

MACOMB INTERCEPTOR DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
DECEMBER 11, 2023  
10:30 A.M.  
AGENDA

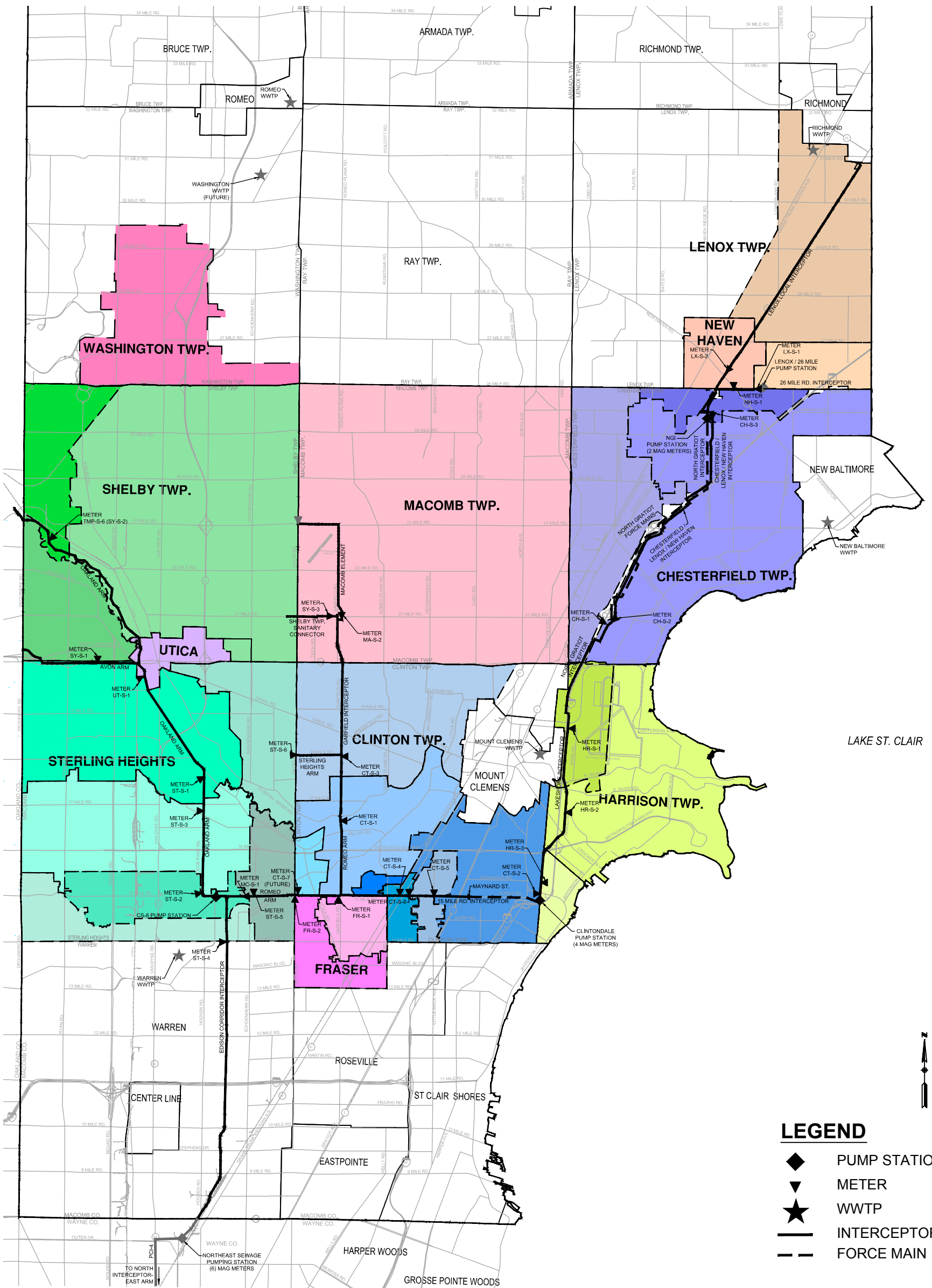
**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE  
OPTION FOR PUBLIC**

**Call in Number: 1-224-990-0182  
Access Code: 927 405 823**

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1. Call of meeting to order and roll call	
2. Approval of Agenda for December 11, 2023	
3. Approval of Minutes for November 13, 2023	4
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	7
6. Clintondale Pump #4 Rehabilitation Bid – Progressive Mechanical – Vince Astorino	38
Motion: To award the bid from Progressive Mechanical at a not exceed cost of \$549,767 for the Rehabilitation of Pump #4 at the Clintondale Pump Station.	
7. Sewer Artificial Intelligence Inspection Software & Autocode Condition Assessments – Vince Astorino	56
Motion: To approve the proposal from SewerAI Corporation for inspection software and autocode condition assessments at a not-to-exceed cost of \$100,000.	
8. Sewer Inspection Drone Recommendation - Vince Astorino	62
Motion: To approve the purchase of the sewer inspection drone from Flybotix for \$34,639	
9. Phase 4 COVID Wastewater Monitoring - Amendment 2 – 100% State Grant Funded – Vince Astorino	73
Motion: To award the proposal for Phase 4 (Amendment 2) Covid Wastewater Monitoring to Aquasite for \$145,220 and authorization to execute the State grant agreement totaling \$152,500.	

10. Consideration for approval of invoices (see attached)	97
11. Financial Report – Bruce Manning	99
12. Adjourn	

# MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



## LEGEND

- ◆ PUMP STATION
- ▼ METER
- ★ WWTP
- INTERCEPTOR
- - - FORCE MAIN



**Candice S. Miller**

MACOMB COUNTY PUBLIC WORKS COMMISSIONER



UPDATED: FEBRUARY 2017

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on November 13, 2023, at 10:40 A.M.

PRESENT: Candice S. Miller, Chair  
Don VanSyckel, Member  
Bryan Santo, Member

ALSO PRESENT: Daniel Acciavatti, Deputy Government Relations; Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Finance Manager; Pamela Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor; Sarah Lucido, Board of Commissioners

PRESENT VIA TELECONFERENCE: Bonnie Rau, City of Sterling Heights DPW

The meeting was called to order by the Chair, Candice S. Miller. A motion was made by Mr. VanSyckel supported by Mr. Santo to approve the agenda as presented.

Adopted: YEAS: 3  
NAYS: 0

Minutes of the meeting of October 16, 2023, were presented. A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve the minutes as presented.

Adopted: YEAS: 3  
NAYS: 0

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Downing updated on Segment 5. The cleaning is going well, and we have just under 1,000 feet to go. We have estimated approximately 2 more weeks to go for sediment removal. There is a new project manager for Oscar Renda. Mr. VanSyckel asked if there are any temperature issues in regards to the HOBAS pipe, Mr. Downing said no. There is a threshold of how long the bell and spicket ends can be exposed to UV light, but that has not been met. He presented some photos of work being performed.

Mr. Downing then presented on Segment 6 Rehabilitation. We have officially met the halfway point on Segment 6 sediment removal. It is very deep and very compacted material. A schedule update shows that they will be done at the end of December. We are pushing them to get extra manpower out there to stay on schedule. He showed additional photos of the work being done.

Mr. Astorino updated on the 2023 Interceptor Inspection Program. Last week we got the forcemain inspected for the Clintondale Pump Station. We were notified last week about a gusher in the Lakeshore Interceptor near L'Anse Creuse Middle School. Doetsch had it fixed as of yesterday. It was just clear water.

Mr. Downing updated on Phase II Grouting. The critical area grouting is complete, and grouting operations will resume in non-critical areas when daily flow control operations allow.

Mr. Downing said that we are still making great progress on the Odor and Corrosion Facilities. He showed pictures of the Biofilter in Fraser and said that the media has been delivered to the site. He then passed around containers filled with the carbon material for the filters. J.F. Cavanaugh will start working this week or early next week. Right now, the schedule looks like this facility will be back online late March or early April.

Mr. Downing said that Garfield and 21 Mile Road facility is still in progress with a substantial completion date of August 23, 2024. Also, he gave a quick update of the NGI Pump Station, saying that the delivery of the two tanks got pushed to December 5<sup>th</sup>. They will need a couple weeks to get everything together and it should be online after the first of next year.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to receive and file the project updates.

Adopted: YEAS: 3  
NAYS: 0

Mr. Astorino presented a Change Order for AEW for the Garfield Interceptor Lining project. They were doing a routine inspection of the Interceptor and found significant degradation. MCPWO added a second phase of work that ended up taking more time than originally anticipated. This led to additional time and increased cost from AEW.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve Change Order #2 for \$53,018 for Construction Contract Administration services with Anderson, Eckstein & Westrick Inc. for the Garfield Interceptor Lining Project.

Adopted: YEAS: 3  
NAYS: 0

The Chair presented the invoices totaling \$5,476,940.53 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve the invoices as presented.

Adopted: YEAS: 3  
NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. VanSyckel and supported by Mr. Santo.

Adopted: YEAS: 3  
NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Mr. VanSyckel that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3  
NAYS: 0

The meeting was adjourned at 11:02 A.M.



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Candice S. Miller, Chair  
Macomb County Public Works Commissioner

STATE OF MICHIGAN  
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on November 13, 2023, the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



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Candice S. Miller, Chair  
Macomb County Public Works Commissioner

DATED: 11/13/23



**Candice S. Miller**

Public Works Commissioner  
Macomb County

**To:** Macomb Interceptor Drain Drainage District Board Members

**CC:** File

**From:** Stephen Downing, Construction & Maintenance Manager  
Vincent Astorino, Operations Director

**Date:** December 11, 2023

**Subject:** Construction Projects Status Updates for December 2023 Board Meeting

The following provides a status update for construction work performed within the Macomb Interceptor Drain Drainage District for the previous month.

## **Segment 5 Rehabilitation**

**Contractor:** Oscar Renda

**Engineering Consultant:** FK Engineering

### **Project Description:**

The Segment 5 reach of the Romeo Arm Interceptor is approximately 8,300 linear feet; it runs along 15 Mile Road starting at the ITC Corridor and extends east to approximately Hayes Road. The first 7,000 linear feet is 11-foot diameter non-reinforced concrete pipe, and the next 1,300 linear feet is 8-foot diameter steel reinforced concrete pipe. The rehabilitation consists of debris removal, cleaning, and inspection of the pipe's invert. Next, HOBAS pipe will be used to slip line 7,000 linear feet of the 11-foot diameter sewer and the 1,300 linear feet section of 8-foot diameter pipe will be coated with a corrosion resistant geo-polymer spray applied coating. To facilitate this work, a new control structure and access shaft is under construction in the ITC Corridor. The new control structure will provide the contractor access to the sewer to facilitate the work and will also serve as a dewatering pump station to draw down the upstream water level in the sewer.

### **Significant project tasks that have occurred over the past month:**

1. Continued development, review, and approval of the required construction submittals.
2. Ground dewatering well maintenance and monitoring.
  - o The groundwater has rebound to its native elevation. We continue to monitor the drop pipes and structure for infiltration. The wells will remain available for installation of pumps until the completion of the project.

- The downstream drop pipes were inspected this month, there was no infiltration observed, no issues noted.
- 3. CS-12 Pump Station and Control structure status, which includes:
  - MCPWO personnel continue the operation of the pump station and make adjustments to maximize the efficiency of the pump station for the Contractor to perform their work.
  - The Contractor is performing the regular pump station maintenance during construction.
  - There was an issue with the MCC this month resulting in a few days with out flow control to assess the issues. It was determined that there were loose electrical connections in the MCC that cause arcing and a distinct smell. This issue has been resolved; a detailed report of the findings is forthcoming.
- 4. Sediment and Debris Removal
  - Continued debris/sediment removal with a skid-steer that has a modified bucket.
  - The debris/sediment is a sandy material which is decanting very quickly – this allows the material to be hauled off site regularly.
  - Approximately 4,900 tons of material has been removed
  - Approximately 6,500 linear feet
- 5. Manhole Rehab & Spray-Lining
  - No activity this month.
- 6. HOBAS Pipe Slip-Lining
  - The Contractor is preparing their pipe carrier for HOBAS installation.
  - The Contractor performed their in-tunnel survey to layout stationing for slip-lining
- 7. Weather & Maintenance
  - There were minimal disruptions to work in the Interceptor during the month.

**Construction Costs:**

	Date	
Original Contract Amount	10/21/2020	\$28,807,500.00
Current Contract Amount	11/30/2023	\$35,433,572.23
Total Spent to Date	11/30/2023	\$28,154,805.75
Remaining Budget	11/30/2023	\$7,278,766.48





*Figure 1 – CS-12 Pump Station, Construction Yard*

**OFFICE LOCATION:** 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933  
**ENGINEERING** • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264



*Figure 2 – Pipe Carrier Testing*



*Figure 3 – Pipe Carrier Testing*



*Figure 4 – Pipe Carrier Testing*



*Figure 5 – Pipe Carrier Testing with HOBAS Pipe*



*Figure 6 – Lowering in HOBAS to Test Pipe Carrier*

## Segment 6 Rehabilitation

**Contractor:** Ric-Man Construction

**Engineering Consultant:** FK Engineering

### **Project Description:**

The Segment 6 Rehab project includes the rehabilitation of these main elements:

1. Cleaning and slip-lining (Hobas) of the 5-foot diameter 15 Mile Interceptor from MH-01 at Garfield Road and 15 Mile to MH-04 approximately 2200 feet east along 15 Mile.
2. Cleaning and slip-lining (Hobas) the 1400 linear feet 11-foot diameter Romeo Arm Interceptor sewer between CS-3 on 15 Mile Road and CS-2 on Garfield north of 15 Mile Road.
3. Rehabilitation of the Meter Facility FR-S-1 on Garfield south of 15 Mile Road.
4. Rehabilitation and spray-lining of the CS-2 and CS-3 control structure facilities. These concrete structures have been damaged by H2S damage over time and need repair.
5. Installation of an air-jumper to be incorporated into the existing Biofilter facility. This is being done to address the high level of odor issues that have resulted over the years from the intersection of 15 Mile and Garfield.
6. Installation of a new gate control structure on the 15 Mile Interceptor. This will allow for the rehabilitation of the MH-01 structure and provide future storage options within that interceptor.

The project started in September 2021 and is scheduled to be completed in May 2024 based on the November 2023 schedule update.

### **Significant project tasks that have occurred over the past month:**

1. The Contractor continues to develop and submit the required submittals to the Engineer.
2. Continued the debris/sediment removal between CS-2 and CS-3.
  - o Approximately 750 linear feet of pipe cleaned
  - o The cleaning setup was moved to the downstream MH-10.
  - o Ric-Man is discussing cleaning support with Oscar Renda to expedite the debris removal.
3. All straight sections of HOBAS pipe have been delivered. There are 13 mitered sections currently being fabricated.
4. Ric-Man did not submit a pay application for the month of November.

### **Construction Costs:**

	Date (if applicable)	
Original Contract Amount	5/1/2021	\$13,541,545.00
Change Order No. 1	8/1/2021	\$132,664.70
Total Contract Amount	11/30/2023	\$13,674,209.70
Total Spent to Date	11/30/2023	\$10,889,150.33
Remaining Budget	11/30/2023	\$2,785,059.37



*Figure 7 – Aerial View at CS-3 of Debris Removal Equipment*





*Figure 8 – MH-10 Ventilation and CSE Entry for Cleaning Operations*



*Figure 9 – Cleaning Setup at CS-3*



*Figure 10 – RAI Curve Sediment & Debris*



*Figure 11 – CS-3 Gates – View from Upstream*



*Figure 12 – RAI Curve Sediment, Debris & Condition*



*Figure 13 – RAI Curve Sediment, Debris & Condition*



*Figure 14 – RAI Curve Sediment, Debris & Condition*



*Figure 15 – RAI Curve Sediment, Debris & Condition*



## 2023 Interceptor Inspection Program

**Contractor:** Taplin

**Engineering Consultant:** NTH

### **Project Description:**

The 2023 sewer inspection program was awarded to Taplin in March 2023. The inspection program includes inspection of approximately 24 miles of sanitary sewer ranging from 2-feet to 12-feet in diameter and 152 manholes across the MIDDD and 8.5 Mile Districts.

As part of the MIDDD inspection, sonar and laser scanning will be performed within the interceptors. This data will be used to not only correlate laser scan data to the 2017 inspection, but the sonar data will be used to develop design drawings to remove the sediment within the MIDDD interceptors.

The inspection interval for the entire system is based on a 3-year cycle, where non-reinforced concrete pipe is inspected every 3 years and reinforced concrete pipe is inspected every 6 years.

### **Significant project tasks that have occurred over the past month:**

1. The Inspection work in the Lakeshore Interceptor is completed and Multi-Sensor data has been processed and submitted.
2. Romeo Arm, Garfield Interceptor, and 15 Mile Interceptor (gravity portion) inspections have been completed and the data is being processed.
3. 15 Mile Interceptor forcemain inspection has been completed and the data is being processed.
4. Waiting on final data transfer and the punch list will be created to begin project closeout

### **Construction Costs:**

	Date (if applicable)	
Original Contract Amount	4/10/23	\$591,319.40
Total Spent to Date	Through Pay App #2	\$149,697.05
Remaining Budget	10/31/2023	\$441,625.35

**\*This Table reflects the MIDDD costs only.**

## Phase II Grouting

**Contractor:** Doetsch Environmental Services, Inc.

**Engineering Consultant:** AEW

### **Project Description:**

The Phase II Grouting project was awarded to Doetsch Environmental during summer 2020. The work includes chemical grouting of the sewer and manholes where infiltration is present. The work is planned in all reaches of the system not included in the Segment 5 or portion of the Romeo Arm rehabilitated during the 2016 Interceptor Collapse. The main areas of work include the Romeo Arm along Garfield Road between 15 Mile and Clinton River Roads, the Garfield Interceptor between Clinton River and 21 Mile Roads, and the Lakeshore Interceptor between the Clintondale Pump Station at 15 Mile and Union Lake and Joy Boulevard in Harrison Township. The chemical grouting is aimed to stop all active infiltration within the system in advance of future rehabilitation and maintenance projects.

### **Significant project tasks that have occurred over the past month:**

1. The crew mobilized to address a gushing infiltration in the Lakeshore Interceptor on Reimold Street by the Middle School. The infiltration was discovered by Taplin while inspecting this reach of Interceptor.
2. The critical area grouting is complete, grouting operations will resume in non-critical areas when daily flow control operations allow.

### **Construction Costs:**

	Date	
Original Contract Amount	6/24/2020	\$3,000,000.00
Change Order No. 1	3/14/2022	\$3,000,000.00
Current Contract Amount	11/30/2023	\$6,000,000.00
Total Spent to Date	11/30/2023	\$4,432,736.20
Remaining Budget	11/30/2023	\$1,567,263.80



Figure 16 – Location of Gushing Infiltration in Lakeshore Interceptor



*Figure 17 –Gushing Infiltration in Lakeshore Interceptor*



*Figure 18 –Gushing Infiltration in Lakeshore Interceptor*

## Odor & Corrosion Control Facilities

Contractor: L. D’Agostini & Sons

Engineering Consultant: Tetra Tech

Project Description:

The Macomb Interceptor Drain completed a system-wide odor and corrosion study to evaluate the need for additional odor and corrosion control facilities to mitigate corrosion induced degradation of the interceptor and nuisance odors emitting from the interceptor near homes, businesses and public spaces. This effort is concentrated on extending the useful life of the interceptor and reducing nuisance odors emitting from the interceptor.

The study identified the need to construct three new odor and corrosion control facilities. Additionally, it was determined that the existing open-bed woodchip media type Fraser Bio-Filter would be more efficient and effective if converted to an enclosed bio-filter with an engineered media. The locations of the new facilities were determined through analysis and computer modeling using data that was collected in the field during the study phase. The facilities are intended to complement one another to reduce hydrogen sulfide induced corrosion.

The facilities are summarized in the Table below:

Facility	Location	Filter Type	Media Type
Fraser	15 Mile & Garfield	Bio-Filter	Engineered
Macomb Township	21 Mile & Garfield	Bio-Filter	Engineered
Clintondale PS	Union Lake & Sorrentino	Carbon Filter	Carbon
NGI Pump Station	Gratiot & Concordia	Chemical Injection	Calcium Nitrate

The construction contract was awarded to L. D’Agostini & Sons in October of 2022 and the contractual Notice to Proceed was issued with an effective date of December 2, 2022. The number of days to achieve substantial completion is 630 days, resulting in a contractually required substantial completion date of August 23, 2024.

