

PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS  
AGENDA ITEM SUMMARY

Meeting Date: September 1, 2015                      Consent [X]                      Regular [ ]  
Public Hearing [ ]

Department: Water Utilities Department

I. EXECUTIVE BRIEF

**Motion and Title:** Staff recommends motion to approve: Work Authorization No. 3 for the Improvements to the Pahokee 0.5 million gallon (MG) Elevated Water Storage Tank (Project) with Globaltech, Inc. in the amount of \$504,301.41.

**Summary:** On March 10, 2015, the Board of County Commissioners (BCC) approved the Optimization and Improvements Design-Build Services Contract (R2015-0315) with Globaltech, Inc. Work Authorization No. 3 provides for improvements to the Pahokee 0.5 MG elevated water storage tank through the installation of booster pumps and a rechlorination facility to improve distribution pressure, fire flow, and water quality. The Small Business Enterprise (SBE) participation goal established by the SBE Ordinance (R2002-0064) is 15% overall. The contract with Globatech, Inc. provides for SBE participation of 75% overall. This Work Authorization includes 98.83% overall SBE participation. The cumulative SBE participation, including this Work Authorization is 97.62% overall. Globaltech, Inc. is a Palm Beach County company. This project is included in the FY15 Capital Improvement Plan adopted by the BCC. (WUD Project No. 15-073) District 6 (MRE)

**Background and Justification:** The proposed improvements are included in the Glades Region Water Master Plan. The Project goals are to improve the City of Pahokee and Canal Point water distribution systems by installing a booster pump station and rechlorination facility. The existing 0.5 MG water storage tank's elevation is too low to provide the required distribution pressure and fire flow. Booster pumps with variable frequency drives will be installed to optimize pressures. A tank mixer and rechlorination facility will help maintain chlorine residual thereby improving water quality. Globaltech, Inc. will provide builders risk insurance prior to the commencement of construction.

**Attachments:**

- 1. Location Map
- 2. Two (2) Original Work Authorizations No. 3

Recommended By: Jim Stiles                      8-19-15  
Department Director                      Date

Approved By: Sharon G. By                      8/26/15  
Assistant County Administrator                      Date

**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

Fiscal Years	2015	2016	2017	2018	2019
Capital Expenditures	<u>\$504,301</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>NET FISCAL IMPACT</b>	<b><u>\$504,301</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>
<b># ADDITIONAL FTE POSITIONS (Cumulative)</b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>	<b><u>0</u></b>

Budget Account No.: Fund 4011 Dept 721 Unit W026 Object 6541

Reporting Category N/A

Is item Included in Current Budget Yes X No

**B. Recommended Sources of Funds/Summary of Fiscal Impact:**

One (1) time expenditure from user fees, connection fees, and balance brought forward.

C. Department Fiscal Review: Debra M. West

**III. REVIEW COMMENTS**

**A. OFMB Fiscal and/or Contract Development and Control Comments:**

<p><u>Sherry Brown</u>  <small>NO 8/19                  OFMB                  8/19</small></p>	<p><u>Dr. J. J. [Signature]</u>                  Contract Development and Control  <small>8/24/15</small></p>
--	---

**B. Legal Sufficiency:**

Madeline [Signature] 8/25/15  
 Assistant County Attorney

**C. Other Department Review:**

\_\_\_\_\_  
 Department Director

NN

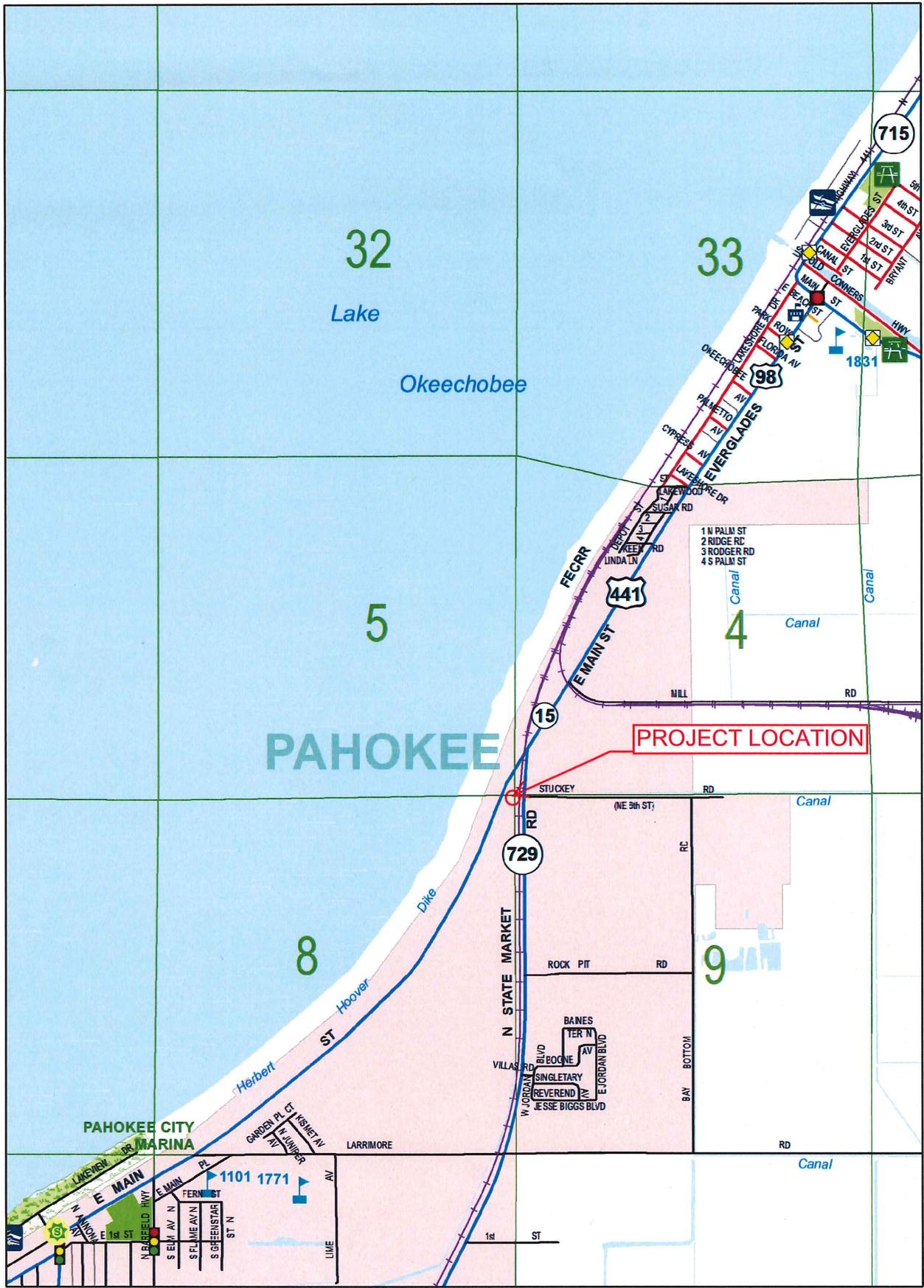
ATTACHMENT 1  
LOCATION MAP

MM

TWP  
41

TWP  
42

TWP  
42



8

9

10

RNG 37

RNG 37

WUD 15-073 GL02-Improvements to the Pahokee 0.5 million gallon (MG) Elevated Water Storage Tank

WORK AUTHORIZATION NO. 03

**Palm Beach County Water Utilities Department  
Optimization and Improvements Design-Build Contract**

Project No.: WUD 15-073District: 6Budget Line Item No.: 4011-721-W026-6541Project Title: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

THIS AUTHORIZATION # 03 to the Contract for Optimization and Improvements Design-Build Services dated March 10, 2015 (R 2015-0315), by and between Palm Beach County and the Design-Build Entity identified herein, is for the Design/Build Services of this Work Authorization. The Design-Build Entity provides for 75% SBE participation overall. This Work Authorization includes 98.83 % overall participation. The cumulative proposed SBE participation, including this authorization is 97.62 % overall. Additional authorizations will be utilized to meet or exceed the stated overall participation goal.

1. Design-Build Entity: Globaltech, Inc.
2. Address: 6001 Broken Sound Parkway NW, Suite 610, Boca Raton, FL 33487
3. Description of Services (Scope of Work) to be provided by the Design-Build Entity:  
  
See **ATTACHMENT - A**.
4. Services completed by the Design-Build Entity to date:  
  
See **ATTACHMENT - G**.
5. Design-Build Entity shall begin work promptly or deliver ordered materials within the following calendar days from the receipt of Building Permit and Notice to Proceed with construction:  
  
Substantial Completion 270 Calendar Days  
Final Construction Completion 330 Calendar Days  
Liquidated damages will apply as follows:  
\$ 1,000 per day past substantial completion date.  
\$ 500 per day past final completion date.  
(For Liquidated Damages Rates see **ATTACHMENT - B**)
6. The compensation to be paid to the Design-Build Entity for providing the requested services in accordance with the Guaranteed Maximum Price is \$ 504,301.41
7. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated March 10, 2015 remain in full force and effect.

WORK AUTHORIZATION NO. 03

Project No.: WUD 15-073

Project Title: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Sharon R. Bock, Clerk & Comptroller,  
Palm Beach County

Palm Beach County,  
Board of County Commissioners

ATTEST:

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_  
Shelley Vana, Mayor

Typed Name: \_\_\_\_\_  
Deputy Clerk

\_\_\_\_\_  
Date

Approved as to Form and Legal  
Sufficiency

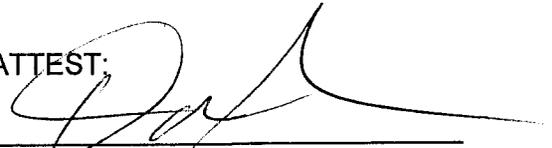
JCS

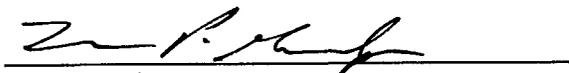
Signed: \_\_\_\_\_

Typed Name: \_\_\_\_\_  
County Attorney

CONTRACTOR: Globaltech, Inc.

ATTEST:

  
\_\_\_\_\_  
Witness

  
\_\_\_\_\_  
(Signature)

David A. Schuman, P.E. / Secretary  
(Name and Title)

Bernard P. Gandy, P.E. / President & CFO  
(Name and Title)

(CORPORATE SEAL)

July 21, 2015  
Date

**LIST OF ATTACHMENTS**

**WORK AUTHORIZATION NO. 03**

**Palm Beach County Water Utilities Department  
Optimization and Improvements Design-Build Contract**

<b>ATTACHMENT - A</b>	Scope of Work & Compensation
<b>ATTACHMENT - B</b>	Rate for Liquidated Damages
<b>ATTACHMENT - C</b>	Public Construction Bond
<b>ATTACHMENT - D</b>	Form of Guarantee
<b>ATTACHMENT - E</b>	Work Authorization Schedule of Bid Items
<b>ATTACHMENT - F</b>	SBE Schedule 1 & Schedule 2
<b>ATTACHMENT - G</b>	Authorization Status Report - Summary & Status of Authorizations
<b>ATTACHMENT - H</b>	Authorization Status Report - Summary of SBE/Minority Business Tracking
<b>ATTACHMENT - I</b>	Location Map
<b>ATTACHMENT - J</b>	Design-Build Criteria Report
<b>ATTACHMENT - K</b>	Vendor Quotes

**ATTACHMENT A  
WORK AUTHORIZATION NO. 03**

**Palm Beach County Water Utilities Department  
Optimization and Improvements Design-Build Contract**

**SCOPE OF WORK  
FOR**

**Improvements to the Pahokee 0.5 Million Gallon (MG)  
Elevated Water Storage Tank  
Project No. WUD 15-073**

**INTRODUCTION**

Palm Beach County (County) entered into an agreement entitled Optimization and Improvements Design-Build Contract Project No. WUD 14-071 (CONTRACT) with Globaltech, Inc. (Design-Build Entity) to provide design-build services for various general activities on the Optimization and Improvements Design-Build Contract dated March 10, 2015, (R 2015-0315). This Work Authorization will be performed under that CONTRACT.

This Work Authorization encompasses providing services related to the following tasks at the Pahokee 0.5 MG Elevated Storage Tank:

- Install booster pumping facilities which will allow up to 700 gpm to be pumped out of the elevated tank with a pressure boost of approximately 20 psi. Two pumps will be installed along with associated piping and valves. Only one pump will operate at a time. Costs were developed based on 15 HP variable-speed in-line pumps. Pressure switches will be installed on the discharge side of the pumps. The new booster pumping facilities will be installed inside the elevated tank skirt.
- Install two (2) Hach CL 17 chlorine residual analyzers, one (1) Hach AMC 5500 dual channel ammonia analyzer, and one (1) Hach ORP sensor with swivel mount along with a Hach SC1000 controller. Install PVC drain from the analyzers to a new dry-well, to be constructed within 20' of the elevated storage tank.
- Modify the existing altitude valve, using solenoid valves in the pilot tubing, to allow it to be remotely or automatically closed when the booster pumps are initiated.
- Install a sodium hypochlorite metering pump skid, utilizing Seepex progressive cavity pumps, and a sodium hypochlorite 55-gallon drum storage slab with a plastic tank containment pallet, metal roof to shield the tanks from rain and sun and a 6 foot tall fence with privacy slats. Barbed wire is not included. Soil amendments or pilings will not be provided. The metering pump skid will be provided with a clear plastic shield/screen to protect workers from accidental sprays.

