

Ordinance No. 10- 27

**AN ORDINANCE APPROVING AN AGREEMENT WITH ADVANCE  
AUTOMATION AND CONTROLS, INC.**

*BE IT ORDAINED BY THE SOUTH SANGAMON WATER COMMISSION, AS  
FOLLOWS:*

**SECTION 1:** That Integration Services Agreement between Advance  
Automation and Controls, Inc. and the South Sangamon Water Commission, a copy of  
which is attached hereto, is hereby approved.

**SECTION 2:** The Chairman of the Commission is authorized and directed  
to approve said agreement on behalf of the Commission, and the proper officers of the  
Commission are authorized and directed to carry out the agreement by its terms.

**SECTION 3:** This Ordinance is effective immediately.

PASSED this 28<sup>th</sup> day of July, 2010.

  
CHAIRMAN

ATTEST:

  
Village Clerk

AYES: Hall, Pfeffer

NAYS: none

PASSED: 7/28/10

APPROVED: 7/28/10

ABSENT: McCord



Advanced Automation & Controls, Inc.

**CONTRACT PROPOSAL  
FOR:**

South Sangamon Water Commission  
Del McCord  
PO Box 83  
New Berlin, IL 62670-0083

**Integration Services for New Water Plant  
Contract "G"**

Job No.: SSWC-100023

June 23, 2010

Prepared by Thomas C. Otto, President

**AGREEMENT BETWEEN  
ADVANCED AUTOMATION & CONTROLS, INC.  
AND  
SOUTH SANGAMON WATER COMMISSION  
FOR  
SCADA AND CONTROLS INTEGRATION SERVICES**

June 23, 2010

Job No.: SSWC-100023

This Agreement is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2010 by and between Advanced Automation & Controls, Inc., hereinafter referred to as AAC and the South Sangamon Water Commission hereinafter referred to as the CLIENT.

**PROJECT UNDERSTANDING**

AAC will provide the CLIENT with Instrumentation, Controls and SCADA for the CLIENT's new treatment plant. AAC will provide all facets of the required system under this contract. Services include, but may not be limited to:

- Instrumentation Procurement (Non Package Equipment)
- Control Panel Procurement, Design, Fabrication and Integration
- PLC Programming Services for all "Non" Packaged equipment
- SCADA System Design, Programming and Integration
- System Start-up and Commissioning Services (As required)
- Process Control System Inspection and Verification
- SCADA interconnection Integration between Chatham and the New Plant. (Via Wireless Communications)
- Technical Support for the various process control system within the new plant.
- Integration of a new SCADA control panel at the New Berlin booster station.
- Integration of level transmitters located at both the New Berlin Water Towers 1 & 2.
- Communications between the New Berlin Booster Station and new Water Plant (Via Wireless Communications)

**SCOPE OF SERVICES**

AAC will provide the following services under this contract for the purposes of integrating the CLIENT's new water treatment plant:

- SCADA system software design and integration. Insure that the system is monitoring the required point on the system accurately and effectively. Design includes but is not limited to screen development, software development and communication network support.
- Programmable Logic Controller (PLC) programming. These services include programming all the PLC's as specified with the project plans. These PLC's DO NOT include the programming of "Vender Supplied" systems that may have a separate control PLC. AAC will assure that the correct communications is available on the Vendor PLC's so that communications into the overall system can be accomplished. PLC and SCADA hardware maintenance and support.
- Control Panel procurement, design and integration services. AAC will provide the required control panels for the water plant operations. The design and layout of the panels will meet the operational criteria required for the new plant. This criteria is based off of the engineers design and specifications.
- Field Instrumentation procurement and support. All end devices provided by AAC will be provided to the electrical contractor for installation. AAC will provide technical support as well as calibration / setup of each device for the new water plant.
- SCADA computer system and network integration services will be provided. These services include, but may not be limited to procurement of SCADA computers and equipment, database development, networking layout, screen development, reporting, alarming, radio communications and over system integration.
- On site SCADA / Controls inspection and verification. AAC will provide the CLIENT inspection and review of the components and/or system installed for process control. Since most processes link into the plant SCADA architecture, it is vitally important that all components and system within the plant function properly as an "overall" control system.
- Integration of the New Berlin SCADA system. System will be integrated as designed by Greene & Bradford, Inc. Our understanding of the system is a new booster station, along with two water towers, will be integrated together to operate the New Berlin area for the SSWC. Programming service requirements at the booster station will be determined once the skid manufacturer provides the submittals for review. At this time, it is not clear who will be providing the "CONTROL" programming for the skid. At a minimum, AAC will provide the SCADA panel to be installed at the skid location. The intent of the SCADA panel is to interface with the two existing water towers and control based off of their level statuses. The skid mounted SCADA panel will be designed to communicate back to the SSWC water plant "Master" PLC. A radio path study will need to be completed to assure solid communications between the locations.

