

**County of Brunswick, NC**

**Technical Specifications**

**for**

**Grinder Pump Station Packages**

## **Intent**

It is the intent of this specification to provide for the purchase of county-installed, customer-owned grinder pump station packages. The proposal shall include Simplex Systems for single family use and Duplex Systems for multifamily and commercial use. The county currently purchases and installs the grinder packages based on demand and expects to maintain the current level of approximately 200 units annually. The system shall be capable of serving a standard residential dwelling with an estimated usage of 360 gallons a day. The system package shall include all materials necessary for installation less external piping. The system shall include an HDPE or Fiberglass Reinforced Polyester Resin Tank with an aluminum top and an access door that can be locked with a standard padlock to allow for inspection and maintenance. Tank to include all internal piping, shut-off valve, and internal check valves. The system to include an NEMA 4X, UL listed Alarm Panel with all control components to operate in both automatic float control and manual override control. Panel shall be equipped with both audio and visual alarms with a silence operating switch. Grinder pump shall be equipped with a maximum motor not exceeding 2 HP, 230V 1PH 60 Hertz UL Approved. Grinder cutter assembly shall be approved for domestic wastewater and have all type 400 series Stainless components. Operating conditions for these systems shall fall into two categories as follows. Low Head 50 feet TDH, High Head 120 feet TDH and produce a minimum of 10 GPM at maximum TDH, submittals must include operating type. Three bids shall be required as follows: Low Head Simplex Station Package, High Head Simplex Station Package, and High Head Duplex Station Package. The same package may be submitted for all categories as long as the minimum operating conditions are met.

In comparing proposals, consideration will not be confined to price only. The successful bidder will be the one whose product is judged to best serve the interests of the County when price, product reliability, safety, and delivery are considered. Multiple bidders may be selected; the County of Brunswick reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities.

## **Equivalent Product**

Bids will be accepted for consideration on any make or model that is equal or superior to the minimum specifications specified. Decisions of equivalency will be at the sole interpretation of the County of Brunswick. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal. All modifications made to the standard production unit described in the manufacturer's brochures must be certified to have been in prior successful use through the submission of a minimum of three references to be included in the proposal. Failure to submit references for non-standard units will deem the proposal "non-responsive" and will be rejected without further review. If requested by the County, the bidder must be prepared to demonstrate a unit similar to the one proposed.

## **Submittals**

The Supplier shall submit complete Shop Drawings for the System, together with all required calculations per North Carolina Department of Environment and Natural Resources Pump Station guidelines for anti-floatation ballast, etc.

Pre-Approval Clause: Each supplier submitting a grinder pump station package herein shall provide the following submittals **by the date indicated on the Advertisement for Bids. The submittal deadline for pre-approval packets is prior to the actual bid date.** Failure to provide a complete and thorough bid submittal package shall render their pre-approval request non-responsive and will not be considered. Approval of manufacturers will be at the sole interpretation of the County of Brunswick. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence to the specified manufacturer(s). If requested by the County, the bidder must be prepared to demonstrate a unit similar to the one proposed.

### **Cooperative Purchasing Agreement**

The cooperative purchasing agreement in the State of North Carolina states that other public agencies may use the purchase agreement resulting from this invitation to bid, unless the bidder expressly notes on the proposal that the prices quoted are available only to the County of Brunswick. The condition of such use by other agencies is that any other agency must make and pursue contact, delivery arrangements, and all contractual remedies directly with the successful bidder. The County of Brunswick accepts no responsibility for performance by either the successful bidder or other such agency using this agreement. With such condition, the County consents to such by any other public agency.

### **Interpretations**

In order to be fair to all bidders, no oral interpretations will be given to any bidder as to the meaning of the specification documents or any part thereof. Any request for such consideration shall be made in writing to the County of Brunswick. Based upon such inquiry, the County may choose to issue an addendum to the specifications.

