



VILLAGE OF TWIN LAKES

105 East Main Street P O Box 1024 Twin Lakes, Wisconsin 53181
Phone (262) 877-2858 Fax (262) 877-4019

SPECIAL VILLAGE BOARD MEETING

Monday, May 9, 2022 @ 5 p.m.

Village Hall, 105 E. Main Street, Twin Lakes, WI

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL: TRUSTEES ANDRES, BOWER, FITZGERALD, KAROW, KASKIN, PERL, PRESIDENT SKINNER
4. Discussion and consideration of a motion to replace aeration disks at the wastewater facility.
5. Discussion and consideration of a motion to blast and recoat piping and beams at the wastewater facility.
6. ADJOURN

MATTERS MAY BE TAKEN IN ORDER OTHER THAN LISTED

Requests from persons with disabilities, who need assistance to participate in this meeting or hearing, should be made to the Clerk Treasurer's office in advance so the appropriate accommodations can be made.

MEMORANDUM

Date: May 6, 2022

To: Laura Roesslein – Village of Twin Lakes

From: Greg Droessler, P.E.

Subject: 2021 Wastewater Upgrades – Aeration Disk Replacement

As part of the ongoing upgrades at the wastewater treatment facility (WWTF), we recently found that the aeration disks on the oxidation ditch that were installed during construction in 2000 were in poor condition and consider replacement. The project scope originally included the replacement of most of the major aeration components (motors, drives, bearings, and shafts), but included reuse of the aeration disks and fiberglass covers based on a review of the equipment during planning and previous experience with similar equipment at other facilities.

When the Contractor (Joseph J Henderson) removed the equipment, it was found that many of the disks were cracked and these were set aside. When the contractor then proceeded with reinstalling the old, uncracked disks on the new shafts most of them cracked when torqued to the manufacturer's required setting of 20 foot-pounds of pressure. The contractor installed about 24 old disks but has stopped and is awaiting direction regarding replacement. The manufacturer (Evoqua) sent an engineer to the site yesterday and has submitted a report (attached) recommending the replacement of all the old disks with new ones.

On the project we have a total of 12 new shafts with 17 or 18 disks to be installed on each shaft, with a total of 208 disks to be installed. We ordered 24 new disks as part of the project in anticipation that we made need to replace a few; thus we're 184 disks short of replacing all the disks. We received a proposal from Evoqua (attached) for supplying 184 new disks for a price of \$82,010. Per the contract, the Contractor is entitled to a 5% markup on these materials plus an additional 1% for bonding. The Contractor is working on their adjustment in labor to subtract the cost of removing and preparing the old disks for reuse and we hope to have this number finalized next week. At this time approval of a change not to exceed \$86,931 would allow us to proceed with ordering the disks to minimize the downtime on the project.

We have two options to consider for this project to proceed:

1. Option 1: Order new disks and replace all of them at a cost not to exceed \$86,931. This would give the facility all new equipment (except the covers) at this critical structure and should last for the next 20 years and beyond.
2. Option 2: Reinstall the old disks and new ones we have on-hand on the 4 shafts currently removed and continue to operate them with the anticipation that individual disks may fail at any time and/or the disks will spin on the shaft and prematurely wear out the shaft. The disks and shafts would then both be replaced sometime in the future. We would also likely defer replacement of the shafts on the other 8 aerators not yet removed and simply reinstall the disks and shafts and run them until they fail. This would result in a new deduct to the current contract but would put the Village at risk for needing to replace this equipment in the future when it does fail.

We would recommend that the Village Board consider Option 1 at this time. We have approximately \$250,000 to \$270,000 in Supplemental Bid items included in the contract that will not likely be used as part of this project, and this money could in essence be used to offset this unexpected project cost.

TOWN & COUNTRY ENGINEERING, INC.

