ADDENDUM #2
February 4, 2025
Barrett Mill Water Improvements
Wythe County

Reminder: Bid Opening date is Thursday February 6th, 2025 at the same times and same location.

Bidder must have the following in order to have their bid read aloud at the bid opening:

- Addendum acknowledged (currently Addendum #1 and Addendum #2)
- Bid Bond
- Bid form for the appropriate Division completely filled out

Bidders should review the bulletin for Guidance for the Implementation of American Iron and Steel (AIS) Requirements with Rural Utilities Service (RUS) Financial Assistance (https://www.rd.usda.gov/sites/default/files/UWP_Bulletin_1780-35.pdf) regarding the determination of AIS material requirements and exempt materials. Per the limited provided Exhibits: Exhibits E and F are items that ARE subject to AIS, and Exhibit G are items that are NOT subject to AIS.

Changes to the Contract Documents:

1. Revise the following subparts of Paragraphs 2.1 from Section 11215 – "Water Booster Pump System" to read:

   A. Furnish and install a pre-fabricated and tested variable speed packaged pumping system to maintain constant water pressure delivery pressure. The system shall be **provided with minimum three initially installed pumps and skid space for a future fourth pump (may be provided initially at contractor and system supplier option)**. **Pump control panel shall be remotely mounted within station building and shall include switches and controls for a four pump system. Motor drives may be provided either within the remote control panel or integral to the pump motor.** The system shall be designed to operate on 120/208 volt three phase incoming power supply.

   D.

Service:	Potable Water
Single Pump Design Points:	40 gpm @ 100 feet TDH (Maximum Full RPM Flow)
	35 gpm @ 120 feet TDH (Additional Full RPM Condition)
	13 gpm @ 180 feet TDH (Minimum Full RPM Flow)
Dual Pump Design Point:	**65 gpm @ 120 feet TDH (Maximum Full RPM Flow)**
Three Pump Design Point:	**95 gpm @ 130 feet TDH (Maximum Full RPM Flow)**
Minimum Shutoff Head:	**200** feet TDH
Minimum Motor Horsepower:	2 HP (Non-Overloading Along Full Curve)
NPSHR:	Less Than **19'** Along Full Curve
Initial Set Points:	100 psi System Discharge Pressure
	5 psi Max Disch. Pressure Drop (**~95** psi Low Flow Cutout Resume)

F. System shall be Grundfos **MPC (CRE or CUE 5-6)**, Goulds AquaForce, Fairbanks Nijhuis Intelliboost, or approved equal.

2. Revise Section 11215 – "Water Booster Pump System" Paragraph 2.5 to indicate that variable frequency drives may be either mounted within the remotely installed control panel or integrally on the motor.

3. Revise the following subparts of Paragraphs 2.6 from Section 11215 – "Water Booster Pump System" to read:

   5. "Control Panel The pump system controller shall be mounted in a UL Nema Type 3R rated enclosure…"

   6. "Controller … The controller shall be SCADA network compatible with interface and communication via EtherNet/IP protocol. Supplier shall provide a full memory address list."

4. Add paragraph D. to 2.1 in Section 16800 "Telemetry and Controls" to read

   D. Pump Station RTU shall communicate with Master SCADA System via Cell Modem interface. Cell modem shall support 4G and 5G communication.

5. Revise Section 16800 – "Telemetry & Controls", as follows:

   2.4.B PLC Control/Telemetry System: Each PLC panel shall have adequate memory and instruction sets required to make the unit perform all of the functions required by this specification. Units shall communicate with each other and with remote I/O panels via EtherNet/IP protocol. PLC shall be Allen Bradley Micro850, or approved equal. PLC shall interface with Master SCADA system via cellular modem with 4G and 5G capability.

Changes to the Plans:

1. Revise the note on C29 Pump Station Sections Detail A to read:

   CONCRETE SKID SUPPORT PAD (MIN **20" ~~6"~~** HIGH AND MINIMUM 4" BEYOND SKID ALL SIDES).

2. Add a note to C29 Pump Station Plan Detail A to read:

   MINI-SPLIT HVAC UNIT SHALL BE A DUCTLESS MINI SPLIT SYSTEM WITH 12,000 BTUH HEAT & COLLING CAPACITY. UNIT SHALL OPERATE ON 120V OR 240V SINGLE PHASE ELECTRIC SUPPLY AND HAVE MINIMUM 20.0 CEER RATING. UNIT SHALL HAVE ELECTRONIC CONTROL WITH REMOTE AUXILIARY WALL MOUNTED CONTROLLER AND THERMOSTAT. UNIT SHALL BE MITSUBISHI PKA-A12HA7/ PUZ-A12NKA7, OR APPROVED EQUAL.

3. Add a note to C29 Pump Station Sections Detail A & B to read:

   EXTEND 6" SUCTION PIPING ABOVE FLOOR FOR 20" PAD COMPENSATION FOR SINGLE 6"X4" 90 DEGREE BEND. INSTALL FITTING(S) AS NECESSARY ON THE DISCHARGE PIPING TO COMPENSATE FOR 20" PAD.

