AMENDMENT NO. 2
AGREEMENT
FOR
ENGINEERING SERVICES

This is an amendment, AMENDMENT NO. 2, attached to and made a part of the AGREEMENT, dated March 8, 2011, between the NORMAN UTILITIES AUTHORITY (Owner) and GARVER, LLC. (Engineer) for professional engineering services as necessary to complete the construction phase services for the Norman Water Reclamation Facility Phase 2 Improvements.

WHEREAS, the Owner has determined the additional need for construction observation, construction administration, start-up and operation & maintenance training, and application engineering services for the project;

WHEREAS, Engineer is prepared to provide additional services in support of the project;

NOW THEREFORE, in consideration of the promises contained in said AGREEMENT and this AMENDMENT NO. 2, Owner and Engineer agree as follows:

SCOPE OF SERVICES

Engineer shall provide construction phase services associated with the Water Reclamation Facility Phase 2 Improvements as described in APPENDICES A.1 and A.2.

COMPENSATION

For the work described under APPENDIX A.1 - SCOPE OF SERVICES – CONSTRUCTION and START-UP, the Owner will pay the Engineer on a lump sum basis. The lump sum amount to be paid for services associated with Appendix A.1 is $4,787,100. For informational purposes, a breakdown of the Engineer's estimated costs is included in APPENDIX B.1. The Owner intends to pay the Engineer and represents that funds are available, or funds will be borrowed as necessary to pay the Engineer.

For the work described under APPENDIX A.2 SCOPE OF SERVICES – APPLICATION ENGINEERING, the Owner will pay the Engineer on an hourly basis. The Owner will pay the Engineer, for time spent on the project at each classification of Engineer's personnel (may include contract staff classified at Engineer's discretion) plus reimbursable expenses including but not limited to printing, courier service, reproduction, and travel. The not to exceed amount to be paid for services associated with Appendix A.2 is $560,800. For informational purposes, a breakdown of the Engineer's estimated costs is included in APPENDIX B.2. The Owner intends to pay the Engineer and represents that funds are available, or funds will be borrowed as necessary to pay the Engineer.

If any payment due the Engineer under this agreement is not received within 60 days from date of invoice, the Engineer may elect to suspend services under this agreement without penalty or liquidated damages assessed by the Owner.

The Owner will pay the Engineer on a monthly basis, based upon statements submitted by the Engineer to the Owner indicating the estimated proportion of the work accomplished for Construction and Start-Up services and Application Engineering as identified in Appendices B.1 and B.2. Payments not received within 60 days of date invoice will be subject to a one percent monthly simple interest charge.

IN WITNESS WHEREOF, Owner and Engineer have executed this Amendment No. 2.

DATED this _____ day of _____, 2014.

Garver, LLC. (ENGINEER)

By: _____
Title: Michael Graves – Vice President

ATTEST:

STATE OF OKLAHOMA)
) SS
COUNTY OF CLEVELAND)

LISA NIPPER NOTARY PUBLIC 11002699 EXP. 3/22/15 STATE OF OKLAHOMA

This instrument was acknowledged before me on this 10 day of April 2014, by Michael J. Graves as Vice President of Garver, LLC.

Lisa Nipper
Notary Public

My Commission Expires/Commission Number:

03-22-15 / 11002699

Norman Utilities Authority (OWNER)
APPROVED as to form and legality this _____ day of _____, 2014.

_____
City Attorney

APPROVED by the Trustees of the Norman Utilities Authority this _____ day of _____, 2014.

ATTEST

By: _____
Title: Chairperson – N.U.A.

_____
Secretary – N.U.A.

APPENDIX A.1 – SCOPE OF SERVICES – CONSTRUCTION AND START-UP

2.1 General

The scope of services includes administration, construction observation, start-up and training, for ***Phase 2 Improvements to the Water Reclamation Facility in Norman, Oklahoma***.

