

February 23, 2022

Hugh Hayward
Principal Engineer – Division of Highway Design – Local Roads
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131

Dear Mr. Hayward,

On behalf of the Town of Fairfield, I am writing to request the addition of a right-of-way phase and funds for LOTCIP project L050-0002, the replacement of the Fairfield/Bridgeport Commerce Drive and State Street extension bridge (04225).

Due to the location of two car dealerships and repair shops on both sides of the bridge, permanent and temporary easements are necessary for this project to proceed. Temporary easements are required as construction will displace parked vehicles at both locations — a cost that the Town is not sure of. The Town anticipates that claims of lost business, relocating displaced vehicles and the need for additional paving may be costs associated with the temporary easement.

The following are the owners and properties that the Town has identified for temporary or permanent easements:

- 26 Commerce Drive Associates (Devan Infiniti Dealership): 26 Commerce Drive, Fairfield
- 65 Commerce Drive LLC (same owners as above; original owner was Arganese): 65
 Commerce Drive, Fairfield
- One Commerce Drive (Jaguar/Land Rover Fairfield): 1 Commerce Drive, Fairfield
- DERI (Jaguar/Land Rover Fairfield leases from DERI): 2170 Commerce Drive, Bridgeport

Therefore, we request that a Commitment to Fund letter be provided to the Town of Fairfield for an amount of \$200,000 to cover fees associated with the ROW process and permanent and temporary easements. The requested amount is based on costs associated with the recently completed Kings Highway project (L050-0001/hybrid federal). The following costs are from 2017 and have been adjusted for 4% annual inflation (with the exception of the easement estimate):

Item	Unit - 2017	Qty	Total	Inflation*
Title Search	\$350	4	\$1,400	\$1,736
Appraisals - Temporary Easements	\$3,000	4	\$12,000	\$14,880
Appraisals - Permanent Easements	\$2,000	4	\$8,000	\$9,920
Attorney/Legal Fees	\$1,500	8	\$12,000	\$14,880
Filing Fees	\$200	1	\$200	\$248
Estimated Easement Payout (all)**	\$150,000	1	\$150,000	\$150,000
			TOTAL	\$191,664

^{*4%} annually 2017-2022

Please contact me with any questions.

Regards,

Matt Fulda Executive Director

^{**}Inflation not included in easement estimate

Micro Grid 14 Points

Micro grid project has been ongoing since its design inception around 2015. It will power the Wastewater Treatment Plant and surrounding town buildings during a major weather event and will be able to do so without outside fueling or electrical resources. It was shut down in 2018 when contaminated soil was found, and the project could not continue until hardening and soil remediation was completed.

The Micro Grid project is lacking funds due to delays and prices increase from global supply disruption. This money will allow the work to be done to finish the project.

Primary make-up of the funds we need approval for are as follows

Change Order for approximately \$92,000, which is for labor and material costs to complete project.

Approximately \$19,000 for switches, boxes, wire and applicable supporting material to tie in Fire Training,

Conservation and Dog Pound. The solar power contractor used what was originally installed for this project and we now need to reinstall what is needed.

Approximately \$9,000 dollars to hook the 400 KW Fuel Cell into the control system of the Micro Grid. The Fuel Cell was not in service at the time of original design. For the safety of the system and UI workers, this needs to be done.

Costs are costs given to us by Schneider Electric and they are holding the attached pricing until May 8, 2022. This will help the town avoid further mark ups and over runs.

Future costs would be maintenance of the system components

No additional burden will be put on other existing facilities.

No alternates were explored, project is close to completion.

No safety or Environmental concerns

No insurance issues

One hundred percent funding from the WPCA fund balance, no bonding or Grants needed.

Project initially funded through a Grant, project completion date is September of this year.

Board of Selectmen March 21, 2022

Board of Finance April 5, 2022

RTM April 25, 2022?



WATER POLLUTION CONTROL AUTHORITY COMMISSION Draft Minutes

https://www.youtube.com/watch?v=YT8pwNaFJmA

A WPCA Regular meeting was held via Webex at 7:00 p.m. on Wednesday, February 16, 2022.

Present: Vice Chair Joseph D'Avanzo, Ron Drew, Chairman Mark Elletson, Nancy Lefkowitz 7:05, Tom McCarthy, Chris Steiner

Absent: Matt Manchisi

Also Present: WPCA Superintendent John Bodie, John Clancy WPCA Administrator/ Inspector, Larry Edwards, Dr. Lee, Lou Ann Moore, Attorney Chris Smith, Bob Wheway

1. Call to Order – Chairman Elletson called the meeting to order at 7:01 p.m.

Chairman Elletson welcomed Commissioner Tom McCarthy.

