

Meeting Notes

Subject	Peirce Island WWTF Upgrade – Monthly Public Construction Meeting
Date	November 15, 2017
Time	11:00 AM
Location	Portsmouth, NH

A public meeting was held at 11:00 AM on November 15, 2017 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:

- Peter Rice, City Director of Public Works
- Terry Desmarais, City Engineer
- 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. 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 Pearson 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
- Gravity Thickener No. 2
- Existing Administration Building / New Solids Building
- Electrical Facilities
- Biological Aerated Filter (BAF) Building

Jon reviewed photos of construction progress, including:

- Headworks Building – Interior: screening channels have been covered with a protective coating. Exterior: installation of odor control equipment on the concrete pad is in progress.
- Grit Building – Interior: building modifications are in progress, work to install interior partition walls to isolate electrical spaces from process equipment is in progress, and work is underway in the basement to remove nonfunctional equipment to make way for new equipment.
- Temporary Housing for WWTF Staff – Work to outfit temporary trailers to provide office and control space, laboratory space, showers, etc. has been completed and the WWTF staff have been completely relocated to the temporary facilities.
- Existing Administration Building/New Solids Building – Demolition of the existing Administration Building has been completed.
- BAF Building – Reinforcing, formwork, and concrete placement for the elevated slabs, columns, above ground walls, and cell walls is in progress.
- Gravity Thickener No. 2 / Temporary Sludge Pumps – The primary sludge pumps from the existing Administration Building have been relocated to the temporary structure in Gravity Thickener No. 2. Work is in progress to put the pumps in service, after which the installed temporary primary sludge pump system will be removed.
- Electrical Facilities – Work to complete the new Electrical Building is underway and the new stand-by diesel generator has been installed and placed on the concrete pad. The underground utility cables have been pulled through the new underground ductbank and the utility transformer has been set in place.
- Underground Piping and Utility Services – The 48" force main conveying wastewater to the Grit Building from the Headworks Building has been connected to the Grit Chamber piping and work to bring a new water service to the Grit Building is in progress.

Andy Brodeur discussed work anticipated for the coming month, including:

- Continue underground piping installation near the Grit Building.
- Continue to install the odor control equipment at the Headworks Building, focusing on the outdoor equipment as most of the interior ductwork has been completed.
- Continue interior work in the Headworks Building, including doors, mechanical, HVAC, plumbing, and electrical work.
- Continue interior work at the new Electrical Building, including installation of the split unit and unit heater.
- Continue to install electrical manholes and ductbank system at the new Electrical Building.
- Complete installation of the temporary primary sludge pump station in Gravity Thickener No. 2 and bring the pumps into service.
- Continue reinforcing, formwork, and concrete placement for the BAF Building elevated slabs, columns and walls.
- Continue selective demolition and modifications (structural, mechanical process, HVAC, plumbing, and electrical) in the Grit Building, including installation of the new Motor Control Center.
- Begin installation of utilities that run underneath the new Solids Building.

Andy then discussed the work anticipated through the end of the 2017 calendar year, into March 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 all process piping and equipment, odor control piping and equipment, HVAC, and plumbing. Complete testing, training, and turnover activities so that the building can be put into service and turned over to the City.
- Headworks Building Surface Treatments – Complete all exterior surface treatments, including sidewalks and mowing strips (this does not include landscaping).
- Grit Building – Interior: Continue selective architectural, structural and mechanical process modifications, complete installation of new ferric chloride chemical system, continue installation of interior mechanical and process equipment and piping, and continue installation of the plumbing and electrical system, including the Motor Control Center. Exterior: complete work on the new roof and yard piping associated with the building.
- Gravity Thickener No. 2 – Complete installation of permanent dome cover and continue work on permanent yard piping associated with Gravity Thickener No. 2.
- Electrical Facilities – Complete installation and commissioning of the new Electrical Building and emergency generator system, complete installation of HVAC and fire alarm equipment, transfer power to the new underground electrical system and remove the existing temporary overhead electrical system.
- BAF Building – Continue reinforcement, formwork, and concrete placement for the elevated slabs, walls, and columns. Continue installation of process piping and equipment, installation of precast channel covers and nozzle decks, and backfilling around the building. Begin installation of CMU walls on both ends of the building for the stairways, installation of electrical and plumbing systems, and installation of yard piping.
- Existing Administration Building/New Solids Building – Complete excavation for new Solids Building, complete work on underground process piping, plumbing, and electrical work for the new Solids Building. Begin reinforcement, formwork, and concrete placement for the foundation of the Solids Building. Begin work on the adjacent Sanitary Pump Station No. 1.

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
- Total Contract: \$73.793 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 Turkey Trot, Holiday Parade, Arthritis Foundation Race, and Strawberry Banke Events.

