

**May 2019 Monthly Report**

**BJCJSTP Rehabilitation and Restoration Project**

The following projects are either nearing completion, in construction, or in the planning stage.

Contract No.	Description	Consent Order Milestone	Status
Contract No. 1	Compost Facility Demolition	Complete	Complete
Contract No. 2	FEMA Mechanical	Complete	Complete
Contract No. 3	BAF Facility Demolition	Complete	Complete
Contract No. 4	MCC HH Emergency Replacement	Complete	Complete
Contract No. 5	BAF Restoration and Rehabilitation Civil Contract	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.
Contract No. 6	BAF Electrical	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.
Contract No. 7	BAF HVAC	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.
Contract No. 8	BAF Plumbing	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.	Projected Phase 1 Substantial Completion August 31, 2019. Projected Phase 2 Substantial Completion January 2020.
Contract No. 9	Secant Pile Contract	Complete	Complete

Contract No. 10	Solids Handling Renovation Civil Contract	Substantial Completion #1 – June 30, 2020; Substantial Completion #2 – June 30, 2020; Substantial Completion #3 – June 30, 2020; Final Completion - August 30, 2020.	Substantial Completion #1 – June 30, 2020; Substantial Completion #2 – June 30, 2020; Substantial Completion #3 – June 30, 2020; Final Completion - August 30, 2020.
Contract No. 11	Solids Handling Electrical	See Contract #10 Completion Dates	See Contract #10 Completion Dates
Contract No. 12	Solids Handling HVAC	See Contract #10 Completion Dates	See Contract #10 Completion Dates
Contract No. 13	Solids Handling Plumbing	See Contract #10 Completion Dates	See Contract #10 Completion Dates
Floodwall	Floodwall and New Diversion Structure		Currently in Construction. Anticipated Completion Date January 2019.

### **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:** In May, PC only placed about 1660 CY of concrete. Their progress was impacted by some days of inclement weather as well as insufficient manpower in the rebar installation crews. PC reported in April that they had approximately 460 CY of structural concrete remaining for both Phase 1 and Phase 2. PC is complete with concrete for the CN Cells 1-8, DN Cells, and Headworks. They are now projecting completion of all structural concrete work by the middle of June, but we are still skeptical. If PC will supply sufficient manpower to install the rebar ahead of the concrete crews, we believe that it can be complete in June, as it could have been completed much earlier if they had provided sufficient manpower.

Brick at the Headworks and East Stair Tower is now complete. The only remaining brick work is for the West Stair Tower west of CN 9-14. PC finally completed backfill around the Headworks. The process equipment in the Headworks is ready for the system demonstration test, which has not passed the leak test for the Primary Distribution Box #1, which conveys flow from the Headworks to the primary sedimentation tanks. After they pass the leak test, they will permanently divert the raw sewage flow from both Binghamton and Johnson City to the Headworks.

PC finally installed the aerial supports south of the BAF Backwash Treatment Facility, which has allowed Matco to install the electrical feed from the courtyard gear to the BAF Treatment Facility. The MCC has been energized in the headworks. The sludge pipe in the basement of the BAF Treatment Facility is complete. PC has completed rotating the plug valves that were not properly installed in BAF and Headworks. Stairs in the BAF Treatment Facility have been installed. PC has not properly protected the stair treads, and they will be required to replace any treads that have been damaged during construction. We identified that the stair set to descend into the lower level of the BAF Backwash Treatment Facility were not installed in accordance with the building code. We identified this issue to PC three months ago, and they have agreed that their supplier will be fixing the stairs to meet code.

PC completed the Primary Influent Pipes to the PST's. PC has tested the 54-inch primary influent pipe between Distribution Box #1 and #2. They also completed installing and testing the 36-inch pipes from the Primary Distribution Box 1 to the PST's 1-6. The 54-inch pipe had an impact to the ductbank activities for DB EX-01 that runs between the Generator Building and the West Primary Sludge Pump Station. The duct bank provides the power to operate PST 7-10, West Primary Sludge Pump Station, Methanol, and UV. Matco completed the ductbank installation in January. Wiring has been pulled in the ductbank. We are very concerned that the delays by PC may push the electrical feed to the west facilities to the critical path.

Work on CN Cells 1-8 is being advanced. PC has completed the testing and installation of the media in CN Cells 1-8. Prep work for the CN Effluent channel for CN Cells 1-8 is now complete. PC needs to do the crack injection prior to installing the coating inside the existing effluent channel.

