

MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
APRIL 8, 2024
11:00 A.M.
AGENDA

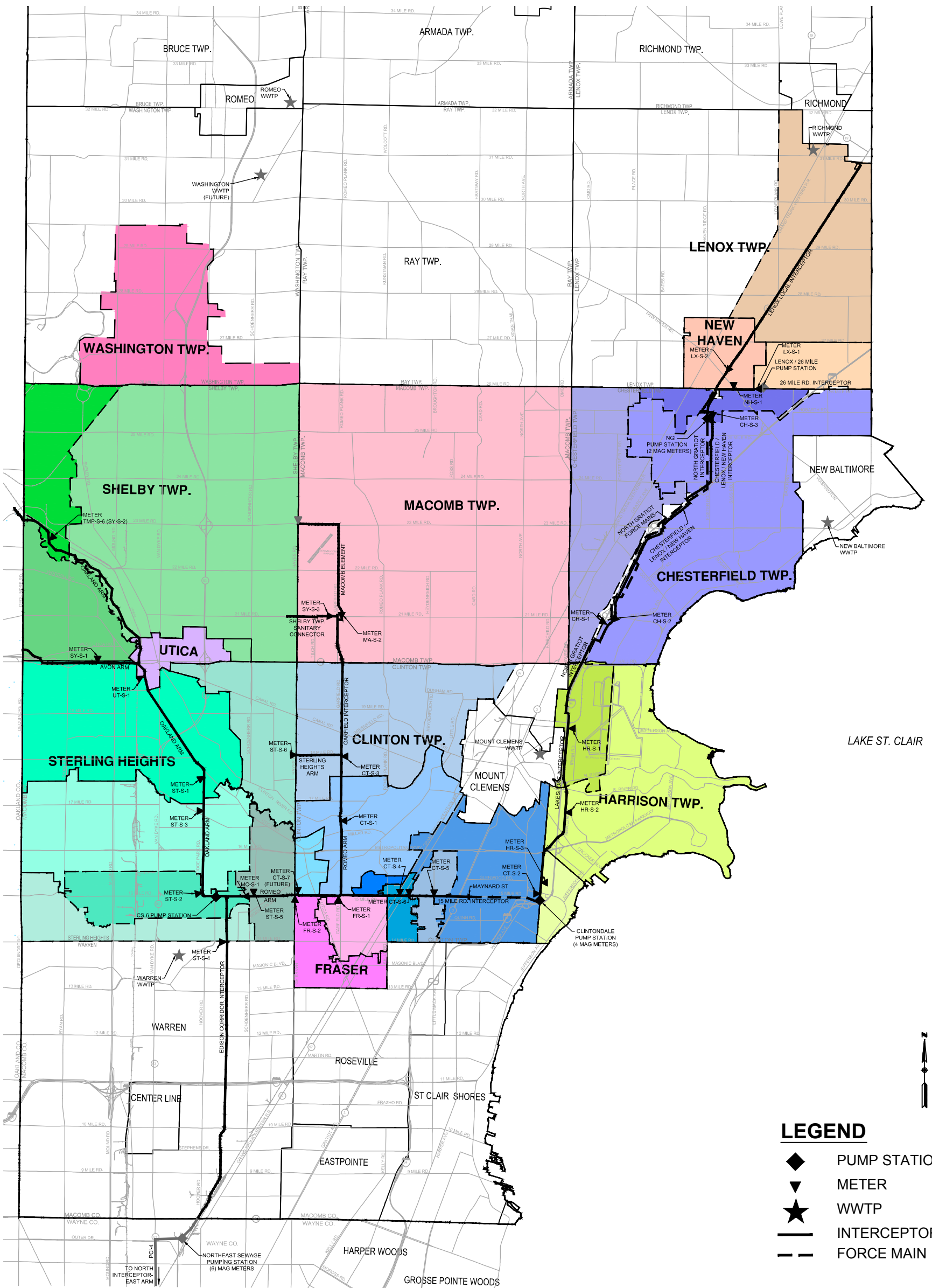
**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE
OPTION FOR PUBLIC**

