

## June 2018 Monthly Report

### BJCJSTP Rehabilitation and Restoration Project

#### Background

The Binghamton-Johnson City Joint Sewage Treatment Plant (BJCJSTP) processes 18 million gallons per day with the capability of processing up to 60 million gallons per day (MGD) of wet weather flow. This plant is jointly owned by the City of Binghamton and the Village of Johnson City and managed by the Binghamton-Johnson City Joint Sewage Board (BJCJSB).

The BJCJSTP has suffered several catastrophic events since 2006. In 2006, the BJCJSTP was flooded by a 500 year flood that affected many of the processes in operation. In May of 2011, a concrete structure suffered structural failure, and in September 2011, the BJCJSTP suffered another 500 year flood that critically damaged equipment and rendered the secondary treatment fundamentally inoperable. The secondary process system is still largely inoperable today. A Consent Order was negotiated between the City of Binghamton, the Village of Johnson City, the BJCJSB and the NYSDEC to develop a plan to restore treatment operations at the BJCJSTP. The Consent Order requires the BJCJSTP to restore secondary treatment functionality and be able to fully treat 35 MGD of wet weather flow by August 1, 2018. To achieve this level of treatment, the reconstruction and testing of the Secondary Treatment Process must be completed as necessary to achieve treatment of 35 MGD. To comply with the Consent Order, the Sewage Treatment Plant must then be fully operable by May, 1, 2019, including the remainder of the secondary treatment process. There are also several interim milestones included in the Consent Order. The Consent Order has been amended to extend several interim milestones, and DEC has been made aware of the likely finish of the Phase 1 Milestone after the August 1, 2018.

The project is being constructed in accordance with Wicks Law, which requires that the project be bid as multiple prime contracts. More specifically, Wicks Law requires that the bulk of the construction work, consisting of the secondary treatment biological filtration filters (BAF), be divided into a General Civil Construction Contract, an Electrical Contract, an HVAC Contract and a Plumbing Contract. The following projects are either nearing completion, in construction, or in the planning stage.

Contract No.	Description	Status
Contract No. 1	Compost Facility Demolition	Complete
Contract No. 2	FEMA Mechanical	Complete
Contract No. 3	BAF Facility Demolition	Complete
Contract No. 4	MCC HH Emergency Replacement	Complete
Contract No. 5	BAF Restoration and Rehabilitation Civil Contract	Projected Phase 1 Substantial Completion January 2019. Projected Phase 2 Substantial Completion July 2019.

Contract No. 6	BAF Electrical	Projected Phase 1 Substantial Completion January 2019. Projected Phase 2 Substantial Completion July 2019.
Contract No. 7	BAF HVAC	Projected Phase 1 Substantial Completion January 2019. Projected Phase 2 Substantial Completion July 2019.
Contract No. 8	BAF Plumbing	Projected Phase 1 Substantial Completion January 2019. Projected Phase 2 Substantial Completion July 2019.
Contract No. 9	Secant Pile Contract	Complete
Contract No. 10	Solids Handling Renovation Civil Contract	Substantial Completion #1 – October 29, 2018; Substantial Completion #2 - November 12, 2018; Substantial Completion #3 - February 20, 2019; Final Completion - July 10, 2019.
Contract No. 11	Solids Handling Electrical	See Contract #10 Completion Dates
Contract No. 12	Solids Handling HVAC	See Contract #10 Completion Dates
Contract No. 13	Solids Handling Plumbing	See Contract #10 Completion Dates
Floodwall	Floodwall and New Diversion Structure	Currently in construction. Anticipated Completion Date August 2018.

### **Contract Descriptions**

#### **Contract No. 1 - Compost Facility Demolition**

Demolition of the upper portion of the compost facility was performed to accommodate the construction of the new Administration Building to house the plant staff as well as provide the new control room to operate the new facilities. Demolition of the lower portion of the Compost Building cleared the way for the construction of a new maintenance facility.

**Contract Status: 100% Complete – Contract Closed**

#### **Contract No. 2 - FEMA Mechanical**

The FEMA Mechanical Project replaces valves, equipment and other miscellaneous items damaged in the 2011 flood. It includes equipment in both the East and West Primary Sludge Pumping Stations, valves and equipment located in the Head House, and equipment associated with Sludge Thickener Pumping Station Nos. 1 and 2. The cost of the work associated with this contract is being reimbursed by FEMA due to the flood of 2011.

**Status:** Blue Heron has completed all of the work not deleted by change. The elutriate pumps were deleted from the scope of work and will be performed under Contract #5.

**Contract Status: 100% Complete – Contract Closed**

**Contract No. 3 - BAF Facility Demolition**

The BAF Demolition Contract removed the existing structures and utilities that conflict with the new construction work included in the BAF Rehabilitation and Restoration Project. Demolition efforts included selective demolition in the existing process tanks (C-Filters, N-Filters, and DN-Filters), buildings, mechanical equipment, and piping to ready the site for new construction.