PC has completed the concrete work in the DN Cells, and has tested and loaded the filter media in the DN cells. PC finally installed the stanchions from the DN Cell control building to the new UV structure. PC has finally completed the east wall of the DN channel, and Matco is finally able to proceed with the east electrical feed to the UV structure. PC has not installed the structural steel or grating in the DN Gallery yet. This is preventing MATCO from starting the electrical work in the DN Gallery.

PC completed installing stainless steel air pipe and backwash drain pipe in the CN 1-8 gallery and DN gallery this month. PC also completed installing stainless steel pipe in the Blower Building, Headworks, and BAF Treatment Facility. Mechanical and electrical trades are nearing completion in the CN Blower Building and CN Gallery.

Concrete work at the CN Cells 9-14 is being advanced with the completion of the walls for the west stairwell as well as working on concrete slabs and walls for the CN 9-14 influent channel. PC continued working on the backwash header in the CN Cells 9-14.

The Primary Setting Tanks 7-10 are nearly complete. The vendor has completed checking the equipment installation so that they can certify the installation. Electrical work is complete. The concrete coating applications are complete, and PC has repaired the blemishes in the coatings. PC still has to do the leak test after they complete repairing the concrete coatings. We cannot take flow to the PST 7-10 until both the Headworks and SIPS are operational.

The pipe work for the 54-inch primary influent pipe between Distribution Box No. 1 and Distribution Box No. 2 is complete. The late installation of the 54-inch pipe held up the duct bank that runs between the new Generator Building and the West Primary Sludge Pump Station. PC completed installing miscellaneous yard piping in the area of the Headworks and also in the area adjacent to the floodwall on the south side of the site this month. Backfill around the Headworks has been completed and is no longer impacting work around the Headworks.

Construction of the new Chemical Building is nearing completion, but no significant activity has been done in this building for months. The building is ready for testing, which will be completed in a few months ahead of the need for the building. Work in the East Odor Control Building is nearing completion. All work by PC has been completed, and they are requesting a partial substantial completion for the building.

Matco completed electrical work for the process equipment in the Blower Building, and the blowers are ready for the system demonstration test. PC continued their process pipe installation for the backwash pipe in the CN gallery this month. PC has completed the concrete work for the SIPS area. PC bumped the motors on the SIPS pumps to show the beginning of the SIPS Startup. This was a milestone requirement necessary to meet the DEC Consent Order. PC still needs to complete the metal SIPS Pump Building.

PC suspended work on the piping in the Methanol area, pending a resolution on their American Iron and Steel (AIS) Compliance issue. We have notified them that the fittings are not covered under the de minimis material. PC has submitted a waiver request for the fittings in order to comply with the AIS provisions of the contract. We are awaiting the official response to the waiver request for the non AIS compliant fittings as required by EFC and the EPA. PC needs to get a variance from the EPA and EFC, or remove and replace the fittings with AIS compliant fittings. This is clearly a contractor caused delay, and we intend to hold PC accountable for their delay.

Matco has completed the conduit work and has pulled and terminated the wires to various locations in the Generator Building. PC was directed to square the existing openings for the new louvers to be installed on the North wall of the Generator Building. They have completed the lower level

louvers and are working on the upper level louvers. Cutting the upper louver openings was impacted by the discovery of lead paint on the existing structural steel on the north wall of the building. Startup of the generators cannot be performed until the louvers are complete in the north wall of the Generator Building.

Kruger began functional demonstration testing on the CN Gallery equipment this month. Most of the Kruger supplied equipment has been installed at Kruger's direction. The preliminary Operations and Maintenance manuals as well as the startup and testing plan from Kruger are complete. PC's May construction schedule shows them missing that date by several months; however, PC has stated that they are now following a different schedule in the field. We developed the field schedule for CN Cells 1-8 from their Functional Demonstration Plan, additional information provided by PC, and input from the other multi primes, PC's flawed CPM schedule should not be used for evaluation of any delay claims. We have notified PC that they are not in compliance with the contract for providing a comprehensive schedule, and were notified that no further payments would be made until they are in full compliance with the contract for the schedule.

No significant change at the new Administration Building this month. We completed repairing the leaks in the existing wall of the electrical building. The leaks were injected with epoxy when located during rain events.