**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 April 8, 2024	
3. Approval of Minutes for March 11, 2024	4
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	7
6. 2024 Report to the MIDD Communities – Candice Miller	33
7. Proposed 2024/2025 MIDD Budget – Brian Baker	45
Motion: To approve the 2024/2025 Macomb Interceptor Drainage District (MIDD) budget and charges.	
8. North Gratiot Phase 5 Lining Project – Design Recommendation – Vince Astorino	75
Motion: To approve the design proposal from Hubbell, Roth & Clark, Inc. for a not-exceed amount of \$87,470 for the North Gratiot Phase 5 Lining Project.	
9. Segment 6 Ric Man Work Directive/Change Order #4 - Spray Lining Reinforcement (CS-2 & CS-3) and Taper (MH-1 to MH-5) - \$343,080 – Steve Downing	84
Motion: To approve Change Order #4 to the Segment 6 Ric-Man Construction contract for \$343,080.20 and extend the contract times by 37 calendar days.	

	Page
10. Segment 6 Hobas Damage Builder's Risk Claim - \$578,555 Net MIDD Insurance Reimbursement - Steve Downing	90
<p>Motion: To receive and file the Segment 6 Builder's Risk Claim Summary and authorize insurance proceed payments of \$383,816.46 to Ric-Man Construction and \$269,739.18 to FK Engineering.</p>	
11. Insurance Policy Renewal – Bruce Manning	93
<p>Motion: To approve the Chapter 20 General Liability Insurance coverage renewal with Argonaut Insurance Company in the amount of \$241,911 (MIDD share \$198,850.84)</p>	
12. Consideration for approval of invoices (see attached)	99
13. Financial Report – Bruce Manning	101
14. 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 March 11, 2024, at 11:10 A.M.

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

PRESENT VIA TELECONFERENCE: Jess Johnston, Sterling Heights DPW

ALSO PRESENT: Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Finance Manager; Pam 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. Santo supported by Mr. VanSyckel to approve the agenda as presented.

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of February 12, 2024, were presented. A motion was made by Mr. VanSyckel, supported by Mr. Santo 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. Completion of this project is still scheduled for October 2024. Since February 10th, 38 sections of pipe have been installed. Oscar Renda has also started grouting. In addition to slip lining and grouting, they have re-mobilized their spray line equipment to the Villa Fontana area at manhole #6, to spray line the transition between the 8-foot pipe and the first piece of HOBAS. Currently, we are looking at June to be off Fontana. During a routine inspection of our pump at CS-12, a carabiner failed, and the pump fell approximately 20 feet. The pump was sent to the manufacturer and after inspection, it was found that it would cost more to fix it than to buy a new pump. We are working on ordering a new pump. It will be a cost to the contractor, Oscar Renda. It looks like it may be eligible for a builder's risk claim. Mr. Downing presented pictures of the HOBAS being installed.

Mr. Downing then presented on Segment 6 Rehabilitation. We continue removing heavy debris and build up. We are hoping to start slip lining in approximately 3 weeks. He showed pictures of the debris removal. Mr. VanSyckel asked if we are in possession of all the HOBAS which Mr. Downing confirmed.

Mr. Astorino updated on the 2023 Interceptor Inspection Program. We will be closing this job out. We brought everything into Sewer AI, and have reviewed over 400,000 LF of inspection data, specifically the 2020 Inspection because there were findings that we didn't agree with. After review, we have

saved approximately \$3,500,000 of work that was originally told to us to be a priority as Sewer AI findings proved otherwise. We continue to practice flying the drone. The quality of the footage is very good.

Mr. Downing said there is no new updates on Phase II Grouting this month.

Mr. Downing said that we are still making great progress on the Odor and Corrosion Facilities. The NGI PS site, everything is running smoothly. Clintondale PS we are still waiting for the skid unit to be delivered, it should be arriving in May. 21 Mile Road and Garfield is still making good progress and we were able turn off and de-mobilize the de-watering system.

