

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: June 3, 2014 Consent [X] Regular []
Public Hearing []

Department: Water Utilities Department

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Work Authorization No. 24 with Globaltech, Inc. for the Water Treatment Plant No. 8 (WTP 8) Filters 1-3 Valve Replacement in the amount of \$516,850.57.

Summary: On January 24, 2012, the Palm Beach County Board of County Commissioners (BCC) approved the contract for Water, Wastewater, and Reclaimed Water Improvements Design/Build Services (R2012-0159) with Globaltech, Inc. Work Authorization No. 24 will authorize the replacement of the valves on Filters 1, 2 and 3 which are over 30 years old. This Work Authorization will improve operation of filters by replacing the existing hydraulically actuated valves with electrically actuated valves. The Small Business Enterprise (SBE) participation goal established by the SBE Ordinance is 15% overall. The contract with Globaltech, Inc. provides for SBE participation of 75% overall. This Work Authorization includes 94.33% overall SBE participation. The cumulative SBE participation, including this Work Authorization is 90.84% overall. Globaltech, Inc. is a Palm Beach County company. This project is included in the FY14-15 Capital Improvement plan adopted by the Board of County Commissioners. (WUD Project No. 12-002) District 2 (JM)

Background and Justification: Work Authorization No. 24 provides for Design-Build services to provide and install replacement valves and actuators for Filters 1, 2 and 3. The existing valves are over 30 years old and are reaching the end of their useful life. The valves actuators will be upgraded from hydraulic to electric. On January 24, 2012, the BCC approved a contract with Globaltech, Inc. for Water, Wastewater, and Reclaimed Water Improvements Design/Build Services (R2012-0159). Globaltech, Inc. will provide builders risk insurance prior to commencement of construction.

Attachments:

- 1. Location Map
- 2. Two (2) Original Work Authorization No. 24

Recommended By: Beall Beards 5/15/14
Department Director Date

Approved By: [Signature] 5/29/14
Assistant County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2014	2015	2016	2017	2018
Capital Expenditures	<u>\$516,851</u>	0	0	0	0
External Revenues	0	0	0	0	0
Program Income (County)	0	0	0	0	0
In-Kind Match County	0	0	0	0	0
NET FISCAL IMPACT	<u>\$516,851</u>	0	0	0	0
# ADDITIONAL FTE POSITIONS (Cumulative)	0	0	0	0	0

Budget Account No.: Fund 4011 Dept 721 Unit W001 Object 6541

Is Item Included in Current Budget? Yes X No

Reporting Category N/A

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

One (1) time capital expenditure from user fees with balance brought forward.

C. Department Fiscal Review: *Debra M. West*

III. REVIEW COMMENTS

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

Debra M. West
OFMB
5/19/14

Debra M. West 5/27/14
Contract Development and Control
5-27-14 B. Whelan

B. Legal Sufficiency:

[Signature] 5/28/14
Assistant County Attorney

C. Other Department Review:

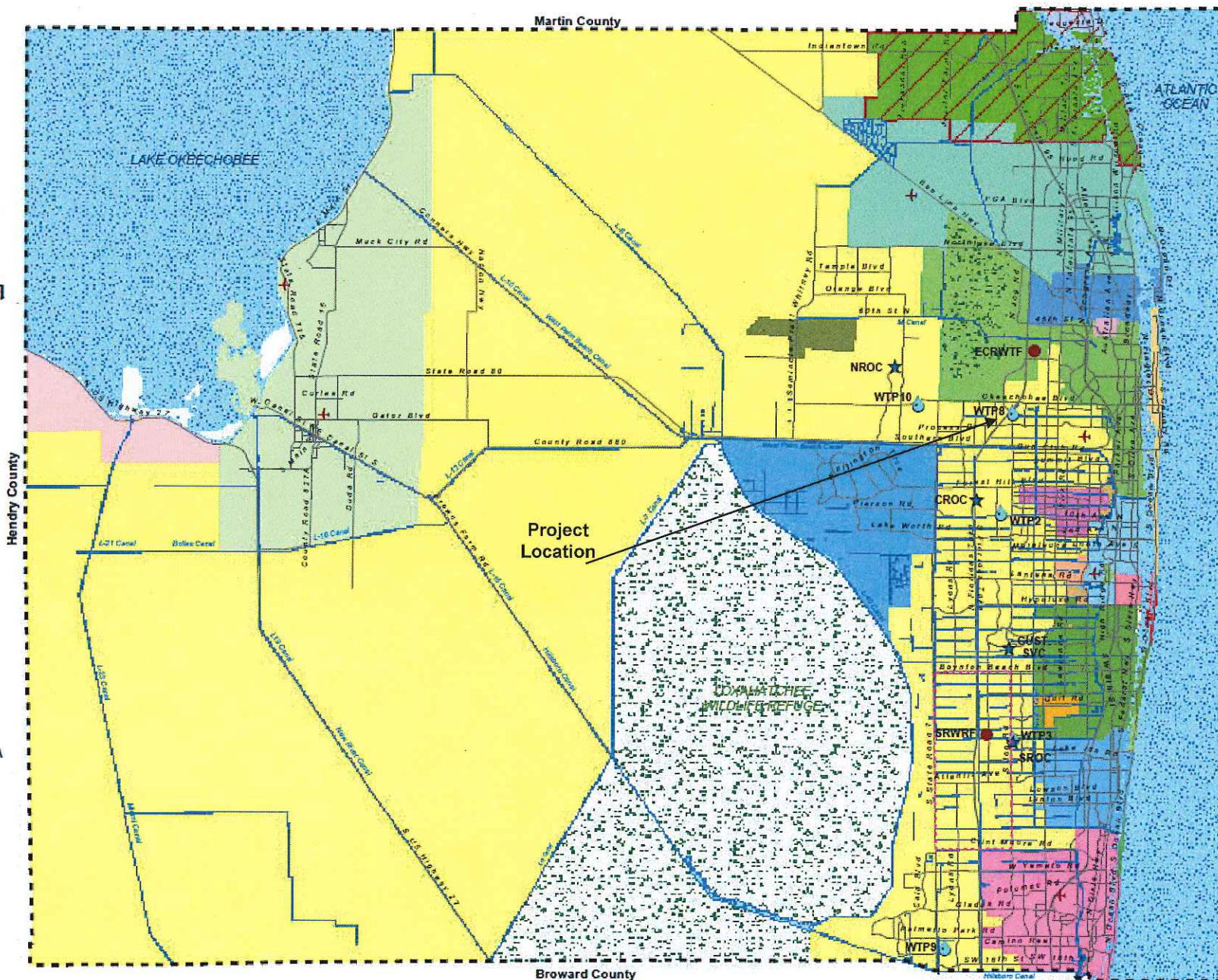
Department Director

This summary is not to be used as a basis for payment.

ATTACHMENT – I Project Location Map



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities



Legend

- MANDATORY RECLAIMED SA
- Water Treatment Facility
- ★ Administration
- Water Reclamation Facility
- - - COUNTY LIMITS
- P.B.C.W.U.D. SA



WA-18: WTP 8 – Filters 1 – 3 Valve Replacement (WUD Project No. 12-002)

WORK AUTHORIZATION NO. 24

Palm Beach County Water Utilities Department
Water, Wastewater & Reclaimed Water Improvements Design/Build Contract

Project No.: WUD 12-002

District: 2

Budget Line Item No.: 4011 - 721 - W001 - 6541

Project Title: WTP 8 - Filters 1 - 3 Valve Replacement

THIS AUTHORIZATION # 24 to the Contract for Water, Wastewater & Reclaimed Water Improvements Design/Build Services dated January 24, 2012 (R2012-0159), by and between Palm Beach County and the Contractor identified herein, is for the Design/Build Services of this Work Authorization. The Contract provides for 75% SBE participation overall. This Work Authorization includes 94.33% overall participation. The cumulative proposed SBE participation, including this authorization is 90.84% overall. Additional authorizations will be utilized to meet or exceed the stated overall participation goal.

