

Miller
Santo
VanSyckel

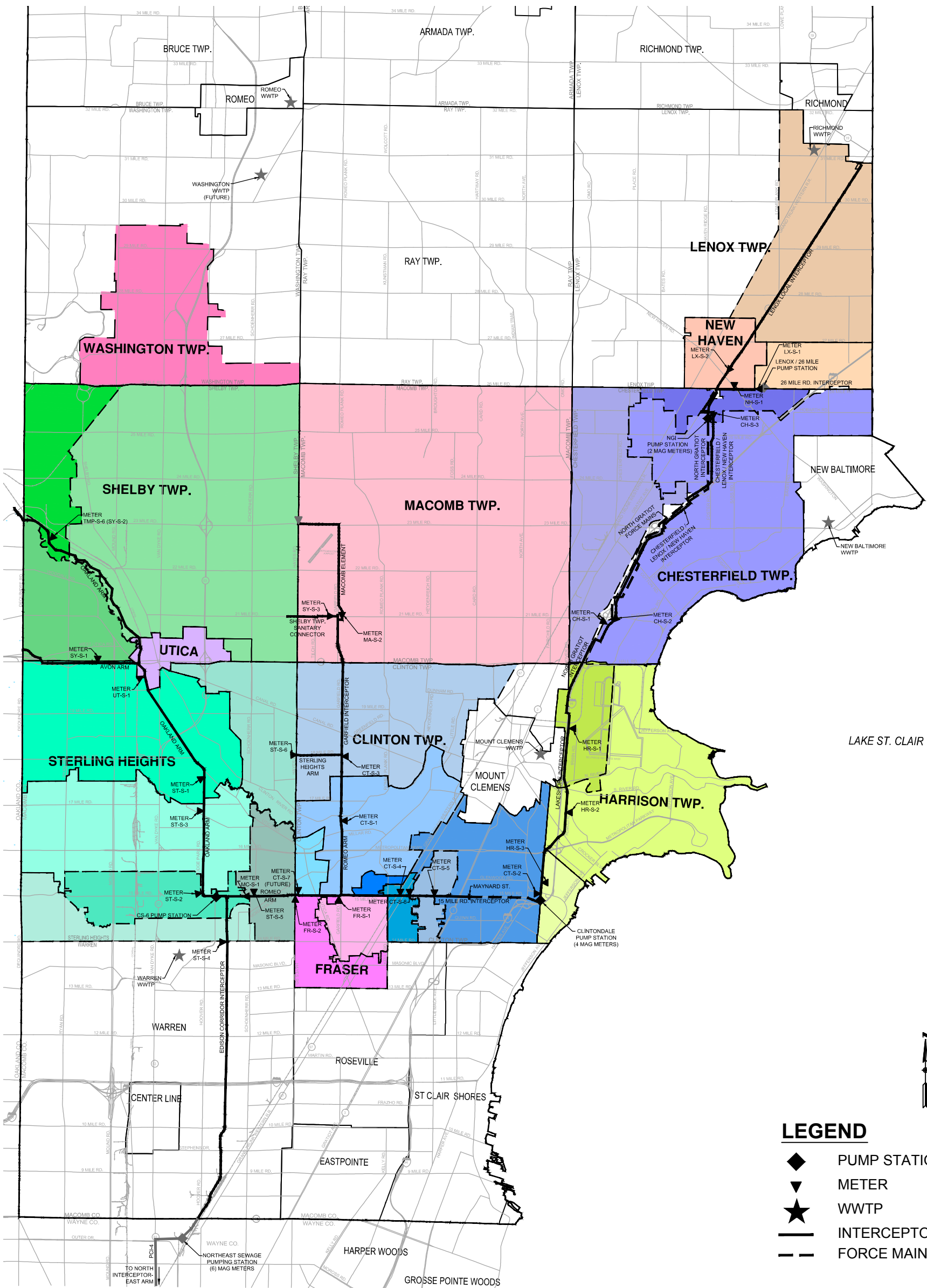
MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
JANUARY 8, 2024
10:30 A.M.
AGENDA

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

**Call in Number: 1-470-499-2258
Access Code: 415 487 641**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for January 8, 2024	
3. Approval of Minutes for December 11, 2023	3
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	6
6. As-Needed Engineering Services Contract - Change Order #1 - Vince Astorino	29
Motion: To approve Change Order #1 for \$100,000 to the Fishbeck As-Needed Engineering Services Contract.	
7. Consideration for approval of invoices (see attached)	33
8. Financial Report – Bruce Manning	34
9. 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 December 11, 2023, at 10:23 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

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 November 13, 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. We have finished the heavy debris cleaning. Mr. Santo asked if the price was broken down by the ton and Mr. Downing said yes, that it was a unit price. Our engineer will be going out to the site tomorrow to do a full inspection to make sure there is no infiltration. He presented some photos of work being performed. We received a schedule from the contractor, and it looks like there is a substantial completion date of May.