PC has completed the storm drain installation near the Solids Handling Building. Now that Matco has completed the site lighting in the parking lot at the Administration Building, PC can begin concrete work for the curbs. We now anticipate PC paving the parking lot in July. The City decided to increase the width of the parking lot to meet Vestal Code. The parking lot will now be 60 feet wide from North to South.

All storm water pump stations are fully operational on permanent power.

**Contract Status: 89% 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:** MATCO continued work in the West Primary Sludge Building, the CN 1-8 Gallery, SIPS, UV, and the Methanol Building this month. Matco completed all process equipment in the Headworks this month. Matco continued installing conduits and wire in the BAF Backwash Treatment Facility. PC is holding up electrical work in the lower level of the DN Gallery by not having the structural steel and grating installed. PC has been notified weekly by Matco of this delay, so they have no real excuse for failing to allow Matco reasonable access. Installation of the major conduits and wires in the CN Cells 1-8, the DN Cells, SIPS, Headworks, and UV are complete.

Matco has claimed that the control wire terminations are not included in the scope of their work for Contract 6. We have directed them to proceed with the work and keep records for the time they use to make the control wire terminations. This is important to meet the DEC Consent Order date of August 31, 2019 for Phase 1 construction. MATCO has been making good progress in the CN Cells 1-8, SIPS, Headworks, DN Cells, Blower Building, West Primary Sludge Pump Station, and BAF Backwash Treatment Facility.

Matco has completed all distribution wiring throughout the site and has also started installing fiber optic cable around the site.

**Contract Status: 92% 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 various locations around the site. They are actively working in the Generator Building, SIPS, Headworks, BAF Treatment, West Primary Sludge Pump Station, DN, and UV. 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: 94% 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:** Danforth is working in various buildings around the site such as the Headworks and BAF Backwash Treatment Facility. They are also nearly complete on their work in the CN Cells 1-8. 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: 94% 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 and architectural work for the new Solids Handling Building is complete. Renovation for the Lab at the Headhouse is on hold pending relocation of the existing lab personnel and equipment. The lab construction will be determined with either the Town of Vestal issuing a partial/temporary certificate of occupancy for the completed portion of the lab renovation or by temporary relocation. Quandel has about one month to go on the lab renovation.

Quandel has completed installing the mechanical systems in the Solids Handling Building. They are ready for functional demonstration testing with the equipment as the electrical completes and sludge is available. Power conduit and wire is nearly complete in the Solids Handling Building. Matco is continuing the control wiring in the building. Matco will not complete all wiring in the Solids Handling Building until early to late June. Additional work to install electrical controls for the Centrifuges in the Solids Handling Building have been authorized on T&M to avoid unnecessary delay to the start-up of the centrifuges. We anticipate completion of the control wiring for the centrifuges in July.

Quandel was not making any progress on the removal and recertification of the gas conditioning equipment, so we were forced to remove the work from their scope of work and the City is procuring the equipment on a sole source contract. The gas safety equipment for Digester #3 was completed in May. Digesters #1 and #2 should be complete in June. They are alleging that they are not responsible for reconditioning the equipment. Quandel refused to do a digester start-up plan. The City requested that Jacobs prepare a digester start-up plan. Start-up of the digester gas equipment and the digester mixing equipment is to be completed by the City in June of 2019. Quandel installed the digester lid on Digester #3 in March. We had to suspend the installation of Digester #1 and #2 covers in March to allow for Digester #1 and Digester #2 to be coated inside as requested by GHD and the Plant staff. Because PC was not completed with the Headworks in May, we had to temporarily inflate the cover to Digester #3 to avoid warranty problems. Sludge cannot go to the digesters until the grit removal is complete and operational at the headworks.



A segment of existing buried digester gas pipe between the Digester Control Building and the gas flare leaks, and must be replaced. GHD has completed their design, and we are proceeding with having Danforth install the replacement pipe on a change order.

We developed and executed a plan that saved the City in excess of \$400K from the price quoted by the Contractors to clean the Digester Gas Pipe and Sludge Pipe in the Digester Control Building.

**Contract Status: 92% 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. Matco is working throughout the site for the Solids Handling Contract. Matco has claimed that the terminations for the control wire are not covered in their contract as stated by GHD, but they are proceeding under protest. We are monitoring the level of effort for the terminations under T&M. This issue is likely to be addressed to the DRB.

**Contract Status: 83% 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, and continued installing the HVAC equipment in the Solids Handling Building. They are also supporting the General Civil Contractor's schedule.

