

# **Highlighted Projects - Sewer**

Dan Alford, Director of Wastewater Engineering and Maintenance

# **Active Projects Highlight Report**

#### **Table of Contents**

- 1. PC-797 Rouge River Outfall
- 2. PC-795 Pump Station 2 Pumping Improvements
- 3. PC-796 Aeration System Improvements
- 4. PC-757 Primary Clarifier Rehabilitation
- 5. CON-197 Modification to Incineration Sludge Feed System
- 6. CON-250 PS#1 Rack and Grit Improvements
- 7. 1803227 Dewatering Complex 2 Roof Replacement Project
- 8. CON-222A Rehabilitation of Various Sampling Sites and PS#2 Ferric Chloride System
- 9. CON-234 Conner Creek CSO Basin Rehabilitation
- 10. 1802475 Leib Screening and Disinfection Facility Electrical Improvements



## **Construction Projects Underway**





Project Name:		
River Rouge Outfall Disinfection Project		
GLWA Project Manager:	Contractor:	Contract Number:
Philip Kora	CDM Smith Constructors Inc.	PC-797
Project Start Date:	Project Completion Date:	Contract Amount:
2/19/2016	12/31/2019	\$ 44,461,636.00
Invoiced to Date:	Balance Remaining:	Project Schedule (% Complete)
\$38,936,979.14	\$5,524,656.86	88%

Current Work Status	Project Projections
<ul> <li>Utilizes Sodium Hypochlorite for disinfection and Sodium Bisulfite for dechlorination.</li> <li>Phase 1 Construction has been complete and the system went live on 03/29/19.</li> <li>Regulatory driven.</li> </ul>	-Contractor working on deficiency list and need to correct safety and key control issues before declaring Substantial Completion.



## **PC-797** Rouge River Outfall Disinfection Project

## Hypo Building Control Room





Chemical Feed Pump Skids



Project Name:		
GLWA Project Manager: Contractor: Contract Number:		
Vinod Sharma	<b>Tooles Contracting Group</b>	PC-795
Project Start Date: 10-17-2016	Project Completion Date: 6-20-2019	Contract Amount: \$ 3,275,000.00
Invoiced to Date: \$ 1,308,434.96	Balance Remaining: \$ 1,966,565.04	Project Schedule (% Complete) 40%

Current Work Status	Project Projections
-Pump No. 11 is being installed. Contractor had to reorder dresser coupling because holes were not matching. Contractor had to drill new holes for the suction elbow support because the holes did not match	-Pump No. 11 installation is expected to be finished by June 13, 2019, and then 60 days of testing will beginPump No. 14 installation will start afterwards.
the existing oneFlowserve, the pump manufacturer, will be on site around mid June to check the pump installation and	



alignment.

### **PC-795** Pump Station #2 Pumping Improvements

### Lowering New Pump into Position





**Suction Elbow Installation** 



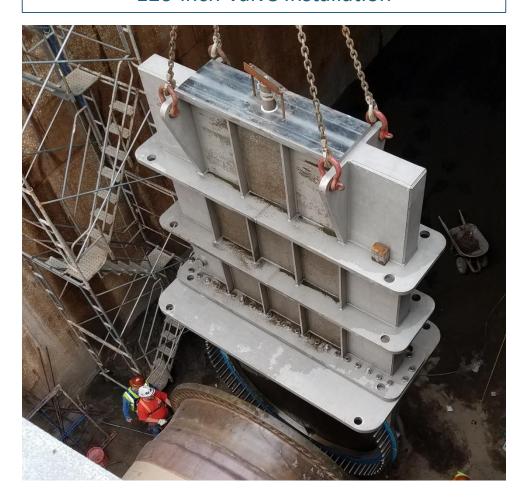
Project Name:		
Aeration System Improvements		
GLWA Project Manager: Contractor: Contract Number:		Contract Number:
Vinod Sharma	Weiss Construction Co. LLC	PC-796
Project Start Date:	Project Completion Date:	Contract Amount:
10/03/2016	06/21/2019	\$ 15,835,000.00
Invoiced to Date:	Balance Remaining:	Project Schedule (% Complete)
\$13,696,730.61	\$2,138,269.39	86%

