



Peirce Island WWTF Upgrade Construction
Public Information Meeting
December 18, 2019

Topics of Discussion

- Introductions
- Work Completed Since Last Meeting
- Work to be Completed in Coming Month
- Work Anticipated in Next 6 Months
- Project Construction Costs
- Consent Decree Schedule
- Events & Recreation
- Public Input/Comments/Concerns
- Next Meeting



Introductions

- City Staff:

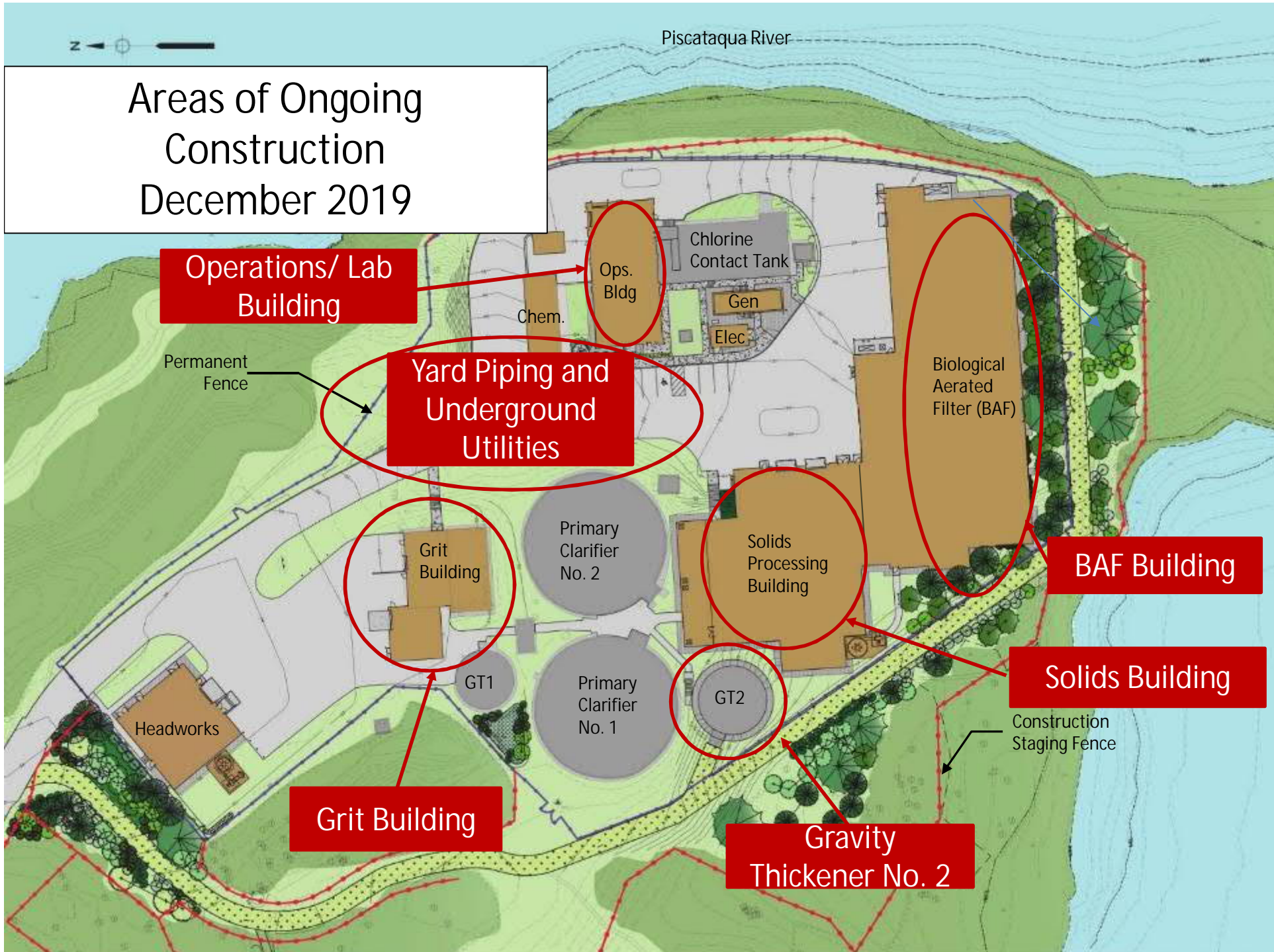
- Terry Desmarais, City Engineer, 603-766-1421
tldesmarais@cityofportsmouth.com