**Contract Status: 86% 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 is making good progress installing the plumbing in the Solids Handling Building and also the Digester Control Building. Danforth continues to support the General Civil Contractor's schedule. Danforth

finished supporting the cleaning of the Sludge and Digester Gas Piping in the Digester Control Building.

**Contract Status: 88% 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. Start-up and testing of the two storm water pump stations is complete. The access platform for the valves at the two storm drain pump stations need some minor modifications to eliminate a potential fall/trip hazard. This work is being executed as a change order, and will be reduced from the deductive change order that will close out the contract. Streeter tested the 54" gate in the sampling manhole. The gate failed the test and must have some remedial work done on the gate installation before it is retested.

**Contract Status: 98% Complete**

### **NOTES:**


1. SWPPP measures continue to be maintained by all contracts. Any deficiencies noted during daily or weekly inspections are promptly remedied. The City received a Notice of Violation from DEC for SWPPP issues. We have addressed all of the issues, including the paperwork that was not modified as required for the inclusion of Solids Handling. We are attempting to get the SWPPP closed out for Streeter, and will need to transfer responsibility for the SWPPP outside the floodwall to the new WQIP contractor.
2. The WWTP Staff issued a PO to Drain Brain to clean the existing Digester Gas Pipe and Sludge Pipe. We are complete with this effort. The original quote from the Contractor was in excess of \$450K for just the cleaning of both sets of lines. The final cost was about \$53.6K, and was completed by December 15, 2018.
3. The City has issued a purchase order to JDV to provide the Digester Mixing Equipment for \$278,620. This equipment was in need of rehabilitation and replacement, but it was not included in any contract. The cost to rehabilitate equipment was less than the cost to replace the equipment. The quote of \$572,915 we received from Quandel was excessively high, and it was in the best

interest of the City to purchase and rehabilitate the equipment separately. By performing this equipment purchase separately, we were also able to accelerate the delivery and installation of the equipment in advance of what Quandel was quoting. JDV is about 40% complete with the Digester mixing Equipment at the end of May.

4. The City has also issued an agreement with Koester to provide replacement equipment for the digester gas safety equipment and to include installation. The agreement was issued for \$639,086, and Quandel's quote was for \$1,110,668. We will be seeking some recovery from Quandel for some of the \$639K for the portion of the work that is included in their scope of work. Koester is 39% complete with the work at the end of May.

5. 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.

DEC #	Description	Consent Order Date	Status
7	Flood Mitigation to Elevation 845	February 28, 2019	March 1, 2019
3f	Begin SIPS Commissioning	April 30, 2019	Completed before April 30, 2019
3e	Backwash Waste Treatment Construction Complete	June 30, 2019	June 30, 2019
3h	Hydraulic Testing of new BAF Backwash Tank	June 30, 2019	Completed before June 30, 2019
3j	Retrofit of two sludge thickeners, (1 is complete, the second should be complete by August 31, 2019. Two thickeners will be available for use at all times.	June 30, 2019 – The City to request a variance due to the sequence issue associated with the turnover of the next Thickener by the STP Staff.	Thickener #1 is done, Thickener #3 has not been turned over for rehabilitation by STP Staff yet. Thickener #2 will be done after Thickener #3 is complete.
4d	Complete construction of anaerobic digesters. (Digester #3 will be complete before June 15, 2019, and it can handle the entire sludge load during the interim construction period,)	June 30, 2019 – the City to request a variance for Digester #1 & #2 due to the request by the Owner and DEC to complete coating inside digesters before installing the covers.	June 30, 2019/ August 31, 2019
5b	Interim Operating Strategy for equipment from 8/31/19 through 1/1/20.	July 31, 2019	July 31, 2019
3i	Construction Complete on PST 7-10	August 31, 2019	June 30, 2019
3k	Commence Operation of CN 1-8, DN, BAF Backwash Tank, BAF Backwash Treatment, Headworks, and PST 7-10.	August 31, 2019	August 31, 2019
3l	Commence Operation of CEPT, UV, Sludge Thickeners, and appurtenances.	August 31, 2019	August 31, 2019
4e	Operation of Digesters 1-3. (Digester 3 is scheduled to be operational in June 2019.)	August 31, 2019	June 30, 2019/ August 31, 2019
3m	BAF CN Cells 9-14 Construction Complete	January 1, 2020	January 1, 2020
3n	Operation in Compliance with SPDES	April 1, 2020	April 1, 2020

An aerial photograph of a large-scale construction project. The site features several long, rectangular concrete structures, some of which are filled with numerous white bags, likely containing construction materials. The surrounding area includes a parking lot with many cars and other industrial buildings. The image is overlaid with text in the top right and bottom center, and a timestamp in the bottom right.