Madison ♦ Rhinelander ♦ Kenosha
6264 Nesbitt Road • Madison, WI 53719 • (608) 273-3350 • tce@tcengineers.net

Site Trip Report

Project Name:	Twin Lakes, WI	Date of Report:	May 6, 2022
SAP Project/SO Order No:	2033/001693	Date(s) of Service:	May 5, 2022
Bid (Quote) No:			
Project Manager:	Kelly Theis		
Field Service Engineer:	Bryce VandenBoom		
Purpose of Trip:	Inspection of existing 54" Orbal discs		
Equipment Furnished:	Orbal equipment		
Plant Contact:	Frank Poznanski		
Plant Contact Phone:	847-812-4561		
-Plant Address:	901 Gatewood Dr, Twin Lakes, WI 53181		

Details of Service Performed:

Orbal Disc Inspection

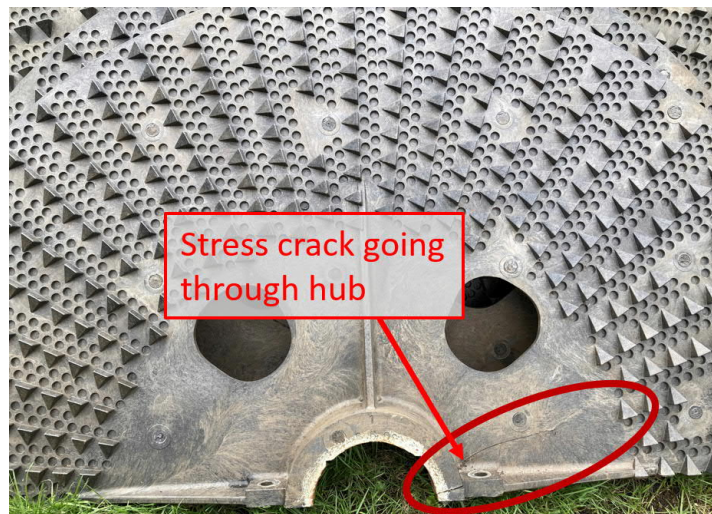
I arrived onsite at the Twin Lakes WWTP at 9:15 AM to inspect the existing 54" Orbal discs that were to be reused on new replacement shafts. Currently the outer Orbal channel was offline (with the middle and inner channels remaining in operation). All four outer channels and associated discs had already been removed from the channel and were sitting in a staging area on-site. Upon initial inspection of the discs removed from the outer channel, it was determined that a significant portion of the original discs from the outer channel were cracked even before reinstalling on the new shafts. The cracks appeared to be stress cracks that went

all the way through the hub and traveled a significant distance away from the hub.

Photo 1: Existing discs with cracks when removed from service



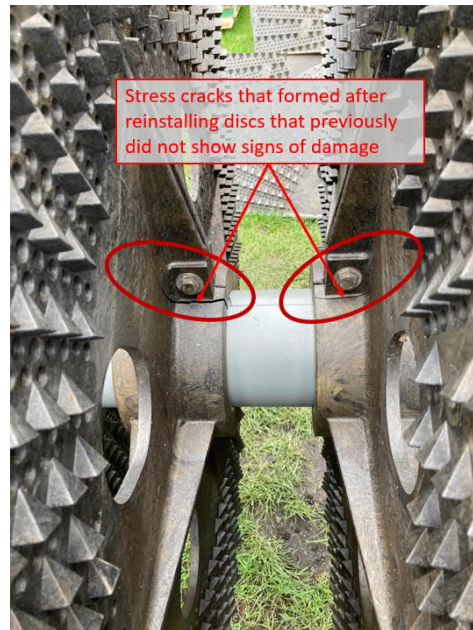
Photo 2: Close up of stress crack



After discussing the existing discs with site personnel, it was noted that only 1 shaft out of the 4 removed from the outer channel had discs that were not cracked. This meant that 75% of the existing discs in the outer channel were already cracked when removed from service. The contractor had attempted to install the remaining seemingly undamaged existing discs on a new shaft (part of the lot of 25% discs that did not have stress cracks upon removal from

service). However, these discs cracked when the proper disc bolt torque of 20-25 ft-lb was applied.