Mr. Baker updated stating that we will have the MIDD budget to the Board next month. The OMID Odor and Corrosion project at Sorrento and Dodge Park will be proceeding. OMID is selling a bond that will be going before the BOC next month.

Mr. Astorino stated that the MCPWO received the American Public Works Association project of the year award for the 21 Mile Road and Garfield Spiral Lining project.

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

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented an extension for the Liability Insurance for Segment 6.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve a 9-month extension of the Owner-Controlled Insurance Program (OCIP) Liability Policy with Meadowbrook Insurance Agency for the Segment 6 project totaling \$46,770.75.

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented a Segment 5 and Segment 6 Builder's Risk/ Pollution Insurance Extension.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve a 9-month extension of the Owner-Controlled Insurance Program (OCIP) Builder's Risk and Pollution policies with Meadowbrook Insurance Agency for the Segment 5 and Segment 6 projects based on the district's final pro-rata share of the \$66,418 premium.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$7,563,670.45 to the board for review and approval.

A motion was made by Mr. VanSyckel, supported by Mr. Santo 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 11:44 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 March 11, 2024, 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: 3/11/24



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: April 8, 2024

Subject: Construction Projects Status Updates for April 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.

The project started in September 2020 and is scheduled to be completed in October 2024 based on the February 2024 schedule update.

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:
 - o 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.
 - o The Contractor is performing the regular pump station maintenance during construction.
 - o The Contractor is working with the manufacturer to procure a replacement pump for the damaged Pump #2.
 - The Contractor requested that the Owner initiate a Builder’s Risk insurance claim for this matter.
4. Sediment and Debris Removal
 - o No update this month
5. Manhole Rehab & Spray-Lining
 - o The Contractor completed spray-lining the transition taper between the 8-foot pipe and the HOBAS.
6. HOBAS Pipe Slip-Lining & Grouting of Annulus
 - o HOBAS installation started on February 10, 2024.
 - o A total of 103 sections (approximately 2000-feet) of pipe have been installed through March 28, 2024.
 - o Grouting lifts 4 & 5 of Run #1 from MH-06 to MH-05 completed.
 - o Grouting lifts 2 & 3 of Run #2 from MH-05 to MH-04 completed.
7. Weather & Maintenance
 - o There were a couple disruptions to work in the Interceptor during the month due to wet-weather.

Construction Costs:

	Date	
Original Contract Amount	10/21/2020	\$28,807,500.00
Current Contract Amount	3/312024	\$35,433,572.23
Total Spent to Date	3/312024	\$29,994,011.60
Remaining Budget	3/312024	\$5,474,635.74



Figure 1 – CS-12 Pump Station, Construction Yard



Figure 2 – Hoisting HOBAS Pipe into CS-12 (daily operation for while slip-lining)



Figure 3 – HOBAS Installation (typical)



