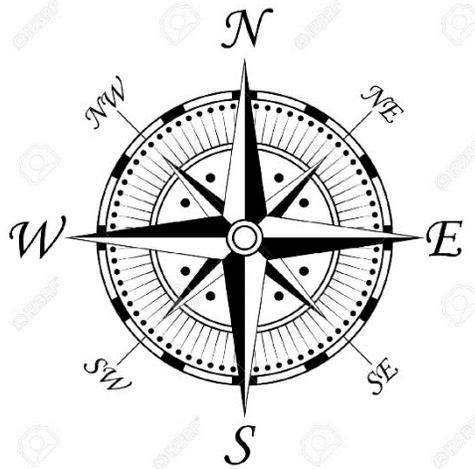




SUMMERVILLE
FLOWERTOWN IN THE PINES *South Carolina*



REQUEST FOR BIDS

Fuel System Upgrade [Yancey Street Fuel Site]

Daniel Corbin

200 S Main Street
Summerville, SC
29483

10/26/15

Sealed bids will be received by the Town of Summerville office of the Town Engineer until 2:00 PM on **December 1, 2015**. Opening will be held in the training room located at Summerville Town Hall, 200 S. Main St. Summerville, SC 29483

Bids will be for the purpose of upgrading the Town of Summerville Fuel Site and related equipment. A copy of the instructions to bidders and specifications are included in this package.

The Town of Summerville reserves the right to reject any and all bids, to waive all formalities and to award the contract, as it appears to be in the best interest of the Town of Summerville. The right is also reserved to hold any and all bids for a period not exceeding sixty days (60) days from the opening thereof.

Questions concerning the equipment specifications should be directed to Russ Cornette, Town Engineer at (843) 871-6000 or RCornette@SummervilleSC.gov

A mandatory pre-bid site visit will be held **November 17, 2015** at 10:00 AM at the project site at 1105 Yancey Street, Summerville, S.C.

All bids must seal and submitted to:

Fuel Site Upgrade
Town of Summerville
Attn: Russ Cornette, Town Engineer
The Town of Summerville
200 S. Main Street
Summerville, SC 29483

The intent of these specifications is to cover the requirements to Install/Upgrade the Town of Summerville Refueling Site. Design, procure, install, test complete new fuel tank system including dual (side-by-side) 12,000 gallon (total of 24,000 gallons) below ground, double-walled storage tank for one each gasoline and diesel, plus miscellaneous work as specified. The tanks must have devices in place to prevent overfills, and leak detectors. Design and construction of a new concrete pad.

The design of the unit shall incorporate the latest available technology and engineering capacities.

The equipment shall be new of current manufacture. No prototype, demo, or used equipment will be accepted.

All parts not specifically mentioned which are necessary to provide complete operation shall be included in the bid and shall conform in strength, quality of materials, and workmanship to what is normally provided to the trade in general.

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System Description

The work shall include the design, fabrication and installation of a fuel storage and dispensing type system in conformance with pertinent federal, state, and local code requirements. The completed installation shall conform to **NFPA 30, NFPA 30A** and DHEC as applicable. Installation contractor to secure all required SC DHEC permits for installation. Installer shall state if the existing ASTs can be joined (Piped) into new belowground storage system to be utilized in "Emergency Conditions Only".

SUBMITTALS

A letter stating the date the site was visited and a listing of all discrepancies found.

Individual reports shall be provided for the storage tank tests, the piping tests, the system performance tests, the high-level alarm test, and the system leak tests.

Tank and piping hydrostatic tests to be performed by a SCDHEC approved 3rd party testing company.

The date the tests were performed.

Contractor shall provide copies of Insurance coverage, coverage is to be One Million dollars (\$1,000,000,000) minimum and Workmen=s comp. for all individuals and/or sub-contractors.

Contractor shall also provide a copy of One Million dollars (\$1,000,000,000) minimum Pollution Insurance.

Contractor shall also provide Installation and Materials Warranties.

Experience

Each installation Contractor shall have successfully completed at least 8 projects of the same scope and the same size or larger within the last 6 years. Each installation Contractor shall demonstrate specific installation experience in regard to the specific system installation to be performed. Each installation Contractor shall have taken, if applicable, manufacturer's training courses on the installation of piping, leak detection, and tank management systems and meet the licensing requirements in the state of South Carolina.