**Contract Status: 100% Complete - Contract Closed**

**Contract No. 4 - MCC - HH Emergency Replacement**

Contract No. 4 replaced the original existing Motor Control Center (MCC) in the Head House (HH). The MCC is 50 years old and is identified as MCC-HH. The contract was bid as an emergency contract because the electrical system in the Head House was both critical to keeping the BJCJSTP in service, and because the original MCC was extremely unreliable due to the age and deteriorated condition of the gear. MCC HH Emergency replacement also replaced the existing raw sewage pump drives of the existing 50 year old equipment including new electrical feeders from the HH to the Johnson City Grit House No. 1, a new feeder from the HH to the Thickened Sludge Pump Station No. 1, and various other panel boards. The emergency work also included replacement of the existing raw sewage variable frequency drives that were located in the existing MCC HH. The new drives installed are more reliable, more efficient, and will provide better performance of the existing raw sewage pumps.

**Status:** All work on the MCC- HH project has been completed.

**Contract Status: 100% Complete**

**Contract No. 5 - BAF Restoration and Rehabilitation Civil Contract**

When combined with the other BAF contracts (Nos. 6, 7 & 8), Contract No. 5, the General Civil Contract, is intended to provide a functioning automated plant using a BIOSTYR system that can be modified to fit current plant configurations. It is also intended to provide functioning automated headworks and primary clarification processes upstream of the BIOSTYR system and solid handling processes downstream of the BIOSTYR system.

Major components of the work under Contract No. 5 include new coarse screens and ancillary equipment, new piping and valves for the influent pumps, new metering equipment, new fine screens and grit removal with ancillary equipment, a new primary distribution box, new mechanical equipment for primary clarifiers 1-10, new chemical equipment for primary treatment, new chemical storage building, modification of the primary clarifier structural components to replace the aged and deteriorated mechanical equipment, new secondary influent pumps for the new BAF system, a new BAF backwash tank, new CN-BAF and DN-BAF facilities, a new methanol system that will feed the DN-BAF cells, new Ultra Violet Light disinfection system to replace the existing chlorine disinfection system, new sludge thickening equipment and systems, a new administration

building, new odor control equipment, two new 2MW electric generators, and a new plant outfall to the river.

**Status:** The weather in June allowed concrete work to be advanced throughout the project. PC continued working on the concrete work for the various elevated concrete decks in the Headworks and BAF Backwash Treatment Facility. PC has concrete work for concrete channels from the grit channels to Distribution Box #1 to install. PC completed scanning PST 1-6 in preparation for fabrication of the sludge and scum collection equipment in PST's 1-6. PC continued backfill around both the BAF Backwash Treatment Facility and the Headworks continued this month. PC is installing and testing the utility pipe in the corridor between the Headworks Building, BAF Backwash Treatment Facility, and PST's 1-6.

The plan to correct the problems at the Distribution Box is nearly complete. The south wall of the structure has now been placed, but the interior wall that had misplaced dowels has not yet been placed. PC disassembled and removed the tower crane installed inside the distribution box this month. The remaining work requiring a crane will proceed with a portable crane now that PC has completed enough backfill to get close enough to the structures to make their planned lifts.

Work on CN Cells 1-8 is being advanced. PC completed the half walls in CN Cells 1-8 this month. In January, PC projected they would be complete with the half walls in March. PC continued installing stainless steel air pipe and backwash drain pipe in the CN 1-8 gallery this month, and between the CN Gallery to the BAF Backwash Treatment Facility. PC has deviated from the contract and is using a dresser style coupling to make up the joints in the field instead of the required stainless steel welded joints required by the contract. PC has agreed to replace the dresser couplings on the air pipe with stainless steel butt welds, and is still discussing the dresser couplings with GHD on the BAF Backwash Pipe. This could ultimately result in a contractor caused delay in the startup of the BAF Facilities.

CN Cells 9-14 walls are also being advanced. PC has been focusing on the cell divider walls now that the achieving flood protection to elevation 838 has been achieved. Elevation 838 is the 100 year flood mark for the Susquehanna river. They completed concrete walls and backfill work on the south side of CN Cells 9-14 sufficiently to prevent flooding to an elevation above 838. The remaining area that is not completed for flood protection to elevation 845 is in the area between the Blower Building and the east side of C-N Cell #9, the west stairwell, and a segment at DN Cells.

PC is continuing to place the concrete walls in the DN Cells. They are nearing completion for the structural concrete slab at the west end of the DN Structure. Blockwork is scheduled to be completed on the west end of the DN Building in July. Mechanical and electrical trades are working in the DN Gallery.

During the construction of the pump piping installation, PC failed to keep the temperature in the lower level of the Headhouse at 60 degrees Fahrenheit as required by contract, and the cooling water jacket for Pump Number 2 froze and broke. PC had the cooling water jacket replaced. Pump No. 2 has been repaired by Flyght, and has been returned to the site. PC is coordinating the installation of the pump with the plant staff. PC completed installing the isolation gates for the

coarse screens in the influent channels, and has installed the first of two coarse screens in the Coarse Screening Building. The block work for the building is nearing completion, and the concrete roof planks should be installed in July. We anticipate PC installing the second of two coarse screens in August, as they have to complete the startup and testing of the first screen before the second screen can be removed from the temporary location. Startup and testing of the first screen is scheduled for early August.