Notes:

- NOT included within this contract at this time is the addition of the wells into the main plant. Once the engineer completes the design and specifications for this portion of the project, AAC will provide a cost estimate to integrate the sites into the system.
- AAC is NOT responsible for any electrical services such as wire, wiring, conduit, electrical equipment, installation of before mentioned. This is the responsibility of the

contracted electrician. AAC will work very closely with the electrician to help assure that tasks are completed and installed properly per the system design and operational requirements.

- Included in our services, are the field hardware devices, material and SCADA equipment as listed below. All other required field hardware and material will be included in vendor supplied system packages. AAC will review Vendor packages for system compliance to assure compatibility. See Below.

#### Material Listings to be Provided

##### 1.) FIELD END DEVICES

#### Electromagnetic Flow Element and Transmitter

100-FE/FIT-1241 High Service Flow Meter

100-FE/FIT-1242 Plant Flow Meter

#### Differential Pressure Transmitter

100-FIT-0800 Softener Influent Flow Meter

110-FIT-0300 Raw Water Flow Meter

#### Pressure Indicating Transmitter

100-PIT-0421 Low Service Pump No. 1 Discharge

100-PIT-0422 Low Service Pump No. 2 Discharge

100-PIT-0423 Low Service Pump No. 3 Discharge

100-PIT-0440 Low Service Pump Discharge Header

100-PIT-1230 High Service Pump Discharge Header

#### Turbidity Analyzer / Transmitter

100-AE/AIT – 1252 High Service

100-AE/AIT – 0451 Low Service

Chlorine Analyzer / Transmitter

100-AE/AIT – 1110 Secondary Effluent

100-AE/AIT – 1251 High Service

pH Analyzer / Transmitter

100-AE/AIT – 0453

Low Service Discharge pH

100-AE/AIT – 0512 Membrane Filter Discharge pH

ORP Analyzer / Transmitter

100-AE/AIT – 0452 Low Service Water ORP

Conductivity Analyzer / Transmitter

100-AE/AIT – 0511 New Filter Conductivity

Pressure Switch, Fixed Differential

PDSH-0621 Coalescing Filter No. 1

PDSH-0622 Coalescing Filter No. 2

Venturi Tube Insert (Flow Element)

100-FE-0800 Softener Influent Flow Element

110-FE-0300 Raw Water Flow Element

Float Level Switch

110-LSHH-0300 Detention Tank

110-LSLL-0300 Detention Tank

120-LSHH-1120 Clear Well

120-LSLL-1120 Clear Well

130-LSHH-1300	High Chloride Tank
130-LSLL-1300	High Chloride Tank
205-LSHH-1410	Lagoon Influent Pump Station
205-LSLL-1410	Lagoon Influent Pump Station
205-LSH-1420	Valve Vault No. 1
140-LSH-1431	Red Water Lagoon No. 1
140-LSH-1432	Red Water Lagoon No. 2
210-LSHH-1450	Lagoon Effluent Pump Station
210-LSLL-1450	Lagoon Effluent Pump Station
210-LSH-1460	Valve Vault No. 2

Vertical Switch Level Float

100-LSH-1511

Sodium Hypochlorite Flood

100-LSH-1611	Aqua Ammonia Flood
100-LSH-1711	Hydrofluosilicic Acid Flood
100-LSH-1811	Polyphosphate Flood
100-LSH-1911	Caustic Containment Flood
100-LSH-2011	Citric Containment Flood
100-LSH-2111	SBS Containment Flood