Mr. Downing then presented on Segment 6 Rehabilitation. He showed photos of debris and said that there is a substantial completion date of May.

Mr. Astorino updated on the 2023 Interceptor Inspection Program. We are waiting on a final video submittal for the MIDD portion from Taplin. The work in the field is all complete.

Mr. Downing updated on Phase II Grouting. The inspection located a gushing infiltration that was taken care of immediately by AEW and Doetsch. It was also checked for sediment and there was no sediment.

Mr. Downing said that we are still making great progress on the Odor and Corrosion Facilities. The schedule has been updated and completion dates for all facilities are within the contractual time. He presented photos of all sites.

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 the Clintondale Pump #4 Rehabilitation bid. There is a shaft inside of pump #4 that had split open, causing a void inside. We put together a bid package to repair the pump. We had 3 contractors bid and Progressive Mechanical came in with the lowest cost. Their project manager is very knowledgeable regarding this particular pump, so we feel confident that they are able to do the repair.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to award the bid from Progressive Mechanical at a not to exceed cost of \$549,767 for the rehabilitation of pump #4 at the Clintondale Pump Station.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino said that we have been looking at ways to streamline our sewer inspection program. SewerAI is a program that can take data from the field, bring it into a program, and use the coding within it to analyze the video, apply the full pipeline assessment certification program and manhole assessment certification program codes, and document it within the program. We tested footage from a prior inspection that we had done in 2020. We had raw files and gave it to Sewer AI to code, it came back exactly with what our contractor had coded and even found several structural defects that were missed by our contractor. This software will help 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 take months before any data is transferred to MCPWO to manually review and find defects. The cost for the 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 pipe of inspection video.

In addition, MCPWO has been actively investigating ways to improve on the established inspection program throughout the MIDD. We have been in contact with Flybotix, a company which has developed an unmanned aerial vehicle (UAV) with the ability to fly within confined spaces. More commonly known as a drone, it is equipped with a 4K video, infrared camera, protection cage, on-board lighting, and battery life that will provide 24 minutes worth of flight time. The cost would come out of the remaining inspection budget which has \$1.4 million left in it.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve the proposal from SewerAI Corporation for inspection software and autocode condition assessments at a not-to-exceed cost of \$100,000.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve the purchase of the sewer inspection drone from Flybotix for \$34,639.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino updated on the State funded grant to monitor wastewater for COVID, Influenza, and now adding RSV, and Norovirus testing.

A motion was made by Mr. VanSyckel, supported by Mr. Santo 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.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$7,133,053.87 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 11:29 A.M.



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 December 11, 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.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 12/11/23



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: January 8, 2024

Subject: Construction Projects Status Updates for January 2024 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.

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.
4. Sediment and Debris Removal
 - The sediment and debris removal was completed this month. The total amount of material removed is approximately 5,300 tons.
5. Manhole Rehab & Spray-Lining
 - No activity this month.
6. HOBAS Pipe Slip-Lining
 - The Contractor completed a successful dry-run around the curve upstream of CS-12 with their pipe carrier and a 20-foot section of HOBAS.
 - HOBAS installation will start in January 2024.
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



Figure 2 – Pipe Carrier Testing with HOBAS



Figure 3 – Pipe Carrier Testing with HOBAS



Figure 4 – Pipe Carrier Testing with HOBAS



Figure 5 – Pipe Carrier Testing with HOBAS Pipe



Figure 6 – Pipe Carrier Testing with HOBAS



Figure 7 – Pipe Carrier Testing with HOBAS



Figure 8 – RAI Curve Facing CS-12

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 1,100 linear feet of pipe cleaned as of 12-28-23.
3. All HOBAS pipe has been delivered.