Figure 4 – Applying Joint Soap to the HOBAS

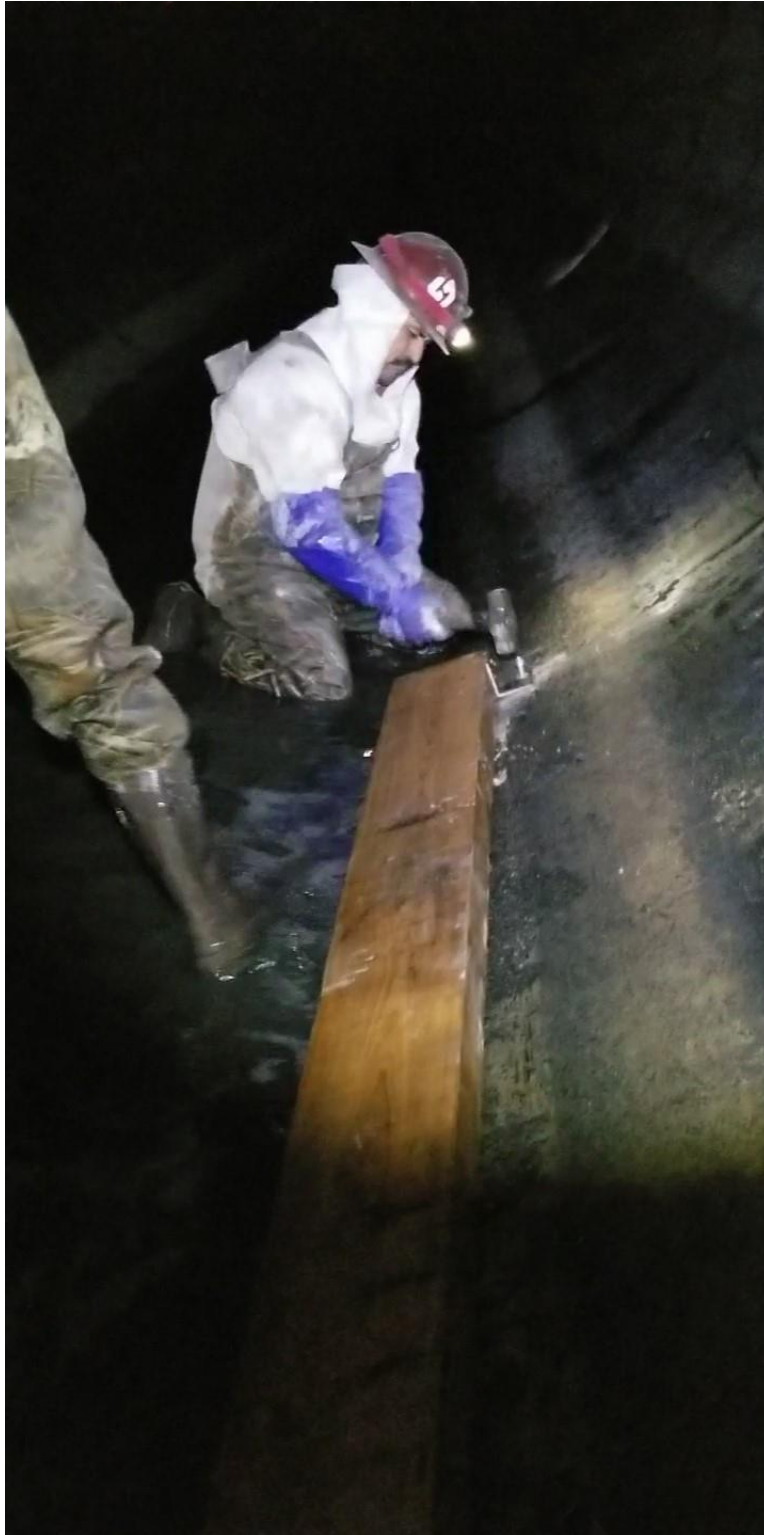


Figure 5 – Installation of Wood Blocking on the Pipe Invert



Figure 6 – Wood Blocking on the Crown of the Pipe

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 August 2024 based on the March 2024 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 Continued the debris removal from CS-3 to the mid-point of the RAI curve.
 - o Contractor is vacuuming heavier debris of 12-30-inch deep as they work toward the mid-point of the RAI curve; approximately 20-feet remaining as of 3-29-24.
 - o There is a potential need to jet the pipe of the floatable debris under live flow to complete cleaning, this will be evaluated once the heavy debris removal is completed.
3. The project has been impacted several times due to wet-weather this month.
4. The Contractor did not submit a pay application for March.

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	2/29/2024	\$13,674,209.70
Total Spent to Date	2/29/2024	\$11,730,594.83
Remaining Budget	2/29/2024	\$1,943,614.87



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



Figure 8 – Debris Removed Setup at CS-3 – Facing South



Figure 9 – Dewatering Pump and Vac Line at CS-3



Figure 10 – Viscous Sludge at CS-2



Figure 11 – Viscous Sludge between CS-2 and 15-Mile Interceptor Tap

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 August 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	April – 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	April – 2024

*The dates are based on the Construction schedule March 2024 update.