Contract 5 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

05.08.2019 14:08

CN 1-8 & CN 9-14 – Site Progress Photo

Contract 5 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos



2019/05/31 08:46

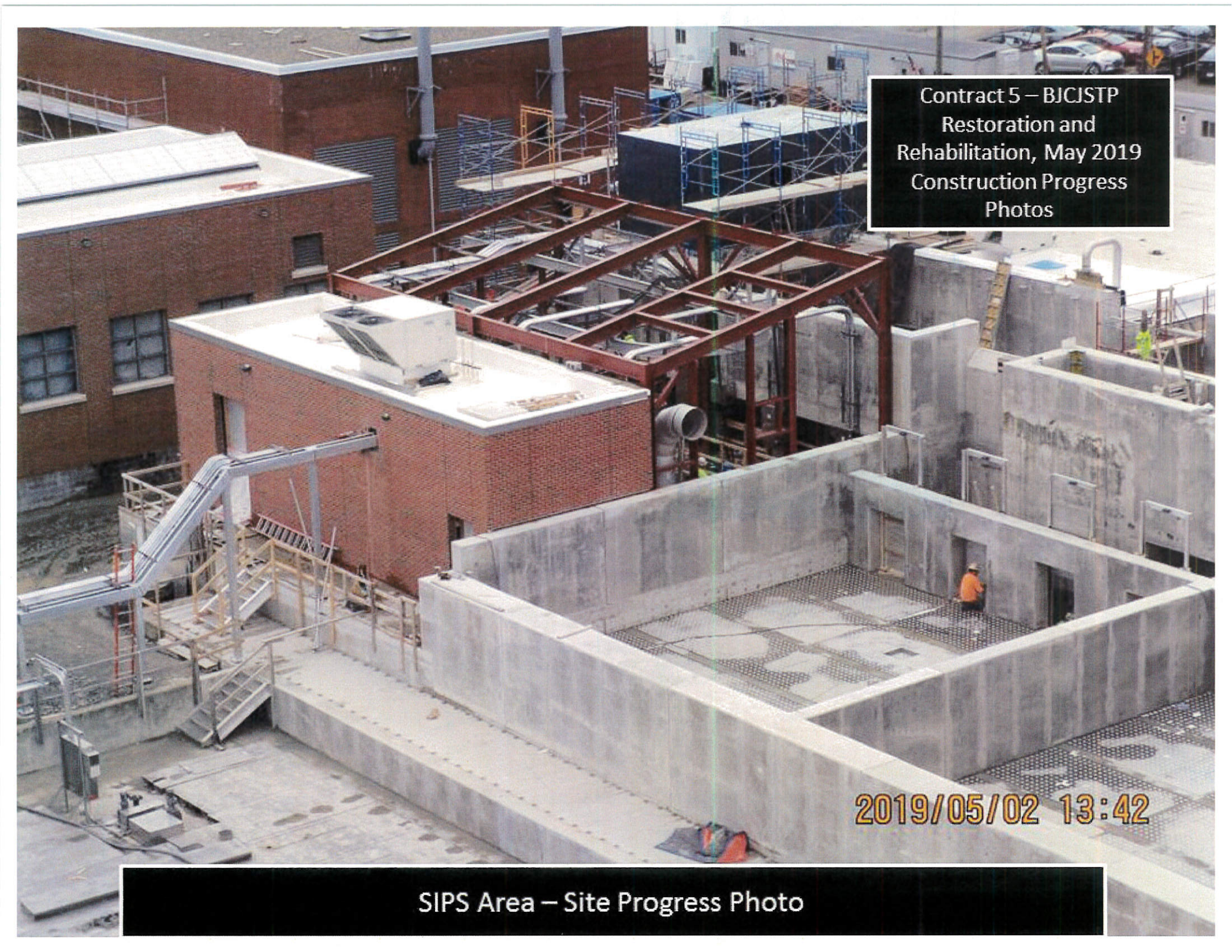
Primary Distribution Box 1 – 36 Inch Line Installation Progress Photo

An aerial photograph of a large industrial construction site. The site features several multi-story brick buildings with flat roofs. A prominent black crane with a long boom extends from the left side of the frame towards the center. The ground is cluttered with construction materials, pipes, and equipment. Scaffolding is visible on the roofs of some buildings. In the background, there are more industrial structures and a parking lot with several cars. The overall scene depicts an active restoration and rehabilitation project.

Contract 5 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

2019/05/02 13:42

Headworks & BAF Area – Site Progress Photo



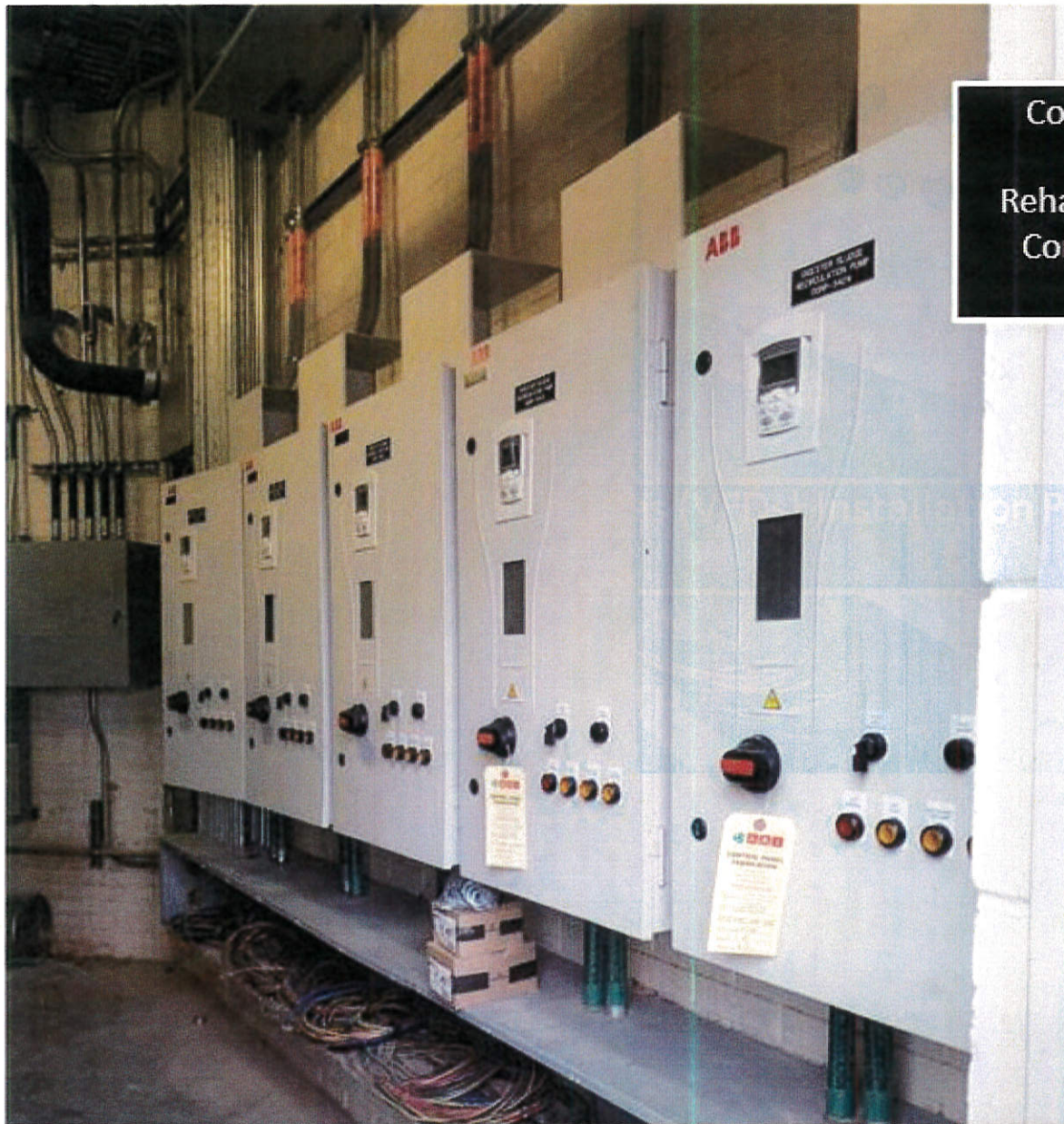
Contract 5 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