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 9 – Aerial View at CS-3 of Debris Removal Equipment



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

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 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

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 were not delivered in December as expected; a new delivery date is forthcoming.
 - i. 1-2 weeks of work once the tanks are received
3. Clintondale PS Site:
 - a. Completed concrete replacement over the FAD line
 - b. Working on above ground duct-work
4. 21 Mile & Garfield Site
 - a. Continued construction of the foundations for the bio-filter chamber
5. Fraser Site
 - a. Working on the mechanical and electrical components of the bio-filter.
 - b. Installation of the access hatches.

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 11 – Fraser Biofilter



Figure 12 – Fraser Bio-Filter Access Hatch Installation



Figure 13 – Fraser Bio-Filter Access Hatch



Figure 14 – Macomb Twp. Foundation Construction



Figure 15 – Macomb Twp. Foundation Construction



Figure 16 – Macomb Twp. Foundation Construction



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

From: Vincent Astorino, Operations Director

Date: January 8, 2024

Subject: Change Order #1 Approval Request for As-Needed Engineering Services – Fishbeck

On December 31, 2022, The Macomb Interceptor Drain Drainage District (MIDDD) entered into an updated As-Needed Engineering Services agreement with Fishbeck. This agreement was for \$100,000 and was budgeted within the overall MIDDD engineering budget.

Currently MCPWO has been utilizing Fishbeck for some of the following tasks:

- GLWA Assistance
- OMIDDD Flow Metering Work Group
- NGI PS Flow Analysis
- SCADA Graphic Development
- Garfield Lining As-Builts
- Clinton Twp – Mt Clemens Flow Analysis
- Nexgen Development for New Construction Projects

The GLWA Assistance and OMIDDD FMWG tasks have been the most significant out of all the Fishbeck tasks to this point.

Fishbeck is starting to get low on funds and it is anticipated that with the Nexgen Development task that they will be nearing the depletion of funds. Therefore, MCPWO is requesting to add funds to the Fishbeck As-Needed contract in the amount of \$100,000. As part of this request, Fishbeck has also requested to raise their rates by 5% for the main as-needed agreement and raise their GLWA assistance rate by 5%. Even with the increase to the GLWA Assistance rate, we are still receiving a 25% discount from their main rate. MCPWO has reviewed the proposed rates and they are acceptable and inline or lower than other firms.

The 2023/2024 MIDDD budget allocated \$200,000 for As-Needed Engineering Services. Previously \$85,040 was allocated to Metco as part of change order #1 for their contract. That leaves \$114,960 in unallocated funds that have been budgeted for as-needed.

A draft copy of this change order has been attached for reference. On behalf of the MCPWO Engineering staff please approve this request to allocate \$100,000 as Change Order No. 1 to the Fishbeck as-needed contract.

Attachments: Change Order No. 1

Date of Contract: 12/31/22
Owner: Macomb Interceptor Drain
Drainage District
Engineer: Fishbeck

Effective Date of CO: 1/8/23
Owner's Contract No.: WWS-2023-001
Engineer Contract No.:
Contract Name: MIDDD As-Needed

The Contract is modified as follows upon execution of this Change Order:

Add \$100,000 to the existing contract to provide as-needed engineering services at the direction of MCPWO Engineering staff.

The original Contract Sum was: \$ 100,000.00

The net change from previously approved Change Orders No. to No: \$ 0

The Contract Sum prior to this Change Order: \$ 100,000.00

The Contract Sum prior to this Change Order will be increased by: \$ 100,000.00

The new Contract Sum, including this Change Order, will be: \$ 200,000.00

The Contract Time will be unchanged by: 0 (days)

The date of Substantial Completion as of the date of this Change Order, therefore, is: N/A

ACCEPTED:

By: _____
Owner (Authorized Signature)

ACCEPTED:

By: _____
Engineer (Authorized Signature)

Title _____

Title _____

Date _____

Date _____

December 15, 2023

Vincent Astorino
Operations Director
Macomb County Public Works
21777 Dunham Road
Clinton Township, MI 48036

**As-Needed Engineering Services
Macomb Interceptor Drain Drainage District (MIDDD)
Change Order No. 1: 2024 Rate Adjustment**

Dear Mr. Astorino:

Please see attached the 2024 Hourly Rate and Fee Schedules for our team for the MIDDD As-Needed Engineering Services Contract.

Also, for our Great Lakes Water Authority (GLWA) Assistance Task (Task 1A), we are requesting the following adjustment:

- Current (2023) Billing Rate: \$166/hour
- Requested (2024) Billing Rate: \$175/hour (5% increase)

We thank you in advance and if you have any questions or require additional information, please contact me at 248.324.1228 or mesedki@fishbeck.com.