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 system has remained on since initial startup on March 5, 2024.
 - i. The preliminary data indicates that the system is reducing H2S in the system.
 - b. The Owner training is scheduled for April 16, 2024.
3. Clintondale PS Site:
 - a. The carbon unit delivery is expected in May 2024.
4. 21 Mile & Garfield Site
 - a. Completed backfill
 - b. Completed Spray-lining of the steel casing for the FAD line
 - c. Started preparation for application of the protective coating in the media chamber.
 - d. The carbon media delivery is expected to occur late April or early May.
 - e. Started underground utility work; water & gas service.
5. Fraser Site
 - a. The balance of the carbon media is expected to be delivered in late April or early May.
 - b. The Contractor is preparing for initial start-up and commissioning.

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	3/31/2024	\$12,083,471.50
Total Spent to Date	3/31/2024	\$8,259,348.25
Remaining Budget	3/31/2024	\$3,824,123.25



Figure 12 – Aerial View of the Fraser Biofilter



Figure 13 – Aerial View of the Macomb Twp. Bio-Filter



Figure 14 – Aerial View of the NGI Chemical Injection Facility



Figure 15 – Macomb Township Bio-Filter Media Chamber Sandblasting

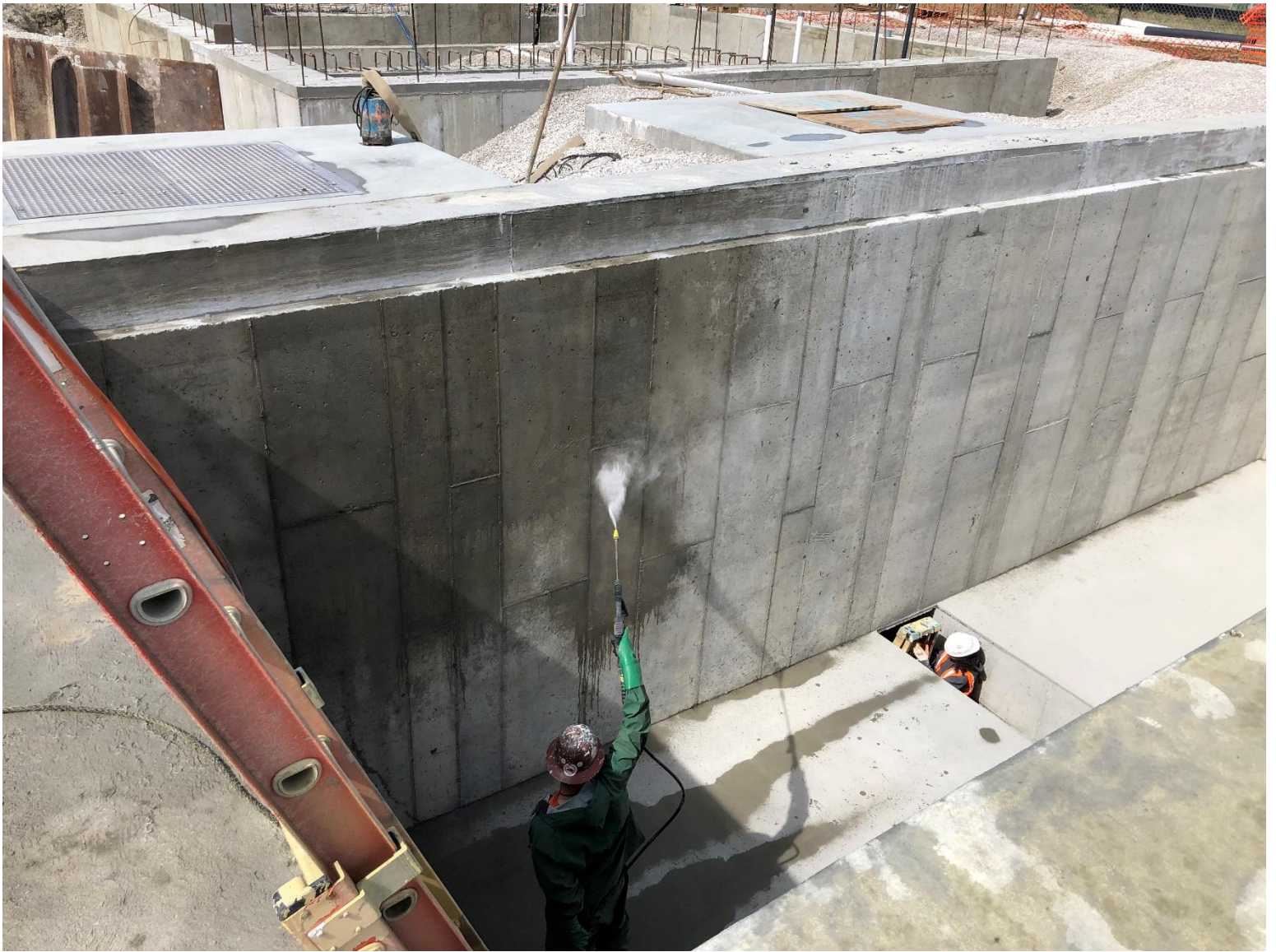


Figure 16 – Macomb Township Bio-Filter Media Chamber Pressure Washing



Figure 17 – Macomb Township Bio-Filter Media Temporary Tarp Installation



Figure 18 – Macomb Township Bio-Filter Media Chamber Crack Repair & Surface Preparation



Figure 19 - Macomb Township Bio-Filter Media Chamber Crack Repair & Surface Preparation



Figure 20 – Macomb Township Bio-Filter Back-Filling at Utility Building



2024 MIDD Report

Macomb Interceptor Drainage District (MIDD)

Candice S. Miller

Macomb County Public Works Commissioner



Pictured: "Light at the end of the tunnel" - watching the first piece of HOBAS pipe being installed down the pipe at the Segment 5 Sewer Rehabilitation Project



