

## Meeting Notes

Subject	Peirce Island WWTF Upgrade – Monthly Public Construction Meeting
Date	March 21, 2018
Time	11:00 AM
Location	Portsmouth, NH

A public meeting was held at 11:00 AM on March 21, 2018 in Conference Room A at Portsmouth City Hall for the subject project. A record of the discussion follows:

Terry Desmarais, City Engineer, gave an introduction to the meeting and outlined the topics of discussion, including work completed since the last meeting, work to be completed in the coming month, work anticipated in the next six months, construction cost to date, summary of Consent Decree milestones, events and recreation, and public input.

The members of the Project Team in attendance introduced themselves, and included:

- Terry Desmarais, City Engineer
- Patrick Wiley, Operation Manager
- Tim Babkirk, Chief Plant Operator
- Jon Pearson, AECOM Project Manager
- Robert Dahlinghaus, AECOM Resident Representative
- Andy Brodeur, Methuen Construction, Project Manager

Terry noted that to obtain additional information regarding the project, there is a project website that can be accessed through [www.cityofportsmouth.com/publicworks/wastewater/peirce-island-wastewater-facility/peirce-island-wastewater-facility-upgrade-project](http://www.cityofportsmouth.com/publicworks/wastewater/peirce-island-wastewater-facility/peirce-island-wastewater-facility-upgrade-project). The website is updated weekly with news and recreational information and contains a link to a reporting form that can be used to provide feedback or notify the City of any issues associated with the project.

Jon discussed work that has been completed this month. He noted areas where work is ongoing at the site, including:

- Headworks Building
- Yard Piping / Utility Service
- Grit Building
- New Solids Building
- Electrical Facilities (Standby Generator and Electrical Building)
- Biological Aerated Filter (BAF) Building

Jon reviewed photos of construction progress, including:

- Electrical Facilities – The electrical service that runs from the pool area, along Peirce Island Road and to the WWTF, is now in service. The temporary electrical facilities have been de-energized and over the course of the past month the temporary generator and temporary switchgear building were dismantled and removed from the site. The existing WWTF operations have been transferred over to permanent power.
- Headworks Building – HVAC, plumbing, electrical, and mechanical process work is in progress and near completion. Work to test and startup mechanical process equipment is in progress.
- Grit Building – Work to install new mechanical process equipment is in progress. Formwork for the new grit classifier pads is in progress, the Aerated Grit Chamber blowers have been brought on site and selective demolition of equipment and piping is in progress. Efforts to keep the Grit Building operational during equipment replacement are ongoing.
- BAF Building – Reinforcing, formwork, and concrete placement for the elevated slabs, columns, above ground walls, and cell walls is in progress. Installation of the precast nozzle decks is in progress. Installation of mechanical process piping has begun in Stage 1 of the BAF.
- Solids Building – Underground yard piping and ductbank work beneath the Solids Building is in progress. Reinforcing, formwork, and concrete placement for the foundation slab and walls are in progress.

Andy discussed work anticipated for the coming month, including:

- Continue interior work in the Headworks Building, including doors, windows, mechanical, HVAC, plumbing, and electrical work.
- Continue equipment startup and training for WWTF staff of equipment at the Headworks Building.
- Continue selective demolition and modifications (structural, mechanical process, HVAC, plumbing, and electrical) in the Grit Building. This includes partial wall demolition, patch work, and painting so that permanent work may begin.
- Continue reinforcing, formwork, and concrete placement for the BAF Building elevated slabs, columns, and walls.
- Continue installation of mechanical process piping in Stage 1 of the BAF Building. Piping for process air has been installed in several of the cells and work to install the piping in the remainder of the cells will continue.
- Continue installation of utilities under the new Solids Building.
- Continue installation of reinforcing, formwork, and concrete placement for the Solids Building foundation slab and walls. This includes completing the concrete work for the Aerated Sludge Tanks and leak testing of the tanks once completed.
- Continue underground piping installation between the Grit Building, Solids Building, and BAF Building.

Andy then discussed the work anticipated through March and into August 2018, including:

- Headworks Building – Complete all work in and around the Headworks Building, including but not limited to, exterior envelope work, exterior mechanical work on the roof, and installation of process piping and equipment, odor control piping and equipment, HVAC, and plumbing. Begin to directed wastewater flow from the Mechanic Street and New Castle Pump Stations to the Headworks Building. Complete testing, training, and turnover activities so that the building can be put into service and turned over to the City.

- Grit Building – Interior: Continue selective architectural, structural and mechanical process modifications, complete installation of new ferric chloride chemical system, continue installation of interior mechanical process equipment and piping, complete installation of the new slide gates for the Grit Chambers and continue modifications on the Grit Chambers. Exterior: complete work on the new roof, yard piping associated with the building, and installation of exterior doors.
- Gravity Thickener No. 2 – Continue work on permanent yard piping associated with Gravity Thickener No. 2 so that backfilling around Gravity Thickener No. 2 may begin.
- Electrical Facilities – Continue to extend the electrical and communication ductbanks towards the BAF and Solids Buildings.
- Underground Piping and Utility Services – Continue installation of yard piping near the Grit Building, Solids Building, and BAF Building.
- BAF Building – Complete installation of the precast channel covers and nozzle decks. Continue reinforcement, formwork, and concrete placement for the elevated slabs, walls, and columns. Continue installation of mechanical process piping and equipment, continue electrical, plumbing systems, and HVAC work, and continue installation of yard piping. Begin backfilling around the building on the South, East and West side, and begin installation of CMU walls on both ends of the building for the stairways.
- Solids Building – Continue yard piping and underground utilities in and around the Solids Building. Continue reinforcement, formwork, and concrete placement for the foundation, walls, and columns. Begin work on interior mechanical process piping and equipment.
- Sanitary Pump Station No. 1 – Complete associated yard piping and installation of pumps within the structure.
- Complete installation of the new slide gates at the Primary Clarifier Effluent Distribution Box and modifications to the distribution box.