- Website:

<https://www.cityofportsmouth.com/publicworks/wastewater/peirce-island-wastewater-facility/peirce-island-wastewater-facility-upgrade-project>

- News and Updates
- Recreational Info
- Project Info
- Report Form
- Etc.





Site Overview November 2016



December 18, 2019



Peirce Island WWTF Upgrade Construction

Work Completed Since Last Meeting



December 18, 2019



Peirce Island WWTF Upgrade Construction

Work Completed Since Last Meeting



Yard Piping & Utilities



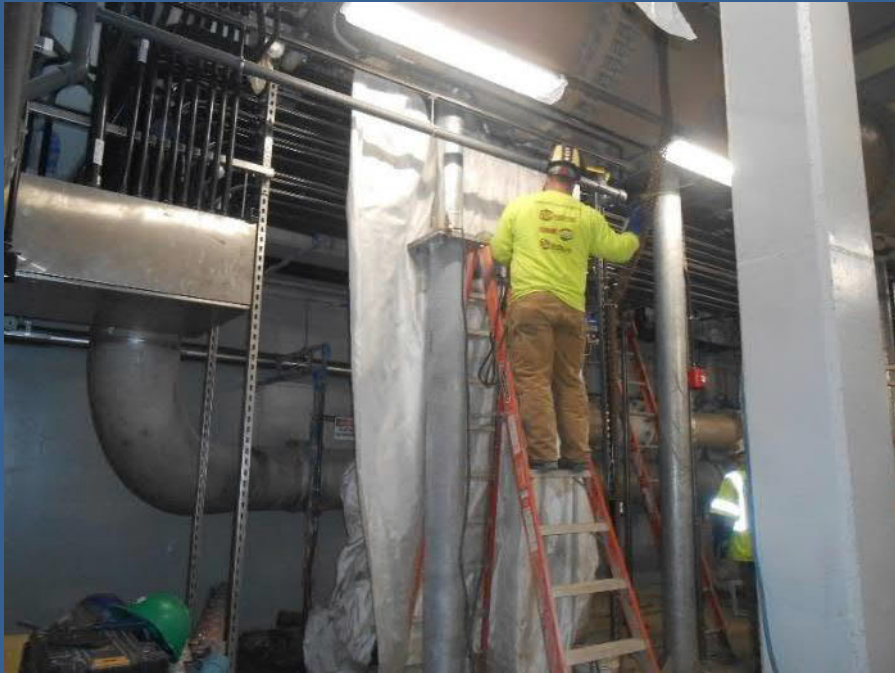
Work Completed Since Last Meeting



BAF Building



Work Completed Since Last Meeting



BAF Building



Work Completed Since Last Meeting



BAF Building

December 18, 2019



Peirce Island WWTF Upgrade Construction

10

Work Completed Since Last Meeting



BAF Building

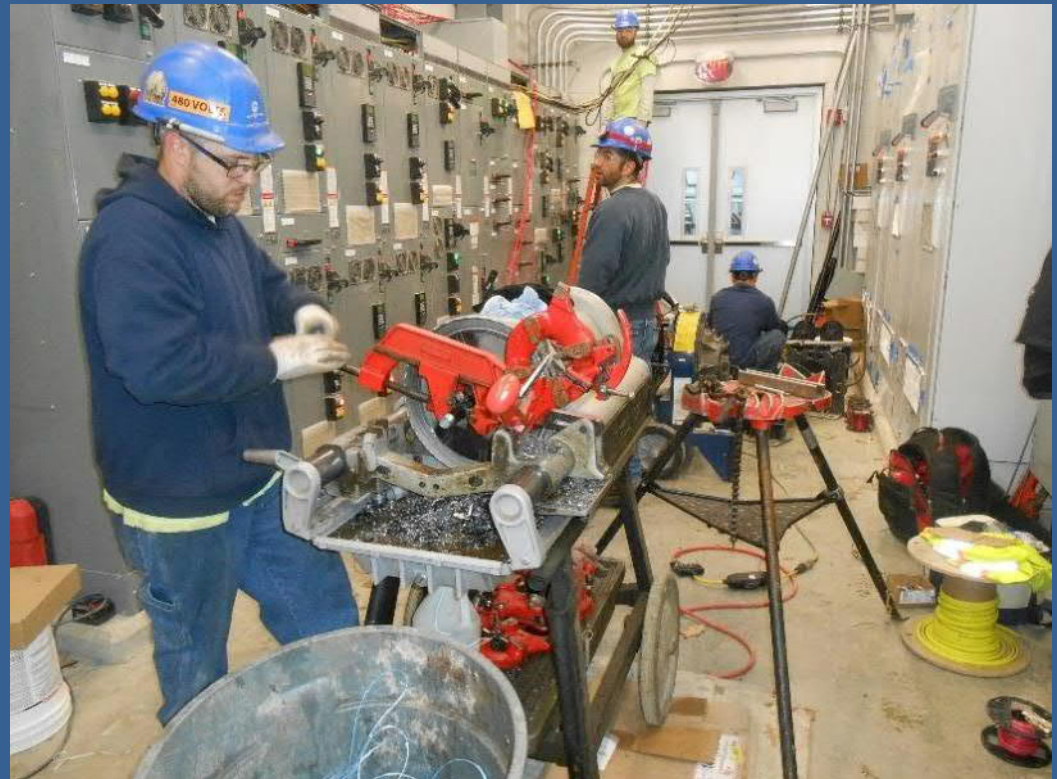
September 18, 2019



Peirce Island WWTF Upgrade Construction

11

Work Completed Since Last Meeting



Solids Building



Work Completed Since Last Meeting



Solids Building



Work Completed Since Last Meeting



Ops/Lab Building



Work Completed Since Last Meeting



Ops/Lab Building



Work Completed Since Last Meeting



Gravity Thickener No. 2



Work to be Completed in Coming Month

- Continue minor finish work at the Headworks Building
- Continue architectural, structural, mechanical process, HVAC, plumbing, and electrical construction in the Grit Building
- Continue minor finish mechanical and electrical work in the BAF Building
- Continue installation of stairs, railings and ladders in the BAF Building
- Continue checkout and startup of valves and equipment in the BAF Building
- Continue minor interior touch up painting in the BAF Building.
- Continue integration of the BAF control system with the plant's SCADA system
- Startup of BAF