4. Revise "MINI-SPLIT" label to read "12,000 BTU/H MINI-SPLIT HEAT PUMP SYSTEM". Install outdoor unit on pump support pad on exterior of northwest wall. Provide exterior mounted Nema 3R lockable non-fusible disconnect switch near outdoor unit.

5. Delete the leader and notes for the heater thermostat located near the door on C29 Pump Station Plan detail. Mini-split system will be controlled by integrated or remote thermostat.

6. Delete leader& label indicating “Skid Mounted Pump Control Panel”. Pump Control Panel shall be standalone panel remotely mounted on northwest interior wall (near corner panelboard and service entrance). Install power and control rigid metal conduit under slab from control panel to come up through slab adjacent to concrete pump skid support pad. Install watertight flexible conduit from rigid metal conduits to pump motors and instrument sensors. Add a note to C29 Pump Station Sections to read:

   MOUNT PUMP CONTROL PANEL ON THE NORTHWEST INTERIOR WALL (SAME WALL WITH DEHUMIDIFIER) AND INSTALL UNDERSLAB CONDUIT FROM CONTROL PANEL TO PUMP SKID. NUMBER AND SIZE O CONDUITS TO BE AS RECOMMENDED BY PUMP SYSTEM MANUFACTURER. PROVIDE CONDUIT FOR ULTIMATE FOURTH PUMP AS WELL AS ONE MINIMUM ¾” SPARE CONDUIT.

7. Add a note to C28 Pump Station Site to read:

   AEP ELECTRICAL POWER POLE WILL BE LOCATED NEAR THE RIGHT-OF-WAY ADJACENT TO THE CELL TOWER SITE NEAR THE DIVISION II/III SEPARATION. CONTRACTOR WILL BE RESPONSIBLE FOR EXTENDING SINGLE 4” CONDUIT FROM UTILITY POLE TO THE BOOSTER STATION BUILDING. NO COMMUNICATION CONDUIT IS REQUIRED FROM THE BUILDING TO THE AEP POLE.

8. Add a note to C30 Pump Station Building Details to read:

   INTERIOR ELECTRICAL CONDUIT SHALL BE EITHER EMT OR PVC. CONDUIT THROUGH SLABS SHALL BE RIGID METAL. ALL CONDUIT WITHIN 5’ OF WATER PIPING OR PUMPS SHALL HAVE WATERTIGHT FITTINGS.

END OF ADDENDUM #2

EXAMPLES OF MUNICIPAL CASTINGS (*includes but not limited to*):

Access Hatches;
Ballast Screen;
Benches (Iron or Steel);
Bollards;
Cast Bases;
Cast Iron Hinged Hatches, Square and Rectangular;
Cast Iron Riser Rings;
Catch Basin Inlet;
Cleanout/Monument Boxes;
Construction Covers and Frames;
Curb and Corner Guards;
Curb Openings;
Detectable Warning Plates;
Downspout Shoes (Boot, Inlet);
Drainage Grates, Frames and Curb Inlets;
Inlets;
Junction Boxes;
Lampposts;
Manhole Covers, Rings and Frames, Risers;
Meter Boxes;
Service Boxes;
Steel Hinged Hatches, Square and Rectangular;
Steel Riser Rings;
Trash receptacles;
Tree Grates;
Tree Guards;
Trench Grates; and
Valve Boxes, Covers and Risers.

EXAMPLES OF CONSTRUCTION MATERIALS (*includes but not limited to*):

Wire rod, bar, angles
Concrete reinforcing bar, wire, wire cloth
Wire rope and cables
Tubing
Framing
Joists
Trusses
Fasteners (i.e., nuts and bolts)
Welding rods
Decking
Grating
Railings
Stairs
Access ramps
Fire escapes
Ladders
Wall panels
Dome structures
Roofing
Ductwork
Surface drains
Cable hanging systems
Manhole steps
Fencing and fence tubing
Guardrails
Doors
Stationary screens

EXAMPLES OF NON-CONSTRUCTION MATERIALS – (*includes but not limited to*):
(NOTE: *includes appurtenances necessary for their intended use and operation and are not subject to AIS*)

Pumps
Motors
Gear reducers
Drives (including variable frequency drives (VFDs)
Electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators)
Mixers
Gates (e.g. sluice and slide gates)
Motorized screens (such as traveling screens)
Blowers/aeration equipment
Compressors
Meters (flow and water meters)
Sensors
Controls and switches
Supervisory control Data acquisition (SCADA)
Membrane bioreactor systems
Membrane filtration systems (includes RO package plants)
Filters
Clarifier arms and clarifier mechanisms
Rakes
Grinders
Disinfection systems
Presses (including belt presses)
Conveyors
Cranes
HVAC (excluding ductwork
Water heaters
Heat exchangers
Generators
Cabinetry and housings (such as electrical boxes/enclosures)
Lighting fixtures
Electrical conduit
Emergency life systems
Metal office furniture
Shelving
Laboratory equipment
Analytical instrumentation
Dewatering equipment.