



Addendum 2
Porters Neck Booster Pump Station Replacement
May 30, 2024

BID DATE: Tuesday, June 4, 2024, at 11:00 AM (as originally advertised)

TO ALL BIDDERS:

Below are changes and or clarifications to the bid documents for this project. This Addendum forms a part of the Contract Documents and modifies the original bidding documents as noted below. Acknowledge receipt of this Addendum as required in the bid documents. Failure to do so may subject Bidder to disqualification.

CLARIFICATION:

1. All components coming in contact with potable water shall be certified to meet NSF 61.
2. Internal BPS piping may be steel pipe or ductile iron pipe.

QUESTIONS RECEIVED:

- Q1. The specifications say the pump station will be fed water from a local tank. What is the suction pressure available to the station? I fear the suction header may need to be as low as possible to accommodate NPSHR requirements for the pumps.
- A1. The ground storage tank finished floor elevation is approximately 23'. The ground elevation at the BPS is approximately 23'.
- Q2. Is there a minimum building size?
- A2. There is no minimum building size; however, the building shall be of sufficient size to allow operators and maintenance staff to comfortably walk through the building.
- Q3. Specification mentions air release valves. But there are no specs. Are air release valves required? If they are, do they have specifications?
- A3. Add one, quarter-turn, 1/4" ball valve to the discharge header and suction header to be used as a manual air releases.
- Q4. What is the depth of the Owner supplied water quality monitoring device panel?
- A4. Panel is approximately 8 inches deep.
- Q5. The specifications mention a telemetry panel. Who is providing it? What size is it? Is it located inside this pump station?

- A5. The Contractor shall provide the telemetry panel through a SCADA Allowance as shown on the Bid Form. The panel size will vary pending the SCADA integrator vendor. The telemetry panel will be located inside the building.
- Q6. Does the 480 volt power panel need to be set up for the future 3rd pump?
- A6. No.
- Q7. Do they want any shaft ground rings for the two motors?
- A7. Yes. Add shaft grounding rings for each motor.
- Q8. Do they want a isolation valve downstream of the flow meter?
- A8. A gate valve downstream and outside of the booster pump station is shown on the plans.
- Q9. Do they want a pressure relief valve? I would recommend one be added prior to the bid of after the bid via a change order.
- A9. There is an existing pressure relief valve shown on the plans.
- Q10. Butterfly valves mention they are to be designed for buried service. The valve we will use are not going to be buried or designed for buried service.
- A10. Specification (Section 33 14 43, paragraph 2.7) also describes butterfly valves for above grade service.
- Q11. The body of the check valve specification mentions swing checks and silent checks. The first part of the overall specification mentions silent checks. Please confirm silent checks are acceptable.
- A11. Silent check valves are acceptable.
- Q12. We will provide a pressure transmitter on the suction header in place of the suction pressure switch. Is this acceptable?
- A12. An adjustable suction pressure switch shall be provided.
- Q13. Are we to set up the power and control panel equipment for the future 3rd pump?
- A13. No
- Q14. What is to be done with the existing station and associated equipment/ pumps when it is removed from the pad?
- A14. Coordinate with Owner for any salvage materials. All other demolished material shall become the property of the Contractor and shall be disposed of properly (see specification 02 41 00 – Demolition).

Q15. Will all the boats and other items be removed from inside the TCE prior to contractor mobilization?

A15. The TCE area will be clear of boats prior to construction.

Q16. Please confirm there are two existing valves on the 16" Suction line (GV-3 & GV-2), while onsite yesterday these could not be located.

A16. The ground storage tank will be drained during this project. If a valve is not on the suction line, one will be added to the project at the discretion of the Owner.

Q17. Is there a maximum downtime between taking the old BPS offline and getting new BPS online?

A17. The maximum downtime will vary dependent upon seasonal demands. Contractor shall coordinate with the Owner to develop an acceptable downtime schedule. For bidding purposes, assume 4 weeks downtime. Once construction begins and the ground storage tank is drained, work shall continue, during normal working hours, until the project is complete.

Q18. If the concrete pad and or existing piping needs to be modified to accommodate the new BPS how will these changes be addressed?

A18. The existing concrete pad dimensions are shown. If modifications are required, the Contractor shall include that cost in their bid.

