

## TECHNICAL COMMITTEE MEETING MINUTES Wednesday, December 14, 2022 4:30PM

## Via VIDEO/TELECOFERENCE

## Attendees:

Merritt Nesin Edward Kelly Steve Bagwin William Brink, PE Ann Brown, P.E. Robert Pudelka Brian Teitelbaum Arlene Sciarretta Chairman, Technical Committee Committee Member Committee Member Executive Director, WPCA Supervising Engineer, WPCA Plant Supervisor, WPCA Perna Lane Area Resident Blue Ridge Drive Resident

## 1. Call to Order and Roll Call

M. Nesin called the meeting to order at 4:30PM and announced the attendees as listed above.

## 2. Approval of November 16, 2022 Meeting Minutes

E. Kelly made a motion to approve the minutes of the November 16, 2022 Technical Committee Meeting; seconded by S. Bagwin. Motion carried 3-0-0.

### 3. Public Comments

Brian Teitelbaum pointed out that there are 178 sewer units in the Phase 1 area. Based on a project cost of \$8.1M, the assessment cost per household would average \$18,000. He compared the Carriage Dr project to Perna Lane. The lot sizes in Carriage Dr were 1 acre and the average assessment cost was \$17K with the highest cost being \$37K. Also, he stated that the homes in Phase 2 and 3 had a need for sewers.

Arlene Sciarretta expressed concern that the Phase 2 project would not move forward. She asked that the area be resurveyed and stated that she and her neighbors are in favor of the project. M Nesin explained that when WPCA sent surveys, only about 50% of the surveys were returned. Out of those returned, about 50-60% indicated they were in favor of the project. WPCA voted to require 2/3 of the homeowners in each Phase to be in favor of the project for that Phase to move forward. Phase 1 owners accomplished this. The 66% requirement for homeowners in favor would be needed for Phase 2 and 3 to move forward.

#### 4. Update on Perna Lane

A. Brown advised the committee that the WPCA went before the Planning Board and Board of Finance with a Capital Project Appropriation Request in the amount of \$1,880,000 for funding for the Perna Lane project. These two boards approved the request. Approval from the Board of Representatives is needed. A project update was sent to all the residents of the Perna Lane area. A public information meeting will be scheduled for January. This will be a zoom meeting. We will set rules with a time limit for each speaker and will identify the rules at the beginning of the public comments. The design engineers will attend the meeting to explain the changes to the design and answer questions. WPCA will reach out to the property owner to discuss the location for the pump station.

#### 5. Update on Visit to Mattabassett District Water Pollution Control

WPCA visited the Mattabassett District Water Pollution Control Facility to see their incinerator. Things to consider with an incinerator: seems to be a complex and dirty operation; needs its own staffing to operate; does not remove PFAS; produces ash which needs to be disposed of; difficulty obtaining regulatory approvals.

## 6. Discussion on Plant Operations

R. Pudelka reviewed the Monthly Operating Report and Equipment Update with the Committee which is attached and made part of these minutes. He also advised the committee of the energy savings since the plant upgrades are in place. He compared the average energy use from FYs 2016 – 2020 with those from FYs 2021-2022. The energy usage decreased by 15% while energy costs increased by 19%.

### 7. Update on Engineering Studies and Designs

A. Brown provided the committee with a Capital Projects Update including engineering studies and designs which is attached and made part of these minutes.

- a. Infiltration & Inflow Removal Project
- b. Sludge Management Plan
- c. Engineering Design Services for Plant Water System and the RAS/WAS Pumping Systems
- d. RFQ for Evaluation of the Alvord Lane, Commerce Drive and Saddle Rock Pump Stations
- e. RFQ for the Design and Supply of a Standby Generator at Clay Hill Pump Station
- f. Perna Lane, Phase 1 Collection Sewers
- g. New Building for Collection System Staff (Bldg 6A)
- h. Structural Evaluation of the Columns in the Sludge Dewatering Building
- i. RFP for Architectural/Engineering Services for Locker Room Renovations at SWPCA

#### 8. Update on Construction Projects

A. Brown provided the committee with a Capital Projects Update including construction projects which is attached and made part of these minutes.