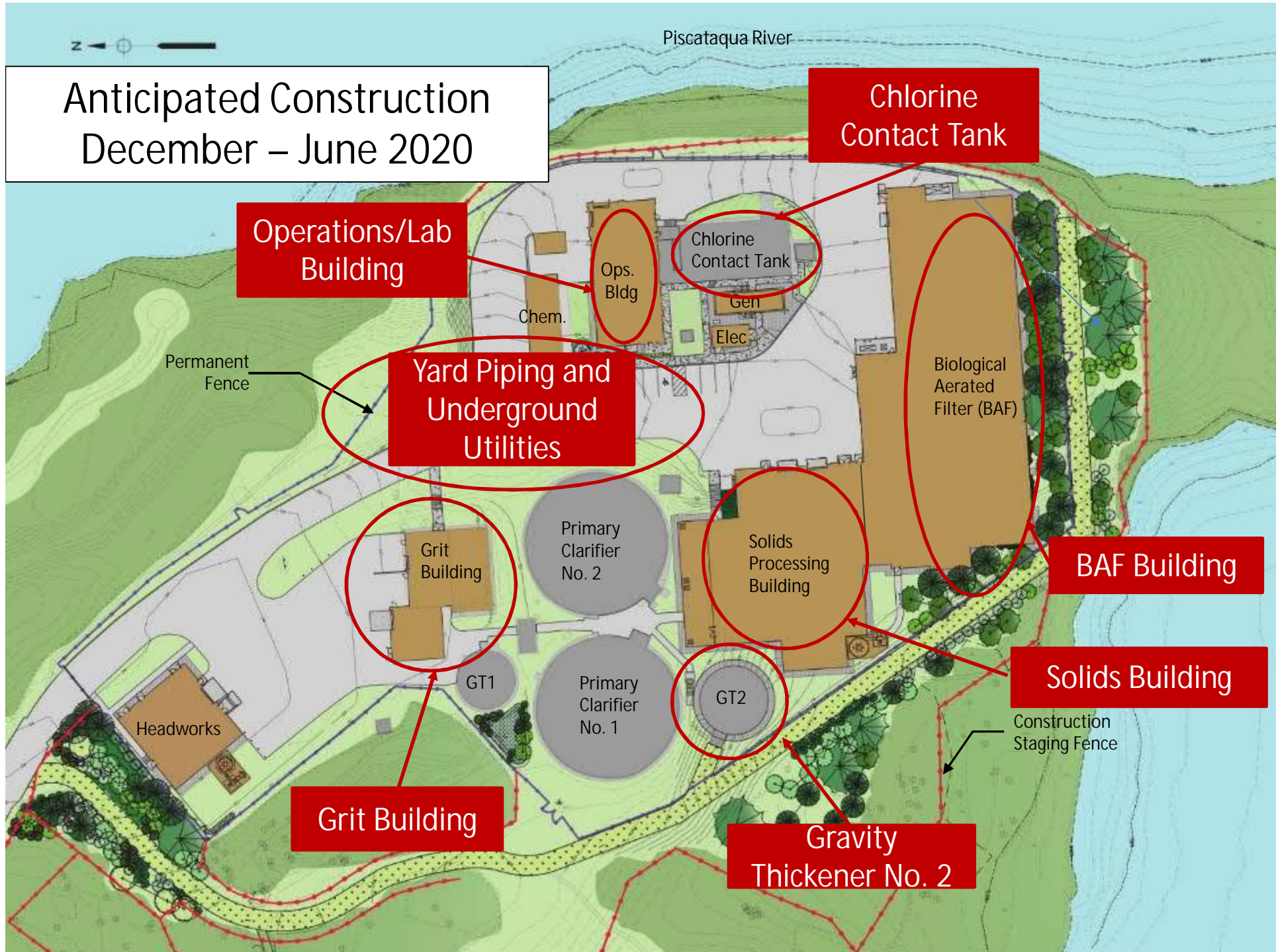


Work to be Completed in Coming Month, Cont.

- Continue installation of the building finishes such as door hardware and signage in the Solids Building
- Continue electrical, HVAC and plumbing work in Solids Building
- Continue installation, check out, and startup of Gravity Thickener No. 2 mechanism
- Continue selective demolition in the existing Sludge Processing Building and Chlorine Contact Tank
- Continue PCB abatement in the existing Sludge Processing Building



Anticipated Construction
December – June 2020



Project Construction Costs

- 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
- Change Order No. 6: \$0.292 million
- Change Order No. 7: \$0.169 million
- Change Order No. 8: \$0.113 million
- Total Contract: \$74.780 million



Consent Decree Schedule

| Milestone | Date | Status |
|---|--|-------------|
| Execute Contract to Construct Upgrades | September 1, 2016 | Complete |
| Submit Two Additional Milestones for EPA Review and Approval | December 1, 2016 | Complete |
| Additional Milestone 1: Transfer of the existing SCADA system to the new Headworks Building | November 21, 2017 | Complete |
| Additional Milestone 2: Startup and testing of the Secondary Influent Pump Station in the new Solids Building | May 9, 2019 | Complete |
| BAF Substantial Completion | December 1, 2019 December 31, 2019 | Pending |
| Achieve Compliance with NPDES Permit Limits | April 1, 2020 | On Schedule |