2.2 Construction Administration and Management

During the construction phase of work, Garver will accomplish the following:

2.2.1 Project Administration, Coordination, and Documentation

- Provide for the preparation of monthly invoicing with percent completes by task and monthly progress report
- Prepare and distribute project correspondence
- Perform project coordination with project associated entities (i.e.: Owner, Contractor, utilities, government agencies, etc.)
- Coordinate project meetings, document and distribute minutes of project meetings
- Review contractor's progress schedule/pay applications and coordinate with Owner
- Review, and document material testing reports
- Prepare, review, coordinate, and distribute other project documentation items

2.2.2 Construction Administration

1) Assist with issuance of a Notice to Proceed Letter

2) Issue Conformed Construction documents, capturing all changes issued in addenda.

3) Prepare for and attend a Pre-Construction coordination meeting.

4) Prepare for and attend utilities coordination meeting.

5) Attend thirty (30) monthly progress/coordination meetings with the Owner/Contractor. An agenda will be provided at each meeting and minutes will be issued to all attendees for documentation of the meeting.

6) Evaluate and respond to construction material submittals and shop drawings. Corrections or comments made by Garver on the shop drawings during this review will not relieve Contractor from compliance with requirements of the drawings and specifications. The check will only be for review of conformance with the design concept of the project and compliance with the information given in the contract documents. The Contractor will be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe and satisfactory manner. Garver's review shall not constitute approval of safety precautions or constitute approval of construction means, methods, techniques, sequences, procedures, or assembly of various components. When certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, either directly or implied for a complete and workable system, Garver shall be entitled to rely upon such submittal or implied certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents.

7) Issue instructions to the Contractor on behalf of the Owner and issue necessary clarifications (respond to Requests for Information (RFIs)) regarding the construction contract documents.

8) Review the thirty (30) monthly Contractor's progress payment requests based on the actual quantities of contract items completed and accepted by reviewer(s), and will make a recommendation to the Owner regarding payment. Garver's recommendation for payment shall not be a representation that Garver has made exhaustive or continuous inspections to (1) check the quality or exact quantities of the Work; (2) to review billings from Subcontractors and material suppliers to substantiate the Contractor's right to payment; or (3) to ascertain how the Contractor has used money previously paid to the Contractor.

9) Maintain a set of working drawings and prepare and furnish record drawings.

10) Provide up to five (5) site visits by survey crew for field checking quantities, contractor's layout, etc.

11) When authorized by the Owner, prepare change orders for changes in the work from the original construction contract documents. If redesign or substantial engineering or surveying is required in the preparation of these change order documents, the Owner will pay Garver an additional fee to be agreed upon by the Owner and Garver.

12) Participate in two (2) substantial completion inspections, one (1) final project inspection, and prepare punch lists.

13) Review final project closing documents, and submit final pay request.

2.3 Construction Observation

1) Participation by lead site representatives in the preconstruction meeting.

2) Provide full-time resident construction observation services for the thirty (30) month construction contract performance time. The proposed fee is based on two (2) full-time observers working approximately eight (8) hours per day, five (5) days per week, during the thirty (30) month construction contract performance time. Services also include an allowance for one (1) additional on-call construction observer working up to five (5) days per week for no longer than (18) months. If the construction time extends beyond the time established in this agreement or if the Owner wishes to increase the time or frequency of the observation, the Owner will pay Garver an additional fee agreed to by the Owner and Garver.

3) Construction observation services will be provided by Garver's Resident Project Representatives, who will provide or accomplish the following:

- Consult and advise the Owner with significant changes/issues during the construction period.
- Coordinate with the firm providing construction materials quality assurance testing under separate contract with the Owner.
- Maintain a file with lists of quantities incorporated into the work, test reports, certifications, shop drawings and submittals, and other appropriate information.
- Maintain a project diary with information pertinent to each site visit.