Photo 3: Discs with no visible stress cracks that cracked when reinstalled

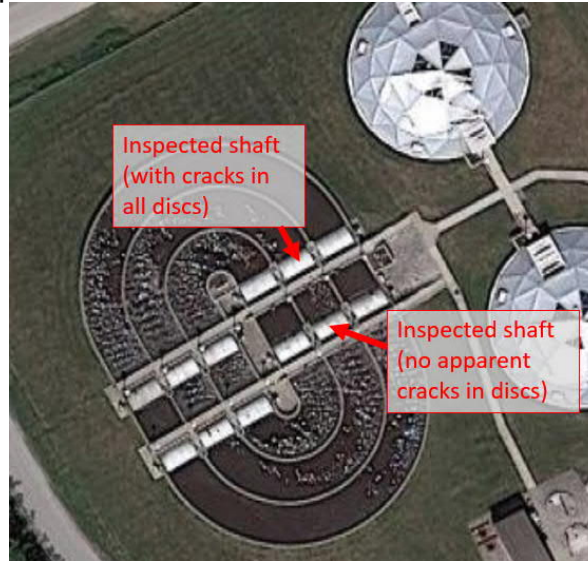


After seeing the removed discs, the Orbal basin and some of the middle channel aerator shafts were inspected. It was noted that all of the undamaged discs in the outer channel came from the aerator shaft located in the southeast mounting location of the Orbal.



Two currently operational shafts in the middle channel were inspected by taking the associated drive units out of service and lifting up the weatherhood cover panels. More shafts

were not inspected because the hold down pins had seized in place and a Sawzall was used to cut the pins on the inspected units.



It was noted that of the inspected shaft that were still in operation, one shaft had discs that did not show any visible cracks but on the second shaft, all discs were found to be cracked.

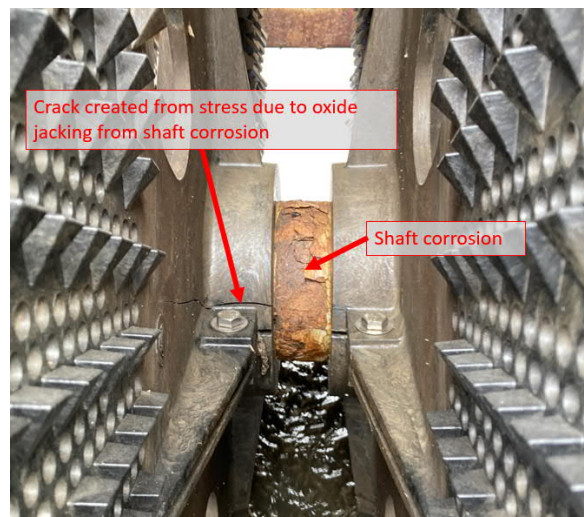
The reasoning for this was very apparent from inspecting the shafts. On the first shaft inspected there didn't appear to be any visible cracks in any of the discs.

Photo 4: Shaft with no visible damage to discs



However, on the second shaft inspected it was apparent that significant shaft corrosion had occurred leading to oxide jacking enacting significant forces on the discs and causing stress cracks to form.

Photo 5: Discs with cracks due to oxide jacking



Although not all the shafts were inspected by looking under the covers due to the seized locking pins, most shafts showed significant corrosion on the portion of the shaft that still protrudes from the hoods. This means that most likely these shafts also have cracked discs.

Photo 6: Shaft showing significant corrosion likely has damage discs



Recommendation

Following the inspection of all shaft ends of the remaining installed shafts, it appears that likely 75% of the remaining installed discs are also cracked. Given that an estimated 75% of the existing discs are likely cracked and that many of the few seemingly undamaged discs cracked upon reinstallation, it is Evoqua's recommendation that none of the existing discs be reused. There appears to be a high likelihood of failure in discs that have no visible cracks, but even in a best case scenario based on observations, likely only 10-20% of the discs would even have a chance of being reused from the existing shafts (based on some additional units cracking upon re-installation). .