Events and Recreation

- Upcoming
 - ProPortsmouth First Night Portsmouth 2020
 - Strawberry Banke Events





Public Input / Comments / Concerns

Next Meeting

- Public Construction Meeting
 - Next Meeting: January 15, 2020, 11:00 AM



Meeting Notes

| | |
|----------|--|
| Subject | Peirce Island WWTF Upgrade – Monthly Public Construction Meeting |
| Date | December 18, 2019 |
| Time | 11:00 AM |
| Location | Portsmouth, NH |

A public meeting was held at 11:00 AM on December 18, 2019 in the Council Chambers 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, Director of Public Works
- Terry Desmarais, City Engineer
- Jon Pearson, AECOM Project Manager
- Rick Czerw, Methuen Construction, Project Executive

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. Terry Desmarais, City Engineer, is the point of contact for the City.

Jon 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
- Gravity Thickener No. 2
- Existing Sludge Processing / New Operations/Lab Building

Jon reviewed photos of construction progress, including:

- Site Overview – Existing conditions of the Peirce Island Wastewater Treatment Facility in November 2016. Prior to construction, the treatment process consisted of the Aerated Grit Chambers, followed by the Primary Clarifiers and Chlorine Contact Tanks.
- Yard Piping and Utility Service – A majority of the yard piping and electrical ductbanks throughout the site are complete. Binder course pavement was laid throughout the majority of the site, in the area from the Grit Building to the BAF Building.
- BAF Building – Work to finish testing remaining mechanical process piping and equipment within the Pipe Gallery and mechanical process spaces is in progress. Minor finish painting of process piping is in progress. Work to finish installing electrical conduit and electrical equipment throughout the building is underway. As the BAF is a highly automated system, work to program the computer logic which operates the BAF is extensive and in progress. Installation and checkout of life safety systems such as fire alarm and fire protection systems and emergency exit lighting systems has been completed. Work to install the cell access ladders to the cells and hand railings is in progress. HVAC and plumbing work is underway.
- Solids Building – The solids handling process within the Solids Building is in operation and the WWTF staff are currently using the system to dewater sludge. In addition, personnel lockers have been installed within the building. Work to wire Gravity Thickener No. 2 equipment to the Motor Control Center in the Solids Building is underway.
- Existing Sludge Processing Building/New Operations/Lab Building – The first floor of the building has been demolished and PCB abatement is near completion. All demolished materials are being placed into dumpsters which are then covered for subsequent removal. Selective mechanical demolition is underway. Structural work has begun in the lower level of the building so that it can be converted from its previous use as a Sludge Processing Building to its new use as the Operations/Lab Building.
- Gravity Thickener No. 2 – Installation of the gravity thickener mechanism and piping is continuing. Work to wire the mechanical equipment to the motor control center in the Solids Building is in progress.

Rick 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 minor finish mechanical and electrical work in the BAF Building.
- Continue installation of stairs, railings and ladders in the BAF Building.
- Continue checkout and startup of valves and equipment in the BAF Building.
- Continue minor interior touch up painting in the BAF Building.
- Continue integration of the BAF control system with the plant's SCADA system.
- Startup of the BAF.
- Continue installation of the building finishes, such as door hardware and signage in the Solids Building.
- Continue electrical, HVAC, and plumbing work in the Solids Building.
- Continue installation, check out, and startup of the mechanism in Gravity Thickener No. 2.
- Continue selective demolition in the existing Sludge Processing Building and Chlorine Contact Tank.
- Continue PCB abatement in the existing Sludge Processing Building.