### **General**

The specification herein states the minimum requirements of the County. All bids must be regular in every aspect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The County of Brunswick will consider as "irregular" or "non-responsive" and reject any bid not prepared and submitted in accordance with the specifications, or any bid lacking sufficient technical literature to enable the County to make a reasonable determination of compliance to the specifications.

### **Deviations**

It shall be the bidder's responsibility to carefully examine each item of the specification. Failure to offer a completed bid or failure to respond to each section of the technical specification (YES / NO) will cause the proposal to be rejected without further review as "non-responsive." All exceptions and/or deviations shall be fully described in the appropriate section. Deceit in responding to the specification will be cause for automatic rejection.

The bidder must include a separate sheet where any and all deviations to the specifications are listed. The County understands that manufacturers design systems with different features. This listing is therefore integral to the County's determination of an equivalent product. Each deviation must reference the listed specification, by number if necessary, and explain in full detail how the proposed system is different.

### **Loan Equipment Program**

If the manufacturer's service center is unable to repair and have ready to return any component of the system within 48 hours of receipt from the purchaser, the service center shall have available loaner equipment for immediate shipment.

### **Bid Validity**

Bid and prices must be valid for a minimum of 24 months after the bid submittal acceptance date. Upon written agreement by both parties the term can be extended by 12-month periods with the same terms and conditions. The County may allow inflationary cost increases based on the yearly Producer Price Index for each 12-month extension after the initial 24-month bid.

## **Tank**

Tank shall be constructed of High Density Polyethylene or Fiberglass Polyester Resin to withstand normal exposure to 150 percent of the maximum external soil and hydrostatic pressure.

Tank capacity shall have reserve storage of 360 gallons above the pump on level.

Tank base shall contain a sufficient collar to allow for the required anti-floatation ballast. This may be constructed so that the collar can be easily installed during installation.

Tank top shall contain an aluminum hatch with access door to allow for inspection and maintenance, also the ability to lock top with a standard padlock for safety.

Tank internal discharge piping shall include Shut-off Valve, Check Valve and 1 1/4 " discharge pipe.

Tank shall include a stainless steel 4-way float bracket to hang 3 floats and pump power cord and a 2" NPT female electrical discharge coupling located at the top side of tank.

## **Control Panel**

The control panel shall be a NEMA watertight enclosure with a hinged lockable cover.

The panel shall have two 15 amp single pole breakers for separate control and alarm circuits. One two pole breaker sized to pump full load amps for each pump.

Panel to have a Visual Alarm mounted to the top of panel, wired to stay on until wet well drops below high level float setting. An audio alarm externally mounted with a push-to-silence button.

Motor starter shall be designed for continuous operation and equipped with thermal overloads sized for normal current load range.

Control system design shall be equipped to operate from mini float level sensors.

Duplex Panel shall contain a manual emergency power transfer switch and generator receptacle. An automatic programmable phone dialer to include alarm points for high level, power loss, and control system failure.

## **Grinder Pump**

The grinder pump shall be designed to be suitable for domestic wastewater service.

Pump motor shall not exceed 2 HP and operate at 230-240 volts 1 phase.

Grinder assembly shall be constructed of stainless steel material and capable of reducing all components in normal domestic sewage.

Pump/core shall be provided with a mechanical shaft seal to prevent leakage between the motor and pump.

**Spare Parts**

The manufacturer shall supply the following equipment as spare parts with the purchase of every 50 grinder pump station packages:

- A) One complete replacement pump.
- B) One motor starter with overload assembly.
- C) One set of replacement floats.
- D) One set capacitors.

**Warranty**

The manufacturer shall provide a 24-month warranty of all defects from the date of installation by the County but not to exceed 30 months from the date of receipt of purchase.

**Delivery**

The system shall be delivered to the County of Brunswick in first-class operating condition. Acceptance of the system shall be subject to inspection and approval by County personnel. All freight shall be prepaid and included in the unit price.