Joseph D'Avanzo motioned to move Item 4. 15 Unquowa Road to be heard after Item 2. Meeting Minutes approval. Chris Steiner seconded the motion which carried unanimously, 5-0. (D'Avanzo, Drew, Elletson, McCarthy, Steiner)

2. Bills and Communications - Approval of January 19, 2022, Regular Meeting Minutes

Chris Steiner motioned to approve the minutes. Ron Drew seconded the motion which carried, 3-0-2. (Drew, Elletson, Steiner in favor and D'Avanzo, McCarthy abstained)

4. Old Business

Consider and act on a request for a proposed 65 unit residential building at
 Unquowa Road to connect to the Fairfield Sewer System

Mr. Elletson gave background on the project and said the project originally came in as a much smaller development in 2020. There was much discussion on the feasibility of tapping into the 8" sewer line in front of the property. The Commission decided it was not a good idea and the discussion led to the applicant pursuing the pipe going out to the back of the property to Sanford Street. The Commission gave that conception conditional approval where the applicant was going to assess the feasibility. The Commission did that as an accommodation so the applicant could get the application before P&Z. He understands P&Z did not approve. The applicant has returned with different counsel and a different conception plan that is double the size of the original application presented in October 2021 as a schematic design without the flow monitoring information. That

information was captured in the fall and came to the WPCA in January 2022 indicating the proposed flows had a peaking factor would put this over an 80% threshold in the event of a half inch rain event. At the January meeting the Commission decided to discuss with Wright Pierce.

Mr. Bodie updated the Commission on those conversations. Mr. Bodie said he and Mr. Manchisi discussed the proposal with Dennis Dievert of Wright Pierce and it was agreed upon that the industry standard best practice is to use an 80% threshold and it is where we have to stand firm. They concluded that more flow monitoring would justify if it was an anomaly. Mr. Elletson said a conversation had taken place with the Town in regard to the pipe, usage, location and size 8" and that more monitoring was necessary. He believes it's the applicant's position is that we have had enough time to consider. The Commission expressed their concerns.

Attorney Chris Smith said the Commission said last month they were going to reach out to Wright Pierce in relative to the spike and the one data point that is out of sync. The applicant was told to do more monitoring although he doesn't know what that monitoring would involve and what would resolve the issue. He asked if WP had a written report, there was not.

Mr. Bodie said they reviewed all the data given the applicant submitted. He said we can't make a decision when we don't know what caused the spike. Mr. Smith said he doesn't know why his client would be responsible for \$1m worth of improvements based on one spike. He doesn't understand why they would be asked to do more monitoring when they have four months' worth of testing. He would also like to know where the standard is. Mr. Bodie said it an industry standard best practice. Mr. Smith added if we are being held to the 80% and we do more monitoring are you going to hold to that one day, then there is no reason to do further testing. He needs to understand what his client is asked to do and why.

Mr. Elletson said you were asked to do more monitoring and your client chose to remove those monitors. If more data was gathered we would have a greater source of information. Mr. Elletson said he understands his client does not want to increase the pipe capacity. The Commission said no at 35 units and now you are back at 65 units. Mr. Smith wanted to ask Mr. Edwards a serious of questions. Mr. Elletson said the cross-examination is not helpful. Mr. D'Avanzo noted there is a sewer service in the area.

Joseph D'Avanzo motioned to deny without prejudice the request for a proposed 65 unit residential building at 15 Unquowa Road to connect to the Fairfield Sewer System based on the flow data submitted where the calculated peaking factor exceeds the 80% capacity best practice guidance adhered to by the Commission. Tom McCarthy seconded the motion which carried, 5-0-1. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy in favor and Steiner abstained)

3. New Business

1. Consider and act on a request for a proposed 9 unit residential building at 321 Reef Road.

Bob Wheway presented the project. He said there is an existing two-story medical on site and is proposed to be converted to a residential development consisting of nine units. Flow monitoring was performed over a four week period at two locations. He said they reviewed the data from the maximum flow data and found an anomaly at one location. After reviewing, the testing company attributed it to a block sensor. He reported further calculations and flow rates in detail and the data was discussed.

Mr. Bodie hasn't had a chance to extensively review the application. He can have the pipe scoped tomorrow.

Joseph D'Avanzo motioned to defer the item "to consider and act upon the 9 unit residential building at 321 Reef Road" to a date certain of next month's meeting on March 16, 2022. Tom McCarthy seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner in favor)

2. Consider and act on bond release for 1143 Sasco Hill Road.

Tom McCarthy motioned to defer the item because it is not actionable. Nancy Lefkowitz seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

3. Consider and act on a revision to the flow monitoring requirement on the I&I Abatement Policy

No action taken.

4. Discussion on Budget for 2022-2023

The 2022-2023 budget was discussion in detail by account. Most lines increased. Mr. D'Avanzo and Mr. McCarthy will review over the next few weeks to assist Mr. Bodie.

a) Sewer Adjustments

1. Lou Ann Moore – 265 Riverside Drive

Joseph D'Avanzo motioned to adjust the 265 Riverside Drive sewer bill to the \$150 minimum and \$755.58 will be credited or refunded to Lou Ann Moore. Nancy Lefkowitz seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

2. Maria Zdru – 31 Garden Street

Joseph D'Avanzo motioned to credit Maria Zdru of 31 Garden Street \$190.77. Chris Steiner seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

5. Update on Current Projects

Mr. Elletson spoke with Mr. Marsilio regarding the Town hiring an engineer dedicated to WPCA work and activities. The position is open and an RFP will be issued for 20-30 hours of external support for Mr. Bodie and his team to move forward with projects particularly since prices are going up.

Mr. Bodie went through projects in priority order.