1. Contractor: 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 Contractor:

See ATTACHMENT - A.
4. Services completed by the Contractor to date:

See ATTACHMENT - G.
5. Contractor shall begin work promptly or deliver ordered materials within the following calendar days from the approval date of the Work Authorization:

Substantial Completion 300 Calendar Days (16 weeks delivery)
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 Contractor for providing the requested services in accordance with the Guaranteed Maximum Price is \$ 516,850.57.
7. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated January 24, 2012 remain in full force and effect.

Project No.: WUD 12-002

Project Title: WTP 8 – Filters 1 – 3 Valve Replacement

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: _____ *Baty*
Priscilla A. Taylor, Mayor

Typed Name: _____
Deputy Clerk

Date

Approved as to Form and Legal
Sufficiency

Signed: _____

Typed Name: _____
County Attorney

CONTRACTOR: Globaltech, Inc.

ATTEST:

Richard D. Olson

Witness

Bernard P. Gandy

(Signature)

Richard D. Olson, P.E. / Proposal Manager
(Name and Title)

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

(CORPORATE SEAL)

May 13, 2014
Date

LIST OF ATTACHMENTS

WORK AUTHORIZATION NO. 24

**Palm Beach County Water Utilities Department
Water, Wastewater & Reclaimed Water Improvements Design/Build Contract**

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

ATTACHMENT A

WORK AUTHORIZATION NO. 24

Palm Beach County Water Utilities Department

Water, Wastewater & Reclaimed Water Services Design-Build Contract

SCOPE OF WORK FOR

WTP 8 – Filters 1 - 3 Valve Replacement

INTRODUCTION

Palm Beach County (County) entered into an agreement entitled Water, Wastewater & Reclaimed Water Improvements Design-Build Contract - Palm Beach County Water Utilities Department Project No. WUD 11-134 (CONTRACT) with Globaltech, Inc. (DESIGN BUILD ENTITY) to provide design-build services for various general activities on the Water, Wastewater & Reclaimed Water Services Design-Build Contract dated January 24, 2012, (R 2012-0159). This Work Authorization will be performed under that CONTRACT.

This Work Authorization encompasses providing services related to the following tasks:

- Provide and install replacement valves in Filters 1, 2 and 3.
- Installing owner provided stainless steel surface piping (associated with the media cleaning system) in Filters 1, 2, and 3.
- Performing crack repair using polyurethane resin on the western exterior wall of the Filter Building.

SCOPE OF SERVICES

Design Build Entity shall perform the Scope of Services described in the Design-Build Criteria Report for Water Treatment Plant No. 8 – Filters 1 – 3 Valve Replacement and as described herein:

Task 1 – Construction Services

General Administrative

1. Establish staging areas with plant staff. Mobilize to facilities.
 2. Prepare detailed construction schedule for review by construction manager and plant staff. Schedule will provide a sequence of work and scheduled filter shut-downs.
 3. Review proposed materials with County staff. Prepare submittals for County review and approval.
-

4. Inventory Owner-provided materials and provide list of missing/required parts.

VALVE REPLACEMENT

Filter Gallery

1. Remove existing 18" air actuated common overhead backwash flow control valve. A shutdown is required. The existing 18" flow control valve and air actuator shall be relocated. Provide all necessary hanger supports. The replacement 18" butterfly valve with electric actuator shall be installed on the opposite side of the flow control valve. The existing flow control valve shall be used as a venture flow meter and the existing air actuator and valve mechanism shall be removed and a watertight rectangular blind flange (owner furnished) shall be installed. Furnish and install all necessary spool pieces and flange adapters for piping fit-up.
 2. On each of Filters 1, 2 and 3:
 - a. One (1) 18" backwash valve. Replace the existing air actuated valves with new electric actuated valves. A shutdown of each filter is required.
 - b. Two (2) 18" isolation valves (1 north and 1 south). Replace the existing air actuated valves with new electric actuated valves.
 - c. Two (2) 4" surface wash valves (1 north and 1 south). Replace the existing air actuated valves with new electric actuated valves.
 - d. One (1) 24" Influent valve with bonnet. Replace the existing air actuated valves with new electric actuated valves.
 - e. One (1) 20" drain valve. Replace the existing air actuated valves with new electric actuated valves.
 - f. Remove existing 18" air actuated common overhead backwash flow control valve. A shutdown is required. The existing 18" flow control valve and air actuator shall be relocated. Remove existing pedestal support and install with new stainless steel pipe supports. The replacement 18" butterfly valve with electric actuator shall be installed on the opposite side of the flow control valve. The existing flow control valve shall be used as a venture flow meter and the existing air actuator and valve mechanism shall be removed and a watertight rectangular blind flange (owner furnished) shall be installed. Furnish and install all necessary spool pieces and flange adapters for piping fit-up.
 3. Remove existing filter gallery north single door and install new hurricane rated double door including all concrete block removal and replacement with door frame, panic hardware (reusing existing hardware) and relocation of access control and exit sign. All electrical work, including relocation of access control and exit sign, associated with installing larger door will be performed by WTP 8 staff. Door coating will also be performed by WTP 8 staff.
 4. Remove Turbitrol filter cabinets and controls and fill rectangular hole in floor with reinforced concrete.
 5. Remove filter conduit and hydraulic control piping trays for filters 1, 2 and 3.
-

6. Provide plumbing for on-line turbidity meters for filters 1, 2 and 3.
7. Remove existing surface water piping (north and south) for filters 1, 2 and 3 and install owner furnished piping.
8. Provide all signage and valve tags.
9. Crack repair for west exterior wall of filters 1, 2 and 3 and west flume to seal leakage.

SUBMITTALS

1. Provide 8 sets of shop drawings
2. Construction meetings will be held monthly.
3. Conform to the Water Utilities Minimum Design and Construction Standards, Engineering Design-Manual and security requirements.

SALVAGED MATERIALS

1. Scrap metal to be placed in the County's salvage dumpster.
2. Non-metal waste such as concrete, PVC, fiberglass etc., to be hauled and legally disposed by Design/Builder.

ASSUMPTIONS

1. No FDEP or Building Department Permits will be required.
2. County will make available all existing record drawings as may be required to coordinate and complete this scope of services.
3. County will review all submittals and provide comments within one calendar week and notify Globaltech of status.
4. County will make all final electrical connections for electrical equipment and instrumentation.
5. Globaltech shall provide a concrete slab under the filter console. Concrete finish will be left with a "broom finish" and will not be tiled to match surrounding decking.
6. Crack repair assumes 100 feet of exterior crack. Crack repair will require two mobilizations of repair subcontractor to address crack migration.
7. Neither design nor record drawings will be prepared for this project.
8. An O&M Manual will be provide for significant mechanical equipment provided.
9. An Allowance of \$25,000.00 is included in this Work Authorization. Access to the allowance shall be requested through an "Allowance Authorization Request" prior to spending any part of the Allowance.
10. 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 (consistent with a Moderately Important Project as outlined in **Attachment B**).

11. OWNER shall provide:

- a. Three (3) new 4" surface wash valves with motor actuators.
- b. One (1) new 18" butterfly valve with motor actuator.
- c. Two (2) used 18" butterfly valves with motor actuator (previously installed in Filters 4 to 6).
- d. Three (3) used 18" butterfly valves with motor actuators which are currently installed in Filters 1 to 3 and are to be relocated.
- e. Surface wash piping.
- f. Flange accessories: Design-Builder shall inventory County furnished materials and determine what additional materials are necessary and provide them in the Design-Build proposal.
- g. PakScan wireless system for valve actuator monitoring.
- h. Redundant wired control loops for valve actuators.
- i. Programming of PLC and SCADA screens.

COMPENSATION

Compensation for this Work Authorization shall not exceed the Guaranteed Maximum Price of **\$516,850.57** in accordance with the unit prices established in the Contract for construction services dated **January 24, 2012**, as approved by the Board of County Commissioners.