Submersible Level Transmitter

110-LE/LIT-0300	Detention Tank
120-LE/LIT-1120	Clear Well

205-LE/LIT-1410 Lagoon Influent Pump Station

210-LE/LIT-1450 Lagoon Effluent Pump Station

Microwave Radar Level Element & Transmitter

130-LE/LIT-1300 High Chloride Tank

Pushbutton Control Stations

110-CS-0301 Aerator No. 1

110-CS-0302 Aerator No. 2

100-CS-0401 Low Service Pump No. 1

100-CS-0402 Low Service Pump No. 2

100-CS-0403 Low Service Pump No. 3

100-CS-0601 Backwash Pump No. 1

100-CS-0602 Backwash Pump No. 2

100-CS-1041 Brine Pump No. 1

100-CS-1042 Brine Pump No. 2

100-CS-1201 High Service Pump No. 1

100-CS-1202 High Service Pump No. 2

100-CS-1203 High Service Pump No. 3

210-CS-1441 Lagoon Effluent Pump No. 1

210-CS-1442 Lagoon Effluent Pump No. 2

New Berlin System

Water Tower No. 1 Level Transmitter

Water Tower No. 2 Level Transmitter



## 2.) LOCAL CONTROL AND PLC PANELS

The following control panels, as listed below will be provided, including all required hardware, design services and interconnecting wiring diagrams, manufacturing, programming and SCADA integration, Customer factory acceptance test, installation supervision and field startup will be provided by AAC. All other control panels not listed in this document will be provided as Vendor supplied packages, to be reviewed by AAC to ensure a complete and correctly integrated SCADA control system.

### Control Panels provided by AAC are as follows:

Balance of Plant PLC Panel	100-PLC-1
High Chloride Control Panel	130-LCP-1
Lagoon Pump Control Panel	205-LCP-1
New Berlin Booster Control Panel	NB-MCP-1
Water Tower #1 Control Panel	NB-LCP-1
Water Tower #2 Control Panel	NB-LCP-2

## 3.) COMPUTERS AND HMI (SCADA) SOFTWARE

AAC will provide, configure and integrate a complete SCADA workstation including all required computer hardware, iFix, unlimited I/O HMI software, WIN911 alarming software, and XLReporter software. All required SCADA displays for proper plant operation will be configured, tested and field integrated by AAC.

Note: A InTouch HMI software package and associated computer hardware is to be provided by others (EMC). An Ethernet connection will be required between the two SCADA computers to share data.

### FEE FOR PROPOSED SERVICES

Compensation will be based on a time and material basis. Work will be charged to the CLIENT using the below listed rate schedule. Monthly payments will be made by the CLIENT for services performed by AAC for the month. With each invoice sent to the CLIENT, AAC will provide a service detail for the work completed under the invoice. At this time, Instrumentation, Controls and SCADA cost estimated was provided to the CLIENT on 2/22/10 for the I&C services required for this project as specified. The cost estimate for these services is \$553,850.00.

**Note:** The cost estimate is based on the specifications and drawings as designed by Donohue and Associates and Greene & Bradford, Inc.. The number is our professional estimate to provide the required I&C and SCADA for the SSWC. Based on actual integration, design, inspection and material procurement, AAC's intent is to provide the services at the most cost efficient means as possible. As we have demonstrated on past services and projects with the Village of Chatham, our primary focus is the CLIENT's "overall" system and budget. We will assure that all the services and components that will be integrated into the new system, will function on an "open architecture" and will be uniform throughout the system. If changes to the system occur or modifications arise during the project, AAC will provide the Commission with detailed information so that they have a solid understanding of how the system will be impacted. Again, our goal is to provide the most efficient and cost effective system.

HOURLY RATES

Principal (Vice President) .....	\$125.00/hour
Senior Applications Engineer Straight Time (8-4 M-F) .....	\$110.00/hour
Senior Application Engineer Overtime (Before 8, After 4 M-F).....	\$165.00/hour
Senior Application Engineer Premium (Holidays, Sundays, Off-Hour Demands).....	\$220.00/hour
Control Systems Technician .....	\$80.00/hour
Control Systems Technician Overtime (Before 8, After 4 M-F) .....	\$125.00/hour
Control Systems Technician Premium (Holidays, Sundays, Off-Hour Demands).....	\$160.00/hour
Administrative.....	\$50.00/hour
Expenses:	
Straight Time Phone Support (8-4 M-F).....	\$45.00/hour
Off-Time Phone Support (Before 8, After 4 M-F) .....	\$90.00/hour
Travel Time-Straight Time (8-4 M-F) .....	\$50.00/hour
Mailing/Shipping .....	Cost
Mileage .....	\$.50/mile

Project Materials (REIM) ..... Cost + 15%  
Other Expenses (lodging, transportation, meals)..... Cost

### General Terms and Conditions

#### STATEMENT ON WORKLOAD AND PROJECT COMPLETION

AAC is proud of our reputation for excellent service to our CLIENT's. Staff members are assigned to each CLIENT project and are responsible to see the project through to completion.