The Microgrid has an added cost of \$9,000 to integrate the field cell. Pricing will be held until May 8th. The funding approved last month and this month must be presented to the BOS, BOF and RTM.

Joseph D'Avanzo motioned to add the agenda "a vote to consider and approve \$9,000 for the additional fuel bill". Tom McCarthy seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

Joseph D'Avanzo motioned to approve up to \$9,000 to be expended for the connection of the fuel cell. Tom McCarthy seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

6. Status Update on Sewer Bypasses – none.

7. Adjournment

Ron Drew motioned to adjourn at 8:19 p.m. Tom McCarthy seconded the motion which carried unanimously, 6-0. (D'Avanzo, Drew, Elletson, Lefkowitz, McCarthy, Steiner)

Respectfully submitted,

Sheila Tesei Recording Secretary

Micro Grid

120,000 dollars approved by the WPCA commission for the following costs due to project delay and supply costs.

Approximately \$92,000 dollars, from a change order in 2021, Micro Grid project work was stopped and could not resume until the Hardening of the Plant was completed. Completion was slowed as the site was found to have contaminated soil in numerous areas.

Approximately \$19,000 dollars for switches, boxes, wire, and applicable supporting material to tie in Fire Training center, Conservation building and Dog Pound. This equipment was installed, but all of it was utilized when solar power was installed at these locations, so this is an add-on to the WPCA that we are absorbing.

Approximately \$9,000 dollars to tie the fuel cell into the Micro Grid. The Fuel Cell was not installed at the time the design was drafted, for the safety of the system and the UI workers; this piece of equipment needs to be integrated.

Pricing is being held until May 8, 2022

Bodie, John

From: Pulie, Laura

Sent: Thursday, December 9, 2021 8:43 AM

To: Bodie, John

Subject: FW: Schneider Change Order TOF Microgrid

Hi John,

We should talk about this additional fee that I thought would be covered with the overcharge of \$118,000. I was wrong. They had credited it back to us back in 2020, but it is still part of original cost of project.

They had submitted a change order for \$235,000 and Bill Norton got \$144,000 of it approved because I had thought we had a credit of \$118,000 which we did not end up having.

So question is, could you cover the \$91,000 for the remainder of this change order.

Thank you.

Laura

From: Jeffrey Hager < Jeffrey. Hager@se.com>
Sent: Wednesday, December 8, 2021 3:22 PM
To: Pulie, Laura < LPulie@fairfieldct.org>

Subject: RE: Schneider Change Order TOF Microgrid

Laura.

As discussed, the change order needed for Yankee Elec for the re mobilization, parts/labor increases was \$235K.

You PO update was only for \$144,388.43 **(\$91,166.57 missing)**. I think you stated that you had requested the full \$235k and it was approved.

You mentioned an overdue payment with Dale of \$118K but that was credited back in feb 2020. This is also a different type of issue because that is an over payment and not the overall job price total anyway.

I did not book the \$144K yet as a partial booking. I was waiting on the full amount in the PO increase. Can we get the PO update for the full \$235K so I can issue that to Yankee elec? Or if easier, you can keep the \$144K and add the \$91K as a new one. Either way I need this \$235K total first before we address the other separate issues.

Best regards,

Jeff Hager

Jeff Hager, PMP

Project Manager Digital Power North America Operations Schneider Electric

D 1+ 404-630-9138 M 1+404-630-9138 E jeffrey.hager@se.com Customer Care 615-287-3400

6700 Tower Circle Suite 700. Franklin, TN 37067 United States



YANKEE ELECTRIC

Mr. Jeffery Hager Schneider Electric 6700 Tower Circle Suite 700 Franklin, TN 37067

September 16, 2021

Revised 12,7,2021

Re: Town of Fairfield MicroGrid Added Safety Switches

Dear Mr. Hager,

These changes were initiated by the owner / architect / builder at various job meetings, by fax or phone or verbally. These items were not specified on the bid plans and therefore not included in the original quotation and /or contract.

The following is our scope of work related to the adding of fused safety switches at three locations to be in compliance with the National Electric Code with regard to solar interconnects. The following buildings are included:

- 1. Connecticut Fire Training, 800 amp, 3-phase, materials and labor......\$ 8,050.00
- 2. Animal Control Facility, 400 amp, 3-phase, materials and labor......\$ 5,750.00
- 3. Conservation Workshop Building, 200 amp, 3-phase, materials and labor......\$ 5,175.00
- 4. Labor to install

Total all Locations...... \$ 18,975.00

Notes:

- 1. Sales tax is not included.
- 2. Installation is as per the one line Schneider Electric drawing dated 5-6-2021

Sincerely, Yankee Electric Construction Co Inc

Pay Barry

Ray Barry

E1-103043, NY-1500

President

Accepted:

Date:

From:

Ray Barry

To: Cc:

William Sawyer

cbarry@yankeeelectric.com; bbosco@yankeeelectric.com

Subject:

Town of Fairfield Waste Water

Date:

Thursday, February 3, 2022 4:49:35 PM

[External email: Use caution with links and attachments]

Dale,

We have looked at adding a fiber link to the Direct Transfer Trip unit at the fuel cell. The following work would be involved:

