

AGREEMENT
FOR
ENGINEERING SERVICES

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

WITNESSETH

WHEREAS Owner intends to continue installation and maintenance of permanent wastewater flow metering devices at specified locations within the collection system, per attached Exhibit 1 Project Location Map, for billing purposes, to account for extraneous inflow and infiltration (I/I) contributions at satellite systems such as hospitals, institutions, multi-family apartment complexes, trailer home parks, and similar facilities, and to evaluate the effectiveness of sanitary sewer rehabilitation projects.

WHEREAS, OWNER requires engineering, installation and maintenance services more fully described in Attachment B in connection with the Permanent 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

The ENGINEER shall initiate work, within 5 calendar days following the "Effective Date" of this AGREEMENT. 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) and data generated by OWNER's wastewater system model. 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 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 CONSULTANT 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 CONSULTANT in the performance of services under this Agreement. OWNER agrees to defend, indemnify, and hold harmless the CONSULTANT, 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 CONSULTANT 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 CONSULTANT 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: Thomas G. Prag, P.E., Project Manager
RJN GROUP, INC.
4150 S. 100th E. Avenue, Suite 405
Tulsa, OK 74146
918-627-9737
tprag@rjn.com

OWNER: David Hager, Utilities Superintendent
Norman Utilities Authority
1307 Da Vinci Street
P.O. Box 370
Norman OK 73070
405-329-0703
david.hager@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 - 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 19 - 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: Hugh M. Allen
Title: Vice President

 Thomas M. Pray
 Branch 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: _____

1.

ATTACHMENT A

SCHEDULE

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

Project Initiation Period

Coordination

ENGINEER shall review all information collected by the Norman Utilities Authority (OWNER) to ensure a thorough understanding of the project background. A kick-off meeting with the OWNER shall be conducted to develop a thorough understanding of the project, goals and to coordinate the routine and timely exchange of information.

Routine project team meetings shall be conducted with OWNER representatives as necessary to review the PROJECT issues and status. ENGINEER shall institute a safety program to be strictly followed throughout the entire duration of the project. All crews shall wear appropriate identification.

Site Investigation

ENGINEER shall assist in selecting the specific monitoring points from a strategic and feasibility viewpoint. Site investigations shall involve the evaluation of the monitoring location to ensure sensor survivability and the ability to collect quality flow data. The investigation shall further include hydraulic evaluation for potential flow regimes including laminar, turbulent, backwater, and surcharged conditions.

The investigation shall also include evaluation and feasibility of site accessibility, telemetry, and power.

Equipment Selection

Based on the site selection investigation reports, the appropriate technologies shall be considered and evaluated to fulfill the project objectives. Equipment selection criteria shall consider the pipe size, anticipated flow ranges, telemetry method, operating principal, accuracy, data management requirements, and cost. A recommendation of the most practical technology for each site shall be provided to the OWNER.

Installation Period

Flow Monitoring Equipment

ENGINEER shall procure and deliver the monitoring equipment including sensors, installation bands, and necessary installation hardware. The OWNER will be provided with a copy of the selected flow monitoring software. The OWNER shall become the owner of the equipment and software at the time that Substantial Completion is reached.

The selected flow monitoring units shall be operated under battery power to allow for in-manhole installations without the necessity to bring permanent power to each site.

The following flow monitoring equipment shall be maintained by the ENGINEER throughout the duration of the project.

- Six (6) new Hach FL902 Flow Meters will be installed and maintained at OU billing sites OU-05, OU-06, OU-07, OU-11, OU-12, and OU-14.
- Three (3) previously refurbished Hach Sigma 920 Flow Meters will be installed and maintained at OU billing sites OU-01, OU-03, and OU-14.
- Two (2) new Hach FL902 Flow meters will be installed and maintained at sewer rehabilitation sites selected by OWNER to monitor pre- and post- construction wastewater flows.
- One (1) new Hach FL902 Flow Meter will be installed and maintained at an interceptor site selected by OWNER.
- One (1) existing (purchased by OWNER in July 2014) HACH FL902 Flow Meter will be maintained at interceptor site WS-01.
- Five (5) existing (purchased slightly used by OWNER and installed in 2011) Hach Sigma 920 Flow Meters will be maintained at interceptor locations BP-17, BP-18, BP-25, WS-10, and WS-11.
- One (1) existing Hach Sigma 920 Flow Meter will be removed from OU billing site OU-10.