No More Sinkholes!

Final phases of major construction projects along 15 Mile Road

Construction has reached the very important, final major phase of the two major construction projects along 15 Mile Road.

While these projects have taken longer than expected due to manpower, supply chain and weather issues that other industries have also had to deal with, the alternative – another major infrastructure collapse like the one that occurred in late 2016 – would be much more costly and disruptive to the area in terms of road closures and sewer service.

At “Segment 5”, the new, permanent pump station inside the 60-foot-deep shaft that was excavated west of Schoenherr Road in Sterling Heights, was completed. Nearly 6,000 tons of sediment was painstakingly removed from the 11-foot-diameter concrete pipe that is the last major stretch of unreinforced concrete of the

MIDD installed in 1972 and carries the sanitary sewage from almost 600,000 people from 11 of Macomb County’s communities that comprise the MIDD district. Installation of HOBAS – the impervious glass fiber-reinforced polymer pipe – began in mid-February. In total, approximately 360 “sticks” will be lowered by crane one at a time down the shaft to “slip line” 7,000 feet of the 15 Mile interceptor to shield the interior of the pipe from corrosive hydrogen sulfide gas created by the flow of raw sewage. Where the pipe transitions to a narrower, 8-foot-diameter stretch, 1,300 lineal feet will be spray-lined with a geo-polymer coating.

Segment 5 is a \$30 million project that will not require an increase in sewer rates for the MIDD communities. The project is funded in

NO MORE SINKHOLES, CON'T.

part with the \$12.5 million lawsuit settlement paid to the MIDD after the MIDD board chaired by Macomb County Public Works Commissioner Candice S. Miller sued three contractors whose mistakes while working in the Oakland-Macomb Interceptor sewer to the west caused conditions that eventually led to the 2016 sinkhole, and by the American Rescue Plan Act funds.

