



**REQUEST FOR QUOTATION**  
**For**  
**“Compressor-Assisted Horizontal Sewage Pump”**  
**QUOTE NUMBER: 12-0018-7**

The Number Must Appear On All Quotations and Related Correspondence.

**Quotation must be received NOT LATER THAN 2:00 PM, on June 1, 2012 at the office of the Purchasing Agent. Quotes may be faxed, emailed, mailed or hand delivered.**

**Address Reply To: Robin Maurer , 912-790-1623**

**Mail to: 1117 Eisenhower Drive Suite C Savannah Georgia 31406**

**Fax to: 912 -790-1627**

**Email to: [rlmaurer@chathamcounty.org](mailto:rlmaurer@chathamcounty.org)**

**NAME OF BIDDER:** \_\_\_\_\_

**STREET ADDRESS:** \_\_\_\_\_

**CITY, STATE, ZIP CODE:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_ **FAX:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_ **FED TAX ID #:** \_\_\_\_\_

INDICATE MINORITY OWNERSHIP STATUS OF BIDDER (FOR STATISTICAL PURPOSES ONLY):

CHECK ONE:

\_\_\_\_\_ NON-MINORITY OWNED

\_\_\_\_\_ ASIAN AMERICAN

\_\_\_\_\_ AFRICAN AMERICAN

\_\_\_\_\_ AMERICAN INDIAN

\_\_\_\_\_ HISPANIC

\_\_\_\_\_ WOMAN

The undersigned proposes to furnish the following items in strict conformance to the specifications and Request for Quote issued by Chatham County.

Any colors not stated will be selected at time of award.

All prices shall include complete assembly, delivery and shipping or handling charges and removal of packing materials. Delivery shall be made to Chatham County Public Works and Park Services 7235 Sallie Mood Drive, Savannah Georgia 31406. Mr. Bert Matthews will be the point of contact for delivery. Contact phone number is 912-652-6846.

Item No.	Description	Quantity	Brand/Manufacturer	Total Bid
1	4 inch x 4 inch compressor assisted horizontal sewage pump	1 Each		

TIME REQUIRED FOR RECEIPT OF ORDER IS 63 DAYS

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Please Print Name

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Authorization Signature

Date \_\_\_\_\_

## Request for Quotation Instructions

1. All shipments are to be F.O.B. destination. Freight charges must be included in quotation. Delivery shall be made to the address listed on the Purchase Order and within the time specified in the quote.
2. **Quote must be submitted on sheets provided in spaces indicated.**
3. Quotes for materials, supplies, vehicles, and/or equipment must be accompanied by brochures, or copies of detailed factory specifications, ratings, technical data, including accurate descriptions of the exact materials, supplies, vehicles and/or equipment for which bids are made.
4. All information required by request for quotation must be completed to constitute a proper bid.
5. Vendor warrants that the goods are merchantable and as described herein or in the solicitation response. Additional warranties may be called for in the specifications.
6. Chatham County is exempt, by law, from any and all federal and state taxes. Do not include taxes in your quotations. Tax exemption number is **58-6001113**. Exemption certificate will be provided upon request.
7. Price Protection Period of ninety (60) days for all items desired from date of bid opening. Vendors are advised that prices in effect at time of bid shall apply and not be subject to revision at time of shipment.
8. Minority/Women Business Enterprise (MWBE) Policy: It is the policy of the County to provide minority and women owned business enterprises with equal opportunity for participating in selling goods and services to the County.
9. **Local Preference:** Bids will be evaluated in accordance with the County's Local Preference ordinance.
10. **Employment Eligibility Verification:** As required under Senate Bill 529 – “Georgia Security and Immigration Compliance Act” of 2006, O.C.G.A. Section 2, Article 3 13-10-91, public employers, their contractors and subcontractors are required to verify the work eligibility of all newly hired employees through an electronic federal work authorization program. The Georgia Department of Labor has added a new Chapter 300-10-1, entitled "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," to the Rules and Regulations of the State of Georgia. (See website: [http://www.dol.state.ga.us/pdf/rules/300\\_10\\_1.pdf](http://www.dol.state.ga.us/pdf/rules/300_10_1.pdf).) The new rules designate the “Employment Eligibility Verification (EEV) Basic Pilot Program” operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security as the electronic federal work authorization program to be utilized for these purposes. The EEV/Basic Pilot Program can be accessed at: <https://e-verify.uscis.gov/enroll/StartPage.aspx?JS=YES>. Bidders shall comply with this new rule and submit with your bid the attached “Contractor Affidavit and Agreement.”
11. O.C.G.A. § 50-36-1, requires Georgia’s cities to comply with the federal **Systematic Alien Verification for Entitlements (SAVE) Program**. SAVE is a federal program used to verify that applicants for certain “public benefits” are legally present in the United States. Contracts with the County are considered “public benefits.” Therefore, the bidders are required to provide the Affidavit Verifying Status for Chatham County Benefit Application prior to receiving any County contract. The affidavit is included as part of this bid package.
12. The original invoice is to be submitted to the County Finance Department. The purchase