SBE/M-WBE PARTICIPATION

As described in the Contract (R2012-0159), 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. 24

**Palm Beach County Water Utilities Department
Water, Wastewater & Reclaimed Water Improvements Design/Build Contract**

Rates for Liquidated Damages

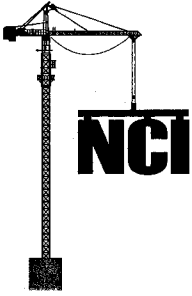
Palm Beach County Water Utilities Department shall establish liquidated damages rates for each Work Authorization based on the dollar amount and time sensitivity of the project. The rates shall be as follows according to a criticality rating of 1 through 3 assigned to each Work Authorization by the Department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



NIELSON, ROSENHAUS & ASSOCIATES

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

May 8, 2014

Globaltech, Inc.
6001 Broken Sound Parkway NW, Ste. 610
Boca Raton, FL 33487

RE: Palm Beach County, as Obligee
Project: WTP No. 8 Filters 1-3 Valve Replacement
Bond No. SU1122518

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 Obligee, 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.**

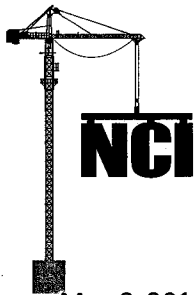
We will forward this information onto your surety company upon our receipt. Please return as soon as possible.

Thank you for your cooperation.

Sincerely,

Brett Rosenhaus,
FL Resident Agent

4000 South 57th Avenue
Suite 201
Lake Worth, FL 33463
P: 561.432.5550
F: 561.432.5442
www.nielsonbonds.com



NIELSON, ROSENHAUS & ASSOCIATES

May 8, 2014

Globaltech, Inc.
6001 Broken Sound Parkway NW, Ste. 610
Boca Raton, FL 33487

Project: WTP No. 8 Filters 1-3 Valve Replacement

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

4000 South 57th Avenue
Suite 201
Lake Worth, FL 33463
P: 561.432.5550
F: 561.432.5442
www.nielsonbonds.com

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

**FRONT PAGE OF
PUBLIC PAYMENT BOND**
Florida Statute 255.05

Attached to and part of BOND NO. SU1122518
In Compliance with Florida Statutes Chapter 255.05 (1) (a), Public Work. All other
Bond page(s) are deemed subsequent to this page regardless of any number (s) that
may be pre-printed thereon.

CONTRACTOR: Globaltech, Inc.
6001 Broken Sound Parkway NW, Ste. 610
Boca Raton, FL 33487
561-997-6433

SURETY: Arch Insurance Company
300 Plaza Three, 3rd Floor
Jersey City, NJ 07311
212-651-6500

AGENT: Nielson, Rosenhaus & Associates
4000 South 57th Avenue, Suite 201
Lake Worth, FL 33463
561-432-5550

OBLIGEE: Palm Beach County
8100 Forest Hill Boulevard
West Palm Beach, FL 33413
561-493-6000

PROJECT: WTP No. 8 Filters 1-3 Valve Replacement

ATTACHMENT - C

PUBLIC CONSTRUCTION BOND

BOND NUMBER: SU1122518

BOND AMOUNT: \$516,850.57

CONTRACT AMOUNT: \$516,850.57

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, 3rd Floor
Jersey City, NJ 07311
212-651-6500

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 replacement valves in filters 1, 2 and 3. Install owner provided stainless steel surface piping in filters 1, 2 and 3. Perform crack repair on the western exterior wall of the filter building.

COUNTY'S PROJECT No: WUD 12-002, WA-24

PROJECT LOCATION: PBCWUD Water Treatment Plant No. 8, 1500 N Jog Road, West Palm Beach, FL 33417, PCN 00-42-43-27-05-004-0053

LEGAL DESCRIPTION: WTP No. 8 Filters 1-3 Valve Replacement (WUD 12-002)

THE PROVISIONS AND LIMITATIONS OF SECTION 255.05 FLORIDA STATUTES,
INCLUDING BUT NOT LIMITED TO THE NOTICE AND TIME LIMITATIONS IN SECTIONS
255.05(2) AND 255.05(10), ARE INCORPORATED IN THIS BOND BY REFERENCE.

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 \$516,850.57

Five hundred sixteen thousand eight hundred fifty dollars and fifty-seven 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: WTP No. 8 Filters 1-3 Valve Replacement
Project No.: WUD 12-002
Project Description: Furnish and install new replacement valves in filters 1, 2 and 3. Install owner provided stainless steel surface piping in filters 1, 2 and 3. Perform crack repair on the western exterior wall of the filter building.
Project Location: PBCWUD Water Treatment Plant No. 8, 1500 N Jog Road, West Palm Beach, FL 33417, PCN 00-42-43-27-05-004-0053

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 12-002, 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.

[Signature]
 Witness

Rebecca Koontz
 Print name

[Signature]
 Witness

Jackie Haynes
 Print name

Globaltech, Inc.
 Principal (Seal)

[Signature]
 Print name

PRESIDENT
 Title

Arch Insurance Company
 Surety (Seal)

[Signature]
 Print name

Brett Rosenhaus, Attorney in fact
 Title

ATTACHMENT - D

ATTACHMENT - D

FORM OF GUARANTEE

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

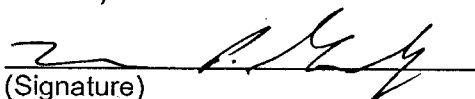
We the undersigned hereby guarantee that the **Water Treatment Plant No. 8 Filters 1-3 Valve Replacement, WUD 12-002, WA-24**. Palm Beach County, Florida, which we have constructed and bonded, has been done in accordance with the plans and specifications; that the work constructed will fulfill the requirements 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)

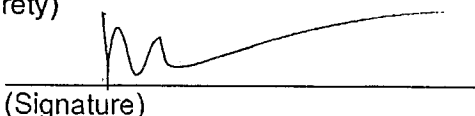
SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY

Globaltech, Inc. _____ (Seal)
(Contractor)

By: 
(Signature)

BERNARD P. GANJOY
(Printed Name)

Arch Insurance Company _____ (Seal)
(Surety)

By: 
(Signature)

Brett Rosenhaus, Attorney in fact
(Printed Name)

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 Gahn, John R. Neu, Kevin Wojtowicz and Laura D. Mosholder of Miami Lakes, FL (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."

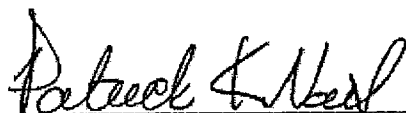
This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

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.

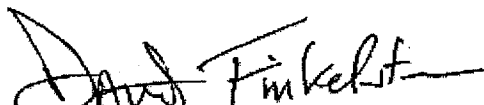
In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 21st day of August, 2013.

Attested and Certified

Arch Insurance Company

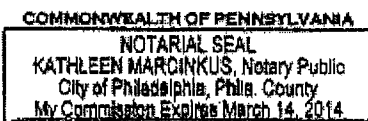

Patrick K. Nails, Secretary





David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS
COUNTY OF PHILADELPHIA SS

I, Kathleen Marcinkus, 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.

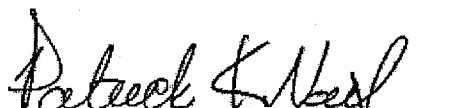



Kathleen Marcinkus, Notary Public
My commission expires 03/14/2014

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated August 21, 2013 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 - E

WORK AUTHORIZATION COST SCHEDULE



Takeoff Worksheet by Bid Item w/Tax & Markup

05/05/14

WUD 12-002 PBC Water Utilities Department
140415PBC WTP8 Filters 1-3 Valve Rep

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Job: 140415 PBC WTP8 Filters 1-3 Valve Rep								
Bid Item: 1 General Conditions								
1	Temporary Facilities	LOT	1.00					
	Job Site Trailer	Month	4.00	240.00	960.00	6.00	1.1500	1,170.24
	Trailer Pick up/Delivery	Ea	2.00	200.00	400.00	6.00	1.1500	487.60
	Sanitary	Month	4.00	95.00	380.00	6.00	1.1500	463.22
	Job Site Office Supplies	LOT	1.00	100.00	100.00	6.00	1.1500	121.90
	Waste Hauling	LOT	2.00	600.00	1,200.00	6.00	1.1500	1,462.80
2	General Conditions	LOT	1.00					
	Submittal Labor	HR	8.00	59.54	476.32		1.2992	618.83
	Progress Meeting	HR	20.0	79.50	1,590.00		1.2992	2,065.73
	Scheduling Labor	HR	10.0	59.54	595.40		1.2992	773.54
	Construction PM	HR	140.	59.54	8,335.60		1.2992	10,829.61
	Construction Superintendent	HR	120.	52.96	6,355.20		1.2992	8,256.68
	Startup Crew	CR-D	1.00	799.44	799.44		1.2992	1,038.63
	Punch Out Crew	CR-D	1.00	799.44	799.44		1.2992	1,038.63
	Inventory Check	HR	10.0	59.54	595.40		1.2992	773.54
	Safety	LOT	20.0	59.54	1,190.80		1.2992	1,547.09
	Safety Equipment	LOT	1.00	500.00	500.00	6.00	1.1500	609.50
	Office Admin	HR	14.0	33.66	471.24		1.2992	612.24
					Bid Item Totals:	24,748.84		31,869.78
Bid Item: 2 Site Work								
2950	Site Prep & Restoration	LOT						
	Site Prep	LOT	1.00					

Takeoff Worksheet by Bid Item w/Tax & Markup

05/05/14

Continued...

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
	Turbitrol Cabinet and Controls DEMO	CR-D	2.00	799.44	1,598.88		1.2992	2,077.26
	Copper Pipe DEMO	CR-D	3.00	799.44	2,398.32		1.2992	3,115.90
	Tray DEMO	CR-D	2.00	799.44	1,598.88		1.2992	2,077.26
	Patch & Repair		1.00	500.00	500.00	6.00	1.1500	609.50
	Seed & Sod	LOT	1.00	1,000.00	1,000.00	6.00	1.1500	1,219.00
	Seed & Sod Install	CR-D	1.00	799.44	799.44		1.2992	1,038.63
Bid Item Totals:					7,895.52			10,137.55
Bid Item:	3 Concrete							
3300	Cast In Place Concrete	LOT	3.00	2,098.88				
L	Form & Materials	LOT	3.00	200.00	600.00	6.00	1.1500	731.40
L	Concrete	LOT	3.00	300.00	900.00	6.00	1.1500	1,097.10
L	3 Man Crew	CR-D	6.00	799.44	4,796.64		1.2992	6,231.79
Bid Item Totals:					6,296.64			8,060.29
Bid Item:	5 Metals							
	Pipe Support	LOT	5.00	600.00	3,000.00	6.00	1.1500	3,657.00
	3 Man Crew	CR-D	2.00	799.44	1,598.88		1.2992	2,077.26
	Fasteners	LOT	1.00	500.00	500.00	6.00	1.1500	609.50
Bid Item Totals:					5,098.88			6,343.76
Bid Item:	8 Doors & Windows							
	Concrete Cutting & Opening Prep	LOT	1.00	1,500.00	1,500.00		1.1000	1,650.00
	Concrete Cutting & Opening Prep (Labor)	CR-D	2.00	799.44	1,598.88		1.2992	2,077.26
	Hurricane Rated Doors & Frame	Ea	1.00	1,944.00	1,944.00	6.00	1.1500	2,369.74
	Doors & Frame Installation	Ea	1.00	1,800.00	1,800.00		1.1000	1,980.00
	Construction PM	HR	8.00	59.54	476.32		1.2992	618.83
Bid Item Totals:					7,319.20			8,695.83
Bid Item:	15 Mechanical							
15050	Mechanical Materials & Methods	LOT						
	Valves & Operators	LOT	1.00	214,559.00	214,559.00	6.00	1.1500	261,547.42

Takeoff Worksheet by Bid Item w/Tax & Markup

05/05/14

Continued...

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
	18" Dresser Coupling	EA	6.00	837.00	5,022.00	6.00	1.1500	6,121.82
	Victaulic Couplings	LOT	1.00	1,000.00	1,000.00	6.00	1.1500	1,219.00
	LinkSeal	LOT	1.00	360.00	360.00	6.00	1.1500	438.84
	Gaskets and SS Bolts & Nuts	LOT	1.00	4,000.00	4,000.00	6.00	1.1500	4,876.00
	Warehouse forklift	LOT	4.00	1,584.00	6,336.00	6.00	1.1500	7,723.58
	10,000lb Traversing Fork Lift	Month	4.00	2,900.00	11,600.00	6.00	1.1500	14,140.40
	Scissor Lift	Month	4.00	686.00	2,744.00	6.00	1.1500	3,344.94
	Engine Hoist	LOT	4.00	300.00	1,200.00	6.00	1.1500	1,462.80
	Post Shores	LOT	4.00	120.00	480.00	6.00	1.1500	585.12
	Steel Plate	LOT	1.00	1,500.00	1,500.00	6.00	1.1500	1,828.50
	Saw Blades	LOT	1.00	500.00	500.00	6.00	1.1500	609.50
	Misc Tools	LOT	1.00	1,500.00	1,500.00	6.00	1.1500	1,828.50
	Fuel	LOT	1.00	2,000.00	2,000.00	6.00	1.1500	2,438.00
	5 Man Crew	CR-D	34.0	1,387.04	47,159.36		1.2992	61,269.44
	Construction PM	HR	40.0	59.54	2,381.60		1.2992	3,094.17
15050	Crack Repair	LOT	1.00					
	West Wall of Filters 1-3 & West Flume	LOT	1.00	25,980.00	25,980.00		1.1000	28,578.00
	Progress Meeting	HR	10.0	79.50	795.00		1.2992	1,032.86
	Construction PM	HR	20.0	59.54	1,190.80		1.2992	1,547.09
					Bid Item Totals:			330,307.76
								403,685.98
Bid Item:	25 Allowance							
	Allowance	LOT	1.00	25,000.00	25,000.00		1.0000	25,000.00
					Bid Item Totals:			25,000.00
								25,000.00
Bid Item:	60 Bonds							
	General Liability & Workers' Comp Insurance	LOT	1.00	8,888.28	8,888.28		1.1500	10,221.52
	Bonds & Certifications	LOT	1.00	7,837.20	7,837.20		1.1500	9,012.78
	Builders Risk Insurance	LOT	1.00	3,324.42	3,324.42		1.1500	3,823.08
					Bid Item Totals:			20,049.90
								23,057.38

Takeoff Worksheet by Bid Item w/Tax & Markup

05/05/14

Continued...

Assembly#	Description	Unit	Quantity	Cost	Ext. Cost	Tax (%)	Markup*	Ext. Price
Grand Totals:					426,716.74			516,850.57

* Materials = 15%, Subcontractors = 10%, Labor at Burden = 29.92% (12% G&A x 16% Profit & Overhead)

ATTACHMENT - F

SBE SCHEDULE 1 & 2

ATTACHMENT - F

SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONTRACTORS

PROJECT NAME: Water Treatment Plant No. 8 Filters 1 - 3 Valve Replacement PROJECT No: WUD 12-002

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"/>	\$ -	\$ -	\$ -	\$ 487,570.57	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
	<input type="checkbox"/>	<input type="checkbox"/>	\$ -	\$ -	\$ -	\$ -	\$ -
PRIME CONTRACTOR TO COMPLETE:	TOTAL		\$ -	\$ -	\$ -	\$ 487,570.57	\$ -

BID PRICE: \$ 516,850.57 Total Value of SBE Participation: \$ 487,570.57

- 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 12-002

PROJECT NAME: WTP No. 8 Filters 1 – 3 Valve Replacement

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	General Conditions	N/A	N/A	\$ 31,869.78
2	Mechanical Construction	N/A	N/A	\$ 405,765.46
3	Crack Repair	N/A	N/A	\$ 31,157.95
4	Bonds & Insurance	N/A	N/A	\$ 23,057.38
5	Allowance	N/A	N/A	\$ 25,000.00

at the following price:

\$516,850.57 (Five-Hundred sixteen thousand eight hundred fifty dollars and fifty-seven 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)

Bernard P. Gandy / President & CFO
(Print name/title of person executing on behalf of SBE-M/WBE Subcontractor)