Q19. Have Highfill Infrastructure Engineering and CFPUA considered having the suction manifold piping and the discharge manifold piping exit through the rear wall of the BPS instead?

A19. The suction and/or discharge piping may enter/ exit through the wall of the building. Additional piping, fittings, or any other construction as a result shall be the Contractor's responsibility.

Q20. Are design plans and related calculations required to be signed and sealed by a registered North Carolina Professional Engineer?

A20. Yes

Q21. Specification 33 14 32-3 paragraph 1.3-C states: "The pump station manufacturer shall be required to affix all NFPA 70-E labeling according to the coordination study. All arc flash and electrical hazard labeling must conform to current NFPA 70E standards based on coordination study for the BPS. For short circuit calculations, coordination study, and arc flash calculations: the contractor's field investigation is required to obtain existing service equipment, generator, and feeder information. Additionally, the contractor shall coordinate with the utility company to obtain their fault current and protective device information for this site." If I am interpreting this paragraph correctly, the Contractor is responsible for the coordination study and once complete, will provide

the results of the coordination study to the Engineer, the Electrical Engineer, the Owner, and the Packaged BPS Manufacturer. The Packaged BPS Manufacturer will review the results of the coordination study that is provided to them and will then affix NFPA 70-E labelling to the Packaged BPS Electrical and Control Panels as required. Please confirm if this interpretation is correct and clarify who is responsible for performing the coordination study.

A21. Calculations, study, and labeling are in the Contractor's (or their subcontractor's) scope.

Q22. Specification 33 14 43-5 paragraph 2.5-A-1 states: "Quantity: 2 Pumps. Allow space for a future third pump." The space for the "Future" third pump is also shown on Plan Drawing C-1.1. I think it would be a good idea for you to clarify what the Packaged BPS should include for the "Future" third pump.

A22. Space in the building and piping shall be allocated for the future third pump. The suction and discharge valves for the future third pump shall be blind flanged. No controls, conduit, wiring, or panels are included for the future third pump. The future third pump and associated equipment will be purchased and installed by the Owner at a later date.

Q23. Specification 33 14 43-5-A-2 states: Design Conditions: 1200 GPM at 180' TDH at 80% minimum efficiency. Each Pump shall be capable of meeting the design condition individually. Please clarify if the 180' TDH includes the additional head required to account for internal station losses through the Packaged BPS.

A23. The duty condition includes the BPS internal headloss.

Q24. Specification 33 14 43-7 paragraph 2.5-E states: "Pump motors, an integral part of the complete pumping unit, shall be horizontal solid shaft, DRIP-PROOF ball bearing induction motors."

A24. Refer to Specification 33 14 43-7 paragraph 2.5-E, replace "drip proof motor" with "totally enclosed fan cooled premium efficient (TEFC-PE) motor."

Q25. I would like to ask if you would consider allowing us to provide Victaulic Flexible Service Couplings in lieu of the specified Flexible Pump Connectors.

A25. Flexible pump connectors shall be used.

Q26. I would like to ask if you would consider allowing us to provide a Prefabricated Building with a Single Slope Style Roof.

A26. A single slope style roof is acceptable.

Q27. I did not see a requirement for Line Reactors in the Variable Frequency Drive Motor Controllers Specification Section 26 29 23 or in the Pre Manufactured Booster Pump Station Specification Section 33 14 43.

A27. VFDs shall include line reactors. Refer to Specification 26 29 23 (Variable-Frequency Motor Controllers) and add the following paragraph:

2.6 LINE CONDITIONING

A. Provide 5% input line reactors to limit total harmonic distortion.

1. Mount within a common enclosure with the variable frequency controller.
2. Configured as 3 phase inductor, iron core, 600V, Class H insulation, 115 degree C rise, copper windings, with screw type terminal blocks.

Q28 Will we need to have a PLC in our control panel to be able to operate in case of the communications link failure and if their SCADA is going to Ethernet to our PLC?

A28. Provide equipment necessary, including a PLC, to operate the station remotely as well as locally in case of telemetry failure.

ACKNOWLEDGEMENT BY BIDDER. Bidder shall acknowledge receipt of this Addendum No. 2 in the space provided in the Bid Form.

All other terms & conditions remain unchanged.

Ben Guerrieri
Cape Fear Public Utility Authority
Procurement Manager
End of Addendum 2

John Kupinski
Cape Fear Public Utility Authority
Project Manager