order number must be shown on all invoices and packing lists.  
13. References may be requested of the successful bidder.  
***THIS IS NOT AN ORDER***

# **SPECIFICATIONS FOR 4 inch x 4 inch Compressor-Assisted Horizontal Sewage Pump**

## **GENERAL DESCRIPTION**

The units shall be a 4 inch x 4 inch compressor-assisted horizontal sewage pump driven by a water-cooled diesel engine. The pump shall be fully automatic, self-priming from dry conditions and capable of handling moderate volumes of air, water and solids. Pump unit shall include a sound attenuation enclosure covering both the engine and pump for noise abatement.

The complete pump package shall be manufactured in a plant that is registered to ISO 9001-2008 and a copy of the Certificate shall be provided with the bid submittal.

The pump shall be designated and manufactured in conformance with CPD / AEM standards.

## **CENTRIFUGAL PUMP**

The centrifugal pump shall be a horizontal end suction solids handling centrifugal type.

The pump casing shall be constructed of high grade class 30 cast iron with a minimum pressure rating of 100 psi.

Pump casing shall contain a cleanout cover for removing debris from the impeller without disturbing the suction or discharge piping.

The pump casing shall be constructed so that the suction flow path is in axial alignment with the impeller eye. There shall be no turns, chambers, obstructions or straightening vanes between the suction line and the impeller.

The impeller shall be a high efficiency non-clog type, 2-vane, enclosed design with full front and rear shrouds, containing back pumpout vanes, constructed of high grade 65-4512 ductile iron and capable of passing a 3" spherical solid. Open type impellers and impellers that contain balancing holes shall not be considered.

Pump seal shall be an inside-mounted, self-cleaning type 2 component style mechanical seal with tungsten carbide rotating and silicon carbide stationary faces with viton elastomers and stainless steel spring and hardware. Outside mounted seals and seals that use the same material for both the rotating and stationary seal faces which are prone to heat checking shall not be considered.

The seal chamber shall include a tapered bore design to remove solids and abrasive material away from the seal area and purge air and gas pockets. Straight bore designs that are prone to vapor buildup and clogging shall not be considered.

An oil reservoir shall be provided for automatically circulating lubricant to the seal faces permitting indefinite dry running.

Shaft shall be constructed of modified SAEII44 stress proof alloy steel, machined and polished to transmit full drive output. Shaft shall be tapered for maximum strength.

Bearing frame shall be constructed of class 30 cast iron.

Bearings shall be of sufficient size to withstand the radial and axial thrust loads incurred during service. Bearing shall have a minimum L-10 bearing life of 100,000 hours. Bearing shall be grease lubricated.

Centrifugal pump shall be capable of delivering a maximum flow of 1450 USGPM.

Centrifugal pump shall be capable of generating a closed discharge valve (shutoff) head of no less than 130 feet at 2200 rpm.

Pump shall be capable of handling suction pressures up to 100 psi.

Centrifugal pump shall be capable of handling up to 3" diameter non-compressible spherical solids.

The pump inlet shall be equipped with a 4 inch MNPT fitting.

The pump outlet shall be equipped with a 4 inch ANSI 125-lb. flange.

### **DIESEL ENGINE**

The engine shall be a four cylinder four cycle water cooled turbo charged, Interim Tier IV diesel engine or equal capable of producing 35 continuous duty horsepower at 1,800 rpm.

The engine shall drive the pump via an elastomeric torsion drive coupling.

The engine shall have an industrial type battery with 175-amp hour rating and minimum 990 cold-cranking amps, with 175 amp reserve, mounted in a lockable frame.

A 12-volt starter and alternator charging system shall be provided.

Engine shall have a hospital grade silencer muffler.

Engine shall have an electronic type governor.

