



# MANATEE COUNTY

September 23, 2010

All Interested Bidders:

**SUBJECT:** Invitation for Bid #10-3050-OV  
Construction of Wastewater Booster Pump Station  
East Bradenton, Manatee County, FL / Project No. 6055480

## **ADDENDUM #3**

**Bidders are hereby notified that this Addendum shall be acknowledged on page 00300-1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.**

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

**Bidders Note:** Additional questions shall not be accepted at this time as the stated deadline of September 17, 2010 has lapsed. This deadline has been established to maintain fair treatment of all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve.

### Attached:

- Carollo Engineering: Memorandum dated September 22, 2010 responding to the "Clarification Requests" received via email from various contractors. (4 Total Pages)
- In the Specifications:

**Delete:** Section 16210, Diesel Generator Fuel System in its entirety.

**Replace:** With Revised Section 16210, Diesel Generator Fuel System, dated September 2010 (6 Total Pages).

Financial Management Department – Purchasing Division  
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205  
Phone: 941-708-7527 – Fax: 941-708-7544  
[www.mymanatee.org](http://www.mymanatee.org)

September 23, 2010  
Invitation for Bid #10-3050-OV  
Construction of Wastewater PS 428 Booster Pump Station  
East Bradenton, Manatee County, FL  
Project No. 6055480  
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If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids received will be opened on the date stated.

**END OF ADDENDUM #3**

Bids will be received at the **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205** until **2:00 P.M. on October 7, 2010.**

Sincerely,



R. C. "Rob" Cuthbert, CPM, CPPO  
Purchasing Division Manager

Ov/ Attachments (10 Total Pages)

September 22, 2010  
7880C.10

Olga Valcich  
Construction Buyer  
Manatee County Government  
1022 26th Avenue East  
Bradenton, Florida 34208

Subject: Responses to Pre-Bid and Bid Questions for PS428 Booster Pump Station

Dear Ms. Valcich:

Carollo offers the following responses to the pre-bid questions.

**Questions received from TLC Diversified – September 16, 2010**

Question: 1) Re: Tapping Saddles & Sleeves f/ arv assy – spec states fusion bond epoxy body w/ ss straps or ss single body– detail for arv shows Romac #306 – can a fusion bond epoxy saddle be used for this application ?

Response: *Use the make, model, and material for the tapping saddle as shown in Detail US-25 on Drawing No. T-04 for the air release.*

Question: 2) Re: Tapping saddles & sleeves 18" sump pump discharge –Sheet M-01; note 3 – spec states fusion bond epoxy or ss single body – plans show smith blair #323 ( bronze body w/ bronze straps ) – can a fusion bond saddle be used ?

Response: *Use the make, model, and material for the tapping saddle as shown in Key Note 3 on Drawing No. M-01 for the sump pump connection to the 18-inch suction pipe.*

Question: 3) Re: Tapping Saddles w/ water service – spec reads fusion bond epoxy and current Manatee spec is bronze body w/ ss strap – can a fusion bond epoxy saddle be used ?

Response: *Use the make, model, and material for the tapping saddle as shown in Detail UW-19 on Drawing No. T-04 for the water service connection.*

Question: 4) water main – existing size was provided – please provide existing wm size

Response: *Existing water main size is 8-inch.*

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Question: 5) In regards to plug valve linings and coatings, will a 2 part thermal epoxy be considered as an equal to the fusion bond epoxy specification.

Response: *No.*

#### **Questions received from Kraft Construction Company– September 15, 2010**

Question: 1. As a follow up to the information conference held on August 31, 2010, can you please attach the soils report to the next addendum?

Response: *A copy of the geotechnical report was provided in Addendum No. 2.*

Question: 2. The ceiling portion of keynote 1 on sheet s-02 indicates we are to install a plywood ceiling in the precast building. Please advise if this is applicable for both rooms.

Response: *Yes.*

Question: 3. Sheet AC-01 indicates HVAC work. Please advise if this work is to be included in bid item 7: precast electrical building.

Response: *Yes.*

Question: 4. In reference to the termite control, please clarify where this work is to be installed. Are we to install soil treatment only under the slab supporting the pump station? Also, which bid item are we to include the termite control?