The reconstruction of Primary Setting Tanks 7-10 is nearly complete. The concrete coating applications are complete and PC is finishing the final stages of completion. PC has some repairs to do for the coatings in the PST'S 7-10. GHD and PC are evaluating the condition to determine what the appropriate repairs should be. The equipment should be ready for startup and testing in late June or early July. This is several months before the Headworks will be completed.

Construction work in the area of the new UV Treatment Facility continued this month with completion of the block work and concrete roof deck planks this month. PC also began installing the brick for the UV Building and should complete brick work for the UV and PW Pump Station in July.

Yard piping in the corridor between the Headworks/BAF Treatment area and PST 1-6 is progressing. The pipe work for the 36" primary influent pipe is progressing, and continued testing of the 36" primary influent pipes to PST 1-6. Backfill of the north pipe corridor continued this month. PC continued the chemical piping from the east scrubber building toward the PST's.

Construction of the new Chemical Building is nearing completion. The tanks and equipment are installed, and the electricians and HVAC crews are nearing completion in the building. The building should be ready for testing in June 2018. Work in the East Odor Control Building is nearing completion. The startup and testing of the equipment is nearly complete. A list of items from the STP Staff and the Engineer that need to be addressed has been issued to the contractor. Some of these items are extra work, and a change order will be needed to compensate the contractor for his extra cost. The odor control system is still operating in local automatic control. STP staff confirmed that they have registered the tanks with DEC. As soon as the other ancillary issues with the tanks are complete, chemicals can be delivered to the East Scrubber Building. PC's tank vendor has completed the post cure of the tank materials in accordance with the appropriate tank standards.

Completion of the slab for the Blower Building is essential for achieving flood protection for the plant. This work was delayed due to conditions at the site in January and because the contractor failed to properly protect the ground during the excavation phase. PC must complete the wall between the south CN Cells 2, 4, 6, & 8 before they can place the concrete for the slab. We anticipated they would complete placement of that wall, but PC has encountered an issue with the grouting of the nozzle decks in Cell #2. The nozzle decks must be grouted prior to constructing the wall between the two structures. The grout submittal by PC does not comply with the contract requirements by Kruger. We now anticipate that PC will place the slab for the Blower Building in July. PC installed some of the nozzle decks in CN Cell 2 this month. PC completed the half wall replacement in CN 1-8 Gallery this month, and continued their process pipe installation for air and backwash pipe. PC began installing their structural steel for the grating in the wings of the gallery,

and they have encountered major conflicts between the structural steel and the process piping. Matco has completed their overhead cable tray work in CN 1-8 Gallery.

PC completed work on dowels for the DN Gallery half walls this month, and began placing the concrete for the walls. The plumbing multi prime is complete with the underslab piping in the DN pipe gallery. Matco and J&K are actively working in the DN Gallery. The coordination has been completed on the DN Gallery and work is progressing for the plumbing, electrical, structural steel, and process pipe.

PC continued working in the Methanol containment structure this month, and has set one of the two methanol tanks. They are preparing to place the sloped slab in the containment area created from the decommissioned Chlorine Contact Tank #3. They have progressed work inside the Methanol Control Building and have turned the work area over to the other multi primes. The HVAC work and electrical work are ongoing in the building. PC passed the leak test for the containment structure for the methanol tanks.

The electrical feed from the new generators to the transformers will not fit as originally designed by GHD. Installation began in May and will continue for several months.

Kruger equipment submittals are complete and the final detailed reviews are complete except for the UV netting. Bi-weekly telephone conference calls with Kruger, PC, GHD, and the CM have proven helpful in progressing the work. Much of the Kruger supplied equipment is in storage locally or in appropriate storage facilities at Kruger's direction. We have received the preliminary BAF Operations and Maintenance manuals as well as the startup and testing plan from Kruger. Installation of the precast nozzle deck slabs began in April, 2018 with CN Cells 2, 4, 6, & 8. PC should install the nozzle decks in CN Cells 1, 3, 5, & 7 in July.

The work on the upper floor of the Administration Building is complete with the final punch list and Fire Protection System testing complete. We still have some security issues to resolve, but the STP Staff has been moved into the building for a month. We are waiting on the Town of Vestal to get the final certificate of occupancy. The electrician has completed the final work for the lower level of the building. This work is scheduled to be completed by the end of June 2018. STP Staff has been moving materials and equipment into the lower floor (maintenance area) for a month.

**Contract Status: 69% Complete**

#### **Contract No. 6 - BAF Electrical**

The BAF Electrical Contract supports the BAF General Civil Contract and includes all electrical and instrumentation associated with the BAF contracts. The components include installation of the new UV disinfection system, installation of the new generators, installation of the electrical feed throughout the plant, as well as installation of the instrumentation and SCADA System throughout the plant.

**Status:** The manholes and the associated ductbank work for the new dual primary service are complete. The first of the new feeds to the plant has been connected and was energized in late

August. The second feeder has been reinstalled by MATCO. Installation of the major conduits for the generators continued now that we have a modified design by GHD. The modified design layout for the conduit includes a new conduit support system that we received the design layout for in late December. MATCO continued installing conduits for the generators, and ancillary equipment.