- Saw cutting existing pavement 15 feet and remove
- Excavate a new trench to the side of the building
- Cut and remove the concrete encasement around the existing in ground box
- Install anew one inch conduit underground, up to a box and then to the existing Scada panel
- Install concrete over the conduit in the trench
- Back fill and replace pavement
- Install this section of fiber cable, add one fiber terminal box and terminate the fiber

Total cost labor and materials.....\$ 6,385.00

Regards,

Ray

Ray Barry Yankee Electric Construction Co. Inc P 203-259-5499 F 203-259-4278 C 203-543-7980 Em rbarry@YankeeElectric.com

CT 103043, NY 1500

Schneiderk of solo

Compost Agitator 14 points

The Town processes its sludge through the onsite composting process and has been doing so since 1989. The original design utilized 2 machines, they were replaced with one unit in 2005. The major component is the Agitator that mixes and moves the sludge/woodchip blend through the building for it to undergo the breakdown of the sludge and to destroy bacteria.

The Agitator needs to be replaces due to age; this will ensure continued and uninterrupted processing of sludge. The machine is subject to a corrosive atmosphere on a daily basis, and the deterioration is causing internal structural issues.

The Agitator, transport dolly and controls will be replaced with the latest innovations and technologies.

Drawings and descriptions are attached.

BDP has provided the cost for the replacement, and are the manufacturer of our current machine.

Future costs are maintenance and repair as required.

No additional demand on any existing operation, building or labor.

Alternates to not replacing the unit would to haul liquid sludge and or a dried, cake type sludge. I have attached supporting explanations and costs for comparison.

Safety, no issues.

No environmental impacts anticipated.

Insurance – no impact

New Agitator funding has been completely funded from the WPCA fund balance, no grants or bonding needed.

Lead-time for a new agitator is 48 weeks.

Board of Selectmen March 21, 2022

Board of Finance April 5, 2022

RTM April 25, 2022?



WATER POLLUTION CONTROL AUTHORITY COMMISSION Draft Minutes

https://www.youtube.com/watch?v=MVSCUgZoBbY

A WPCA Regular meeting was held via Webex at 7:00 p.m. on Wednesday, January 19, 2022.

Present: Ron Drew, Chairman Mark Elletson, Nancy Lefkowitz (8:00 p.m.), Matt Manchisi, Chris Steiner

Absent: Vice Chair Joseph D'Avanzo, Tom McCarthy

Also Present: WPCA Superintendent John Bodie, John Clancy WPCA Administrator/Inspector, Larry Edwards, Dr. Lee, Attorney Chris Smith

1. Call to Order – Chairman Elletson called the meeting to order at 7:00 p.m.

Chairman Elletson welcomed Chris Steiner and Tom McCarthy both of whom have much experience and will be an asset to the Commission on numerous projects.

2. Bills and Communications - Approval of December 15, 2021, Regular Meeting Minutes

Ron Drew motioned to approve the December 15, 2021, Regular Meeting Minutes. Chris Steiner seconded the motion which carried, 4-0-1. (Drew, Elletson, Manchisi Steiner in favor, Lefkowitz abstained)

3. New Business

a) Consider and act on a funding request to replace the Agitator and Dolly at the WWTF

Mr. Clancy reported the existing equipment was installed in 2006 and at the end of its useful life. It is a critical component to process sludge. If this equipment fails, the costs could be considerable. Mr. Bodie confirmed the equipment would not be considered obsolete when the proposed plant upgrade is initiated. There is only one company that can provide the equipment, therefore the equipment will not go out to bid. The lead time is substantial, 48 weeks. Mr. Bodie gave an overview of installation responsibility and aspects that require Town involvement.

Chris Steiner motioned to approve an expenditure of \$540,000 to replace the Agitator and Dolly at the WWTF to be funded from the WPCA operating account. Nancy Lefkowitz seconded the motion which carried unanimously, 5-0. (Drew, Elletson, Lefkowitz, Manchisi, Steiner)

b) Sewer Adjustments

139 Short Hill Lane – Maria Donn

Mr. Clancy briefed the Commission on the issue.

Ron Drew motioned that Maria Donn of 139 Short Hill Lane receive a credit of \$258.75 toward next year's payment. Chris Steiner seconded the motion which carried unanimously, 5-0. (Drew, Elletson, Lefkowitz, Manchisi, Steiner)

4. Old Business

 a) Consider and act on a request for a proposed 65 unit residential building at 15 Unquowa Road to connect to the Fairfield Sewer System

Mr. Elletson supplied background on the application. He said the applicant previously presented to the Commission most recently in October regarding the proposed modification for an acceptable pipe capacity and additional flow monitoring. He's not sure the WPCA Department has had a chance to review and indicated he does not have enough information to make a decision tonight.

Chris Steiner agreed to listen to the presentation but would recuse himself from voting.

Attorney Smith indicated in October, the client's intent to develop a 100% residential building consisting of 65 dwellings that would have a related capacity of 9,206 gallons per day. He said at the December 9th meeting the Commission gave conditional approval of a conceptual plan for a mixed use development with a commercial component and required the client to upgrade the line from 8" to 10" the cost being borne by his client. He said they are looking for confirmation of capacity with what his client wants to do with the property without upgrading the pipe at a potential cost of over \$1m.