The contractor shall be a stocking Distributor of equipment provided and be able to service said equipment.

Project Site Conditions

Verification of Dimensions:

After becoming familiar with all details of the project, the Contractor shall verify dimensions in the field, and advise the Town Engineer of any discrepancy before performing any work.

Water Supply:

Contractor will use water to ballast the tanks upon installation but will be required to pump out and dry prior to fuel delivery. Fuel will not be used for safety and environmental reasons.

Belowground Storage Tanks:

Tanks shall be two (2) 12,000 gallon capacity double-wall steel tank clad with fiberglass. Installation of belowground storage tanks shall be in accordance with API RP 1615 except as modified herein. Tank shall be placed no more than 1/16 inch per foot slope with the fill point at the low end and the vent connection 2ø O/C to fill. STP will be at the high end of tank so water will run away from STP intake. Tank shall be located so that the fuel discharge pipes slope up uniformly toward the fuel outlet. Containment sumps shall be installed prior to any backfill being added above the storage tanks and manhole covers must be watertight.

Installation

For Double Wall Steel Tanks w/Fiberglass

Storage tanks shall be handled with extreme care to prevent damage during placement and shall be installed in accordance with the manufacturer's installation instructions and **NFPA 30** and **SCDHEC** as applicable. The exterior surface of each tank shall be inspected for obvious visual damage before and after the placement of each storage tank. Surface damage to a storage tank shall be corrected according manufacturer's requirements before proceeding with the system installation.

Monitoring System

Belowground Storage Tank System:

The interstitial space of each belowground tank shall be continuously and automatically monitored to detect breaches in the integrity of the inner and/or

outer tank shells. The interstitial space shall be under vacuum during installation with the vacuum removed and sensor installed upon burial - A Veeder Root Sensor@ or equal shall be used. Sensors shall be intrinsically safe for use in a class 1, division 1, and group D environment as defined by **NFPA 70**. Sensors shall be easily removable from the tank. Sensors shall be compatible with the existing electronic monitoring system.

Fuel Monitoring System

Gauge shall be mechanically or electronically actuated and include a sending unit that transmits a signal to the existing liquid level electronic panel. The electronic panel shall be capable of providing a liquid level readout for each tank in terms of inches and gallons. Gauge shall be accurate to plus or minus 1/16 inch and be capable of measuring a tank's liquid level over a tank's full usable liquid level range. Gauge construction shall be compatible with the fuel to be handled. Gauge shall be capable of measuring water accumulation in inches from 3/4 to 5 inches off the bottom of a storage tank. Gauge shall be capable of constantly sensing the fuel level in a storage tank as well as acknowledging 2 programmable liquid level set points.

The existing electronic panel shall activate an audible and visual alarm when each set-point is monitored. The 2 liquid level set-points to be monitored shall include a tank's 90 percent liquid level (Set-point 1) and a tank's 95 percent liquid level (Set-point 2). The panel shall have a means of delineating between the individual set-points and the individual tanks.

Tank Overfill Prevention Valve:

Valve shall be a **OPN 6150-4000 Overfill Valve** or equal and placed within the tank interior and be an integral part of the fill tube. Valve shall be a float actuated shutoff valve. Valve shall be constructed of aluminum while the riser pipe needs to be galvanized steel. Valve shall have 2 stages of shutoff. In the first stage the valve shall restrict the flow of fuel into the tank to approximately 5 gpm when the liquid level rises above 95 percent of tank capacity. In the second stage the valve shall completely stop the flow of fuel into the tank when the liquid level rises above 98 percent of tank capacity.

Emergency Shutoff Valve

Valve shall be a **OPN 10 Double Poppet Impact Valve** or equal and meet the requirements of **UL 842** and be compatible with the intended fuels to be handled. Valve shall provide complete shutoff of a fuel line in the event a dispenser is dislocated or overturned due to a sudden impact. Valve shall provide a secondary poppet to limit spillage from the dispenser after a knockdown or during installation.