- a. Standby Generator for the Greenwich Ave. Pump Station
- b. Preliminary, Secondary and Disinfection Treatment Improvements
- c. Electrical Preventive Maintenance and Arc Flash Evaluation
- d. Sludge Degritting System Upgrade

#### 9. Old Business

#### 10. New Business

There being no further issues to discuss, E. Kelly made a motion to adjourn the meeting, seconded by S. Bagwin; motion carried 3-0-0. The meeting was adjourned at 5:01PM.



# DECEMBER 2022 TECHNICAL COMMITTEE REPORT

Monthly Operating Report data:	NOVEMBER Re	sults		
			Historical	
	This month	Last month	OCT	Permit Limit
	(NOV)	(OCT)	Monthly	
			AVG	
Q (FLOW) DAILY AVG MGD	13.0	13.4	15.2	24 MGD DESIGN AVG
Q PEAK FLOW RATE MGD	23.8	23.3	31.1	58 MGD MAX AVG
BOD INFLUENT AVG MG/L	297	305	254	
BOD INFLUENT AVG LBS/D	32,201	34,086		
BOD EFFLUENT AVG MG/L	2	3	3	
BOD EFFLUENT MAX MG/L	4	3		20 mg/L
BOD REMOVAL %	99.2 *	99.1	98.7	85%
TSS INFLUENT AVG MG/L	452	422	350	
TSS INFLUENT AVG LBS/D	49,006	47,161		
TSS EFFLUENT AVG MG/L	5	7	9	
TSS EFFLUENT MAX MG/L	8	9		20 MG/I
TSS REMOVAL %	98.7	98.4	97.1	85%
TOTAL N INFLUENT AVG MG/L	41.7	39.4	35.9	
TOTAL N INFLUENT AVG LBS/D	4521	4403	4460	
TOTAL N EFFLUENT AVG MG/L	2.50	2.43	3.37	
TOTAL N EFFLUENT LBS/D	274	272	430	926 LBS/D
N REMOVAL %	94.0	93.8	90.3	
TOTAL P INFLUENT AVG MG/L	6.35	6.4	5.09	
TOTAL P EFFLUENT AVG MG/L	0.24 *	0.30	0.78	
P REMOVAL %	96.2 <b>*</b>	95.3 <b>*</b>	83.7	
UV EXCEEDANCES <30 mJ/cm2	0	0		

# \* Tied or surpassed best historical performances for the month \*

# Plant Equipment Update

NRCY Pumps	One pump out at REM for servicing
Secondary Clarifier #2 & #4	Removed from service, drained, cleaned, replace gear oil & deteriorated bolts
Blend Tanks	Drained, cleaned, and inspected
Main Generator	New fuel pump & solenoids, new batteries and filters
Next Turbo Blowers	Airfilter change for all three
Tiger Flow Pumps	Replace deteriorated piping and air valve
Degritter Classifier	Trough welding repairs



# UPDATE OF CAPITAL PROJECTS TECHNICAL COMMITTEE MEETING December 14, 2022

## 1. UPDATE ON ENGINEERING STUDIES AND DESIGNS

## a. Infiltration Inflow Study

CDM Smith has completed the design of the sewer rehabilitation in subareas F1-1 and B1-3. The project has been advertised for bids with a due date of 12/20.

## b. Sludge Management Plan

WPCA visited the Mattabassett District Water Pollution Control Facility to see their incinerator. Things to consider with an incinerator: seems to be a complex and dirty operation; needs its own staffing to operate; does not remove PFAS; produces ash which needs to be disposed of; difficulty obtaining regulatory approvals.

- c. Plant Water, Return Activated Sludge (RAS) and Waste Activated Sludge (WAS) Gannett Fleming is working on the preliminary design report for the proposed system. WPCA is providing them with information about the plant operations and existing equipment so they can prepare a report.
- **d. RFQ for Evaluation of the Alvord Lane, Commerce Rd and Saddle Rock Pump Stations** We have selected a firm and are meeting with them in January to review the scope of services and fees.
- e. RFP for the Design and Supply of a Standby Generator at Clay Hill Pump Station We have the necessary permits for this project and can now go out to bid to size and supply the generator. Purchasing to issue a bid date.