MATCO continued work in the Chemical Storage Building, East Odor Control Building, the Administration Building upper and lower levels, the CN 1-8 Gallery, DN Gallery, and the Methanol building. MATCO continued installing the conduit and wiring for the courtyard switchgear and should be able to install the courtyard gear within two months. We are looking at options for the installation of the conduit in other locations to advance the electrical work to avoid overly congested work areas at the end of construction. PC has opened up additional areas for MATCO work in the northwest Electrical Building, the methanol control building CN Cells 1-8 gallery, and DN Cells. MATCO has been making good progress in the methanol building, and should complete the by the end of July 2018.

The new Courtyard substation was delivered and put into storage locally, pending completion of the new concrete ductbanks in the courtyard in July. The Courtyard is a utility congested area with major underground piping and extensive electrical ductbanks. MATCO began working in earnest in March, but has suspended work in the area due to the discovery of asbestos containing material in a ductbank that they have to remove.

**Contract Status: 61% Complete**

#### **Contract No. 7 - BAF HVAC**

The BAF HVAC Contract supports the BAF General Civil Contract and includes installation of all HVAC Systems in all STP facilities as well as revisions to the odor control systems throughout the plant. The odor control improvements are intended to alleviate the odors that have been prevalent in the past in and around the plant.

**Status:** The contractor continued working on ductwork installation in the Maintenance Building, the East Scrubber Building, the Headhouse and the Chemical Storage Building. PC finally placed the slab for the HVAC equipment located between the East Odor Control Building and the new Chemical Storage Building. New areas for work in the near future include the Methanol Building, DN Gallery, CN 1-8 Gallery, and SIPS. J&K has provided supporting information for the development of the CPM Schedule. They are coordinating with PC Construction and the other prime contractors.

**Contract Status: 65% Complete**

#### **Contract No. 8 - BAF Plumbing**

The BAF Plumbing Contract supports the BAF General Civil Contract and includes installation of plumbing systems for the new and existing facilities included in Contract No. 5.

**Status:** The contractor continues working on plumbing the Maintenance Building, new Chemical Storage Building, DN Cells, Blower Building, and the Headworks. They are coordinating with PC Construction and the other prime contractors and they have confirmed that they can meet the required milestones of the Consent Order.

**Contract Status: 73% Complete**

**Contract No. 9 - Secant Pile Contract**

The Secant Pile Contract includes installation of the secant piles that support the excavation for the new BAF Backwash tank as well as supporting the new CN Cells 9-14. Construction also includes excavation to the final grade for the BAF backwash tank. This project was bid separately from Contracts 5-8. In doing so, a minimum of four months on the critical path schedule was saved.

**Status:** The installation of the secant pile wall is complete. Close out documents have been prepared and are being submitted to close out this project.

**Contract Status: 100% Complete – Contract Closed**

**Contract No. 10 -Solids Handling Renovation Civil**

Contract No. 10 is intended to renovate and improve the solids handling systems including the existing digester control building, existing digesters, solids dewatering systems, and all ancillary equipment. As part of the improvement to the solids handling process the following components will be constructed or installed. The new structures include a new Solids Handling Building, a new Gas Conditioning Building, and a new Sludge Loading Facility. The new equipment being installed includes new centrifuges, new mechanical thickeners, new gas processing equipment, new microturbines, and new scum screening equipment. The scope was further developed during the design processes to include sludge blend tanks. Additionally, the contract renovates the existing laboratory facilities at the STP. The contract was bid as a multi-prime contract consistent with New York State Construction Contract Requirements.

**Status:** Concrete work for the new Solids Handling Building is complete to grade. Masonry block work on the first floor elevation is complete, and the concrete slab for the second floor is complete. Masonry block work for the second floor will complete in July. The masonry block walls and roof planks are complete at the sludge truck loading station. Concrete work for the retaining wall on the east side of the building began this month, and will complete in July. As soon as PC and Quandel both complete their segments of the retaining wall, the backfill can be completed and allow the parking area south of the new Administration Building to be completed this summer. Concrete walls for the gas conditioning equipment building are complete.

Quandel is still not making much progress on the removal and recertification of the gas conditioning equipment. They are alleging that they are not responsible for reconditioning the equipment. Quandel declined to quote a cost proposal to recoat the inside of digesters 1 & 2, which are the two smaller digesters. Quandel is also disputing the furnishing of 7 flow meters that they allege were



not included in the contract and also applying the coating inside the new sludge tanks. We are working hard to get Quandel to complete the digester startup by October 19, 2018.

**Contract Status: 38% Complete**

**Contract No. 11 - Solids Handling - Electrical**

The Solids Handling Electrical Contract supports the Solids Handling General Civil Contract and includes installation of electrical for the new and existing facilities included in Contract No. 10.

**Status:** The electrical contractor is MATCO, as it is on the BAF Contract No. 6. MATCO continues to support the General Civil Contractor's schedule.

**Contract Status: 11% Complete**

**Contract No. 12 - Solids Handling - HVAC**

The Solids Handling HVAC Contract supports the Solids Handling General Civil Contract and includes installation of HVAC systems for the new and existing facilities included in Contract No. 10.

**Status:** The HVAC contractor is J&K Plumbing, as it is on the BAF Contract No. 7. J&K continues to install the boiler and associated piping in the Digester Control Building. They are also supporting the General Civil Contractor's schedule.