Rick then discussed the work anticipated through November and into May 2020, including:

- Grit Building – Complete minor punch-list items.
- BAF Building – Complete minor punch-list items. Complete backfilling and grading around the building and begin landscaping on that west and south sides of the building. In addition, installing cable trellis system/plantings on the west and south side of the building.
- Solids Building – Complete punch-list items.
- Existing Sludge / New Operations/Lab Building – Complete hazardous materials abatement work as well as selective demolition in the lower level. Complete installation of new floor slab, including floor slab infills, membrane layer, insulation and 4” topping slab. Complete installation of new structural steel. Complete exterior wall framing and sheeting, and weather depending, begin exterior masonry work. Complete installation of CMU walls and chemical containment curbs in the basement. Continue the installation of interior wall framing and sheeting. Begin mechanical process, electrical, HVAC and plumbing rough-in work.
- Gravity Thickener No. 2 – Complete handrailings and finishes at Gravity Thickener No. 2.
- Primary Clarifiers – Complete installation of the new primary clarifier scum pumps and scum pump station. Complete installation of grading at the Primary Clarifier Effluent Distribution box.
- Underground Piping and Utility Services – Complete installation of utility connections to the Operations/Lab Building. Construct remainder of binder course pavement at the Operations/Lab Building and install curbing. Begin installation of sidewalks, stairs and railings at the Operations/Lab Building. Final grading and landscaping activities will resume, this includes but is not limited to, grading for asphalt, walkways and stone mowing strips; installation of the 12’ vegetated maintenance corridor; installation of the rain garden and installation of the permanent fence.

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
- Change Order No. 5: \$0.250 million
- Change Order No. 6: \$0.292 million
- Change Order No. 7: \$0.169 million
- Change Order No. 8: \$0.113 million
- Total Contract: \$74.780 million

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

- Execute Contract for Construction Upgrades - Date: 9/1/2016 - Status: Complete
- Submit Two Additional Milestones 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: Complete
- BAF Substantial Completion - Date: ~~4/1/2019~~ 12/31/2019 - Status: Pending
- Achieve Compliance with NPDES Permit Limits - Date: 4/1/2020 - Status: On Schedule

Regarding the BAF Substantial Completion Consent Decree milestone, Jon noted that the BAF is a large, complex system that requires the automation and integration of many different pieces of equipment. As the interim milestone date of 12/1/19 approached, when it became clear that the BAF would not be substantially complete by the 1st of the month, the City of Portsmouth notified the EPA and NHDES, as required by the Consent Decree. The EPA granted an extension of the deadline to December 31st, 2019. At the time that the extension was provided, Methuen Construction indicated that the BAF would be substantially complete by December 13th. On December 13th, 2019, AECOM received notice from Methuen Construction that they considered the BAF Building to be substantially complete. AECOM has been reviewing the work that has been completed and has identified items that are outstanding and that require corrective action. At this time, the process is not substantially complete. During this period, Methuen Construction and their subcontractors have been continuing work to prepare for startup. The City and AECOM are waiting on more information on when replacement components will be onsite and in place. The BAF is being worked on to complete the system and updates on the schedule for when the system should be substantially complete are being received. It is important to note that the key date is the April 1, 2020 date for achieving compliance with NPDES permit limits and that the BAF substantial completion is an interim deadline. There has been no indication that delay in meeting substantial completion of the BAF Building will impact the final Consent Decree deadline of April 2020 to meet effluent permit limits.

Jon noted that the project team is continuing to coordinate construction with community events. Upcoming events this month include the ProPortsmouth First Night 2020 and Strawberry Banke Events.

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

Paige Trace asked the following:

Q: Can you please specify what corrective action items are needed in order to get the BAF Building to substantial completion?

A: Jon noted that the BAF is a large, complex system that requires the automation of many different pieces of equipment and significant computer programming, testing and demonstration of proper operation. This equipment includes over 60 automated valves and during testing and startup, some of those valves were not operating properly. It has been identified that for some of the malfunctioning valves, new electrical boards that are housed within the valve actuator are required for the valve to begin functioning as intended. Terry noted that approximately 6 valves require the replacement electrical boards, however, due to the time associated with obtaining the replacement items, it is causing a delay in the startup process.

The next public construction meeting will be on January 15, 2020 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.