PROJECT CHANGE ORDER PROPOSAL FORM

PROJECT NAME:	Twin Lakes WWTP	CHANGE PROPOSAL NO.:	377711-01
CUSTOMER:	Joseph J Henderson and Son Inc	SALES ORDER NO.:	20011307
PO/CONTRACT:	11-315-11	PROJECT NO.:	2033/001693
		DATE:	May 5th, 2022

SCOPE OF SUPPLY

ITEM NO.	DESCRIPTION OF CHANGE AND STATEMENT OF REASON	AMOUNT
1	368 half discs (184 total full discs) W2T309871 (DISC-HALF, ORBAL, 55.12"OD, 6"BORE, POLY) Lead time 2-3 weeks	\$80,960.00
2	Freight (Portage, MI to Twin Lakes, WI)	\$1,050.00
TOTAL:		\$82,010.00

FINANCIALS

330,600.00 = INITIAL CONTRACT AMOUNT	NOTES: 1. Acceptance of this Change Order proposal will impact the financial values listed on any additional outstanding Change Order proposals. 2. All values in US dollars, unless noted otherwise.
= PREV APP'VD CHANGE ORDERS AMOUNT	
330,600.00 = CURRENT CONTRACT AMOUNT	
82,010.00 = THIS CHANGE ORDER AMOUNT	
412,610.00 = NEW CONTRACT AMOUNT	

SCHEDULING / TIMING

1) Both parties must sign this form within three business days; and EWT must receive an amended Purchase Order reflecting this Change within ten business days, in order to make this Change Order valid.
 2) The project schedule will be increased/decreased by 21 calendar days from date of the signed Change Order.
 3) The Parties agree that as a result of this Change Order, in the event the project schedule is amended and as a result of such project schedule changes, the Buyer agrees that all references to Liquidated Damages, to the extent set forth in the Contract Documents, shall be adjusted accordingly. Seller shall strive to fulfill in full the revised project schedule, however, as the project schedule milestones are approximates only and Seller shall not be liable for any loss or expense (consequential or otherwise) incurred by Buyer or Buyer's customer, if Seller fails to meet the revised delivery dates.

SIGNATURES

THE EXISTING TERMS AND CONDITIONS SHALL REMAIN FULL FORCE AND EFFECT UNLESS MODIFIED SPECIFICALLY IN THIS CHANGE ORDER.

Customer Name (Print)

EWT Project Manager Name (Print)

Customer Signature

EWT Project Manager Signature

Date

Date

cc: Project Controller, Salesperson, Sales Rep, EWT Project File

MEMORANDUM

Date: May 6, 2022

To: Laura Roesslein – Village of Twin Lakes

From: Greg Droessler, P.E.

Subject: 2021 Wastewater Upgrades – Aeration Disk Replacement

As part of the ongoing upgrades at the wastewater treatment facility (WWTF), we recently found that the paint on some of the original piping in the oxidation ditch that was installed in 2000 was in poor condition and requires recoating. While only the outer channel of the 3-ring ditch is out of service at this time, it appeared that about ½ the piping has the exterior coating nearly completely peeled off. We also found that the galvanized beams on the cover supports have spot rusting at the welded joints and we recommend that these also be blasted and recoated to ensure their condition for continued use.

I met with the manager of the painting subcontractor (Omni Glass and Paint) to review the scope of the work and have attached the proposal from the contractor. Based on my conversations with both the subcontractor and contractor, we would recommend that the attached additional painting be approved for a NOT TO EXCEED price of \$14,792.

Photos of the spot beam rusting and failed pipe coating are attached for reference.