The remaining Hach Sigma 920 Flow Meters owned by OWNER and not in use will be evaluated by ENGINEER to determine the condition and either be utilized as a backup meter or as a trade-in to reduce the cost of newly purchased meters by \$800 per meter.

Equipment Warranty – the new flow monitoring equipment shall be warranted for 1 year against all defects. The OWNER shall have the opportunity to extend the manufacturer's warranty, annually.

Installation

The equipment shall be installed according to the manufacturers recommendations by trained technicians. The flow monitors shall be capable of recording both depth and velocity components and shall be configured to obtain readings on 15 minute intervals.

The sensing equipment is typically installed on a thin metal ring for smaller pipe applications. For larger pipe installations over 42", the sensing equipment is generally installed on a flange or partial band. The cabling shall be secured to the manhole walls and attached to a data logger at the top of the manhole for easy access. Prior to leaving the site, each flow monitor shall be configured and activated at the site.

Each monitored location shall be calibrated at installation, which involves comparing the returned sensor values against independent devices. ENGINEER staff shall acquire at least six calibrations at various flow levels.

Substantial Completion shall be reached upon the installation of all flow monitoring equipment, sensors and completion of hydraulic calibrations. ENGINEER shall submit for approval of Substantial Completion and provide at least one week of data for each site to demonstrate that the equipment is operating within operating standards.

Telemetry

Cellular telemetry shall be provided at each flow monitoring location using Telog RU-33 remote telemetry units. This will enable the data to be collected remotely. Three (3) new Telog RU-33 remote telemetry units will be purchased. Two (2) new Telog RU-33 remote telemetry units will be

installed at sewer rehabilitation sites selected by OWNER to monitor pre- and post- construction wastewater flows. One (1) new RU-33 remote telemetry unit will be utilized as a backup to the existing telemetry units.

Service and Data Management Period

The Service and Data Management Period shall commence once Substantial Completion of all metering locations is achieved and shall remain in effect for one year. The AGREEMENT shall be renewable each year for as long as Services are required by OWNER. ENGINEER shall provide written notice of any price increases within 30 days prior to the expiration date of each annual AGREEMENT.

Data Collection

Each flow meter shall be remotely collected and the data reviewed on a weekly basis. During each download operation, data shall be graphed to check for inconsistencies, gaps or adverse trends. The data shall be edited, processed and finalized on a monthly basis to generate final Q (flow) in addition to the depth and velocity readings.

ENGINEER shall analyze data from each monitoring site for maintenance problems and predictive failure. Any modifications to the meter configuration or adjustments to the data based on field calibrations shall be logged. Data analysis shall include the evaluation of hydraulic conditions such as bottlenecks, surcharging, suspected overflows, and wet weather contributions. Baseline dry weather and wet weather flows shall be established for each monitoring location. The data shall be reviewed on a monthly basis for trend analysis of I/I contributions, I/I reduction and significant capacity variations. Any significant variations from this baseline flow shall be included with the monthly deliverables. Indications of concern shall be reported immediately.

Equipment Maintenance and Service

Quarterly calibrations shall be performed by ENGINEER and shall be reviewed against the measured sensor readings. On a quarter year interval, each site shall be visited to obtain hydraulic calibrations and to perform routine interrogation of the meters. Service or maintenance requirements shall be scheduled within 48 hours of data collection. ENGINEER technicians shall then have 72 hours to make necessary adjustments or repairs. Any equipment found to be working improperly shall be repaired or replaced with a spare unit until the equipment is repaired. Field technicians shall maintain a service log for all activities performed.

ENGINEER shall organize and maintain electronic records of the flow data. ENGINEER shall further maintain a back-up record of all collected flow data. The data shall be made available to the OWNER upon request.

ENGINEER shall perform quarterly calibrations of the flow meter equipment. The calibration of the flow metering sites shall consist of comparing manual depth and velocity measurements to the flow meters measurements using independent devices.

