SPECIFICATIONS
RFQ-24-200-203
Bott Well Pump Station and Irrigation System Maintenance

1.0 GENERAL REQUIREMENTS

1.01 GENERAL PROVISIONS:

The General Conditions of the Contract and any supplementary conditions as agreed upon between the ADC and the Contractor are a part of this Contract and shall govern the Work.

1.02 DESCRIPTION OF PROJECT:

This project shall cover the maintenance of the Bott Well Pump Station and irrigation Water System. Additional work under this project includes the repair and replacement of system components that break down or malfunction which could not be foreseeable at the time of bid and which will be expensed from the allowance.

1.03 MAJOR COMPONENTS:

The major components comprising the Bott Well Pump Station and Irrigation Water System include:

A. Well pump, installed in existing well, Right Angle Gear drive, C32 Caterpillar Diesel Engine, Diesel Fuel Storage Tank, and all related appurtenances.

B. Irrigation distribution mains, from well pump to reservoirs, and customer water meters. (Irrigation piping beyond the individual customer meters shall not be part of this work.)

C. Water reservoirs: two (2) each, open earthen reservoirs, geotextile lined, and all appurtenances.

D. Chain-link fencing around well and reservoirs sites.

1.04 MAINTENANCE:

A. SCOPE: The maintenance scope of work for the Bott Well Pump Station and Irrigation Water System shall include, but not be limited to, the following:

The Contractor shall furnish labor, tools, equipment, transportation, and supervision necessary to provide complete maintenance, inspections, troubleshooting, and repairs of the Bott Well Irrigation Water System, as described in these General Requirements. All parts, fuel, and lubricants shall be billed at cost and not more than a 15% markup for handling.

The Contractor shall also perform services for emergency calls on all equipment and appurtenances included under this Contract.

B. DESCRIPTION OF WORK: The primary service shall consist of competent maintenance of the diesel well pump system, distribution system piping and appurtenances, water meters, as well as the maintenance of the reservoirs. Such service shall include regularly scheduled maintenance tasks and inspections required for each unit listed herein. Regularly scheduled maintenance shall be defined by the manufacturer of the respective equipment and system. Verify maintenance requirements with the manufacturer of each respective equipment and system. See Bott Well Pumping System Operation and Maintenance Guide, which is attached, for detailed operational and maintenance considerations.

The maintenance, repair tasks, and inspection shall consist of thorough servicing and preventive maintenance of all integral parts, lubricating, adjustments, and protective painting, where needed, to keep the units in or to return the units to, a continuous operating condition. All services performed will be subject to inspection and approval by ADC personnel.

Response to emergency calls is included in this work, but is not part of the primary service. The Contractor shall not be responsible for repairs due to flagrant vandalism, fire, storm or other damages which can be attributed to causes beyond his control. However, the Contractor shall be responsible for such repairs if the damages are caused by the Contractor's maintenance and servicing of the equipment and systems under this Contract. Work to correct unforeseen or emergency items or situations shall be determined by ADC. The Contractor will be notified by the ADC of such work and any costs shall be negotiated and agreed upon before a Field Order or supplemental contract is issued for this work as indicated in the General Conditions. The Contractor shall not undertake any of this work without an approved Field Order and any work conducted prior to issuance of an approved Field Order shall be at the Contractor's own risk and no payment shall be made by ADC for any such work.

The Contractor is responsible to provide parts and labor to perform all repair work for the equipment listed herein. The Contractor is

responsible to provide all receipts for all repair parts and the hourly costs for labor for such repair work and for response to emergency calls which is not included in the monthly charge for the primary service but is to be paid on a “time and material” basis

The Contractor shall provide initial response to call-out within one (1) hour of call-out, and have personnel on-site within three (3) hours of initial notification.

C. MAINTENANCE SCHEDULE: All scheduled maintenance services performed by the Contractor shall be in accordance with the manufacturer’s written recommendations.

When not in conflict with the manufacturer’s recommendations, the following items shall also be performed in accordance with the attached Manual of Operation and Maintenance.

1. Daily (When Bott Well Pump Station in operation)

   a. Check well pump for vibration, noise and proper operation.

   b. Record parameters associated with well operation in the on-site logbook.

   c. Observe condition of overfill to drain system.

   d. Check well pump for vibration, noise and proper operation.

   e. Clean oil, dirt, and water from the exterior of the engine.

   f. Check engine, gear, line shaft oil lube tank for proper lubricant levels.

   g. Inspect indicators and recorders.