Photo #1: Beam rust at the welds



Photo #2: Beam rust at welds

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Photo #3: RAS Pipe (in red) with failed coating

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JOSEPH J. HENDERSON & SON, INC.
GENERAL CONTRACTOR
ESTABLISHED 1928

4288 Old Grand Avenue
P.O. Box 9
Gurnee, IL 60031-0009
Phone: 847-244-3222
Fax: 847-244-9572

May 6, 2022

Billie Kershaw, Project Engineer
Town & Country Engineering, Inc.
2912 Marketplace Drive
Suite 103
Madison, WI 53719

Re: 2021 Wastewater Upgrades
Twin Lakes WWTF and Lift Stations
JH Project #1396

JJH COR#10 RFP#10 Structure 30 Painting

Dear Mrs. Kershaw,

Joseph J. Henderson & Son Inc., hereby submits this proposal in the amount of \$14,792.00, as an addition to the contract amount for providing coating modifications in accordance with RFP#10. An extension of contract time of 11 calendar days will be required for this change.

Additional backup information is attached.

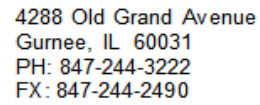
Should you require further information, please contact me.

Sincerely,
JOSEPH J. HENDERSON & SON, INC.

Bret Hancock

Bret Hancock
Senior Project Manager

Attachments
cc: COR File



5/6/2022

Description			Labor		Material / Supply		Equipment		Sub	Totals
	Qty	Unit	rate	total	rate	total	rate	total		
Omni Glass & Paint	1	LS							\$13,948.00	\$13,948.00
Subtotals				\$0.00		\$0.00		\$0.00	\$13,948.00	\$13,948.00
							JJH OH&P	15%	\$	-
							SUB MAR	5%	\$	697.40
							JJH BOND	1%	\$	146.45
							\$ 14,791.85			
							TOTAL PRICE:		\$	14,792

OMNI GLASS & PAINT, LLC.
3530 OMNI DRIVE * OSHKOSH, WISCONSIN 54904 * COMPANY ID #1100807
PHONES: ☒ OSHKOSH (920) 233-3333
☐ GREEN BAY (920) 434-7772 ☐ SCHOFIELD (715) 355-893

