



AGENDA ITEM EXECUTIVE SUMMARY

Agenda Item:	Repairs to Centrisys Centrifuge at Wastewater Plant		
Presenter & Title:	Bob VanGyseghem, Superintendent of Water and Wastewater.		
Date:	4/17/19		
Please Check Appropriate Box:			
<input checked="" type="checkbox"/>	Committee of the Whole Meeting		Special Committee of the Whole Meeting
<input checked="" type="checkbox"/>	City Council Meeting		Special City Council Meeting
	Public Hearing		Other -
Associated Strategic Plan Goal/Objective: EMS-II			
Estimated Cost: \$33,472.00	Budgeted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other Funding? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>This repair will be paid for using capital funds available from projects that came in under budget.</i>			
Executive Summary:			
<p>The thickening centrifuge is a critical piece of equipment used to remove excess water from waste activated sludge prior to the digestion process. The unit went online in 2004 and is required to operate on a daily basis. Staff noted increased vibrations during current operation – the centrifuge was taken offline, cleaned and sent to the manufacturer for inspection. Centrisys of Kenosha, Wisconsin evaluated the centrifuge on 57 individual checklist points and rated each from normal to severe wear. They recommended service actions (repair or replace) to prevent future wear or prevent more costly catastrophic failure. The unit was last serviced in 2015. Total cost is based upon parts, labor, shipping and installation of the centrifuge.</p>			
Attachments: <i>(please list)</i>			
<ul style="list-style-type: none"> • Resolution • Repair Inspection Report 			
Voting Requirements:			
<i>This motion requires <u>7</u> affirmative votes for passage.</i>			
<i>The Mayor may vote on three occasions: (a) when the vote of the aldermen or trustees has resulted in a tie; (b) when one half of the aldermen or trustees elected have voted in favor of an ordinance, resolution, or motion even though there is no tie votes; or (c) when a vote greater than a majority of the corporate authorities is required by state statute or local ordinance to adopt an ordinance, resolution, or motion.</i>			
Recommendation / Suggested Action: <i>(how item should be listed on agenda)</i>			
Staff requests that the City Council waive competitive bidding and authorize the City Administrator to approve the repairs to the Wastewater Plant centrifuge by Centrisys, Kenosha, Wisconsin in an amount not-to-exceed \$33,472.00.			

RESOLUTION NO. 2019-44
RESOLUTION AUTHORIZING EXECUTION OF
Repairs to Wastewater Plant Centrifuge

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GENEVA, KANE COUNTY, ILLINOIS, as follows:

SECTION 1: That the City Administrator is hereby authorized to execute, on behalf of the City of Geneva, repairs by Centrisys, Kenosha, Wisconsin relating to the thickening centrifuge at the Wastewater Plant..

SECTION 2: This Resolution shall become effective from and after its passage as in accordance with law.

PASSED by the City Council of the City of Geneva, Kane County, Illinois, this ____ day of _____, 2019

AYES: __ NAYS: __ ABSENT: __ ABSTAINING: __ HOLDING OFFICE: __

Approved by me this ____ day of _____, 2019.

Mayor

ATTEST:

City Clerk



Repair Inspection Report and Quote

Customer:	City of Geneva	Centrifuge Mfr.	Centrisys
Street	602 Crissey Ave.	Model No.	CS21-4
City State Zip	Geneva, IL 60134	Serial No.	
Contact:	Tom Price	Rotodiff Model No.	1071 DF
Office Phone:	(630) 232-4060	Rotodiff Serial No.	50498
Cell Phone:		Hydraulic Pump Model No.	
E-Mail:	tprice@geneva.il.us	Hydraulic Pump Serial No.	
CC:		Job No.	12087-01,02
Date:	4/4/2019	P.O. No.	
Description: CS21-4 rotating assembly and 1071 rotodiff.			
Scope: Inspect and repair			

