AECOM
250 Apollo Drive
Chelmsford MA, 01824
www.aecom.com

978 905 2100 tel
978 905 2101 fax

Meeting Notes

Subject	Peirce Island WWTF Upgrade – Monthly Public Construction Meeting
Date	October 17, 2018
Time	11:00 AM
Location	Portsmouth, NH

A public meeting was held at 11:00 AM on September 19, 2018 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, Wastewater Operations Manager
- Erik Meserve, AECOM Project Engineer
- 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. 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.

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

- Yard Piping / Utility Service
- Grit Building
- Solids Building
- Biological Aerated Filter (BAF) Building

Erik reviewed photos of construction progress, including:

- Site Overview – Existing conditions of the Peirce Island Wastewater Treatment Facility in November 2016. Prior to constriction, the treatment process consisted of the Aerated Grit Chambers, followed by the Primary Clarifiers and Chlorine Contact Tanks.

- Grit Building & Aerated Grit Chambers – Work to install new mechanical process equipment within the Aerated Grit Chamber No. 1 continues, including a new grit collection system, and new aeration equipment. Work to install the new aluminum covers on Aerated Grit Chamber No.1 also continues. Work to install new mechanical process, HVAC and electrical equipment in the Grit Building is in progress; this includes but is not limited to the new grit pumps and grit classifier. Structural and architectural modifications to the building are also in progress. Efforts to keep the Grit Building operational during equipment replacement are ongoing.
- Solids Building – Reinforcing, formwork, and concrete placement for the elevated slabs, walls, and columns are in progress. The precast roof planks were set in place this past month and installation of masonry began. Installation of mechanical process piping and placement of mechanical process equipment in the Pump Gallery is underway; this includes but is not limited to the screw presses, Secondary Influent pumps, and assorted piping.
- BAF Building – Reinforcing, formwork, and concrete placement for the elevated slabs, columns, above ground walls, and cell walls. Installation of BAF Stage No. 1 and No. 2 nozzle decks are nearly complete. Installation of mechanical process piping within the BAF cells, Pipe Gallery, and mechanical process spaces is in progress. Work to install the mechanical process valves and slide gates is in progress. Masonry work, including installation of CMU walls on both ends of the building, is in progress.
- Yard Piping / Utility Service – Work to install yard piping between the Grit Building, Solids Building and BAF Building is in progress.

Terry provided a brief overview of the treatment process as a whole, including the Headworks, Aerated Grit Chambers, Primary Clarifiers, Secondary Influent Pump Station, Stage 1 and Stage 2 BAF, and Chlorine Contact Tanks. He also noted the improvements that will be completed in the existing Solids Processing Building, and that the other new structure that is part of this project is Gravity Thickener No. 2.

Andy discussed work anticipated for the coming month, including:

- Continue minor finish work in the Headworks Building.
- Continue architectural, structural, mechanical process, HVAC, plumbing, and electrical construction in the Grit Building.
- Continue work on process equipment installation and startup in Aerated Grit Chamber No. 1.
- Continue installation of reinforcing, formwork, and concrete placement for the BAF Building elevated slabs, columns, and walls.
- Continue installation of mechanical process piping in Stage No. 1 and No. 2 of the BAF Building.
- Continue installation of mechanical process piping throughout the BAF Building.
- Continue masonry work on the BAF and Solids Building.
- Continue installation of reinforcing, formwork, and concrete placement for the Solids Building elevated slabs, columns, and walls.
- Continue installation of equipment and process piping in lower level of the Solids Building.
- Continue underground piping installation between the Grit Building, Solids Building, and BAF Building.

Andy then discussed the work anticipated through October and into April 2019, including:

- Headworks Building – Complete minor finish work.

- Grit Building – Interior: Continue selective architectural, structural and mechanical process modifications, including installation of mechanical process piping and equipment, in the Grit Building. Continue installation of electrical, control, and fire alarm wiring. Complete installation of new chemical systems (ferric chloride and polymer). Complete modifications in Grit Chambers No.1 and No. 2. Exterior: Complete work on the new roof, yard piping associated with the building, and installation of exterior features such as doors and windows.
- Underground Piping and Utility Services – Complete yard piping from the Primary Clarifiers to the BAF Building, Solids Building and Primary Clarifier Effluent Distribution Box. Complete the electrical and communication ductbanks towards the BAF and Solids Buildings.
- BAF Building – Complete reinforcement, formwork, and concrete placement for the elevated slabs, walls, and columns. Complete installation of the precast channel covers and nozzle decks for the Stage 1 and Stage 2 cells. Complete installation of steel pipe support beams and monorails in the pipe gallery. Continue installation of mechanical process piping and equipment, electrical, plumbing, and HVAC systems, this includes the Boiler Room, Mechanical Room, and Blower Room. Complete masonry work, including installation of CMU walls on both ends of the building for the stairways and buildout of rooms. Complete installation of precast roof planks, roofing system and brick façade. Complete installation of yard piping associated with the BAF Building and backfilling around the building.
- Solids Building – Complete installation of yard piping and underground utilities in and around the Solids Building. Complete reinforcement, formwork, and concrete placement for the remainder of the concrete, primarily equipment pads and the concrete topping slab on the roof. Complete masonry work, including installation of CMU walls. Complete installation of precast roof planks, roofing system and brick façade. Continue work on interior mechanical process piping and equipment.
- Sanitary Pump Station No. 1 – Complete associated yard piping and installation of pumps within the structure.

Erik 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
- Change Order No. 5: $0.250 million
- Total Contract: $74.206 million

Erik 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

Erik noted that the project team is continuing to coordinate construction with community events. Upcoming events this month include the Walk for Freedom, Portsmouth Halloween Parade, Seacoast Half Marathon, and Strawbery Banke Events.

Paige Trace asked the following:

Q. What does CMU stand for?
A. Concrete Masonry Unit

Q. How many loads of sludge per week will be transported off the island when completed
A. Currently one to two trucks per day leave the treatment facility 4 or 5 days a week. The project will increase that amount by approximately 1 truck per day, however it will be flow and load dependent.

Q. How long does the denitrification process take?
A. The hydraulic retention time in the Stage 2 cells will depend on the influent flow. At the design average day flow, the hydraulic retention time is less than one hour.

Q. Will carbon be added to accomplish denitrification?
A. Yes, supplemental carbon will be added in the BAF Building to the effluent from the Stage 1 cells to allow for denitrification in the Stage 2 cells. Micro-C will be used as the supplemental carbon source.

Q. What is the contact time in the Chlorine Contact Tanks?
A. The contact time is dependent on the flow through the plant at the time. During the majority of flows, the mandated contact time of 15 minutes is met. During the infrequent times when the wet weather bypass is expected to be used, the contact time may be marginally less than the mandated 15 minutes, however DES has issued a waiver to the City for these occurrences.

Q. Why do there seem to be more CSO events from the Deer St. Outfall?
A. The City can recall two events at this outfall this year. CSO events are dependent on the amount of rain, whether the ground is already saturated, whether there is snow, and also the intensity of the rain. Recently, there have been some large, intense storms that have caused CSOs.

Q. Do the CSO events have anything to do with the sewer and drainage work in the McDonough Area?
A. There was no change in the capacity of the sewer and drainage system in this area. The sewer and drainage systems in this area are being separated.

The next public construction meeting will be on November 21, 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.