ENGINEER shall replace batteries during field visits according to the manufacturer's recommended battery replacement interval or as needed due to battery failure.

Monthly Deliverables

ENGINEER shall provide a monthly narrative summary of the flow data including a brief status of the monitoring results for each location along with interpretations of unique hydraulic conditions. The

summary shall note any maintenance and service requirements in addition to any downtime that may have occurred.

ENGINEER shall prepare and deliver electronically on a monthly basis a billing statement with monthly summary (as described below) to the University of Oklahoma (OU) in a format to be approved by OWNER. ENGINEER shall assist OWNER is responding to any billing inquiries from OU.

The data shall include a monthly summary of the daily total flow, monthly minimum, average and maximum flow. Depth, velocity, and flow shall be represented in tabular and graphical formats. All monthly flow and data reports shall be delivered in both hard copy and electronic formats to enable special reports to be generated by the OWNER. Electronic data shall be created using the selected manufacturer's software. Electronic data shall be compatible with Microsoft Access and Excel.

Limits of Responsibility

ENGINEER shall not be responsible for any damages to the equipment caused by activities of others including, construction, vandalism, sewer cleaning, sewer maintenance, or utility trenching. The OWNER shall not make any modifications or repair to the equipment without the prior consent of ENGINEER. The OWNER may authorize ENGINEER to repair such damages on a time and material basis. ENGINEER shall not be liable for any loss of data due to meter malfunction or causes beyond its control.

Payment of the monthly telephone and power utilities shall be the responsibility of the OWNER.

ATTACHMENT C**COMPENSATION**

The OWNER agrees to compensate ENGINEER for these services based on the unit rate table below. Quantities under "Services Upon OWNER Request" are estimated and may be adjusted by OWNER.

The OWNER may request Additional Services that may not be identified in the compensation table. The OWNER may request a cost estimates from the Engineer for services that may include equipment repair or other flow monitoring related services for the OWNER.

Description	Quantity	Unit Rate	Total
Quarterly Service and Monthly Data Management			
OU Permanent Meters (12 mos. x 9 meters) ^{3/}	108 meter/mos.	\$450 /meter/mo.	\$48,600
Norman Interceptor Meters (12 mos. x 7 meters) ^{3/}	84 meter/mos.	\$450 /meter/mo.	\$37,800
Additional Meters for I/I Monitoring and Post-Rehab (12 mos. x 2 meters)	24 meter/mos.	\$450 /meter/mo.	\$10,800
Telemetry Cellular Billing (12 mos. x 11 Telem) ^{1/}	132 Telem/mos.	\$15 /Telem/mo.	\$1,980
Subtotal			\$99,180
New Meter Installations	Units	Unit Rate	Total
Equipment Installation or Relocation (includes site investigation and equipment uninstal)	12	\$1,124.00/meter	\$13,488
FM Equipment ^{4/}	9	\$6,514.00/meter	\$58,626
Telemetry Equipment	3	\$2,871.00/Telem	\$8,613
Subtotal			\$80,727
Services Upon OWNER Request – Additional Site Visits	Units	Unit Rate	Total
A. FM Equipment	2	\$6,514.00/meter	\$13,028
B. Equipment Installation or Relocation	2	\$1,124.00/meter	\$2,248
C. Telemetry Equipment	1	\$2,871.00/Telem	\$2,871
D. Telemetry Install (cellular)	2	\$700.00/Telem	\$1,400
E. Unscheduled Site Visits (Relocate crews to Norman and maintenance) other than quarterly	8	\$2,145.00/each	\$17,160
F. Equipment Repairs ^{2/}	2/	2/	\$7,000
G. Refurbishing Uninstalled Meters for Back-up Equipment (Labor only)	40 hrs	\$120.00/hr	\$4,800
Subtotal			\$48,507
Total			\$228,414

1/ Based on Verizon charges

2/ As needed per repair based on Manufacturer's invoice

3/ Meter at Site OU-10 will be uninstalled. Meter at Site OU-06 will be replaced with a new meter and the existing meter will be reinstalled at new Interceptor site on Cedar Lane.

4/ If ENGINEER is able to negotiate trade-in discounts of old meters in disrepair, the unit price for new meter purchases will be discounted accordingly.