Mr. Elletson disagreed with Attorney Smith's summary and that the Commission was not in favor of approving a smaller project based on 81%. He clarified the idea was the Commission approved conditionally that the applicant find a work around. Their concern at the time was that someone would say they approved this. The Commission never indicated going through an 8" pipe was a good idea, especially in this area.

Larry Edwards referred to the updated data report dated January 17, 2022, which was broken down in two phases. He presented a detailed analysis of the monitoring locations, rain events, readings, comparisons and capacity.

The Commission is concerned with eliminating test data because the applicant considers some test results to be an anomaly and questioned responsibility of cleanup costs. Attorney Smith believes there is more than adequate capacity. Mr. Elletson deferred to what Mr. Norton had said at a prior Commission meeting, that we would never approve anything over 80%.

Mr. Elletson proposed we engage Wright Pierce, at Commission expense, to review since they understand the terminology and flow and could give us direction on how to go forward. If we allow it to go forward, we would want some sort of protection that the applicant pay for pipe replacement. Mr. Drew agreed that it is in the middle of town and close to 80% and wants a professional review. Mr. Manchisi added March through May would include more rain events and in the newest flow monitoring report, the downstream photo looks like its 40-50% capacity now without adding additional homes to it. Attorney Smith respectfully requests if we send for a third party review that it is as soon as possible. Mr. Elletson agreed that time is of the essence. Mr. Bodie will give the package to Wright Pierce and contact the applicant.

5. Update on Current Projects

Mr. Elletson said we don't have internal capacity to undertake these significant major projects. Laura Pulie is retiring shortly and the Engineering Department staffing is thin. WPCA needs an RFP to get a third party to act as an owner's rep for the Town so the projects get scoped appropriately, on time and on budget. They would guide the Commission through the process and work with staff. Mr. Drew would like an ETA on the projects. Ms. Lefkowitz said it is critical to get support for the success of the projects. Mr. Bodie will act as liaison on this and report back next month. Mr. Manchisi will work with Mr. Bodie to work up an RFP.

Mr. Clancy reviewed the status of projects. Mr. Elletson requested the East Trunk Inceptor be added to list.

Chris Steiner motioned to add two budget items to the Agenda; "Funding for Hardening Project and Funding for Micro Grid Project". Matt Manchisi seconded the motion which carried unanimously, 4-0. (Drew, Elletson, Manchisi, Steiner)

a) Funding for Hardening Project

Mr. Clancy will send documentation to the Commission. No action taken.

b) Funding for Microgrid Project

Yankee microgrid project is short \$91,156.57. There is another component for labor and materials for work at the Fire Training Center, Conservation and Animal Control equaling \$18,975; these Town departments are not funding. The total number is \$111,000. Work needs to be done in order to get the microgrid to operate and the pump station powered up behind the Conservation building. This is the last item on the Microgrid. There was further discussion on allocating costs and expenses.

Mark Elletson motioned to approve up to \$111,000 to complete the work on the Microgrid. Matt Manchisi seconded the motion which carried unanimously, 4-0. (Drew, Elletson, Manchisi, Steiner)

6. Status Update on Sewer Bypasses – none.

WPCA charge back and Town allocating more expenses to WPCA will be discussed next month. Mr. Clancy will discuss the waste water bills with the CFO. He will furnish the budget book to Commission for the next meeting.

Mr. Manchisi thanked Mr. Bodie for giving his Cub Scout Troop a tour of the WWTP.

7. Adjournment

Matt Manchisi motioned to adjourn at 8:33 p.m. Chris Steiner seconded the motion which carried unanimously, 4-0. (Drew, Elletson, Manchisi, Steiner)

Respectfully submitted,

Sheila Tesei Recording Secretary The WPCA approved \$540,000 dollars for a new Compost Agitator. The system was originally supplied with two machines in 1989 and were replaced by a single unit at the end of 2005 (16 years old). We are now in need of a replacement machine as the current one is at the end of its useful life (@16 years). We were hoping to get it replaced during the plant upgrade, but that is still at least 3-4 years at best, hence the reason its replacement was not addressed using our yearly Capital project account. The lead-time for a new machine is 48 weeks, and the issues the machine has been having is troublesome and increasing. The alternative to Composting is to haul dewatered sludge to an incinerator. I talked to Pat Rimkoski at Synagro, who is the broker for sludge incineration, she has told me that there is not an operating incinerator that could accommodate us long term, if at all.

If the Agitator were to become inoperable due to catastrophic failure, I have attached a cost estimate if we were to haul our sludge in two forms for one full year. Subject to change, as fuel prices are increasing, as well as operating costs at the facilities that process the sludge.

Liquid sludge hauling estimated cost.

Average price paid from 2021 study is \$0.11 per gallon

We would need to truck 30,000 gallons per day, multiplied by six days a week equals 180,000 gallons a week. Multiplied by 52 weeks a year would be 9,360,000 gallons a year.

9,360,000 / 6,200 gal per tanker = 1511 tankers per year.

 $9,360,000 \times $0.11 = $1,029,600 \text{ per year}$

Sludge cake hauling estimated cost.