Current Work Status	Project Projections
-Rehabilitated four basinsReplaced 3 Variable Frequency Drives for the 5 Intermediate Lift PumpsReplaced flow meters -Allowed Intermediate Lift Pump #7 to be redundant to all four basins.	-Contractor currently working on the punch list items to meet final completion date of 06/21/2019Currently waiting on the 30-day test results before the final basin can be placed back into service.



## **PC-796 Aeration System Improvements**

#### 120-inch Valve Installation





Pulling Wire for New VFD



Project Name:		
GLWA Project Manager: Contractor: Contract Number:		
Nicolas Nicolas	Tooles Contracting Group	PC-757
Project Start Date: 07/08/2016	Project Completion Date: 05/18/2020	Contract Amount: \$ 51,905,000.00
Invoiced to Date: \$35,788,051.42	Balance Remaining: \$16,116,948.58	Project Schedule (% Complete) 69%

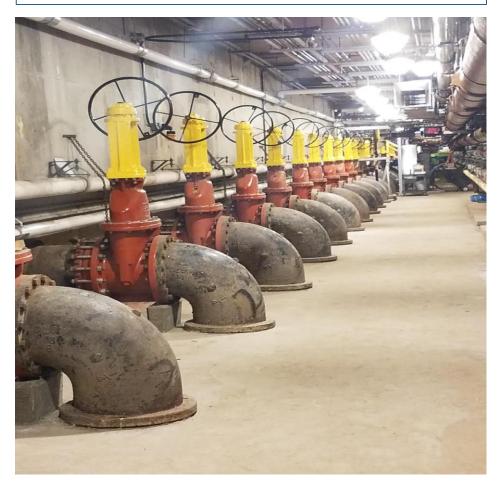
Current Work Status	Project Projections
-Rehabilitate 14 of 18 Primary ClarifiersReplace Pumps, Valves and Piping in Pipe GalleryDemo of existing Scum Collector TroughRehab of primary tanks 9-12 were completed and placed back in service.	-Contractor is currently rehabbing primary tanks 5-6. Primary tanks 7-8 are being tested nowCurrently the rehabilitation of the pipe gallery sludge pumps and piping is ongoing.
-Rehab of circular clarifiers 15 and 16 complete and	



placed in service.

### **PC-757 Primary Clarifier Rehabilitation**

## Influent Gate Valves in Pipe Gallery





**New Scum Conveyor System** 



Project Name:  Modification to Incineration Sludge Feed System		
GLWA Project Manager: Contractor: Contract Number: Christopher Breinling Weiss Construction Co. LLC CON-197		
Project Start Date: 04/02/2016	Project Completion Date: 01/31/2021	Contract Amount: \$ 18,631,083.00
Invoiced to Date: \$6,733,321.82	Balance Remaining: \$11,897,761.18	Project Schedule (% Complete) 36%

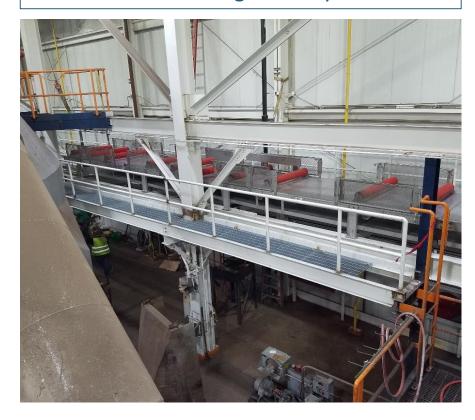
Current Work Status	Project Projections
-Structural support steel, walkways, and conveyor assembly underway for belt conveyor L in Incineration Complex II.	-Replacement of the sixteen existing incinerator screw feeders will begin in mid-July and continue in stages to 2020.
<ul> <li>-New Motor Control Centers (nine total) are staged on-site for crane lift.</li> <li>-Installation of HVAC equipment in fifth and sixth floor electrical rooms.</li> </ul>	-Steelworkers will continue installing the remaining structural support steel and conveyor assemblies for the four P-belt cross-conveyors this summerReplace four inoperative SFE strainers in
-Construction of SFE washdown lines and spray systems along belt conveyors H, K, and LPlacing rooftop condensing units and associated support steel for new electrical room HVAC equipment this June.	Summer/Fall 2019 -Apply paint to new belt conveyor handrails and support steel for Conveyors H, K, and LInstall nine new Motor Control Centers and eight new screw conveyor variable frequency drives.