**Contract Status: 42% Complete**

**Contract No. 13 - Solids Handling - Plumbing**

The Solids Handling Plumbing Contract supports the Solids Handling General Civil Contract and includes installation of plumbing systems for the new and existing facilities included in Contract No. 10.

**Status:** The plumbing contractor is JW Danforth, as it is on the BAF Contract No. 8. Danforth continues to support the General Civil Contractor's schedule.

**Contract Status: 37% Complete**

**Floodwall**

The new floodwall being constructed at the STP is intended to protect the plant to an elevation 1.5 feet above the 2011 flood level. The floodwall includes concrete walls on the east and north sides of the STP. The project also includes two new pump stations to pump up stream out of the plant during the storm events. The new floodwall system works in conjunction with new floodwall features included in Contract No.5 BAF General Civil Construction. The floodwall systems are being funded by a FEMA recovery grant.

**Status:** The concrete floodwall under Streeter's contract has been completed. Startup and testing of the two storm water pump stations is complete. The access platform for the valves at the two storm drain pump stations are now complete.

The concrete base has been completed and the precast concrete riser pieces are installed on the new MH #3. Streeter completed the 54" overflow and has installed the Binghamton University Line and 12" Vestal sewer line to MH#3. Flow will be diverted to these permanent rerouted pipes after the 54" gate is installed in MH#3. Streeter is having to re-plan their 54" gate installation in both the MH#3 and the Sampling Manhole. The elevation of the sewage in the 54" Binghamton line is at or above the midpoint of the pipe due to the set point elevation for the Binghamton Pumps in the influent flume in the Headhouse. We are evaluating the impacts of the delayed delivery of the two 54" gates.

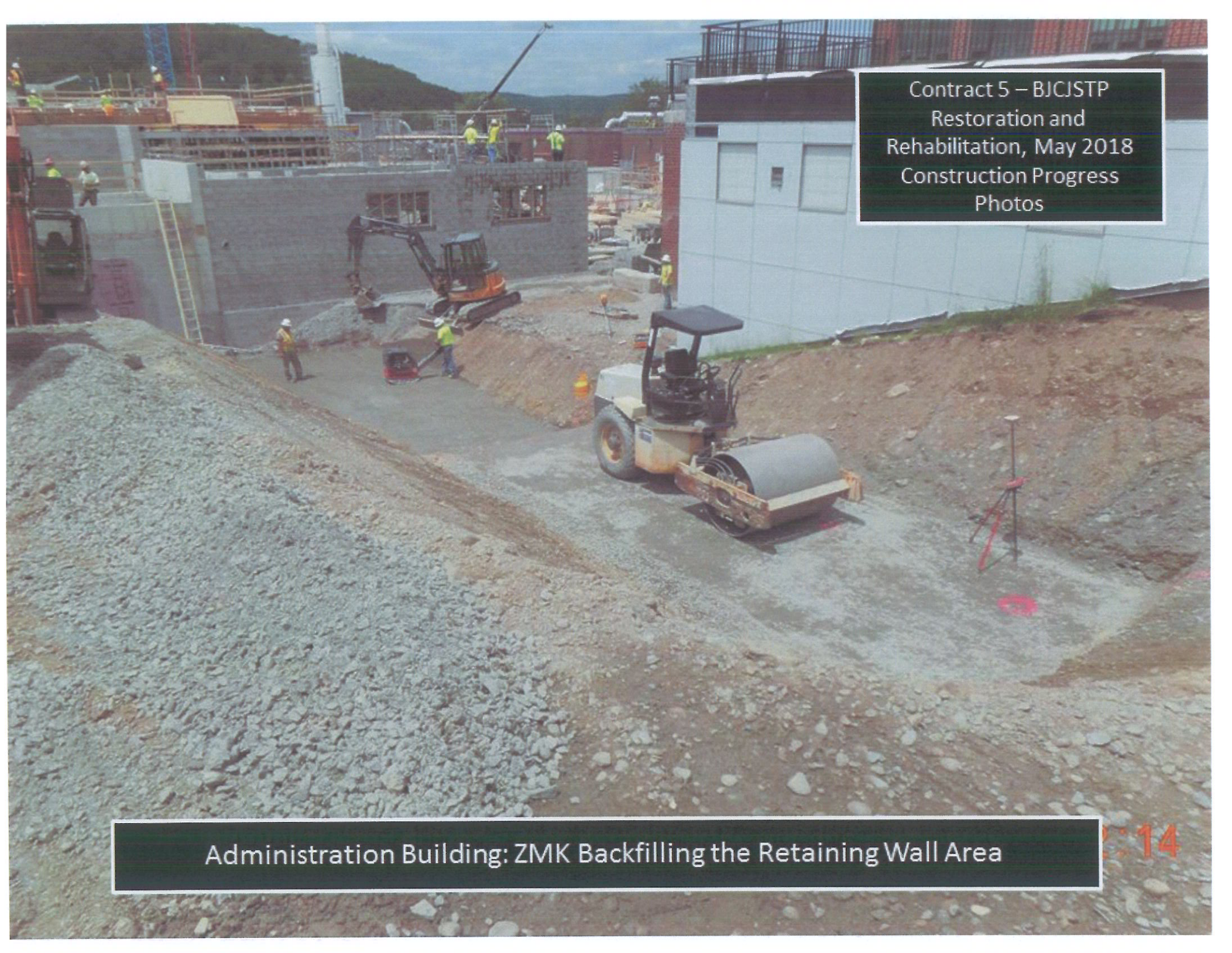
The completion of the 54" gate installation on the Binghamton line in MH #3 is now scheduled for July or August, and the installation of the 54" gate in the sampling manhole is now scheduled to occur in August due to the delayed delivery dates for the flow through flume that Streeter is proposing to use for installing the 54" gates in each manhole.