- Install a PAX PWM 150 Mixer inside the tank bowl (mixer is rated for up to 750,000 gallons). Mixer cable will run up the interior dry-access tube (through the tank bowl), out the top access hatch, over to the bowl access hatch and into the bowl. The cables will be routed through new penetrations in the access hatch necks. The new penetrations will be sealed with compression fittings.
- Install up to four (4) sample ports in the dry-access tube, into the bowl for sample collection. One of the sample ports will be connected to the analyzers with ½" PVC pipe. Valves will be installed on the other sample ports to allow manual collection of samples along the depth of the water in the bowl. Sodium hypochlorite will be injected into the bowl using new Teflon tubing in a 2" PVC containment pipe into the bowl, routed the same way as the mixer cable.
- Spot paint any areas damaged by the new work. Paint new pumps, pipe and fittings. PVC pipe and conduit will not be painted unless specifically stated otherwise.
- Install a multi-node, bi-directional injection magnetic flow meter on the bowl riser pipe. Install sodium hypochlorite signage, a stainless steel eyewash station with flow switch. Connect eyewash to water main using a tapping saddle and PVC pipe. Install a new ventilation fan in the tank skirt and a screened vent on the opposite side of the skirt.
- Coordinate with FPL for power. Install new electrical and instrumentation & controls. Power will be provided at the existing handhole at the base of the FPL pole in the street in front of the elevated storage tank. The existing PLC panel will be modified to accommodate the new devices.

## SCOPE OF SERVICES

Design-Build Entity shall perform the Scope of Services described in the ***Design-Build Criteria for Improvements to the Pahokee 0.5 million gallon (MG) Elevated Water Storage Tank Project No. WUD 15-073*** (PBCWUD, July 2015) and as described herein:

The below scope of work represents the overall modifications needed to achieve the improvements as described in the Design-Build Criteria.

The proposed work to be performed by the Design-Build Entity generally includes furnishing all labor, equipment, materials, tools, supervision, and services required to design, construct, test, and startup the proposed work is generally described as follows:

Furnish and install new booster pumping, tank mixing and chlorine dosing systems at the Pahokee 0.5 MG Elevated Storage Tank.

The following is the scope of services:



## Task 1 – Administrative and Engineering Services

1. Meet with the County to review project scope.
2. Develop subcontracts with structural and electrical engineers, elevated tank utility subcontractor, locator, and electrical contractor and other entities as may be required.
3. Develop logic sequence for booster pump, chemical feed and mixer systems with input from County staff.
4. Prepare a preliminary (60%) design.
5. Submit five (5) half-size copies of the 60% design to the County. Meet with the County to review the design.
6. Incorporate the County comments and proceed to 90% design. Submit five (5) half-size copies of the 90% design to the County. Meet with the County to review the design.
7. Incorporate the County comments and proceed to the final design stage in accordance with the PBCWUD Water Utilities Minimum Design and Construction Standards, Engineering Design-Manual and security requirement.
8. Submit FDEP/Palm Beach County Health Department and City of Pahokee building department permit applications.
9. Prepare detailed construction schedule to include as a minimum; engineering and permitting services, site mobilization, detailed construction activities, scheduled shutdowns and durations, equipment/material delivery times, testing, startup and commissioning.
10. Prepare submittals (or confirmation of compliance with County design standards), administer and track submittal process.
11. Schedule meetings, inspections, and testing with County staff.
12. Provide Engineer's site visits during construction to confirm construction is being performed in conformance with the Design Drawings and Specifications.
13. Prepare Record Drawings.

## Task 2 – Construction Services

1. Install a new booster pump station inside the tank skirt:
  - a. Two new inline centrifugal booster pumps, each rated for approximately 700 gpm @ 20 psi. Pumps will be variable speed, 15 HP, 240 V.
  - b. Piping and valves will be similar to the hand drawings previously provided to the County. Piping and valves will generally be 8" diameter. Gate valves and globe-style silent check valves will be used. All piping will be cement-lined DIP. Valves will be epoxy-lined iron body.
  - c. High pressure switches will be installed on the discharge side of each pump.
  - d. New SST solenoid valves will be installed on the existing altitude valve.
  - e. New ductile iron and steel equipment will be painted. New PVC pipe will be painted inside the booster pump room (bottom of elevated tank). The PVC pipe (sample and chlorine lines) that run up to the bowl will not be painted outside of the pump room, rather they will have color adhesive banding.

## 2. Install chemical feed system:

- a. Duplex metering pump skid using Seepex progressive cavity pumps. Skid piping will be CPVC and the skid will be mounted on a white panel which will be mounted on the skirt wall. The skid will be similar to the one recently installed at PBCWUD WTP 8.
- b. The skid will be fed from a single 55 gallon drum using Teflon tubing.
- c. A concrete slab will be constructed adjacent to the tank skirt. The slab will hold up to four (4) 55 gallon sodium hypochlorite drums. The drums will be stored on a plastic pallet that will provide containment for the drums. A float switch will be installed in the containment pallet. A metal canopy will be installed over the slab and a 6' tall chain link fence with a gate will be installed around the slab. Privacy slats will be added to the fence.
- d. A new stainless steel eyewash station with a flow switch will be installed just outside the tank skirt. The eyewash station will be fed from a new tap on the below-grade 12" watermain. An RPZ will be installed in the eyewash supply line.
- e. The skid will pump sodium hypochlorite to the top of the tank bowl through a Teflon tube within a PVC containment pipe.
- f. Up to four (4) sample taps will be installed along the depth of the tank bowl. One of the lower sample taps will be used to provide a water sample to the analyzers (free chlorine, total chlorine, ammonia, ORP). These new analyzers will be installed on the inside wall of the tank skirt in the pump room area. The analyzers will drain to a new rock dry-well outside the tank skirt. One month of chemicals will be provided with the ammonia analyzer.
- g. An insert-style bi-directional multi-node magnetic flow meter will be installed in the tank riser pipe.
- h. Install openings in the tank skirt for new pipe penetrations, fan and vent.

## 3. Tank Mixer:

- a. An elevated tank utility contractor (Utility Services) will be subcontracted to supply and install a PAX PWM 150 mixer inside the tank bowl. Utility Services was selected for this work because they have an ongoing maintenance contract for this elevated storage tank and they have installed these mixers many times.
- b. The tank mixer will be connected to electrical service and the SCADA system. All new tank penetrations will be properly sealed.

## 4. Electrical:

- a. Furnish and install a 150 amp, 240 volt, 3-phase electrical service from the existing handhole at the base of the FPL pole to the elevated storage tank.
- b. Furnish and install a new meter can (outdoor), service-entrance-rated main disconnect, NEMA-1 panelboard (indoor), (2) 15 HP VFD's, disconnects and starters.
- c. Demolish existing feed from lift station to existing lighting panel. Re-feed from new panelboard.
- d. Install new LED wall packs. Four will be inside the skirt and one will be at the drum storage pad.

- e. Furnish and install digital and analog I/O for the existing Compact Logix PLC as required.
  - f. Furnish and install new conduit and wire.
  - g. Install up to 4 new cards, terminal blocks, relays, surge protection and power supplies in the existing PLC, as required.
  - h. SCADA and PLC programming.
5. Restore site to existing conditions.
  6. Provide O&M manuals supplied with new equipment.

### **Permits and Fees**

It shall be the Design-Build Entity's responsibility to secure all permits required to complete the work under this contract, except permits obtained by the County. The Design-Build Entity shall be responsible for all inspections and requirements to close-out the completed permits. The County shall pay all permit fees. The Design-Build Entity shall be responsible for all Business tax fees for work within the county or Municipalities.

### **SALVAGED MATERIALS**

1. Scrap metal to be disposed of by the Design-Build Entity.
2. Non-metal waste such as concrete, PVC, fiberglass etc., to be hauled and legally disposed by Design-Build Entity.

### **ASSUMPTIONS**

1. County will make available all existing record drawings as may be required to coordinate and complete this scope of services.
2. County will review all submittals and provide comments within one calendar week and notify Design-Build Entity of status.
3. Based upon preliminary discussions with FPL a new transformer or handhole will not be required and only a minimal FPL fee of approximately \$500 is included in the scope.
4. Unless specifically stated, relocation of any existing utilities is not included in this scope of work.
5. A survey is not included. Soil borings will not be performed and no soil fortifications or support piles are included.
6. Where work requires cutting or welding of the steel tank, the repair spots will be mechanically cleaned and spot painted. County will approve tank repair paint color and manufacturer.
7. Liquidated damages may be assessed at a rate of \$1,000 per day up to Substantial completion and \$500 per day from Substantial Completion until Final Completion.
8. County shall provide IP Addresses where required

## **COMPENSATION**

Compensation for this Work Authorization shall not exceed the Guaranteed Maximum Price of **\$504,301.41** in accordance with the unit prices established in the Contract for construction services dated March 10, 2015, as approved by the Board of County Commissioners.

## **SBE/M-WBE PARTICIPATION**

As described in the Contract (R 2015-0315), SBE/M-WBE participation is included in ATTACHMENT F under this Authorization. The attached Schedule 1 defines the SBE/M-WBE applied to this Authorization/Contract and Schedule 2 establishes the SBE/M-WBE contribution from each subcontractor (Letter of Intent to perform as an SBE/M-WBE).

## **ATTACHMENT - B**

### **WORK AUTHORIZATION NO. 03**

#### **Palm Beach County Water Utilities Department Optimization and Improvements Design-Build Contract**

#### **Rates for Liquidated Damages**

Palm Beach County Water Utilities Department shall establish liquidated damages rates for each Work Authorization based on the dollar amount and time sensitivity of the project. The rates shall be as follows according to a criticality rating of 1 through 3 assigned to each Work Authorization by the Department as established below:

**Moderately Important Project (Criticality 2):** Liquidated Damages  
**\$1,000** per day after Substantial Completion Date  
**\$500** per day after Final Completion Date

**ATTACHMENT - C**

**ATTACHMENT - C**  
**PUBLIC CONSTRUCTION BOND**

BOND NUMBER: SU1129891

BOND AMOUNT: \$504,301.41

CONTRACT AMOUNT: \$504,301.41

CONTRACTOR'S NAME: Globaltech, Inc.

CONTRACTOR'S ADDRESS: 6001 Broken Sound Parkway NW  
Suite 610  
Boca Raton, FL 33487

CONTRACTOR'S PHONE: (561) 997-6433

SURETY COMPANY: Arch Insurance Company

SURETY'S ADDRESS: 300 Plaza Three  
Jersey City, NJ 07311

OWNER'S NAME: Palm Beach County

OWNER'S ADDRESS: 8100 Forest Hill Boulevard  
West Palm Beach, FL 33413

OWNER'S PHONE: (561) 493-6000

DESCRIPTION OF WORK: Furnish and install new booster pumping, tank mixing and chlorine dosing systems at the Pahokee 0.5 Million Gallon (MG) Elevated Storage Tank.

COUNTY'S PROJECT No: WUD 15-073, WA-03

PROJECT LOCATION: PBCWUD Pahokee 0.5 Million Gallon (MG) Elevated Storage Tank, 2500 East Main Street, Pahokee, FL 33428. (PCN 48-37-42-08-03-000-0590)

LEGAL DESCRIPTION: Lots 59 and 60 of Poland's Ridge according to Plat Book 16, Page 33.  
a. Dedication of Palm Beach County: ORB 24199, Page 945.  
b. Address 2500 East Main Street, Pahokee, FL 33428.  
c. Property Control No. 48-37-42-08-03-000-0590.

**PUBLIC CONSTRUCTION BOND**

This Bond is issued in favor of the County conditioned on the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS: that Contractor and Surety, are held and firmly bound unto

Palm Beach County Board of County Commissioners  
301 N. Olive Avenue  
West Palm Beach, Florida 33401

as Obligee, herein called County, for the use and benefit of claimant as herein below defined, in the amount of

Dollars \$504,301.41

Five hundred four thousand three hundred and one dollars and forty one cents.

for the payment whereof Principal and Surety bind themselves, their heirs, personal representatives, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated \_\_\_\_\_, 20\_\_\_\_, entered into a contract with the County for:

Project Name: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank  
Project No.: WUD 15-073  
Project Description: Furnish and install new booster pumping, tank mixing and chlorine dosing systems at the Pahokee 0.5 Million Gallon (MG) Elevated Storage Tank.  
Project Location: PBCWUD Pahokee 0.5 Million Gallon (MG) Elevated Storage Tank, 2500 East Main Street, Pahokee, FL 33428. (PCN 48-37-42-08-03-000-0590)

in accordance with Design Criteria Drawings and Specifications prepared by:

Name of Design Firm: Globaltech, Inc.  
Location of Firm: 6001 Broken Sound Parkway NW, Ste. 610, Boca Raton, FL 33487  
Phone: (561) 997-6433  
Fax: (561) 997-5811

which contract is by reference made a part hereof in its entirety, and is hereinafter referred to as the Contract.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated \_\_\_\_\_, 20\_\_\_\_, between Principal and County for the design and construction of WUD 15-073, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05, Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and



3. Pays County all losses, damages (including liquidated damages), expenses, costs, and attorneys' fees, including appellate proceedings, that County sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.
5. Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond and Surety waives notice of such changes.
6. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of construction liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against the bond.
7. Principal and Surety expressly acknowledge that any and all provisions relating to consequential, delay and liquidated damages contained in the contract are expressly covered by and made a part of this Performance, Labor and Material Payment Bond. Principal and Surety acknowledge that any such provisions lie within their obligations and within the policy coverage's and limitations of this instrument.
8. Section 255.05, Florida Statutes, as amended, together with all notice and time provisions contained therein, is incorporated herein, by reference, in its entirety. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes. This instrument regardless of its form, shall be construed and deemed a statutory bond issued in accordance with Section 255.05, Florida Statutes.
9. Any action brought under this instrument shall be brought in the state court of competent jurisdiction in Palm Beach County, Florida and not elsewhere.