2019/05/02 13:42

SIPS Area – Site Progress Photo



Contract 10 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos



Digester Tank 2 – Variable Frequency Drives (VFDs) Installation Progress  
Photo

May 21, 2019 07:12:24  
Binghamton/Johnson City WWTP

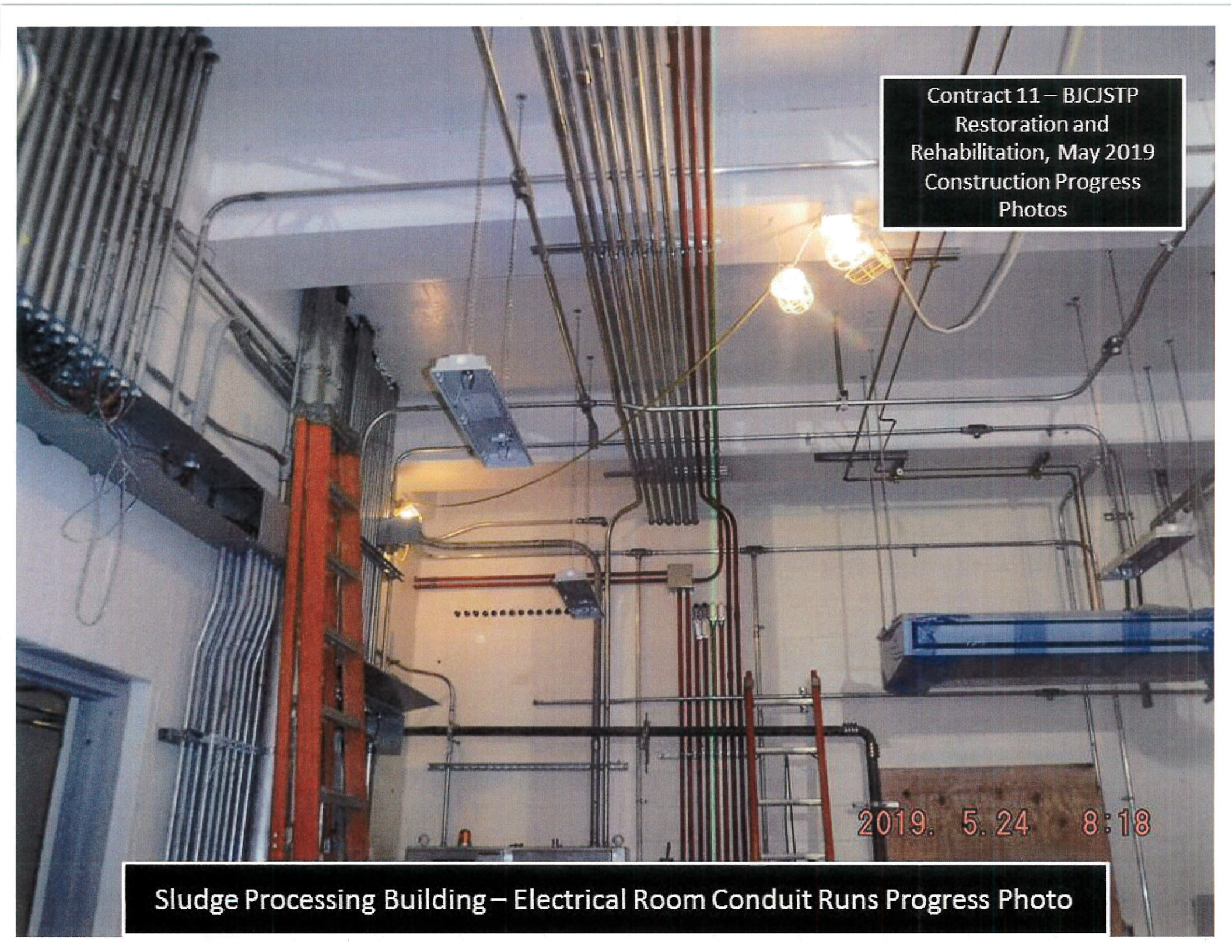


Contract 10 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos



Digester Tank 3 – Pressure Relief Valves (PRV) Installed

May 17, 2019 06:51:20  
Binghamton/Johnson City WWTP



Contract 11 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

2019. 5. 24 8:18


Sludge Processing Building – Electrical Room Conduit Runs Progress Photo



Contract 12 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

Gas Conditioning Room – Heating System Installation Progress Photo

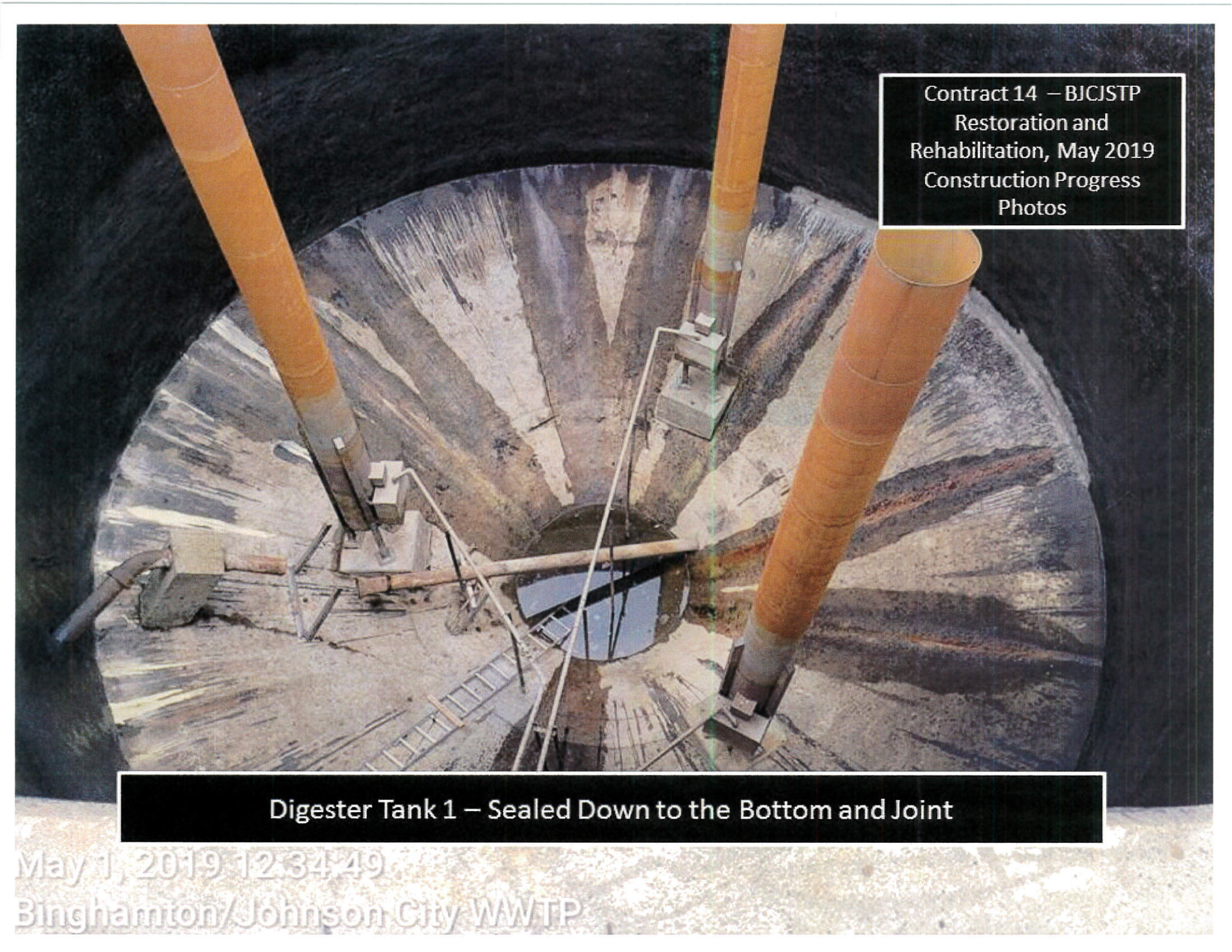
May 3, 2019 10:50:26  
Binghamton/Johnson City WWTP



Contract 13 – BJCJSTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

Digester Control Building East – Replacement of Gas Lines Progress Photo

May 16, 2019 13:49:57  
Binghamton/Johnson City WWTP



Contract 14 – BJCISTP  
Restoration and  
Rehabilitation, May 2019  
Construction Progress  
Photos

Digester Tank 1 – Sealed Down to the Bottom and Joint

May 1, 2019 12:34:49  
Binghamton/Johnson City WWTP