PAINT JOB CHANGE #PT61008
Date: May 4, 2022

To: JJ Henderson c/o Bret Handcock

Project: Twin Lakes WWTF

~~~~~  
**CHANGE FOR THE ABOVE LISTED PROJECT;**

Structure 30;

Set up access, breeze blast, prepare, apply stripe coat and 2 full coats of Tnemec N-69 to;  
24 galvanized 16 ft. supports and the  
piping and appurtenances as per drawings noted 5/3/22 RFP #010

- For the sum of.....\$13,948.00

**Labor=110 hours x \$85.00=\$9350.00**

**Blast equipment and media=\$1720.00**

**Paint materials=1268.00**

**Profit=\$1,610.00**

Thank you for the opportunity to do this project. If you have any questions, please call me at our office.

Rick Edinger, Project Manager PH: 920-636-5691

Saved as; Twin Lakes Structure 30 RFP#010

**IMPORTANT – PLEASE READ**

- Terms are Net 10 Days from date of invoice
- Past due accounts are subject to interest at the rate of 1-1/2% per month (18% annually)
- Retainages (when allowed) are due immediately upon payment from owner
- All materials used are under warranty by the manufacturer. Warranties may vary by manufacturer. Omni Glass & Paint, LLC. does not warranty materials
- Quotation excludes any overtime unless otherwise noted
- All workmanship is warranted for one year from date of installation
- It is understood that if you use your own contract form, the conditions of this quotation fully apply, unless specifically written out and mutually agreed upon
- Backcharges for any services not specifically agreed to in writing, and/or backcharges of any other nature for delays to the project caused by conditions beyond our control will not be honored and is not part of this quotations
- Seller reserves the right to stop work or delivery whenever an account is in arrears, without recourse by affected parties

Accepted \_\_\_\_\_ OMNI GLASS & PAINT, INC.

Date \_\_\_\_\_ By \_\_\_\_\_

## Hancock, Bret

---

**From:** Rick Edinger <redinger@omnigp.com>  
**Sent:** Friday, May 6, 2022 9:29 AM  
**To:** Hancock, Bret  
**Subject:** Twin Lakes RFP 10 STR 30 Painting Modifications  
**Attachments:** Structure 30 RFP #10 quote w-breakout.pdf

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Bret,