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

Peter Whalen asked the following:

Q: Mr. Whalen said that he has noticed a large amount of construction on the Peirce Island Bridge and that to him, the piping underneath the bridge seems to have issues. Will the bridge construction have an impact the WWTF? Mr. Whalen's concern is that if the force main is damaged or inoperable, there will be no way to transfer wastewater to the WWTF.

A: Terry responded that the work at the bridge is a result of completing the replacement of the force main that runs underneath the bridge. The older of the two force mains under the bridge is being replaced due to the inability to repair the leak discovered within the pipe. Prior to this effort, a contractor placed a liner inside the pipe but it did not pass the pressure test. An additional liner was added, but the pipe was still leaking and therefore the pipe is now being removed and a new pipe installed. The new pipe has been installed and the most recent work includes the installation of the expansion couplings on either end and work on the surrounding pavement. There are several punch list items which must be completed in order to finish the force main replacement. There is no concern that the force main replacement will have an impact on the WWTF Upgrade Project because the force main which has been installed is new and the second force main is only 15 years old. The pipe replacement is not part of the Peirce Island WWTF Upgrade Project.

Q: Will the bridge last for the next 2-3 years (construction duration)?

A: Terry noted that almost one year ago the deck of the bridge was replaced based upon the recommendation by the City's consultant. This was done prior to the start of construction at the WWTF so that the carrying capacity of the bridge would be improved as well as lengthening the life span of the bridge. In the future, the intent is to replace the bridge using funds from the Department of Transportation, similar to the Sagamore Avenue project, where the City will reach an 80/20 financial arrangement with the State. Currently the City is waiting to hear when the funds will be available but they believe the funds will be available near 2025. There is no concern that the bridge will not be able to last until the funds have been received.

Q: For the current treatment of the raw wastewater, is the plant only treating the wastewater up to primary treatment and then using a chlorine disinfection system prior to discharge? Have any of the new systems been brought online?

A: Terry confirmed that the plant is currently treating the wastewater using primary treatment but they are using the Chemically Enhanced Primary Treatment (CEPT) where polymer and ferric chloride are added to increase settling performance. Prior to discharge, the wastewater is treated with the chlorine disinfection system. No new treatment processes have been put in to service but near the month of February, the Headworks Building will be put into service. This will add a screening process designed to remove large, insoluble objects which are entrained in the wastewater prior to the wastewater entering the primary clarifiers. It will aid in the operation of the WWTF but will most likely not drastically improve the effluent quality.

Q: Based off of Terry's response, Mr. Whalen wanted to confirm that the Solids Building would not be put into service until much later in the project, near the time of the BAF Building being put into service.

A: Terry stated that the Solids Building will come online prior to the BAF Building process because there will be sludge developed from that biological treatment which will need to be properly treated.

Paige Trace asked the following:

Q: How tall, from the ground level to its highest point, will the BAF Building be?

A: Terry stated that the BAF Building is about 25 ft. below grade and 25 ft. above grade to the top of the cells. There will be places which are taller than this, for example on both ends of the buildings there will be stair towers that will be taller than the cells by 10-12 ft.

Q: Ms. Trace asked whether it was the existing Operations/Administration Building which contains PCBs and when will the building with the PCBs be demolished?

A: To clarify, Terry responded that what is shown as the Operations/Lab Building on the site rendering is currently referred to as the existing Sludge Processing Building in discussion because it holds the solids handling process. When the WWTF was initially built and operated, the existing Sludge Processing Building was used as an Operation/Administration Building but is no longer referred to by that name in discussion. The existing Sludge Processing Building contains PCBs. It will be partially demolished after the new Solids Processing Building has been constructed, near the year 2020 and converted into the new Operations/Lab Building. The existing Administration Building, which was recently demolished, will become the site of the new Solids Processing Building and did not contain PCBs. The staff will remain in the temporary staff housing until the proposed Operations/Lab Building is commissioned after which, they will be permanently relocated to the new Operations/Lab Building.

Q: In response to Terry's answer to her previous question, Ms. Trace asked if the pool area will be out of use until 2020, due to the temporary staff housing currently being located in the pool parking lot.

A: Peter Rice responded that the pool will be open during its normal times but the parking area will be in use by the construction project until the end of the project

Q: Where is the rain garden?

A: Jon indicated on the drawing where the rain garden was located, between the Primary Clarifiers and Gravity Thickener No. 1.

Q: Has anything intruded upon the area of the reported remnants of former Fort Washington where fence was partially taken down? Can pictures of the fence be provided and shown at the next meeting?

A: Jon said that the fence has been put back in place. Pictures can be provided and shown of the fence at the next public meeting.

Q: Have there been any change orders besides the ones listed during the presentation?

A: Terry noted that that to date there are no newly approved change orders; the only approved change orders are the ones which have been mentioned during the presentation. There is currently a change order in draft form.

The next public construction meeting will be on December, 20 2017 at 11:00 AM in Conference Room A at Portsmouth City Hall.