In performing construction observation services, Garver will endeavor to protect the Owner against defects and deficiencies in the work of the Contractor(s): but Garver cannot guarantee the performance of the Contractor(s); or be responsible for the actual supervision of construction operations; or for the safety measures that the Contractor(s) takes/should take. However, if at any time during construction Garver observes that the Contractor's work does not comply with the construction contract documents, Garver will notify the Contractor of such non-compliance and instruct him to correct the deficiency and/or stop work, as appropriate for the situation. Garver will also record the

observance, the discussion, and the actions taken. If the Contractor continues without satisfactory corrective action, Garver will notify the Owner immediately, so that appropriate action under the Owner's contract with the Contractor can be taken.

The proposed fee for Construction Phase Services is based on thirty (30) month construction contract performance time. If the construction time extends beyond the time established in this agreement, and the Owner wants Garver to continue the applicable Construction Phase Services, the Owner will pay Garver an additional fee agreed to by the Owner and Garver.

2.4 Equipment Start-Up/Training

2.4.1 *Equipment Start-Up Training – Classroom Instruction*: Garver will provide five (5) man-days of classroom training to Owner's operating staff. Training will describe the principles of operation of each treatment process. Topics will include treatment purpose, design criteria, operational control, typical operation, electrical concepts, and example operator calculations. The training is not intended to convey biological treatment concepts. Classroom training will be provided for the following processes:

1) Screenings Removal
2) Primary Flow Control
3) Activated Sludge Aeration
4) Secondary Clarification with Sludge Rings and Launderer Covers
5) Sludge Management and Solids Handling
6) Disinfection
7) Odor Control
8) SCADA Operation and Monitoring
9) Back-Up Power Supply

2.4.2 *Classroom Training Manual*: Garver will provide bound copies of classroom training material, including presentation slides, example process calculations, and reference materials.

2.4.3 *Training DVDs*: Garver will provide videos of the training sessions on DVD to Owner.

2.4.4 *Onsite Start-Up Training*

Garver will provide ten (10) man-days of on-site operational demonstrations for the WTP unit processes, including the raw water conveyance, pre-treatment, clarification, filtration, disinfection, high service pumping, and residuals handling. The on-site demonstrations will provide step-by-step instruction, including how to navigate control panels and human machine interface screens. Operators will be provided with a training manual and video of the training sessions. On-site demonstrations will include the following facilities:

No.	Facility
10)	Headworks / Screenings Removal • Control of screens and conveyors • Equipment sequencing • Sampling raw water • Daily maintenance tasks • Weekly maintenance tasks
15)	Influent flow split and measurement • Controlling flow • Stopping flow • Cumulative flow measurement • Daily maintenance tasks

- Weekly maintenance tasks

20) Primary Clarification
- Preparing the system to put in service
- Shutting down a clarifier
- Flow distribution
- Draining unit for maintenance
- Daily maintenance tasks
- Weekly maintenance tasks

25) Activated Sludge Aeration
- Preparing the system to put in service
- Starting the blowers
- Blower sequencing
- Shutting down a basin
- Flow distribution
- Draining a unit for maintenance
- Daily maintenance tasks
- Weekly maintenance tasks

35) Secondary Clarification
- Preparing the system to put in service
- Shutting down a clarifier
- Flow distribution
- Draining unit for maintenance
- Accessing weirs with new covers
- Daily maintenance tasks
- Weekly maintenance tasks

40) RAS/WAS Pumping Facility
- Preparing the system to put in service
- Starting the pumps
- Controlling the flow
- Stopping the pumps
- Daily maintenance tasks
- Weekly maintenance tasks

45) UV Disinfection/Post Aeration
- Preparing the system to put in service
- Setting the UV dose
- Blower operation
- Channel designation
- Daily maintenance tasks
- Weekly maintenance tasks

55) WAS Thickening / Sludge Dewatering
- Preparing the systems to put in service
- Starting the centrifuges
- Stopping the centrifuges
- New pump control
- Polymer feed operation
- Valve operation and selection
- Flow monitoring

- Sampling
- Daily maintenance tasks
- Weekly maintenance tasks

60) Sludge Blending
- Preparing the system to put in service
- Operation of pumps/mixer
- Valve selection/control
- Daily maintenance tasks
- Weekly maintenance tasks

70) Anaerobic Digestion
- New control parameters
- Daily maintenance tasks
- Weekly maintenance tasks

75) Odor Control
- Preparing the system to put in service
- Starting/stopping equipment
- Media replacement
- Access to covered areas
- Daily maintenance tasks
- Weekly maintenance tasks

90) Back-Up Power
- Preparing the system to put in service
- Starting/stopping equipment
- Controls and Instrumentation
- Daily maintenance tasks
- Weekly maintenance tasks

2.5 Operations and Maintenance Manual

2.5.1 *Draft Operations and Maintenance (O&M) Manual*: Garver will prepare an O&M Manual for the Norman Water Reclamation Facility. The O&M Manual will provide a detailed description of the treatment, control, and conveyance equipment; standard operating procedures; necessary maintenance and schedule; a trouble-shooting guide for typical problems; and operator safety procedures. Specific sections of the O&M Manual will be linked (embedded) within the SCADA's Human Machine Interface (HMI) for easy access to the plant operator. Garver will submit a draft version of the manual for review by Owner staff. Garver will incorporate comments as appropriate. O&M Manual will include the following:

1) Introduction with User Guide and References

2) ODEQ Permits and Standards
- Monitoring requirements
- Water quality standards
- Laboratory requirements
- Maintenance requirements
- Staffing requirements
- Recordkeeping requirements

3) Treatment Plant Overview
- Overview of each process

- Design criteria
- Equipment description
- Standard operating procedures
- Trouble shooting guide
- Safety guidelines
- Maintenance schedule

4) Emergency Operating Conditions and Response Plans
   - Power failure
   - Flooding
   - Contamination of finished water
   - Process failure
   - Bypassing
   - Personnel injury
   - Response plan
   - Emergency readiness program
   - Emergency contact information

5) Maintenance
   - Equipment record system
   - Planning and scheduling
   - Maintenance personnel
   - Housekeeping
   - Special tools and equipment
   - Warranty provisions – Outline of the warranty for each piece of equipment
   - Work order system

6) Utilities
   - Electrical
   - Gas
   - Water
   - Phone
   - Cable

7) Electrical System Overview
   - Power distribution system
   - Backup generators
   - Control and monitoring system
   - Equipment
   - Safety guidelines

8) Reference and Guidance Documents
   - Glossary of terms
   - Calculations/Conversions
   - Process and instrumentation diagrams (P&IDs)
   - Hydraulic profile
   - Chemical feed tables
   - Operating log
   - Sample MOR
   - List of spares
   - Certificates of installation and start-up
   - Maintenance forms
   - Graphical HMI

9) Draft Manual Production

2.5.2 *Owner Workshop*: Garver will present the Draft O&M Manual to Owner, respond to comments and make revisions to the O&M Manual as required.

2.5.3 *Final O&M Manual*: Garver will submit the final O&M Manual to Owner.

2.6 Project Deliverables

The following will be submitted to the Owner by Garver or others as indicated by Garver:

1) Three (3) copies of the Draft O&M Manual to Owner.
2) Five (5) copies of the Final O&M Manual to Owner.
3) Five (5) copies of the Training Manual to Owner.
4) Three (3) DVDs of Classroom Training Sessions to Owner.
5) Three (3) DVDs of Field Demonstration Sessions to Owner.
6) One copy of the revised Final Plans to each potentially affected utility company.
7) Three copies of the Final Plans and Specifications to the Contractor.
8) Two copies of approved shop drawings/submittals from the Contractor.
9) One hard copy set of Record Drawings.
10) Electronic files as requested.

2.7 Extra Work

The following items are not included under this agreement but will be considered as extra work:

1) Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
2) Submittals or deliverables in addition to those listed herein.
3) Pavement Design beyond that furnished in the Geotechnical Report.
4) Design of any utilities relocation other than water and sewer.
5) Preparation of a Storm Water Pollution Prevention Plan (SWPPP). The construction contract documents will require the Contractor to prepare, maintain, and submit a SWPPP to DEQ. Construction materials testing.
6) Environmental Handling and Documentation, including wetlands identification or mitigation plans or other work related to environmentally or historically (culturally) significant items.
7) Coordination with FEMA and preparation/submittal of a CLOMR and/or LOMR.
8) Warranty Services
9) Application Engineering and SCADA development

Extra Work will be as directed by the Owner in writing for an additional fee as agreed upon by the Owner and Garver.

2.8 Schedule

Garver shall begin work under this Agreement within ten (10) days of a Notice to Proceed and shall complete the work generally in accordance with the schedule below:

Section	Phase Description	Start	Complete
2.4	Classroom Start-Up Training	Prior to Contractor placing process in service.	NA
2.5	Onsite Start-Up Training	Once Contractor has successfully placed process into service	NA
2.6	Operations and Maintenance Manual	Ongoing	Prior to project final acceptance

APPENDIX B.1

NORMAN UTILITIES AUTHORITY
NORMAN WRF PHASE 2 IMPROVEMENTS
CONSTRUCTION and START-UP SERVICES
FEE SUMMARY

	Services	Estimated Fees
2.2	Construction Administration	$2,165,100
2.3	Construction Observation	$2,075,700
2.3A	Construction Observation Allowance	$297,500
2.4	Equipment Start-Up/Training	$111,600
2.5	O&M Manual	$137,200
	Total	**$4,787,100**

APPENDIX A.2 – SCOPE OF SERVICES – APPLICATION ENGINEERING

2.1 General

The scope of services includes Application Engineering and support services during construction of ***Phase 2 Improvements to the Water Reclamation Facility in Norman, Oklahoma***. Improvements will consist primarily of various SCADA system upgrades, programming of the main plant programmable logic controller (PLC), and visualization graphics to support the existing SCADA system and Phase 2 Improvements. Garver will develop new PLC programming and SCADA graphic screens as required to implement plant wide integration of new and existing process systems as defined in the Phase 2 construction contract documents.

The level of effort for the Application Engineering services will vary depending on required and/or Owner desired system set-up, display configurations, control function testing, Owner network settings and security requirements, startup, and post-acceptance support as well as hardware, panel assembly, field installation, etc. provided by others. As such, the Application Engineering services provided in this agreement, including the level of effort and associated cost, is only an estimate. If required, Owner and Garver agree to provide additional efforts, with reimbursement from the Owner as agreed to in writing by Owner and Garver, for modifications or enhancements beyond programming specified below or due to circumstances beyond the control of Garver.

2.2 Application Engineering

The essential elements used to develop the Application Engineering services provided in this amendment are as follows:

2.2.1 Existing SCADA

Owner's existing SCADA software components, from the GE Intelligent Platforms Proficy iFix family, will be upgraded from the existing version 5.1 to the latest version (5.8 in early 2014). Owner's existing Global Care Complete contract with GE Intelligent Platforms and WIN911 support agreement must be current and maintained throughout the project, thereby making Owner eligible for no-cost software license updates. Garver will install WIN911 updates that become available to the Owner during the construction period. Garver will install any GE approved Microsoft Windows patches to the existing SCADA servers and client workstations that become available during the execution period under this agreement.

The Owner will be responsible for all existing SCADA system hardware maintenance or replacements during the Phase 2 Improvements construction period. It is anticipated that the existing server hardware will continue to be utilized. The Owner will be responsible for any server operating system upgrades.