Piping

All underground piping shall be **Double Wall Fiberglass** as manufactured by Ameron or equal and shall be compatible with the fuel to be handled and be in accordance with **ASTM D 5677**. Pipe shall be compatible with the fluid being transported. Use of FPR piping is limited to buried service only and at pressures not exceeding that marked on the pipe.

Tank Pumps

Submersible Turbine Pumps shall be 3/4 H.P. Red Jacket with Mechanical Leak Detection. Pumps shall be easily removable from the tank.

Vehicle Dispensing Units

Existing suction pump units shall be changed to Dispensers by Contractor and be a power-operated dispensing device and shall be in accordance with UL 87. Unit shall be factory fabricated and include (but not limited to) a base, housing, pedestal, pressure-relief device, strainer, air eliminator, meter, valves as required, hose-nozzle valve, motor control, locking mechanism, emergency shutoff valve, filter, and electrical wiring. Unit shall be supplied with fuel by the corresponding tank pump or pumps. Each unit shall include (but not be limited to) an accounting meter, product hoses and nozzles, and necessary electrical controls. Units must operate with Fuel Master 2500 Plus Management System.

Testing

Manufacturer's Tank Tests

Following the tank tightness test, each storage tank shall be leak tested in accordance with the manufacturer's written test procedure if the manufacturer's test procedure is different from the tightness tests already performed. Any test failure shall require corrective action and retest.

Piping Pneumatic and Hydrostatic Testing:

Testing shall comply with the applicable requirements of **ASME B31.3**, **NFPA 30**, and the requirements specified herein. Care shall be taken not to exceed pressure rating of various fittings. Hydrostatic testing shall be performed using fuel as the liquid. Water shall not be introduced into the system for testing. To facilitate the pneumatic and hydrostatic tests, various sections of the piping system may be isolated and tested separately. Where such sections terminate at flanged valve points, the line shall be closed by means of blind flanges in lieu of relying on the valve. Tapped flanges shall be provided to allow a direct connection between the piping and the air compressor and/or pressurizing pump. Tapped flanges shall also be used for gauge connections. Taps in the permanent

line will not be permitted. Gauges shall be subject to testing and approval. In the event leaks are detected, the pipe shall be repaired and the test repeated. Following satisfactory completion of each pneumatic and hydrostatic test, the pressure shall be relieved and the pipe immediately sealed. Provision shall be made to prevent displacement of the piping during testing. Personnel shall be kept clear of the piping during pneumatic testing. Equipment such as pumps, tanks, and meters shall be isolated from the piping system during the testing.

Hydrostatic Procedures for Product Piping

Upon completion of pneumatic testing and after backfilling, each piping system shall be hydrostatically tested with fuel at not more than 275 psi in accordance with **ASME B31.3** and **API RP 1110**, with no leakage or reduction in gauge pressure for 4 hours. The Contractor shall furnish electricity, instruments, connecting devices, and personnel for the test. Defects in work performed shall be corrected at the Contractor's expense, and the test repeated until the work is proven to be in compliance with the testing procedures. Any release of fuel (no matter the size) during testing shall be immediately contained, the pressure on the piping relieved, and the piping drained of fuel. The Town Engineer shall be notified immediately of a fuel release, the exact location, an estimated quantity of release, and a discussion of the containment measures taken.

System Performance Tests

After all components of the system have been properly installed, the system shall be tested to demonstrate that the system meets the operational requirements for which it was designed.

Alarm Test

All alarms in fuel system shall be tested for operation and must meet the requirements for which it was designed.

Grading, Paving and Concrete:

Contractor responsible for backfilling and mechanically compacting all excavated areas. Set all grade level manholes for pouring and finished concrete. Provide 4000 psi redimix concrete with a re-bar mat in the entire slab pour, broom finish and fine grade tank pad. Tank pad will be saw cut 12'x12' cuts into the overall area. Re-pour all saw-cut ditch lines from fence to island.

DEMONSTRATIONS

Contractor shall conduct a training course for the operating staff as designated by the Contracting Officer. The training period shall consist of a total of 4 hours of normal working time and shall start after the system is functionally completed but prior to final system acceptance. The field instructions shall cover all of the items contained in the operation and maintenance manuals as well as demonstrations of routine maintenance operations.

-- End of Section --