-Prep and paint walls, steel, and ceiling over the upper level belt filter presses in Dewatering 2.

## **CON-197 Modification to Incineration Sludge Feed System**

### New L Sludge Conveyor





**New Electrical Substation** 



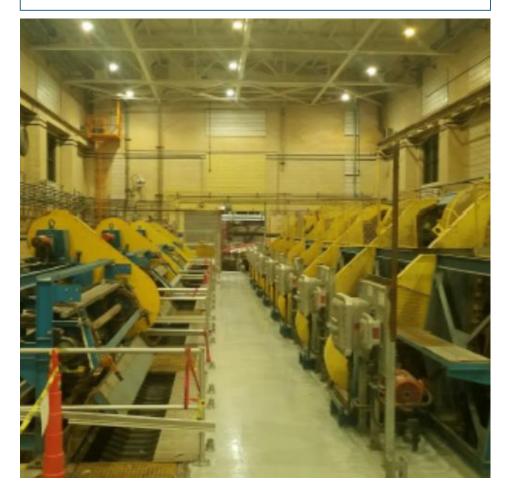
Project Name:  PS#1 Rack and Grit Improvements		
GLWA Project Manager: Contractor: Contract Number: Partho Ghosh Weiss Construction Co. LLC PC-789/CON-250		
Project Start Date: 11/18/2013	Project Completion Date: 09/22/2019	Contract Amount: \$ 22,655,000.00
Invoiced to Date: \$20,130,031.73	Balance Remaining: <b>\$2,524,968.27</b>	Project Schedule (% Complete) 89%

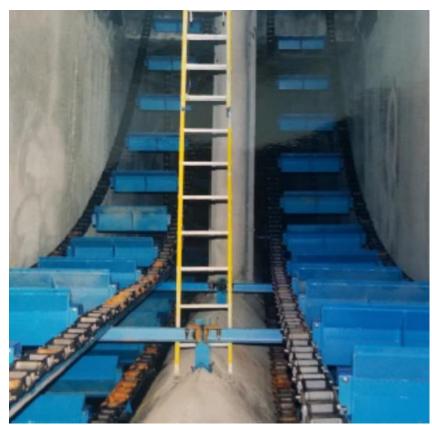
Current Work Status	Project Projections
-Replace 20 years old bar screens and grit removal systems -Replace multiple Motor Control Centers -Added North and South offload buildings	-Punchlist items are being corrected.
-Replaced process conveyors	



### **CON-250** Pump Station #1 Rack and Grit Improvements

#### Bar Screens and Grit Collectors #5-8





New Grit Collector



Project Name:  Dewatering Complex II Roof Replacement at WRRF			
GLWA Project Manager: Chris Breinling	Contractor: Schreiber Roofing	Contract Number: 1803227	
Ciris Breining	Corporation	1603227	
Project Start Date: 02/01/2019	Project Completion Date: 09/30/2019	Contract Amount: \$ 1,118,000.00	
Invoiced to Date: \$ 517,552.25	Balance Remaining: \$ 585,847.75	Project Schedule (% Complete) 46%	