Date: May 13, 2014

ATTACHMENT - G

AUTHORIZATION STATUS REPORT May 13, 2014

SUMMARY AND STATUS OF AUTHORIZATIONS

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned	Globaltech Project No.
	CONSULTANT SERVICE AUTHORIZATIONS					
CSA-1	WTP 8 Filter Media Replacement and Re-Rating	Approved	\$31,399.22	3/8/12	12-002	120291
CSA-2	Pump Station 5241 Improvements	Approved	\$11,451.79	6/14/12	12-061	120302
CSA-3	WTP 2 Wellfield Backup Power Improvements	Approved	\$49,975.00	7/9/12	12-005	120321
CSA-4	WTP 3 and SROC Security Upgrades	Approved	\$24,786.20	8/22/12	10-028	120334
CSA-5	WTP 9 Permeate Flushing System Modifications	Cancelled	\$0.00	-	-	120330
CSA-6	WTP 3 Membrane Cleaning System Modification	Approved	\$32,528.22	9/28/12	12-004	120331
CSA-6.1	WTP 3 Membrane Cleaning System Modification - Supplement 1 / Project Cancelation	Approved	-\$32,528.22	5/20/13	12-004	120331
CSA-7	SRPF Membrane Concentrate Bypass and PS 9S RPZ Installation	Cancelled	\$0.00	-	12-021	120340
CSA-8	LRWTP PW-5 Pump Conversion	Pending				120347
CSA-9	SROC DIW Blending System	Cancelled	\$0.00	-	-	120348
	Total CSAs		\$117,612.21			

ATTACHMENT - G

AUTHORIZATION STATUS REPORT May 13, 2014

SUMMARY AND STATUS OF AUTHORIZATIONS

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned	Globaltech Project No.
WORK AUTHORIZATIONS						
WA-1	SW Boca Diversion PS Sound Attenuation	Approved	\$16,814.95	7/5/12	12-067	120303
WA-2	WTP 8 Filters 4, 5 & 6 Media Replacement	Approved	\$592,611.00	8/14/12	12-002	120309
WA-3	South Bay Repump Station Improvements	Approved	\$290,022.00	9/11/12	12-030	120313
WA-3.1	South Bay Repump - BB Court Electrical	Approved	\$22,486.92	12/12/12	12-030	120313
WA-3.2	South Bay Repump - Isolation Valve	Approved	\$3,428.48	4/4/13	12-030	120313
WA-4	LRWTP MFP No. 3 VFD Replacement	Approved	\$149,985.36	8/29/12	12-074	120332
WA-5	Online Water Quality Monitoring System	Approved	\$399,844.00	9/11/12	10-072	120328
WA-5.1	Online Water Quality Monitoring System - Sup. 1	Approved	\$73,165.54	6/5/13	10-072	120328
WA-6	Pump Station 5241 Improvements	Approved	\$277,780.62	12/4/12	12-061	120336
WA-7	LRWTP PW-5 Pump Conversion	Pending			13-015	120338
WA-8	WTP 3 and SROC Security Upgrades	Approved	\$63,603.58	11/14/12	13-011	120341
WA-9	LRWTP Well 1 Generator Pad	Pending			13-016	120345
WA-10	WTP 2 Wellfield Backup Power Improvements	Approved	\$716,189.09	3/12/13	12-005	120343
WA-10.1	WTP 2 - Power Improvements - Time Extension	Pending			12-005	120343
WA-11	SRPF Membrane Concentrate Bypass	Approved	\$406,149.75	6/18/13	13-036	120357
WA-11.1	SRPF Membrane Concentrate Bypass - Sup. 1	Pending			13-036	120357
WA-12	WTP 3 Chemical Improvements	Pending			12-003	
WA-13	LRWTP Well Pump Repositioning	Approved	\$30,496.69	2/21/13	11-112	120358
WA-14	WTP 3 Membrane Concentrate RPZ	Approved	\$199,192.48	3/13/13	13-017	130362
WA-15	WTP 9 Membrane Concentrate RPZ's	Approved	\$198,407.37	3/13/13	13-018	130364
WA-16	SW Boca Diversion Intake Modifications	Approved	\$30,378.48	8/12/13	13-083	130370
WA-17	WTP 9 Permeate Flush System	Pending				130378
WA-18	WTP 8 - Filter Gallery Valve Replacement	Approved	\$178,536.90	9/11/13	12-002	130385
WA-19	WRWWTF - Effluent Strainer & Screen Bypass	Approved	\$182,163.55	11/06/13	13-093	130389
WA-19.1	WRWWTF - Effluent Strainer and Bypass - Supplement 1	Pending			13-093	130389
WA-20	WTP 11 - Membrane Replacement for Train 3	Approved	\$111,015.20	3/05/14	14-039	
WA-21	WTP 8 - Hypo. Bldg. Generator Connection	Approved	\$53,591.07	3/13/14	14-023	
WA-22	WTP 8 - Generator Removal					
WA-23	SRWRF Digester Gas Improvements	Pending			14-051	
WA-24	WTP 8 - Filters 1 - 3 Valve Replacement	Pending	\$516,850.57		12-002	140415
	Total WAs		\$4,512,713.60			
	Total CSAs + WAs		\$4,630,325.81			

ATTACHMENT - H

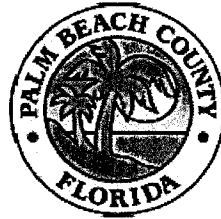
AUTHORIZATION STATUS REPORT WATER, WASTEWATER, AND RECLAIMED WATER IMPROVEMENTS DESIGN-BUILD SERVICES CONTRACT

SUMMARY of SBE/MWBE TRACKING

WUD 12-002: WTP 8 Filters 1 - 3 Valve Replacement

	Total
Current Proposal	
Value of Consultant Service Authorization	\$0.00
Value of Work Authorization	\$516,850.57
Value of CSA and WA	\$516,850.57
Value of SBE Minority Letter of Intent	\$487,570.57
Actual Percentages	94.33%
Signed / Approved Authorizations	
Total Value of Approved Consultant Service Authorization	\$117,612.21
Total Value of Approved Work Authorization	\$3,995,863.03
Total Value of CSAs and WAs	\$4,113,475.24
Total Value of SBE Signed Subcontracts	\$3,718,652.24
Actual Percentages	90.40%
Signed Authorizations Plus Current Proposal	
Total Value of Approved CSAs Plus Current CSA Proposal	\$117,612.21
Total Value of Approved WAs Plus Current WA Proposal	\$4,512,713.60
Total Value of Approved and Proposed CSAs and WAs	\$4,630,325.81
Total Value of SBE Subcontracts and Letters of Intent	\$4,206,222.81
Actual Percentages	90.84%
GOAL	75%