Jon provided an update on the project construction cost:

- Original Contract: \$72.786 million
- Change Order No. 1: \$0.367 million
- Change Order No. 2: \$0.547 million
- Change Order No. 3: \$0.093 million
- Change Order No. 4: \$0.163 million
- Total Contract: \$73.956 million

Jon provided a summary of the project milestones set by the Consent Decree:

- Execute Contract to Construction Upgrades - Date: 9/1/2016 - Status: Complete
- Submit Two Additional Millstones for EPA Review and Approval - Date: 12/1/2016 - Status: Complete
- Additional Milestone 1: Transfer of the Existing SCADA system to the New Headworks Building - Date: 11/21/2017 - Status: Complete
- Additional Milestone 2: Startup and Testing of the Secondary Influent Pump Station in the New Solids Building - Date: 5/9/2019 - Status: On Schedule
- BAF Substantial Completion - Date: 12/1/2019 - Status: On Schedule
- Achieve Compliance with NPDES Permit Limits - Date: 4/1/2020 - Status: On Schedule

Jon noted that the project team is continuing to coordinate construction with community events. Upcoming events this month include the Eastern States 20 Mile, New Castle Commons Road Race, National MS Walk, and Strawberry Banke Events.

To provide more information on the Solids Building and its function, Jon gave a brief overview of the building. The Solids Building houses much of the solids handling process at the WWTF and the Secondary Influent Pump Station, which will convey effluent from the Primary Clarifiers to the BAF Building. Effluent from the Primary Clarifiers will flow by gravity down to the Secondary Influent Pump Station wet wells located on the West side of the Solids Building where then, pumps will intake the Primary Clarifier Effluent and pump it to the influent channel of the BAF Stage 1 cells. Within the Solids Building, equipment for solids processing includes primary sludge grinders and primary sludge pumps. Currently, the primary sludge pumps are temporarily located in Gravity Thickener No. 2 until they can be moved to their permanent location in the Solids Building. Thickened sludge and scum from the Gravity Thickeners will be pumped to the Aerated Sludge Tanks, two of which are located in the Solids Building, by the thickened sludge pumps (located in Solids Building). In the Aerated Sludge Tanks, sludge will be stored until it is drawn out by the screw press feed pumps where it will then be pumped to the screw press units. The screw presses will further dewater and compact the thickened sludge, turning it into a cake like consistency. This “cake” will then be hauled off site for disposal. Terry noted that completing the Secondary Influent Pump Station is the next key milestone of the Consent Decree schedule.

A question and answer session then occurred, and is summarized below:

Peter Whalen asked the following:

Q: When looking at the Consent Decree Report that was issued to the EPA in January, there is a description of the project funds which have been distributed are at 49% of the total project cost as of January 31<sup>st</sup> and at that time the percent completed based on time elapse was at 43.7% complete based on the BAF treatment system 37.9% complete based on the project substantial completion. Are there more change orders to come, since these percentages re different?

A: Terry answered that typically when completing construction projects, the rate at which work is completed can be modeled as a bell curve. Generally, if the amount spent is ahead of the percent complete, that indicates that the project is ahead of schedule. The project is being billed against set values in the contract plus the change orders executed to date. The rate at which construction is being completed is not dependent on future change orders but it is more an indication of whether the project is on schedule or not. When reviewing the project funds that have been expended, the percent reported is what one would expect. There likely will be additional change orders similar to those in the past where costs/needs have changed from what was anticipated prior to construction. In addition, the project is on schedule.

Paige Trace asked the following:

Q: During a separate meeting, Brian Goetz was speaking about the increase in size from 8-inch to 12-inch of the water main going towards New Castle, NH and he stated that this project was paid for by the Water Revenues. However, Change Order No. 1 included the cost for the water main replacement and the Peirce Island WWTF Upgrade is being paid by money from the SRF bond. What funding source is paying for the water main replacement?

A: Terry answered that Change Order No. 1 included the cost of the water main replacement and the cost of the additional paving needed at the Strawberry Banke parking lot to protect historical resources. The water main replacement was included in the change order because Methuen Construction was completing the work, causing a change in the cost of Methuen's

contract. All change orders presented reflect changes in the contract with Methuen Construction but do not necessarily indicate that the SRF bond money is being used to pay for the change order. In the case of Change Order No. 1, two sources of money were used to pay for Change Order No. 1. The pavement improvements were paid for by the SRF bond that was approved by the City Council, the water main replacement was paid for with money from Water Revenues. The sources of money used to pay for change orders are not included on the change order documents but this information can be provided.

The next public construction meeting will be on April 18, 2018 at 11:00 AM in Conference Room A at Portsmouth City Hall.

These notes present a summary of the items discussed at the meeting and are not a transcript of the meeting.