Further east, at the “Segment 6” project at 15 Mile near Garfield Road, the amount and density of sediment and debris was much more than expected. Following a walk-through inspection and any necessary grouting, slip lining of 1,300 feet of the interceptor is slated to commence in April, weather permitting.

Completion of Segment 5 and Segment 6 is expected by late summer 2024, weather permitting.

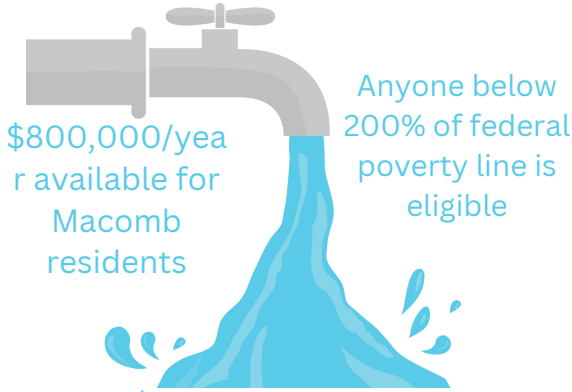
“Our team sincerely appreciates the patience shown by homeowners and businesses in the area,” Commissioner Miller said.





Water Residential Assistance Program

TAKE CONTROL OF YOUR WATER AND SEWER BILL WITH WRAP!



\$800,000/year available for Macomb residents

Anyone below 200% of federal poverty line is eligible

Up to \$100/month in bill credits, \$2,400 for unpaid bills and \$2,000 for plumbing assistance

To find more information, and to see if you qualify, call Macomb Community Action at 586-469-6464 or visit mca.macombgov.org

Drop Shaft Rehabilitations

The FY25 budget includes \$3.9 million for rehabbing and relining nine sewer shafts based on recent inspection data. The work will include the spray lining or cured in place pipe lining to rehabilitate the drop manholes and connecting sewer pipe.

New Sewer Lining Projects Planned

Our inspection program identified key areas of need across the MIDD drainage system. The area with the highest need is approximately 4,400 linear-feet of 5-foot diameter pipe in the 15 Mile Interceptor, from east of Segment 6 to Groesbeck Highway. That stretch has extensive degradation of the interior of the concrete pipe and in several locations the rebar is exposed. \$10 million is included in the budget for this project.

About 2,300 linear feet of pipe in the North Gratiot Interceptor needs to be lined to guard against further degradation from sewer gas. The diameter varies between 36 inches and 48 inches. \$2 million is budgeted for this project.

Keeping Rate Increases Minimal

Since taking office seven years ago, Public Works Commissioner Candice S. Miller and the Macomb Interceptor Drainage District board that she chairs has held wastewater rates to only necessary, modest increases.

For the FY25 that starts July 1, 2024, the MIDD budget increased \$2.6 million (2.8%), to a total of \$97.5 million. That's the sixth consecutive year the average charge adjustment is less than 3%.

Great Lakes Water Authority and Oakland Macomb Interceptor District costs account for two-thirds of the total MIDD budget. Because Commissioner Miller has successfully secured federal, state and county funds for MIDD projects, no new project debt was needed. That has resulted in lower rate adjustments. Before Commissioner Miller took office in 2017, the annual rate hikes were regularly double-digit increases. Through diligent cost analysis, budgeting, refinancing of bonds and competitive bidding of infrastructure projects, the overall cost impact to the MIDD communities has been well below inflation.



“The biofilter will greatly improve the air in that area which has been dealing with periodic nuisance odor from raw sewage for many years,” Macomb County Public Works Commissioner Candice S. Miller said.

Biofilter on 15 Mile Road west of Garfield Road

Odor & Corrosion Control

Work to mitigate odors and reduce corrosive, hydrogen sulfide gas that cause degradation of the interior of concrete sewer pipes was recently completed on one project and continues on three others.