Sincerely,



Maria E. Sedki, PE

Vice President/Senior Civil Engineer

Attachment

2024 Rate Schedule

The following is Fishbeck’s comprehensive schedule with hourly rates for each of the applicable staff classifications. The hourly rates include overhead and profit.

Category	Role	Rate
Project Manager	Project Manager	\$220
Engineering (Civil, Mechanical, Electrical, Structural, Hydraulic, Process)	Senior Engineer	\$205
	Engineer	\$159
	Staff Engineer	\$135
Inspection	Senior Technician	\$140
	Technician	\$115
	Staff Technician	\$91
Surveying	Senior Surveyor	\$159
	Surveyor	\$140
	Survey Specialist	\$128
GIS Mapping/CADD	Senior Technician	\$167
	Technician	\$128
	Staff Technician	\$108
Environmental Scientist	Senior Environmental Specialist	\$192
	Environmental Specialist	\$140
	Staff Environmental Specialist	\$115
Specialist	Senior Engineering Specialist	\$186
	Senior Estimator	\$199
Architecture	Senior Architect	\$205
	Architect	\$159
	Staff Architect	\$135
Administrative	Principal	\$254
	Clerical/Production Support	\$90

Invoices are rendered every four weeks and payment is due upon receipt.

Direct Expenses

Category	Rate
Mileage/Passenger Vehicles	\$0.56/mile
Field and Services Vehicles	\$0.95/mile (\$37/day minimum)
Equipment Schedule	Separate Schedule – As Needed
Expenses and Outside Services	Cost plus 5%

MACOMB INTERCEPTOR DRAINAGE DISTRICT
12/19/2023 - 01/02/2024

<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>
Macomb Interceptor Drain	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	Anderson, Eckstein & Westrick	\$ 2,079.40	Invoice #147735 - 12.07.23	MID Grouting Program through 11.19.23	\$ 196,642.35
		Astorino	Aquasight	\$ 81,890.00	Invoice #802 - 10.01.23	Covid Testing - October 2023 - Grant	\$ 647,983.00
		Astorino	City of Mt. Clemens	\$ 41,829.98	Invoice #28006828 - 12.04.23	Monthly Sewage - November 2023	
		Tanghe	Department of Roads	\$ 1,475.16	Invoice #302599A - 11.17.23	Fleet Fuel - October 2023	
		Astorino	DTE	\$ 1,404.91	Invoice #23-1054 - 10.31.23	Monthly Electric - 10.31.23 - 11.30.23	
		Astorino	DTE	\$ 2,202.25	Invoice #23-1050 - 11.01.23	Monthly Electric - 11.01.23 - 12.01.23 - CS12	
		Astorino	Fishbeck	\$ 1,343.68	Invoice #431742 - 12.28.23	GLWA - As-Needed Engineering through 12.22.23	
		Downing	FK Engineering	\$ 139,377.30	Invoice #20-152-036 - 12.11.23	Segment 5 CCA - through 12.09.23	\$ (1,038,168.97)
	Downing	FK Engineering	\$ 79,782.82	Invoice #20-058-042 - 12.11.13	Segment 6 CCA - through 12.09.23	\$ (290,186.72)	
	Astorino	FK Engineering	\$ 42,735.29	Invoice #23-158-002 - 12.11.23	Drop Shaft Rehabilitation through 12.09.23	\$ 474,524.69	
	Astorino	Flybotix Inc.	\$ 34,639.00	Invoice #INV/2023/00009 - 12.12.23	Sewer Inspection - Drone		
	Baker	Kienbaum Hardy Vivano Pelton	\$ 1,350.00	Invoice #50412 - 12.01.23	General Matters - November 2023		
	Downing	L. D'Agostini & Sons	\$ 971,459.27	Invoice #App 10 - 12.28.23	Odor and Corrosion through 12.21.23	\$ 4,922,615.79	
	Astorino	Taplin Group	\$ 260,424.12	Invoice # App 3 - 12.15.23	2023 Interceptor Inspection through 12.15.23	\$ 250,815.42	
	Downing	Tetra Tech	\$ 40,236.85	Invoice #52168124 - 12.05.23	Odor and Corrosion CCA through 11.24.23	\$ 551,249.07	
	Astorino	Verizon	\$ 3,062.77	Invoice #9950036384 - 11.23.23	Monthly Cellular - 10.24.23 - 11.23.23 (Eq. Fund)		
	Astorino	Verizon	\$ 90.34	Invoice #9950036384 - 11.23.23	Monthly Cellular - 10.24.23 - 11.23.23		
<u>CPS</u>		Astorino	Clinton Township	\$ 3,158.11	Invoice #23-1055 - 12.05.23	Monthly Water - November 2023	
		Astorino	Consumers Energy	\$ 879.04	Invoice #207058823489 - 12.01.23	Monthly Natural Gas Use - 11.09.23 - 12.06.23	
		Astorino	De-Cal	\$ 821.20	Invoice #WO9232705 - 12.11.23	Maintenance	
		Astorino	DTE	\$ 20,672.55	Invoice #23-1047 - 11.03.23	Monthly Electric - 11.02.23 - 12.03.23	
		Astorino	Duperon	\$ 1,200.00	Invoice #25101 - 10.31.23	Bar Screens Maintenance	
<u>METERS</u>		Astorino	Hesco	\$ 11,803.75	Invoice #232007 - 12.08.23	Meter Maintenance through 11.30.23	\$ 367,650.00
		Astorino	Hesco	\$ 10,570.00	Invoice #231749 - 08.31.23	Meter Maintenance through 07.31.23	\$ 418,400.00
<u>SCADA</u>		Astorino	People Driven Technology	\$ 1,044.32	Invoice #INV8725 - 12.05.23	Sonicwall - SCADA	
		Astorino	Verizon	\$ 1,073.80	Invoice #9950036384 - 11.23.23	Monthly Cellular - 10.24.23 - 11.23.23	
Total				\$ 1,756,605.91			