Response: *Apply termite control under the pump station slab and both pads for the generator and fuel tank. Include this work under Bid Item 3 – Site Work.*

#### **Questions received from Kraft Construction Company– September 16, 2010**

Question: 1. Specification Section 03420–Precast Concrete Building, Section 2.04 Finishes indicates “the owner will select interior and exterior concrete finishes from those available from the precast concrete supplier.” For bidding purposes, can you please specify a finish for this work and if we are to include painting of the precast panels.

Response: *The outside finish for the precast panels shall resemble stucco and will be painted.*

Question: 2. Please advise where we are to include painting at the precast concrete building. Are we to include painting the exterior side and interior side of all concrete panels? Are we to

include painting the ceiling side of the precast panels? Are we to include painting of the exposed plywood in the building?

Response: *The exterior walls will be painted. The interior of the precast panels will not be painted. The interior gypsum walls and plywood will be painted according to as directed in Key Note 1 on Drawing No. S-02.*

**Question received from Vogel Bros. Building Co. – September 16, 2010**

Question: Drawing AC-01 Contains schedule information for the A/C Equipment, However, there is NO written specification for the HVAC. Please provide specifications OR confirm we shall bid from the drawings only.

Response: *Use the information on Drawing No. AC-01.*

**Questions received from B&I Contractors, Inc.– September 17, 2010**

Question: 1. Regarding specification section 16210-1.02.A.1 - Tanks manufactured by ConVault, bear UL 2085 label, on the final assembly.

Response: *See new Section 16210 that is attached.*

Question: 2. Specification 16210-2.01.O states that the tank shall have a concrete exterior and that models with steel exteriors will not be approved. Is this specification firm, or subject to change. There are tanks, with steel exteriors, that meet the requirements of UL 2085.

Response: *See new Section 16210 that is attached.*

Question: 3. Will a tank bearing the UL 2085 label, regardless of the method to be construction, be considered?

Response: *See new Section 16210 that is attached.*

Question: 4. Specification 16210-2.01.U.7 describes a Level Gauge associated with the aboveground Main Fuel Tank with a local readout and 4-20 mA output to the PLC.

Response: *The 4-20ma output directly from the Main Tank to the PLC is not required.*

Question: 5. Specification 16210-2-02.A.11 describes an output, from the Veeder Root tank monitoring console, for low fuel level alarm to the PLC.

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Response: *Item 16210-2.02.A.11 is correct. The level alarm output from the Veeder Root Console is required. This output is a discreet contact output for digital input to the PLC.*

Question: 6. Instrumentation drawing N-04, only shows the signal input from the Veeder Root console.

Response: *Instrumentation drawing N-04 is correct. The signal from the Veeder Root Console will be wired to the PLC digital input as shown on the drawing.*

Question: Clarification is requested as to whether both of the above signals will be input to the PLC, or just the signal from the Veeder Root console.

Response: *See responses above.*

Question: 7. Are the signals from the Veeder Root Console also required to be 4-20mA?

Response: *The signal from the Veeder Root Console to the PLC will be digital only, as shown on drawing N-04. No 4-20ma signals will be required from the Veeder Root System.*

In The Specifications:

Section 16210: Delete in its entirety and replace with the attached.

Sincerely,

CAROLLO ENGINEERS, INC.



Eric Peters, P.E.

EP:maw

## SECTION 16210

### DIESEL GENERATOR FUEL SYSTEM

#### PART 1 GENERAL

##### 1.01 DESCRIPTION

- A. Work under this section consists of furnishing all materials, supplies and equipment in accordance with the requirements set forth and as shown on the drawings for a fully functional diesel fuel storage and supply system for the emergency generator system that complies with all applicable codes and manufacturer's recommendations.

##### 1.02 GENERAL

- A. Provide a fuel supply system for the supply of fuel oil to the engine generator set. The fuel supply system shall include, but not be limited to, the following, each of which is described within the specification below:
  - 1. An outdoor main fuel tank as manufactured by:
    - a. Convault.
    - b. Fireguard by Modern Welding Co., Inc.
    - c. Approved equal.