Rehabilitation of Digester No. 3 is complete. The leakage test was successful. Streeter completed water blasting to remove the old coatings in Digester Nos. 1 & 2. Because Quandel refused to do the repair work of the coatings in Digesters #1 and #2, we are now seeking to do the coating repairs in Digester #1 and #2 via a T&M change order with Streeter. More material came off than anticipated by the Design Engineer. The concrete repairs for Digester No. 3 overran the quantities included in Streeter's proposal. A change order will be needed to pay for the extra concrete repairs. We are negotiating with Streeter to determine the final concrete repair costs for the change order.

**Contract Status: 94% Complete**

**NOTES:**

1. SWPPP measures continue to be maintained by all contracts. Any deficiencies noted during daily or weekly inspections are promptly remedied. Additional truck trap entrances have been now been installed at the new entrances. In early December, we will be installing asphalt millings from the truck traps to the undisturbed asphalt pavement inside the plant to reduce tracking mud off site.
2. Weekly meetings are held for each contract to discuss the progress of the work and identify and resolve issues and problems. Meetings between contractors on the various contracts are held as necessary to facilitate any concerns and coordinate work between all contracts.

A wide-angle photograph of a construction site. In the foreground, a yellow and black roller is compacting a layer of grey gravel. To the left, a large pile of grey gravel is visible. In the middle ground, an orange excavator is working on a concrete structure. Several workers in yellow safety vests and hard hats are scattered across the site. In the background, a large building with a grey facade and a red brick structure are visible. The sky is overcast.

Contract 5 – BJCSTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos


Administration Building: ZMK Backfilling the Retaining Wall Area

2:14

Contract 5 – BJCISTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos

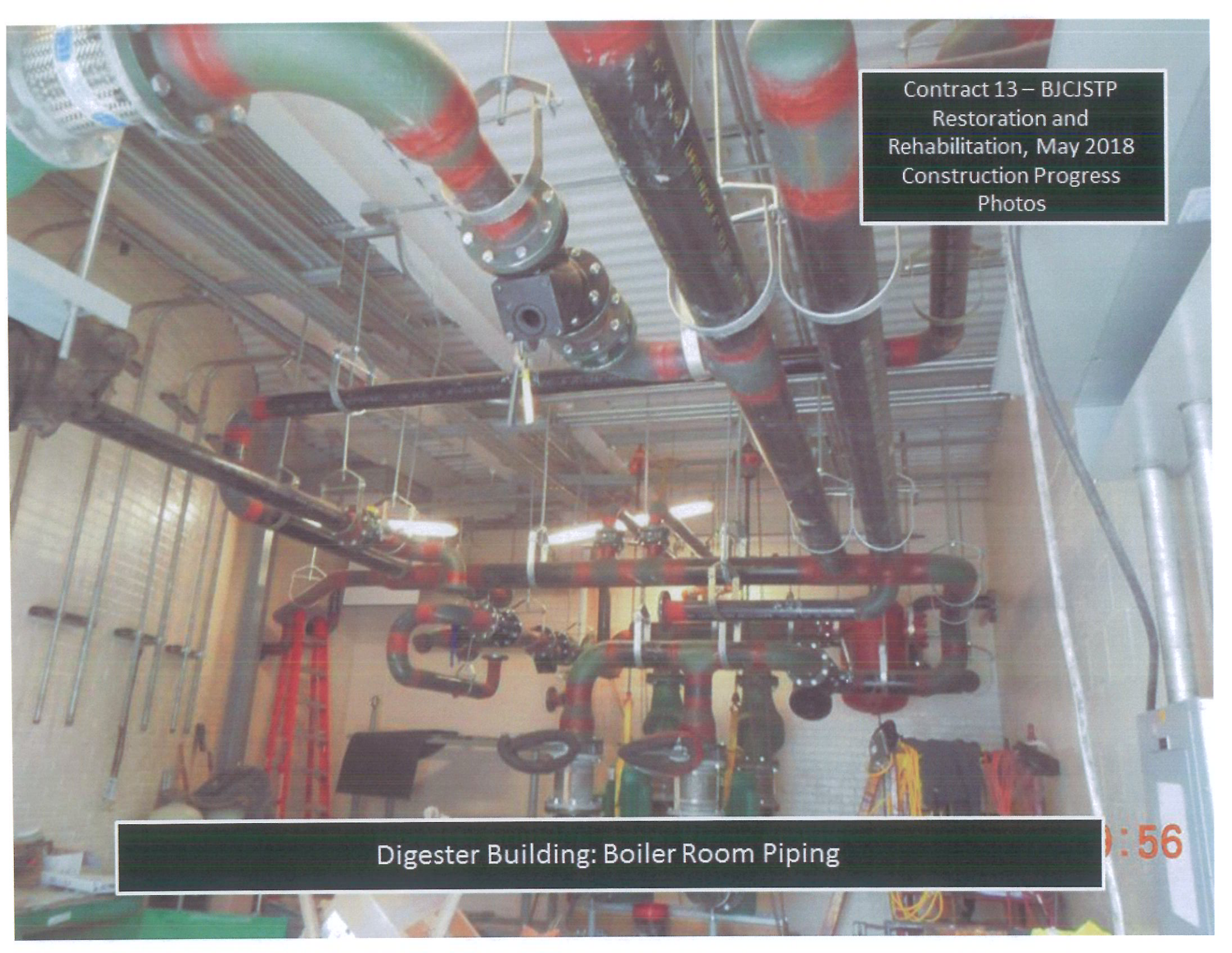
CN 1-8: Lowering Stainless Steel Pipe Onto the Influent Level