The construction work commenced in January of 2023 and is estimated to be completed by the fall of 2024. The estimated schedule for each site is summarized in the table below:

Facility	Location	Start Date	Finish Date
Fraser	15 Mile & Garfield	March – 2023	March – 2024
Macomb Township	21 Mile & Garfield	April – 2023	August – 2024
Clintondale Pump Station	Union Lake & Sorrentino	September – 2023	May – 2024
NGI Pump Station	Gratiot & Concordia	January – 2023	January – 2024

\*The dates are based on the Construction schedule dated November 8, 2023

Significant project tasks that have occurred over the past month:

1. The Contractor is developing and submitting the required submittals to the Engineer & Owner for review.
2. NGI PS Site:
  - a. The site restoration is completed
  - b. Chemical storage tanks expected to be delivered in December
    - i. 1-2 weeks of work once the tanks are received
3. Clintondale PS Site:
  - a. Completed installation of the FAD line
4. 21 Mile & Garfield Site
  - a. Stabilized and cleaned out the excavation
  - b. Resumed construction of the foundations for the bio-filter chamber
5. Fraser Site
  - a. Completed the construction of the structure
  - b. Completed back-fill and compaction around the structure
  - c. Installed the engineered media in the chamber
  - d. Installed the water piping in the chamber
  - e. Placed the pre-cast concrete lids on the chamber

Construction Costs:

	Date	
Original Contract Amount	12/2/2022	\$11,799,678.78
Change Order No. 1	9/9/2023	\$283,792.72
Current Contract Amount	11/30/2023	\$12,083,471.50
Total Spent to Date	11/30/2023	\$6,189,396.44
Remaining Budget	11/30/2023	\$5,894,075.06



*Figure 19 – Aerial View of the Fraser Biofilter*





*Figure 20 – Fraser Bio-Filter Roof Slab Installation*



*Figure 21 – Fraser Bio-Filter with Carbon Media & Water Piping*



*Figure 22 – Fraser Bio-Filter Media*



*Figure 23 – Macomb Bio-Filter Media Chamber Foundation Construction*



*Figure 24 – Aerial View of Maccomb Bio-Filter Site*



**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations Director

Date: December 11, 2023

Subject: Clintondale Pump 4 Rehabilitation – Contractor Recommendation

The Clintondale Pump Station was originally constructed in 1973 and, upon transfer of ownership from DWSD to the newly-formed Macomb Interceptor Drain Drainage District (MIDDD), was significantly rehabilitated in 2015 and serves as the backbone of the easterly portion of the MIDDD system. The Clintondale Pump Station has four (4) pumps, each with the capability to deliver approximately 30 cfs (cubic feet per second) each; totaling a station capacity of 120 cfs.

In the Fall of 2023, Pump No. 4 at the Clintondale Pump Station began experiencing higher than typical vibrations, which were outside of the acceptable vibration range. Macomb County Public Works Office (MCPWO), on behalf of the MIDDD, began investigating the cause of this issue by conducting additional vibration testing and visually inspecting the inside of the pump column. It was observed that the enclosure tube around the pump shaft had been split open, causing the high vibrations. MCPWO staff subsequently removed pump 4 from service to prevent any further damage to the pump.

Shortly after pump 4 was removed from service, MCPWO engaged METCO Services (via their existing as-needed contract) to prepare the contract documents for prospective bidders to make the necessary repairs to pump 4. Given the criticality of minimizing the time that the Clintondale Pump Station would not meet full station pumping capacity, MCPWO staff felt it appropriate to provide this design package to pre-qualified mechanical contractors. Three (3) mechanical contractors were presented the bid package on November 1, 2023. MCPWO received lump sum bids from each on November 28, 2023, and is summarized as follows:

Contractor	Bid Price
Progressive Mechanical	\$430,452.00
Weiss Construction	\$670,500.00
De-Cal, Inc.	\$1,028,000.00

In addition to the base bid prices presented above, MCPWO requested an alternative price for the pump manufacturer to inspect, verify, and refurbish the remaining pump casing sections. The cost for this additional work was **\$84,315.00** as presented in Progressive Mechanicals bid. The existing pump bowl assembly will also be sent in to be evaluated but costs are unknown at this time for any rehab that may be required. It is anticipated that cost should be lower as the core problem is with the pump shaft.

As part of the bid package, potential bidders were asked to include a **\$15,000** allowance for any pump manufacturer additional items discovered. Further discussion with the manufacturer suggested that this allowance should be raised to **\$50,000**.

METCO has performed a review of Progressive Mechanical's proposal and has indicated they believe they are capable of performing the work. The project manager from Progressive Mechanical installed all four pumps as part of the 2015 rehab project.

**MCPWO staff is recommending to award the contract to Progressive Mechanical in the total amount of \$549,767.00 to perform the work associated with the Clintondale Pump Station Pump 4 Repairs, including the additional manufactures inspection, and additional allowance money.** MCPWO staff is confident that Progressive Mechanical will be able to perform the work for the bid price. Upon board approval, MCPWO staff will coordinate with Progressive Mechanical to finalize the contract. The MIDDD has routinely collected life cycle costs at the Clintondale Pump Station for situations such as this, currently totaling \$675,000, which are recommended to be used to complete these necessary repairs.

Attachments: Progressive Mechanical Bid -- Dated November 28, 2023  
METCO Recommendation Letter -- Dated December 4, 2023

December 4, 2023

Office of Macomb County Public Works Commissioner  
 21777 Dunham Road  
 Clinton Township, MI 48036

Attn: Steve Wagner, P.E.

RE: Macomb County Public Works Office (MCPWO) – Project # WWS-2023-010  
 Clintondale Pump Station Pump #4 Repair  
 Bid Evaluation and Recommendation

Dear Mr. Wagner

Background:

This project’s scope is to repair the existing Pump #4 at the Clintondale Pump Station. The pump is experiencing high vibrations and, after a video investigation, the inner enclosure tube was observed with a crack. The work for this task includes removing the existing pump, inspecting the entire pump, replacing damaged/worn parts, and re-installing the pump.

The project request for proposal was delivered via email to (3) prospective bidding Contractors, DE-CAL Service Group (DE\_CAL), Progressive Mechanical, and the Weiss Construction Co, on Wednesday, November 1, 2023. One addendum was issued during the bidding period. On November 28, 2023 before 3:00 PM, MCPW and METCO received the following three (3) bids:

Item #	Description	U/M	Quantity	De-Cal		Weiss		Progressive Mechanical	
					Bid Price		Bid Price		Bid Price
1	Mobilization (max 5% of total)	LS	1	\$	42,000	\$	30,000	\$	15,000
2	Project Management	LS	1	\$	74,196	\$	65,000	\$	12,000
3	Parts Procurement (see note 1)	LS	1	\$	331,910	\$	340,000	\$	222,093
4	Pump Removal and Inspection	LS	1	\$	180,881	\$	80,000	\$	55,100
5	Pump Repair and Installation	LS	1	\$	342,289	\$	87,000	\$	80,259
6	Pump Startup and Testing (excluding Manufacturer's Services)	LS	1	\$	9,923	\$	3,000	\$	10,000
7	Demobilization and Final Cleaning	LS	1	\$	13,441	\$	10,000	\$	6,000
8	1-Year Warranty	LS	1	\$	3,360	\$	5,500		
9	All other contract requirements not identified above	LS	1	\$	-	\$	20,000		
10	Manufacturer's Services Allowance	LS	N/A	\$	15,000	\$	15,000	\$	15,000
11	Shipping Allowance	LS	N/A	\$	15,000	\$	15,000	\$	15,000
<b>TOTAL</b>				<b>\$</b>	<b>1,028,000</b>	<b>\$</b>	<b>670,500</b>	<b>\$</b>	<b>430,452</b>
							Alternate 1	\$	84,315
							Total with Alternate 1	<b>\$</b>	<b>514,767</b>

Bid Evaluation:

All three (3) bids were considered complete, and all three (3) firms had adequate experience to perform the work required as part of this task.



Recommendation:

METCO, through this bid evaluation, has found that the low bidder, Progressive Mechanical is competent and capable of performing the work set forth in the bid documents. METCO recommends that the Alternate be performed, and that the Manufacturer's Service Allowance be increased to \$50,000. Therefore, METCO recommends that the low and responsive bid, for a total amount of \$549,767.00 from Progressive Mechanical be considered by MCPWO for contract award on this Project.

Should you have any questions or need further clarification, please contact Dan Martel at (313) 995-5653.

Respectfully,

METCO SERVICES, INC.

A handwritten signature in black ink, appearing to read "Dan Martel", with a stylized flourish at the end.

Daniel J. Martel, AIA  
Senior Project Manager

Cc: S. Wagner P.E. - MCPW



Date Tuesday, November 28, 2023

Mr. Jared Buzo

Metco Services  
535 Griswold, Suite 540  
Detroit, Mi 48226

**RE: Macomb County Public works Office (MCPWO) - Project #WWS-2023-010  
Clintondale Pump Station Pump #4 Rehabilitation**

Mr. Buzo,

Progressive Mechanical, Inc. is pleased to provide you with our mechanical proposal for the project mentioned above. We propose to furnish labor, supervision, materials, and equipment for the sum of \$430,452.00 (Four Hundred Thirty Thousand Four Hundred Fifty-Two Dollars & No Cents). For the Base Contract work items listed below.

- **No factory warranty is being provided for the repair of Pump 4. We will only provide a 1-year warranty for workmanship for reassembling the pump.**
- **Field service Cost or shipping cost beyond the allotted cost are by the owner (MCPWO)**

**Alternate 1 added cost is \$84,315.00 If selected.**

**1. Cost for Pump Casing verification, inspection, and refurbishment By Fairbanks Morris for the 24" Pump casing pipe sections Time Frame 8-10 weeks plus freight time.**

- Electrical Disconnect of the power and instrumentation wiring for pump motor removal
- Remove the Motor for P-4 and store it in the motor room.
- Remove Pump shaft Mechanical seal and pump shaft stuffing box.
- Remove Pump Motor adapter plate and Pump motor base plate.
- Remove the existing Pump shafting, pump shafting casing piping, and brass shaft bearings, 24" Dia Pump discharge piping from the motor to the pump.
- Remove the pump and power wash the pump for shipment to Fairbanks for inspection, testing and possible repairs. (Shipping and Inspection / repair cost by others)
- Purchase New shafting, bearings, shafting casing, Mechanical shaft seal repair kit for installation on P-4.
- Remove spare pump from the storage garage and prep it for installation.
- Assemble P-4 using the existing spare pump. and the existing 24" Pump discharge pipe. New stainless-steel shafting, Shaft Bearings purchased from Fairbanks Morris / Kerr pump. do this in conjunction with the first trip from Fairbanks / Morris Pump tech to confirm the Pump assembly procedures.
- Install the Pump motor / pump mounting base.
- Install the Pump shaft stuffing Box.
- Install the motor on the Pump base assembly.
- Work to be completed at start up. Couple the pump Shaft to the Motor Shaft and install the mechanical shaft seal.

- Start-up Pump with (Fairbanks / Morris Pump tech) complete vibration testing to get a vibration base line.

## Pump Repair schedule

1. Submittal process
  - a. Submittal preparation 2-3 weeks
  - b. Submittal review 2-3 weeks
2. Procurement of parts 8 to 10 weeks
3. Parts delivery and storage 4 days.
4. Start the Pump disassembly in 2-3 weeks.
5. Pump Section and Pump Casing sections cleaning and loading for shipment back to Fairbanks Morris for inspection and repairs 8-10 weeks.
6. Pump Install in 2-3 weeks.
7. Pump start up and testing 1 week.
8. Final Paperwork start up reports and O and M manuals and warranty information 2 weeks.

## Inclusions:

1. Submit Pre-task plans as required per work task.
2. Daily toolbox talks.
3. quality and work standards.
4. Identifiable cleanup.
5. Straight time only.
6. *ISNetworld Contractor Member #400-206011*
7. 100% Veteran Owned Business Participation.

## Exclusions:

1. **The Pump Warranty will be 90 days for new parts installed, not one year.**
2. Premium Time.
3. Holiday work.
4. All power by GC's.
5. AGCA cleanup fees.
6. Liquidated Damages.
7. Dedicated safety, operator, or laborer.
8. Dumpsters or scrap bins.
9. Temporary utility costs, restrooms, air compressors, power, or lighting.
10. Electrical cost for any existing electrical work regarding the repairs or unforeseen repair of electrical equipment.
11. All electrical control work.
12. Pump problems relating to existing or reused pump materials.
13. All concrete work, concrete repair work

## **Safety**

EMR 2022 -	.74
DART-IR	.0
RIR	.0

We hope the above meets with the approval of all concerned, please do not hesitate to contact me if you should have questions or require further information.



1080 N. Crooks Rd., Clawson MI. 48017  
Phone (248) 399-4200 FAX (248) 399.4413  
Website: [www.progressivemech.com](http://www.progressivemech.com)

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This proposal is valid for **(30 days)**.

Respectfully Yours,

**Progressive Mechanical, Inc.**

*Gregory A. Baranski*

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Gregory A Baranski  
Project Manager/Estimator

Email: [gbaranski@progressivemech.com](mailto:gbaranski@progressivemech.com)

Mobile: 586-855-1459

Item #	Description	U/M	Quantity	Unit Price	Bid Price
1	Mobilization (max 5% of total)	LS	1		\$ 15,000.00
2	Project Management	LS	1		\$ 12,000.00
3	Parts Procurement (see note 1)	LS	1		\$ 222,093.00
4	Pump Removal and Inspection	LS	1		\$ 55,100.00
5	Pump Repair and Installation	LS	1		\$ 80,259.00
6	Pump Startup and Testing (excluding Manufacturer's Services)	LS	1		\$ 10,000.00
7	Demobilization and Final Cleaning	LS	1		\$ 6,000.00
8	1-Year Warranty	LS	1		\$ -
9	All other contract requirements not identified above	LS	1		
10	Manufacturer's Services Allowance	LS	N/A	N/A	\$ 15,000.00
11	Shipping Allowance	LS	N/A	N/A	\$ 15,000.00
Sub total with OUT alternate #1 [ Sum of Lines (1) through (11)]:					\$ 430,452.00
Alternate #1 Cost					\$ 84,315.00
<b>TOTAL BID PRICE with Alt #1 [ Sum of Lines (1) through (11) and line 14):</b>					<b>\$ 514,767.00</b>

Note 1: 90% of this line item will be paid upon parts arrival on site. The remaining 10% will be paid upon startup.

Note 2: This project is subject to retainage. Refer to 00 62 76 Application for Payment



# KERR PUMP AND SUPPLY

12880 Cloverdale • Oak Park, MI 48237 • Ph: 248-543-3880 • Fax 248-543-3236  
Grand Rapids - Ph: 616-698-2808 • www.kerrpump.com

**Date:** November 27, 2023

**Kerr Reference:** QTE225829

**Subject:** MCPWO, MI – Project #WWS-2023-101 Clintondale PS Pump 4 – 24VTSH - Field Service.  
Pump Serial Number: 2196182

## Scope of Work

### Clintondale PS Pump 4 – 24VTSH - Field Service

Three (3) Factory Field Service trips to supervise removal of the subject unit, supervise/witness the installation of the subject unit and supervise the start-up of the subject unit. Below we have outlined the scope of work and pricing of the three (3) separate trips; additional labor and material needed outside the scope will be an additional cost.

Kerr's quote is for parts and Fairbanks field supervision only. Fairbanks field services are in a consulting capacity only. No guarantee of pump performance is included.

Kerr is responding only to the two page METCO letter dated November 1, 2023 attn.: Prospective bidders. Scope of work to be done is as follows. For clarity FN = Fairbanks Nijhuis Service Group.

- Purchase new parts for installation on P-4, including the following from the Pump Manufacturer

- shafting from the motor coupling to the pump coupling

**FN Recommendation:** Replace all line shafting.

- shafting couplings

**FN Recommendation:** Replace all shaft couplings.

- key and connectors

**FN Recommendation:** keys and thrust rings to be reused.

- bearings /Shaft casing couplings

**FN Recommendation:** Replace all enclosing tube bearing connectors and line shaft keyed couplings.

- 5" dia. shaft casing piping-

**FN Recommendation:** Replace all enclosing tubes.

- Mechanical shaft seal repair kit

**FN Recommendation:** Replace Seal Repair kit and Seal Polymer Kit

- Waterline

**FN: By others**

- Additional ancillary equipment as recommended by the Manufacturer for repair.

**FN: Recommend replacing column hardware.**

- Provide submittals for all parts prior to purchasing.

**FN: Original Pump Submittals still apply to FN supplied components and should be referenced.**

- Install new parts as necessary based upon inspection. Any new parts not used are to be turned over as spare parts

**FN: Acknowledge.**

- Remove the motor for P-4 temporarily. Protect and store the motor per manufacturer recommendation in a location on site as directed by MCPW. After the removal of the pump, shaft, and associated equipment, provide temporary cover and seal over the opening.

FN: By Others.

- Remove pump shaft mechanical seal and pump shaft stuffing box.

FN: By Others

- Remove pump motor adapter plate and pump motor base plate.

FN: By Others, Match mark required.

- Remove the existing pump shafting, pump shafting casing piping, and brass shaft bearings, 24" dia pump discharge piping from the motor to the pump.

FN: By Others, must match-mark line shaft couplings and coupling clam shells and package as set. Match mark column during disassembly on each flange to confirm location in pump and timing in relation to adjacent column components. Packing box/Tube tension nut will need to be removed prior to removing the Pedestal. This may require access through discharge flange to hold back pressure on enclosing tube to unscrew packing box/tube tension nut at packing box location. Often enclosing tube is cut for removal and is an acceptable approach as well if hot work permit is approved. Packing Box/Tube Tension nut has left hand threads. Match-Mark line shafting in location not to interfere with line shaft coupling machine fit. Crate components for return to Factory for inspection in workmanlike manner.

- Remove the pump and power wash the pump for shipment to Manufacturer's Representative for inspection, testing and possible repairs. (Shipping will be paid from an allowance)

FN: Power washing is by Others. FN can include dedicated transport as needed. Recommend that all column register fits are welded and machined to OEM tolerances. Due to column length, concentricity is checked by machine. Set-up time will be minimized by rewelding fits before inspection. We recommend the Pedestal to column fit is visually inspected after removal and determined if it should be returned for register fit refurbishment to Factory

- Remove spare pump/bowl from the storage garage and prep it for installation.

FN: By Others. Recommend validation of storage environment. Unit should have been stored in a clean dry location, free from vibration, wide temperature ranges, and protected from foreign object(s)/dirt ingress etc. Recommend sharing pictures of storage environment and confirming storage conditions for review by Factory and any recommended adjustments are made prior to installation of spare bowl assembly. Spare bowl could require inspection at Factory. Transportation by Others however FN can include dedicated transport as needed.

- Provide temporary blind flange on discharge pipe for isolation after pump removal.

FN: By Others

- Assemble P-4 using the existing spare pump/bowl and the existing 24" pump discharge pipe. New stainless-steel shafting, shaft bearings purchased from Manufacturer, and of the same model and manufacturer used for the original installation, unless recommended otherwise by the Pump Manufacturer. Perform this work with the Pump Manufacturer's Representative present to confirm the pump assembly procedures. Installed pump shall be fully functioning and a complete pumping system. Installation includes:

FN: Recommend all line shaft couplings, line shafting, enclosing tube (Coated to original Spec), enclosing tube connector bearings, Packing box bearing, gaskets o-rings, column hardware is replaced. FN will support 3 days onsite of installation supervision. Additional days will be door-to-door, with day rate and expenses at cost.

- Install the pump motor / pump mounting base.

FN: Support installation with Factory Tech for installation supervision

- Install the pump shaft stuffing box.

FN: Support installation with Factory Tech for installation supervision

- Install the motor on the pump base assembly.

FN: Support installation with Factory Tech for installation supervision

- Install the motor adapter plate on the pump base assembly.

FN: Support installation with Factory Tech for installation supervision. Factory Tech to record pump level values at motor mounting flange and record and provide recommendations as needed.

- Couple the pump shaft to the motor shaft and install the mechanical shaft seal.

FN: Support installation with Factory Tech. Factory Tech to install seal repair kit. Impeller clearance will be set above OEM tolerance, unit will be operated and then reset to OEM tolerance to correctly seat line shaft couplings. Factory Tech will reset seal after final impeller clearance is set but prior to final commissioning.

- Reconnect all wired connections including power and all SCADA connections. Coordinate with the Owner's SCADA Engineer.

FN: By Others

- Start-up pump and verify correct installation including alignment, operations, and SCADA connectivity.

FN: Factory Tech to validate pump level and align motor to pump with Contractor Labor assistance.

- Provide startup services including baseline vibration testing.

FN: Field Service will restart unit per HI and collect baseline vibration.

- Provide start-up and testing reports.

FN: Field Service will provide commissioning report within 2 weeks of commissioning of P-4

- Provide certificate of installation.

FN: Certificate of Installation is typically provided at the initial install. We will provide documentation on reassembly for record and our pump commissioning report. We will provide recommendations during reassembly and note if recommendations were overlooked. No Factory Warranty is being provided or implied by our installation supervision.

- Manufacturer Services will be paid from allowance Bid Item 10.

FN: Providing OEM Parts, recommendations, and services as requested. Allowance distribution by Others.

- Project shall be completed promptly after arrival of parts on site. Indicate completion time in proposed schedule.

FN: Suggest OEM parts are released without delay and the pump is removed once the parts have arrived at site. The timing of refurbishment of the column and potentially the pedestal can only be determined when they are ready to return..

Bidding Contractor shall provide a maximum 3-page letter on their company's letterhead that outlines their understanding of the project, including clarifications, inclusions or exclusions, assumptions, proposed schedule, and a completed bid table. Include a write up of the work plan to complete the pump removal and repair.

FN: Special installation fixtures was used during initial install. Unit was assembled on 2<sup>nd</sup> floor one column section at a time and the top column and pedestal was assembled from 1<sup>st</sup> floor. Strongly suggest Owner review installation documentation and confirm if special fixtures are still available or if they need to be fabricated. All rigging and rigging plans by Others. Any goods or services not listed are by Others.

## **First Visit – Pump Removal**

### **Scope of Work:**

- Field trip to job site includes one tech for three (3) days on site (Tuesday thru Thursday), five (5) days total (door to door).
- Field Service and supervision from OEM to supervise removal of the subject unit.

Customer will be responsible to have all electrical disconnected before techs arrival.

Customer to permanently match-mark components during removal and photo document and compile in report format for Owner record. We will provide a field report documenting as found conditions and report out on activities during our 1st site visit. We will provide field report within 10 business days.



## **Second Visit – Pump Reinstall**

### **Scope of Work:**

- Field trip to job site includes one tech for three (3) days on site (Tuesday thru Thursday), five (5) days total (door to door).
- Field Service and supervision from OEM to supervise installation of the refurbished subject unit.
- Factory Field Service to witness/Supervise installation of the refurbished subject unit:

  - Supervise installation of the pump / pump mounting base.
  - Supervise installation of the pump shaft stuffing box.
  - Supervise installation of the motor on the pump base assembly.
  - Supervise installation of the motor adapter plate on the pump base assembly.
  - Supervise coupling of the pump shaft to the motor shaft and assist Factory Field Tech to install the Owner supplied mechanical shaft seal kit.
  - We will provide a field report documenting as found conditions and report out on activities during our 2nd site visit. We will provide field report within 10 business days.

## **Third Visit - Pump Restart**

### **Scope of Work:**

- Field trip to job site includes one tech for two (2) days on site (Tuesday and Wednesday), four (4) days total (door to door).
- Field service and supervision from OEM to start-up pump. Installed pump shall be fully functioning. Start-up services includes:
  - Baseline vibration testing.
  - Testing reports.
  - Provide field report within 10 business days.

### **Excluded items from the Work Scope:**

Crane rental

All rigging and tools

All Electrical, Scada, Owner Controls

Any materials or services not listed.

### **Net price for the above scope of work would be as follows:**

First visit \$15,750.00 USD Net per pump.

Second visit \$15,750.00 USD Net per pump.

Third visit \$13,250.00 USD Net per pump.

Any additional days needed will be billed separate @ \$2,000.00 per person per day, plus expenses at cost plus 10%. At least 2 – 3 weeks notice to schedule each visit.

The above quotation is valid until May 31, 2024. Taxes are excluded, and will be billed separately, as applicable.

Pentair hereby expressly rejects the flow down or application of FAR 52.223-99 and DFARS 252.223-7999

If you have any questions regarding this proposal, please feel free to contact myself at your convenience.

## **PARTS PRICING**

Scroll down in this document for parts list with quantities and prices.

Parts pricing is FOB KC KS, Pre-pay and add. Estimated weight is 2,200lbs.

Long Lead-time item was quoted with 8 – 10 week L/T.

## **Recommended Refurbishment of column pipe.**

Scroll down in this document for pricing to send column pipe to Fairbanks for refurbishment.

## **TERMS**

ALL PRICES QUOTED HEREIN ARE FIRM FOR 10 DAYS AND DO NOT INCLUDE TAXES WHICH MAY APPLY AT TIME OF SHIPMENT. ALL PRICING IS QUOTED NET, EXWORKS, FREIGHT COLLECT OR PREPAY AND ADD.

ALL ORDERS ARE BASED UPON APPROVED CREDIT. STANDARD PAYMENT TERMS ARE 100% NET 30. PAYMENT TERMS ON ANY ORDER \$50,000 AND GREATER SHALL BE 50% UPON RECEIPT OF ORDER, 40% PRIOR TO SHIPMENT AND 10% NET 30.

No warranty applies other than the standard Parts warranty which is 90 days.

ITEM	Description	Qty	Price Each	Extended price
23	SHAFT,LINE 2-15/16 X LPO, 111.25"	1	\$ 10,170.00	\$ 10,170.00
23	SHAFT,LINE 2-15/16 X LPO, 120"	4	\$ 10,485.00	\$ 41,940.00
31	CPLG SHAFT	6	\$ 7,849.00	\$ 47,094.00
31b	KEY CPLG	12	\$ 237.00	\$ 2,844.00
N/A	SET SCREW 3/8-16 X 5/8 SOC HD CUP PT	24	\$ 12.00	\$ 288.00
31A	RING THRST 2 15/16" DIA SHAFTING 20,273.40	6	\$ 4,827.00	\$ 28,962.00
ENCLOSING TUBE				
51A	TUBE TOP ENCLOSING 5 X LPO 65.15"	1	\$ 5,453.00	\$ 5,453.00
51B	TUBE FLGD ENCL BOTM 5" X LPO 55.63"	1	\$ 6,382.00	\$ 6,382.00
51	TUBE INTER ENCLOSING 5" X LPO 55.63"	1	\$ 3,672.00	\$ 3,672.00
51	TUBE ENCLOSING 5" X 5 FT. 60"	9	\$ 2,919.00	\$ 26,271.00
50	BRG CONN 24"VTSH W/F 2-15/16"F LSH SFT	11	\$ 2,282.00	\$ 25,102.00
442 SEAL REPAIR KIT				
456	442 SEAL REPAIR KIT	1	\$ 2,398.00	\$ 2,398.00
63	BOX PKG 2-15/16SHFT,3-1/4SLV,E LS,CHESTE	1	\$ 3,263.00	\$ 3,263.00
63B	BRG CONN 3-1/4"SLEEVE X 5" TUBE	1	\$ 1,721.00	\$ 1,721.00
63A	PACKING BOX GASKET	1	\$ 243.00	\$ 243.00
19B & 13	SHAFT-SLV ASSY, LPO X LPO DN S7M7555V 31	1	\$ 16,145.00	\$ 16,145.00
	TOP SHAFT 131.50" LONG W/ SLEEVE S7M377E 2380F			
	INSTALLED 10.75" DOWN			
28A	GASKET, 32.0"OD X 27.25"ID FOR 24" 150#	1	\$ 145.00	\$ 145.00
				\$ 222,093.00

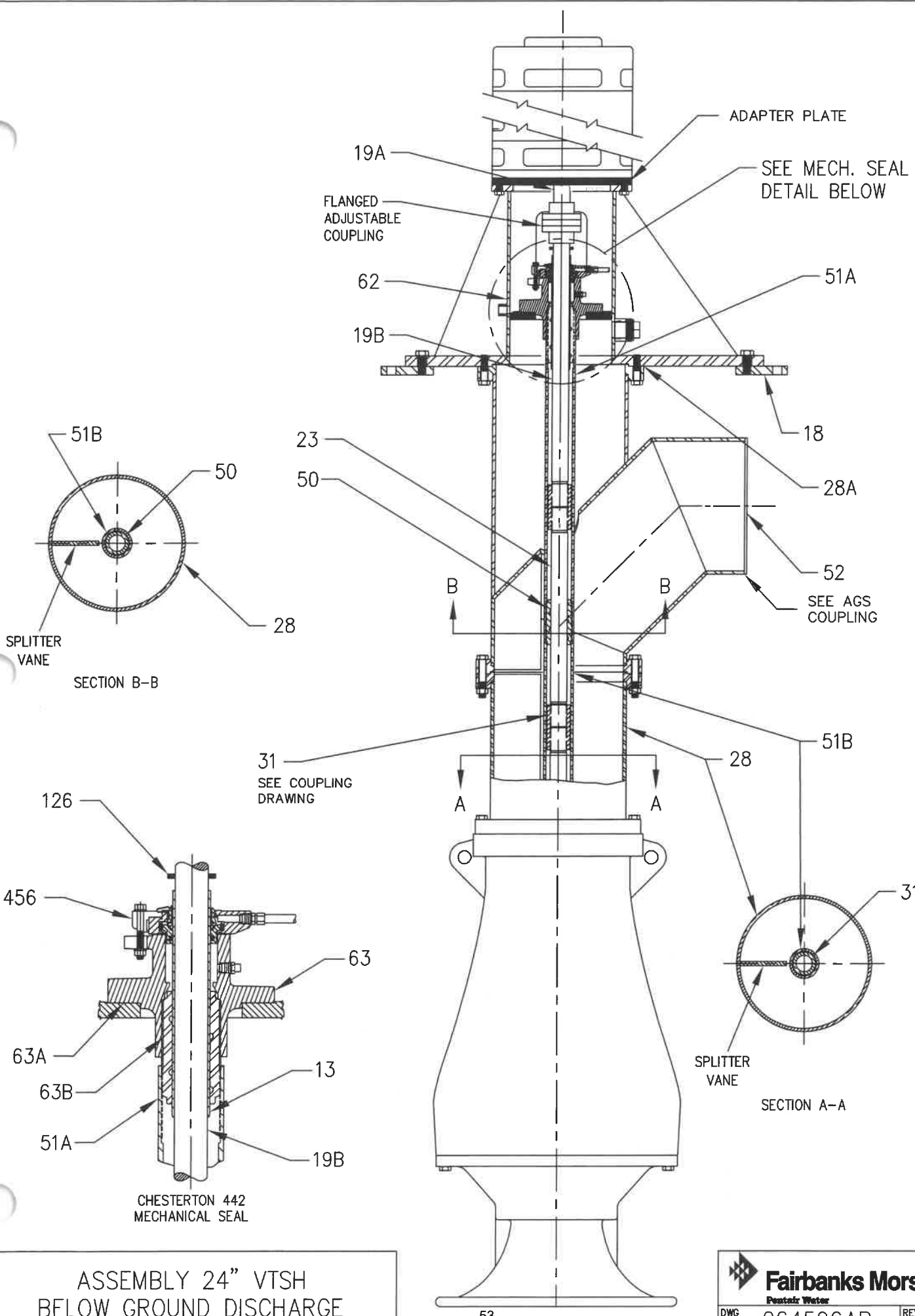
Parts pricing good for order placed on or before 1/29/2024. Pentair has advised distributors to expect a price increase on 1/31/2024 in the neighborhood of 7%

Pricing is FOB Fairbanks in KC KS, Pre-Pay and Add. Estimated weight is 2,200 lbs.

Fairbanks Morse Pump  
Material Specifications

<u>Item</u>	<u>Description</u>	<u>Material</u>	<u>Specification<sup>1</sup></u>
1	Impeller	Cast Iron	A48 Class 30
4	Pump Shaft	Stainless Steel	AISI A582 S41600 MOD
9	Impeller Capscrew	Steel	SAE J429 Grade 8
9A	Impeller Washer	Steel	A108 12114
13	Top Shaft Sleeve	Stainless Steel	AISI 304
16	Bell Wearing Ring	Stainless Steel	A743 Gr CA40 (410-484 BHN)
17	Impeller Wear Ring	Stainless Steel	A743 Gr CA15 (190-241 BHN)
18	Soleplate	Steel	A36 & A53
19A	Drive Shaft	Steel	AISI 1045
19B	Top Shaft	Stainless Steel	A582 S41600
23	Lineshaft	Stainless Steel	A582 S41600
27	Ring, Retainer	Stainless Steel	AISI 302
28	Flanged Column Pipe	Steel	A36 & A53
28A	Head Gasket	Tag Board	D1170 Grade 3111
30	Diffuser Bowl	Cast Iron	A48 Class 30
31	Keyed Shaft Coupling	Stainless Steel	A582 S41600
31A	Thrust Ring	Stainless Steel	AISI 416
31B	Key	Stainless Steel	AISI 416
33	Suction Bell	Cast Iron	A48 Class 30
41	Throttle Ring, Bowl	Stainless Steel	A743 Gr CA40 (300-350 BHN)
50	Connector Lineshaft Bearing	Bronze	B505 C93200
51A	Top Enclosing Tube	Steel	A53
51B	Enclosing Tube, Bottom	Steel	A53
52	Underground Elbow	Steel	A36 & A120
62	Driver Pedestal	Steel	A36 & A120
63	Sealing Box	Cast Iron	A48 Class 30
63A	Sealing Box Gasket	Copper	B152 Alloy 110
63B	Sealing Box Bearing	Bronze	B505 C93200
102	Impeller Key	Steel	A108 C10180
126	Water Slinger	Rubber	Neoprene
163	Bearing, Lower Bowl	Bronze/Rubber	B505 C93200/Neoprene
163B	Restrictor	Teflon	Teflon
168	Bearing, Upper Bowl	Bronze/Rubber	B505 C93200/Neoprene
456	Mechanical Seal	Commercial	Commercial
--	Hydrocone	Aluminum	B26 AL 319.0
	Bowl Bolting	Stainless Steel	AISI 316
	Column Bolting	Stainless Steel	AISI 316
	Discharge Head Bolting	Stainless Steel	AISI 316
	Adapter Plate	Steel	A36

<sup>1</sup> Material specifications are ASTM unless otherwise noted and are for description of chemistry only.



ASSEMBLY 24" VTSH  
BELOW GROUND DISCHARGE



**November 27, 2023**

**Date:**

**Subject:** MCPWO, MI – Clintondale PS Pump 4 – 24VTSH Pump Column  
**Repair** 2196182  
**SN:** QTE225829  
**Quote No:**

**Scope of Repair**  
Clintondale PS Pump 4 – 24VTSH Pump  
Column Repair

**Scope of Repair:**

- Receive column sections in our Kansas City KS repair facility, inbound freight included.
- Disassemble column sections complete.
- Blast clean column sections as needed.
- Provide detailed inspection report.
- Replace the following OEM components:
  - Misc. Gaskets, O-rings, and hardware (as needed)
- The following components will be reused:
  - Column Pipes (after rework)
- Weld and machine column register fits.
- Coat column sections as per the original order.
- Load column sections for shipment to destination, outbound freight included.

Net price for the above scope of work will be **\$76,650.00 per pump**, and the lead time to perform the above scope of work is 8-10 weeks. The lead time will begin after the factory has received the pump and has approval to proceed.

**Notes:**

**A minimum charge of \$32,000 will be assessed after column sections are received and inspected which can be applied towards the total cost of repair if approved to move forward. These charges include inbound shipping, offloading labor, teardown/cleaning labor (enough to visually inspect individual components) and inspection hours.**

This quotation includes only the parts or processes specifically outlined above. Price might increase based off inspection. Any additional parts or processes required will be included only after the approval and authorization by the Customer. Warranty will be contingent on the inclusion of any processes deemed necessary by F.N.

The above quotation is valid for 30 days after the date of this letter, and is subject to Pentair's standard Terms and Conditions (KC585), including the same warranty as new products. Our warranty covers

defects in materials or workmanship for 1 year after start up, or 18 months after shipment, whichever comes first. Taxes are excluded, and will be billed separately, as applicable.

### **Cleaning / Decontamination**

- Any item that has been in service and needs repairs **MUST** be cleaned and, if required, decontaminated **PRIOR** to performing repair services. SDS for all goods entering the service facility **WILL** be required.
- Proper cleaning / decontamination of the equipment should be completed at job site **PRIOR** to transporting to the PSG facility.
- Items need to be tagged with pump model and serial number. Tag **MUST** include type of media the item was installed in, along with the cleaning / decontamination method used. Tag **MUST** also include company name, date cleaning / decontamination was completed and signed by the person that cleaned / decontaminated the item.
- Item (s) that have not been properly cleaned / decontaminated **PRIOR** to arriving at the PSG facility **WILL** be subject to a \$4,500 cleaning fee.

### **Proper Cleaning Methods**

- For any item used in clean water, draining of the liquid is required.
- For any item used in municipal sewage services, a wash down (with disinfectant) should be completed **PRIOR** to transporting to the PSG facility and detailed with returned item.
- For any item used in used in nonhazardous application not listed above, the cleaning method **WILL** be determined on a per item basis.
- For any item used in a **HAZARDOUS CHEMICAL PROCESS** (as defined by the chemical's SDS) the item **MUST** be properly decontaminated by customer **PRIOR** to Pentair accepting the item. If the item has **NOT** been decontaminated, all shop employees are to refrain from handling or working with the item until appropriate measures are taken to ensure the items is safe to handle. The customer will be contacted to produce the information required, including the SDS for each contact chemical, and informed of their decontamination responsibility. If the required information has not been received within 30 days, the item will be returned to the customer, safely disposed of as scrap, or decontaminated as needed. The option chosen will be at Pentair's discretion and all incurred charges will be the responsibility of the customer.

Pentair hereby expressly rejects the flow down or application of FAR 52.223-99 and DFARS 252.223-7999



**Candice S. Miller**

Public Works Commissioner  
Macomb County

**To: Macomb Interceptor Drain Drainage District Board Members**

**From: Vincent Astorino, Operations Director**

**Date: December 11, 2023**

**Subject: SewerAI Sewer Inspection Software Recommendation**

Macomb County Public Works Office (MCPWO), on behalf of the Macomb Interceptor Drain Drainage District (MIDDD), has been actively investigating ways to improve on the established inspection program throughout the MIDDD.

MCPWO has been talking with a company by the name of SewerAI which has established a software program called Pioneer that can ingest raw inspection footage. Once the data is uploaded into the program it leverages artificial intelligence to provide Pipeline Assessment Certification Program (PACP) and Manhole Assessment Certification Program (MACP) coding as approved by the National Association of Sewer Service Companies (NASSCO) standards. Currently this process is done in the field by the selected contractor for that specific project. The NASCCO standards have done a good job at trying to standardize coding across multiple companies but there is still human bias which will either miss defects or code them improperly.

MCPWO worked with SewerAI to test their Pioneer software against inspection data from the 2020 program. For this several pipe segments, a GoPro360, and a manhole inspection were provided to them to ingest. The coding from 2020 was not provided as we wanted to compare against what the program was able to recognize. The results of this were that SewerAI was able to identify every defect that was found in the field along with several structural defects that were missed.

The Pioneer software will allow MCPWO staff to better manage the incoming data and will be able to streamline the priority repairs. Currently data is collected in the field, and it could be months before any data is transferred to MCPWO to manually review and find defects. This program would provide a license to the operator in the field who would upload data daily to Pioneer. The software would then process and code the data with a turnaround time of 10 days. That data is then coded and provides GIS mapping along with analytic tools that will help easily identify defects. Therefore, issues that are found can be promptly addressed.

The cost for the Pioneer software has been provided with the assumption that MCPWO will plan to ingest the current 2023 inspection data for a total cost of \$59,045.88 as a starting point. This includes 4 user licenses, 146 manhole videos, and 125,754 linear feet of pipe inspection video. The Pioneer software will lower costs of the on-going inspection program for future years. Costs will be saved by not having the inspection contractor required to code defects in the field and will therefore improve their inspection



time and lower their cost. CCA would be eliminated with our consulting engineers as it would no longer be required to have an inspector in the field to verify that inspections are being completed. A separate memo regarding a new inspection method will help to realize these ultimate cost savings which will include significantly eliminating the costs of having to hire a contractor to perform the inspections.

		<b>Costs</b>					
		<b>Conventional Method</b>				<b>Streamlined Approach</b>	
<b>Inspection Program</b>	<b>Pipe Length (LF)</b>	<b>Design</b>	<b>Contractor</b>	<b>CCA</b>	<b>Cost / LF</b>	<b>SewerAI</b>	<b>Cost / LF</b>
2017	82,920	\$110,000.00	\$1,152,512.74	\$320,000.00	\$19.08	-	-
2020	187,937	\$43,700.00	\$421,254.75	\$186,100.00	\$3.46	-	-
2023	125,754	\$59,530.00	\$995,238.78	\$103,526.00	\$9.21	\$59,045.88	\$0.47
2024	25,000					\$31,000.00	\$1.24
2025	25,000					\$31,000.00	\$1.24
2026	187,937	-	-	-	-	\$69,000.00	\$0.37

Funding for this program will come from the MIDDD budget for Interceptor O&M in which there is approximately \$1.4 million in remaining budget. The current cost to bring in the 2023 inspection data along with licenses is \$59,045.88. MCPWO is anticipating using the program to bring additional data in at \$0.25 per lf and therefore is requesting to make the not-to-exceed number of \$100,000.

MCPWO staff is recommending the following action:

That the MIDDD board award the contract to SewerAI in the amount of \$59,045.88 and then authorize MCPWO staff the ability to bring in additional footage to the total NTE amount of \$100,000 within the 2024 calendar year.

Attachments: SewerAI Proposal Dated 11/29/2023



## SEWERAI AGREEMENT FOR MACOMB COUNTY MICHIGAN

**Prepared on:**

November 29th 2023

**Prepared For:**

Vincent Astorino  
Macomb County Public Works  
23001 E 9 Mile Rd  
St. Clair Shores, MI 48008  
vincent.astorino@macombgov.org

**Prepared By:**

Tim McGarry  
SewerAI, Business Development Manager  
2815 Mitchell Dr, Suite 215  
Walnut Creek, CA 94598  
tmcgarry@sewerai.com  
484-798-8315

### BACKGROUND

SewerAI AutoCode™ uses an AI-assisted process to facilitate rapid and accurate sewer condition assessment. Inspection videos are initially processed through AutoCode AI-models that analyze the CCTV data, identifying regions in the pipeline images containing certain conditions, such as features and defects. Predicted conditions made by AutoCode are aggregated into video clips, which SewerAI NASSCO P/M/LACP certified technicians examine for review and confirmation.

The final deliverable from AutoCode includes a NASSCO database and additional industry-standard deliverables (Snaps, PDFs, and videos with on-screen annotation and audio narrations). SewerAI also provides MACP Level II condition assessment services for input data captured from IBAK PANORAMO SI, CleverScan, and GoPro (.360) camera hardware.

Datasets and deliverables will also be hosted and made available on the SewerAI Pioneer™ Cloud platform for review, edit, export (download), and unlimited View-Mode credentials for collaboration by Macomb County (County) with its project stakeholders.

### SCOPE OF AGREEMENT

This Proposal details an annual subscription which enables the County to accelerate inspection operations more cost-effectively, while providing consistent and accurate deliverables for asset planning decision making.

Included in this proposal is 1 Pioneer Administrator Inspector license, and 3 Pioneer Inspector licenses for use in the office.

Also included is a menu of Pricing for AutoCode services for P/L/MACP services on a pay as you go or volume commitment discounted basis. Requested quantities for year 1 have been included for AutoCode services.

PIONEER SUBSCRIPTION ANNUAL AGREEMENT *invoiced at start of Agreement				
Item	Price	Quantity	Unit	Total
PIONEER by SewerAI Administrator Inspector Seat <sup>1</sup> - Annual	\$9,600.00	1	Annual License	\$9,600.00
PIONEER by SewerAI Optional Additional Inspector Seat <sup>2</sup> (Optional)	\$4,800.00	3	Annual License	\$14,400.00
On-Truck / Field Capture Data Sync Seat - Annual (Per Truck/Seat) *Add Option*	\$2,400.00	0	Annual License	\$0.00
PIONEER by SewerAI View-Mode Seats	\$0.00	Unlimited	Annual License	Included
Data Storage & Hosting	\$0.00	Unlimited	TB <sup>3</sup>	Included
<b>SOFTWARE TOTAL</b>				<b>\$24,000.00</b>
<b>QAI™ Quality Assurance Inspection</b> *invoiced Monthly, as used *Annual PIONEER Subscription Required				
<b>QAI™ Basic</b> *Includes verification of Survey Headers, validation of Operator NASSCO credentials, functioning distance counter, matching reversal (if survey abandoned), & video playback *Pricing Unit is per survey	\$0.05	TBD	LF	TBD
<b>Advanced QAI™ Stand-Alone</b> *without NASSCO AutoCode *Optical quality analysis, NASSCO codes within allowable parameters, in-pipe camera speed <30 ft/min, custom survey headers *Includes QAI Basic	\$0.10	TBD	LF	TBD
<b>AUTOCODE™ PACP, LACP, &amp; MACP SERVICES</b> *invoiced Monthly, as used *Annual PIONEER Subscription Required				
Item	Price	Quantity	Unit	Total
MACP LEVEL II Condition Assessment (per MH Survey), no annual	\$30.00	146	MH	\$4,380.00
<b>AutoCode™ Pay-As-You-Go Annual Graduated Usage Pricing</b> *PIONEER <sup>1</sup> Admin Inspector Seat Required, with option to add additional PIONEER Inspector Seat <sup>2</sup> (s) provided above				
0-100,000 LF	\$0.25	100,000	LF <sup>4</sup>	\$25,000.00
100,001 - 200,000 LF	\$0.22	25,754	LF	\$5,665.88
200,001 - 600,000 LF	\$0.20	TBD	LF	TBD
600,001 - Unlimited	\$0.17	TBD	LF	TBD
<b>AUTOCODE ANNUAL VOLUME COMMITMENT OPTIONS</b> *invoiced at start of Agreement on Quarterly basis				
Item	Price	Quantity	Unit	Total
<b>300,000 LF per year</b> *300,000 LF AutoCode Included *per LF unit rate of \$0.20/LF applies for additional LF >300,000 *Does not include PIONEER / software costs *Invoiced Quarterly	\$60,000.00	TBD	Annual	TBD
<b>SERVICES TOTAL</b>				<b>\$35,045.88</b>
<b>GRAND TOTAL</b>				<b>\$59,045.88</b>
<sup>1</sup> PIONEER Admin/Inspector Seat Login Permissions: Create & Distribute View-Mode Login Accounts & Permissions, Upload/Download Files, Initiate AutoCode, Edit Files & Observations, Export to PDF, Export Videos & Databases, Create & Share Digital Submittals, Dynamic Queries & Filters, Download CSV Lists, Engage in Review Tasks, View Data & ArcGIS Maps (if applicable), MH 3D Model Measurement. 1-Yr Agreement. <sup>2</sup> PIONEER Inspector Seat Login Permissions: Upload/Download Files, Initiate AutoCode™, Edit Files & Survey Observations, Export to PDF, Export Videos and Databases, Create & Share Digital Submittals, Dynamic Queries & Filters, Download CSV Lists, Engage in Review Tasks, Receive-Accept-Download Digital Submittals, View Data & ArcGIS Maps (if applicable), MH 3D Model Measurement. 1-Year Agreement. <sup>3</sup> PIONEER View-Mode Login Permissions: Dynamic Queries & Filters, Download CSV Lists, Download Individual PDFs, Engage in Review Tasks, View Data & ArcGIS Maps (if applicable), MH 3D Model Measurement <sup>4</sup> PIONEER On-Truck / Field Capture Data Sync Seat Login Permissions: Includes all View-Mode Permissions, Create new NASSCO PLMACP inspections in Desktop App, Record New or Append Existing Videos, Enter/Edit NASSCO Codes, Append Images, Sync Inspections to PIONEER Cloud, Populate Asset Info in NASSCO Survey Header fields from ArcGIS map (if applicable), Includes Install & Camera Equipment Calibration <sup>5</sup> Terabyte - storage included for duration of Agreement. <sup>6</sup> Linear Feet – represents total linear Ft (LF) surveyed in CCTV datasets provided.				

## **PAYMENT TERMS**

Net 30. Please Remit Payments to:

SewerAI Corp  
2815 Mitchell Dr, Suite 215  
Walnut Creek, CA 94598

Software Total to be billed in 1 annual lump sum.

Pay as you go AutoCode to be billed monthly as used

AutoCode volume commitment to be billed in equal quarterly installments

## **IMPLEMENTATION**

- SewerAI and the County will agree to meet as frequently as necessary to ensure project success for the duration of the first 12 months of the Agreement.
- Turnaround time for NASSCO PACP deliverables will not exceed 10 Business Days from the time of upload of datasets from newly captured inspections, except in the case of > 600,000 volume commitment, in which case turnaround times will not exceed 5 Business Days.
- MACP turnaround time is 10 business days

**Marketing:** Both sides will make reasonable efforts on co-marketing initiatives (i.e., press releases, project spotlights, use cases, white papers, videos, referrals). SewerAI will not do any PR without written approval from the County.

**Pro-rata Implementation:** It is expressly understood that implementation of Inspector Seat Licenses as well as On-Truck Inspection Capture & Sync Seat Licenses are subject to an implementation schedule wherein pro-rata billings for items may occur. When Items listed in the pricing schedule above are implemented they become billable on a pro-rata basis, such that the contract term of this Agreement remains unchanged.

**Terms of Service:** this Order for the County will be governed by the [SewerAI Terms of Service](#), located at the URL hereto: [www.sewerai.com/terms](http://www.sewerai.com/terms)

## **AUTOMATIC RENEWAL WITH NOTIFICATION OF PRICE CHANGE**

This Agreement will automatically renew to ensure uninterrupted provision of our services and to facilitate effective planning for both parties. Unless the County provides written notice of their intent to terminate the agreement at least 30 days prior to the end date of the current agreement term, the contract will be renewed for an additional year. Should there be any changes to the pricing terms upon renewal, SewerAI will issue a written notice to the County informing them of the updated pricing at least 60 days prior to the end date of the current agreement.

## **SEWERAI EXCLUSIONS**

Proprietary means and methods employed, developed, improved and/or invented by SewerAI (including artificial intelligence, machine learning, algorithms, source code, scripts, schema or any other web-based tools) used in provision of certain “work products” or deliverables such as described above in Background and Scope of Order are not defined as “work products”. Any



means and methods employed, developed, improved, and/or invented by SewerAI through execution of the Scope of Order are separate from the Scope of Order, and will remain the sole property of SewerAI during the term, and after the term, of this Order.

Not included in the prices stated in this Order are the items listed below. If needed or found to be applicable, these items would be provided by SewerAI at an additional cost; or would be furnished by others, at your direction, at no cost to SewerAI.

1. Retention / Retainage of funds by Owner and client to Customer
2. Pay-when-paid terms
3. Liquidated Damages
4. Payment and Performance bonds
5. Insurance Requirements Beyond SewerAI's Standard Coverage

**APPROVAL & AUTHORITY TO PROCEED**

**This Agreement and the pricing, terms, and scope described expire in 30 days.**

I have read and understood this Agreement, and I accept and agree to all of its terms and conditions. I enter into this Agreement voluntarily, with full knowledge of its effect:

<b>Name:</b>	
<b>Title:</b>	
<b>Signature:</b>	
<b>Email:</b>	
<b>Date:</b>	
<b>AP Name and Contact:</b>	



**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

From: Vincent Astorino, Operations Director

Date: December 11, 2023

Subject: Flybotix Sewer Inspection Drone Recommendation

Macomb County Public Works Office (MCPWO), on behalf of the Macomb Interceptor Drain Drainage District (MIDDD), has been actively investigating ways to improve on the established inspection program throughout the MIDDD.

Currently MCPWO, on behalf of the MIDDD, has developed a comprehensive inspection program across this entire MIDDD system. Major inspections are occurring throughout the system every three years and that work is hired out with consultants putting together design packages and construction administration support and then a contractor to perform the full inspection. As you will see later within this memo, the costs for this are very high but needed to ensure that all assets within the MIDDD are carefully monitored to find issues as soon as possible and develop long-term capital improvement programs.

MCPWO has been talking with a company by the name of Flybotix which has developed an unmanned aerial vehicle (UAV) which has the ability to fly within confined spaces. This UAV, more commonly known as a drone, is equipped with a 4K video and infrared camera, protection cage, on-board lighting, and battery life that will provide a 24-minutes worth of flight time. Below is an image of the Flybotix drone during an active inspection.



MCPWO would like to streamline the approach to most inspections across the system. In order to accomplish this, SewerAI and the Flybotix drone would be used. The purchase of the drone would allow MCPWO staff to fly in large diameter pipes across the system on a regular basis and perform inspections. The collected data from the drone flight would then be directly uploaded to SewerAI in which certified asset condition coding would be performed to identify the health of the system. This process would improve the time in which inspections are performed and data is provided to MCPWO engineering staff to make informed decisions regarding the long-term capital improvement program.

		Costs						
		Conventional Method				Streamlined Approach		
Inspection Program	Pipe Length (LF)	Design	Contractor	CCA	Cost / LF	Drone	SewerAI	Cost / LF
2017	82,920	\$110,000.00	\$1,152,512.74	\$320,000.00	\$19.08	-	-	-
2020	187,937	\$43,700.00	\$421,254.75	\$186,100.00	\$3.46	-	-	-
2023	125,754	\$59,530.00	\$995,238.78	\$103,526.00	\$9.21	\$34,639	\$59,045.88	\$0.74
2024	25,000					\$0	\$31,000.00	\$1.24
2025	25,000					\$0	\$31,000.00	\$1.24
2026	187,937	-	-	-	-	\$0	\$69,000.00	\$0.37

Funding for this program will come from the MIDDD budget for Interceptor O&M in which there is approximately \$1.4 million in remaining budget. The capital cost for the drone is \$34,639 which will provide everything that is needed to get started along with training from the manufacturer. We were able to work with the manufacturer to obtain some significant cost savings as well which in total was \$7,750 by receiving a 15% discount on the drone, free range extenders, and 50% off advanced training which is two days of in person training with a certified pilot.

MCPWO staff is recommending the following action:

That the MIDDD board purchase the sewer inspection drone from Flybotix in the amount of \$34,639.

Attachments: Flybotix Proposal Dated 12/6/2023

Flybotix Inc  
 251 Little Falls Drive  
 Wilmington DE 19808  
 United States  
 EIN 35-2793576

**Invoicing Address:**

N/A

**Shipping Address:**

Macomb County Public Works Office, Brian Baker, Chief  
 Deputy  
 21777 Dunham Road  
 Clinton Township MI 48036  
 United States  
 ☎ +1 586-469-5325

Macomb County Public Works Office  
 21777 Dunham Road  
 Clinton Township MI 48036  
 United States

# Pro-Forma Invoice # 2023-00661

**Quotation Date:**

2023/12/04

**Expiration:**

2024/01/03

**Salesperson:**

Jim Findlay

Description	Quantity	Unit Price	Disc.%	Taxes	Amount
[KMC0001-00.07] Solution Kit A1B8  Complete drone solution (hardware & software) to inspect confined spaces safely, including: <ul style="list-style-type: none"> <li>• 1x ASIO Drone Unit</li> <li>• 1x 2.4 GHz Remote Control</li> <li>• 2x 64GB microSD Card (U3)</li> <li>• 2x Spare pairs of propellers</li> <li>• 3x ASIO Battery packs and safety transport bags</li> <li>• 1x ASIO Battery charger</li> <li>• 1x Toolbox</li> <li>• 1x Safety vest</li> <li>• 1x Quick startup guide</li> <li>• 1x Transport box</li> <li>• 12 months license of ASIO Explore software</li> <li>• 12 months warranty and support (cf. conditions)</li> </ul>	1.00 Units	35,000.000	15.00		\$ 29,750.00
[SMC0043-00.03] Battery Pack ASIO Battery Pack and Safety Bag	2.00 Units	680.000	10.00		\$ 1,224.00



Flybotix Inc  
 251 Little Falls Drive  
 Wilmington DE 19808  
 United States  
 EIN 35-2793576

[KMC0003-00.00] Range Extender Kit	1.00 Units	950.000	100.00	\$ 0.00
External antenna bringing the Remote-Control signal closer to the drone:				
• 1x ASIO Range Extender (holder, 10m cable, antenna)				
[KMC0006-00.00] Range Extender - 10m extension	1.00 Units	300.000	100.00	\$ 0.00
[SMC0005-03.07] Cage Module	1.00 Units	1,850.000	10.00	\$ 1,665.00
[VNA0005-00.00] Advanced Training 1 Advanced Training Service -Specific to ASIO solution components -Flying techniques -Maintenance routines -Hands on flying in testing facility 2 Days	1.00 Units	2,500.000	50.00	\$ 1,250.00
Packaging, shipping and transport insurance	1.00 Units	750.000	0.00	\$ 750.00
Packaging of the ASIO Solution and shipping from Lausanne, Switzerland to customer premises				
<b>Total</b>				<b>\$ 34,639.00</b>

Delivery time: ASIO Kit Lead Time approx. 1-2 Weeks

The Flybotix standard specifications and the conditions in the “General Terms and Conditions” appendix shall apply exclusively. Please refer to our quotation number when placing an order.

**Bank details**

Bank Address: First American Bank, 700 Busse Road, Elk Grove Village, IL 60007 United States  
 Account Name: Flybotix Inc  
 Account Number: 7816290401  
 SWIFT Code: FAMBUS44  
 ABA/Transit Routing Number: 071922777

Payment terms: 50% at order, 50% before delivery

## General Terms and Conditions Flybotix (February 2023)

### 1. General provisions

1.1 The legal relations between Flybotix, Inc., a Delaware corporation with registered offices located at 251 Little Falls Drive Wilmington, DE 19808 ("Flybotix") and any purchaser (the "Purchaser") (hereinafter referred to as a "Party" individually or the "Parties" collectively) of supplies and/or services of Flybotix (the "Supply" or "Supplies") shall exclusively be governed by these general terms and conditions (the "General Terms and Conditions"), unless otherwise agreed explicitly by Flybotix. The Purchaser's general terms and conditions only shall apply to the extent that Flybotix expressly consents to them in writing. No interlineations, deletions, modifications or amendments to these General Terms and Conditions shall be binding on Flybotix unless agreed to and accepted in writing by Flybotix, as set forth in clause 1.2. The initiation of performance under the contract shall indicate the Purchaser's acceptance of these General Terms and Conditions.

1.2 Any information contained in advertising brochures, catalogs, prospectus, circulars and/or advertising catalogues as well as illustrations are nonbinding. Data contained in technical documents, such as weights, dimension, capacities, performance ratings, characteristics, and other data, shall only be binding to the extent that these documents are attached to the order confirmation as an annex and in addition are explicitly stated to be of guaranteed quality. Such guarantee shall be valid only until the end of the warranty period set forth in clause 2.2.

1.3 The contract shall be deemed concluded upon acceptance of an order by Flybotix (the "Order Confirmation"), which has to be declared by mail, fax or electronically and which shall also be valid without signature. When an order is accepted by Flybotix, the Purchaser will be deemed to have accepted these General Terms and Conditions. Flybotix reserves the right to reject any order for any reason, or no reason at all, in its sole discretion. The scope of any Supply owed by Flybotix shall result exclusively from the Order Confirmation and its annexes.

1.4 Flybotix shall be entitled to assign or transfer rights and duties under the contract to third parties, without the prior consent of the Purchaser. However, the Purchaser shall not assign or transfer any rights and duties under the present contract, or any other contract, without the prior consent of Flybotix. 1.5 Tools and equipment used in relation with the Supplies shall be the sole property of Flybotix, even if the Purchaser pays for such tools and equipment, and Flybotix shall be entitled to deal with the tools and equipment at Flybotix' discretion.

### 2. Warranty / Undertakings

2.1 Flybotix shall warrant exclusively that Supplies are new and unused at the time of delivery, correspond to Flybotix' standards, usual practices, customs, standards, specifications and tolerances of trade prevailing in the country of origin at the time of production and to agreed technical specifications, if any, and that during the warranty period the Supplies are free from defects in design, material, workmanship which are due to defective components or defective and/or inferior processing by Flybotix. **THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ALL OTHER WARRANTIES, AND SPECIFICALLY THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.**

2.2 The warranty period is twelve (12) months from delivery. Repair or replacement shall not prolong the original warranty period. All claims of damages of any kind during delivery are barred unless reported in writing by the Purchaser to Flybotix, with full disclosure of particulars within five (5) calendar days after delivery as defined herein.

2.3 Flybotix shall make no representations of warranties or remedies whatsoever (a) for software supplied by Flybotix; (b) for Supplies which are delivered by Flybotix but manufactured by third parties; (c) for defects not solely caused by Flybotix; (d) if (i) deviations from the agreed specifications of the Supplies are unsubstantial or if a defect impairs the usability of the respective Supply only insignificantly; or (ii) defects are due to natural wear and tear, unforeseeable events or damage occurring after delivery, faulty or negligent treatment, unusual physical strain or electronic load, excessive use, misuse, incorrect use, neglect, use with unsuitable accessories, improper installation or packaging, installation not carried out by Flybotix, inappropriate building ground or particular external influences which are not explicitly stated in the contract as having an impact on Supplies or if they are due to repairs or alterations being carried out by any party other than Flybotix; or (iii) Supplies are modified by the Purchaser, the Purchaser's customers or end users after the delivery by Flybotix or if possible seals of warranty were removed or

altered by the Purchaser, the Purchaser's customers or end users; or (iv) any defect or damage is attributable to the Purchaser's faulty design of the Supplies and/or any parts thereof or attributable to work which has been carried out in compliance with the requirements and specifications of the Purchaser; (e) with respect to prototypes, preproduction parts or test samples, as well as (f) in the case of any defect or damage which is attributable to supply parts, tools or test provided or made available by the Purchaser or manufactured or procured by Flybotix in accordance with the instructions of the Purchaser; the responsibility for the dimensional accuracy and the functionality of supply parts shall exclusively be borne by the Purchaser. Any defects recognized by Flybotix will be notified to the Purchaser.

2.4 Provided that a defect of a Supply is solely caused by Flybotix, Flybotix shall provide warranty in its sole discretion and sole remedy by repairing or replacing the Supply or by crediting or refunding its price. Flybotix' liability and warranty with respect to any defect arising from any component shall be limited to the compensation and warranty received by Flybotix from the respective component supplier. The Purchaser's rights of cancellation, rescission and termination shall be excluded.

2.5 In the event of an epidemic failure, the Parties shall cooperate in order to identify its cause, the number of Supplies affected and the required measures. Epidemic failure in this meaning are defects with an identical root cause and which occur in more than ten per cent (10%) of the Supplies of the past six (6) months, provided that the delivered minimum quantity of defective Supplies affected by the same epidemic failure exceeds ten (10) pieces within the warranty period. The total aggregate liability of Flybotix for epidemic failures shall not exceed the following: In the case of an epidemic failure, defective Supplies shall, in Flybotix' sole discretion, cost and expense, and sole remedy, be repaired, replaced, credited or refunded. In the case of an epidemic failure, the liability of Flybotix shall in all cases be limited to three per cent (3%) of the last six (6) months' turnover realized by Flybotix for the respective Supply.

2.6 Delivery items complained about must be sent to Flybotix on request.

### 3. Liability

3.1 Subject to the mandatory legal provisions and the ones expressly stated under clause 2 above, all rights and claims of the Purchaser against Flybotix, its bodies, shareholders, employees, affiliates, agents or any persons with whom it performs its obligations, its subcontractors, suppliers and designees for whatever legal ground shall be excluded to the maximum extent permitted by applicable law, especially, but not limited to, claims based on loss of production, damage caused by delays, loss of use, loss of or damage to data or data storage media, costs for recovery of lost or damaged data, lost profit and other direct, indirect or consequential damage even if the possibility of such damage has been expressly pointed out to Flybotix. Without limiting the foregoing, **FLYBOTIX SPECIFICALLY DISCLAIMS ANY LIABILITY FOR PROPERTY OR PERSONAL INJURY DAMAGES, PENALTIES, SPECIAL OR PUNITIVE DAMAGES, DAMAGES FOR LOST PROFITS OR REVENUES, SERVICES, DOWN TIME, SHUT DOWN OR SLOW DOWN COSTS, OR FOR ANY OTHER TYPES OF ECONOMIC LOSS, AND FOR CLAIMS OF THE PURCHASER'S CUSTOMERS OR ANY THIRD PARTY FOR ANY SUCH DAMAGES. FLYBOTIX SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.**

3.2 Enforceable Purchaser claims shall be limited to five per cent (5%) of the Purchaser's payments to Flybotix during the preceding six (6) months for the specific Supply under the respective individual contract. Parties are free to furnish proof of lower damage.

3.3 Subject to the warranty provisions as per clause 2.2 above, any possible Purchaser's claim for damages shall become time-barred within 12 (twelve) months after arising. The same shall apply to Purchaser's claims in connection with damage control (e.g. product recalls).

### 4. Third-party claims / Indemnification

4.1 The Parties shall inform each other immediately if they become aware that, in relation to the Supplies or the contractual relationship of the Parties, claims have been raised against any or both of them, proceedings have been instituted, or actions brought which relate to any or both Parties.

4.2 The Purchaser, on its own behalf, and behalf of its parent, subsidiary(ies), affiliated and related companies, and their respective predecessors, past and present officers, directors, shareholders, agents, employees, legal representatives, successors and assigns (the "Indemnifying Parties") assumes liability for, and shall pay when due, and shall indemnify, reimburse and hold Flybotix, and its parent, subsidiary, affiliated and related companies, and their respective predecessors, past and present officers, directors, shareholders, agents, employees, legal representatives, successors and assigns (the "Indemnified Parties") harmless from and against any and all Claims (defined below), directly or indirectly relating to or arising out of the acquisition, use, purchase, shipment, transportation, delivery, lease or sublease, ownership,

Flybotix Inc

251 Little Falls Drive

Wilmington DE 19808

United States

EIN 35-2793576

operation, possession, control, storage, return or condition of the Supplies (regardless of whether the Supplies are at the time in the possession of the Indemnifying Parties), the falsity of any representation or warranty of the Purchaser, or the Purchaser's failure to comply with these General Terms and Conditions. The foregoing indemnity shall cover, without limitation, any claim for negligence, gross negligence, or liability in tort. "Claims" means any and all liabilities, losses, damages, actions, suits, demands, claims of any kind and nature and all costs and expenses whatsoever to the extent they may be incurred or suffered by the Indemnified Parties in connection with the Supplies (including, without limitation, reasonable attorneys' fees and expenses), fines, penalties (and other charges of applicable governmental authorities), damage to or loss of use of property (including, without limitation, consequential or special damages to third parties or damages to the Purchaser's property), or bodily injury to or death of any person(s) (including, without limitation, any agent or employee of the Purchaser, user of the Supplies, or any other person).

#### 5. Delivery / Prices / Modification of contract / Terms of payment

5.1 Prices and delivery are "ex works" at Flybotix' place of business (except if noted differently on the quote or invoice), excluding packaging and any present or future Federal, State or Local property, sales, use, excise, license, gross receipts or other taxes or assessments which may be applicable to, imposed upon or result from the contract and any transaction performed in connection with these General Terms and Conditions. All costs not expressly included in the price (e.g. for customs, export, transit, import and other approvals and certifications) shall be at the expense of the Purchaser; on request of Flybotix, the Purchaser shall make available a freely clearable advance in the corresponding amount. In the event the Purchaser requests alternative shipment or routing, the resulting alternative packing, shipping and transportation charges will be for the Purchaser's account.

5.2 All prices are stated subject to the prerequisite that no general terms and conditions other than these General Terms and Conditions apply in the relationship between the Parties. If this is not the case, Flybotix shall be entitled to adjust the prices in its sole discretion.

5.3 Flybotix shall be entitled to adjust the prices and conditions to changed circumstances, in particular if (a) the Purchaser requests changes or additions subsequently; (b) (i) the documents and information made available by the Purchaser are incomplete or (ii) do not correspond to the actual conditions; (c) the underlying conditions for the pricing (in particular monetary parities or material prices) significantly change between the time of the offer and the agreed date of performance.

5.4 Unless otherwise agreed, invoices of Flybotix shall be due for payment immediately. Payments are to be made to the bank account named by Flybotix, without deduction of out-of-pocket expenses, taxes, charges, fees, customs and the like and any cash discount which has not been agreed upon. Payments shall only be deemed as effected when Flybotix can dispose of the amount without restrictions.

5.5 If the Purchaser has not effected payment by the due date, the Purchaser shall be in default without warning and Flybotix shall be entitled, without prejudice to further claims, (a) from the time of maturity, to charge default interest at the rate of eight percent (8%), or the maximum permitted by law or (b) to rescind the contract and claim damages.

5.6 In the case of discontinuation of payments by or application for opening of insolvency proceedings against the Purchaser, all claims of Flybotix vis-à-vis the Purchaser under the business relation, including claims for damages, shall become due for payment immediately. In addition, the Purchaser shall irrevocably waive any possible defense of limitation for such a case and Flybotix shall accept such waiver. Furthermore, Flybotix shall be entitled at its own discretion to terminate the business relationship completely or in parts without notice and to claim damages.

5.7 The Purchaser may claim offsetting and liens only in respect of uncontested or legally ascertained counterclaims.

5.8 Flybotix shall be entitled to claim from the Purchaser compensation for all costs in connection with the tracking of any defects and malfunctions notified by the Purchaser if they cannot be found or reproduced by Flybotix.

#### 6. Period of delivery / Default

6.1 An agreed period of delivery shall start only when a written order has been received by Flybotix and is available for reference with regard to which all technical and commercial aspects have been clarified, all significant technical matters have been finally clarified, supply parts have been made available in an impeccable and timely manner and all official formalities such as, for example, import, export, transit and payment permits have been obtained and/or met. Flybotix shall be entitled to effect partial Supplies and to make excess or short Supplies within a scope of up to ten percent (10%), but at least one (1) piece.

6.2 If a delay is not exclusively at the fault of Flybotix, the periods shall be extended reasonably but at least by the duration of the delay. This shall apply in particular, but not exhaustively, if (a) Flybotix does not receive information, approvals and releases which are needed for fulfilling the contract in good time; (b) the Purchaser or third parties involved by the Purchaser is/are in arrears with the work to be performed by them or with the performance of contractual duties, in particular if the Purchaser does not comply with the terms of payment; (c) if Flybotix itself is not supplied by its suppliers in good time or is supplied improperly.

6.3 Exceeding a date of delivery shall not entitle the Purchaser to annul its order or delay payment.

6.4 In any event, any specific shipping date designated in writing signed by Flybotix shall be interpreted as estimated and in no event shall dates be construed as falling within the meaning of "time is of the essence". Flybotix shall not be responsible for any delays in filling orders, nor shall it be liable for any loss or damages resulting from such delays regardless of whether such delays are due to force majeure or otherwise. Under no circumstances shall the Purchaser be entitled to any damages for Flybotix' failure to ship on time, and the Purchaser agrees to indemnify, defend and hold Flybotix harmless against any costs and expenses related to any claims for lost profits or other consequential damages based on Flybotix' failure to deliver timely.

#### 7. Security interest

7.1 In order to protect and secure payment of all debts due and owing from the Purchaser and until Flybotix has been paid in full, the Purchaser hereby grants to Flybotix a security interest in the Supplies, and all proceeds and all accounts receivables resulting from the sale of the Supplies. In connection therewith, the Purchaser hereby authorizes Flybotix to take all necessary steps to file such financing statements and exhibits with the proper authorities, including the filing of a UCC-1 financing statement.

7.2 Until the Purchaser has paid for the Supplies in full, the Purchaser shall not pledge, mortgage, encumber, or create or suffer to exist a security interest in the Supplies in favor of any person other than Flybotix unless written approval of such other security interest is given by Flybotix. Additionally, the Purchaser agrees to keep the Supplies insured to their full value until payment is received by Flybotix. In the event the Purchaser sells the Supplies to a third party before payment in full is received by Flybotix, the Purchaser agrees to secure its security interest in the Supplies at the time of sale to its customer in order to protect Flybotix' interests to the greatest extent possible.

#### 8. Inspection

The Purchaser shall inspect the Supplies within a reasonable period commencing on receipt (but no more than three (3) calendar days) and to notify possible defects, if any, to Flybotix immediately in writing. If the Purchaser fails to do so, the Supply shall be deemed to be approved as being free from defects, subject to the existence of potential hidden defects. Acceptance of the returned Supply does not imply acknowledgment by Flybotix of the reason for the return. The Supply returned by the Purchaser to Flybotix will remain at the Purchaser's risk and the Purchaser will owe the agreed amounts until Flybotix has credited the Purchaser for this Supply. The Supply accepted by the Purchaser from Flybotix, which the Purchaser has put fully or partly into use, treated, processed or delivered to others will be considered to conform to the contract.

#### 9. Intellectual property rights

9.1 All intellectual property rights to, ownership of, and interest in all Supplies, goods, trademarks, trade names, logos, distinctive marks, designs, and other materials created and/or made available by Flybotix hereunder or within the framework of the relationship between Flybotix and the Purchaser (the "Property Rights") are vested exclusively in Flybotix. The Purchaser shall not reproduce, modify, transfer, grant, assign, license or use the Property Rights, except in accordance with these General Terms and Conditions.

9.2 The Property Rights of Flybotix shall remain reserved and, unless expressly stipulated, neither these General Terms and Conditions nor any order confirmation shall involve the transfer of any property right from Flybotix to the Purchaser. On request, documents including all copies on whatever medium must be returned to Flybotix immediately.

9.3 Deliveries carried out by Flybotix in compliance with information, sketches, drawings, samples, matrices or other documents of the Purchaser shall be carried out at the sole risk of the Purchaser with regard to possible property rights (such as for example patent, design, trade mark, and copyrights). Flybotix makes no warranty concerning the appropriateness of the Supplies to the purposes for which the Purchaser or its customer are acquiring same. Moreover, Flybotix makes no warranty that the Supplies or other intellectual property of Flybotix do not infringe the rights of third parties. If property rights of third parties are infringed because of the execution of such Supplies,

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Flybotix shall not be liable for the infringement and the resulting claims of third parties and shall be authorized to discontinue the execution of the Supply without further ado. The Purchaser shall bear any damage resulting from the infringement of property rights of third parties and shall indemnify Flybotix completely and on first request.

#### 10. Force majeure

10.1 Flybotix shall not be in breach of the contract nor liable for delay in performing, or failure to perform, any of its obligations under it if such a delay or failure result from events, circumstances or causes beyond its reasonable control including but not limited to, Acts of God, flood, drought, earthquake or other natural disaster; terrorist attack, civil war, civil commotion or riots, war, threat of or preparation for war, armed conflict, imposition of sanctions, embargo or breaking off of diplomatic relations; nuclear, chemical, biological contamination or sonic boom, epidemic or pandemic; any law or any action taken by a Government or a public authority including without limitation imposing an export or import restriction, quota or prohibition, and the collapse of buildings, fire, explosion or accident (a "Force Majeure Event").

10.2 The Purchaser shall use all reasonable effort to mitigate the effect of a Force Majeure Event on the performance of its obligations. If a Force Majeure Event prevents, hinders or delays Flybotix' performance of its obligations for a continuous period of more than six (6) months, Flybotix may terminate the contract immediately by giving written notice to the Purchaser.

#### 11. Compliance with legal provisions

The Purchaser undertakes to comply with the wording and intention of all legal provisions and regulations in all countries where its company operates. In addition, Flybotix expects upright and socially responsible business conduct on the part of the Purchaser.

#### 12. Changes and additions

Changes of these General Terms and Conditions, including this clause 12, and all side agreements must be made in writing.

#### 13. Severability clause

If individual provisions of these General Terms and Conditions finally prove to be legally void or unenforceable for legal reasons, the validity of the rest of these General Terms and Conditions shall not be affected. In such a case the Parties shall reach an agreement which replaces the provision in question by such effective provision which in economic terms is equivalent to the original provision as far as possible and they shall submit to such provision.

#### 14. Confidentiality

A Party (the "Receiving Party") shall keep in strict confidence all technical or commercial know-how, specifications, inventions, processes, or initiatives which are of a confidential nature and have been disclosed to the Receiving Party by the other Party (the "Disclosing Party"), its employees, agents or subcontractors, and any other confidential information concerning the Disclosing Party's business, its Supplies and services which the Receiving Party may obtain. The Receiving Party shall only disclose such confidential information to those of its employees, agents and subcontractors who need to know it for the purpose of discharging the Receiving Party's obligations under the contract, and shall ensure that such employees, agents and subcontractors comply with the obligations set out in this clause as though they were a party to the contract. The Receiving Party may also disclose such of the Disclosing Party's confidential information as is required to be disclosed by law, any governmental or regulatory authority or by a court of competent jurisdiction. This clause shall survive termination of the contract.

#### 15. Termination

15.1 Flybotix may terminate or suspend any contract if the Purchaser is in default of the payment of any obligations pursuant to or any contract between the Parties or if, in the sole judgment of Flybotix, the Purchaser's financial condition and responsibility has become materially impaired. In addition, Flybotix shall have the right to recover damages for nonperformance, and any unpaid installments due on account of this or any other contract between the Parties shall become immediately due and payable.

15.2 In case of termination or suspension due to force majeure, Flybotix reserves the right to demand immediate payment for the Supplies and any raw materials, materials, parts and other goods it purchased, reserved, processed or produced for the performance of an order. The Purchaser is bound to accept delivery of the Supplies and such materials, parts, or goods. Failure to accept delivery will give Flybotix the right to store, sell, or scrap the Supplies or such materials, parts or goods at the Purchaser's expense and risk.

15.3 Flybotix will be entitled to suspend or terminate the contract unilaterally upon written notice to Buyer, with immediate effect, fully or in part if:

(a) the Purchaser has failed, or it is Flybotix' belief that the Purchaser will fail, to fulfill one or more of its obligations under these General Terms and Conditions or any other contracts;

(b) the Purchaser has suspended payments or has sought the protection of the Bankruptcy Courts;

(c) a petition for the involuntary bankruptcy of the Purchaser has been filed;

(d) the Purchaser's property on Flybotix' premises has been attached in execution;

(e) a resolution for the dissolution and/or winding up of Buyer has been adopted;

(f) the enterprise operated by the Purchaser has been fully or partly transferred to a third party without consent of Flybotix;

(g) the Purchaser's disregarded any applicable statute, law, ordinance, code, order, rule, regulation, proclamation or other governmental requirement.

15.4 Flybotix shall not be liable with respect to the Purchaser for any damages arising from suspension or termination of the contract for the aforementioned reasons.

15.5 If the contract is suspended or terminated, performance of the contract already received by the Purchaser and the payment obligations of the Purchaser in connection with it will remain. The amounts invoiced by Flybotix for work actually performed prior to or upon termination of the contract will be immediately due and payable after termination. The Purchaser agrees to pay any of Flybotix' costs, damages, attorneys' fees and other expenses associated with Flybotix' termination of any contract with the Purchaser pursuant to the terms of this section. Flybotix' right of termination shall be without prejudice to any claims or other rights or remedies which Flybotix may have against the Purchaser by operation of law or otherwise.

#### 16. Applicable laws

All agreements between the Parties shall be governed by the laws of the State of Delaware, without any reference to the conflict of laws provisions. The United Nations Convention on Contracts for the International Sale of Goods shall not apply.

#### 17. Place of jurisdiction

Any dispute or difference arising out of or in relation to these General Terms and Conditions shall be subject to the exclusive jurisdiction of the State or Federal courts in Chicago, Illinois.

#### 18. Notices

Any writing or notice required or provided for herein shall be emailed, with confirmation of receipt, sent by international air courier, or otherwise delivered to Flybotix at its respective address as follows:

Flybotix, Inc. 251 Little Falls Drive Wilmington, DE 19808

Flybotix Inc  
251 Little Falls Drive  
Wilmington DE 19808  
United States  
EIN 35-2793576

## **LIMITED WARRANTY**

Flybotix, Inc., a Delaware corporation with registered office at 251 Little Falls Drive, Wilmington, DE 19808 (“SELLER”), warrants that the equipment and equipment parts manufactured by Seller (the “Product” or “Products”), and sold or provided to the first purchaser of the Products (“BUYER”), are produced according to usual practices, customs, standards, specifications and tolerances of trade prevailing in the country of origin at the time of production and shall, subject to the limitations and exclusions set forth below, be free from defects in design, material, and workmanship. SELLER also warrants that the Product is new and unused at the time of delivery to BUYER.

### **1. INSTALLATION, PAYMENT AND MAINTENANCE REQUIREMENTS**

This Limited Warranty applies only if:

- (1) The Product is used properly and is operated in accordance with SELLER’s instruction, quick start guide or user manual as furnished to BUYER at the time of purchase;
- (2) The person filing the warranty claim is the first purchaser of the Product; and
- (3) BUYER complies with all other sections of this Limited Warranty.

### **2. PROCEDURE FOR OBTAINING WARRANTY SERVICE**

The procedure described in this Section 2 shall hereinafter be referred to as the “Warranty Claim Procedures.” For the Limited Warranty to apply, BUYER must completely fill out and deliver to SELLER a warranty claim fully describing the alleged defects or failures of the Product and original proof of purchase, date of installation and extended warranty certificates as the case may be, within the Warranty Period (defined in Section 4) and within fifteen (15) calendar days of the date BUYER discovered the alleged defect. Notwithstanding the foregoing, in the event that SELLER determines, in its sole discretion, that BUYER reasonably should have discovered the alleged defect before its actual discovery, this Limited Warranty shall not apply.

In order to determine whether the Limited Warranty should apply, BUYER shall provide any information to SELLER, including photographs where applicable, via telephone, email or any other appropriate means of communication. In the event the defect is covered by the Limited Warranty, SELLER may issue, at its sole option, a return form for service and require that the defective Product be shipped to the address provided by SELLER. BUYER shall pay all expenses associated with returning the Product to SELLER, including, without limitation, the costs of shipment, import taxes, duties and tariffs if applicable. If SELLER determines that the returned Product is covered by the Limited Warranty, SELLER agrees to pay all of the foregoing and all expenses of returning repaired or replaced Product to BUYER, as the case may be.

### **3. WARRANTY SERVICES PROVIDED**

If the Product is proved to SELLER’s satisfaction to be defective, within the Warranty Period (defined in Section 4), SELLER’s obligations under this Limited Warranty shall be limited to (i) repairing the Product, (ii) replacing the Product, (iii) crediting the purchase price of the Product or (iv) reimbursing the purchase price of the Product, at SELLER’s sole discretion, and only if such defect was caused solely by defective design, workmanship and/or materials. Such repair, replacement, credit or reimbursement shall be SELLER’s sole obligation and BUYER’s exclusive remedy hereunder, and shall be conditioned upon BUYER’s fulfilling its obligations under SELLER’s Warranty Claim Procedures.

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#### 4. WARRANTY PERIOD

This Limited Warranty of the Product applies for twelve (12) months from the date the Product is sold or donated to BUYER (the "Warranty Period"). The Warranty Period shall not be tolled for any reason. No action by SELLER or BUYER shall operate to extend or revive this Limited Warranty without the prior written consent of SELLER.

#### 5. EXCLUSIONS FROM WARRANTY

The following is not included under this Limited Warranty:

- (1) Scratches, dents, marks or other visible surface wear on the Product, unless SELLER is notified as soon as the Product is received by BUYER;
- (2) Normal wear and tear from everyday use;
- (3) Wear parts, including but not limited to:
  - The propulsion unit (motors, propellers, blade-linker, fork)
  - The batteries
- (4) Unsubstantial deviations from the agreed specifications of the Products;
- (5) Defect impairing only insignificantly the usability of the Products;
- (6) Defect due to unforeseeable events;
- (7) Defect or damage attributable to BUYER's faulty design of the Products and/or any parts, tools or tests thereof, or attributable to work which has been carried out in compliance with the requirements and specifications of BUYER;
- (8) Misuse, abuse, incorrect, unreasonable and excessive use, or use with unsuitable accessories;
- (9) Use with unusual physical strain or electronic load;
- (10) Physical damage to the Product as a result of tampering, mishandling, neglect, modification, disassembly, or repair without the approval of SELLER;
- (11) Inappropriate building ground or particular external influences which are not explicitly stated in the contract between SELLER and BUYER as having an impact on the Products;
- (12) Items, equipment, goods, products, components, and parts not sold by SELLER;
- (13) Products which are delivered by SELLER but manufactured by third-parties;
- (14) Software, prototypes, preproduction parts or test samples provided by SELLER;
- (15) Damage to Products caused by the carrier during shipping or by the installer during installation;
- (16) Deterioration resulting from age, storage, weathering, lack of use;
- (17) Continued Product use after an alleged defect is discovered or should reasonably have been discovered;
- (18) Improper installation by any persons other than SELLER; and
- (19) Damage to Product caused by fire, storm or other acts of God.

SELLER expressly reserves the right to inspect the Product and its components, parts, and BUYER's installation, use, maintenance, and any other activity or inactivity of BUYER, when determining whether an alleged Product defect is covered by the Limited Warranty.

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#### **6. LIMITATIONS ON WARRANTY; DISCLAIMER OF WARRANTIES**

This Limited Warranty is provided by SELLER, and it contains the only express warranty provided to BUYER by SELLER. SELLER does not authorize any other person, including distributors, to give any other warranties on SELLER's behalf.

**SELLER DISCLAIMS ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY OR REPRESENTATION AS TO PERFORMANCE, QUALITY AND ABSENCE OF HIDDEN DEFECTS, AND ANY REMEDY FOR BREACH OF WARRANTY OR CONTRACT, WHICH BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** Implied warranties in jurisdictions where they may not be disclaimed shall be in effect only for the duration of the express warranty set forth herein. If BUYER has a claim under this Limited Warranty or under any implied warranties provided to BUYER by state law, BUYER may not file a court action based on that claim any later than one (1) year after BUYER's right to file a court action accrues. In those states which do not allow this limitation on the time period for filing a court action, this provision is inapplicable.

#### **7. SELLER'S LIMITATION OF LIABILITY**

SELLER's liability with respect to the Product sold to BUYER shall be limited to the warranty provided herein. **SELLER SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW, WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY SELLER, OR ANY UNDERTAKING, ACTS OR OMISSIONS RELATING THERETO.**

Without limiting the foregoing, **SELLER SPECIFICALLY DISCLAIMS ANY LIABILITY FOR PROPERTY OR PERSONAL INJURY DAMAGES, PENALTIES, SPECIAL OR PUNITIVE DAMAGES, DAMAGES FOR LOST PROFITS OR REVENUES, SERVICES, DOWN TIME, SHUT DOWN OR SLOW DOWN COSTS, OR FOR ANY OTHER TYPES OF ECONOMIC LOSS, AND FOR CLAIMS OF BUYER'S CUSTOMERS OR ANY THIRD PARTY FOR ANY SUCH DAMAGES. SELLER SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER. SELLER'S TOTAL LIABILITY ARISING IN CONNECTION WITH THE PRODUCT SHALL BE LIMITED TO FIVE PER CENT (5%) OF BUYER'S PAYMENTS TO SELLER DURING THE PRECEDING SIX (6) MONTHS FOR THE SPECIFIC PRODUCT UNDER THE RESPECTIVE CONTRACT.** SELLER's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution, or otherwise, arising in connection with the performance or contemplated performance of the contract between SELLER and BUYER shall be limited to five per cent (5%) of BUYER's payments to SELLER during the preceding six (6) months for the specific Product under the respective contract.

#### **8. GOVERNING LAW; JURISDICTION**

This Limited Warranty is governed by the laws of the State of Delaware in the United States, without reference to conflict of laws principles. In the event of a dispute arising from or relating to this Limited Warranty, which is not resolved by negotiation between the parties, the parties hereby agree to personal exclusive jurisdiction in the state and federal courts located in Delaware.

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**9. MISCELLANEOUS**

Any description of the Product, whether in writing or made orally by SELLER or SELLER's agents, specifications, software, samples, models, bulletins, drawings, diagrams or similar materials used in connection with BUYER's order, are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by SELLER or SELLER's agents regarding use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed in writing by SELLER to be such.

[end of document]





**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations Director

Date: December 11, 2023

Subject: State Grant for COVID Wastewater Monitoring – Aquasight Phase 4 Amendment 2 Recommendation

The Macomb County Public Works Office (MCPWO) has been working with the Michigan Department of Health and Human Services (MDHHS) to monitor COVID within the wastewater systems throughout Macomb County. In May of 2021, MCPWO received a grant from MDHHS broken out in four phases that are 100% funded. The four phases are funded as follows:

	Dollar Amount	Time Range
Phase 1	\$578,683	6/1/21 to 9/30/21
Phase 2	\$1,366,943	10/1/21 to 9/30/22
Phase 3	\$800,669	10/1/22 to 9/30/23
Phase 4	\$782,878	10/1/23 to 7/31/24
<b>Total Amount</b>	<b>\$3,529,173</b>	

MCPWO is currently working within Phase 4 of the grant and has been working with the Macomb County Health Department, Aquasight, Hesco, and Oakland University. This program has been successful to this point and with this program there are a total of 15 sites around Macomb County. These sites are currently being tested once per week. The data to this point has typically been ahead of clinical testing by 7-10 days which can help our health department make informed decisions in advance. As part of the Phase 4 testing, influenza testing has been added and has recently started.

The State recently reached out and created amendment 1 to the Phase 4 contract which rolled over remaining funds from the Phase 3 portion of work. This amendment was projected at \$17,500 and that contract is waiting to be executed until final numbers are in place.

The State has also reached out to MCPWO regarding the inclusion of RSV and Norovirus testing as part of the Phase 4 program. MCPWO worked with the Macomb County Health Department to see if there was interest in including this additional testing to the program. They were in support of including the new testing. Our team then met with the State to see how this was going to be funded, which the State is going to cover all costs for the testing. The approved breakdown from the State is as follows:

- Lab Testing = \$137,000
- Aquasight Reporting = \$8,220
- MCPWO Admin Costs = \$7,280

**OFFICE LOCATION:** 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933  
**ENGINEERING** • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

MCPWO is recommending to continue this testing with Aquasight. Attached is the proposal for Aquasight in the amount of \$145,220 which includes the lab costs. MCPWO has also built in \$7,280 to cover administrative expenses that will be incurred during the duration of the new Phase 4 testing. This entire amount is 100% covered by the MDHHS grant. **This Phase 4 contract conforms to the MIDD contract structure and MCPWO is recommending that the board approve Aquasight in the amount of \$145,220 and approval to sign the Phase 4 contract amendment with MDHHS in the total amount of \$152,500.**

**ORDER FORM AND SCOPE OF SERVICES**

1. OWNER: **MACOMB INTERCEPTOR DRAIN  
DRAINAGE DISTRICT  
21777 Dunham Road  
Clinton Township, MI 48036**
  
2. Program: **CEWS -  
RSV and Norovirus  
(Appendix A, C)**
  
3. Term: **December 1<sup>st</sup>, 2023, to July 31<sup>th</sup> 2024  
(Testing will start as soon as lab supplies  
are available)**
  
4. Fees: **\$145,220  
(Appendix B)**
  
5. “CEWS” Program Details
  - Scope of Work & Schedule (Appendix A)
  - Project Costs (Appendix B)
  - Monitoring Sites (Appendix C)
  
6. Terms & Conditions:
  - Project will start December, 2023, and end July 31<sup>th</sup>, 2024 or as soon as test kits are available.
  - RSV and Norovirus will be tested at 15 sites outlined in Appendix C
  - Fees will be invoiced as defined in the schedule in Appendix D and is payable within 30 days.
  - General terms and conditions are attached in Appendix E and is approved by MIDDD and applied on existing on-going contracts.

- Terms and Conditions as per existing MIDD Contract number WWS-2019-007 will apply for this program
- Sample preparation and lab testing will be performed by OU labs as per protocols defined by the lab

**OWNER: MACOMB INTERCEPTOR  
DRAIN DRAINAGE DISTRICT**

**PROVIDER:**

---

By: Candice S. Miller  
Its: Public Works Commissioner

---

By: Mahesh Lunani  
Its: CEO

## A. Scope of Work & Schedule

**Project Management and Reporting:** Overall project management and coordination for the sewage surveillance of RSV and Norovirus bio markers for the sites described in Appendix D. This includes development of schedule, reporting to health departments, providing any support to MIDD for state reporting, on-ground logistics, lab coordination, results review and issue management.

**Lab Testing, and ddPCR Data Quality Checks:** The lab will perform RSV and Norovirus tests on sewer samples collected 1x/week for the 15 sites as per test protocols defined by the state. All quality checks will be done by the lab. Since this is a fast evolving method every effort will be made by the lab to ensure integrity of results and outputs of the testing.

Tests will be done 1x per week at the 15 sites identified in Appendix C. Schedule will start from Dec 2023 or as soon as test kits are available.

## B. Project Costs

Activity	Costs
Testing	\$ 137,000.00
Reporting	\$ 8,220.00
Total	\$ 145,220.00

### C. Monitoring Sites

Site	Type of Facility	Latitude	Longitude	Street Address or Location	Phase 4 Status
Clinton Twp Sewer Shed #1	SS	42.5771919	-82.952047	38201 Garfield @ old DPW yard	Yes
Clinton Twp Sewer Shed #2	SS	42.5550366	-82.864661	35115 Union Lake Rd @ Clintondale Pump Station	Yes
Clinton Twp Sewer Shed #3	SS	42.5979398	-82.952243	20696 15 Mile Rd @ Little Mack	Yes
Clinton Twp Sewer Shed #4	SS	42.5540382	-82.934368	18275 15 Mile Rd @ Simon	Yes
Clinton Twp Sewer Shed #5	SS	42.5545934	-82.910564	19655 15 Mile Rd @ Beaconsfield	Yes
Clinton Twp Sewer Shed #6	SS	42.5544519	-82.920615	20696 15 Mile Rd @ Little Mack	Yes
Clinton Twp Sewer Shed #7	SS	42.553286	-82.969713	15 Mile @ Hayes	Yes
Macomb Correctional Facility	CF	42.7201688	-82.780188	32989 26 Mile Rd	Yes
Macomb County Jail	CF	42.6169129	-82.890981	43565 Elizabeth Rd, Mt Clemens, MI 48043	Yes
Martha T Berry Medical Care Facility	LTC	42.6153036	-82.892079	43533 Elizabeth St, Mt Clemens, MI 48043	Yes
Mt Clemens WWTP	WWTP	42.6016637	-82.866985	1750 Clara St, Mt Clemens, MI 48043	Yes
Richmond WWTP	WWTP	42.7953059	-82.757897	35653 31 Mile Rd, Richmond, MI 48062	Yes
Stillwell Manor-Joseph Coach Manor Residential Deduct	Senior Living Deduct	42.488632	83.011369	Carrier Ave and Burg Ave	Yes
Stillwell Manor-Joseph Coach Manor	Senior Living Community	42.489995	-83.012793	26600 Burg Rd, Warren, MI 48089	Yes
Warren WWRF	WWTP	42.5330963	-83.024306	32360 Warkop Ave, Warren, MI 48093	Yes

### D. Invoicing Schedule

<b>Invoice Date</b>	<b>Amount</b>
Jan 1 <sup>st</sup> 2024	\$ 18,153.00
Feb 1 <sup>st</sup> 2024	\$ 18,153.00
Mar 1 <sup>st</sup> 2024	\$ 18,153.00
April 1 <sup>st</sup> 2024	\$ 18,153.00
May 1 <sup>st</sup> 2024	\$ 18,153.00
Jun 1 <sup>st</sup> 2024	\$ 18,153.00
July 1 <sup>st</sup> 2024	\$ 18,153.00
Aug 1 <sup>st</sup> 2024	\$ 18,149.00



## **E. Terms and Conditions**

### **SOFTWARE SERVICE PROVIDER SERVICES AGREEMENT**

This Software Service Provider Services Agreement (“Contract”) is made this \_\_\_ day of May, 2019 between the MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (“OWNER”), and AQUASIGHT (“Provider”). In this Contract, Provider or the OWNER may also be referred to individually as a “Party” or jointly as the “Parties”.

In consideration of the mutual promises, obligations, representations, and assurances in this Contract, the Parties agree to the following:

#### **§1. CONTRACT DOCUMENTS AND DEFINITIONS**

The following words and expressions shall be defined as follows:

- 1.1. “Claims and Liabilities” means any alleged losses, claims, complaints, demands for relief or damages, lawsuits, causes of action, proceedings, administrative or governmental actions or proceedings, judgments, deficiencies, liabilities, fines, penalties, costs, and expenses of any kind or nature (including, but not limited to, reasonable attorney fees, litigation expenses, and court costs) which are imposed on, incurred by, or asserted against the OWNER, or for which the OWNER may become legally and/or contractually obligated to pay or defend against, whether direct, indirect, or consequential, whether based upon any alleged violation of the federal or state constitutions or any federal, state, or local statute, ordinance, rule, regulation, or state common law, whether any such claims are brought in law or equity, tort, contract, or otherwise, and/or whether commenced or threatened.
- 1.2. “Confidential Information” means all information that the OWNER is required or permitted by law to keep confidential and any information that may be subject to attorney-client, work product, or other privilege.
- 1.3. “Contract Administrator” means the individual designated by the OWNER to act as a liaison between the OWNER and the Provider. Any questions or problems the Provider may have concerning the work under this Contract should be directed to this individual.
- 1.4. “Contract Documents” means the following documents which are included and fully incorporated into this Contract:

- 1.4.1. Exhibit I: Provider Insurance Requirements
- 1.4.2. Exhibit II: Order Form and Scope of Services
- 1.4.3. Exhibit III: Rate Schedule

- 1.5. “Data” means information, content, and other data that may be exchanged electronically between OWNER and Aquasight.
- 1.6. “Documentation” means the user manuals and/or technical publications as applicable, supplied in connection with Software relating to the installation, use, and administration of Software.
- 1.7. “OWNER Agent” means all OWNER board members, officials, employees (including employees shared with Macomb County), representatives, and/or any such persons’ successor(s). “OWNER Agent” shall include any person who is or was an “OWNER Agent” anytime during the term of this Contract.
- 1.8. “Provider Employee” means without limitation, any officers, directors, managers, employees, and representatives of Provider, and also includes any Provider subcontractors, consultants, independent contractors, or suppliers. “Provider Employee” shall include any person who is or was a Provider Employee at any time during the term of this Contract.
- 1.9. “E-Verify” is an internet-based system operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration (SSA) that allows participating employers to electronically verify the employment eligibility of their new hired employees. For more information and to register visit <https://e-verify.uscis.gov/enroll/>.
- 1.10. “Intellectual Property” means any developments, improvements, designs, innovation, and materials that may be the subject of a trademark/servicemark, copyright or patent, trade secrets, or Proprietary Information.
- 1.11. “Proprietary Information” means ideas, concepts, inventions, and processes related to the development and operation of computer software and systems such as source code, object code, security procedures, and passwords.

- 1.12. “Services” means on-boarding, implementation, initial deployment, maintenance, administration, subscription, technical, training, consulting, support and other professional services provided by Aquasight in connection with or otherwise associated with Software as described in the Order Form.
- 1.13. “Software” means the proprietary software and platform employed by Aquasight to deliver Services and its associated technology (if applicable), and any modified versions and copies of, and upgrades, updates and additions to Software, provided to OWNER by Aquasight, including Software and access thereto provided on a Software as a Service (SaaS) basis.
- 1.14. “Working Day” means any calendar day except Saturday, Sunday, and OWNER legal holidays.
- 1.15. “Written Notice” means a communication in writing delivered in person, by first class mail, or by overnight delivery by a reputable national delivery service to the Party’s address identified in Section 10.27 hereof.

§2. **CONTRACT EFFECTIVE DATE, TERM, AND TERMINATION**

- 2.1. The effective date of this Contract shall be stated on the first page of this Contract. Notwithstanding the above, under no circumstances shall this Contract be effective and binding and no payments to the Provider shall be due or owing for any Provider services until and unless:
- 2.1.1. This Contract is signed by an employee of Provider, legally authorized to bind the Provider.
- 2.1.2. Any and all Provider Certificates of Insurance and any other conditions precedent to the Contract have been submitted and accepted by the OWNER.
- 2.1.3. The OWNER Board has approved the retention of Provider.
- 2.2. The term of this Contract shall begin on the Effective Date for a period of three (3) years (the “Initial Term”). The Contract may be renewed for successive three (3) year terms (each a “Renewal Term”) upon the written agreement of both Parties, executed not less than sixty (60) days prior to the expiration of the Initial Term or Renewal Term, as applicable.
- 2.3. Right to Terminate.
- 2.3.1. Owner’s Right to Terminate for Any Reason.
- a. During the On-Boarding Phase. The OWNER may terminate and/or cancel this Contract at any time during the onboarding phase of this project, upon seven (7) days Written Notice to the Provider, for any reason, with or without cause, including a termination for the convenience of the OWNER, without incurring obligation or penalty of any kind. The OWNER’s sole obligation in the event of termination is for payment for actual services rendered by the Provider before the effective date of termination

**b. During the Subscription Phase.** The OWNER may terminate and/or cancel this Contract at any time during the subscription phase of this project, upon thirty (30) days Written Notice to the Provider, for any reason, including a termination for the convenience of the OWNER. In the event of early termination pursuant to this paragraph 2.3.1.b., OWNER's sole obligation to Provider will be to pay the remainder of the subscription fee, as specified in Exhibit II, for the current annual subscription term.

**2.3.2. Parties' Right to Terminate for Breach.** If either Party (the Non-Breaching Party) believes that the other Party (the "Breaching Party") materially breached one or more of its obligations under this Contract, then the Non-Breaching Party may deliver Written Notice of such material breach to the Breaching Party specifying the nature of the alleged breach in reasonable detail (a "Default Notice"). Thereafter, the Non-Breaching Party shall have the right to terminate this Agreement if the breach asserted in such Default Notice has not been cured within thirty (30) days after such Default Notice. If OWNER terminates this Contract pursuant to this paragraph 2.3.2, OWNER shall be entitled to a pro-rated refund of the unused portion of the subscription fee for the remainder of the current annual subscription term.

**2.4.** The OWNER shall not under any circumstances, in the event of termination or otherwise, be liable to the Provider for consequential damages of any kind, including but not limited to loss of income, lost profits, or any loss of business opportunities, revenues, or any other economic benefit.

**2.5. Effect of Termination or Expiration.** Promptly upon termination or expiration of this Agreement for any reason, OWNER shall cease using and accessing the Software. Termination of this Agreement shall be in addition to and not in limitation of any other rights and remedies to which either Party is or may become entitled. In the event of termination or expiration of this Agreement for any reason, Aquasight will provide all OWNER generated clean Data (i.e. raw Data that has been corrected and auto-filled by the Software), to OWNER pursuant to a separate Statement of Work to be mutually agreed to by the Parties, but such production shall be no later than 45 days after termination or expiration. Aquasight will retain a copy of OWNER raw Data for a period of one year after termination or expiration of this Agreement. After the expiration of the one-year period, Aquasight shall have the right to delete and destroy all OWNER raw Data with notice to OWNER.

### **§3. SCOPE OF PROVIDER'S SERVICES AND CHANGE ORDER PROCESS**

**3.1.** The Provider shall perform all work identified and itemized in Exhibit II: "Order Form and Scope of Provider's Services" and this Contract.

**3.2. Hosting and Software Services.** Aquasight agrees to provide the hosting services described herein and as may be set forth in more detail in the applicable Order Form, including the right of OWNER to access, view, download, transmit, and use all data transmitted by OWNER or OWNER's systems and facilities to Aquasight ("OWNER Data"). Aquasight hereby grants OWNER a non-exclusive, non-transferable, worldwide right to use and access the Software solely for OWNER's own internal business purposes, subject to the terms and conditions of this Agreement. Only

employees of OWNER properly authorized by OWNER for the performance of their job responsibility for OWNER (“Authorized Users”) shall be entitled to access and use the Software. Only the number of Authorized Users indicated on the Order Form are permitted to access and use the Software. The Software may be hosted on hardware owned, operated, and managed by Aquasight’s third party service providers. Upon OWNER’s request, Aquasight shall provide reasonable information to OWNER with respect to Aquasight’s third party hosting services provider. Aquasight shall have the right to modify the Software in its sole discretion, provided that Aquasight shall not materially diminish the performance or functionality of the Software without OWNER’s prior written consent.

**3.3. Change Order Process.**

**3.3.1.** Contract Change Orders, which must be in writing and executed by OWNER to be effective and binding, shall be used to reflect additions to, reductions in, or changes to the Order Form and Scope of Services (Exhibit II), Rate Schedule (Exhibit III), Contract price, or any other changes to the Contract.

**3.3.2.** Any change order request submitted by Provider shall indicate the reason for the addition, reduction, or change, the cost impact, the new proposed total Contract price, and any effect on the Software or Services provided under this Contract.

**§4. OWNER PAYMENT OBLIGATIONS FOR PROVIDER’S SERVICES**

**4.1.** Except as otherwise expressly provided for in this Contract, the OWNER’s sole financial obligation to the Provider for any services under this Contract shall be as follows:

**4.1.1.** The Provider shall submit an invoice to the OWNER which shall itemize all amounts due and/or owing by the OWNER under this Contract, as the date of the invoice. The invoices shall be submitted in the form and according to the schedule approved by the OWNER. The OWNER shall have no obligation to make payment until a proper invoice is submitted and approved by the Contract Administrator or designated OWNER Agent. Once an invoice is approved, the OWNER will pay the invoice within forty-five (45) days. The OWNER reserves the right to make partial payments on any invoice in an amount the OWNER, in its discretion, deems to be commensurate with the actual progress of the services performed. Provider shall be compensated in accordance with the Rate Schedule attached as Exhibit III.

**4.1.2.** Under no circumstances shall the OWNER be obligated to pay the Provider for any services rendered which have not been invoiced, as required herein, within sixty (60) days of the date such services were actually rendered pursuant to this Contract.

**4.2.** Final payment for the work performed under this Contract shall not be made until all work is satisfactorily performed and accepted by the Contract Administrator or designated OWNER Agent.

**4.3.** Under no circumstances shall the OWNER be responsible for any cost, fee, fine, penalty, or damages incurred or suffered by Provider in connection with or resulting from the Provider’s provisions of Services under this Contract.

4.4. The OWNER has the right to offset any amounts due and owing to the Provider should the OWNER incur any cost associated with this Contract that is the obligation of Provider under this Contract.

§5. **PROVIDER'S ASSURANCES AND WARRANTIES**

- 5.1. Provider Statements. The Provider certifies that all statements, assurances, records, and materials submitted to OWNER in connection with securing this Contract are truthful, complete, and accurate in all respects.
- 5.2. Service Warranty. The Provider warrants that all Services performed hereunder will be performed timely and in a manner that complies with all applicable laws, statutes, regulations, ordinances, and professional standards.
- 5.3. Warranty of Function. The Provider warrants that the Software documentation and representations regarding the Software's functionality provided by Aquasight to OWNER accurately describe the function and operational characteristics of the Software, and that the Software will operate according to the functional specifications, documentation, and representations provided to OWNER and in accordance with the Scope of Services. Further, the Software will be free from defects, viruses, and other malware. Provider will not be responsible for functionality failures resulting solely due to general Internet outages.
- 5.4. Ownership of Software. The Provider represents and warrants that it is the legal owner of all intellectual property rights of the Software, or has received all intellectual property licenses or rights necessary to provide the Software and Services without further consent from any third party. The Provider warrants that the Software does not infringe any patent or copyright of a third party.
- 5.5. Data Security. The Provider will maintain and enforce information and data privacy and security procedures with respect to its access, use, and storage of all OWNER Data that (a) are at least equal to industry standards, taking into consideration the sensitivity of the relevant OWNER Data, (b) comply with all applicable international, foreign, federal, state and local laws, statutes, rules, orders and regulations, and (c) provide all reasonably appropriate administrative, technical, and physical safeguards to protect against accidental or unlawful destruction, loss, alteration, or unauthorized disclosure, access or use of OWNER Data.
- 5.6. Business and Professional Licenses. The Provider will maintain at all times during the term of this Contract all applicable business and professional licenses necessary to provide the contracted services.
- 5.7. Equipment and Supplies. The Provider is responsible for providing equipment and supplies required to complete the specified Services under the Contract unless otherwise expressly set forth in the Contract.
- 5.8. Taxes. The Provider shall pay its own local, state, and federal taxes, including without limitation, social security taxes, and unemployment compensation taxes. The OWNER shall not be liable to or be required to reimburse the Provider for any federal, state, and local taxes or fees of any kind. OWNER will provide tax exempt documentation.
- 5.9. Provider's Incidental Expenses. Except as otherwise expressly provided in this Contract, the Provider shall be solely responsible and liable for all costs and expenses incident to the performance of all Services for the OWNER.
- 5.10. Provider Employees.

- 5.10.1.** The Provider shall employ and assign qualified Provider Employees as necessary and appropriate to provide the Services under this Contract. Provider shall ensure all Provider Employees have the necessary knowledge, skill, and qualifications to perform the required Services and possess any necessary licenses, permits, certifications, and governmental authorizations as may be required by law.
- 5.10.2.** The Provider shall solely control, direct, and supervise all Provider Employees with respect to all Provider obligations under this Contract. The Provider will be solely responsible for and fully liable for the work, conduct, and supervision of any Provider Employee.
- 5.10.3.** If requested by the OWNER, all Provider Employees shall wear and display appropriate OWNER-provided identification at all times while working on OWNER premises. The Provider shall promptly return all OWNER-provided identification.
- 5.10.4.** All Provider Employees assigned to work under this Contract may, at the OWNER's discretion, be subject to a security check and clearance by the OWNER.
- 5.11.** E-Verify. Provider shall register with, participate in, and utilize the E-Verify Program (or any successor program implemented by the federal Department of Homeland Security and Social Security Administration) when hiring their employees. Unless otherwise exempted, Provider agrees to certify they have registered with, will participate in, and continue to utilize, once registered, the E-Verify Program (or any successor program implemented by the federal government or its departments or agencies) to verify the work authorization status of all newly hired employees employed by the Provider. Breach of this term or conditions is considered a material breach of this Contract.
- 5.12.** Provider Employee-Related Expenses. All Provider Employees shall be employed at the Provider's sole expense (including employment-related taxes and insurance) and the Provider warrants that all Provider Employees shall fully comply with and adhere to all of the terms of this Contract. The Provider shall be solely and completely liable for any and all applicable Provider Employee's federal, state, or local payment withholdings or contributions and/or any and all Provider Employee related pension or welfare benefits plan contribution under federal or state law. The Provider shall indemnify, defend, and hold the OWNER and OWNER Agents harmless for and against any and all Claims brought against the OWNER or OWNER Agents by any Provider Employee.
- 5.13.** Full Knowledge of Service Expectations and Attendant Circumstances. The Provider warrants that before submitting its bid, it had a full opportunity to review all OWNER requirements and expectations under this Contract. The Provider understands and confirms that it will be able to timely perform all obligations under the Contract as specified herein.
- 5.14.** Independent Contractor. The Provider's relationship to the OWNER is that of an independent contractor. All Provider Employees assigned to provide Services under this Contract by the Provider shall, in all cases, be deemed employees, agents, or subcontractors of the Provider and not employees, agents, or sub-contractors of the OWNER.
- 5.15.** Disclaimer. Except as expressly provided in this Contract, the software and the services are provided to OWNER in their then-existing condition, as is, where is and with all faults. Except for the foregoing warranties, Provider expressly

disclaims all other warranties, express or implied, including merchantability, satisfactory quality, or fitness for a particular purpose.

**§6. OWNER RESPONSIBILITIES**

- 6.1. Compliance with Laws.** OWNER is responsible for all activity occurring under any applicable user accounts while users are in performance of their job responsibilities, and OWNER shall abide by all applicable local, state, federal and foreign laws, treaties and regulations in connection with OWNER's use of the Services and Software, including those related to data privacy, international communications, and the transmission of technical or personal data.
- 6.2. OWNER Data.**
- 6.2.1.** OWNER represents that it has the right and authority to provide all OWNER Data to be hosted by Aquasight hereunder, and to the best of OWNER's knowledge all such OWNER Data will be free from viruses, spyware, and other similar harmful and destructive code.
- 6.2.2.** OWNER is solely responsible for the quality of the Data transmitted to Aquasight or otherwise processed by the Software. OWNER acknowledges that the quality of the results and analytics provided by the Software is a function of the quality of OWNER's Data, and that inaccurate or erroneous Data can lead to inaccurate or erroneous results. Aquasight cannot and does not guarantee the quality of any Data provided by OWNER. Aquasight retains all historical and real-time collected and analyzed data for the life of the Subscription Term.
- 6.3. OWNER Equipment and Connectivity.** OWNER is solely responsible for the equipment used by OWNER in connection with the Software, including without limitation the calibration of all sensors and equipment data being collected. Aquasight will not be liable or responsible for any delays, inaccuracies, or unavailable Data resulting from a disruption or interruption of connectivity and Data communication to the Aquasight system and Software due to a connectivity problem that is the fault of OWNER's equipment.
- 6.4. Use of the Software and Results.** OWNER acknowledges and agrees (a) it will verify and validate with its engineering staff any changes that OWNER proposes to make to its systems or facilities based on intelligence from the Aquasight system and Software, and (b) the Aquasight system and Software does not control OWNER's systems or facilities, but rather assists OWNER with the efficiencies associated with the operation of OWNER's system and facilities.
- 6.5. Design Information and Configuration.** OWNER acknowledges and agrees that the Aquasight system and Software are configured based on the preliminary design information provided by OWNER. In the event of any changes or modifications to the design information relating to OWNER's systems or facilities, OWNER will promptly notify Aquasight of such changes or modifications. Aquasight will adapt the configuration of the Aquasight system and Software to the new design conditions pursuant to a separate Statement of Work to be mutually agreed to in writing by the Parties.
- 6.6. License to Use OWNER Data.** OWNER grants Aquasight (i) a non-exclusive, non-transferable (except as permitted herein), royalty-free, license to use, reproduce, modify and transmit Data provided by OWNER during the term of this



Contract for the purpose of performing the Services only, and (ii) a non-exclusive, non-transferable (except as permitted herein), royalty-free, license to use, reproduce, display, modify, create derivative works of, and disclose and distribute any usage Data derived by Aquasight from the provision of Services to OWNER (“Usage Data”) during the term of this Contract for the purpose of performing the Services only, provided that the Usage Data is disclosed in an aggregate form.

**§7. SOFTWARE AND DATA OWNERSHIP**

- 7.1. Aquasight IP. All right, title, and interest in and to the Software and all portions thereof, including the look and feel of the Software, visualizations displayed by the Software, and all other intellectual property rights therein, including all applicable rights to: (i) copyrights, including all rights incident to copyright ownership, such as all rights of publication, registration and rights to create derivative works; (ii) patents; (iii) trademarks; and (iv) trade secrets (including all know-how, ideas, logic, formulas and confidential information embodied in or reflected in Software) are and shall remain with Aquasight and its suppliers.
- 7.2. OWNER IP. All right, title, and interest in and to Data provided by OWNER, related analyzed/generated clean Data, and all related information provided to and accessed by Aquasight, including all intellectual property rights therein and all rights incident thereto, are and shall remain with OWNER.

**§8. PROVIDER PROVIDED INDEMNIFICATION AND INSURANCE**

- 8.1. Indemnification. To the maximum extent permitted by law, Provider agrees to protect, defend, indemnify and hold the OWNER and the OWNER Agents free and harmless from and against any and all Claims and Liabilities of any kind arising from any action or omission by Provider or any Provider Employee related to or arising out of the performance of Provider’s Services under this Agreement. This indemnification provision shall be construed in all respects to comply with MCL 691.991 and shall not be construed to: (a) indemnify the OWNER or the OWNER Agents for damages arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the OWNER or OWNER Agents or (b) require Provider to assume any liability or indemnity obligation for any amount greater than the degree of fault of the Provider and Provider Employees.
- 8.2. Provider Provided Insurance. At all times during this Contract, including renewals or extensions, Provider shall obtain and maintain insurance according to the specifications indicated in Exhibit I: Provider Insurance Requirements.

**§9. Limitation of Liability**

- 9.1. Neither party shall be liable to the other party for any lost profits resulting from any claim or cause of action based on breach of warranty, breach of contract, negligence (including strict liability), or any other legal theory.

**§10. ADDITIONAL TERMS AND CONDITIONS**

- 10.1. Immunity.** In undertaking the obligations of this Contract, OWNER is engaging in a governmental function. The activities undertaken herein are not proprietary and specifically are not for pecuniary profit. Nothing in this Contract is intended to, or shall be construed as, in any way diminishing the immunity OWNER enjoys under applicable law.
- 10.2. Notification and Access to OWNER Facilities.**
- 10.1.1.** To the extent the Provider requires access to OWNER facilities for performances of its Services, the Provider must provide notice to the OWNER and obtain prior permission from the OWNER to obtain such access.
- 10.1.2.** If applicable to the Services rendered hereunder, the OWNER shall have full access to the work site and full access to any off-site preparation and fabrication facilities.
- 10.3. Use of OWNER's Premises.** To the extent applicable to the Services rendered hereunder, Provider shall confine its equipment, apparatus, materials and products, and operations of Provider Employees to the limits indicated by law, ordinances, permits, or directions of the OWNER and shall not unnecessarily encumber the work site or OWNER premises with its materials, products, or equipment.
- 10.4. Damage to OWNER Property and Premises.** The Provider shall be responsible for any damage to the OWNER premises or property and the work site, if applicable, that is caused by the Provider or Provider Employees. Should damage occur as a result of the Provider's actions or the actions of the Provider Employees, the Provider is responsible for the repair and/or replacement of the damage. If the Provider fails to repair or replace the damage, the OWNER shall repair and/or replace the damaged area and charge the Provider or deduct the amount from the Provider's payment, at the OWNER's option.
- 10.5. Cleaning.** To the extent applicable to the Services rendered hereunder, the Provider shall at all times keep the OWNER's property and premises free of rubbish related to Provider's Services hereunder.
- 10.6. OWNER Right to Complete Work.** In addition to all remedies the OWNER has at law or in equity, in the event the Provider shall fail, neglect, or refuse to perform any or all of his duties under this Contract, the OWNER, after giving the Provider seven (7) calendar days' notice in writing, may perform or employ another entity to perform such duties under the Contract and charge the Provider or deduct the amount from the Provider's payment due under this Contract, at the OWNER's option.
- 10.7. Cumulative Remedies.** The OWNER's exercise of any remedy shall not preclude the exercise of any other remedies, all of which shall be cumulative. The OWNER shall have the right, in its sole discretion, to determine which remedies are to be exercised and in which order.
- 10.8. Survival of Terms and Conditions.** All terms and conditions which by their nature extend beyond termination of this Contract shall survive and continue in full force beyond the termination and/or cancellation of this Contract, including without limitations Provider's assurances and warranties in Section 5 and insurance and indemnification obligations in Section 8.