2. Weekly

   a. Complete engine inspection and service as recommended in Caterpillar Operation and Maintenance Manual.

3. Monthly

a. Check air release and vacuum valves for proper operation.

b. Inspect reservoirs

c. Complete engine inspection and service as recommended in Caterpillar Operation and Maintenance Manual.

d. Check mounting bolts for tightness.

e. Clean and inspect wiring connections and re-torque as required.

4. Quarterly

a. Prior to the end of the quarter, the Contractor and ADC shall conduct an inspection of the Irrigation Water System. The inspection shall cover all major components of the Non-potable Water System. At the end of the quarter, the Contractor shall submit a written report which be a summary of site inspection and a listing of significant events affecting the operation and performance of the Irrigation Water System in the past quarter.

b. Complete engine inspection and maintenance as recommended in the Caterpillar Operation and Maintenance Manual.

D. LANDSCAPE MAINTENANCE:

1. Provide on a monthly basis, grounds maintenance within the fence line of Well and Reservoir sites, and all water meters and standpipes.

1.05 ANNUAL AIR QUALITY EMISSIONS REPORT

1. Operating the Bott Well in compliance with its Clean Air Permit is a fundamental aspect of this Operations Contract. The Contractor will be responsible to understand and comply with the permit requirements and ensure the system is compliant. Any issues which could comprise said compliance will be promptly brought to ADC's attention.

2. All required reports, including but not limited to the Annual Air Quality Emissions Report shall be prepared by the contractor and forwarded to ADC for execution and Submittal to the DOH Air Quality Branch not less than 10 days before the due date.

1.06 MONTHLY COMMISSION ON WATER RESOURCE MANAGEMENT (CWRM) GROUND WATER USE REPORT

1. Operating the Bott Well in compliance with its CWRM Ground Water Use Permit is a fundamental aspect of this Operations Contract. The Contractor will be responsible to understand and comply with the permit requirements and ensure the system is compliant. Any issues which could comprise said compliance will be promptly brought to ADC's attention.

2. The Monthly Ground Water Use Report shall be timely filed online with a PDF copy email to ADC staff as directed. All parameters except Conductivity shall be measured and reported for each reporting period.

1.07 OPERATION AND MAINTENANCE MANUALS:

The maintenance manuals are available for review at the ADC Office. The primary service shall be in conformance with the manufacturer's operation and maintenance manual of each respective equipment and system, as follows:

A. Bott Deep Well Pump Engine Operation and Maintenance Manual Caterpillar C32 Industrial Engine, Bodell Construction Co., October 2013.

B. Caterpillar Operation and Maintenance Manual SEBU8599-03.

1.08 REFERENCE MATERIALS:

A. The original construction plans for this project are available and may be used as a reference for the performance of the work specified in the DESCRIPTION OF WORK section.

1. Small Farm Irrigation Supply, Wailua, Wahiawa, Oahu, Hawaii Job: IFB-17-200-10, Tom Nance Water Resource Engineering, Inc. July 2016.

2. Galbraith Reservoirs Wahiawa, Oahu, Hawaii Job no. 62975, Akinaka and Associates, Ltd. 1-18-18

3. Galbraith Agricultural Lands 3MG & 10MG Reservoir Connections Waialua, Oahu, Hawaii, Agtech Pacific, Inc. 12-2019

B. Operating Permits

1. Clean Air Permit

2. Ground water use Permit

1.09 ALLOWANCE:

An allowance of $25,000.00 is reserved for the repair or replacement of any component, part, or equipment not covered under warranty which is required for the proper operation and maintenance of the Bott Well Irrigation Water System. This allowance shall be applied to work performed authorized by ADC which is not part of the primary service. Allowance work shall be paid for on a cost-plus up to fifteen (15) percent for overhead and profit, for work done by the Contractor's own forces, and cost-plus up to ten (10) percent for overhead and profit, for work done by the Contractor's subcontractor. The Contractor's subcontractor may charge up to fifteen (15) percent for overhead and profit on work performed under the allowance. Further, the ADC may require that the Contractor submit invoices, receipts or other information.

1.10 PROJECT MAPS:

See attached Location Map and Base Map.