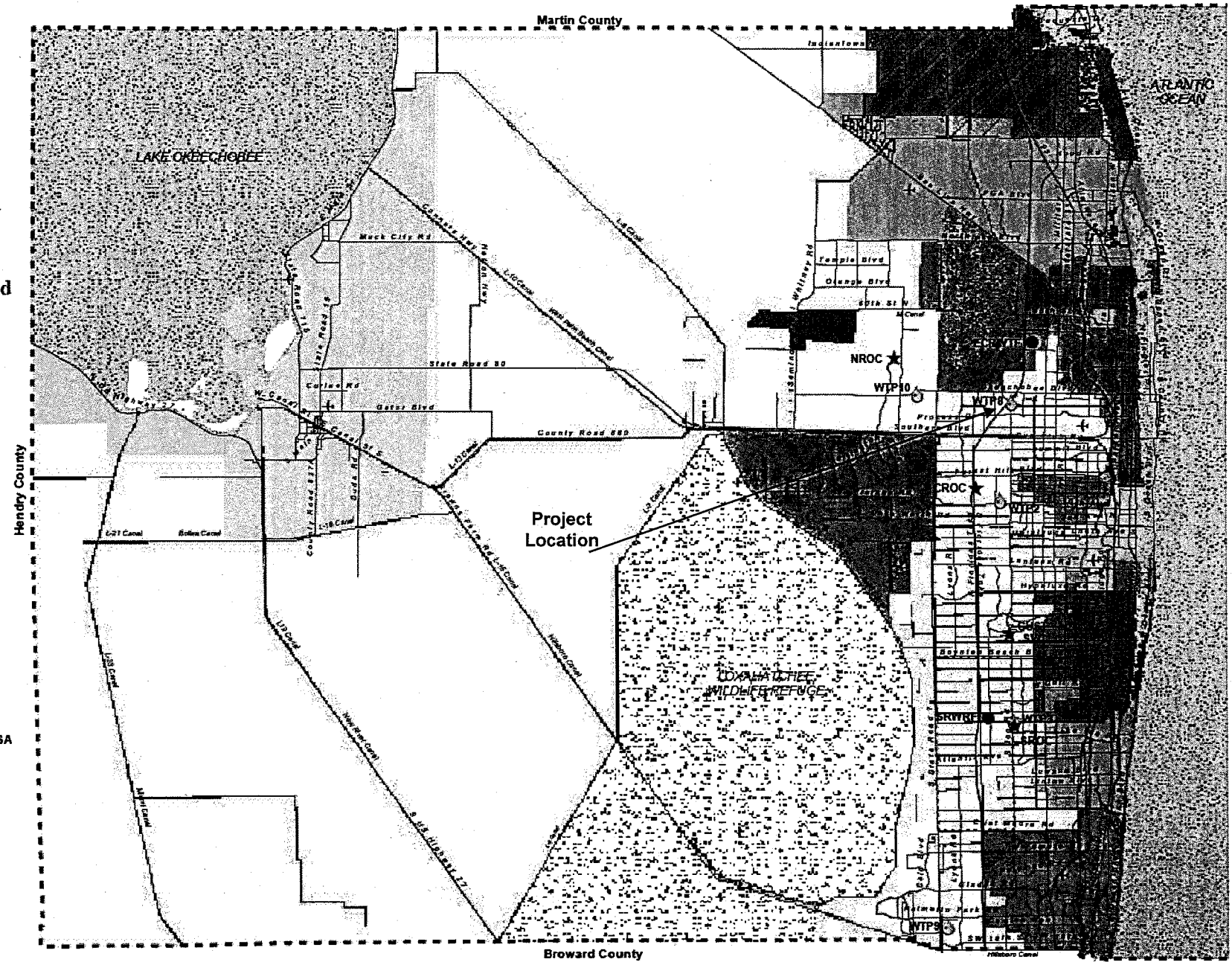
ATTACHMENT – I
Project Location Map



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities

Legend

- MANDATORY RECLAIMED SA
- Water Treatment Facility
- ★ Administration
- Water Reclamation Facility
- - - COUNTY LIMITS
- P.B.C.W.U.D. SA



WA-18: WTP 8 – Filters 1 – 3 Valve Replacement (WUD Project No. 12-002)

ATTACHMENT - J

Design-Build Criteria Report

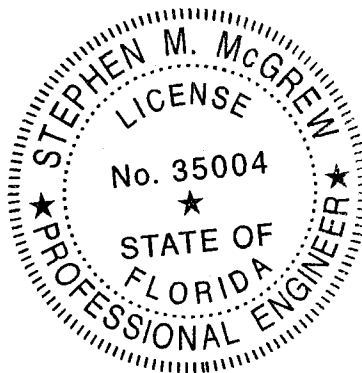
**Design Build Criteria
Water Treatment Plant No. 8
Filters 1-3 Valve Replacement
Project No. WUD 12-002**



5/13/14

**Stephen McGrew, P.E.
P.E. License #35004
Palm Beach County
Water Utilities Department
8100 Forest Hill Boulevard
West Palm Beach, FL 33413**

Date



**Design Build Criteria
Water Treatment Plant No. 8
Filters 1-3 Valve Replacement
Project No. WUD 12-002**

Part 1 General

1.1 Summary of Work

The proposed work to be performed as described below is located at the following facility: Water Treatment Plant No. 8, 1500 North Jog Road, West Palm Beach, FL 33417, PCN 00-42-43-27-05-004-0053.

The proposed work to be performed by the Design-builder generally includes furnish and install materials, labor, equipment and expertise to replace the air actuated valves for filters 1, 2 and 3 with new electrically actuated valves including all necessary tools, supervision, and services required to design, construct, test, and startup the proposed work is described as follows:

The following design criteria shall be used:

1. Remove existing 18" air actuated common overhead backwash flow control valve. A shutdown is required. The existing 18" flow control valve and air actuator shall be relocated. Provide all necessary hanger supports. The replacement 18" butterfly valve with electric actuator shall be installed on the opposite side of the flow control valve. The existing flow control valve shall be used as a venture flow meter and the existing air actuator and valve mechanism shall be removed and a watertight rectangular blind flange (owner furnished) shall be installed. Furnish and install all necessary spool pieces and flange adapters for piping fit-up.
 2. On each of Filters 1, 2 and 3:
 - a. One (1) 18" backwash valve. Replace the existing air actuated valves with new electric actuated valves. A shutdown of each filter is required.
 - b. Two (2) 18" isolation valves (1 north and 1 south). Replace the existing air actuated valves with new electric actuated valves.
 - c. Two (2) 4" surface wash valves (1 north and 1 south). Replace the existing air actuated valves with new electric actuated valves.
 - d. One (1) 24" Influent valve with bonnet. Replace the existing air actuated valves with new electric actuated valves.
-

- e. One (1) 20" drain valve. Replace the existing air actuated valves with new electric actuated valves.
 - f. Remove existing 18" air actuated common overhead backwash flow control valve. A shutdown is required. The existing 18" flow control valve and air actuator shall be relocated. Remove existing pedestal support and install with new stainless steel pipe supports. The replacement 18" butterfly valve with electric actuator shall be installed on the opposite side of the flow control valve. The existing flow control valve shall be used as a venturi flow meter and the existing air actuator and valve mechanism shall be removed and a watertight rectangular blind flange (owner furnished) shall be installed. Furnish and install all necessary spool pieces and flange adapters for piping fit-up.
3. Remove existing filter gallery north single door and install new hurricane rated double door including all concrete block removal and replacement with door frame, panic hardware (reusing existing hardware) and relocation of access control and exit sign. All electrical work, including relocation of access control and exit sign, associated with installing larger door will be performed by WTP 8 staff. Door coating will also be performed by WTP 8 staff.
 4. Remove Turbitrol filter cabinets and controls and fill rectangular hole in floor with reinforced concrete.
 5. Remove filter conduit and hydraulic control piping trays for filters 1, 2 and 3.
 6. Provide plumbing for on-line turbidity meters for filters 1, 2 and 3.
 7. Remove existing surface water piping (north and south) for filters 1, 2 and 3 and install owner furnished piping.
 8. Provide all signage and valve tags.
 9. Crack repair for west exterior wall of filters 1, 2 and 3 and west flume to seal leakage.
 10. OWNER shall provide:
 - a. Three (3) new 4" surface wash valves with motor actuators.
 - b. One (1) new 18" butterfly valve with motor actuator.
 - c. Two (2) used 18" butterfly valves with motor actuator (previously installed in Filters 4 to 6).
 - d. Three (3) used 18" butterfly valves with motor actuators which are currently installed in Filters 1 to 3 and are to be relocated.
 - e. Surface wash piping.
-

- f. Flange accessories: Design-Builder shall inventory County furnished materials and determine what additional materials are necessary and provide them in the Design-Build proposal.
- g. PakScan wireless system for valve actuator monitoring.
- h. Redundant wired control loops for valve actuators.
- i. Programming of PLC and SCADA screens.

1.2 Permits and Fees

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

1.3 Utility Services

The Design-builder 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-builder 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 piping and utilities are of critical importance in the installation or connection of proposed work, the Design-builder 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-builder shall employ a land surveyor registered in the State of Florida. The Design-builder shall locate and protect survey control and reference points. The Design-builder shall be responsible to establish elevations, lines, and levels, utilizing recognized engineering survey practices. The Design-builder shall provide all labor, instruments and stakes, templates, and other materials necessary for marking and maintaining all lines and grades. The Design-builder 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-builder shall confine his activities to the site(s) designated by Owner for the work or staging areas for materials storage. All debris, materials, piping, 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-builder shall be responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

The Design-builder shall protect his work throughout its length by the erection of suitable barricades and handrails, where required. The Design-builder 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-builder shall provide suitable safe walkways with hand railings. The Design-builder shall also comply with all laws or ordinances covering the protection of such work and the safety measures to be employed therein. The Design-builder 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 trenches or holes near walkways, in roadways or road shoulders are to be left open during night hours without the permission of the Owner.