ESTIMATE

<i>Repair of Rotating Assembly</i>	<i>\$ 24,350.00</i>
<i>Repair of Rotodiff</i>	<i>\$ 6,322.00</i>
<i>Repair of Hydraulic Pump</i>	<i>\$</i>
<i>Repair of Frame</i>	<i>\$</i>
<i>Site service for install assistance (recom)</i>	<i>\$ (1,200.00)</i>
<i>Shipping</i>	<i>\$ 1,600.00</i>
<i>TOTAL</i>	<i>\$ 33,472.00 with install</i>

TERMS

<i>Terms</i>	<i>Net 30</i>
<i>Delivery</i>	<i>2 to 3 weeks ARO</i>
<i>FOB:</i>	<i>Kenosha, WI</i>
<i>Warranty</i>	<i>6 months on repaired/replaced parts</i>
<i>Quote valid for 30 days. Centrisys reserves the right to adjust this estimate.</i>	

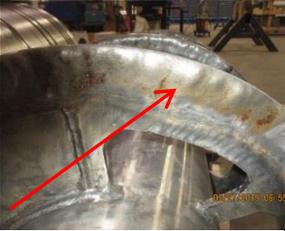
	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
	Bowl	Balance <input checked="" type="checkbox"/> Replace all bearings & seals <input checked="" type="checkbox"/>	Balance <input type="checkbox"/> Replace all bearings & seals <input type="checkbox"/>		
1.	Bowl Center Section Inner Surface No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Restore to specification <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Wear bead <input type="checkbox"/> Replace ___ ceramic tiles <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Restore to specification <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Wear bead <input type="checkbox"/> Replace ___ ceramic tiles <input type="checkbox"/> Weld repair <input type="checkbox"/>		
2.	Bowl Center Section Outer Surface No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Baffle groove damage <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Restore to specification <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Restore to specification <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>		
3.	Bowl Center Section Wear Strips No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Missing <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Replace ___ strips <input type="checkbox"/> Weld repair <input type="checkbox"/> Add strips <input type="checkbox"/>	No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace ___ strips <input type="checkbox"/> Weld repair <input type="checkbox"/> Add strips <input type="checkbox"/>		
4.	Bowl Conical Inner Surface No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Wear bead <input type="checkbox"/> Replace ___ ceramic tiles <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action-rush repair <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Wear bead <input type="checkbox"/> Replace ___ ceramic tiles <input type="checkbox"/> Weld repair <input type="checkbox"/>		
5.	Bowl Conical Outer Surface No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Baffle groove damage <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Blast for cleanup <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>		
6.	Bowl Conical Section Wear Strips No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Missing <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair ___ strips <input type="checkbox"/> Replace ___ strips <input type="checkbox"/> Weld repair <input type="checkbox"/> Add strips <input type="checkbox"/>	No action <input type="checkbox"/> Repair ___ strips <input type="checkbox"/> Replace ___ strips <input type="checkbox"/> Weld repair <input type="checkbox"/> Add strips <input type="checkbox"/>		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
7.	Bowl Conical Discharge Nozzles No damage <input type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Missing <input type="checkbox"/> Broken <input checked="" type="checkbox"/>	No action necessary Rotate ___ nozzles Repair ___ nozzles Replace <u>2</u> nozzles	<input type="checkbox"/> No action <input type="checkbox"/> Rotate ___ nozzles <input type="checkbox"/> Repair ___ nozzles <input checked="" type="checkbox"/> Replace ___ nozzles		
8.	Solid End Headwall External Fits No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Machine Chrome and grind Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair		
9.	Solid End Headwall Slinger Ring Fits (External) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Machine Chrome and grind Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair	Welded to headwall	
10.	Solid End Housing Seal Assembly No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Missing <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace Weld repair Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input type="checkbox"/> Paint	Only if housing seals are present.	
11.	Solid End Headwall Upgrade to Laminar Rings Installed <input checked="" type="checkbox"/> Not Installed <input type="checkbox"/>	No action necessary Install Laminar rings	<input checked="" type="checkbox"/> No action necessary <input type="checkbox"/> Restore to specification		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
12.	Solid End Headwall Main Bearing Fit No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/> Corrosion found <input type="checkbox"/>	No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input checked="" type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair		
13.	Solid End Headwall Pulley Fits (external) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input checked="" type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair		
14.	Solid End Headwall Purge Port. (P-D10493) Installed/ present <input checked="" type="checkbox"/> Not modified <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Install Modification <input type="checkbox"/> (Also do retaining plate mod)	<input checked="" type="checkbox"/> No action necessary <input type="checkbox"/> Install Modification (Also do retaining plate mod)		
15.	Needle Bearing Retaining Plate No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input type="checkbox"/> Machine <input type="checkbox"/> Weld repair <input checked="" type="checkbox"/> Polish <input type="checkbox"/> Replace <input type="checkbox"/>	<input checked="" type="checkbox"/> No action necessary <input type="checkbox"/> Machine <input type="checkbox"/> Weld repair <input type="checkbox"/> Polish <input type="checkbox"/> Replace		
16.	Solid End Headwall- Needle Bearing Fit No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input checked="" type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/> Polish <input type="checkbox"/> Replace Headwall <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/> Polish <input type="checkbox"/> Replace Headwall		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
17.	Solid End Headwall Seal Fit/Bore No damage <input type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input checked="" type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace	<input type="checkbox"/> Previously repaired with sleeve. Bearing Failure in the past caused damage. Will not be an issue this time.	
18.	Solid End Headwall Seal Plate Option No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Repair Machine Chrome and grind Weld repair Install Modification	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Replace <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/> Install Modification	<input type="checkbox"/> Seal Plate not installed.	
19.	Liquid End Headwall Fits (External) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Machine Chrome and grind Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair		
20.	Liquid End Headwall Slinger Ring Fits (External) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Machine Chrome and grind Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair	<input type="checkbox"/> Slinger Ring welded to headwall.	
21.	Liquid End Headwall Slinger Ring No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Machine Replace	<input checked="" type="checkbox"/> No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Machine <input type="checkbox"/> Replace		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
22.	Liquid End Headwall Upgrade to Laminar Rings Installed <input checked="" type="checkbox"/> Not Installed <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Install Laminar rings <input type="checkbox"/>	No action necessary <input type="checkbox"/> Restore to specification <input type="checkbox"/>		
23.	Liquid End Headwall Main Bearing Fit (External) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/> Corrosion found <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>		
24.	Liquid End Headwall Carrier Fits (External) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair <input type="checkbox"/>		
25.	Liquid End Headwall Weir Plate Assy's No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Missing <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input type="checkbox"/>		
26.	Liquid End Headwall Fits (Internal) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>	No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Repair <input type="checkbox"/> Weld repair <input type="checkbox"/>		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic	
27.	Scroll Retaining Plate No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Missing <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace Weld repair Machine	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input type="checkbox"/> Machine Replace	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
28.	Liquid End Headwall Thrust Bearing Fit (Internal) No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Restore to specification Machine Chrome and grind Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine <input type="checkbox"/> Chrome and grind <input type="checkbox"/> Weld repair Replace	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
29.	Liquid End Thrust Bearing Retainer No damage <input type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input checked="" type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Missing <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace Weld repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
30.	Scroll	Balance Replace all bearings & seals	<input checked="" type="checkbox"/> Balance <input checked="" type="checkbox"/> Replace all bearings & seals	<input type="checkbox"/> <input type="checkbox"/>		
31.	Scroll Flights No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Broken <input type="checkbox"/> Missing <input type="checkbox"/>	No action necessary Flights damaged Weld repair flights Add __gussets Repair/Add wear protection Blast for cleanup	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Weld repair flights <input type="checkbox"/> Add __gussets <input type="checkbox"/> Repair/Add wear protection <input type="checkbox"/> Blast for cleanup	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
32.	Scroll Tungsten Carbide Hard Facing No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Broken <input type="checkbox"/> Missing <input type="checkbox"/>	No action necessary Repair TC Hard facing Flights damaged Weld repair flights	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair TC Hard facing <input type="checkbox"/> Weld repair flights	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
33.	Scroll Tiles No damage Normal wear Minor wear Severe wear Broken/Cracked Missing	No action necessary <input type="checkbox"/> Repair ___ tiles <input type="checkbox"/> Replace damaged tiles <input type="checkbox"/> Weld repair <input type="checkbox"/> Add additional wear protection <input checked="" type="checkbox"/>	<input type="checkbox"/> No action <input type="checkbox"/> Repair ___ tiles <input checked="" type="checkbox"/> Replace <u>25</u> tiles <input type="checkbox"/> Weld repair Add additional wear protection <input type="checkbox"/>		
34.	Scroll Feed Nozzles No damage Normal wear Minor wear Severe wear Broken/Cracked Missing	No action necessary <input type="checkbox"/> Repair ___ feed nozzles <input checked="" type="checkbox"/> Rotate ___ feed nozzles <input type="checkbox"/> Replace ___ feed nozzles	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair ___ feed nozzles <input type="checkbox"/> Rotate ___ feed nozzles <input type="checkbox"/> Replace ___ feed nozzles		
35.	Scroll Feed Chamber No damage Normal wear Minor wear Severe wear Solids build up	No action necessary <input type="checkbox"/> Clean <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Weld and grind repair <input type="checkbox"/> Replace Tiles <input type="checkbox"/> Repair Wear Protection <input type="checkbox"/> Blast for cleanup	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Clean <input type="checkbox"/> Repair <input type="checkbox"/> Weld and grind repair <input type="checkbox"/> Replace Tiles <input type="checkbox"/> Repair Wear Protection <input type="checkbox"/> Blast for cleanup		
36.	Scroll Pre-Chamber No damage Normal wear Minor wear Severe wear Solids build up	No action necessary <input type="checkbox"/> Clean <input type="checkbox"/> Repair	<input type="checkbox"/> No action <input checked="" type="checkbox"/> Clean <input type="checkbox"/> Repair		
37.	Idle Shaft Fits (Internal) No damage Normal wear Minor wear Severe wear Damaged Runout Undersized (Dimensional) Oversized (Dimensional) Corrosion found	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Polish	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Polish		
38.	Scroll Solid End Idler Shaft No damage Normal wear Minor wear Severe wear Damaged Runout Undersized (Dimensional) Oversized (Dimensional)	No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Replace	<input type="checkbox"/> No action <input type="checkbox"/> Repair <input checked="" type="checkbox"/> Replace		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
39.	Scroll Liquid End Thrust Bearing Fits (Internal) No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/> Corrosion found <input type="checkbox"/>	No action necessary Repair Restore to specification Machine and sleeve	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve		
40.	Scroll Rear Chamber No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Liquid found <input type="checkbox"/>	No action necessary Clean Repair	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Clean <input type="checkbox"/> Repair	Rear chamber dry	
41.	Pulley No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/> Corrosion found <input checked="" type="checkbox"/>	No action necessary Repair Restore to specification Machine and sleeve Replace Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input type="checkbox"/> Paint	Rust and corrosion inside the pulley fit. Buffed out.	
					
42.	Carrier 12 Holes No damage <input checked="" type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Damaged <input type="checkbox"/> Runout <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/> Corrosion found <input type="checkbox"/>	No action necessary Repair Restore to specification Machine and sleeve Replace Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input type="checkbox"/> Paint		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
43.	Solid End Pillow Block No damage Normal wear Minor wear Severe wear Damaged Runout Undersized (Dimensional) Oversized (Dimensional) Corrosion found	<input type="checkbox"/> No action necessary <input type="checkbox"/> Repair <input checked="" type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input type="checkbox"/> Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input checked="" type="checkbox"/> Paint		
44.	Main Bearing Cover Plate Outer (SE) No damage Normal wear Minor wear Severe wear Broken Missing Undersized (Dimensional) Oversized (Dimensional)	<input type="checkbox"/> No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input checked="" type="checkbox"/> Weld repair <input type="checkbox"/> Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input checked="" type="checkbox"/> Paint		
45.	Main Bearing Cover Plate Inner (SE) No damage Normal wear Minor wear Severe wear Broken Missing Undersized (Dimensional) Oversized (Dimensional)	<input type="checkbox"/> No action necessary <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input checked="" type="checkbox"/> Weld repair <input type="checkbox"/> Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input checked="" type="checkbox"/> Paint		
46.	Liquid End Pillow Block No damage Normal wear Minor wear Severe wear Damaged Runout Undersized (Dimensional) Oversized (Dimensional) Corrosion found	<input type="checkbox"/> No action necessary <input type="checkbox"/> Repair <input checked="" type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input type="checkbox"/> Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Restore to specification <input type="checkbox"/> Machine and sleeve <input type="checkbox"/> Replace <input checked="" type="checkbox"/> Paint		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
47.	Main Bearing Cover Plate Outer (LE) No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Broken <input type="checkbox"/> Missing <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace Weld repair Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input checked="" type="checkbox"/> Paint		
48.	Main Bearing Cover Plate Inner (LE) No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/> Broken <input type="checkbox"/> Missing <input type="checkbox"/> Undersized (Dimensional) <input type="checkbox"/> Oversized (Dimensional) <input type="checkbox"/>	No action necessary Repair Replace Weld repair Paint	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/> Weld repair <input checked="" type="checkbox"/> Paint		
49.	Spline Shaft No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary Repair Replace	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Repair <input type="checkbox"/> Replace		
50.	Rotodiff Leak test passed <input checked="" type="checkbox"/> Leak test failed <input type="checkbox"/> Contamination <input type="checkbox"/> Metal flakes in oil <input type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input checked="" type="checkbox"/> Severe wear <input type="checkbox"/> Oil Sample sent for analysis <input type="checkbox"/>	No action necessary Leak & pressure tested Dismantle and clean Bearings & seals replaced Replace ___ proximity sensors Replace ___ sensor brackets Paint	<input type="checkbox"/> No action <input checked="" type="checkbox"/> Leak & pressure tested <input checked="" type="checkbox"/> Bearings & seals replaced <input checked="" type="checkbox"/> Replace ___ proximity sensors <input type="checkbox"/> Replace ___ sensor brackets <input type="checkbox"/> Paint		
51.	Rotodiff Transfer Seal No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary Replace	<input checked="" type="checkbox"/> No action <input type="checkbox"/> Replace		

