Portland Water District

From Sebago Lake to Casco Bay

Sebago Heights Pump Station Controls Upgrade

ADDENDUM NUMBER ONE

Prepared By: Portland Water District
Portland Water District
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Addendum Date: March 20, 2025

Additional Information

Amend the scope as follows:

- The Telemetry Panel shall be built using a CompactLogix 5380 (5069-L320ER), allowing for I/O traffic and Communications traffic to be on separate subnets. Additionally, this allows ethernet communication to the VFD's and the use of Studio 5000.
- All I/O labeling, including field labeling, will need to be updated. See PWD's SCADA Standards Section 3.2 for more details.
- The VFD panels door should include, for each pump, a:
    - VFD Keypad
    - LOR selector switch
    - Local speed potentiometer
    - Run indicator light (green LED)
    - Fault indicator light (red LED)
- There are many options for panel placement depending on panel sizing requirements. As written in the scope, it was originally intended that there would be a Telemetry Panel (with A PLC that controls the two VFD panels), a VFD Panel for the Domestic Pumps, and a VFD Panel for the Fire Pumps. However, this is dependent on space requirements for the new VFD's. The existing panel pad currently houses two 48" wide panels (more details about the existing panels available in Appendix A of the scope). The existing Lockout/Tagout station could be moved to make room for the new Telemetry Panel if it doesn't fit on the pad alongside the VFD Panels. Whatever the designed layout, a Panel Layout submittal shall be submitted to PWD for review and approval. As with all other electrical work, the proposed layout shall adhere to the latest NEC requirements.

Question and answer:

Will the new Telemetry panel be built using a MicroLogix 1400 or a CompacLogix? Would CompactLogix be necessary for operating equipment on different subnets?

- The Telemetry Panel shall be built using a CompactLogix 5380 (5069-L320ER), allowing for I/O traffic and Communications traffic to be on separate subnets. Additionally, this allows ethernet communication to the VFD's and the use of Studio 5000.

Will the new panels be designed using a new radio modem or reusing the existing?

- Reusing the existing radio modem, an Esteem 195C.

What system is collecting data that the radio is transmitting? Aveva PI?

- Data will be collected by PWD's SCADA system at the Sebago Lake Treatment Plant, GE iFix 2022.

Will the flowmeter, pressure sensors, room temperature sensor, generator fuel level sensor, or door/motion sensor need to be replaced?

- All sensors will remain as existing.

Will the building require any additional cooling or heating?

- The building HVAC will remain as existing

Will labeling need to updating on field wiring?

- All I/O labeling, including field labeling, will need to be updated. See PWD's SCADA Standards Section 3.2 for more details.

What is the bypass plan?

- PWD will be in charge of bypass. Before beginning implementation, the contractor will be required to submit an implementation plan submittal detailing expected downtime for the station.

What are the specific requirements for panel indicator lights on the door?

- The VFD panels door should include, for each pump, a:
    - VFD Keypad
    - LOR selector switch
    - Local speed potentiometer
    - Run indicator light (green LED)
    - Fault indicator light (red LED)

What are the requirements for panel placement?

- There are many options for panel placement depending on panel sizing requirements. As written in the scope, it was originally intended that there would be a Telemetry Panel (with A PLC that controls the two VFD panels), a VFD Panel for the Domestic Pumps, and a VFD Panel for the Fire Pumps. However, this is dependent on space requirements for the new VFD's. The existing panel pad currently houses two 48" wide panels (more details about the existing panels available in Appendix A of the scope). The existing Lockout/Tagout station could be moved to make room for the new Telemetry Panel if it doesn't fit on the pad alongside the VFD Panels. Whatever the designed layout, a Panel Layout submittal shall be submitted for review and approval. As with all other electrical work, the proposed layout shall adhere to the latest NEC requirements.

What are panel height requirements? Could the panels be built taller?

- The panels can be built to a maximum height of 84" above standing level. Taller panels are subject to PWD engineer approval

Could the Telemetry panel be wall-mounted?

- The Telemetry panel may be wall-mounted, assuming a maximum of 48" wide and 16" deep. See PWD's SCADA Standards Section 3.4.2 for more details about Panel Construction.

Is there access to the attic to run conduit for any additional power drops?

- There is attic access through an access panel.

What are the requirements for conduit inside the control building?

- Indoor conduit shall be Schedule 40 Steel, see PWD SCADA Standards section 4.2.3 for more details.

Could all 6 VFD's be in a single panel?

- Yes, all 6 VFD's could be in a single panel, assuming proper heat dissipation.

Could the existing panels be reused?

- No, new panels must be provided. The Telemetry Panel must be designed with room for 25% future expansion. See PWD's SCADA Standards section 3.4.2 for more details.

Will the new OIT displays need to match the existing OIT displays?

- Yes. PWD will provide the contractor with the latest version of the OIT displays.

Submitting Firm Name	**Address**
By	**Title**
Signature of Person Bidding and Date	

--Addendum should be signed and submitted with bid--

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