Best guess cost per wet ton is \$125.00

We produce 15 wet tons per eight-hour day, multiplied by 6 days a week equals 90 wet tons. 90 tons multiplied by 52 weeks would equal 4,680 wet tons a year.

4,680 tons x \$125.00 = \$585,000 per year

At the present time, there is no room at any incinerator in the state that would be able to accommodate our needs. If there were room at one, we would need to send them 19% solids. In order to meet those criteria, we would need to run our dewatering operation slower, increasing time run per day. We would then run into added costs for overtime.

Liquid Sludge H	Liquid Sludge Hauling & Disposal Survey 2021	rvey 2021			
Facility	Contact	e-mail	Vendor	cost	Comments
New Canaan	Jim Rogers	james.rogers@newcanaanct.gov	Synagro	.1134/gal	6100 gals/load @ 6% solids
Glastonbury	Chuck Bohaboy	chuck.bohaboy@glastonbury-ct.gov	Wastewater Services Inc.	0.9967/gal	0.9967/gal 6500gals/load 5% to 7.9%
The latest and the la			1997 Bedford Street		Price change below 5% or more than the 7.9%
			Bridgewater , MA 02324		
Westport	Manny Furtado	mfurtado@westport.gov	J&M Transfer	.1189/gal	
			315 Nooseneck Hill RD.		
			Exeter RI. 02822		
East Windsor	Art Enderle	<u>aenderle@eastwindsorct.com</u>	Synagro	0.1353	0.1353 6100 gals./load @ 6% solids
Southwindsor	Tony Manfre	Anthony.Manfre@southwindsor-ct.gov	H.I. Stone	.083/gal	@ 4-4.9%
			313 Main Street N	.092/gal	@ 5-5.9%
			Southbury, CT 06488	.103/gal	@ 6-6.9%
Stafford	Rick Hartenstein	hartenstein@staffordct.org	See comments	10.3/gal	Plant personnell hauls loads to MDC @ 6%
					\$280/dry ton to MDC
Fairfield	John Bodie	jbodie@fairfieldct.org	N/A		Sludge is composted
Stamford	Bill Brink	wbrink@stamfordct.gov	N/A		N/A requests spreadsheet results
Meriden	Frank Russo	Frusso@meridenct.gov	N/A		N/A requests spreadsheet results
Norwich	Larry Sullivan	larrysullivan@npumail.com	N/A		N/A requests spreadsheet results
Brian Armet		barmet45@msn.com	N/A		N/A requests spreadsheet results



Date:

January 5, 2022

To:

Fairfield WPCF

330 One Rod Highway Fairfield,CT 06824

Attn:

John S Bodie

Superintendent

Phone:

203-256-3140

Fax:

203-256-3127

E-mail:

jbodie@fairfieldct.org

Subject: Fairfield, CT

50 HP Narrow Bay Agitator and Dolly

BDP Quotation #: 010522-0747

John.

BDP is pleased to supply this firm priced quotation for a new Agitator, Dolly and festoon system for the Fairfield Compost Facility. The new agitator and dolly will include all recent design improvements and we have included provisions for providing complete installation except for the manlift and crane requirements at the Fairfield site. Below is a summary description of the proposed scope of supply.

EQUIPMENT DESCRIPTION

- 1. One (1) Narrow Bay Agitator with the following design features:
 - a) Designed to fit a bay depth 6 feet -0 in (Top of Rail) x @ 250 ft long (over pit) with bay walls of 6" wide.
 - b) 50 HP hydraulic power unit.
 - c) 460 Volt/ 60 Hertz/ 3 Phase.
 - d) Hydraulic four wheel drive.
 - e) Hardox[™] Conveyor Flights.
 - f) 304L stainless steel conveyor deck.
 - g) 304L stainless steel hardware.
 - h) Conveyor frame with Hardox[™] in high wear areas.
 - i) 304L stainless steel drum
 - i) Weld hardened steel drum tine mounts.
 - k) Hydraulically driven cable reel.
 - I) Capacity optimization gate ready if desired in future
 - m) Local Agitator panel
 - 1. 304L stainless steel,
 - 2. NEMA 4X
 - 3. Allen Bradley Compact Logix PLC.
 - 4. Allen Bradley 6" color Panelview OIT.
 - 5. Selector switches and buttons.



- Radio communication with the Dolly panel.
- n) Painted ASTM A36 steel frame.
- o) PVC electrical conduit.
- p) TNEMEC high build epoxy 104 series paint.
- q) New tubular steel conveyor frame design cross members in place of channel steel.
- r) New conveyor shaft idler bearing seal guard.
- s) New dual canister hydraulic oil return filter.
- t) New stainless steel enclosure for housing the valve stack with valves labeled.
- u) New extreme dirt environment cooler for power unit.
- v) New external lighting for improved visibility if servicing unit in bay.
- w) New wheel drive power flow limiters.

See attachment for further details on these new features.

- 2 One (1) Transfer Dolly with the following design features:
 - a) ASTM 500 tubular steel frame.
 - b) TNEMEC high build epoxy 104 series paint.
 - c) Automatic electrically driven bay changes.
 - d) Four-wheel drive.
 - e) 304 stainless steel hardware.
 - f) Access platforms on both sides of dolly.
 - g) Local Dolly panel
 - 1) 304L stainless steel,
 - 2) NEMA 4X
 - 3) Allen Bradley Compact Logix PLC
 - 4) Allen Bradley 10" color Panelview OIT.
 - 5) Radio communication with the Agitator panel.