Engine shall have variable speed throttle control

Engine shall have safety shutdown switches for low oil pressure and high water temperature.

An instrument panel shall be provided in the enclosure and mounted on rubber isolators.

Instrument panel shall contain the following instrumentation and controls: key switch, tachometer, hour meter, oil pressure gauge, water temperature gauge, charge indicator lamp.

## **CONTROL PANEL**

The engine control panel shall be provided in a NEMA 4X enclosure mounted on rubber isolators to reduce vibration.

The control panel shall be equipped with a factory installed microprocessor-based controller, able to start/stop the engine at a signal supplied by the high and low level floats, or by transducer operation.

The control panel shall function interchangeably from; float switches, pressure switch, or transducer, as well as manually using the start/stop selection at the keypad. No other equipment or hardware changes shall be required.

The control panel shall be capable of varying the engine speed to maintain a constant level in response to a change in level, pressure, or flow from the transducer, without a change to the panel, other than via the keypad.

The start function should be able to be programmed for warm-up and cool-down cycles, preset engine rpm for flow and head parameters.

In automatic mode, the control panel shall automatically conserve power by going to “sleep” mode when not active or programming *moqe*.

The keypad shall be a capacitive touch sensing system. No mechanical switches will be acceptable. The keypad shall operate in extreme temperatures, (-13F to 167F), and maintain complete weather tight sealing of the control panel.

The controller shall integrate the engine safety *shut-off* for low-oil temperature, high water temperature and provide over speed protection.

The controller shall include standard field adjustable parameters for engine cycle crank timer shutdown time delay, warm-up time delay and cool down time delay.

Standard components shall consist of (8) digital inputs, (5) analog inputs, (8) digital outputs, (1) RS232 port, (1) RS485 port, (1) J1939 port, (76) selectable features (32) alarm event history.

The control panel shall be equipped with a large LCD display (4.25” diagonal) capable of showing (4) separate functions simultaneously. The LCD shall be clearly readable in both bright sunlight as well as total darkness.

The control panel shall be capable of withstanding vibration of 3g, 3 axis, frequency swept 10-1000 Hz, and an operating humidity range of 0-95% non-condensing.

Optional features include a telemetry system (installed by the manufacturer), capable of remotely monitoring, recording, reporting and alarm information relating the engine, pump, fuel system and other parameters. The telemetry system shall also include GPS tracking, capable of viewing

on an interactive map including street addresses.

### **PRIMING SYSTEM**

The priming system shall be fully automatic eliminating the need to pre-fill the pump casing with water to achieve initial prime.

An air separation chamber shall be provided to prevent any carryover of the pumping fluid through the ejector and onto the ground. Units not meeting this requirement shall not be considered.

An air separation chamber shall contain a single float assembly mounted on a steel plate, which can be easily removed as a unit without special tools.

The air separation chamber shall not include any screens which can clog creating a maintenance nuisance and cause the priming system to fail

The compressor shall be an industrial version pressure-lubricated type. Splash-lubricated compressors shall not be considered.

The compressor shall contain a pressure relief valve for overpressure protection.

The priming system shall contain an in-line serviceable discharge 45 degree flapper style nonreturn valve which can be readily cleaned and repaired without having to disconnect the discharge piping. Ball type discharge check valves will not be accepted.

The venturi shall be constructed of bronze and be of modular design allowing for replacement of individual components. The venturi shall be remote mounted on the frame for ease of removal and inspection.

The priming system shall incorporate a manual valve to permit the pump to operate under positive suction head conditions.

The priming system shall be capable of automatically priming the pump with a 28 foot static suction lift with no water in the pump or suction piping.

### **MOUNTING FRAME**

The complete power unit shall be mounted on a combination frame/single wall fuel tank constructed of tubular steel, approximate length 70 inches, approximate width 38 inches, with a fuel capacity of 50 US gallons.

The frame shall incorporate an integral lifting bail capable of lifting the entire unit.

Fuel tank shall have two clean-out ports located at opposite ends of the tank.

Fuel tank shall have a removable basket strainer mounted in the fill port and a lockable cap.



## **TRAILER**

The complete pump set shall be factory mounted on a highway trailer meeting NHTSA, DOT Part 571 standards 108,119 and 120.

Trailer shall include the following:

Single 3500 lb. capacity removable axle with torsion suspension and electric brakes.  
Two ST225/75R15-D tires.