With an experienced professional staff, our CLIENT's can be assured that each project is afforded the attention required. Your project is just as important to us as it is to you.

At this time, there are no major projects in-house or backlogged for our company which would interfere with our ability to service the CLIENT. A team will be available full-time for the duration of the time required to complete the project. The expertise of our Application Engineers will be afforded to the project as necessary and all assigned staff will support the project for the CLIENT with the excellent level of service that has made AAC the choice of many municipalities.

#### INDEMNITY, LIABILITY AND INSURANCE

AAC hereby agrees to and shall hold CLIENT harmless from any liability or damages for property damage or bodily injury, including death, which may arise from AAC, negligent operations under this Agreement, to the proportion such negligence contributed to the damages, injury or loss. CLIENT agrees to and shall hold AAC harmless from any liability or damages for property damage or bodily injury, including death, which may arise from all causes of any kind other than AAC, negligence.

Each party shall obtain and maintain insurance coverage of a type and in the amounts described below. Each party shall name the other party as an additional insured on insurance policies covering the project and shall provide the other party with satisfactory proof of insurance.

It is understood and agreed that, in seeking the services of AAC under this Agreement, CLIENT is requesting AAC to undertake uninsurable obligations for CLIENT's benefit involving the presence or potential presence of hazardous substances. Therefore, CLIENT agrees to hold harmless, indemnify and defend AAC from and against any and all claims, losses, damages, liability and costs including but not limited to, costs of defense, arising out of or in any way connected with the presence, discharge, release or escape of contaminants of any kind, accepting only such liability as may arise out of the sole negligence of AAC in the performance of services under this Agreement.

AAC shall maintain:

1. Statutory worker's compensation for all of AAC employees at the project as required by the State of Illinois.
2. Comprehensive general liability insurance in an amount not less than \$1,000,000.00 each occurrence and \$1,000,000.00 aggregate.
3. AAC will maintain \$1,000,000.00 of professional liability insurance.
4. Provide Certificates of Insurance to CLIENT naming CLIENT as additional insured.

CLIENT shall maintain:

1. Property insurance and comprehensive general liability insurance.

#### CERTIFICATE OF MERIT

The CLIENT shall make no claim for professional negligence, either directly or in a third party claim, against AAC unless the CLIENT has first provided AAC with a written certification executed by an independent design professional currently practicing in the same discipline as AAC and licensed in the State of Illinois. This certification shall: a) contain the name and license number of the certifier; b) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of a Design Professional performing professional services under similar circumstances; and c) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to AAC not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any arbitration or judicial proceeding.

#### TERMINATION OF AGREEMENT

Either party may terminate this Agreement for material breach of the Agreement by the other party after giving written notice of breach. Excepting breaches by CLIENT for non-payment of AAC's invoices, neither party shall terminate this Agreement without giving the other party thirty (30) days written notice of intent to terminate.

#### OUTSIDE CONSULTANTS

AAC is not responsible for accuracy of any plans, surveys or information of any type including electronic media prepared by any other consultants, etc. provided to AAC for use in preparation of plans.

AAC is not responsible for accuracy of topographic surveys provided by others. A field check of a topographic survey provided by others will not be done under this contract unless indicated in the Scope of Work.

#### ATTORNEY FEES

In the event of any litigation arising from or related to the services provided under this AGREEMENT, the prevailing party will be entitled to recovery of all reasonable costs incurred including staff time, court costs, attorneys' fees and other related expenses.

#### STANDARD OF CARE

Services provided by AAC under this AGREEMENT will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

#### CLIENTSHIP OF FINAL DOCUMENTATION AND SYSTEM CONFIGURATION

All documents including those documents on electronic media prepared by AAC will be forwarded to the end user upon acceptance. AAC will not be responsible for any software licensing required to complete the project. All software licenses and hardware required to complete application verifications will be obtained or provided by the CLIENT.

#### REUSE OF DOCUMENTS

All project documents including, but not limited to, software, plans and specifications furnished by AAC under this project are intended for use on this project only. Any reuse, without specific written verification or adoption by AAC, shall be at the CLIENT'S sole risk, and CLIENT shall indemnify and hold harmless AAC from all claims, damages and expenses including attorney's fees arising out of or resulting there from.

#### FAILURE TO ABIDE BY DESIGN DOCUMENTS OR TO OBTAIN GUIDANCE

The CLIENT agrees that it would be unfair to hold AAC liable for problems that might occur should AAC'S plans, specifications or design intents not be followed, or for problems resulting from others' failure to obtain and/or follow AAC'S guidance with respect to any errors, omissions, inconsistencies, ambiguities or conflicts which are detected or alleged to exist in or as a consequence of implementing AAC'S plans, specifications or other instruments of service. Accordingly, the CLIENT waives any claim against AAC and agrees to defend, indemnify and hold AAC harmless from any claim for injury or losses that result from failure to follow AAC'S plans, specifications or design intent, or for failure to obtain and/or follow AAC'S guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities or conflicts contained within or arising as a result of implementing AAC'S plans, specifications or other instruments of services. The CLIENT also agrees to compensate AAC for any time spent and expenses incurred by AAC'S prevailing fee schedule and expense reimbursement policy.

#### DISPUTE RESOLUTION

In an effort to resolve any conflicts that arise during the design or construction of the project or following the completion of the project, the Consultant and CLIENT agree that all disputes between them arising out of or relating to this AGREEMENT shall be submitted to non-binding mediation unless the parties mutually agree otherwise. If the dispute cannot be settled amicably, it shall then be settled by arbitration in the State of Illinois in accordance with the American Arbitration Associates. The Award of the Arbitrator shall be conclusive and binding upon the parties.

The CLIENT agrees, to the fullest extent permitted by law, to limit the liability of AAC and its sub consultants to the CLIENT for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including attorneys' fees and costs and expert witness fees and costs, so that the total aggregate liability of AAC and its subconsultants to all those named shall not exceed AAC'S total fee for services rendered on this project, whichever is greater. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

#### EXCLUSION

This fee does not include attendance at any meetings or public hearings other than those specifically listed in the Scope of Services. These work items are considered extra and are billed separately on an hourly basis.

**PAYMENT**

1. Compensation for labor will be based on a Time and Material basis. All invoices shall be paid within 15 days on hardware purchases and 30 days on professional services of the invoice date. All outstanding invoices, greater than 30 days, shall have 1.5% interest compounded monthly added to the invoice. At this time, Instrumentation, Controls and SCADA cost estimated was provided to the CLIENT on 2/22/10 for the I&C services required for this project as specified. The cost estimate for these services is \$553,850.00
2. Should CLIENT fail to pay for professional services hereunder, as billed within 45 days of such billing, AAC shall be excused from rendering any further services under this project. No work shall be signed or sealed until payment in full is received.
3. This AGREEMENT shall not be enforceable by either party until each has in its possession a copy of this AGREEMENT signed by the other.

**TIME LIMIT**

This AGREEMENT must be executed within thirty (30) days of the composition date to be accepted under the terms set forth herein. This contract shall expire one (1) year from date of execution.

Work cannot begin until we have your signed AGREEMENT. If this AGREEMENT merits your approval and acceptance, please sign both copies, retain one (1) copy for your files and return one to our office.

We sincerely appreciate this opportunity to offer our services and hope this agreement merits approval and acceptance.

Sincerely,

Advanced Automation & Controls, Inc.

Thomas C. Otto  
President

Approved by: \_\_\_\_\_  
(Thomas C. Otto)

Title: President Date: \_\_\_\_\_

Accepted by: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

CLIENT: \_\_\_\_\_

**ORDINANCE CERTIFICATE**

STATE OF ILLINOIS            )  
  ) SS  
COUNTY OF SANGAMON        )

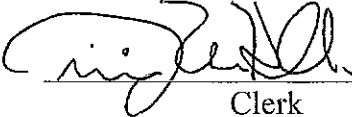
I, the undersigned, do hereby certify that I am the duly qualified and acting Clerk of the South Sangamon Water Commission.

I do further certify that the ordinance attached hereto is a full, true, and exact copy of Ordinance No. 10- 27, adopted by the Commission on the 28<sup>th</sup> day of July, 2010, said Ordinance being entitled:

**AN ORDINANCE APPROVING AN AGREEMENT WITH ADVANCE  
AUTOMATION AND CONTROLS, INC.**

I do further certify that prior to the making of this certificate, the said Ordinance was spread at length upon the permanent records of said Commission, where it now appears and remains.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said Commission this 28<sup>th</sup> day of July, 2010.

  
\_\_\_\_\_  
Clerk