2.2.2 Screen Modifications

Garver will develop new modern graphic screens to replace Owner's existing legacy WRF SCADA graphic screens. The new screens will be designed to support Owner's high resolution computer monitors with utilization of available CAD-rendered three dimensional graphics from the Phase 2 construction contract documents consistent with new Phase 2 graphics. Anticipated newly developed graphic screens include the following:

1. Replacement of Existing:

Plant Overview	Sub-Overview 1
Sub-Overview 2	System Architecture

Equipment Report 1
Equipment Report 2
Equipment Report 3
Equipment Report 4
West Side Lift Station
Flow Totals 1
Flow Totals 2
Main Control Building Truck Scale
~~Cogeneration System~~
Primary Clarifiers 1 & 2
Screening Facility
Primary Clarifiers 3 & 4
Sludge Thickener
Digester Systems 1 & 2
Digester Systems 3 & 4
O.U. Pump Station
Grit Removal Facility
~~North Rotating Biological Contactors~~
~~South Rotating Biological Contactors~~
Secondary Clarifiers 1 & 2
Secondary Clarifiers 3 & 4
NPW Station
Centrifuge Systems
Aeration Basin Systems
Storm Holding Pond
Waste Sludge and Scum Pump Station
VFD Motor Control Setup
Bar Screen Motor Control Setup
Motor Control Setup
Screenings Conveyor Setup
Bar Screen Bypass Gate Setup
Westside Lift Station Control Setup
Alarm Limits
Pump Control Setup
Slide Gate Control Setup
RAS/WAS Control Strategy
Grit Removal Unit and Slide Gate Setup
Grit Unit Pumps Control Setup
Grit Facility Bypass Control Setup
Grit Removal Unit Setup
Sec. Clarifier 1 & 2 Flow Control
Sec. Clarifier 3 & 4 Flow Control
TWAS Feed Control

2. New Phase 2:

Headworks 1 of 2
Headworks 2 of 2
Influent Flow and Splitter Box
O & M Manuals
Turbo Blowers
New Blower System Monitoring 1 of 2
New Blower System Monitoring 2 of 2
Aeration Basins 4 – 6
Generator Monitoring 1 – 5
UV Disinfection
RAS/WAS Pump Station 1 of 2
RAW/WAS Pump Station 2 of 2
Post Aeration 1 of 2
Post Aeration 2 of 2
UV Disinfection Facility General
Centrifuge Thickening System
New Polymer Feed System
Sludge Blending
Anaerobic Digesters
Odor Control 1 of 3
Odor Control 2 of 3
Odor Control 3 of 3

Population of screens with programming code and process tags will occur in the final programming phase. Garver will install Operations and Maintenance information, in Adobe PDF format, on the redundant SCADA servers with links for viewing on screen.

The Phase 2 Improvements construction contract includes various package systems with self-contained control systems. The specifications for those package systems define various external interface requirements, including a software interface for exchanging data with the plant SCADA system. Under this agreement, Garver will include support for those data exchanges in SCADA graphics and PLC programming.

2.2.3 Workshops

Garver will conduct two (2) workshops with Owner personnel to develop general style and navigational criteria for Phase 2 and replacement graphic screens:

1. Preliminary workshop shall review Owner expectations and develop general strategy.

2. 40% workshop shall introduce majority of new graphic screens to the Owner and generate feedback for use in the final programming phase.

2.2.4 PLC Programming

The PLC, Input/Output (I/O), monitoring and control features will be developed for the requirements shown in the Phase 2 construction contract documents. More specifically, programming will be developed to support the PLC I/O list and control descriptions in specification section 26 90 40, as it pertains to roles of the main plant PLC (PLC1A – PLC1B redundant pair). Any control programming beyond that listed in specification section 26 90 40 will be considered additional work.

Garver will do programming to consolidate functionality of one (1) of Owner's existing legacy PLCs into the main plant PLC as follows:

1. One (1) Allen-Bradley MicroLogix PLC existing in the RIO7 cabinet will be eliminated.

2. Physical changes such as extending I/O wiring or demolition will be done by the contractor under the Phase 2 construction contract per specification section 26 90 20, PROGRAMMABLE LOGIC CONTROLLERS.