##### 1.03 SYSTEMS

- A. The elements of the system shall be designed and supplied as an engineered system by the respective manufacturer. Each tank shall be of packaged design to include all pumps, valves, level controls, pump controls and motor starters, indicators, alarms, fuel lines, return lines, vents and all other devices as required to form an integrated, functional system such that field installation is restricted largely to piping, wiring and such intermediate devices that are required by code and/or good engineering practice to interconnect the main tank to the day tank, the day tank to the engine, the overflow tank to the main tank and to provide for external vents and other requirements set forth by local codes and UL 142, UL 2085, NFPA 31 and NFPA37.

##### 1.04 DEFINITIONS

- A. The system shall be for use with fuel oil as described by NFPA 321, "Basic Classification of Flammable and Combustible Liquids." As defined by this standard, the Fuel Supply System shall be for use with "combustible liquids," those having a flash point at or above 100 deg. F and further defined as class II or class III liquids. In no case shall a liquid defined as "flammable," or as "class I" or as having a flash point less than 100 deg. F be used. In every case, the system shall not be used or applied at a temperature in excess of the flash point of the contents. Electrical equipment used in the system shall be in accordance with NFPA 30, section 5-7, wherein it states "For areas where class II or class III liquids only are stored or handled at a temperature below their flash points, the electrical equipment may be

installed in accordance with provisions of NFPA 70, National Electric Code, for ordinary locations..."

## **1.05 STANDARDS**

- A. The system shall be designed and installed in accordance with applicable sections of NFPA 30, NFPA 31, NFPA 37, UL 80, UL 142, and UL 2085. All tanks shall bear the label of Underwriters Laboratories standard 142 and 2085.

## **PART 2 PRODUCTS**

### **2.01 MAIN TANK**

- A. Storage vessel shall be a concrete or steel vaulted double wall steel tank. Outer wall (secondary tank) shall be UL-2085 listed and a minimum 1/4 inch steel.
- B. The main tank shall have a capacity of 2,000 gallons, non-cylindrical configuration and shall be of the insulated secondary containment aboveground storage tank system.
- C. The primary steel tank shall be rectangular in shape and have continuous welds on all exterior seams, manufactured in accordance with UL listing requirements and UL Standard 142.
- D. The primary steel tank shall be pressure tested at 5 psig for 24 hours.
- E. The primary steel tanks shall have "emergency vent" system as per NFPA 30 Code requirements.
- F. The protected and insulated AST systems shall have a thru-tank leak detector tube to allow for physical checkup and monitoring capability between the primary and the secondary containment.
- G. The primary steel tank shall be pressurized at 5 psig during concrete encasement.
- H. The outer surface of the primary steel tank shall be covered by a minimum of 1/4-inch thick (6.4 mm) styrofoam insulation panels or equally acceptable thermal insulation.
- I. The secondary containment shall consist of a 30 Mil thick (0.76 mm) high-density polyethylene membrane enclosing the steel tank and insulation material.
- J. The primary steel tank and the secondary containment shall be encased in six-inches of monolithic reinforced concrete, with minimum design strength of 4,000 psi at 28 days. The concrete design shall include the following for long-term durability: air entrainment, water reducing admixture, and steel reinforcement. Concrete encasements with seams will not be approved.
- K. The protected and insulated AST systems shall be of concrete exterior and a continuous and visually verifiable monolithic (seamless) pour on top, bottom, ends, and sides and contain no cold joints or heat sinks (heat transfer points). The AST



must be shop fabricated and tested in accordance with the UL listings. Designs that use two layers of steel with insulation material between them will not be approved.