Please also note that the additional scope will require @ 3 days per ring, longer if we encounter further blasting and cleaning when we get to the next to chambers?

Worst case, a day each ring if the pipes are really bad and require more blasting time?

Thank you,  
**Rick Edinger**  
**PM Paint**



**Omni Glass & Paint, LLC**  
3530 Omni Drive  
Oshkosh, WI 54904  
920-636-5691

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**From:** Rick Edinger <[redinger@omnigp.com](mailto:redinger@omnigp.com)>  
**Sent:** Wednesday, May 4, 2022 7:13 AM  
**To:** Hancock, Bret <[BretHancock@jjhenderson.com](mailto:BretHancock@jjhenderson.com)>  
**Subject:** FW: [EXTERNAL] Twin Lakes RFP 10 STR 30 Painting Modifications

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Bret,

Thank you for the meeting on Monday regarding structure 30.

Please see the attached quote and let me know if you have any questions.

Thank you,  
**Rick Edinger**  
**PM Paint**



**Omni Glass & Paint, LLC**

3530 Omni Drive  
Oshkosh, WI 54904  
920-636-5691

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**From:** Billie Kershaw [<mailto:bkershaw@tcengineers.net>]

**Sent:** Tuesday, May 3, 2022 9:42 AM

**To:** Hancock, Bret <[BretHancock@jjhenderson.com](mailto:BretHancock@jjhenderson.com)>; Rick Edinger <[redinger@omnigp.com](mailto:redinger@omnigp.com)>

**Cc:** Gregory Droessler <[gdroessler@tcengineers.net](mailto:gdroessler@tcengineers.net)>; Jessica Rockweiler <[jrockweiler@tcengineers.net](mailto:jrockweiler@tcengineers.net)>

**Subject:** [EXTERNAL] Twin Lakes RFP 10 STR 30 Painting Modifications

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Bret,

Please see the attached RFP 10 for painting modifications at STR 30.

Thank you,

*Billie*

**Billie J. Kershaw**  
[bkershaw@tcengineers.net](mailto:bkershaw@tcengineers.net)  
Town & Country Engineering, Inc.  
6264 Nesbitt Road  
Madison, WI 53719  
(608) 273-3350





# **Request for Proposal**

Contractor Ref No. 10

☐ RFI ☒ RFP ☐ Communication

Date: 5/3/2022

To: Bret Hancock  