Removable tongue assembly with 3" adjustable lunette eye hitch and safety chains.

Removable steel diamond plate fenders.

Lashing rings.

One top wind swivel 5,000 lbs. capacity 15" retractable height tongue-mounted jack stand.

Two front and two rear stabilizing strands.

Optional DOT light package including stop, turn, tail and side marker lights and license bracket.

## **SOUND ENCLOSURE**

The entire unit including the pump and engine shall be completely enclosed in a lockable enclosure. Units not meeting this requirement shall not be considered.

The enclosure shall reduce operating noise below 70 dBa measured at 7 meters @ full speed (EPA Standard 40CFR204 is 76 dBa @ 7 meters). Units not meeting this requirement shall not be considered.

The enclosure shall be constructed with a modular galvanized steel frame and 2" thick reinforced galvaneel panels. Fiberglass or plastic enclosures shall not be considered.

The individual panels shall be constructed of a sandwich construction of an 18-gauge solid galvaneel outer shell, 2" thick 8 lb. density mineral wool **fill** encapsulated in a 1-mil polyester moisture barrier, damping sheet and 22-gauge perforated galvanized steel inner liner.

Unprotected open-cell foams with adhesive-style mounting systems shall not be considered.

The enclosure shall contain a minimum of 6 lockable-hinged doors; three sides, two rear and one front door to allow unrestricted access to all compartments for servicing without having to disassemble and remove panels. The enclosure shall contain a modular lift off panel on top.

Enclosures that must be disassembled in order to facilitate routine maintenance shall not be considered.

The enclosure shall contain two rear doors that can be opened and permit complete access to the

pump and priming system for routine maintenance without having to disconnect the suction or discharge piping.

The enclosure shall be fully detachable as a single unit to facilitate major repairs such as replacing the engine or pump.

The enclosure shall utilize powder coating instead of other paint applications.

Inside & outside work lights.

### **WARRANTY**

The manufacturer of the pumping unit shall warrant for a period of one year from the date of shipment that the entire unit and all equipment therein shall be free from defects in design, material and workmanship.

### **MANUALS**

One complete set of operation and maintenance document box, shall be furnished with the manuals inside a rainproof unit.

### **TESTING**

The complete pump set shall be factory tested according to ANSI/HI 1.61994 by a certified quality technician. The pump shall be sound tested according to ISO 3744, ANSI/HI9 .4 and CPB Sound level Measurement Standard. A test report shall be submitted to the Customer prior to acceptance.

### **CHARGER**

The pump set shall be equipped with a 10 amp, 120vac/12vdc, 60Hz battery charger. The charger shall be fully automatic and meet ISO 8846 Marine and Ignition protection standards. The charger shall be able to fully charge the batter in less than 12 hours.

### **PAINTING**

A minimum 5-mil thick layer of epoxy coated primer shall be applied to the entire pump set prior to the finish coat. A minimum 5-mil thick layer of TPM Blue Industrial Acrylic Enamel Paint shall be applied over the primer coat.

**CONTRACTOR AFFIDAVIT AND AGREEMENT**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with (name of public employer) has registered with and is participating in a federal work authorization program\* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with (name of public employer), contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the (name of the public employer) at the time the subcontractor(s) is retained to perform such service.

\_\_\_\_\_  
EEV / Basic Pilot Program\* User Identification Number

\_\_\_\_\_  
BY: Authorized Officer or Agent  
(Contractor Name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Contractor

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires:

\* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV / Basic Pilot Program" operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

***Systematic Alien Verification for Entitlements (SAVE)  
Affidavit Verifying Status for Chatham County Benefit Application***

By executing this affidavit under oath, as an applicant for a Chatham County, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, Contract or other public benefit as reference in O.C.G.A. Section 50-36-1, I am stating the following with respect to my bid for a Chatham County contract for \_\_\_\_\_. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1.) \_\_\_\_\_ I am a citizen of the United States.

**OR**

2.) \_\_\_\_\_ I am a legal permanent resident 18 years of age or older.

**OR**

3.) \_\_\_\_\_ I am an otherwise qualified alien (8 § USC 1641) or non-immigrant under the Federal Immigration and Nationality Act (8 USC 1101 et seq.) 18 years of age or older and lawfully present in the United States.\*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant:

Date

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

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_

\* \_\_\_\_\_  
Alien Registration number for non-citizens.

Notary Public  
My Commission Expires: