




To: Jonesville City Council  
From: Jeffrey M. Gray, City Manager   
Date: September 20, 2022  
Re: Supplemental Information – September 21, 2022 Council Meeting

➤ I recommend that the agenda be amended to add the following items:

**6. G. Wastewater Treatment Plant Trickling Filter Repair**

**[Action Item]**

Council will recall that the south trickling filter at the Wastewater Treatment Plant suffered a significant equipment failure several weeks ago. Our staff has made temporary repairs to allow the filter to continue to operate. The manufacturer has determined that the center mast and bearings must be replaced. The attached estimate includes completion of repair work by the manufacturer, including crane work to remove the roof, remove damaged equipment, complete assembly of the new mast and craning back into place. The total cost of the work is \$177,454. There are sufficient funds in the Plant Improvement reserve to complete this unanticipated, but necessary, repair. I recommend a motion to amend the Sewer Fund budget to add a \$178,000 expenditure and to authorize the Manager to execute the quote from WesTech in the amount of \$177,454. *Please refer to the project quote, budget amendment, and highlighted improvement fund balance.*

**6. H. Water System Reliability Study**

**[Action Item]**

Funds have been budgeted for an update to the Water System Reliability Study. State law requires updates to the study every five years. Fleis and Vandenbrink has submitted the attached quote in the amount of \$13,500 to complete the update. The firm completed the last update of the study and was our design engineer for the improvements to the Iron Removal Plant. The City's Purchasing Policy allows the City Council to award professional services contracts without competitive bidding. Staff has been satisfied with the quality of work from Fleis and Vandenbrink and Superintendent Boyle is recommending award of the project. I recommend a motion to accept the proposal from Fleis and Vandenbrink for the update to the Water Reliability Study in the amount of \$13,500 and authorize the Manager to execute any necessary contract documents. *Please refer to the quote from Fleis and Vandenbrink.*

# WESTECH QUOTATION

<b>WESTECH®</b>	P.O. BOX 65068 SALT LAKE CITY, UTAH 84165-0068	Phone: 801-265-1000 Fax: 801-265-1080	Quotation No. Q41244-142395
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Thank you for the opportunity to quote you with your equipment needs.  
Please review the following and contact us to place an order or ask any question.

Date: 9/16/2022	Proj Manager: JEFFREY FLITTON	Ship Via: BEST WAY
RFQ No.:	Prime Job No: 19201A	Freight: FOB SHIPPING POINT, FREIGHT PREPAID & ADDED
Quoted by: JEFFREY FLITTON	Prime Name: JONESVILLE, MI WWTP	
Phone: 801-290-1512 or 801-290-1208	Equipment: BioDoc® ROTARY DIST	Lead Time: 16-18 WEEKS
Email: JFLITTON@WESTECH-INC.COM	Tax Exemption No.:	Quote Valid: 15 days
For Group: 15	Payment Terms: NET 30 DAYS	

Bill To: CITY OF JONESVILLE CITY HALL BRIAN BOYLE ATTN: WWTP JON004 116 W CHICAGO JONESVILLE, MI 49250 UNITED STATES OF AMERICA Tel/Cell: 517-849-9450 WASTEWATER@JONESVILLE.ORG	Ship To:	CITY OF JONESVILLE BRIAN BOYLE 150 ECOLOGY DRIVE 31911 JONESVILLE, MI 49250 UNITED STATES OF AMERICA Tel/Cell: 517-849-9450
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Doc	No.	Part/Dwg Number	Description	Qty	Units	Unit Price	Net Price
1432	113	D120 A	CENTER MAST	1	EA	\$44,700.00	\$44,700.00
1432	126	B153 A	BACKUP RING	2	EA	\$528.00	\$1,056.00
1432	128	B151 A	WEIGHT	4	EA	\$392.00	\$1,568.00
1432	130	B154 A	SEAL PLATE	1	EA	\$2,136.00	\$2,136.00
1432	142	A152 A	WEIGHT GUIDE	8	EA	\$60.00	\$480.00
1432	206	RD-B256-A	HOUSING, MIDDLE BEARING, 6",	1	EA	\$4,900.00	\$4,900.00
1432	207	RD-B257-A	RING, BEARING BACK-UP, SPLIT, 6", ALUMINUM. (FOR 6" MAST).	1	EA	\$1,300.00	\$1,300.00
1432	208	RD-B258-A	COVER ASSEMBLY, SPLIT TOP, 6" PIPE, CAST ALUMINUM, PER	1	EA	\$4,300.00	\$4,300.00
1432	209	RD-B259-A	COVER ASSEMBLY, SPLIT BOTTOM, 6" PIPE, CAST ALUMINUM, PER	1	EA	\$4,300.00	\$4,300.00
1432	211	A170 A	BARREL SEAL	2	EA	\$36.00	\$72.00
1432	212	A171 A	SEAL PLATE GASKET	1	EA	\$48.00	\$48.00
1432	213	A174 A	FLUSH GATE GASKET	4	EA	\$16.00	\$64.00
1432	233	MS-0054A	FELT STRIP 1/4"x1/2" x 26" MED GRAY TOP COVER	3	FT	\$2.00	\$6.00
1432	235	MS-0054A	FELT STRIP 1/4"x1/2" x 33" MED GRAY SPLIT COVER	6	FT	\$2.00	\$12.00
1432	305	BR-0037A	ROLLER BEARING	1	EA	\$906.00	\$906.00
1432	308	23936C	BEARING RD-699	1	EA	\$1,483.00	\$1,483.00
1432	507	C179 A	BEARING SEAT (& DRIVE MOUNT)	1	EA	\$11,416.00	\$11,416.00
			LOT OF FASTENERS	1	LOT	\$125.00	\$125.00
*****							
72437							
72437	001		TURN KEY INSTALLATION OF ABOVE PARTS 3 MAN CREW/ (2) 5 DAY TRIPS/INCLUDES CRANE	1	LOT	\$98,582.00	\$98,582.00

No sales, GST, PST, use, or other taxes have been included in our pricing. No discounts accepted.	Quoted in US Dollars	Grand Total	\$177,454.00
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**CITY OF JONESVILLE**  
**2022 - 2023 BUDGET AMENDMENTS**  
**September 21, 2022**

	<b>CURRENT BUDGET</b>	<b>AMENDED BUDGET</b>	<b>+ OR (-) CHANGE</b>
<b>SEWER FUND</b>			
<u>EXPENSE</u>			
729 SEWAGE DISPOSAL			
975.000 Additions & Improvements (Trickling filter tower repairs)	\$ -	\$ 178,000	\$ (178,000)
<b>SEWER FUND CHANGE IN ESTIMATED YEAR END FUND BALANCE</b>			<b>\$ (178,000)</b>

**CITY OF JONESVILLE  
CASH BALANCES**

	August-2022	BANK BALANCE
<b>GENERAL FUND:</b>		
General Fund Now Checking	101-000-001	146,308.67
General Fund CLASS Acct	101-000-007	1,491,565.33
General Fund Cemetery CLASS Acct	101-000-007.100	93,643.45
General Fund Alloc of Assets CLASS	101-000-007.200	416,001.10
<b>MAJOR STREETS:</b>		
Major Streets Now Checking	202-000-001	34,796.66
Major Streets CLASS Acct	202-000-007	558,188.38
<b>LOCAL STREETS:</b>		
Local Streets Now Checking	203-000-001	55,446.12
Local Streets CLASS Acct	203-000-007	652,177.49
<b>STATE HIGHWAY:</b>		
State Highway Now Checking	211-000-001	13,690.71
<b>L.D.F.A.:</b>		
LDFA Operating Now Checking	247-000-001	3,792.25
LDFA Operating CLASS Acct	247-000-007	2,700,059.35
<b>D.D.A.:</b>		
DDA Now Checking	248-000-001	2,350.78
DDA Operating CLASS Acct	248-000-007	55,763.40
<b>SEWER FUND:</b>		
Sewer Receiving Now Checking	590-000-001	124,057.58
Sewer Bond & Interest Checking	590-000-001.300	10.00
Sewer Receiving CLASS Acct	590-000-007	238,279.97
Sewer Plant Improv. CLASS Acct	590-000-007.200	1,397,575.57
<b>WATER FUND:</b>		
Water Receiving Now Checking	591-000-001	54,178.65
Water Receiving CLASS Acct	591-000-007	319,678.23
Water Plant Improvement CLASS Acct	591-000-007.100	387,034.31
Water Bond Reserve CLASS	591-000-007.200	36,828.72
Water RR&I Reserve CLASS	591-000-007.250	30,942.13
Water Tower Maint CLASS Acct	591-000-007.300	52,471.31
Water Maint CLASS Acct	591-000-007.400	66,344.56
<b>MOTOR VEHICLE POOL:</b>		
Motor Vehicle Pool Now Checking	661-000-001	16,850.98
Equip. Replace CLASS - Police Car	661-000-007.301	28,207.98
Equip. Replace CLASS - Fire Truck	661-000-007.336	48,400.83
Equip. Replace CLASS - DPW Equip	661-000-007.463	155,954.42
Equip. Replace CLASS - WWTP/Vactor	661-000-007.590	44,822.92
<b>CURRENT TAX:</b>		
Current Tax Checking	703-000-001	366,976.89
Current Tax Savings Account	703-000-002	0.00
<b>PAYROLL FUND CHECKING:</b>		
	750-000-001	2,254.18
<b>GRAND TOTAL</b>		<b>9,594,652.92</b>



September 15, 2022

Mr. Jeffrey M. Gray - Manager  
City of Jonesville  
265 East Chicago Street  
Jonesville, MI 49250

**RE: Proposal for Water System Reliability Study & CIP**

Dear Jeff:

As requested, we have prepared a work plan and budget to complete a Water System Reliability Study and corresponding Capital Improvement Plan. Act 399 requires that an updated study be completed every five years. F&V prepared the previous study in 2016, and are very familiar with the City's water system.

A water reliability study evaluates your system's supply, storage, and distribution to ensure a continuous and ample supply of water. The study will also identify and document deficiencies in the City's current water system, utilize a computer model to simulate the hydraulics of the existing system, and develop recommendations to plan, budget, and prioritize future capital improvements required for the water system.

We propose to complete the Water System Reliability Study and hydraulic analysis as outlined in the attached work plan, as well as the Capital Improvement Plan.

## WORK PLAN

### REVIEW AND COMPILE EXISTING DATA AND OPERATIONS

- A. Meet with City Staff and review scope of work and schedule for the study:
  - 1. Collect data on historical water use and pump records.
  - 2. Review service area, and identify any known system expansions.
  - 3. Review fire flow objectives for the community based on service areas.
- B. Review and inventory the existing water system components:
  - 1. Review data on the water storage tank.
  - 2. Review the water distribution system and its overall condition.
- C. Review information on current water use and pumping records. Calculate the five and twenty-year projections for water demands in the City.
- D. Review the most recent Insurance Services Organization (ISO) evaluation of the City's system.
- E. Evaluate water system capacity requirements for fire flow to the projected service areas.

### CREATE WATER MAP & COMPUTER MODEL

- A. Create/update the City water map.
- B. Create/update computer model of the City water system.

## HYDRANT TESTING

- A. Perform hydrant testing at key locations in the City. We will need assistance from City staff to opening and closing hydrants. F&V will provide test equipment and trained staff to take readings.

## MODEL CALIBRATION & SIMULATIONS

- A. Calibrate the computer model to reflect conditions recorded during the hydrant testing.
- B. Perform fire flow and maximum day simulations of water system.
- C. Simulate proposed improvements to the water system.
- D. Simulate projected water demands at key locations in the City. Identify deficiencies where the system cannot produce the desired flows. Evaluate improvements to the water system.
- E. Identify short and long-range improvements that are needed to meet the 5 and 20-year needs.

## DRAFT REPORT, REVIEW WITH CITY & EGLE, FINAL REPORT

- A. Prepare draft report summarizing the findings of the study and outlining the recommendations. This report will include capital improvement plans for 5 and 20-year planning.
- B. Submit draft report to the City. Meet with City staff to review the report.
- C. Update the report after receiving review comments from the City.
- D. Prepare preliminary cost estimates of the identified CIP projects.
- E. Submit revised report to EGLE.
- F. Receive comments from EGLE and finalize the water system reliability study.

## PROJECT DELIVERABLES

- A. Provide three hard copies of the final reliability study to the City.
- B. Provide three large and field size paper copies of the water system map to the City.
- C. Provide electronic copies of the report and water map to the City.
- D. Submit final report to EGLE.

## PROFESSIONAL FEES

We propose to complete the Scope of Work identified above for a lump sum fee of **\$13,500**.

We look forward to working with the City on this important opportunity to begin planning for water system improvements. We specialize in long-term partnerships with communities to assist with infrastructure planning, design, and construction, and we are eager to continue this partnership with the City of Jonesville.

Please let us know if you have any questions on the fee or work scope listed above. If this proposal is acceptable, please sign and return the enclosed Professional Services Agreement and we will get started! If you have any questions, feel free to contact me at: [jwingard@fveng.com](mailto:jwingard@fveng.com), or (269) 385-0011.

Sincerely,

FLEIS & VANDENBRINK



Jeffery Wingard, P.E.  
Project Manager

Enclosure