Budget to Actual
MIDDD
As of Dec 31, 2023 = 50%

DESCRIPTION	2024 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	49,276,790		24,640,884	24,635,906	50.0%
OMID O&M	4,379,020		2,189,510	2,189,510	50.0%
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		8,858,600	8,858,600	50.0%
State Grant-ARPA Seg 5 & 6	-		15,458,057	-	0.0%
COVID Grant	345,630		295,271	50,359	0.0%
Interest	400,000			400,000	0.0%
<i>Total Revenue Accounts</i>	93,276,530	-	51,514,047	57,220,540	55.2%
EXPENSE ACCOUNTS					
GLWA-OMID	49,276,790		24,640,884	24,635,906	50.0%
OMID O&M	4,379,020		2,189,510	2,189,510	50.0%
Public Works Wastewater Disposal Division	1,984,020		5,774	1,978,246	0.3%
Office Operations/Insurance	406,450		31,101	375,349	7.7%
SCADA	117,260		42,826	74,434	36.5%
Engineering					
Replenish reserve from CPS refunding	618,680			618,680	0.0%
As Needed Engineering	200,000		41,694	158,306	20.8%
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		295,271	45,359	86.7%
General Construction/Engineering Contingency-All projects	2,650,000		26,417	2,623,583	1.0%
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		56,677	2,343,323	2.4%
Odor and Control-Construction	8,333,780		2,553,589	5,780,191	30.6%
Segment 6 Construction Administration (ARPA)			1,174,456	(1,174,456)	
Segment 6 Construction/CCA (ARPA)			3,122,591	(3,122,591)	
Segment 5 Construction Admin (ARPA)			649,068	(649,068)	
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		424,028	362,862	53.9%
NGI O&M	88,500		31,093	57,407	35.1%
Meters O&M	189,400		127,846	61,554	67.5%
Control Structures and Pump Station O&M	178,930		5,576	173,354	3.1%
Biofilter O&M	19,800		662	19,138	3.3%
Contribution Life Cycle Reserve	184,300			184,300	0.0%
Interceptor O&M	18,614,210		214,495	18,399,715	1.2%
Stormwater Pump Stations	50,000		25,000	25,000	50.0%
Sewage Disposal Charges - Mt. Clemens	410,000		150,477	259,523	36.7%
Debt Service - Revenue Bonds	675,630		337,815	337,815	50.0%
<i>Total Expense Accounts</i>	93,276,530	-	48,457,297	44,819,233	52.0%

	O&M Balance 6/30/2023	O&M	Total 12/31/2023
Cash - Operating	59,727,429	3,056,750	62,784,179
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		51,514,047	51,514,047
Expenditures		48,457,297	48,457,297
			0
Equity*	59,727,429		62,784,179

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