- 10.9. OWNER Right to Suspend Services.** Upon written notice, the OWNER may suspend performance of this Contract if Provider has failed to comply with federal, state, or local laws, or any requirements contained in this Contract. The right to suspend services is in addition to the OWNER's right to terminate and/or cancel this Contract. The OWNER shall incur no penalty, expense, or liability to Provider if the OWNER suspends services under this Section.
- 10.10. No Third-Party Beneficiaries.** Except as expressly set forth herein, this Contract does not and is not intended to create any obligation, duty, promise, contractual right, or benefit in favor of any other person or entity.
- 10.11. Compliance with Laws.** Provider shall comply with all federal, state, and local laws, statutes, ordinances, regulations, insurance policy requirements, and requirements applicable to its activities under this Contract.
- 10.12. Permits and Licenses.** Provider shall be responsible for obtaining and maintaining throughout the term of this Contract all licenses, permits, certificates, and governmental authorizations necessary to perform all of its obligations under this Contract and to conduct business under this Contract. Upon request by the OWNER, Provider shall furnish copies of any permit, license, certificate, or governmental authorizations necessary to provide services under this Contract. The Provider shall deliver all certificates of inspection to the OWNER, if applicable.
- 10.13. Discrimination.** Provider shall not discriminate against any employee or applicant for employment because of sex, race, religion, color, national origin, or disability in violation of State or Federal law.
- 10.13.1.** Provider shall promptly notify the OWNER of any complaint or charge filed and/or determination by any Court or administrative agency of illegal discrimination by Provider.
- 10.13.2.** The OWNER, in its discretion, may consider any illegal discrimination described above as a breach of this Contract and may terminate or cancel this Contract immediately.
- 10.14. Reservation of Rights.** This Contract does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, and/or other legal right, privilege, power, obligation, duty, or immunity of the OWNER.
- 10.15 Assignment.** OWNER shall not assign this Contract or any rights or obligations hereunder, without the express written consent of Aquasight, which consent shall not be unreasonably withheld. Any assignment or transfer in violation of the foregoing will be null and void. Aquasight shall not assign this Contract to any affiliate or any entity in connection with the sale, combination, or transfer of all or substantially all of the assets or capital stock or from any other corporate form of reorganization by or of Aquasight without the express written consent of the OWNER, which consent shall not be unreasonably withheld. Subject to all the terms and conditions hereof, the Contract inures to the benefit of and is binding upon the Parties hereto and their successors and assigns.
- 10.16. Force Majeure.** Notwithstanding any other term or provision of this Contract, neither Party shall be liable to the other for any failure of performance hereunder if such failure is due to acts of God, natural disasters, fire, explosion, vandalism, national emergencies, insurrections, riots, wars, strikes, lockouts, or work stoppages. Reasonable Written Notice shall be given to the affected Party of any such event and the other Party's reliance on this provision. If such event persists for sixty (60) days or more, either Party may terminate this Contract without penalty upon Written Notice to the other Party.

- 10.17. Conflict of Interest.** To avoid any real or perceived conflict of interest, Provider shall identify any Provider Employee or relative of Provider's Employees who are presently employed by the OWNER or Macomb County.
- 10.18. Grant Compliance.** If any part of this Contract is supported or paid for with any state or federal funds granted to the OWNER, the Provider shall comply with all applicable grant requirements.
- 10.19. Project Managers.** Each Party shall designate an employee or agent to act as a Project Manager. The Project Manager shall serve as a contact point for all matters related to the services to be performed under this Contract. The Provider's Project Manager shall coordinate with the OWNER's Project Manager. The Provider shall provide the name and qualifications of its Project Manager and an alternate.
- 10.20. Contract Administrator.** The OWNER may appoint a Contract Administrator to be responsible for such activities as monitoring deliverables and funding, addressing the quality of services provided by the Provider, reviewing invoices, and submitting requests to the OWNER board or authorized representative for any contract modification in accordance with this Contract.
- 10.21. Access and Records.** Provider will maintain accurate books and records in connection with the services provided under this Contract for thirty-six (36) months after the end of this Contract and provide the OWNER with reasonable access to such books and records.
- 10.22. Audit.** At the OWNER's request, Provider shall allow an auditor identified by the OWNER to perform finance compliance audits with the authority to access all pertinent records and interview any Provider Employee throughout the term of this Contract and for a period of three (3) years after final payment.
- 10.23. Delegation/Subcontract/Assignment.**
- 10.23.1.** The Provider shall not assign, delegate, or subcontract any part of this Contract without the prior written consent of the OWNER. With respect to permitted assignments, delegations, and subcontracts:
- a.** The rights and obligations under this Contract shall not be diminished in any manner by assignment, delegation, or subcontract.
  - b.** Any assignment, delegation, or subcontract by Provider must include a requirement that the assignee, delegee, or subcontractor will comply with this Contract.
  - c.** The Provider shall remain primarily liable for all work performed by any subcontractor. The Provider shall remain liable to the OWNER for any obligations under the Contract not completely performed or incorrectly performed by any Provider, delegee, or subcontractor.
  - d.** If any part of the Provider's services depends upon the work of any other Provider or subcontractor, the Provider shall inspect and promptly report to the OWNER any defects in such work that shall render it unsuitable.
- 10.24. Non-Exclusive Contract.** This Contract is a non-exclusive agreement and the OWNER may freely engage other persons to perform the same or similar work that the Provider performs. Except as provided in this Contract, this

Contract shall not be construed to guarantee the Provider or any Provider Employee any certain quantity of hours or services to be rendered to the OWNER.

- 10.25. No Waiver.** No term or condition of this Contract may be waived in the absence of a written waiver. Absent a written waiver, no act, failure, or delay by a Party to pursue or enforce any right or remedy under this Contract shall constitute a waiver of those rights. Any waiver shall be limited to the specific instance for which it is given, and no waiver by either Party shall subsequently affect its right to require strict performance of this Contract.
- 10.26. Severability.** If a court of competent jurisdiction finds a term, condition, or provision of this Contract to be illegal or invalid, then the term, condition, or provision shall be deemed severed from this Contract. All other terms, conditions, and provisions of this Contract shall remain in full force and effect.
- 10.27. Written Notices.** Written Notices given under this Contract shall be sent as follows:
- 10.27.1.** If notice is sent to the Provider, it shall be addressed to: AQUASIGHT LLC, 1650 Big Beaver Road, Suite 101, Troy, MI 48084, ATT: CEO.
- 10.27.2.** If notice is sent to the OWNER, it shall be addressed to: 21777 Dunham Road, Clinton Township, Michigan 48036, ATT: Chief Deputy Public Works Commissioner, with a required copy to: Joseph E. Viviano, Esq., Kienbaum Hardy Viviano Pelton & Forrest, P.L.C., 48 S. Main St., Ste. 2, Mt. Clemens, Michigan 48043.
- 10.27.3.** Either Party may change the address or individual to which notice is sent by notifying the other party in writing of the change.
- 10.28. Contract Modifications or Amendments.** Any modifications, amendments, rescissions, waivers, or releases to this Contract must be in writing and agreed to by an authorized representative of both Parties.
- 10.29. Precedence of Documents.** In the event of a conflict between the terms and conditions in any of the documents comprising this Contract, the terms and conditions in this Contract document shall prevail and take precedence over any allegedly conflicting provisions in all other Exhibits and documents.
- 10.30. Governing Law.** This Contract is made and entered into in the County of Macomb, State of Michigan, and shall be governed, interpreted, and enforced by the laws of the State of Michigan. Provider acknowledges and stipulates that it conducts business in Macomb County for purposes of MCL 600.1621 or any successor statute.
- 10.31. Provider Use of Confidential Information.** The Provider and/or Provider Employees shall not reproduce, provide, or disclose Confidential Information to any third party, or to any Provider Employee not having a legitimate need to know any such information and data, and shall not use the Confidential Information for any purpose other than performing its services under this Contract. Notwithstanding the foregoing, Provider may disclose the Confidential Information if required by law, statute, or other legal process, provided that Provider (i) gives OWNER prompt written notice of an impending disclosure prior to make the disclosure, (ii) provides reasonable assistance to OWNER in opposing or limiting the disclosure, and (iii) makes only such disclosure as is compelled or required.

**10.32. Entire Contract.** This Contract represents the entire Contract and understanding between the Parties. This Contract supersedes all other prior or contemporaneous oral or written understandings, communications, agreements, or contracts between the Parties related to the subject matter hereof. The language of this Contract shall be construed as a whole according to its fair meaning, and not construed strictly for or against any Party.

## EXHIBIT I

1. At all times during this Contract, including renewals or extensions, Provider shall obtain and maintain insurance according to the following specifications:
  - a. Commercial General Liability – with the following minimum requirements:
    - \$1,000,000 for each occurrence of bodily injury and personal injury with an annual aggregate of not less than \$2,000,000.
    - Occurrence Form Policy
    - Broad Form Property Damage
    - Premises/Operations
    - Independent Providers
    - Products and Completed Operations
    - (Blanket) Broad Form Contractual
    - Additional Insured – The Macomb Interceptor Drain Drainage District (“OWNER”) and Macomb Interceptor Drain Drainage District board members, officials, employees (including employees shared with Macomb County), and representatives (“OWNER Agents”)**
  - b. Workers’ Compensation – as required by law and Employer’s Liability Insurance with minimum limits of \$500,000 each accident, \$500,000 bodily injury by disease policy limit, \$500,000 bodily injury by disease each employee;
  - c. Automobile Liability and Property Damage - \$1,000,000 each occurrence, including coverage for all owned, hired, and non-owned vehicles including No Fault coverage as required by law;
  - d. Professional Liability/Errors & Omissions Insurance (as applicable) – with minimum limits of \$1,000,000 per claim and \$2,000,000 aggregate.
2. General Certificates of Insurance:
  - a. All Certificates of Insurance shall be sent as provided in Section 10.27.
  - b. The insurance carrier(s) must have an A.M. Best rating of no less than an A-, VII.

- c. The OWNER and OWNER Agents shall be named additional insured on all policies (excluding Worker's Compensation and Professional Liability/Errors & Omissions Insurance) and the underwriters will have no right of recovery or subrogation against the OWNER or OWNER Agents.
- d. The insurance company(s) issuing the policy or policies will have no recourse against the OWNER for payment of any premiums or for assessments under any form of policy.
- e. The Provider will assume any and all deductible in the above-described insurance policies.
- f. All Certificates are to provide thirty (30) days written notice of material change, cancellation, or non-renewal. Certificates of Insurance or insurance binders must be provided no less than ten (10) working days before commencement of work. Insurance carriers are subject to the approval of the OWNER.



MACOMB INTERCEPTOR DRAINAGE DISTRICT  
11/08/2023 - 12/05/2023

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>
<b>Macomb Interceptor Drain</b>	Chapter 20 Chesterfield – 7.4416% Clinton – 20.9117% Fraser – 4.2007% Harrison – 6.2625% Lenox – 1.1700% Macomb – 14.1489% New Haven – 0.8391% Shelby – 9.7883% Sterling Heights – 30.8805% Utica – 1.6392% Washington – 2.7176%						
		Astorino	Aquasight	\$ 67,492.00	Invoice #817 - 11.27.23	Covid Testing - November 2023 - Grant	
		Astorino	City of Mt. Clemens	\$ 43,640.83	Invoice #28006750 - 11.03.23	Monthly Sewage - October 2023	
		Stockel	Cortis Brothers Trucking	\$ 26,417.12	Invoice #9930 - 11.13.23	Remove and Replace Culvert - 21 / Garfield	
		Manning	County of Macomb	\$ 528,295.71	Invoice #AR23000164 - 10.17.23	2nd Qtr Personnel	
		Manning	County of Macomb	\$ 7,477.53	Invoice #AR23000164 - 10.17.23	2nd Qtr Internal Services	
		Manning	County of Macomb	\$ 478,069.03	Invoice #AR23000164 - 10.17.23	3rd Qtr Personnel	
		Manning	County of Macomb	\$ 14,086.53	Invoice #AR23000164 - 10.17.23	3rd Qtr Internal Services	
		Astorino	DTE Energy	\$ 2,577.98	Invoice #23-848 - 10.03.23	Monthly Electric - 10.03.23 - 10.31.23 - CS12	
		Astorino	Fishbeck	\$ 671.28	Invoice #430754 - 11.30.23	GLWA - As-Needed Engineering through 11.24.23	
		Downing	FK Engineering Associates	\$ 92,858.32	Invoice #20-152-035 - 11.09.23	Segment 5 CCA - 10.15.23 - 11.11.23	\$ (898,791.67)
		Downing	FK Engineering Associates	\$ 52,512.97	Invoice #20-058-041 - 11.09.23	Segment 6 CCA - 10.15.23 - 11.11.23	\$ (210,403.90)
		Astorino	FK Engineering Associates	\$ 15,328.02	Invoice #23-158-001 - 11.15.23	2024 Drop Shaft Rehab through 11.11.23 - Design	\$ 517,259.98
		Astorino	Grainger	\$ 952.89	Invoice #9871391984 - 10.16.23	Gloves / Coveralls	
		Downing	L. D'Agostini & Sons	\$ 1,031,404.55	Invoice #WWS-2022-001 App #9 - 11.16.23	Odor & Corrosion Improvements Project through	\$ 5,894,075.06
		Astorino	METCO	\$ 6,028.95	Invoice #2206A-07 - 08.01.23	Flow Control Assistance through 07.30.23	\$ 18,979.55
		Astorino	METCO	\$ 780.04	Invoice #2206B-07 - 08.01.23	CPS Electrical Room AC Upgrades through 07.30.23	\$ 18,199.51
		Astorino	METCO	\$ 799.65	Invoice #2206A-10 - 12.05.23	As Needed - Flow Control	\$ 84,434.95
		Downing	Oscar Renda Contracting	\$ 131,507.10	Invoice #WO23003 Est #39 - 12.03.23	Romeo Arm Segment 5 Lining through 11.30.23	\$ 7,278,766.48
		Downing	Tetra Tech	\$ 32,214.50	Invoice #52161998 - 11.21.23	Odor and Corrosion CCA through 10.27.23	\$ 585,775.17
Tanghe	Tom's Auto Glass	\$ 1,315.00	Invoice #3018 - 11.02.23	Vehicle #23-636 - Weatherguard Toolbox			
Astorino	Uline	\$ 630.54	Invoice #153056169 - 08.24.22	Protective Gear			
Astorino	Verizon	\$ 1,415.03	Invoice #9947598821 - 10.23.23	Monthly Cellular - 09.24.23 - 10.23.23 (Eq. Fund)			
Astorino	Verizon	\$ 727.42	Invoice #9947598821 - 10.23.23	Monthly Cellular - 09.24.23 - 10.23.23			
<u>CPS</u>		Astorino	Clinton Township	\$ 2,606.69	Invoice #23-853 - 11.01.23	Monthly Water - October 2023	
		Astorino	De-Cal	\$ 77,812.00	Invoice #App #4 - 11.27.23	PS AC Upgrades through 11.01.23 - 11.30.23	\$ 20,188.00
		Astorino	DTE Energy	\$ 16,839.79	Invoice #23-1005 - 10.05.23	Monthly Electric - 10.03.23 - 11.01.23	
		Astorino	HECO Group	\$ 1,926.00	Invoice #24907 - 08.31.23	Service Call	
		Astorino	METCO	\$ 5,721.40	Invoice #2206C-02 - 12.05.23	Technical Assistance Pump #4	\$ 78,713.55
<u>METERS</u>		Astorino	HESCO	\$ 2,501.00	Invoice #231919 - 11.08.23	Flow Meter Spare Parts	
		Astorino	HESCO	\$ 14,741.25	Invoice #231961 - 11.21.23	Meter Maintenance through 10.30.23	\$ 379,453.75

MACOMB INTERCEPTOR DRAINAGE DISTRICT  
11/08/2023 - 12/05/2023

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>
NGI		Astorino	DTE Energy	\$ 1,304.02	Invoice #23-846 - 10.02.23	Monthly Electric - 09.30.23 - 10.30.23	
OMID		Downing	Oakland County	\$ 4,471,317.83	Invoice #CI029871 - 11.30.23	Sewer Disposal November 2023	
SCADA		Astorino	Verizon	\$ 1,080.90	Invoice #9947598821 - 10.23.23	Monthly Cellular - 09.24.23 - 10.23.23	
<b>Total</b>				\$ 7,133,053.87			

**Budget to Actual**  
**MIDDD**  
**As of Nov 30, 2023 = 42%**

DESCRIPTION	2024 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
<b>REVENUE ACCOUNTS</b>					
GLWA-OMID	49,276,790		20,534,024	28,742,766	41.7%
OMID O&M	4,379,020		1,824,592	2,554,428	41.7%
Settlement	100,000			100,000	0.0%
Reimbursements	150,000		71,725	78,275	47.8%
PY Revenue-Fund Balance	20,907,890			20,907,890	0.0%
Reimb-Local Communities	17,717,200		7,382,167	10,335,033	41.7%
State Grant-ARPA Seg 5 & 6	-		15,238,938	-	0.0%
COVID Grant	345,630		213,381	132,249	0.0%
Interest	400,000			400,000	0.0%
<i>Total Revenue Accounts</i>	93,276,530	-	45,264,826	63,250,642	48.5%
<b>EXPENSE ACCOUNTS</b>					
GLWA-OMID	49,276,790		20,534,024	28,742,766	41.7%
OMID O&M	4,379,020		1,824,592	2,554,428	41.7%
Public Works Wastewater Disposal Division	1,984,020		5,774	1,978,246	0.3%
Office Operations/Insurance	406,450		27,339	379,111	6.7%
SCADA	117,260		33,042	84,218	28.2%
<b>Engineering</b>					
Replenish reserve from CPS refunding	618,680			618,680	0.0%
As Needed Engineering	200,000		32,443	167,557	16.2%
Annual Meter Dye Testing	50,000			50,000	0.0%
Data Review-Aquasight	100,000			100,000	0.0%
Odor and Corrosion Construction/CCA	811,040		1,796,995	(985,955)	221.6%
Covid Testing 2023-Grant Funded	340,630		213,381	127,249	62.6%
General Construction/Engineering Contingency-All projects	2,650,000			2,650,000	0.0%
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	75,000			75,000	0.0%
Level Sensors/Pressure/H2S-Meters	261,200			261,200	0.0%
2023 Drop Shaft Rehab Design, Construction, & CCA	2,400,000		13,942	2,386,058	0.6%
Odor and Control-Construction	8,333,780		1,449,734	6,884,046	17.4%
Segment 6 Construction Administration (ARPA)			1,094,674	(1,094,674)	
Segment 6 Construction/CCA (ARPA)			3,122,591	(3,122,591)	
Segment 5 Construction Admin (ARPA)			509,731	(509,731)	
Segment 5 Construction (ARPA)			10,511,942	(10,511,942)	
Legal Services	75,000		1,510	73,490	2.0%
Clintondale PS O&M	786,890		339,601	447,289	43.2%
NGI O&M	88,500		29,013	59,487	32.8%
Meters O&M	189,400		102,809	86,591	54.3%
Control Structures and Pump Station O&M	178,930		3,314	175,616	1.9%
Biofilter O&M	19,800		629	19,171	3.2%
Contribution Life Cycle Reserve	184,300			184,300	0.0%
Interceptor O&M	18,614,210		177,777	18,436,433	1.0%
Stormwater Pump Stations	50,000		20,833	29,167	41.7%
Sewage Disposal Charges - Mt. Clemens	410,000		108,648	301,352	26.5%
Debt Service - Revenue Bonds	675,630		281,513	394,118	41.7%
<i>Total Expense Accounts</i>	93,276,530	-	42,235,850	51,040,680	45.3%

	O&M Balance 6/30/2023	O&M	Total 11/30/2023
<b>Cash - Operating</b>	59,727,429	3,028,976	62,756,405
<b>Accounts Receivable</b>			0
<b>Assets</b>			0
<b>Liabilities</b>			0
<b>Revenues</b>		45,264,826	45,264,826
<b>Expenditures</b>		42,235,850	42,235,850
			0
<b>Equity*</b>	59,727,429		62,756,405

**Detail of 2023 Equity\***

Reserve at 6/30/2023	20,862,516	PLC Equipment Replacement	100,000
Life Cycle Reserve	1,237,460	Improvement to Hydraulic Cylinder	120,333
General Construction/Engineering Contingency-All projects	450,000	Grouting	3,926,770
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	75,000	Interceptor Inspections	1,714,481
Level Sensors/Pressure/H2S-Meters	256,230	Intercept Clean/Sediment Removal	3,550,000
Drop Shaft Rehab Design	2,400,000	Segment 5	14,064,063
Odor and Corrosion Construction/CCA	7,803,213	Segment 6	3,003,560
CPS Electrical Room AC	63,803	Drain Valve For Force Main	100,000