## f. Perna Lane, Phase I Collection Sewers

WPCA issued an update to all the residents of the Perna Lane area. We will schedule a public information meeting in January. This will be a zoom meeting. At this meeting, we will have the design engineers explain the changes to the design and answer questions. WPCA will reach out to the property owner to discuss the location for the pump station.

## g. New Building for Collection System Staff

We received bids for temporary office trailers to locate the employees until a new building. We are working on a RFP for architectural services to design a small building to be used as office space for the collection system staff and the electricians - 12 employees. We are going to add renovation of the existing locker rooms to this RFP which is explained in item 1.i. This should go out shortly.

## h. Structural Evaluation of the Columns in the Sludge Dewatering Building

We are waiting for a report with plans, sections and details of the column repairs which we should receive shortly. This work will go out to bid.



## i. RFP for Architectural Services for Locker Room Renovations at SWPCA

We reviewed proposals from 5 firms for renovations to the locker rooms. The proposals all came in higher than we estimated therefore, we will reject the proposals and include this work in the RFP for an architect for the new collection system building. We hope to get better pricing by combining two projects at the plant.

## 2. UPDATE ON CONSTRUCTION PROJECTS

## a. Design-Build Standby Generator for the Greenwich Ave. Pump Station

WPCA, through the City's legal department, has reached out to the Contractor and asked again for the Contractor to provide any additional costs for this work so a Change Order can be negotiated. The Contractor has provided an estimate of additional costs which are very high. We are working with the law department to get from the contractor any work product that we paid for and then end the contract.

## b. Preliminary, Secondary and Disinfection Treatment Improvements

The project is complete. We will be proceeding with closeout of the project.

## c. Electrical Preventive Maintenance / Arc Flash

Tighe and Bond reviewed the compiled the information provided by Siemens and have asked for additional information. I am reviewing what is still needed and will forwarded the information to Siemens.

## d. Sludge Degritting System Upgrade

A Notice to Proceed was sent to CH Nickerson. A pre-construction meeting is being scheduled.

#### Change Order Log as of 12-14-22

Copy of Change Order log for construction projects is attached. No changes.

Preliminary, Secondary and Disinfection Treatment Improvements (Contractor – CH Nickerson) Original Value of Contract = \$26,751,500,00

Original value of Contract –	\$ 20,751,500.00
Total Approved CO Amount =	\$ 3,703,000.43
Contract Sum to Date =	\$ 30,454,500.43
Percent of total project =	13.8%