Joseph J. Henderson & Son, Inc.  
4288 Old Grand Avenue  
Gurnee, IL 60031

From: Billie Kershaw

Project: 2021 Wastewater Upgrades Twin Lakes WWTF and Lift Stations  
Subject: RFP No. 010: Structure 30 Painting

Bret Hancock,

Please provide contract pricing adjustments for the following changes:

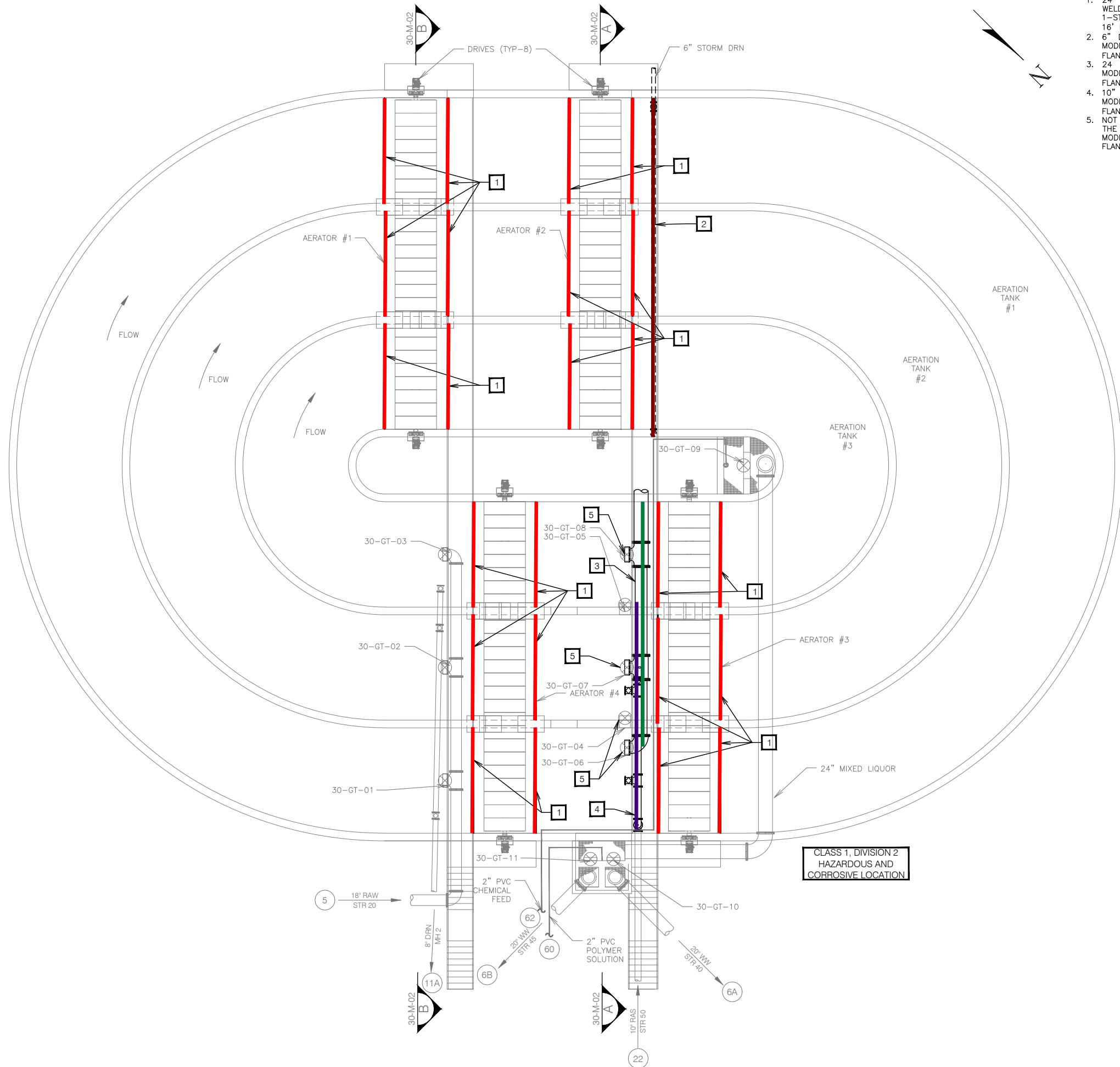
Refer to the attached PDF for cleaning and painting modifications at Structure 30.

-Billie Kershaw (5/3/2022)

**TOWN & COUNTRY ENGINEERING, INC.**

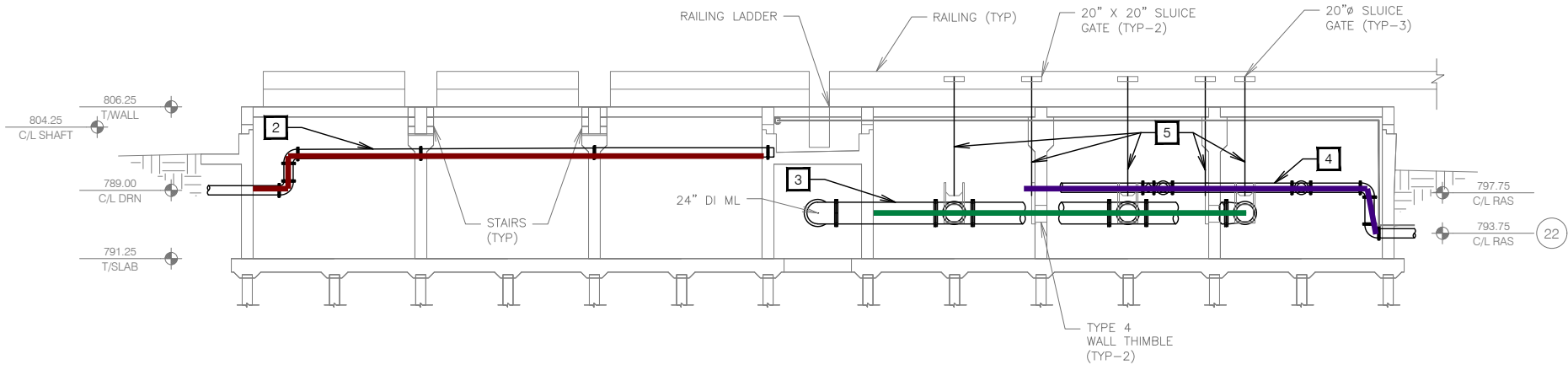
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**X PAINTING NOTES**

1. 24 GALVANIZED BEAMS: BRUSH BLAST WITH NEEDLE WORK AT THE WELDS AS NEEDED. COAT WITH SYSTEM M-2, BUT MODIFIED TO INCLUDE 1-STRIPE COAT PRIME AND 2 COATS OF N69 OVER IT. APPROXIMATELY 16' EACH.
2. 6" DRAIN PIPE: BRUSH BLAST ONLY. COAT WITH SYSTEM M-2, BUT MODIFIED TO INCLUDE 1-STRIPE COAT PRIME ON THE BOLTS AND FLANGES, AND 2 COATS OF N69 OVER IT. APPROXIMATELY 48'.
3. 24 ML PIPE: BRUSH BLAST ONLY. COAT WITH SYSTEM M-2, BUT MODIFIED TO INCLUDE 1-STRIPE COAT PRIME ON THE BOLTS AND FLANGES, AND 2 COATS OF N69 OVER IT. APPROXIMATELY 35'.
4. 10" RAS PIPE: BRUSH BLAST ONLY. COAT WITH SYSTEM M-2, BUT MODIFIED TO INCLUDE 1-STRIPE COAT PRIME ON THE BOLTS AND FLANGES, AND 2 COATS OF N69 OVER IT. APPROXIMATELY 32'.
5. NOT SHOWN ON DRAWING, BUT NEEDED ON THE GATE OPERATORS AT THE WATER LINE. BRUSH BLAST ONLY. COAT WITH SYSTEM M-2, BUT MODIFIED TO INCLUDE 1-STRIPE COAT PRIME ON THE BOLTS AND FLANGES, AND 2 COATS OF N69 OVER IT.



SECTION A

CLASS 1, DIVISION 2  
HAZARDOUS AND  
CORROSIVE LOCATION

**X PAINTING NOTES**

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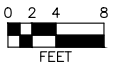
2912 Marketplace Drive  
Suite 103  
Madison, WI 53719  
(608) 273-3350  
www.tceengineers.net



PROCESS REMOVAL SECTIONS  
STRUCTURE 30

2021 WASTEWATER UPGRADES  
TWIN LAKES WWTF AND LIFT STATIONS  
Village of Twin Lakes, Wisconsin

PROJECT NO.:  
TL 30  
DRAWING FILE:  
30-M - Copy  
DRAWN BY:  
S.O.S.  
CHECKED BY:  
G.J.D.  
DATE:  
3-23-21  
REVISIONS:  
5-3-22  
SCALE:



SHEET: