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March 16, 2017

Adrian Montemayor  
Systems Manager  
Webb County Water Utilities  
513 Martha Drive  
Rio Bravo, Texas 78046

**Re: Webb County Water Utilities Department – Automation and Telecommunications Systems Improvements**

Dear Mr. Montemayor,

Please allow this letter to serve as our formal contract for the Automation and Telecommunications Improvements Project. LNV hereby agrees to perform the following Engineering service:

**PROJECT DESCRIPTION:**

The Webb County Water Utilities Department, hereinafter called “County”, and LNV, Inc. hereinafter called “Engineer”, agrees to provide the following professional engineering services related to the Automation and Telecommunications Improvements Project. The project will focus on improving reliability and restoring the operational capabilities as intended in the original design of the system.

**I. SCOPE OF SERVICES**

**A. Basic Services – Automation and Telecommunications**

The Engineer shall assess the existing systems and identify existing deficiencies, and thereby provide solutions, and develop cost-effective recommendations for improvements to restore full automation capabilities at the Rio Bravo Water Treatment Plant. The assessment will include inspections and recommendations for restoring functionality of the Utility System’s telecommunication system associated with the water distribution system. The Engineer shall perform services as described below.

**1. DISCOVERY PHASE**

**Automation and Telecommunications Systems**

An assessment shall be performed for the Automation and Telecommunications Systems associated with the Rio Bravo Water Treatment Plant and Water Distribution System. The data collected during the study will be analyzed to develop appropriate recommendations to improve and/or restore system functionality.

## A. Assessments

a. **Automation and Telecommunication Systems** - The System Assessments shall include physical inspections, review of communications capabilities, documentation, and determination of the overall state of the following equipment:

- Nine (9) HF Scientific MicroTOL analyzers.
- One (1) Hach CL17 analyzer.
- Ten (10) Honeywell DR4300 circular chart recorders.
- Three (3) Wedeco Spektron e-Series UV disinfection system.
- One (1) Modicon Quantum based Main PLC Panel with one (1) main rack and two (2) remote I/O racks.
- Two (2) Modicon Quantum based Clarifier PLC panels. Includes review of the door mounted Eaton PanelMate HMI panel.
- Four (4) Modicon Quantum based Filter panels. Includes review of the door mounted Schneider Electric Magelis HMI panel.
- One (1) Dell SCADA station running GE Proficy iFix.
- Matrikon OPC server license.
- Modbus Plus communications to the SCADA server via a USB to Modbus Plus converter.
- Master Station
- Raw Water Intake
- Rio Bravo Elevated Storage Tank (EST)
- El Cenizo EST
- Review of proposed hardware specifications and contractor submittals (limited to valves and electric actuators required for plant automation)

## B. Reporting

A report will be provided to the county that will include findings and recommendations for repairing, improving, upgrading, or potentially replacing the existing systems. Typically multiple recommendations are provided so the County can implement improvements at their discretion, based on the County's need and available funding or to assist with the future capital improvements planning. The following are examples of recommendations that will be provided:

- Immediate – Recommendations for the repair of critical system components to bring the systems into working order. Immediate fixes may potentially serve as short-term solutions only and may not always be the most cost-effective, long-term solution for rapidly growing municipalities.
- Near Term – Recommendations for a “Hybrid System” will be provided to implement or integrate new or additional technology to the existing systems to improve overall efficiency, along with providing the immediate solutions to the current system issues.
- Future – Recommendations for new system upgrades will be provided to extend the system capacity in order to keep pace with future growth, maintain efficiency, and maximize long-term reliability.

## 2. DESIGN PHASE – TBD

- A. Preliminary Design Workshop: A preliminary design workshop will be held to discuss the report findings, recommendations, and to develop conceptual network designs and determine the course of action the County chooses to pursue.
- B. Preliminary Design: Based on the path forward chosen by the County the design team will prepare detailed designs and will submit preliminary plans and technical specifications to the County to allow review of the final design concepts.
- C. Final Design Workshop: A final design workshop will be held to discuss any comments the County may have about the preliminary plans and specifications.
- D. Final Design: The design team will prepare final plans and specifications addressing comments from the final design workshop.

## 3. IMPLEMENTATION PHASE – TBD

- A. Installation and/or repair of the equipment the County chooses to implement based on the recommendations provided.

**B. Additional Services - TBD**

This section defines the scope (and ALLOWANCE) for compensation for additional services that may be included as part of this contract, but the Engineer will not begin work on this section without specific written approval by the County. Fees for Additional Services are an allowance for potential services to be provided and will be negotiated by the County as required. The Engineer will, with written authorization by the County, perform the following services:

- A. Automatic Meter Reading/Advanced Metering Infrastructure System (AMR/AMI) Study – TBD
- B. Wastewater Treatment Plant and Collection System Communications Assessment - TBD

**FEES**

**A. Fees for Engineer’s Services Include:**

- The necessary coordination, correspondence, meetings and site visits for the preparation and execution of all phases outlined herein.

**B. The County Shall Supply or Reimburse the Following:**

- All available base/or site maps
- Approval of preliminary conceptual designs and sketches
- All fees for reviews and/or inspections from Regulatory Agencies
- All printing and reproduction cost [through County approved vendor]

**Summary of Engineer’s Fees**

<b>BASIC SERVICES</b>	
Discovery Phase	\$38,200
Design Phase	TBD
Implementation Phase	TBD
<b>BASIC SERVICES SUB-TOTAL</b>	<b>\$38,200</b>
<b>ADDITIONAL SERVICES</b>	
AMR/AMI Study	TBD
WWTP and Collections Communications Analysis	TBD
<b>ADDITIONAL SERVICES SUB-TOTAL</b>	<b>TBD</b>
<b>TOTAL</b>	<b>\$38,200</b>

LNV shall perform said service and all acts attendant thereto with a reasonable standard of care and shall not be held to a higher standard of care unless specifically agreed to by the parties and said agreement is spelled out herein as a condition of this contract.

We sincerely thank you for your time and consideration and look forward to assisting you with this project.

Respectfully,

Dan S. Leyendecker, P.E.  
President

DRAFT