			PC	0			1				RFI		RFP	WCD		
CHN PCCOR No.	CHN PCCOR Date	Description	Contractor Amount	Status	Included in CO#	Total Approve Amount	Approved to Preliminary	Approved to Secondary	Approved to UV	Approved Date	No.	Date Issued	No.	Date Issued	No.	Date Issued
NA	NA	Replace the Issue for Bidding Specification Sections 00520 - Agreement and 00800 - Supplementary Conditions with the Attachched Specifications	\$-	Approved	1	\$				5/10/2019						
01 (rev)	6/21/2019	Programming Services Provider / Integration Services - Revised	\$ 194,922.00	Approved	2	\$ 194,922.0	0 \$ 48,340.00	\$ 110,000.00	\$ 36,582.00	7/9/2019						
02 (rev)	1/20/2020	Additional Plank Support Framing & Planking at UV Basin 1 Outfall	\$ 35,257.23	Approved	3	\$ 35,257.2	3		\$ 35,257.23	2/27/2020			H-01	11/19/2019		
03 (rev)	10/25/2020	Changes to Moment Connection at UV Canopy	\$ 4,076.36	Approved	3	\$ 4,076.3	6		\$ 4,076.36	12/12/2019	H-019					
05	11/18/2019	UV Pilasters	\$ 2,689.46	Approved	3	\$ 2,689.4	6		\$ 2,689.46	11/19/2019						
09	1/28/2020	Remove and Reinstal drain piping and electrical condtuionboxes in Blower Room to install new fire rated wall. Plans did not call for this work	\$ 28,473.69	Approved	3	\$ 28,473.6	9	\$ 28,473.69		4/7/2020					W-06	11/20/2019
11	2/21/2020	Add spool pipe to Septage Area	\$ 1,214.84	Approved	3	\$ 1,214.8	4 \$ 1,214.84			2/27/2020					W-03	11/20/2019
13	3/9/2020	Additional Rebar at UV Basin 1	\$ 21,447.91	Approved	3	\$ 21,447.9	1		\$ 21,447.91	3/15/2020					H-01	12/18/2019
17	4/14/2020	UV Power Panel Relocation	\$ 23,740.56	Approved	3	\$ 23,740.5	6		\$ 23,740.56		H-095	4/8/2020				
14	3/18/2020	Relocate Generator and Modify Bridge Crane per Building Department Request	\$ 83,080.40	Approved	4	\$ 83,080.4	0	\$ 83,080.40		8/19/2020						
18	6/19/2020	Replace Missing Hardware @ AT Bridges	\$ 5,082.33	Approved	4	\$ 5,082.3	3	\$ 5,082.33		8/19/2020						
19	7/14/2020	Provide Additional Thin Client Licensing & Integrate Existing Mixers per City Request	\$ 23,618.32	Approved	4	\$ 23,618.3	2	\$ 19,287.40								
16	4/4/2020	Credit for Redundant Breaker @ ATS	\$ (17,296.74)	Approved	5	\$ (17,296.7	4)	\$ (17,296.74)		9/23/2020						
21	8/7/2020	Add External Breaker for RSP-2	\$ 9,061.48	Approved	5	\$ 9,061.4	8 \$ 9,061.48			9/23/2020						
24	8/26/2020	Additional Tags for The GE Historian	\$ 8,590.02	Approved	5	\$ 8,590.0	2 \$ 2,863.34	\$ 2,863.34	\$ 2,863.34	8/26/2020	H-164	8/19/2020				
25	9/14/2020	Replace UV Channel #3 Inlet Gate	\$ 37,004.86	Approved	5	\$ 37,004.8	6		\$ 37,004.86	9/15/2020			H-02	9/3/2020		
27	9/15/2020	Install Missing Wiring to MX 60-6 & 60-12	\$ 16,235.90	Approved	5	\$ 16,235.9	0	\$ 16,235.90		9/23/2020						
28	9/15/2020	New Sampler Location at UV	\$ 5,232.89	Approved	5	\$ 5,232.8	9		\$ 5,232.89	9/17/2020	H-154	9/8/2020				
29	9/22/2020	Replace Missing WML support rods in Aeration tank 1- 4E/4W	\$ 4,869.75	Approved	5	\$ 4,869.7	5	\$ 4,869.75		9/23/2020						
31	9/22/2020	Test Soils for City Storage tent	\$ 1,525.86	Approved	5	\$ 1,525.8	6	\$ 1,525.86		9/23/2020						
20	8/21/2020	Cut Sumps in Aeration Tank Floors	\$ 37,083.78	Approved	6	\$ 37,083.7	8	\$ 37,083.78		10/5/2020						

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30	9/22/2020	Add Cable Tray and Bus Supports	\$	57,017.98	Approved	6	\$ 57,017.98		\$	57,017.98					12/2/2020			
33	10/2/2020	Replace Failing Straub Coupling (Existing)	\$	5,513.98	Approved	6	\$ 5,513.98		\$	5,513.98								
40	11/2/2020	Add Supports to Existing Pipe in Blower room	\$	16,024.43	Approved	6	\$ 16,024.43		\$	16,024.43			11/11/2020					
36	10/28/2020	Paint UV Steel Walkway at Basins 1 & 2 - Option 1	\$	12,145.53	Approved	6	\$ 12,145.53				\$ 1	12,145.53	12/2/2020					
37 (rev)	12/8/2020	Trench Cover at Spare Parts Building	\$	25,055.44	Approved	7	\$ 25,055.44				\$ 2	25,055.44	12/17/2020			H-03	10/5/2020	
41 (rev)	12/8/2020	Canopy Extension and Davit Crane	\$	36,975.66	Approved	7	\$ 36,975.66				\$ 3	36,975.66	12/17/2020			H-05	10/22/2020	
42 (rev)	12/8/2020	Maintenance Access at UV Electrode Sensors	\$	16,475.43	Approved	7	\$ 16,475.43				\$ 1	16,475.43	12/17/2020	RFI-159	8/4/2020			
44	12/22/2020	Electrical Power in Spare Parts Building	\$	13,554.20	Approved	7	\$ 13,554.20				\$ 1	13,554.20	1/8/2021			H-04	10/22/2020	
43	1/11/2021	Relocate Fire Alarm Conduit Around Door 1010c	\$	5,410.15	Approved	7	\$ 5,410.15	\$ 5,410.15					1/6/2021					
45	1/11/2021	Increase Conduit Size to CP-11	\$	1,191.24	Approved	7	\$ 1,191.24	\$ 1,191.24					1/12/2021					
48	1/21/2021	Add Bearing Cooling Water Gfeed to Influent Pumps	\$	16,267.28	Approved	8	\$ 16,267.28	\$ 16,267.28					3/1/2021					
49	1/29/2021	Unforseen Below Grade Condidtions @ RSPS	\$	19,244.40	Approved	8	\$ 19,244.40	\$ 19,244.40					3/1/2021					
46	4/8/2021	Demo Existing Embed at New Channel #3	\$	5,163.56	Approved	9	\$ 5,163.56				\$	5,163.56	5/2/2021					
50 (rev)	2/3/2021	(RFI-196) Heat Trace and Insulate 2" CW	\$	4,734.43	Approved	9	\$ 4,734.43				\$	4,734.43	5/26/2021					
52	3/15/2021	Control Mods to Ex. NRCY Pumps to Meet Code	\$	2,924.08	Approved	9	\$ 2,924.08		\$	2,924.08								
53	3/15/2021	Add EXP Motor to OH Door at RSPS	\$	2,815.39	Approved	9	\$ 2,815.39	\$ 2,815.39										
54	3/15/2021	Relocate HVAC Duct to Install Pump VFDs	\$	1,670.90	Approved	9	\$ 1,670.90	\$ 1,670.90										
55	4/8/2021	Assist in Opening Gate 5030	\$	3,710.78	Approved	9	\$ 3,710.78				\$	3,710.78	5/2/2021					
56	4/9/2021	Separate Power/Control on Existing Mixer and Pumps to Maintain Curent Code Complaince	\$	19,078.76	Approved	9	\$ 19,078.76		\$	19,078.76								
57	4/9/2021	Add Missing Wiring to New Ammonia Air Blast Kits	\$	9,299.78	Approved	9	\$ 9,299.78		\$	9,299.78								
58	4/9/2021	Delete UPS's @ Blower LCPs	\$	(2,057.30)	Approved	9	\$ (2,057.30)		\$	(2,057.30)								
60	4/20/2021	Emergency repair Assistance - Failed Gate at Primary DBox	\$	8,483.32	Approved	9	\$ 8,483.32	\$ 8,483.32										
61	4/30/2021	Handrail Around Opening at MWG for UV Channel #3	\$	2,105.85	Approved	9	\$ 2,105.85				\$	2,105.85	5/19/2021					
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62	5/10/2021 (RFI-157A) Grating Grounding at UV Basins	\$ 5,492.86	Approved	9	\$ 5	5,492.86			\$ 5,492.86	5/11/2021	157A					
64 (rev)	5/12/2021 (RFI-126) Accessibility of UV Transmittance Sensor	\$ 9,493.96	Approved	9	\$	9,493.96			\$ 9,493.96	5/13/2021	126					
65	5/12/2021 Sawcut Overhand in Stairs in RSPS	\$ 900.43	Approved	9	\$	900.43 \$	900.43									
66	5/12/2021 Rework Removable Railings at AT Mixers	\$ -	Approved	9	\$	-		\$ -								
67	5/12/2021 Add Supports @ Influent Channel for Aluminum Plating	\$ 5,315.63	Approved	9	\$ 5	5,315.63 \$	5,315.63									
68	5/12/2021 Notch Framing around new influent pump shafts @ 5 Locations	\$ 1,009.50	Approved	9	\$ 1	1,009.50 \$	1,009.50									
70	5/17/2021 (WCD-H-03) Encase Electrical and Hydraulic Conduit in Basin #2 (T&M)	\$ 23,166.63	Approved	9	\$ 23	3,166.63			\$ 23,166.63						H-03	
71	5/21/2021 Provide 7 MGD Clean Recirculated Flow at UV Basin #2	\$ 4,372.78	Approved	9	\$ 4	4,372.78			\$ 4,372.78	5/26/2021						
72 (rev)	5/21/2021 (RFI-222-H) Basin 2, Channel 3 Existing Wall Inconsistencies	\$ 8,436.33	Approved	9	\$ 8	8,436.33			\$ 8,436.33	6/6/2021	222					
74	5/28/2021 (RFI-167) Repair to Existing Concrete Beam at UV Effluent PS	\$ 42,048.45	Approved	9	\$ 42	2,048.45			\$ 42,048.45	6/6/2021	167					
63 (rev)	7/15/2021 Investigate/Repair Failed 42" Force Main	\$ 209,722.28	Approved	10	\$ 209	9,722.28 \$	209,722.28									
69 (rev)	7/15/2021 Install Temporary 24" HDPE Force Mains & Manifold	\$ 367,747.46	Approved	10	\$ 367	7,747.46 \$	367,747.46									
59	4/16/2021 Add Current Transformers to Blowers to Accept signal and monitoring of Amperage	\$ 24,700.84	Approved	11	\$ 24	4,700.84		\$ 24,700.84		6/10/2021	237					
75	6/9/2021 Replace Mixer Meltic Connector to Match New Mixers	\$ 7,330.29	Approved	11	\$ 7	7,330.29		\$ 7,330.29		6/10/2021						
77	7/12/2021 Re-align Pumps 4 and 5 per GA Fleets Recommendation	\$ 2,924.56	Approved	11	\$ 2	2,924.56 \$	2,924.56									
78	7/15/2021 Bypass Force Main Rental/Ops Costs 4/21/21 through 6/18/21	\$ 136,711.13	Approved	11	\$ 136	6,711.13 \$	136,711.13			8/11/2021						
80	7/29/2021 Paint Existing Bridge Crane runway beams and crane rail at UV Basin #2	\$ 8,221.33	Approved	11	\$ 8	8,221.33			\$ 8,221.33	7/29/2020			6	7/22/2021		
81	8/13/2021 Radar Level Sensor	\$ 2,407.75	Approved	12	\$ 2	2,407.75			\$ 2,407.75	8/18/2021					H-04	6/10/2021
83	8/13/2021 Delete Blower Room Floor Painting	\$ (12,915.20)	Approved	12	\$ (12	2,915.20)		\$ (12,915.20)		8/25/2021						
84	WCD-05-H UV PLC 8/18/2021 Programming Modifications - Add channel out of Service Status	\$ 7,691.61	Approved	12	\$ 7	7,691.61			\$ 7,691.61	8/24/2021					H-05	7/14/2021
85	8/24/2021 (RFI-256) Protection around Fixed Ultrasonic Sensors at UV	\$ 3,053.06	Approved	12	\$ 3	3,053.06			\$ 3,053.06	9/3/2021	256	7/8/2021				