1.7 Underground Utilities

All water pipes, storm drains, force mains, gas or other piping, 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-builder shall obtain permission from the Owner, or shall make suitable arrangements for their disconnection by the Owner. The Design-builder 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-builder. The Design-builder 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-builder.

All exaction activity shall comply with Florida Statute 553.851 regarding notification of existing gas and oil pipeline company Owners and shall also notify "SUNSHINE STATE" at 1 (800)-432 4770 at least forty-eight (48) hours prior to excavating. Evidence of such notice shall be furnished to the Owner prior to excavating.

Design of all underground water, wastewater and reclaimed water shall comply with the Palm Beach County Water Utilities Department Minimum Design and Construction Standards (latest edition), 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-builder's activities or any partial plant shutdowns shall minimize disruption to the treatment facilities and conveyance. The Design-builder 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-builder to perform the proposed work, the Design-builder 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-builder's need for any system or partial system shutdown. Additional notice may be required for certain shutdowns.

1.10 Project Coordination

Design-builder 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-builder 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-builder shall not be responsible for damage done by Design-builders not under his jurisdiction. Design-builder shall not be liable for any such loss or damage unless it is through the negligence of Design-builder. Design-builder shall also coordinate his work with the work of others to assure compliance with schedules.

Design-builder 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-builder shall provide and maintain a field office with telephone facilities where he or a responsible representative of his organization may be reached at any time while work is in progress.

Part 2 Acceptance Test Requirements

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

2.1 Starting and Placing Equipment in Operation

Design-builder shall initially start-up and place all equipment installed into successful operation according to manufacturer's written instructions and as instructed by manufacturer's field representative. Design-builder 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 piping which may put stress on pumping equipment; performing any adjustments; providing chemicals and lubricants and all other required operating fluids; providing fuel, electricity, water, filters, and other expendables required for start-up of equipment.

Owner shall provide sufficient personnel to assist Design-builder in the start-up, but the prime responsibility for proper mechanical operation shall belong to Design-builder. 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-builder shall clean strainers, drives, pockets, orifices, valve seats and headers in fluid system to assure freedom from foreign materials. He shall remove rust,

scale and foreign materials from equipment and renew defaced surfaces. All visible leakage shall be repaired.

- B. The Design-builder 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-builder 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-builder 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 and in accord with manufacturer's recommendations.
- D. The Design-builder 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-builder 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-builder 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-builder 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-builder 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-builder shall be responsible for performance testing during startup of all mechanical, electrical, instrumentation, and piping equipment and systems.

- A. Provide a testing plan setting forth the sequence in which all testing work required for the proposed upgrades will be implemented.
 - B. A documentation the results of all equipment and system tests and submit to the Owner. Provide calibration tags for all equipment certifying the date of calibration.
-

2.3. Instruction of Operations and Maintenance Personnel

Training shall be provided prior to turning the operation of a system, unit process or piece of equipment. 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-builder 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.

Training of plant's personnel shall commence only after acceptable preliminary operation and maintenance data have been provided and starting and placing equipment in operation and equipment and system startup and performance testing, has been completed. Provide written documentation and checklists outlining important training items. Provide spreadsheets needed to document new processes for input by operators.

Part 3 Technical Requirements

3.1. Plant Site / Civil Requirements

The Design-builder shall be responsible for becoming completely familiar with the site conditions.

3.2 Demolitions

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

Design-builder shall carry out operations so as to avoid interference with Owner's operations and work in the existing facilities. Design-builder 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-builder shall erect and maintain barriers, lights, sidewalk sheds,

and other necessary protective devices. The Design-builder is responsible for repairing damage to the Owner's property or facilities.

Design-builder shall not bring explosives on site nor use explosives without written consent of authorities having jurisdiction. Design-builder 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-builder with the same or matching materials as the existing adjacent surface. Adjacent structures, facilities, and improvements of dust, dirt, and debris caused by demolition operations shall be cleaned and returned to pre-construction conditions.

Where piping that is to be removed passes through existing walls, the piping shall be cut off and properly capped on each side of the wall. When underground piping is to be altered or removed, the remaining piping shall be properly capped. Abandoned underground piping may be left in place and grouted under major structures/roadways, unless it interferes with the work. Any changes to potable water piping 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-builder, 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-builder so as not to be damaged, and shall be cleaned and stored in a protected location specified by the Owner. Design-builder 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-builder 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 facilities required to complete the work in every respect.

Design-builder 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-builder shall be responsible for all field test data and shall submit to Owner copies of the following test reports from his testing laboratory.

Design-builder shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction. Design-builder shall obtain all necessary permits for work in roads, rights of way, etc. He 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.

Data on subsurface conditions will be made available by Owner for the convenience of Design-builder. The reports are not intended as a representation or warranty of continuity of such conditions between soil borings. Owner will not be responsible for interpretations or conclusions drawn by Design-builder. Additional test borings and other exploratory operations may be made by Design-builder at no cost to Owner.

Drawings from existing records showing certain surface and underground structures adjacent to the work will be made available by Owner. It is not guaranteed to be correct or complete and is shown for the convenience of the Design-builder. Design-builder shall explore ahead of the required excavation to determine the exact location of all structures. They shall be supported and protected from damage by the Design-builder. If they are broken or damaged, they shall be restored immediately by the Design-builder at its expense.

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

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

3.4 Cast-In-Place Concrete

Design-builder 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-builder 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, piping, 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.

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 Valves and Piping Requirements

The Design-builder is responsible for the final sizing and selection of all equipment, piping, and materials. Design-builder shall provide all labor, materials, equipment, and incidentals to furnish and install valves, piping, and fittings complete and operational as required for the proposed work. Valves, piping, 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, piping, joints, fittings, gaskets, harnessing, 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, piping, joints, fittings, coatings, linings, sleeves, gaskets, harnessing, 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, piping, 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-builder's expense.

Pipe interiors shall be kept completely free from dirt and foreign matter. All piping shall be installed in complete accordance with the manufacturer's instructions and recommendations. If any piping 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 and the Palm Beach County Water Utilities Department Minimum Design and Construction Standards.

Part 4 Electrical Requirements

4.1 Basic Requirements

Design-builder 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.
3. 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-builder to act as guidance in fulfilling the operational intent of the conceptual documents. It shall be the Design-builder'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-builder shall not relieve Design-builder of their contractual responsibility to provide complete and successfully operating systems.

4.6 Raceway Systems

Design-builder shall furnish and install conduit and fittings to form complete, coordinated and grounded raceway systems. Design-builder 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.
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- 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-builder 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-builder 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-builder 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-builder 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-builder 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-builder 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-builder, 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.

ATTACHMENT - K

Vendor Quotes


**FLUID
CONTROL
SPECIALTIES, INC.**

PALM BEACH COUNTY WTP #8 RFQ PRICING PROPOSAL

Project: WTP #8 Valve/Act. Replacement

PREPARED BY: Mike McCurdy

Customer: Palm Beach County BOCC

Quote No.: 111313-MM-02

Attn: Tim McAleer

DATE: 11/14/2012

All items quoted are based on Fluid Control Specialties interpretation of the supplied project specifications or verbal requests and is NOT guaranteed to be complete or accurate. In the event the materials of construction or the scope of Fluid Control Specialties is different from yours and is believed to be in error, please let us know. Modifications and/or amendments can be made as per your request

Fluid Control Specialties is pleased to propose the following.