	Item/Condition	Recommended Action	Action	Notes	Picture Control & scroll to enlarge pic
52.	Rotodiff Sealing Rings No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Replace <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> <input type="checkbox"/> Replace <input type="checkbox"/>		
53.	Rotodiff Cam No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input type="checkbox"/> Recondition <input checked="" type="checkbox"/> Replace <input type="checkbox"/>	<input type="checkbox"/> No action <input type="checkbox"/> <input checked="" type="checkbox"/> Recondition <input type="checkbox"/> <input type="checkbox"/> Replace <input type="checkbox"/>		
54.	Rotodiff Rotor No damage <input type="checkbox"/> Normal wear <input type="checkbox"/> Minor wear <input checked="" type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input type="checkbox"/> Lap to clean up <input type="checkbox"/> Replace ___ pistons <input type="checkbox"/> Replace <u>20</u> rollers <input checked="" type="checkbox"/> Replace entire rotor <input type="checkbox"/>	<input type="checkbox"/> No action <input type="checkbox"/> <input type="checkbox"/> Lap to clean up <input type="checkbox"/> <input type="checkbox"/> Replace ___ pistons <input type="checkbox"/> <input checked="" type="checkbox"/> Replace ___ rollers <input type="checkbox"/> <input type="checkbox"/> Replace entire rotor <input type="checkbox"/>		
55.	Rotodiff Distributor No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input type="checkbox"/> Lap to clean up <input type="checkbox"/> Recondition <input checked="" type="checkbox"/> Replace <input type="checkbox"/>	<input type="checkbox"/> No action <input type="checkbox"/> <input checked="" type="checkbox"/> Lap to clean up <input type="checkbox"/> <input type="checkbox"/> Recondition <input type="checkbox"/> <input type="checkbox"/> Replace <input type="checkbox"/>		
56.	Rotodiff Stationary Shaft No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> <input type="checkbox"/> Repair <input type="checkbox"/> <input type="checkbox"/> Replace <input type="checkbox"/>		
57.	Rotodiff Shaft Extension No damage <input type="checkbox"/> Normal wear <input checked="" type="checkbox"/> Minor wear <input type="checkbox"/> Severe wear <input type="checkbox"/>	No action necessary <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Replace <input type="checkbox"/>	<input checked="" type="checkbox"/> No action <input type="checkbox"/> <input type="checkbox"/> Repair <input type="checkbox"/> <input type="checkbox"/> Replace <input type="checkbox"/>		