89	8/27/2021 Add WiFi to Aeration Tank Instruments	\$ 15,421.01	Approved	12	\$ 15	5,421.01		\$ 15,421.01		8/30/2021						
90	8/27/2021 Replace Existing Plastic JBs on Aeration	\$ 10,997.74	Approved	12	\$ 10	0,997.74		\$ 10,997.74								
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92	Add Meltric Plugs AT NRCY Pumps	\$ 24,806.41	Approved	12	\$	24,806.41		\$ 24,806.41								
	Credit for Remaining Unit Price Item 4C - Surface Spall Repair		Approved	12	\$	(15,107.00)			\$ (15,107.00)							
	Credit for Remaining Unit Price Item 5C - Formed Spall Repair		Approved	12	\$	(35,000.00)			\$ (35,000.00)							
	Additional Unit Price Item 6C - Type I Crack Repair		Approved	12	\$	875.00			\$ 875.00							
	Credit for Remaining Unit Price Item 7C - Type II Crack Repair		Approved	12	\$	(3,750.00)			\$ (3,750.00)							
	Credit for Remaining Unit Price Item 8C - Type III Crack Repair		Approved	12	\$	(13,855.00)			\$ (13,855.00)							
	Credit for Remaining Unit Price Item 9C - Disposal of Polluted Soils		Approved	12	\$	(14,250.00)			\$ (14,250.00)							
	Credit for Remaining Unit Price Item 10C - Disposal of Contaminated Soils		Approved	12	\$	(21,750.00)			\$ (21,750.00)							
15	3/18/2020 Reroute roof drain from Screenings Building as required by the Stamford Building Department. Approved materials only. Labor to high so going T&M	\$ 6,912.20	Partial Approval	TBD		TBD	TBD			4/7/2020					W-01	
23	4/24/2020 Replace Cables for Gates Not Shown on Contract Drawing	\$ 5,893.78	Revisions Required													
76	6/15/2021 Increase Influent Pump VFD and Cabling	\$ 132,196.26	Approved	12	\$	132,196.26	\$ 132,196.26									
73	11/23/2021 Replace Primary D-Box Gates and Acuators	\$ 96,748.25	Approved	13	\$	96,748.25	\$ 96,748.25						01	11/22/2021		
94	11/23/2021 Realign RSP 1,2 &3	\$ 4,067.19	Approved	13	\$	4,067.19	\$ 4,067.19								37	9/27/2021
95	11/23/2021 Add light to CP-96	\$ 762.80	Approved	13	\$	762.80	\$-	\$ 762.80							26	12/15/2020
98	11/23/2021 Configure Hach Controller for WiFi Use	\$ 6,102.42	Approved	13	\$	6,102.42	\$ -	\$ 6,102.42							31	4/20/2021
99	11/23/2021 Add Aeration Blower VDV Alarm	\$ 2,674.05	Approved	13	\$	2,674.05	\$-	\$ 2,674.05							51	
105	11/23/2021 Add Neoprene Pads on Roof	\$ 2,370.74	Approved	13	\$	2,370.74	\$ 2,370.74				258				36	5/22/2021
106	11/23/2021 Provide Additional Roof Duct Supports	\$ 7,956.42	Approved	13	\$	7,956.42	\$ 7,956.42				288				54	10/7/2021
107	11/23/2021 Change Pipe Colors in RSPS	\$ 1,762.00	Approved	13	\$	1,762.00	\$ 1,762.00				289					
109	11/23/2021 SNEET Servoces Assist City	\$ 4,014.79	Approved	13	\$	4,014.79	\$ 4,014.79									
79	11/23/2021 Force Main Repair and Slip Lining Assistance		Approved	14	\$	1,302,438.55	\$ 1,302,438.55									
	Additional Work at Spare Parts Building Exterior Door		Pending													
97	10/1/2021 CP-11 Reprogramming for Washpress Operations	\$ 2,542.68	Approved	15	\$	2,542.68	\$ 2,542.68			1/4/2022						

