. Rainfall derived infiltration and inflow (RDII) analysis is not included as part of the proposed services.

An established RJN internal data quality control program will be implemented to ensure reliability and accuracy of reported data. Quality assurance will consist of periodic independent review of field data collection, data review, and data processing procedures.

2. **Flow Data Reporting** - RJN will report flow and rainfall data; to NUA as follows:
  - a) **Monthly** – RJN will submit flow and rainfall data. The data will be submitted electronically by the 15<sup>th</sup> day for the previous month. Each report will include (as relevant):
    - Five-minute flow, depth, and velocity data in a tabular format

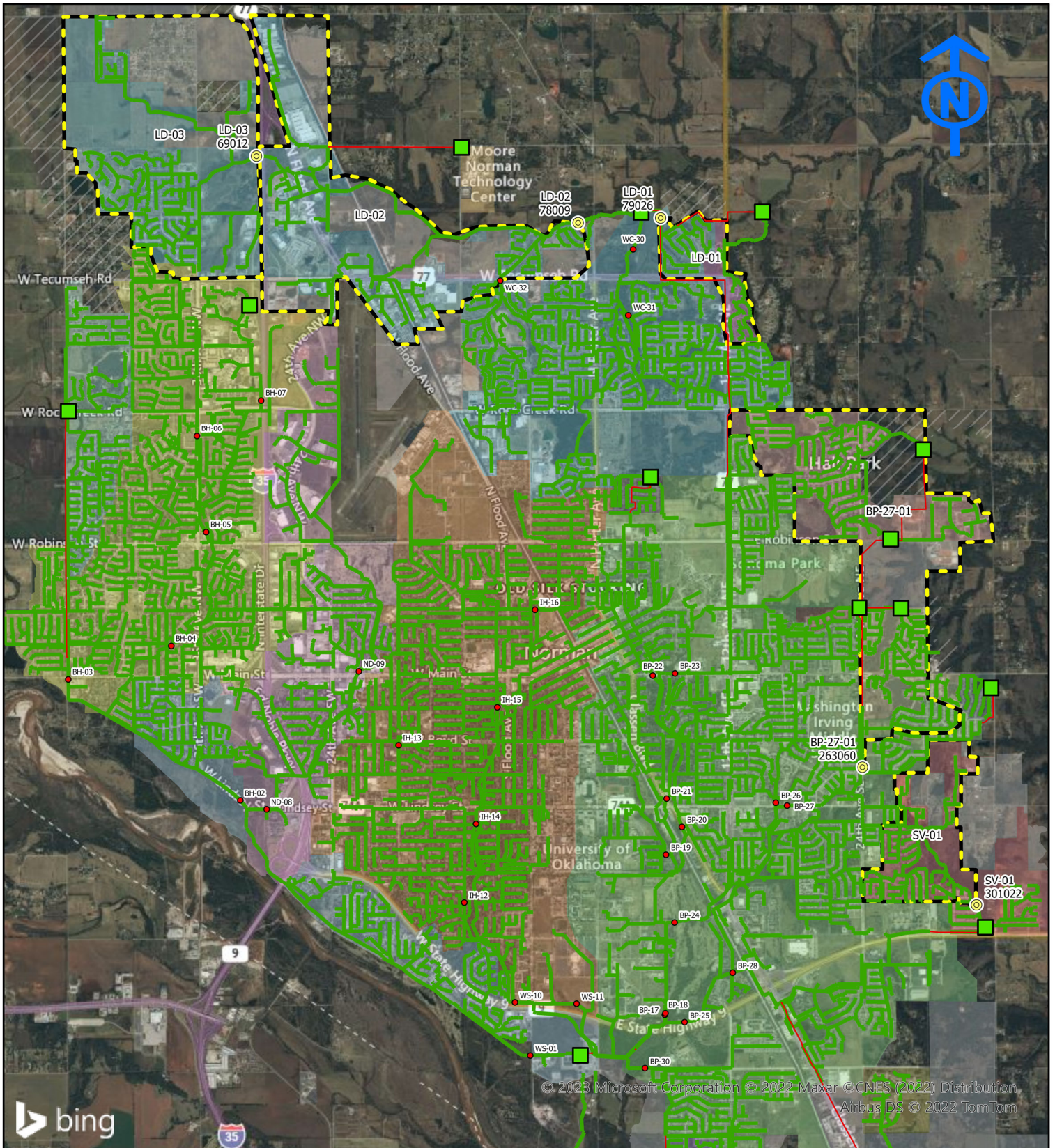
- Rainfall data for each metered area
  - Maintenance and repair visits and services performed during the previous month.
  - Meter Calibration Status Report indicating by site the number of wet and dry weather calibrations to date, including an evaluation of the accuracy of each meter.
- b) **Final Data Analysis and Delivery** – RJN will provide final processed data and all data deliverables within 60 days after the end of the flow monitoring program, to be included on CD, DVD, or USB flash drive. Data will be provided to NUA and its hydraulic model consultant.

**ATTACHMENT C  
COMPENSATION**

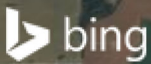
The OWNER agrees to compensate ENGINEER for these services based on the unit rate table below.

The ENGINEER may submit interim statements, not to exceed one per month, for partial payment for SERVICES rendered. The statements to OWNER will be by task for the percentage of work actually completed. The OWNER shall make interim payments within 30 calendar days in response to ENGINEER's interim statements.

<b>Description</b>	<b>Quantities</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Cost</b>
Project Management and Administration	1	Ea	\$42,665.00	\$42,665.00
Investigation and Installation	30	Ea	\$2,250.00	\$67,500.00
RG Invest / Install	7	Ea	\$600.00	\$4,200.00
Scheduled Meter Maintenance	1,800	FMD	\$61.25	\$110,250.00
Rain Gauge Maintenance	420	RGD	\$19.75	\$8,295.00
Data Reporting	1	Ea	\$33,575.00	\$33,575.00
Norman Perm Interceptor Meter	420	FMD	\$28.15	\$11,823.00
Norman Perm Rain Gauge	180	RGD	\$10.00	\$1,800.00
60-Day Subtotal				\$280,108.00
Flow Meter 30-Day Extension	900	FMD	\$58.15	\$52,335.00
Rain Gauge 30-Day Extension	210	RGD	\$18.75	\$3,937.50
Norman Perm Interceptor Meter 30-Day Extension	210	FMD	\$28.15	\$5,911.50
Norman Perm Rain Gauge 30-Day Extension	90	RGD	\$10.00	\$900.00
30-Day Extension Subtotal				\$63,084.00
<b>Total</b>				<b>\$343,192.00</b>



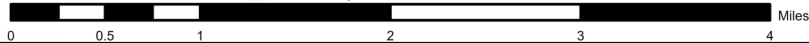
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2023 FLOW MONITORING SITES



- Sewer Lift Stations
- ⊙ Propose Meter Site
- 2010 Metered Site
- Sanitary Force Mains
- Sanitary Sewer Gravity
- Propose Meter Basins
- Alameda Park
- Ashton Grove
- Bishop
- Brookhaven
- Eagle Cliff
- Modeled Future Service Areas
- Modeled Future Service Areas Extended
- Hall Park
- Imhoff
- Lift Station D
- Normandy
- Park Hill
- Post Oak
- Royal Oaks
- Summit Lakes
- Summit Valley
- Sutton Place
- Vo-Tech
- Westside



3/15/2023