NOTE:
Very high operating temperature, pressure and especially contamination will adversely affect Rotodiff life expectancy. In severe conditions, increase oil change and filter interval to 2500-3000hrs.
When oil filter vase has metallic particles in it and plugs frequently, DO NOT continue to run Rotodiff.
Send Rotodiff in for inspection! Recommended Rotodiff inspection intervals are 15000 hours under normal operating conditions.
If a badly worn Rotodiff is continuously run despite a plugged filter, a catastrophic failure can result and parts of the Rotodiff can be drawn in by the pump unit or plug up the suction strainer, if equipped, and cause the pump to fail as well.
ALWAYS CLEAN THE TANK, REPLACE ALL FILTERS AND STRAINERS AND FLUSH THE HOSES WITH CLEAN OIL BEFORE STARTING THE UNIT AFTER A REPAIRED OR NEW ROTODIFF IS INSTALLED.
THEN REPLACE FILTER AGAIN AFTER 200 HOURS.

APPROVED



Bryan McLeary, ACA, 8/26/2020

MECHANICAL INC

A mechanical systems contractor

8/20/20

Bob VanGyseghem
City of Geneva
1800 South St
Geneva, IL 60134

900 Oakmont Lane
Suite 200
Westmont, Illinois
60559
Tel 630 891 3400
Fax 630 891 3401

Subject: Geneva WWTP
New Potable Water Service in the Centrifuge Building
MI COR Number # 1

Dear Mr. VanGyseghem

We propose to furnish labor and material for the new potable water service in the Centrifuge building for the lump sum price of **THIRTY FIVE THOUSAND FIVE HUNDRED SIX DOLLARS (\$35,506.00)**.

Labor:	Pipefitter Journeyman	<u>104</u>	hours at \$	<u>126.80</u>	/hour.....	\$	13,187.20
	Pipefitter Foreman	<u>104</u>	hours at \$	<u>138.77</u>	/hour.....	\$	14,432.08
	Piping CAD	<u>0</u>	hours at \$	<u>120.00</u>	/hour.....	\$	0.00

Labor Subtotal: 27,619.00

Piping Materials.....(See Attached Breakdown)..... \$ 5,775.00

Material Subtotal: 5,775.00

Add 15.00% Markup \$ 866.00

Subcontractors.....

Electrical \$ 500.00

Subcontractor Subtotal: 500.00

Add 10.00% Markup \$ 50.00

Subtotal..... \$ 34,810.00

Bond..... \$ 696.00

Total Cost This Work..... \$ 35,506.00

- *** Labor will be based on T&M for not to exceed hours in this proposal
 - *** Provide New Potable Water Service to 2 - existing Moyno pumps (Seal Water piping at Pumps will remain as is) , 2 - new Moyno Pumps, 1 - new Polymer System, 1 - Existing Polymer system, 1 - Slop Sink & Water Heater and 3 - Hose Bibbs
 - *** Potable Water to be PVC Sch. 80 and Type L Copper Tubing by the Electric Water Heater & tie into existing 3" RPZ
 - *** Furnish & Install - New 10 Gallon Electric Water Heater, New faucet at Slop sink & 3 - New Hose Bibbs
 - *** Concrete and Painting is excluded from this proposal
 - *** Control Work & Commissioning of any existing equipment are excluded from this proposal
- Please call me at 630-891-3400 if you have any questions or need any additional information.

Sincerely,
MECHANICAL, INC.

Tony Di Vito
Project Manager