- L. No steel or insulating material shall come in contact with the concrete or other corrosive material.
- M. All openings shall be from the top only.
- N. All exposed metal shall be powder coated to inhibit corrosion.
- O. The protected and insulated AST systems shall include a minimum 5-15 gallon powder coated UL listed spill containment, and shall include normally closed valve to release spilled product into the primary steel tank. Spill containment which route the spilled product into interstitial area will not be approved.
- P. The protected and insulated AST systems shall have a coated concrete exterior to resist weather and reflect sunlight. Models with steel exteriors will not be approved.
- Q. The protected and insulated AST systems shall have a warranty of 30 years.
- R. The protected and insulated AST systems shall have two (2) lugs for connecting grounding conductors for lightening protection in accordance with NFPA 780.
- S. The external surfaces of the completed product shall be finish coated with the manufacturer's standard coating system and shall be salt spray and weather resistant.
- T. The tank shall come equipped with an access ladder to the tank top as shown on the plans.
- U. Provide the following top mounted field use fittings on the main tank:
  - 1. Vent with weatherproof, screened vent cap per NFPA 30;
  - 2. Emergency vent;
  - 3. Fill inlet, 4", with weatherproof, lockable cap and overflow containment. Provide a label "Diesel Fuel Only" visible to fuel supplier;
  - 4. Access manway;
  - 5. 1" connections for fuel piping;
  - 6. Secondary containment monitor tube;

## **2.02 LEVEL CONTROL SYSTEM**

- A. Provide a Veeder Root fuel tank monitor system for the fuel tank. The system shall be a Veeder Root model TLS-300C with integral printer. The monitor console shall be remotely mounted from the fuel tank inside the pump station building electrical room. The monitor console shall be connected underground to the fuel tank junction boxes and fuel sensors. The contractor shall coordinate with the tank manufacturer and the Veeder Root System supplier and determine the length of all probes, cables, insertion tubes, conduit kits, etc to coordinate with the actual fuel tank provided. The contractor shall furnish and install all necessary components to make the system complete and operational. Provide the following options and connections to the pump station PLC Main Control Panel.
  - 1. A Mag Plus Probe for inventory only.
  - 2. A 4" Diesel Float Kit with cable for the Mag Plus Probe.

3. A 4" Cap and Riser for the Mag Plus Probe.
4. An AST Kit for the Mag Plus Probe.
5. A Steel Tank Interstitial Leak Sensor.
6. A 2" Diesel Float Kit with cable for the Interstitial Sensor.
7. A 2" Cap and Riser for the Interstitial Sensor.
8. An AST Kit for the Interstitial Sensor,
9. Overfill Alarm Horn, Light and Enclosure.
10. Overfill Alarm Acknowledge Switch and Pilot Light.
11. Provide low fuel level alarm to the PLC from the TLS-300C console.
12. On site installation assistance, startup, programming and training from the certified Veeder Root supplier.

### **PART 3 EXECUTION**

#### **3.01 INSTALLATION**

- A. Tank shall be installed adjacent to the generator as shown on the plans.

#### **3.02 PIPING**

- A. Provide schedule 40, ASTM A 53, black iron pipe connections to each tank as shown. Make all connections to fixed installed pipe with pipe unions to facilitate tank service/removal. Provide the following:
  1. Main tank supply to day tank with vacuum breaker;
  2. Supply and return to engine as recommended by manufacturer;
  3. Vent sizes shall be as shown and as required by local codes and by UL 142, NFPA 31 and NFPA 37 specifications.
- B. Fuel piping sizes shown on the drawing shall be considered as minimum. Piping sizes shall be increased subject to the Engineer's approval, as required to produce a fully functional fuel supply/return system adequate to operate the generator system as installed at full capacity. The manufacturer shall certify the fuel system adequately as a part of the shop drawing process.

#### **3.03 SYSTEM TESTING**

- A. The fuel supply system shall be supplied with manufacturers test certificates as specified below.
  1. Tank test: pressure test, leakproof test and structural integrity/appearance test;
  2. Level controller: operational test and calibration of level sensors, level indicator, level control, alarms, backup devices;
  3. Pumps: vacuum test, flow test, pressure test, leakproof test, ampere/voltage test, load test, overload test.

#### **3.04 O&M MANUALS**

- A. The system shall be supplied with an illustrated manufacturer's manual which includes the following:
  1. Registration certificate
  2. Glossary
  3. Equipment list
  4. Detailed description of operation

5. Pump specifications
6. Installation instructions
7. Troubleshooting instructions
8. Maintenance instructions
9. Piping diagram
10. Electrical drawing
11. Exploded view parts drawing/parts list
12. Dimensional drawing
13. Warranty card

END OF SECTION

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