Rebecca Thomas  
 Witness

Rebecca Thomas  
 Print name

Globaltech, Inc.  
 Principal (Seal)

[Signature]  
 Print name Bernard P. Kundy  
President  
 Title

[Signature]  
 Witness  
Jackie Haynes  
 Print name

Arch Insurance Company  
 Surety (Seal)  
[Signature]  
 Print name Brett Rosenhaus  
 Attorney-in-Fact  
 Title



**NHC**

**NIELSON, ROSENHAUS & ASSOCIATES**

A NIELSON HOOVER GROUP COMPANY

SMART, UNCOMPROMISING, TIMELY, EFFECTIVE. NIELSON, HOOVER & COMPANY, INC. SURETY SOLUTIONS THAT MAKE A DIFFERENCE.

July 22, 2015

Globaltech, Inc.  
6001 Broken Sound Pkwy, Suite 610  
Boca Raton, FL 33487

RE: Palm Beach County, as Oblige  
Project: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water  
Storage Tank  
Bond No. SU1129891

Dear Ladies and Gentlemen:

Please supply us with the following information for the above captioned final bond:

Executed Contract with Date: X

This letter is also giving Globaltech, Inc. as Principal and/ or Palm Beach County, as Oblige, the authority to complete these bonds by dating the bonds with the contract date, execution and Power of Attorney dates. The contract date MAY BE THE SAME date as the execution of the bond or PRIOR to the execution date of the bonds.

We will forward this information onto your surety company upon our receipt. Please return as soon as possible.

Thank you for your cooperation.

Sincerely,

Brett Rosenhaus,  
FL Resident Agent

8401 Lake Worth Road  
Suite 2-231  
Lake Worth, FL 33467  
P: 561.713.1453  
F: 561.713.1455  
www.nielsonbonds.com



**NHC**

**NIELSON, ROSENHAUS & ASSOCIATES**

A NIELSON HOOVER GROUP COMPANY

July 22, 2015

Globaltech, Inc.  
6001 Broken Sound Parkway NW  
Suite 610  
Boca Raton, Fl 33487

**Project: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank**

**The attached bond we have executed for you is known as a Public Construction Bond. IT NEEDS TO BE SIGNED AND SEALED.**

Since October 1, 1988 the Public Works Bonding Law requires that the recording of performance and payment bonds be filed at the local courthouses where the public construction is being performed. Any such bond written pursuant to Section 255.05 Florida Statute must be recorded by the contractor and should be filed before the commencement of the work.

*Nielson, Rosenhaus & Associates*

Builders Notice Corp.  
708 S. Andrews Avenue  
P O Box 457  
Ft. Lauderdale FL 33302  
Ph: (800) 432-1959

8401 Lake Worth Road  
Suite 2-231  
Lake Worth, FL 33467  
P: 561.713.1453  
F: 561.713.1455  
[www.nielsonbonds.com](http://www.nielsonbonds.com)

SMART. UNCOMPROMISING. TIMELY. EFFECTIVE. NIELSON, HOOVER & COMPANY, INC. SURETY SOLUTIONS THAT MAKE A DIFFERENCE.

**THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.**

***This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.***

**POWER OF ATTORNEY**

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Arthur Lawrence Colley, Audria R. Ward, Brett Rosenhaus, Charles D. Nielson, Charles J. Nielson, David R. Hoover, Edward T. Ward, F. Danny Gann, John R. Neu, Kevin Wojtowicz and Laura D. Mosholder of Miami Lakes, FL 33016 (EACH)

its true and lawful Attorney(s)-in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding Ninety Million Dollars (\$90,000,000.00).

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

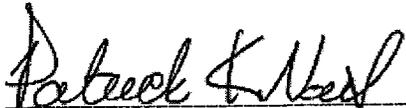
This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

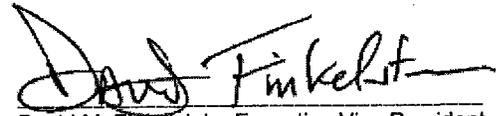
In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 13<sup>th</sup> day of March, 2015.

Attested and Certified

Arch Insurance Company

  
Patrick K. Nails, Secretary

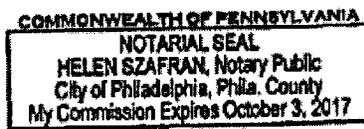


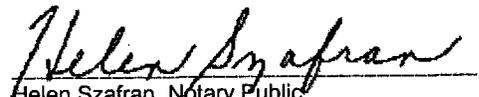
  
David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS

COUNTY OF PHILADELPHIA SS

I, Helen Szafran, a Notary Public, do hereby certify that Patrick K. Nails and David M. Finkelstein personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.



  
Helen Szafran, Notary Public  
My commission expires 10/03/2017

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated March 13, 2015 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said David M. Finkelstein, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

  
Patrick K. Nails, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division  
3 Parkway, Suite 1500  
Philadelphia, PA 19102



**ATTACHMENT - D**

**ATTACHMENT - D**  
**FORM OF GUARANTEE**

GUARANTEE FOR GLOBALTECH INC. (CONTRACTOR) AND ARCH INSURANCE COMPANY (SURETY)

We the undersigned hereby guarantee that the **Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank, (WUD 15-073, WA-03)** project located in Palm Beach County, Florida, which we have constructed and bonded, has been done in accordance with the plans and specifications; that the work constructed will fulfill the requirements of the guaranties included in the Contract Documents. We agree to repair or replace any or all of our work, together with any work of others which may be damaged in so doing, that may prove to be defective in the workmanship or materials within a period of one year from the date of Substantial Completion of all of the above named work by the County of Palm Beach, State of Florida, without any expense whatsoever to said County of Palm Beach, ordinary wear and tear and unusual abuse or neglect excepted by the County. When correction work is started, it shall be carried through to completion.

In the event of our failure to acknowledge notice, and commence corrections of defective work within five (5) calendar days after being notified in writing by the Board of County Commissioners, Palm Beach County, Florida, we, collectively or separately, do hereby authorize Palm Beach County to proceed to have said defects repaired and made good at our expense and we will honor and pay the costs and charges therefore upon demand.

DATED: \_\_\_\_\_  
(notice of completion filing date)

**SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY**

Globaltech, Inc. (Seal)  
(Contractor)

By:   
(Signature)

Bernard P. Gandy  
(Printed Name)

Arch Insurance Company (Seal)  
(Surety)

By:   
(Signature)

Brett Rosenhaus, Attorney-in-Fact  
(Printed Name)

**ATTACHMENT - E**

**WORK AUTHORIZATION COST SCHEDULE**



**ATTACHMENT - E**

WA-03: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

**Engineering Fee Summary**

Task	Task Description	E6	E5	E4	E3	Tech III	OS	Total Labor	*Sub-Consultant Services	Sub-Consultant
		\$77.33	\$65.24	\$57.37	\$42.97	\$32.99	\$35.43			
<b>1</b>	<b>Project Coordination</b>									
	Project Management/Coordination		8				8			
	Meet w/ staff to review project/collect info		6							
	Electrical/I&C			2						
	PBCHD Permit				2					
	Locates								\$ 975.00	GH
	Building Permit		1		2					
	Prepare design/construction schedule			2						
	<b>Subtotal Task 1</b>	<b>0</b>	<b>15</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>\$ 1,663.40</b>	<b>\$ 975.00</b>	
<b>3</b>	<b>60% Design</b>									
	Mechanical Design (9 sheets)		24		16	40				
	Structural Design		1			1			\$ 1,500.00	WE
	Electrical/I&C Design (11 Sheets)			40		4				
	Equipment Selection		4		1					
	Update schedule									
	Cost Estimate		2	4						
	Meet with staff and review		4							
	<b>Subtotal Task 3</b>	<b>0</b>	<b>35</b>	<b>44</b>	<b>17</b>	<b>45</b>	<b>0</b>	<b>\$ 7,022.72</b>	<b>\$ 1,500.00</b>	
<b>4</b>	<b>90% Design</b>									
	Project Management/Coordination		8			8				
	Mechanical Design		2	10		12				
	Electrical/I&C Design			24		4				
	Equipment Selection		8							
	Update construction estimate		4	2						
	Meet with staff and review		6							
	<b>Subtotal Task 4</b>	<b>0</b>	<b>28</b>	<b>36</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>\$ 4,683.80</b>	<b>\$ -</b>	
<b>5</b>	<b>100% Design</b>									
	Project Management/Coordination		4				2			
	Mechanical Design		8			8				
	Structural Design		2						\$ 500.00	WE
	Electrical/I&C Design			12		4				
	Equipment Selection		4							
	Update schedule		4							
	Update construction estimate		4	2						
	QC/QA	4								
	<b>Subtotal Task 5</b>	<b>4</b>	<b>26</b>	<b>14</b>	<b>0</b>	<b>12</b>	<b>2</b>	<b>\$ 3,275.48</b>	<b>\$ 500.00</b>	
<b>6</b>	<b>SDC</b>									
	Project Management/Coordination		13				8			
	Site Visits		12		12					
	Submittals		4		8		2			
	Electrical/I&C			20						
	Programming			40						
	Record Drawings		4	8	12	16				
	Meetings		8	8	8					
	Permit Closeout		2		4					
	<b>Subtotal Task 6</b>	<b>0</b>	<b>43</b>	<b>76</b>	<b>44</b>	<b>16</b>	<b>10</b>	<b>\$ 9,938.26</b>	<b>\$ -</b>	
	Labor Hours	4	147	174	65	97	20			
	Labor Costs	\$309.32	\$9,590.28	\$9,982.38	\$2,793.05	\$3,200.03	\$708.60	\$26,583.66		
	Labor Multiplier	3.00	3.00	3.00	3.00	3.00	3.00	3.00		
	<b>Labor Total</b>	<b>\$927.96</b>	<b>\$28,770.84</b>	<b>\$29,947.14</b>	<b>\$8,379.15</b>	<b>\$9,600.09</b>	<b>\$2,125.80</b>	<b>\$79,750.98</b>		
	<b>Subconsultant Total</b>								<b>\$ 2,975.00</b>	
	<b>TOTAL ENGINEERING FEE</b>								<b>\$ 82,725.98</b>	

Subconsultants: WE - Worcester Engineering, GH - Ground Hound



# Takeoff Worksheet

07/21/15

**PBC Water Utilities Department  
150503 WA-03 Pahokee 0.5 MG Tank**

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price	
<b>1 General Conditions</b>									
Temporary Facilities									
Job Site Trailer		Month	6	200.00	1,200.00	6.00	1.1500	1,462.80	
Trailer Pick up/Delivery		Ea	2	200.00	400.00	6.00	1.1500	487.60	
Sanitary		Month	6	120.00	720.00	6.00	1.1500	877.68	
Job Site Office Supplies		LOT	1	100.00	100.00	6.00	1.1500	121.90	
Waste Hauling		LOT	2	600.00	1,200.00	6.00	1.1500	1,462.80	
General Conditions									
Submittal Labor		HR	20	71.08	1,421.60		1.2992	1,846.94	
O&M		HR	20	62.13	1,242.60		1.2992	1,614.39	
Progress Meeting		HR	20	71.08	1,421.60		1.2992	1,846.94	
Scheduling Labor		HR	10	71.08	710.80		1.2992	923.47	
Construction PM		HR	60	71.08	4,264.80		1.2992	5,540.83	
Construction Superintendent		HR	40	62.13	2,485.20		1.2992	3,228.77	
Safety		HR	20	71.08	1,421.60		1.2992	1,846.94	
Building Permits		HR	12	71.08	852.96		1.2992	1,108.17	
					<b>Bid Item Totals:</b>	<b>17,441.16</b>			<b>22,369.23</b>
<b>2 Sitework</b>									
Mobilization		LOT	1	2,028.56					
Construction PM		HR	8	71.08	568.64		1.2992	738.78	
Construction Superintendent		HR	8	62.13	497.04		1.2992	645.75	
3 Man Crew		CR-D	1	962.88	962.88		1.2992	1,250.97	

Takeoff Worksheet

07/21/15

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Trenching, Backfilling, and Compaction		LOT						
Trenching		CR-D	2	962.88	1,925.76		1.2992	2,501.95
Pipe & Drywell Installation		CR-D	2	962.88	1,925.76		1.2992	2,501.95
Backfilling		CR-D	1	962.88	962.88		1.2992	1,250.97
Compaction & Restoration		CR-D	1	962.88	962.88		1.2992	1,250.97
Stone/Fill		LOT	1	500.00	500.00	6.00	1.1500	609.50
Seed & Sod		LOT	1	1,000.00	1,000.00	6.00	1.1500	1,219.00
Chain Link Fence		LOT	1	4,000.00	4,000.00	6.00	1.1500	4,876.00
Startup Crew		CR-D	2	962.88	1,925.76		1.2992	2,501.95
Punch Out Crew		CR-D	2	962.88	1,925.76		1.2992	2,501.95
Demob		LOT	1	2,028.56				
Construction PM		HR	8	71.08	568.64		1.2992	738.78
Construction Superintendent		HR	8	62.13	497.04		1.2992	645.75
3 Man Crew		CR-D	1	962.88	962.88		1.2992	1,250.97
<b>Bid Item Totals:</b>					<b>19,185.92</b>			<b>24,485.24</b>
<b>3 Concrete</b>								
Drum Slab / Equipment Slab								
Prep Area for Concrete Pad		CR-D	1	962.88	962.88		1.2992	1,250.97
Form & Materials		LOT	1	458.46	458.46	6.00	1.1500	558.87
Cast In Place Concrete		LOT	6	175.00	1,050.00	6.00	1.1500	1,279.95
Concrete Pump		LOT	1	700.00	700.00	6.00	1.1500	853.30
Testing Services		LOT	1	900.00	900.00		1.1000	990.00
Grout Equipment base		LOT	1	200.00	200.00	6.00	1.1500	243.80
Installation		CR_D	4	1,166.16	4,664.64		1.2992	6,060.30
<b>Bid Item Totals:</b>					<b>8,935.98</b>			<b>11,237.19</b>

Takeoff Worksheet

07/21/15

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
<b>5 Misc Metals</b>								
Metal Canopy		LOT	1	4,000.00	4,000.00	6.00	1.1500	4,876.00
Field Welding and Cutting		LOT	1	2,000.00	2,000.00		1.1000	2,200.00
SS Unistrut		LOT	5	120.00	600.00	6.00	1.1500	731.40
SS Unistrut Hardware		LOT	1	927.28	927.28	6.00	1.1500	1,130.36
Pipe Support Systems		EA	2	750.00	1,500.00	6.00	1.1500	1,828.50
SS Unistrut Pipe Clamp		LOT	1	1,000.00	1,000.00	6.00	1.1500	1,219.00
Anchors & Fasteners		LOT	1	500.00	500.00	6.00	1.1500	609.50
Stainless Steel Screen		LOT	1	100.00	100.00	6.00	1.1500	121.90
Installation		CR-D	2	962.88	1,925.76		1.2992	2,501.95
					<b>Bid Item Totals:</b>			<b>12,553.04</b>
								<b>15,218.61</b>
<b>9 Finishes</b>								
Pipe Coatings Inside Room		LOT	1	900.00	900.00	6.00	1.1500	1,097.10
Misc Application Material		LOT	1	200.00	200.00	6.00	1.1500	243.80
Pipe Labels		LOT	1	1,000.00	1,000.00	6.00	1.1500	1,219.00
3 man Crew		CR-D	3	962.88	2,888.64		1.2992	3,752.92
					<b>Bid Item Totals:</b>			<b>4,988.64</b>
								<b>6,312.82</b>
<b>11 Equipment</b>								
PWM 150 Mixer	Utility Service Co.	EA	1	35,993.00	35,993.00	6.00	1.1500	43,875.47
PWM Mixer Coordination/Inspection		CR-D	3	962.88	2,888.64		1.2992	3,752.92
Booster pump (15HP)		Ea	2	11,281.00	22,562.00	6.00	1.1500	27,503.08
Chemical Metering Pump Skid		EA	1	20,200.00	20,200.00	6.00	1.1500	24,623.80
Exhaust Fan		EA	1	900.00	900.00	6.00	1.1500	1,097.10
3 Man Crew		CR-D	2	962.88	1,925.76		1.2992	2,501.95
					<b>Bid Item Totals:</b>			<b>84,469.40</b>
								<b>103,354.32</b>
<b>13 I&amp;C</b>								
Chlorine Analyzer		EA	2	3,323.00	6,646.00	6.00	1.1500	8,101.47
SC1000 Controller		EA	1	5,529.00	5,529.00	6.00	1.1500	6,739.85
Ammonia Analyzer		EA	1	21,179.00	21,179.00	6.00	1.1500	25,817.20

Takeoff Worksheet

07/21/15

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
ORP Probe		EA	1	1,400.00	1,400.00	6.00	1.1500	1,706.60
Insert MagMeter		EA	1	8,000.00	8,000.00	6.00	1.1500	9,752.00
I/O Modules		LOT	1	2,535.00	2,535.00	6.00	1.1500	3,090.17
Freight		LOT	1	500.00	500.00		1.1500	575.00
Installation		CR-D	4	962.88	3,851.52		1.2992	5,003.89
Construction PM		HR	10	71.08	710.80		1.2992	923.47
SCADA Programming	ADS Engineering	LOT	1	9,300.00	9,300.00		1.1000	10,230.00
<b>Bid Item Totals:</b>					<b>59,651.32</b>			<b>71,939.65</b>
<b>15 Mechanical</b>								
Eyewash/Shower & Accessories		EA	1	2,500.00	2,500.00	6.00	1.1500	3,047.50
DI Pipe & Fittings		LOT	1	16,584.50	16,584.50	6.00	1.1500	20,216.51
Tapping Saddle		EA	2	350.00	700.00	6.00	1.1500	853.30
Solenoid Valve		EA	2	750.00	1,500.00	6.00	1.1500	1,828.50
Teflon Tubing		EA	200	11.00	2,200.00	6.00	1.1500	2,681.80
SCH 80 PVC Pipe & Fittings		LOT	1	2,000.00	2,000.00	6.00	1.1500	2,438.00
Valves (PVC)		LOT	1	500.00	500.00	6.00	1.1500	609.50
SS Pipe & Fittings		LOT	1	500.00	500.00	6.00	1.1500	609.50
RPZ		EA	1	500.00	500.00	6.00	1.1500	609.50
DI Pipe & Fittings Installation		CR-D	5	962.85	4,814.25		1.2992	6,254.67
PVC Pipe & Teflon Tubing Installation		CR-D	3	962.85	2,888.55		1.2992	3,752.80
Construction PM		HR	20	71.08	1,421.60		1.2992	1,846.94
<b>Bid Item Totals:</b>					<b>36,108.90</b>			<b>44,748.52</b>
<b>16 Electrical</b>								
Electrical Sub	Energy Efficient El.	LOT	1	81,300.00	81,300.00		1.1000	89,430.00
Construction PM (Elec/I&C)		HR	40	71.08	2,843.20		1.2992	3,693.89
<b>Bid Item Totals:</b>					<b>84,143.20</b>			<b>93,123.89</b>

Takeoff Worksheet

07/21/15

Continued...

Description	Quote/Vendor	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
<b>18 Rental Equipment</b>								
Fork Lift		WEEK	3	2,475.00	7,425.00	6.00	1.1500	9,051.08
Compactor 5000-7000LB		WEEK	3	450.00	1,350.00	6.00	1.1500	1,645.65
Equipment Fuel		GAL	50	5.00	250.00	6.00	1.1500	304.75
Gantry Crane		WEEK	2	500.00	1,000.00	6.00	1.1500	1,219.00
Misc Tools & Comsumables		LOT	1	500.00	500.00	6.00	1.1500	609.50
					<b>Bid Item Totals:</b>	<b>10,525.00</b>		<b>12,829.98</b>
<b>50 Engineering/Record Drawing</b>								
Engineering		LOT	1	82,725.98	82,725.98		1.0000	82,725.98
					<b>Bid Item Totals:</b>	<b>82,725.98</b>		<b>82,725.98</b>
<b>60 Bonds, Insurance &amp; Certifications</b>								
Bonds & Certifications		LOT	1	10,539.26	10,539.26		1.1500	12,120.15
Builders Risk Insurance		LOT	1	3,335.50	3,335.50		1.1500	3,835.83
					<b>Bid Item Totals:</b>	<b>13,874.76</b>		<b>15,955.98</b>
					<b>Grand Totals:</b>	<b>434,603.30</b>		<b>504,301.41</b>

Note: CR-D=8Hrs  
 \*Contract Markups Per Master Agreement:  
 Materials = 1.15, Subcontractors = 1.1, Labor at Burden = 1.2992

**ATTACHMENT - F**

**SBE SCHEDULE 1 & 2**

## ATTACHMENT - F

### SCHEDULE 1

#### LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONTRACTORS

PROJECT NAME: Improvements to the Pahokee 0.5 Million Gallon (MG)  
Elevated Water Storage Tank

PROJECT No: WUD 15-073

NAME OF PRIME BIDDER Globaltech, Inc.

ADDRESS: 6001 Broken Sound Parkway NW, Suite 610

CONTACT PERSON: Bernard P. Gandy, President

PHONE NO.: 561-997-6433 FAX NO.: 561-997-5811

BID OPENING DATE: N/A

DEPARTMENT: N/A

#### PLEASE IDENTIFY ALL APPLICABLE CATEGORIES

Name, Address and Telephone Number of Minority Contractor	(Check one or both Categories)		Dollar Amount				
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)
Globaltech, Inc., (561) 997-6433 6001 Broken Sound Parkway NW, Suite 610, Boca Raton, FL 33487	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$ -	\$ -	\$ -	\$ 407,826.41	\$ -
Energy Efficient Electric, Inc. 1600 Mercer Avenue, Suite 6 West Palm Beach, FL 33401 (561) 655-7211	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$ -	\$ -	\$ -	\$ 81,300.00	\$ -
ADS Engineering, PLLC 4400 N. Federal Highway, Suite 18 Boca Raton, FL 33431 (954) 415-7378	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$ -	\$ -	\$ -	\$ 9,300.00	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
<b>PRIME CONTRACTOR TO COMPLETE:</b>	<b>TOTAL</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 498,426.41</b>	<b>\$ -</b>
<b>BID PRICE: \$ 504,301.41</b>			<b>Total Value of SBE Participation: \$ 498,426.41</b>				

- NOTE:
1. The amount listed on this form for a Subcontractor must be supported by price or percentage included on Schedule 2 or a proposal from each Subcontractor listed in order to be counted toward goal attainment.
  2. Firms may be certified by Palm Beach County as an SBE and/or an M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount under the appropriate category.
  3. M/WBE information is being collected for tracking purposes only.



# ATTACHMENT - F

## SCHEDULE 2

### LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO. WUD 15-073

PROJECT NAME Improvements to the Pahokee  
0.5 Million Gallon (MG) Elevated Water Storage Tank

TO: Globaltech, Inc.  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise  Minority Business Enterprise

Black  Hispanic  Women  Caucasian  Other (Please Specify) \_\_\_\_\_

Date of Palm Beach County Certification: November 24, 2012

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
1	Engineering	1	N/A	\$ 79,750.98
2	Mechanical Construction	1	N/A	\$312,119.45
3	Bonds & Certifications	1	N/A	\$ 15,955.98

at the following price:

\$407,826.41 (Four hundred seven thousand eight hundred twenty-six dollars and forty-one cents)  
(Subcontractor's quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: NONE.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Globaltech, Inc.  
(Print Name of SBE-M/WBE Subcontractor)

By: [Signature]  
(Signature)

David A. Schuman, Corporate Secretary  
(Print name/title of person executing on  
behalf of SBE-M/WBE Subcontractor)

Date: July 21, 2015

ATTACHMENT - F

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR

PROJECT NO. WUD 15-073

PROJECT NAME Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

TO: Globaltech, Inc.  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise  Minority Business Enterprise

Black  Hispanic  Women  Caucasian  Other (Please Specify)

Date of Palm Beach County Certification: September 4, 2012

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>1</u>	<u>Electrical Subcontracting</u>	<u>1</u>	<u>N/A</u>	<u>\$ 81,300</u>

at the following price:

\$81,300.00 (Eighty-one thousand three hundred dollars and no cents)  
(Subcontractor's quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: NONE.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

Energy Efficient Electric, Inc.  
(Print Name of SBE-M/WBE Subcontractor)

By: [Signature]  
(Signature)

Rerie Viau / Vice President  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: July 17, 2015

**ATTACHMENT - F**

**SCHEDULE 2**

**LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONTRACTOR**

PROJECT NO. WUD 15-073

PROJECT NAME Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

TO: Globaltech, Inc.  
(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise  Minority Business Enterprise

Black  Hispanic  Women  Caucasian  Other (Please Specify) \_\_\_\_\_

Date of Palm Beach County Certification: November 15, 2013

The undersigned is prepared to perform the following described work in connection with the above project  
**(Specify in detail, particular work items or parts thereof to be performed):**

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
<u>1</u>	<u>SCADA Programming</u>	<u>1</u>	<u>N/A</u>	<u>\$ 9,300.00</u>

at the following price:

\$9,300.00 (Nine thousand three hundred dollars and no cents)  
(Subcontractor's quote)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subcontractor, the amount of any such subcontract must be stated: NONE.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

ADS Engineering, PLLC  
(Print Name of SBE-M/WBE Subcontractor)

By:   
(Signature)

Alexander Stojanovic / President  
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: July 17, 2015



# ATTACHMENT - H

## AUTHORIZATION STATUS REPORT OPTIMIZATION AND IMPROVEMENTS DESIGN-BUILD CONTRACT

### SUMMARY of SBE/MWBE TRACKING

WUD 15-073: Improvements to the Pahokee 0.5 Million Gallon (MG) Elevated Water Storage Tank

	<b>Total</b>
<b>Current Proposal</b>	
Value of Consultant Service Authorization	\$0.00
Value of Work Authorization No. 3	\$504,301.41
Value of CSA and WA	\$504,301.41
Value of SBE Minority Letter of Intent	\$498,426.41
Actual Percentages	98.83%
<b>Signed / Approved Authorizations</b>	
Total Value of Approved Consultant Service Authorization	\$0.00
Total Value of Approved Work Authorization	\$1,051,189.81
Total Value of CSAs and WAs	\$1,051,189.81
Total Value of SBE Signed Subcontracts	\$1,020,112.81
Actual Percentages	97.04%
<b>Signed Authorizations Plus Current Proposal</b>	
Total Value of Approved CSAs Plus Current CSA Proposal	\$0.00
Total Value of Approved WAs Plus Current WA Proposal	\$1,555,491.22
Total Value of Approved and Proposed CSAs and WAs	\$1,555,491.22
Total Value of SBE Subcontracts and Letters of Intent	\$1,518,539.22
Actual Percentages	97.62%
<b>GOAL</b>	<b>75%</b>

NN

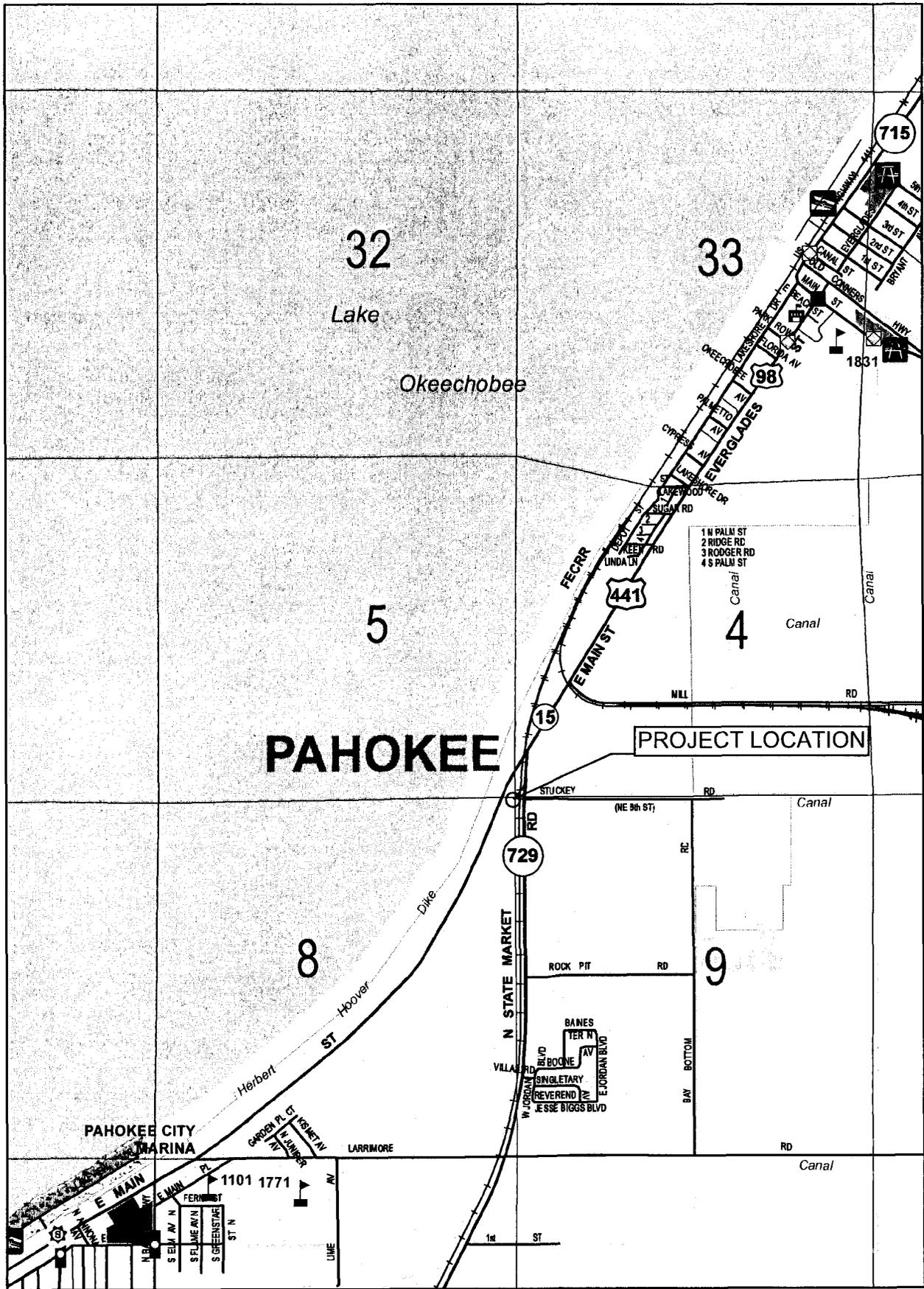
ATTACHMENT I  
LOCATION MAP

MM

TWP  
41

TWP  
42

TWP  
42



**PAHOKEE**

**PROJECT LOCATION**

PAHOKEE CITY  
MARINA

RNG 37

RNG 37

8

9

10

32

Lake

Okeechobee

33

5

4

8

9

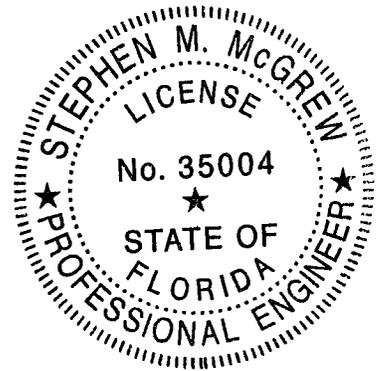
# **ATTACHMENT - J**

## **Design-Build Criteria Report**

**Design Build Criteria  
Improvements to the Pahokee 0.5 million gallon (MG) Elevated Water Storage Tank  
Project No. WUD 15-073**



7/13/2015



---

Stephen McGrew, P.E., DBIA  
State of Florida Professional Engineer No. 35004  
Palm Beach County Water Utilities Department  
8100 Forest Hill Blvd.  
West Palm Beach, FL 33413



**Design Build Criteria**  
**Improvements to the Pahokee 0.5 million gallon (MG) Elevated Water Storage Tank**  
**Project No. WUD 15-073**

**Part 1 General**

**1.1 Summary of Work**

- A. Legal description of the site:** Lots 59 and 60 of Poland's Ridge according to Plat Book 16, Page 33.
- a. Dedication of Palm Beach County: ORB 24199, Page 945.
  - b. Address 2500 East Main Street, Pahokee, FL 33428.
  - c. Property Control No. 48-37-42-08-03-000-0590.
- B. Survey information concerning the site:** Design-Build Entity shall provide all necessary survey and underground utility locates and soft digs.
- C. Interior space requirements:** The work is performed on the interior and exterior of the 500,000 gallon water storage tank. Allow clear access to equipment and tank ladders.
- D. Material quality standards:**
1. Comply with the Palm Beach County Water Utilities Minimum Engineering Standards (latest edition).
- E. Schematic layouts and conceptual Design Criteria of the project:**
1. Submit signed and sealed engineering plans, signed and sealed engineering report and signed and sealed permit application to the Palm Beach County Health Department for the proposed improvements. Submit signed and sealed engineering plans, engineering calculations and product approval documents to the City of Pahokee Building Department in compliance with the latest building code. All documents shall be signed and sealed by a Florida registered Professional Engineer. Permit fees shall be paid by the County.
  2. Statement of the problem: The existing 500,000 gallon water storage tank does not have adequate height, has poor mixing with thermal stratification and has poor chlorine residual.
- Design Criteria: Install a booster pump, tank mixer and rechlorination facility with drum storage, dosing pumps, eyewash, analyzers (chlorine, ammonia and ORP mounted to wall or supported) with associated instrumentation, electrical for a complete automatic system.
- a. Exterior of tank
    - i. Construct a fenced enclosure with gate on the right side of the man door with a concrete pad and prefabricated containment for drum delivery of sodium hypochlorite. Construct and roof awing over the containment pad to prevent rainwater from filling the containment. The containment shall have a float switch connected to PLC for alarm over SCADA. Provide signage for storage of hypochlorite.
    - ii. On the exterior left side of man door (between man door and rollup door) furnish and install a stainless steel eyewash/shower. Tap existing water main for water

service and install RZP. Connect flow switch to PLC for alarm over the SCADA system.

- iii. Furnish and install exterior lights with over rollup door way and hypochlorite drum storage area with photovoltaic sensor for automatic operation at dusk to dawn.
  - iv. Furnish and install electrical improvements to power the storage tank booster pumps, tank mixer, rechlorination and associated improvements including FPL service.
- b. Inside tank enclosure
- i. Furnish and install wall mounted Seepex pump skid for chlorine addition. Connect skid drain to exterior containment.
  - ii. Connect Seepex pump discharge to mixing zone of storage tank. Provide containment to avoid accidental discharge of 12% hypochlorite for safety.
  - iii. Furnish and install wall booster pump with inverter duty motor and variable frequency drive (VFD) to boost discharge pressure to 65 psi and 700 gpm flow rate. Provide pressure switch for high pressure alarm and pump shutoff.
  - iv. Furnish and install wall mounted exhaust fan in tank enclosure and screened inlet on opposite side. Exhaust fan shall be rated for continuous operation, provide wall switch next to man door.
  - v. Replace existing interior lights with LED wall packs.
  - vi. Furnish and install Hach CL 17 residual analyzer and connect to PLC for SCADA.
  - vii. Furnish and install Hach AMC 5500 ammonia analyzer and connect to PLC for SCADA.
  - viii. Furnish and install ORP analyzer and connect to PLC for SCADA.
  - ix. Provide drain for chlorine, ammonia and ORP analyzers to exterior of tank with dry well or connection to sanitary sewer.
  - x. Furnish and install additional digital and analog I/O for the existing Compact Logix PLC as required. Provide PLC programming for booster pump for constant pressure set point, rechlorination for constant residual set point, eyewash and containment alarms.
- c. Inside 500,000 gallon tank.
- i. Furnish and install Pax Water Technologies mixer connect to electrical and SCADA as applicable.

**F. Cost or budget estimates:** Cost estimate \$500,000 (MWH GL02 cost estimate)

**G. Design and construction schedules:**

- i) 60% Design Completion 75 days after receipt of executed Work Authorization and notice to proceed with design.
- ii) 100% Design Completion 120 days after receipt of executed Work Authorization and notice to proceed with design.
- iii) Substantial Construction Completion 270 Calendar Days after receipt of executed Work Authorization and notice to proceed with construction.
- iv) Final Construction Completion 60 Calendar Days after Substantial Construction Completion.
- v) Liquidated damages for design and construction will apply as follows:  
\$1,000 per day past substantial completion date.

\$500 per day past final completion date.

- vi) The following items must be complete (at a minimum) to achieve substantial completion:
- (1) Complete all work including start-up services except punch list.
  - (2) Palm Beach County Building permit inspection approval.
  - (3) Provide O&M manuals and training
  - (4) Approval by Palm Beach County Health Department.
- H. **Site development requirements:** Site plan approval is not required prior to the Pahokee building permit submittal.
- I. **Provisions for utilities:** Refer to Sections 1.3 Utilities and 1.7 Underground Utilities for Design-Build Entity requirements.
- J. **Stormwater retention and disposal:** Provide siltation barriers for all existing storm drainage catch basins impacted by construction activities.
- K. **Parking requirements:** Park adjacent to LS 8220 on County property and do not trespass onto neighboring privately owned properties without permission.
- L. **Safety:** Process safety shall be included in the design and construction. Tripping hazards shall be minimized and options to avoid hazards will be identified and discussed at the 60% design review meeting. If possible eliminate existing conduit on the floor tripping hazard. Typically a 3'-0" minimum clear walking area between equipment will be provided for access. An eyewash must be installed between the doors and shall alarm to SCADA. Provide containment to avoid accidental discharge of 12% hypochlorite for safety. Provide Plexiglas cover or plastic curtain for hypochlorite pumps. Provide secondary containment of hypochlorite dosing tubing on vertical to injection point to prevent discharge (showering).
- M. **Other:** A shutdown plan and bacteriological testing must be prepared by the Design-Build Entity and submitted for approval.

## 1.2 Permits and Fees

It shall be the Design-Build Entity's responsibility to secure all permits required to complete the work under this contract, except permits obtained by the Owner. The Design-Build Entity shall be responsible for all inspections and requirements to close-out the completed permits. The Owner shall pay all permit fees. The Design-Build Entity shall be responsible for all Business tax fees for work within the county or Municipalities.

## 1.3 Utility Services

The Design-Build Entity shall obtain the necessary utility services by making application for the services and paying such fees and charges required by the utility companies, including construction water meters, if required.

## 1.4 Tests

The Design-Build Entity shall pay for all required tests. Water required for pressure/leakage tests shall be furnished by the Owner.

### **1.5 Site elevations, Lines, and Grades**

Where the dimensions and locations of existing pipe and utilities are of critical importance in the installation or connection of proposed work, the Design-Build Entity shall verify such dimensions and locations in the field prior to the fabrication of any materials or equipment, which is dependent on the correctness of such information. The Design-Build Entity may employ a land surveyor registered in the State of Florida. The Design-Build Entity shall locate and protect survey control and reference points. The Design-Build Entity shall be responsible to establish elevations, lines, and levels, utilizing recognized engineering survey practices. The Design-Build Entity shall provide all labor, instruments and stakes, templates, and other materials necessary for marking and maintaining all lines and grades. The Design-Build Entity shall submit a copy of as-built drawings signed/sealed by the land surveyor that the elevations and locations of the work in Florida State plane coordinates are in conformance with the contract documents.

### **1.6 Work Area**

The Design-Build Entity shall confine his activities to the site(s) designated by Owner for the work or staging areas for materials storage. All debris, materials, pipe, and miscellaneous waste products from the proposed work shall be removed from the project as soon as possible. They shall be disposed of in accordance with applicable federal, state, and local regulations. The Design-Build Entity shall be responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

The Design-Build Entity shall protect his work throughout its length by the erection of suitable barricades and handrails, where required. The Design-Build Entity shall further indicate this work at night by the maintenance of suitable lights or flares, especially along or across thorough fares. Wherever it is necessary to cross a public walk, the Design-Build Entity shall provide suitable safe walkways with hand railings. The Design-Build Entity shall also comply with all laws or ordinances covering the protection of such work and the safety measures to be employed therein. The Design-Build Entity shall carry out his work so as not to deny access to private property. All utility access manholes, valves, and fire hydrants shall be kept accessible at all times. No excavations near walkways, in roadways, or road shoulders are to be left open during night hours without the permission of the Owner, and proper protection.

### **1.7 Underground Utilities**

All water pipes, storm drains, force mains, gas or other pipe, telephone or power cables or conduits, and all other obstructions, whether or not shown, shall be temporarily removed from or supported across pipeline excavations. Before disconnecting any pipes or cables, the Design-Build Entity shall obtain permission from the Owner, or shall make suitable arrangements for their disconnection by the Owner. The Design-Build Entity shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the work has progressed past the point involved. Approximate locations of known water, sanitary, drainage, power, and telephone installations along route of new pipelines or in vicinity of the work are shown on as-built drawings, but must be verified in the field by the Design-Build Entity. The Design-Build Entity shall uncover these pipes, ducts, cables, etc., carefully, by hand, to verify location and depth of cover. Any discrepancies or differences found shall be brought to the attention of the Owner in order that necessary changes may be made. Where fences, walls, or other man made obstructions exist

illegally in the public right-of-way, the Owner will have them removed upon adequate prior notice by the Design-Build Entity.

The Design-Build Entity shall notify "SUNSHINE STATE" at 811 at least forty-eight (48) hours prior to performing any excavating activities. Evidence of such notice shall be furnished to the Owner prior to excavating. Design-Build Entity is responsible for all utility locates within the project site and will provide an independent locate service for all PBC WUD buried pipelines and electrical.

Design of all underground water, wastewater, and reclaimed water shall comply with the Palm Beach County Water Utilities Minimum Engineering Standards (latest edition), General Electrical Design Requirements, Palm Beach County Wellfield Protection Ordinance, Environmental Control Rule 1 (wastewater), Environmental Control Rule II (water), and applicable provisions of the Florida Administrative Code. Design submittal requirements shall be in accordance with the Palm Beach County Water Utilities Design Manual.

### **1.8 Maintenance of Operations**

The Design-Build Entity's activities or any partial plant shutdowns shall minimize disruption to the treatment facilities and conveyance. The Design-Build Entity shall schedule and perform the proposed work in a manner such that the Owner can keep the existing treatment and conveyance facilities in continuous dependable operation. Operation of all existing valves, gates and equipment shall be performed by Owner.

### **1.9 Plant Shutdowns**

Owner shall approve all plant shutdowns. If, in the opinion of Owner, a shutdown is not required in order for the Design-Build Entity to perform the proposed work, the Design-Build Entity shall use alternative methods to accomplish the work. All shutdowns shall be coordinated with and scheduled at times suitable to Owner. Owner shall be provided a minimum of 7 days notice of Design-Build Entity's need for any system or partial system shutdown. Additional notice may be required for certain shutdowns.

### **1.10 Project Coordination**

Design-Build Entity shall be solely responsible for coordination of all of the proposed work. He shall supervise, direct and cooperate fully with all sub-contractors, manufacturers, fabricators, suppliers, distributors, installers, testing agencies, and all others whose services, materials or equipment are required to ensure completion of the proposed work within the contract time.

Design-Build Entity shall cooperate with and coordinate his work with the work of any other contractor, utility service company or Owner's employees performing additional work related to the project at the site. Design-Build Entity shall also coordinate his work with the work of others to assure compliance with schedules.

Design-Build Entity shall attend and participate in all project coordination or progress meetings and report on the progress of all work and compliance with schedules. The Design-Build Entity shall provide a responsible representative of his organization may be reached at any time while work is in progress.

### **1.11 Project CPM Schedule**

Design-Build Entity must prepare and maintain a project schedule using Primavera P6 software and the Critical Path Method (CPM) of scheduling. The following outlines the minimal schedule requirements. The schedule must be updated each month at a minimum and will be reviewed by the County to determine design and construction progress. The project schedule will be comprehensive incorporating activities for the full lifecycle of the project. With the initial submittal, later Construction Phase work may be outlined as higher level summary tasks. The level of detail for activities shown in the schedule will be elaborated as additional information about the scope and methods are determined throughout the course of the project.

The basics of the Project Schedule submittals are outlined below.

**Baseline Requirement:** The Schedule shall reflect how the Design-Build Entity will perform the work. Task Descriptions, Durations, Responsibility Assignment and Relational Logic Ties shall be adequately defined in the schedule so that the Project Manager can accurately monitor the progress of the work. Schedule activities must be consistent with work items listed in the Schedule of Values and be cost-loaded such that schedule updates provide an independent check on the amounts shown in the Monthly progress payment request.

Include a written narrative to address the following Schedule Development Data:

- All calendars developed within the schedule software applicable to the Project Schedule showing the proposed number of working days per week. Include where necessary a description of which calendars apply to which activities.
- The holidays to be observed during the life of the Contract by day, month, and year
- The planned number of shifts per day and number of hours per shift

#### 1.11.1 Planning Phase

The Program Management Team will specify detailed scheduling requirements to each Design-Build Entity through the professional services agreement, requiring that:

- A detailed design schedule be created and routinely updated
- At a minimum, milestones be depicted for:
  - Notice-to-Proceed
  - 30 percent submittal
  - 60 percent submittal
  - 90 percent submittal
  - Permitting Complete
  - Procurement and Delivery of Long Lead Items
- An estimate of the construction duration and staging shall be developed. At a minimum, the schedule shall identify significant interim milestones that relate to the Construction Phase including:
  - Notice-to-Proceed Construction
  - Mobilization
  - Substantial Completion
  - Final Completion
  - Start Up/Commissioning

#### 1.11.2 Construction Phase

At the commencement of the Construction Phase, the level of detail provided for each activity in the

Project Schedule shall be elaborated and submitted to the OWNER as outlined below. Additional plan details must remain within the confines of established dates for SUBSTANTIAL COMPLETION and FINAL COMPLETION. The accepted version of the elaborated Project Schedule will be used as a new Baseline for monitoring the progress of the work

The schedule will address the logic of construction activities, including any work constraints due to:

- Operational or permit requirements
- Special requirements of the technical specifications
- Standard construction practices
- Safety of the work place
- Manpower loading and availability
- Key Resource or Materials quantity loading

Initial Construction Schedule Submittals: The Design-Build Entity is required to submit two schedule documents at the pre-construction conference.

These are:

- The Design-Build Entity's plan of operation for the initial 30-day period of Construction
- An initial draft of the fully elaborated Baseline CPM schedule

The Project Manager and the Design- Build Entity will meet to review and discuss the 30-day plan of operation and Baseline CPM schedule shortly after submittal to the Project Manager. The Project Manager's review and comment on the schedules will be limited to conformance with the sequencing and milestone requirements in the Contract Documents. The Design-Build Entity will be required to make corrections to the schedules necessary to comply with the requirements and adjust the schedules to incorporate any missing information requested by the Project Manager.

Key elements of the schedule reviews will include:

- Production rates for reasonableness
- Appropriate level of detail
- Satisfaction of contractual constraints
- Accurately reflecting submittals, procurements, training and start-up tasks
- Conforms with approved schedule of values
- Complies with industry scheduling practices
- Schedule risk and critical path discussion

The plan of operation depicts accomplishment of the early execution activities (mobilization, permit acquisition, submittals necessary for early material and equipment procurement, submittals necessary for long lead equipment procurement, CPM submittals, initial site work and other submittals and activities required in the first 30 days).

Amend the Baseline written narrative to address the following Schedule Development Data:

- The major construction equipment to be used on the Site
- A written description the nature of the critical path of activities identified for the Project Schedule through project completion.

Resubmit the Baseline schedule will be included in all subsequent schedule updates and will be the basis for measuring progress and performance. Schedule updates and other reporting requirements will be detailed in the schedule specifications.

The construction schedule will provide information on major construction milestones and allow for quantity tracking. Related interface activities pertinent to facilities start-up and commissioning will also be shown. The associated Schedule of Values will delineate information related to quantity unit rate reporting, labor wage rates, bulk materials pricing and other costing/pricing information as requested. Specific schedules (e.g., 90 days to Completion, 4-week look-ahead) will be specified per project needs.

The Project Manager's review of the schedule is to ensure basic compliance with requirements and reasonableness of plan, and does not to constitute an approval of the approach or direction relative to means and methods of construction.

**Baseline Schedule Submittal:** The Design-Build Entity will be required to submit two schedule documents at the pre-construction conference. These are:

- The Design-Build Entity's plan of operation for the initial 30-day period of the work authorization Construction
- An initial draft of the fully elaborated Baseline CPM schedule

#### 1.11.3 Schedule Updates

On a regular basis, and not less than monthly, summary schedules should be updated to track and monitor progress of activities, completion of contract deliverables, interim milestone achievement, start and completion dates, and other related aspects of scheduling. Additionally, any approved changes to the scope of work will be reflected as both cost and duration impacts in the updated schedules.

Progress is monitored by comparing monthly work accomplished against both the baseline plan, and the progress of work from the prior month. Starting with the first month of status updating, progress for all projects will be measured against the baseline for start and finish dates, scheduled progress and actual project costs incurred, cash flow, along with analysis for changes in logic and activities durations.

A written Narrative Report shall be submitted in conjunction with all Schedule Update Submittals containing the following:

- Schedule report indicating activities completed during this reporting period.
- Current and anticipated delays and/or early completions.
- Recommendations for recovery of the delays
- Added/deleted activities.
- Other project related scheduling concerns.

#### 1.11.4 Format of Submittals

Submit one electronic copy of the complete Project Schedule as an Oracle Primavera XER export file. Submittal of Paper Form can be substituted with a .pdf file.

## **Part 2 Acceptance Test Requirements**



The Design-Build Entity shall be responsible for coordinating and completing the overall system startup and testing. The Design-Build Entity is responsible for providing all labor, equipment, and materials for conducting systems startup and testing.

## **2.1 Starting and Placing Equipment in Operation**

Design-Build Entity shall initially start-up and place all installed equipment into successful operation according to manufacturer's written instructions and as instructed by manufacturer's field representative. Design-Build Entity shall provide all material, labor, tools, equipment, chemicals, lubricants, and expendables required to complete start-up. No system or subsystem shall be started up for continuous operation unless all components of that system or subsystem, including instrumentation, have been tested and proven to be operable as required for proposed work. General system startup activities include: cleaning; removing temporary protective coatings; flushing and replacing greases and lubricants, where required by manufacturer; lubrication, checking shaft, and coupling alignments and resetting where required; checking and setting motor, pump and other equipment rotation, safety interlocks, and belt tensions; checking and correcting if necessary leveling plates, grout, bearing plates, anchor bolts, fasteners, and alignment of pipe which may put stress on pump equipment; performing any adjustments; providing chemicals and lubricants and all other required operating fluids; providing fuel, electricity, filters, and other expendables required for start-up of equipment. Owner shall provide sufficient personnel to assist Design-Build Entity in the start-up, but the prime responsibility for proper mechanical operation shall belong to Design-Build Entity. Manufacturer's representatives shall be present during initial start-up and operation. Owner shall assume responsibility for operation of the equipment upon completion of start-up and placing equipment in operation.

## **2.2 Minimum Start-Up Requirements**

- A. After system has been placed in operation the Design-Build Entity shall clean strainers, drives, pockets, orifices, valve seats, and headers in fluid system to assure freedom from foreign materials. The Design-Build Entity shall remove rust, scale and foreign materials from equipment and renew defaced surfaces. All visible leakage shall be repaired.
- B. The Design-Build Entity shall check each electrical control circuit to assure that operation complies with regulations and requirements of proposed work and to provide desired performance. The Design-Build Entity shall vent gasses trapped in any part of systems and verify that liquids are drained from all parts of gas or air systems.
- C. The Design-Build Entity shall inspect for cleanliness, and clean and remove all foreign materials, verify alignment, replace defective bearings and those, which run rough or noisy, and grease as necessary in accord with manufacturer's recommendations.
- D. The Design-Build Entity shall adjust tension in V-belt drives, and adjust varipitch sheaves and drives for proper equipment speed, adjust drives for alignment of sheaves and V-belts, and clean and remove foreign materials before starting operation.
- E. The Design-Build Entity shall check each motor for comparison to amperage nameplate value and correct conditions which produce excessive current flow and exist due to equipment malfunction.

- F. The Design-Build Entity shall check glands and seals for cleanliness and adjustment before running pump; inspect shaft sleeves for scoring; inspect mechanical faces, chambers, and seal rings, and replace if defective; and verify that piping system is free of dirt and scale before circulating liquid through the pump.
- G. The Design-Build Entity shall inspect both hand and automatic control valves, clean bonnets and stems; tighten packing glands to assure no leakage, but permit valve stems to operate without galling; replace packing on any valve that continues to leak; remove and repair bonnets that leak; and coat packing gland threads and valve stems with a surface preparation of "Moly-Cote" or "Fel-Pro" after cleaning. The Design-Build Entity shall verify that control valve seats are free from foreign material and are properly positioned for intended service.

### **2.3. Equipment Startup and Performance Testing**

The Design-Build Entity shall be responsible for performance testing during startup of all mechanical, electrical, instrumentation, and piping equipment and systems. Provide a testing plan setting forth the sequence in which all testing work required for the proposed upgrades will be implemented. The Design-Build Entity shall document the results of all equipment and system tests and submit them to the Owner and provide calibration tags for all equipment certifying the date of calibration.

Demonstrate successful operation of complete booster pump, tank mixing and rechlorination system as a requirement of substantial completion.

### **2.4. Instruction of Operations and Maintenance Personnel**

Training shall be provided prior to turning over the operation of a system, unit process, or piece of equipment to the owner. Training shall be scheduled for each plant staff work shift accordingly. No system, unit process or any piece of equipment shall be started up for continuous operation without the approved operation and maintenance manuals being turned over to Owner.

Design-Build Entity shall provide services of supplier's operation and maintenance training specialists to instruct Owner's personnel in recommended operation and maintenance procedures for products and equipment. Supplier may be required to provide a combination of classroom and field training. All training shall be conducted at the site, unless otherwise stated in the Specifications. Owner reserves the right to videotape training sessions.

The Design-Build Entity shall provide written documentation and checklists outlining important training items, and provide spreadsheets needed to document new processes for input by operators. Training of plant's personnel shall commence only after:

- a) Acceptable preliminary operation and maintenance data has been provided.
- b) Equipment has been started and placed into operation.
- c) System startup and performance testing has been completed.

## **Part 3 Technical Requirements**

### **3.1. Plant Site / Civil Requirements**

The Design-Build Entity shall be responsible for becoming completely familiar with the site conditions in connection with developing the final site plan including all site investigations.

### **3.2 Demolitions**

Design-Build Entity shall be responsible for all labor, materials, equipment, and incidentals required for demolitions and pay for all disposal fees. Design-Build Entity shall not start removals without the permission of the Owner. At least 48 hours prior to commencement of any demolition activities, the Design-Build Entity shall advise the Owner, in writing, of the proposed schedule.

Design-Build Entity shall carry out operations so as to avoid interference with Owner's operations and work in the existing facilities. Design-Build Entity shall perform all demolition and removal work so as not to interfere with the use and safe passage to and from adjacent structures and shall prevent damage or injury to structures, occupants, and adjacent features, which might result from falling debris or other causes. Design-Build Entity shall erect and maintain barriers, lights, sidewalk sheds, and other necessary protective devices. The Design-Build Entity is responsible for repairing damage to the Owner's property or facilities, caused by the Design-Build Entity's activities.

Design-Build Entity shall not bring explosives on site nor use explosives without written consent of authorities having jurisdiction. Design-Build Entity shall use water sprinkling, temporary enclosures, and other suitable methods for dust control within the lowest practical level in compliance with governing regulations.

Surfaces of walls, floors, ceilings, or other areas, which are exposed by any of the removals, and which will remain as architecturally finished surfaces shall be repaired and re-finished by Design-Build Entity with the same or matching materials as the existing adjacent surface. Adjacent structures, facilities, and improvements impacted by dust, dirt, and debris caused by demolition operations shall be cleaned and returned to pre-construction conditions.

Where pipe is to be removed passes through existing walls, the pipe shall be cut off and properly capped on each side of the wall. When underground pipe is to be altered or removed, the remaining pipe shall be properly capped. Abandoned underground pipe may be left in place and grouted under major structures/roadways, unless it interferes with the work. Any changes to potable water pipe work shall be made in conformance with all applicable codes and under the same requirements as other underground piping.

All materials and equipment removed from existing work shall become the property of Design-Build Entity, except for those which Owner has identified and marked for their use. All materials and equipment marked by the Owner for its use shall be carefully removed by Design-Build Entity so as not to be damaged, and shall be cleaned and stored in a protected location specified by the Owner. Design-Build Entity shall dispose of all demolition materials, equipment, debris, and all other items not marked by the Owner, off the work site and in conformance with all existing applicable laws and regulations. Upon completion of the work, all materials, equipment, waste, and debris of every sort shall be removed and premises shall be left, clean, neat, and orderly.

### **3.3 Excavation and Backfill**

Design-Build Entity shall furnish all labor, materials, equipment, and incidentals required to perform all excavating, backfilling, and disposing of earth materials required for the purpose of constructing

structures, conduits, pipelines, grading, and other improvements required to complete the work in every respect.

Design-Build Entity shall be solely responsible for designing, installing, operating, and maintaining whatever system is required to satisfactorily accomplish all necessary sheeting, bracing, protection, underpinning, and dewatering.

Design-Build Entity shall be responsible for all field test data and shall submit copies to the Owner.

Design-Build Entity shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction. Design-Build Entity shall obtain all necessary permits for work in roads, rights of way, etc. and shall also obtain permits as required by local, state, and federal agencies for discharging water from excavations. The use of explosives will not be permitted.

Design-Build Entity shall explore ahead of the required excavation to determine the exact location of all structures. Existing structures shall be supported and protected from damage by the Design-Build Entity, and if broken or damaged, they shall be restored immediately by the Design-Build Entity at its expense.

Design-Build Entity shall locate existing underground utilities in the areas of work. If utilities are to remain in place, Design-Build Entity shall provide adequate means of protection during earthwork operations. If uncharted or incorrectly charted pipelines or other utilities are encountered during excavation, Design-Build Entity shall consult the Owner immediately for directions as to procedure. Design-Build Entity shall cooperate with Owner and utility companies in keeping respective services and facilities in operation. Design-Build Entity shall repair damaged utilities to the satisfaction of Owner.

Design-Build Entity shall not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by an authorized Owner's representative and then only after acceptable temporary utility services have been provided.

#### **3.4 Cast-In-Place Concrete**

Design-Build Entity shall be responsible for providing concrete consisting of portland cement, fine and coarse aggregate, water, and approved admixtures; then combined, mixed, transported, placed, finished and cured to accommodate the proposed work. All admixtures, curing compounds, etc. used in concrete or the curing and repair of concrete, which can contact potable water, shall be certified as conforming to the requirements of ANSI/NSF 61 for contact with potable water when in the finished concrete.

#### **3.5 Miscellaneous Metals**

All metals shall be non-ferrous except of steel reinforcing and as approved by the Owner. All bolt, nuts and washers shall be 316 stainless steel the nuts shall be coated to prevent galling. Anchor bolts shall be 316 stainless steel. Stanchions, pipe supports, equipment bases, braces, and straps shall be 316 stainless steel or aluminum.

#### **3.6 Painting**

Design-Build Entity shall provide all labor, materials, tools, equipment, and incidentals as required to furnish and apply paint systems for surface preparation and painting of all new and existing interior and exterior items and surfaces throughout the project areas. Mechanical and process items to be painted include new and existing walls, floors, pipe, mechanical equipment, supports, and any pertinent accessory items or area damaged by the construction activity. Owner's approval shall be required for all components of the surface preparation, selection of colors, and paint system application before start of proposed work. Exposed PVC piping shall be painted. Exposed 316 SS piping shall not be coated.

Color-coding of pipelines, valves, equipment and ducts shall comply with applicable standards of ANSI A13.1, ANSI Z535.1, and 40 CFR 1910.144. Finish coats of paint for pipelines and equipment shall be coded in basic colors. Colors shall be brilliant, distinctive shades matching safety and pipeline colors per ANSI Z535.1, Recommended Standards for Water Works; Recommended Standards for Wastewater Facilities, color specifications for safety colors and other primary colors.

Provide pipe labels with flow arrows at each change in direction, tees (all sides) and every 20 feet of straight run.

### **3.7 Valve and Pipe Requirements**

The Design-Build Entity is responsible for the final sizing and selection of all equipment, pipe, and materials. Design-Build Entity shall provide all labor, materials, equipment, and incidentals to furnish and install valves, pipe, and fittings complete and operational as required for the proposed work. The Design-Build Entity shall conform to the Palm Beach County Water Utilities Manual of Minimum Design and Construction Standards. Valves, pipe, and fittings, including linings and coatings, that will convey potable water or water that will be treated to become potable shall be certified by an accredited organization in accordance with ANSI/NSF 61 as being suitable for contact with potable water, and shall meet requirements of the regulatory authorities having jurisdiction at work site.

The following information shall be submitted to the Owner for review and approval: detailed drawings and data on valves, pipes, joints, fittings, gaskets, harness, and all other pertinent information required for the manufacture and performance history of the product; certificates of compliance with all applicable referenced standards and any provisions for valves, pipes, joints, fittings, coatings, linings, sleeves, gaskets, harnesses, and all other appurtenances; complete field pressure testing, flushing, and disinfection plan

Materials shall be delivered to the site to ensure uninterrupted progress of the work. Valves, pipes, fittings, specials, and accessories shall be handled carefully with approved handling devices. Materials shall be stored on heavy wood blocking or platforms so they are not in contact with the ground. Delivered materials shall be inspected for cracked, gouged, chipped, dented or other damaged material and immediately removed from site. If in the process of manufacture, transportation, storage or handling any valves, pipe, fittings or specials receive any damage such material shall be rejected and replaced at the Design-Build Entity's expense.

Pipe interiors shall be kept completely free from dirt and foreign matter. All pipe shall be installed in complete accordance with the manufacturer's instructions and recommendations. If any pipe must be cut, the work shall be done in a satisfactory manner using a machine specifically designed for cutting the pipe, so as to avoid damage to the pipe and to leave a smooth end. The manufacturer's field representative shall certify the installations observed were satisfactorily completed and all installation crews were familiar with the proper methods and procedures for the pipeline installations.

### **3.8 Secondary Containment Pipe**

Secondary containment pipe shall be furnished for all below grade chemical piping outside of that chemical's containment area. Secondary containment pipe shall be Schedule 80, PVC construction, with fittings, as required and rated for 50 psig. Inner and outer systems shall be factory assembled. Secondary containment pipe shall be. System shall have centralizers that center and support carrier pipe within double containment pipe. No mechanical elastomeric seal system will be accepted. Installation of all containment pipe shall be as recommended by the containment pipe manufacturer. Installers shall use testing equipment recommended by the manufacturer for double containment pipe.

## **Part 4 Electrical Requirements**

### **4.1 Basic Requirements**

Design-Build Entity shall design and provide all labor, materials, equipment, and incidentals to complete the electrical work. All systems shall be properly grounded. Exterior systems shall have lightning protection.

### **4.2 Codes**

Material and equipment shall be installed in accordance with the current standards and recommendations of the National Electrical Code, the National Electrical Safety Code, and with local codes, which apply. Where discrepancies arise between codes, the most restrictive regulation shall apply.

### **4.3 Area Classifications**

#### **A. Wet Locations**

The following areas shall be considered wet locations:

1. All outdoor areas.
2. All indoor areas below grade unless otherwise specified.

Materials, equipment, and incidentals in areas identified as wet locations shall meet NEC and NEMA requirements for wet locations. Enclosures shall meet NEMA 4 requirements as a minimum. Conduits shall be terminated at enclosures with watertight threaded hubs.

#### **B. Corrosive Locations**

All chemical storage and pumping areas or rooms. Materials, equipment, and incidentals in areas identified as corrosive shall meet NEC and NEMA requirements for corrosive locations. Conduit systems shall be PVC and enclosures shall meet NEMA 4X requirements. Conduits shall be terminated at enclosures with watertight hubs. Independent supports shall be PVC-coated galvanized steel, or fiberglass-reinforced epoxy struts.

### **4.4 Electrical Equipment**

All new electrical equipment shall be capable of operating successfully at full-rated load, without failure, with an ambient outside air temperature of 0 degrees F to 122 degrees F and an elevation of 400 feet (MSL). All electrical devices and equipment shall have ratings based on 75 degrees C terminations. All electrical equipment enclosures at a minimum shall meet NEMA 12 requirements.