2.2.5 Clarifications

1. Owner's existing SCADA and PLC redundancy capabilities will be maintained.

2. PLC hardware, panels, assembly, network, and installation will be provided by the Contractor, as required in the Phase 2 construction contract specification section 26 90 20 PROGRAMMABLE LOGIC CONTROLLERS.

3. Variable Frequency Drive (VFD) and instrumentation calibrations and commissioning will be provided by the Contractor, as required in the Phase 2 construction contract specification sections 26 29 24 VARIABLE FREQUENCY DRIVES 0.50 – 50 HORSEPOWER, 26 29 25 VARIABLE FREQUENCY DRIVES 60 – 500 HORSEPOWER, and 29 90 10 PROCESS AND ANALYTICAL INSTRUMENTS.

4. The PLC/supervisory communications will be over a fiber/Ethernet network installed by the Contractor as required in the Phase 2 construction contract specification section 26 90 30 SCADA COMPUTER SYSTEM AND NETWORK and drawing 95-SC-101, SCADA ARCHITECTURE.

5. There are several package systems supplied as part of the Phase 2 construction contract. The PLC and Operator Interface Terminal (OIT) for these systems will be furnished and programmed by the package system supplier as specified in the relevant construction contract specifications.

6. Software programming and configuration will initially be performed at Garver's office(s).

7. Garver will attend Control Panel Readiness Testing sessions as defined in the phase 2 construction contract specification section 26 90 00 GENERAL INSTRUMENTATION AND CONTROL.

8. The prime contractor for Phase 2 Improvements will be responsible for coordination and scheduling of the integration work during construction.

9. The Owner will be responsible for maintaining and purchasing required software licenses; Garver will install the required software and any updates issued during the execution period of this agreement.

10. Consolidation of the GE-Fanuc PLC with the main plant PLC for interface to the OU golf

course requires additional coordination with OU. As such this task is considered as extra work.

2.3 Project Deliverables

The following will be submitted to the Owner, or others as indicated, by Garver:

1. One (1) documentation set, including programming backup files on compact disc

2.4 Completion of Work

Work done by the Engineer under this agreement, other than the above mentioned post-startup modifications, enhancements, or troubleshooting (10 man-days), shall be considered complete upon the successful conclusion of the Final Acceptance Test defined in the Phase 2 construction contract specification section 26-90-00 GENERAL INSTRUMENTATION AND CONTROL.

2.5 Extra Work

The following items are not included under this agreement but will be considered as extra work:

1. Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
2. Submittals or deliverables in addition to those listed herein.
3. Consolidation/Integration of PLC tied to the OU golf course.
4. Formal SCADA system training/SCADA O&M Manuals.
5. Replacement of existing SCADA hardware.
6. Programming of any devices other than the main PLC and SCADA computers.
7. Security improvements.
8. Post-startup modifications, enhancements, or troubleshooting beyond the estimated 10 man-days.
9. Remote Access or remote notifications.
10. Any items requested by the Owner after final acceptance of Contractor's Work.
11. Additional programming required as a result of IT upgrades made by the Owner.
12. Note that the estimated fee for Application Engineering may be adjusted, if required, to reflect any changes in scope that result from workshops.

Extra Work will be as directed by the Owner in writing for an additional fee as agreed upon by the Owner and Garver.

2.6 Schedule

Garver shall begin work under this Agreement within ten (10) days of a Notice to Proceed and shall complete the work in accordance with the contractor's schedule.

APPENDIX B.2

NORMAN UTILITIES AUTHORITY
NORMAN WRF PHASE 2 IMPROVEMENTS
APPLICATION ENGINEERING
FEE SUMMARY

	Services	Estimated Fees
2.2	Application Engineering	$560,800
	Total	**$560,800**