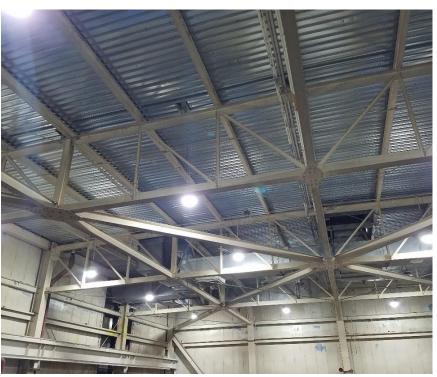
Current Work Status	Project Projections
-Progressive tearoff of existing roof structure (metal pan decking, insulation, and existing roof membrane) from the north roof line towards the south.  -Currently working on the southwest corner of the roof under the existing ID fan VFD building.  -Televised and replacing existing roof drains.  -Rehabilitation of existing HVAC equipment support	-Begin application of Tremco polyurethane weather coat after completion of roof reconstruction in June 2019Complete installation of new metal walkway and access ladder in JuneComplete roof flashing and cleanup in late June.
steel as part of this contract.	



#### **1803227** Dewatering Complex II Roof Replacement at WRRF

#### New Roof Structure Around Existing HVAC





New Roof Decking Over Belt Filter Presses



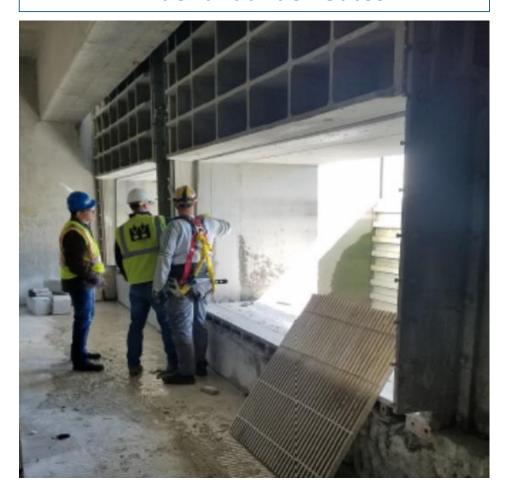
Project Name:  Conner Creek CSO Basin Rehabilitation			
GLWA Project Manager: Ishan, Wahab	Contractor: Weiss Construction Co. LLC	Contract Number: CON-234	
Project Start Date: 06/12/2018	Project Completion Date: 09/07/2020	Contract Amount: \$ 5,599,662.00	
Invoiced to Date: \$ 3,330,000.00	Balance Remaining: \$ 2,269,662.00	Project Schedule (% Complete) 55%	

Current Work Status	Project Projections	
-Outlet Gate Rehabilitation — alignment, gearing, seals, actuators and alternatives -Restore compromised conduit run on top of basin -Rehabilitation of 5 Flow metersAll gate stem replacements are completedOriginal electrical work scope is completed.	<ul> <li>-Replacement of Gate seats and seals is ongoing.</li> <li>-Flow meter design is underway and a new quote is expected.</li> <li>-Another Change Order may be forthcoming for Flow Meter work.</li> </ul>	



#### **CON-234 Conner Creek CSO Basin Rehabilitation**

#### **Effluent Launder Gates**





**Effluent Gate Actuators** 



Project Name:				
Leib Screening and Disinfection Facility Electrical Improvements				
GLWA Project Manager:	Contractor:	Contract Number:		
James Ibronkie	Rotor Electric	1802475		
Project Start Date: 02/01/2019	Project Completion Date: 12/31/2019	Contract Amount: \$ 916,275.00		
Invoiced to Date: \$ 111,860.00	Balance Remaining: \$ 804,405.00	Project Schedule (% Complete) 12%		

Current Work Status	Project Projections
-Electrical conduits were Installation of pipe supports is ongoing.	-Replacement of the electrical conduit will start soonPlanning to propose additional amounts for replacing existing E-stop switches and disconnects.



## **1802475** Leib Screening and Disinfection Facility Electrical Improvements

Replacement Pipe and Conduit Hangers