<u>QTY.</u>	<u>SIZE</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>
6	4"	Flanged DeZURIK AWWA Butterfly Valve w/ Rotork IQT500 Single Phase Electric Motor Operator, Wireless Ready, NEMA 6 Temp. Submersible (Re-Wash, Filter Agitators)	\$8,549.00
6	18"	Flanged DeZURIK AWWA Butterfly Valve w/ Rotork IQT2000 Single Phase Electric Motor Operator, Wireless Ready, NEMA 6 Temp. Submersible (Backwash, L/R Isolation, Effluent)	\$11,678.00
3	20"	Flanged DeZURIK AWWA Butterfly Valve w/ Rotork IQT2000 Single Phase Electric Motor Operator, Wireless Ready, NEMA 6 Temp. Submersible (Drain)	\$11,896.00

3	24"	Flanged DeZURIK AWWA Butterfly Valve w/ Rotork IQS12/IW52 Electric Motor Operator, Wireless Ready, NEMA 6 Temp. Submersible (Influent)	\$18,066.00
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Start-Up Services: (per day @ 8-hour max per day) \$800.00

TOTAL:.....\$211,248.00

Items are : F.O.B. Jobsite
Freight: Allowed to Florida, unless noted otherwise
Estimated Delivery: confirmed at time of order
Terms: Net 30/100%

NOTES:

1. All prices quoted are net each.
2. All prices are based on the scope above: therefore, any changes in scope may result in a change in pricing.
3. Prices quoted are valid for 60 days.
4. DeZURIK, APCO and Rotork standard warranty terms are two years from date of shipment. Additional years may be purchased at time of order placement only, for an additional charge of 1% of order total per year, total of five years maximum.
5. All Rotork items are subject to a 40% re-stock charge, if cancelled or returned, after release of order for manufacturing.

Please review and call with any questions

Regards,

Mike McCurdy
Fluid Control Specialties, Inc. / Ph: (407) 302-5611 / Fx: (407) 302-5612



February 26, 2014

PROPOSAL 14-059

CRACK INJECTION

**FILTER BASINS
WATER TREATMENT PLANT #8**

PALM BEACH COUNTY, FL

Crom Engineering and Construction Services (CECS) proposes to provide labor, materials and equipment for the repair of the concrete structures in accordance with all applicable codes and standards including OSHA, ACI and standard concrete tank design.

1. REQUIRED DATA

Prior to starting work, CECS will gather all data required for submittal purposes for the modification of the aforementioned structures including any available computations, detailed drawings, and specifications.

2. COMMENCEMENT AND COMPLETION

Upon your execution of this proposal and after a notice to proceed is issued, we will proceed according to a mutually agreed upon schedule determined between the client and CECS, and will undertake to furnish sufficient labor, materials and equipment to complete the work within approximately **two weeks** working time thereafter.

In the event that we cannot start the job by **June 1, 2014** because of delays of any nature which are caused by the client or other contractor employed by him or other circumstances over which we have no control, the contract price may then be renegotiated to reflect any increased costs.

3. INSURANCE

We hereby certify that we have complete Workers' Compensation Insurance, and that we carry adequate Liability and Property Damage Insurance as well as Builders' Risk Insurance. A certificate will be furnished by our insuring agency upon request.

CROM ENGINEERING & CONSTRUCTION SERVICES

6801 SW Archer Road • Gainesville, Florida 32608 • 352-548-3349 • Fax: 352-548-3449

A Division of The Crom Corporation

4. SERVICES TO BE FURNISHED BY CROM ENGINEERING AND CONSTRUCTION SERVICES

We propose to furnish all supervision, labor, material, equipment, scaffold and forms required to complete the work as requested by Globaltech, Inc., except as noted in Paragraph 5 of this proposal. The services to be furnished by CECS are specifically:

A. Crack Repair:

- 1) Mechanically remove the efflorescence deposits that were noted on the portions of exterior tank walls located above grade.
- 2) Remove the existing paint covering the cracking on the portions of the exterior tank walls located above grade to expose the cracks.
- 3) Inject the cracking that was noted on the portions of the exterior tank walls located above grade (approximately 400 LF of cracking was noted) with epoxy materials as needed to accomplish the crack repair. The cracks where seepage is present will be injected with DeNeef Hydro Active Sealfoam NF.
- 4) Remove all crack injection ports and seal the remaining holes with a polymer-modified cementitious patching compound.

5. MATERIALS AND SERVICES FURNISHED BY OTHERS

It is understood that the following services shall be provided by others without expense to CECS:

- A. Adequate access to each structure including open storage space for our vehicles, equipment and materials, conveniently located near the structure to be repaired.
 - B. A continuous supply of potable water under minimum pressure for the use of the CECS crew within 100 feet of each structure.
 - C. A continuous supply of electricity during the period of work: one 30-AMP, 110-volt service for the operation of our power tools and accessories, located not more than 100 feet from each structure. Please be sure that all circuit breakers are ground-fault protected.
 - D. Any permit or other governmental fees as may be required for the work.
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- E. Repair or replacement of any reinforcing steel if necessary.
- F. Relocation, repair or replacement of any existing accessories, piping and associated mounting components if necessary.
- G. An appropriate container to dispose of all debris generated during the injection and repair process.

6. BACK CHARGES AND CLAIMS FOR EXTRAS

No claim for extra services rendered or materials furnished will be valid by either party unless written notice thereof is given during the first ten days of the calendar month following that in which the claim originated. CECS' claims for extras shall carry 30% for overhead and 10% for profit.

7. DELAYS

It is agreed that we shall be permitted to prosecute our work without interruption. If delayed at any time for a period of 24 hours or more by an act or neglect of the client, his representative, or other contractor employed by him, or by reason of any changes ordered in the work, we shall be reimbursed for our actual additional expense caused by such delay, including loss of use of our equipment, plus 30% for overhead.

8. LABOR

This proposal is predicated on open-shop labor conditions, using our own personnel. If we are required to employ persons of an affiliation desirable to the client or other contractor employed by him or the general contractor thereby resulting in increased costs to us, the contract price shall be adjusted accordingly. Such requirement shall not provide that CECS sign a contract with any labor organization. In the event of a labor stoppage, we shall not be in default or be deemed responsible for delay of the progress of this contract or damage to the client or the contractor so long as CECS has sufficient qualified employees available to perform the work.

9. QUOTATION

We are prepared to carry out this work in accordance with the foregoing for the following pricing:

Mobilization:	\$3,500.00
Exterior Wall Crack Repairs:	\$48.50/LF*

***Note:** This pricing assumes that all work included in this proposal can be completed with one mobilization. If additional mobilizations are necessary to perform the work, the resulting price increase will be \$3,080.00 per additional mobilization.

Final payment, including any retention, shall be made within **30 days** of the completion of the work. Final payment shall not be held up because of delays in testing. Client shall pay CECS interest at 12% per annum on any overdue amounts.

10. CONSULTATION AND LIMITATIONS

If the client wishes to have CECS to perform any additional repairs or remediation of the structures or accessories, it shall authorize such work in writing and pay CECS its standard charges for such work.

It is agreed that CECS shall not be responsible for any consequential, special or delay damages.

It is agreed that the venue for any litigation under this Agreement shall be in Alachua County, Florida.

If CECS engages an attorney for the collection of the amounts due from the client, the client shall pay CECS its reasonable attorney's fees and costs through any appeal.

11. GUARANTEE

CECS will guarantee its workmanship and materials on its work covered in this Proposal for a period of one year after completion of its work. Prior to leaving the location, CECS personnel will perform a walk through with the responsible party overseeing our work for the client or contractor. In case any defects in CECS' workmanship or materials appear within the one-year period after completion of CECS' work, CECS shall promptly make repairs at its own expense upon written notice by the client or contractor that such defects have been found. CECS' guaranty is limited to defects in CECS' workmanship and materials and CECS is not responsible for ordinary wear and tear or for damage resulting from negligent or inappropriate use.

12. ACCEPTANCE

This proposal is offered for your acceptance within **45 days** from the proposal date. We reserve the right after that period to amend our proposal to reflect our changing construction schedules and materials and labor rate changes. The return to this company of a copy of this proposal with your acceptance endorsed thereon within the time aforesaid will constitute a contract between us. This proposal shall be made a part of any subcontract agreement or purchase order.

Sincerely,

CROM ENGINEERING & CONSTRUCTION SERVICES



Clint Jenkins
Project Manager



Jeff D. Malpass, P.E.
CECS President

/asg

ACCEPTED

PRINT: _____

TITLE: _____

DATE: _____