110	12/10/2021 RSPS Building Additional Painting	\$ 12,098.9	2 Approved	15	\$ 12,098.92	\$ 12,098.92		1/4/2022			3 12/2/2021		
111	12/10/2021 Power Feed to Motor room OH Door	\$ 6,141.4	3 Approved	15	\$ 6,141.48	\$ 6,141.48		1/4/2022				57	11/17/2021
112	12/17/2021 Power Feed for Indirect Gas Fired Furnace	\$ 1,574.9	3 Approved	15	\$ 1,574.98	\$ 1,574.98		1/4/2022				62	12/9/2021
115	12/22/2021 Test and Replace Exisitng Gas Pipingat RSPS	\$ 10,802.1	5 Approved	15	\$ 10,802.15	\$ 10,802.15		1/4/2022				58	11/19/2021
116	12/22/2021 Install and Wire Exterior Pushbotton Station for OH Door 101A	\$ 771.4	Approved	15	\$ 771.44	\$ 771.44		1/4/2022				60	12/9/2021
117	1/3/2022 Programming Changes to Sequencing of Aeration Blower	\$ 1,557.3	Approved	15	\$ 1,557.39		\$ 1,557.39	1/4/2022				61	12/9/2021
119	1/6/2022 Remove NRCY Pump Temp Cabling	\$ 1,475.9	7 Approved	15	\$ 1,475.97		\$ 1,475.97	1/11/2022				59	11/19/2021
121	1/13/2022 Furnish and Install Horm and Strobe	\$ 5,407.7	3 Approved	15	\$ 5,407.73	\$ 5,407.73		1/11/2022				63	12/21/2022
122	1/10/2022 Integrate Fire Alarm Duct Smoke Sensors to Existing FACP	\$ 6,902.9	3 Approved	15	\$ 6,902.93	\$ 6,902.93		1/11/2022				63	12/21/2022
123	1/140/22 Misc SM Duct Modifications at Screenings/RSPS	\$ 8,848.5	3 Approved	15	\$ 8,848.53	\$ 8,848.53		1/11/2022				56	10/18/2021
124	1/20/2022 Configure Hach Controller for WiFi Use	\$ 2,987.6	5 Approved	15	\$ 2,987.65		\$ 2,987.65	1/25/2022					
125	1/26/2022 Explosion Proof Horn alt.	\$ 1,244.8	5 Approved	15	\$ 1,244.85	\$ 1,244.85							
	3/1/2022 Balance in Contract Item Quantities - Secondary Treatment Upgrade	\$ 6,378.7	3 Approved	16	\$ 6,378.78		\$ 6,378.78	3/1/2022					
	3/1/2022 Balance in Contract Item Quantities - Preliminary Treatment Upgrade	\$ 341,762.5	Approved	16	\$ 341,762.51	\$ 341,762.51		3/1/2022					
87	11/24/2021 Demo Cove Base in RSPS	\$ 5,553.4	4 Approved	16	\$ 5,553.44	\$ 5,553.44		3/1/2022				42	7/29/2021
93	9/21/2021 Add'l Wiring and Electrical Infrastructure for Mech Bar Screen Controls	\$ 14,316.5	6 Approved	16	\$ 14,316.56	\$ 14,316.56		3/1/2022	245	4/9/2021			
126	2/2/2022 Lightning Protection Repairs	\$ 5,455.1	Approved	16	\$ 5,455.19	\$ 5,455.19		2/22/2022					
127	2/24/2022 OH Door Wiring Credit	\$ (1,853.6	7) Approved	16	\$ (1,853.67)	\$ (1,853.67)		3/1/2022				57	11/17/2021
128	3/1/2022 ATC-H1 Wiring Revisions	\$ 6,501.3	3 Approved	16	\$ 6,501.38	\$ 6,501.38		3/1/2022				65	1/4/2022
129	3/1/2022 Power Feed to Low Flow Switch at Odor Control	\$ 2,942.8	) Approved	16	\$ 2,942.80	\$ 2,942.80		3/1/2022					
130	3/1/2022 Relocate Gas Detection Panel	\$-	Approved	16	\$ -	\$ -						64	
131	8/1/2022 Add'I electrical work per Building Official Inspection.	\$ 16,925.2	Approved	17	\$ 16,925.21		\$ 16,925.21					203	
132	8/1/2022 Add Supports to Raw Sewage Pump Pipe and Shaft System	\$ 47,191.0	3 Approved	17	\$ 47,191.08	\$ 47,191.08							

# Stamford WPCF Preliminary, Secondary and Disinfection Treatment Improvements Change Order Summary

134 10/25/2022	Replace/Add Exit Signs per Building Code Official	\$ 10,036.23	Approved	18	\$ 10,036.23 \$ 10,03	2.23			
				Total	\$ 3,703,000.43				