8:10



Contract 5 – BJCJSTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos

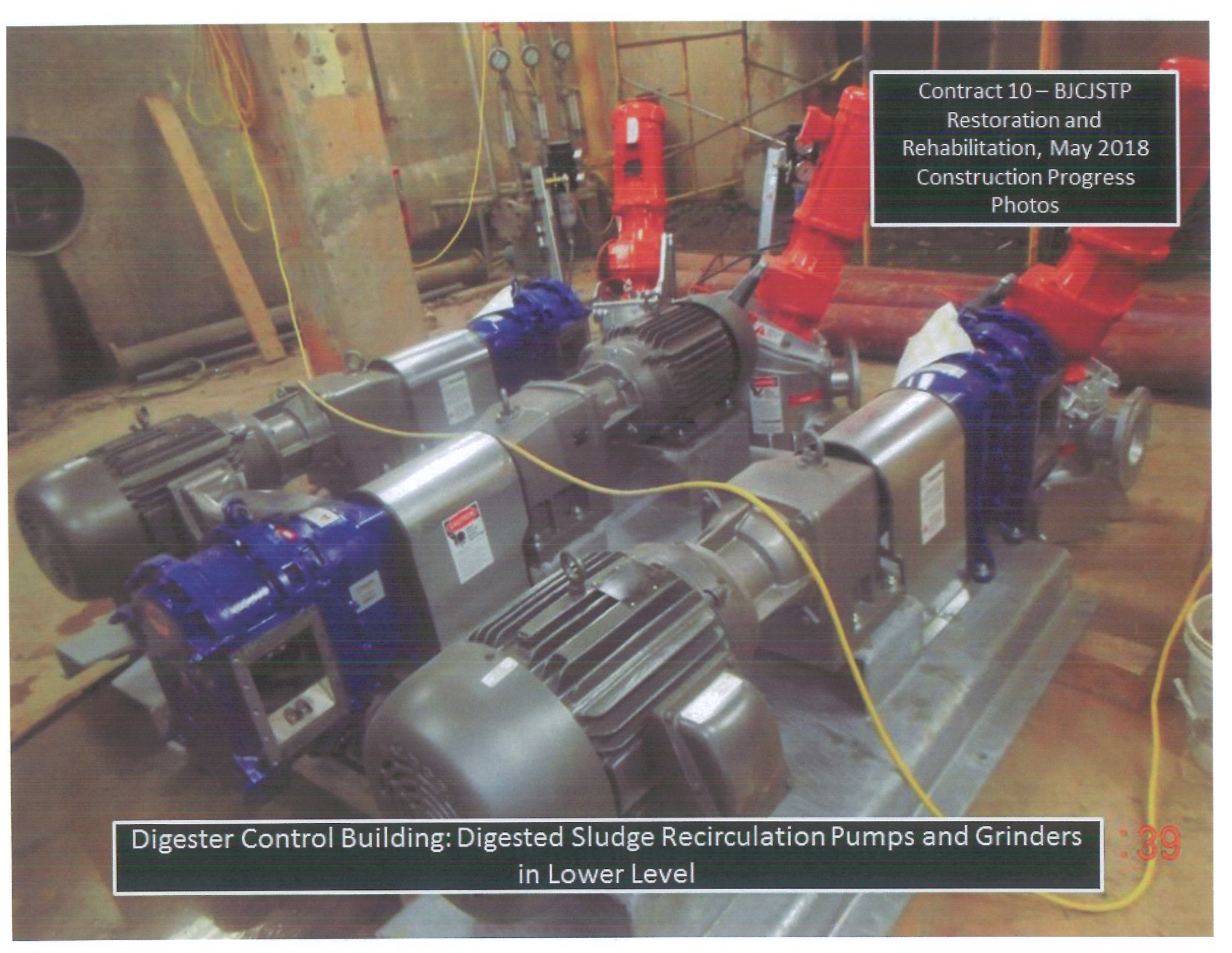
CN 1-8: Gallery Grating Installation



Contract 13 – BJCJSTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos

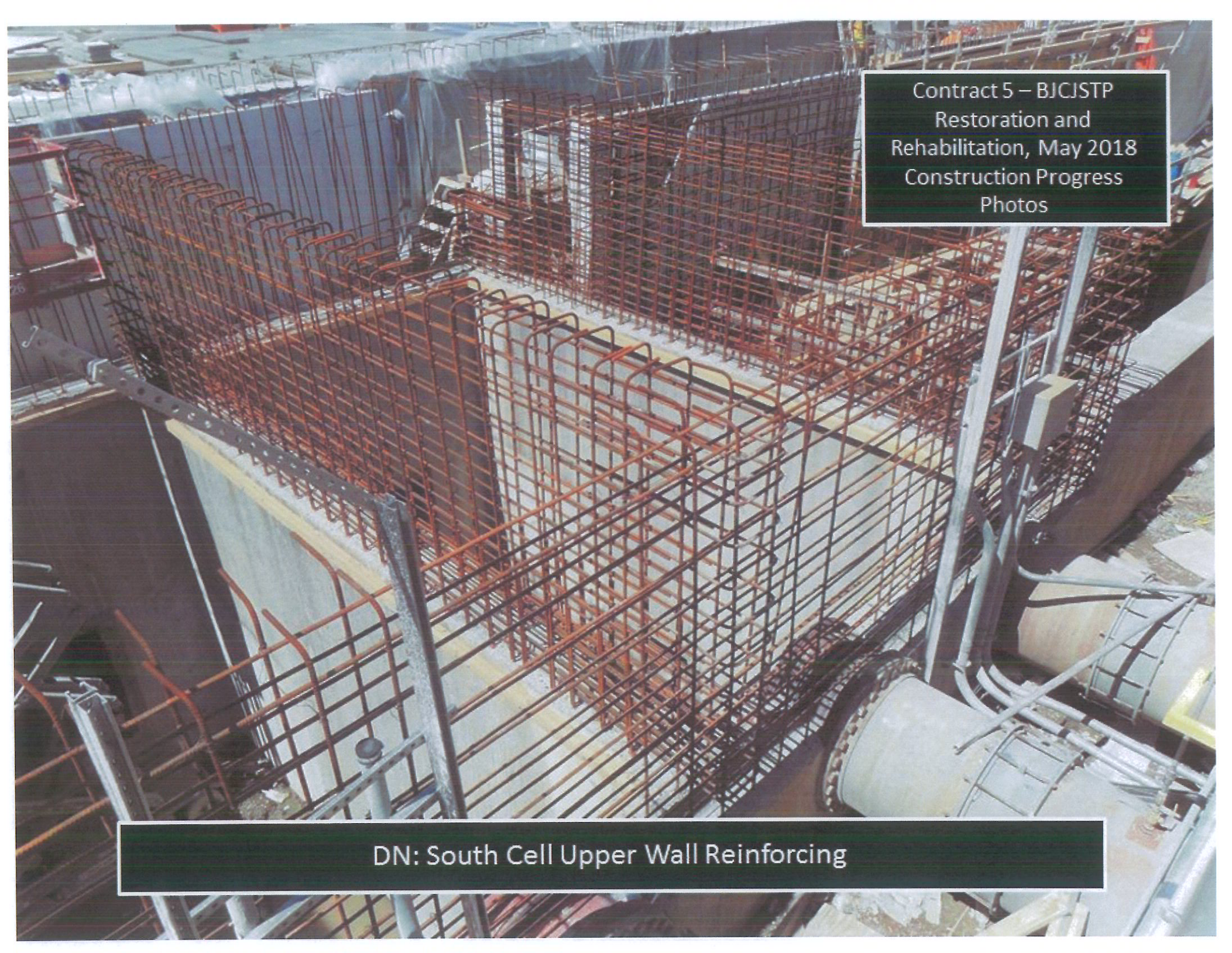
Digester Building: Boiler Room Piping

: 56



Contract 10 – BJCJSTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos

Digester Control Building: Digested Sludge Recirculation Pumps and Grinders  
in Lower Level



Contract 5 – BJCISTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos


DN: South Cell Upper Wall Reinforcing



Contract 6 – BJCJSTP  
Restoration and  
Rehabilitation, May 2018  
Construction Progress  
Photos

Methanol Auxiliary Building: Installation of Panels

8:42

A large-scale construction project is underway under a clear blue sky. The central focus is a multi-story building's exterior wall, which is being constructed using dark grey concrete masonry units (CMU). The wall is partially completed, with several levels of scaffolding and wooden formwork in place. Three construction workers, wearing bright yellow-green safety vests and hard hats, are visible on the scaffolding, actively engaged in the installation process. To the left, a tall blue tower crane stands against the sky. In the foreground, a worker in a white hard hat and yellow-green vest is seen from behind, working on a wooden structure. The overall scene depicts a busy and organized construction site.

Contract 10 – BJCJSTP Solids  
Handling Improvements,  
May 2018 Construction  
Progress Photos

Solids Handling Building: CMU First Floor South Wall Installation

03

Contract 10 – BJCJSTP Solids  
Handling Improvements,  
May 2018 Construction  
Progress Photos

Solids Handling Building: Elevated Slab Level 2 Reinforcing Steel Installed

Contract 10 – BJCJSTP Solids  
Handling Improvements,  
May 2018 Construction  
Progress Photos



Solids Handling Building: Lime Silo Interior Foundation Backfill