#### **4.5 Schematic Diagrams**

Schematic diagrams shall be prepared by the Design-Build Entity to act as guidance in fulfilling the operational intent of the conceptual documents. It shall be the Design-Build Entity's responsibility to meet all safety and electrical codes, and to provide all equipment, appurtenances and specialty items required to provide for complete and operable systems. Review of control schemes submitted by Design-Build Entity shall not relieve Design-Build Entity of their contractual responsibility to provide complete and successfully operating systems.

#### **4.6 Raceway Systems**

Design-Build Entity shall furnish and install conduit and fittings to form complete, coordinated, and grounded raceway systems. Design-Build Entity shall provide for the proper installation of all conduits for each system.

- A. Rigid aluminum conduit for exposed indoor conduit runs in non-corrosive areas and rigid aluminum at all other sites.
- B. PVC Schedule 80 for individual conduit runs direct buried in earth and PVC coated rigid steel at all other sites (minimum 24-inch burial depth).
- C. Schedule 40 PVC for conduit runs embedded in or under structural concrete slabs or in concrete ductbanks (all sites).
- D. PVC schedule 80 conduit for exposed indoor and outdoor runs in corrosive areas and PVC coated rigid steel at all other sites.
- E. Flexible conduit for connections to motors and equipment.

#### **4.7 Inspections, Testing, and Adjustments**

Accompany the normal installation tests with inspections to demonstrate to the satisfaction of the required judicial authorities the following:

- A. Connections: All circuits are properly connected in accordance with the drawings and applicable approved shop drawings.
- B. Operation: All circuits and devices are operable.
- C. Identification: All conductors are properly identified at each terminal.

Test each electrical circuit after permanent cables are in place to demonstrate that the circuit and connected equipment perform satisfactorily and that they are free from improper grounds and short circuits. Individually test 600-volt cables for insulation resistance between phases and from each

phase to ground. Test after cables are installed and before they are put in service with a Megger whose rating is suitable for the tested circuit. Tests shall meet with the applicable specifications of ICEA S 66 524 and NEMA WC7 1971. The insulation resistance for any given conductor shall not be less than 1 megohm for 600 volt and less service. Any cable not meeting this value or which fails when tested under full load conditions shall be replaced with a new cable for the full length.

Test shielded instrumentation cable shields with an ohmmeter for continuity along the full length of the cable and for shield continuity to ground. Connect shielded instrumentation cables to a calibrated 4-20 milliamp DC signal transmitter and receiver. Test at 4, 12, and 20 milliamp transmitter settings.

Test the completed ground systems for continuity and for resistance to ground using an electrical ground resistance tester. Ground system resistance must be less than 5 ohms. Add up to two additional rods, spaced at 20 feet minimum from other electrodes, until resistance is less than 5 ohms.

Operate all starters, circuit breakers, and associated equipment to demonstrate suitability and compliance with Specifications and reference standards, except for short circuit interrupting rating or other inherent design features covered by shop tests. Test all motors for direction of rotation and reverse connections if necessary. Check control circuits to determine that operation and sequence are correct and adjust limit switches, pressure switches, float switches, timers and other devices to give proper operation.

## **Part 5 Instrumentation and Control Requirements**

### **5.1 General**

Design-Build Entity shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish, install, calibrate, test, start-up, and place in satisfactory operation a complete and operating system for proposed work, including programming of the PLC, SCADA, and all required wire terminations. Tag number, equipment number, and description shall match the Owners numbering convention standards.

### **5.2 Calibration, Start-Up and Testing**

Field verify the calibration and performance of each instrument prior to start-up of the associated equipment, and document on a separate sheet for each.

### **5.3 System Check-Out and Start-Up Responsibilities**

Design-Build Entity shall retain the services of the system supplier to supervise and/or perform check out and start up of all system components. As part of these services, the system supplier shall coordinate and include check-out and start-up for those equipment items not manufactured or provided by him. The services of an authorized manufacturer's representative to check the equipment installation and place the equipment in operation may be required. The manufacturer's representative shall be thoroughly knowledgeable about the installation, operation and maintenance of the equipment.

Check and approve the installation of all instrumentation and control system components and all cable and wiring connections between the various system components prior to placing the various processes and equipment into operation. Conduct a complete system checkout and adjustment,



including calibration of all instruments, tuning of control loops, checking operation functions, and testing of final control actions. When there are future operational functions included in this work, they should be included in the system checkout. All problems encountered shall be promptly corrected to prevent any delays in start up of the various unit processes.

System supplier shall provide all test equipment necessary to perform the testing during system checkout and start up. Design-Build Entity and system supplier shall be responsible for initial operation of monitoring and control system and shall make any required changes, adjustment or replacements for operation, monitoring, and control of the various processes and equipment necessary to perform the functions intended.

Design-Build Entity shall furnish to the Owner certified calibration reports for field instruments and panel mounted devices specified in this Section as soon as calibration is completed. Design-Build Entity shall furnish Owner an installation inspection report certifying that all equipment has been installed correctly and is operating properly. The report shall be signed by authorized representatives of both Design-Build Entity and the system supplier.

#### **5.4. Instrumentation and Control System Field Test**

Following the plant monitoring and control system checkout and initial operation, system supplier, under the supervision of the Design-Build Entity, shall perform a complete system test to verify that all equipment and programmed software is operating properly as a fully integrated system, and that the intended monitoring and control functions are fully implemented and operational. Any defects or problems found during the test shall be corrected by system supplier, and then retested to demonstrate proper operation. Following demonstration of all system functions, the plant monitoring and control system including field sensors/transducers and instruments, and telemetry system shall be running and fully operational for a continuous 72 hour period.

#### **5.5 Control Panels and Enclosures**

Control panels located inside control or electrical room areas shall be NEMA 12 rated unless differently noted on drawings. All others shall be stainless steel or non-metallic NEMA 4 except in corrosive areas, which shall be NEMA 4X. Provide panel ventilation or air conditioning if required by ambient conditions. Use pan type construction for doors. Door widths shall not exceed 36-inches. Exterior panel with displays shall face north. Exterior control panels shall be 316 stainless steel with powder coated white epoxy exterior finish.

#### **5.6 Surge Protection**

Surge protection shall be provided to protect all electronic instrumentation from surges propagating along the signal, telephone, and power supply lines. Locate the suppression device as close as possible to the load device. The protection systems shall be such that the protection level shall not interfere with normal operation, but shall be lower than the instrument surge withstand level, and be maintenance free and self-restoring. Instruments shall be housed in suitable metallic cases, properly grounded. Ground wires for all surge protectors shall be connected to a good earth ground and where practical each ground wire run individually and insulated from each other.

#### **5.7 Lightning Protection (Not Applicable)**

# ATTACHMENT - K

## Vendor Quotes

Energy Efficient Electric, Inc.  
1600 Mercer Ave. Unit 6  
West Palm Beach, FL. 33401  
Phone (561) 655-7211 Fax (561) 655-9661  
Mobile (561) 722-1381  
E-Mail Address: rene@energyeff.com  
**State License #EC 0001096**

June 25, 2015

**Revised Electrical Scope of Work  
Pahokee WST**

Quote # 31009

We are pleased to provide your firm with our scope and proposal for the necessary electrical work on the above referenced project. Our scope and proposal is based on a walk thru with Nico Shaner on June 12<sup>th</sup>.

**Included:**

1. Furnish and install a 150 amp 240 volt 3 phase electrical service from existing handhole at the base of FPL pole to the water storage tank. Excavating, backfill and final restoration by others.
2. Furnish and install a new meter can, main disconnect, panelboard, (2) 15 HP VFD's, disconnects and starters.
3. Demo existing feed from the lift station to existing lighting panel and refeed from new panelboard.
4. Furnish and install conduit and wire for (2) booster pumps, agitator/mixer motor, (2) pressure switches, (1) float switch, (2) dosing pumps, (2) solenoids, garage door opener, exhaust fan, light fixtures, eyewash, (4) analyzers and magmeter.
5. Furnish (2) 3/4" conduits up to 150 feet each for agitator/mixer motor feed to be installed by others.
6. Furnish and install grounding as necessary.
7. Furnish and install (5) LED light fixtures.
8. PLC mods up to \$1,000.

**Excluded:**

1. Permit and FPL fees.
2. Concrete, asphalt and metal storage tank wall cutting and patching.
3. Concrete pads.
4. Pumps, pressure switches, floats, instruments and programming.

**Lump Sum            \$81,300**

We appreciate the opportunity to quote your organization on this project. If you have any questions, please call me at the office.

Thank You Very Kindly,

*Rene Viau*

Vice President

Residential ----- Lighting Systems ----- Commercial ----- Industrial

C:\USERS\SCHUMAN\APPDATA\LOCAL\MICROSOFT\WINDOWS\TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\OHCAPANFK\REVISED QUOTE (0000003).DOC



July 08, 2015

Dave Schuman  
GlobalTech, INC

Subject: PBC Pahokee WTP Elevated Tank iFIX modification

Dear Dave:

ADS Engineering (ADS) is pleased to provide to GlobalTech (GT) a proposal for programming HMI services associated with the above referenced project. The project consists of:

- iFIX screens for Elevated Tank to include monitoring and control of the two VFDs Booster Pumps, attitude valve, tank mixer and miscellaneous chemicals and analyzer.
- Coordinating with GT for PLC control, set points etc.
- iFIX import database for above referenced project
- Configuration of iFIX IGS driver for Control Logix PLCs.
- Providing all necessary configuration of the historian data collection of the trending screens for the above referenced project.
- Coordination with PBC SCADA department for loading and testing the screens, start-up (two (2) days maximum).

Our proposed lump-sum for above service is \$9,300.00

Note: The PLC program and memory location provided by GT.

If you have any questions, please call.

Sincerely,  
Alex Stojanovic



Proposal From  
**UTILITY SERVICE COMPANY, INC.**  
 1230 Peachtree St NE · Suite 1100 - Promenade · Atlanta, GA 30309  
 Toll-free: 855-526-4413 | Fax: 478-987-2991  
 utilityservice.com

Date: 7-11-2015      Submitted by: **T McDaniel**      Local Phone: **386-451-9452**  
 SFID: 40439      CN: 101066      SO:

Proposal Submitted To: <b>Globaltech, Inc</b>		Phone Number: <b>561-997-6433</b>		Fax Number: <b>561-997-5811</b>	
Street Address: <b>6001 Broken Sound Parkway</b>			Description of Work to be Performed: <b>PAX Install – PWM150</b>		
City: <b>Boca Raton</b>	State: <b>FL</b>	Zip Code: <b>33487</b>	Tank Name: <b>PBC Pahokee Hydropillar</b>		
Accounts Payable Contact Name: <b>Paul Gandy</b>	Email: <b>pgandy@globaltechdb.com</b>		Job Site Address: <b>East Main Street Pahokee, FL</b>		
Job Contact (Inspection Reports): <b>David Schuman</b>	Email: <b>dschuman@globaltechdb.com</b>		County / Parish: <b>Palm Beach</b>	Tank Size: <b>500KG</b>	Tank Style: <b>Hydropillar</b>

Utility Service Co., Inc. agrees to provide all labor, equipment, and materials needed to complete the following:

1. A date shall be coordinated by both parties for the Owner to make the tank available for installation.
2. Utility Service Co., Inc. shall furnish and install one (1) NSF Approved PAX Submersible Active Mixing system – PWM150, together with all necessary components for a complete and operable active mixing system.
3. Owner will be required to provide 120 VAC, 20 Amp GFCI – Protected, 15 Amp Circuit power supply at the tank with a disconnect switch, and will be required to supply a certified electrician to make the final connection between the PAX Mixer and the power supply during the installation.
4. Owner will be responsible for any & all trenching, conduit, and electrical connections outside the tank, unless otherwise specified by this agreement.
5. Upon completion of PAX installation, USG will power up the PAX Active Mixing system and complete electrical system check/IAR on PAX unit to verify proper operation.
6. Install two (2) sample lines in dry riser of tank at 15ft level and 6ft below HWL. Sample lines shall be 1/2 in PVC. Run to grade inside of tank.
7. Install one (1) 1/2 in PVC Chlorine injection line through dry riser to 1ft above HWL. Run to grade inside of tank. Owner to supply motor and pump for actual operation our PVC terminates at floor, where owner will complete.
8. USC will disinfect utilizing AWWA Spray Method #2.

Tank Owner: Palm Beach County, FL

Please sign and date this proposal and fax one copy to our office.

**Thirty-Five Thousand Nine Hundred Ninety-Three and -----00/100 Dollars \$35,993.00**

Payment to be made as follows:      **Payment in Full Completion of Work – plus all applicable taxes**  
**Remittance Address: Utility Service Co., Inc., P O Box 674233, Dallas, TX 75267-4233**

All material is guaranteed to be as specified. All work to be completed in a substantial workmanlike manner according to specifications submitted, per standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workmen's Compensation Insurance.

Authorized  
 USG Signature

Note: This proposal may be withdrawn by us if not accepted within Thirty (30) days.

**Acceptance of Proposal -** The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Fiscal Yr Beginning Month \_\_\_\_\_

Signature \_\_\_\_\_

Date of Acceptance \_\_\_\_\_

Printed Name \_\_\_\_\_