The Agitator and Dolly will come completely factory-assembled, tested and will be shipped in two pieces. The Dolly catwalks and stairs will be packed separately for installation by BDP staff at Start Up (with assistance of Fairfield Loader)

One (1) Festoon Power Supply to Dolly Panel

Complete new system including:

- Dolly festoon system with 60 feet of travel,
- (1) 100 amp feed service for connection to customers original Junction Box Presumed to be located on either the North or South building wall.

The festoon system will carry power wiring only. All communication between the new unit and the AgitaAer facility SCADA system will be now be done via radio with this scope of work. BDP shall be responsible for installing the festoon power cable and trollies and making



terminations in the feed JB as well as the Dolly panel. All interconnecting wiring, conduit and hardware between from the festoon power feed JB and Motor Control Center (MCC) should be confirmed by Fairfield to be in good working order and properly rated for the 100 amp service. Fairfield to supply a man-lift for BDP's use for this installation.

- 4. One-year mechanical warranty.
- 5. Operation and Maintenance manuals: One (1) hard copy and one (1) digital copy on thumb drive.
- 6. Ten (10) days of on-site services for start-up and operator training spread over two trips
- 7. Freight to the jobsite.

ITEMS NOT INCLUDED IN THIS SCOPE OF SUPPLY

- 1. Crane for unloading equipment at the jobsite.
- 2. Manlift for festoon system installation at jobsite.
- 3. Applicable taxes of any kind.

SUBMITTAL DATA

Submittals will be made in the number of copies specified and will be available within 4 to 8 weeks after firm purchase order and all information is received at the factory.

SHIPMENT

Approximate shipping weight of the unit is 25,000 pounds. Estimated shipping time is 48 weeks after receipt of submittal approval.

FIELD SERVICE

Installation observation, testing and operator instruction services as listed above will be supplied. Additional service can be supplied at a service rate of \$1,200 per day plus travel expenses.

PRICING

The price for the above equipment is \$_____Dollars. This price includes the shipping cost to the job site. The price does not include unloading cost and applicable taxes of any kind. This estimate will be valid for 1 year from the date of this proposal.



TERMS

Terms of payment are 30% upon receipt of purchase order, 60% upon shipment of equipment and 10% upon start up.

We appreciate this opportunity to extend our quotation. If we can answer questions or supply additional information, please do not hesitate to contact me at (518)-441-0141.

Sincerely,

Richard Nicoletti BDP Industries, Inc.

cc: A.J. Schmidt, BDP Industries, Inc. Tim Bezler - Carlsen



Date:

4 January 2022

To:

Fairfield WPCF

330 One Rod Highway Fairfield,CT 06824

Attn:

John S Bodie Superintendent Ph: 203-256-3140 Fax: 203-256-3127

e-mail: jbodie@fairfieldct.org

Subject: Agitator and Dolly Upgrades

John,

BDP Industries provides the following information detailing upgrades to the agitator and dolly since Fairfield's last machines were purchased in 2006. These upgrades have improved equipment reliability, performance, and ease of operator use.

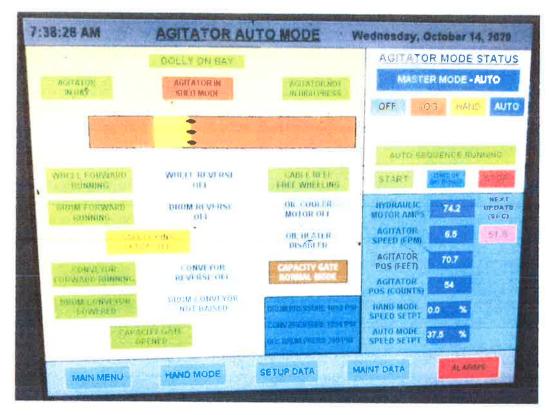
Controls and Electrical

- AGITATOR CONTROL FROM DOLLY PANEL.
 - a. Dolly panels now have Allen Bradley PanelView 7 touch screen protected by stainless steel housing with window.
 - b. Displays important agitator operational information such as pressures, agitator speed/position, and component status.
 - Easier identification of scenarios such as jams, spinning agitator wheels.

c. Agitator can be driven back to dolly from the dolly panel, saving time and limiting staff time out in the bays.







- 2. UPGRADED AGITATOR AND DOLLY PLCs.
 - a. Upgrade to Allen-Bradley CompactLogix PLCs.
 - b. Improved operational consistency.
 - c. Easier troubleshooting.
- 3. WIRELESS COMMUNICATIONS BETWEEN AGITATOR AND DOLLY PLCs.
 - a. Allows for agitator control from agitator and dolly panel.
- 4. CONTROL TRANSFORMER MOVED FROM DOLLY TO AGITATOR PANEL.
 - a. No need to power ARU retrieval cart from agitator panel, which allows for a smaller transformer.
- 5. AGITATOR PANEL REDESIGN WITH TOUCH SCREEN, SELECTOR SWITCHES AND BUTTONS
 - a. Improves operator friendliness and controls redundancy/reliability



RESET

BRUH

SET SCREEN

BRUH

SET SCREEN

BRUH

SET SCREEN

BRUH

SET SCREEN

SET STREEN



HAND

HYDRAULIC PUMP

AUTT

- a. No longer required to supply low voltage to agitator panel due to transformer change.
- b. 5 conductor instead of 8 conductor slip ring.

7. ADDED LIGHTING.

a. Improves observation during operation as well as during maintenance.

DRUM/CONVEYOR

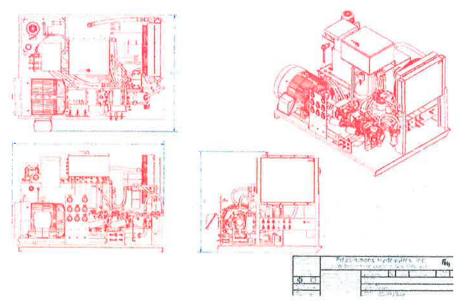
LEVEL HED GATE.





Hydraulics

- 8. HYDRAULIC RETRIEVAL SYSTEM BUILT INTO POWER UNIT.
 - a. Mounted on agitator in hydraulic tank.
 - b. No longer necessary to wheel out ARU retrieval cart in case of hydraulic system failure.



- 9. PRESSURE TRANSDUCERS INSTEAD OF PRESSURE SWITCHES ON DRUM, CONVEYOR, SECONDARY DRUM.
 - a. Pressure settings can be observed and adjusted from the dolly panel screen.
 - b. No longer need to adjust pressure settings manually on the agitator with a wrench.



10. DUAL RETURN OIL FILTER CANISTERS

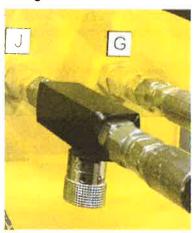
- a. Improves efficiency of oil cooler
- b. Reduces build-up inside cooler
- c. Much easier to access than previous versions located inside oil tank





11. HYDRAULIC OIL FLOW LIMITERS.

- a. Better balances flow to the (4) agitator wheel drives.
- b. Prevents wheels from excessive spinning due to lack of flow to opposite side drives.
- c. Improves agitator speed through wet material.



12. EXTREME DIRT ENVIRONMENT COOLER FOR POWER UNIT

- a. No longer requires air filter
- b. Reversing capability for improved cleaning





13. STAINLESS STEEL ENCLOSURE HOUSING FOR VALVE STACKS

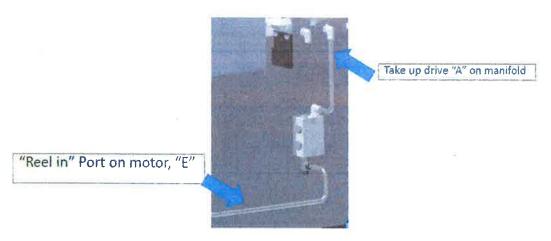
- a. Reduces corrosion on both electrical and mechanical portions of the valve assemblies
- b. All valves labeled to reduce troubleshooting and maintenance time





14. CABLE REEL UNWIND METHOD UPGRADE.

- a. Change to pressure relief system instead of flow control.
- b. Maintains consistent tension during unwinding for lessened strain on power cable and reel for prolonged cable longevity.
- Suggested install similar to this image
- · Does not need to be on the reservoir, can be on bulkhead, motor, etc.



Mechanical

- 15. INCREASE FROM 10" TO 12" DOLLY WHEELS.
 - a. Improved traction and clearance.
 - b. Accommodates shaft mounted gearboxes
- 16. DUAL SHAFT MOUNTED DOLLY GEARBOXES.
 - a. Upgrade to Nord gearboxes for dual dolly drive.
 - b. Eliminates chain drive.





Please do not hesitate to reach out with any questions about any of the above changes.

Sincerely,

Richard Nicoletti, PE. BDP Compost Systems Manager (518) 441 0141

cc: Socrates Fronhofer, BDP Industries, Inc. Jake DeFoe, BDP Industries, Inc.

	BDP - Expenditures 2017-2022								
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022			
	\$ 6,200.00	\$ 1,000.00	\$ 1,970.97	\$ 7,797.70	\$ 893.89	\$ 875.29			
	\$ 1,956.39	\$ 2,861.31		\$ 1,500.00	\$ 742.26	\$ 1,237.55			
	\$ 11,565.76	\$ 12,248.67			\$ 912.49	\$ 6,037.98			
	\$ 2,445.00	\$ 36,000.00			\$ 1,924.92	\$ 688.41			
	\$ 25,500.00	\$ 2,768.50			\$ 1,116.01	\$ 8,529.61			
	\$ 100.00				\$ 7,505.38	\$ 626.66			
	\$ 2,400.00				\$ 1,500.00				
	\$ 1,200.00				\$ 2,999.80				
	\$ 1,200.00				\$ 130.42				
Totals	\$ 52,567.15	\$ 54,878.48	\$ 1,970.97	\$ 9,297.70	\$ 17,725.17	\$ 17,995.50			

^{**}Lump Sum of last 5 years expenses \$154,434.97