- The startup of the new Chemical Injection Odor and Corrosion Control System at the North Gratiot Pump Station in Chesterfield Township occurred on March 4, 2024. This system will reduce hydrogen sulfide in the North Gratiot Force Main and downstream in the Lakeshore Interceptor.
- The existing Biofilter on 15 Mile, west of Garfield Road, in Fraser, has been converted from an open bed of woodchips to an enclosed biofilter with an engineered carbon media that will more efficiently remove hydrogen sulfide gas from the sewer. The upgraded facility is expected to be operational this spring.
- In Macomb Township, at 21 Mile and Garfield, construction of the new facility is well underway. The new facility includes an enclosed chamber with engineered carbon media and a small utility building to house the facility’s mechanical, electrical and controls equipment. This site is expected to be completed in July 2024.
- In Clinton Township, at the existing Clintondale Pump Station, work is on going to install a new carbon media facility that will mitigate odor and corrosion in the wet-well of the pump station and the sewer pipe immediately upstream. This work is expected to be completed this summer.



Using Artificial Intelligence for Sewer Inspections

The Macomb County Public Works Office has introduced the use of artificial intelligence to improve the inspection and maintenance of the MIDD system.

Data from visual inspections that was collected in 2021 and 2023 were analyzed by an AI program, and the condition of the sewers at many locations was scored and used to create a 3-D model.

Previous inspection recommendations showed two portions of the MIDD were in immediate need of lining. This same data was run through the program, called Sewer AI, and showed that those areas did not require immediate lining and could be pushed back within the MIDD's long-term capital improvement plan.

MCPWO engineering staff reviewed and agreed with the new assessment, resulting in a short-term savings of \$4 million. Sewer AI also confirmed the need to line a section of the North Gratiot Interceptor, and the 15 Mile Interceptor east of Segment 6 to Groesbeck Highway.

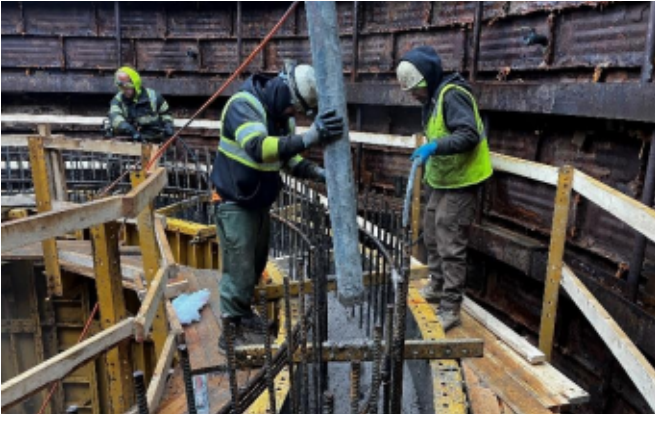
Macomb County Public Works staff is also training on the operation of a new drone that can be flown not only in our large interceptors, but also in narrower areas to collect inspection data that will be coded by AI and put into a database resulting in better quality inspections while also saving money.

“We’re excited about the use of AI for our department’s purposes because we’re using cutting-edge technology to save time and money and to get the most detailed information about the condition of our sewer systems,” Public Works Commissioner Candice S. Miller said.



8.5 Mile Drain Inspection

OMIDD Update



Several major upgrades, such as a new biofilter, HVAC and standby generator upgrades have been completed at the Northeast Pump Station in Detroit. The other ongoing upgrades at the Northeast Pump Station, include new sanitary pumps and motors, new electrical switchgear and transformers, as well as other critical equipment. It's all part of a very extensive, multi-year capital improvement program directed by the Oakland Macomb Interceptor Drainage District Board (OMIDD). The cost for these projects is included in the MIDD budget.

There are two other projects involving the rehabilitation of sections of the 7-mile stretch of the North Interceptor – East Arm that carries sewage from the 23 OMIDD communities, the 11 MIDD communities plus the 12 communities in Oakland County.

There is an upcoming Odor & Corrosion Control project which includes upgrades to an existing facility at Dodge Park and Utica Roads in Sterling Heights and a new facility at Dodge Park and Sorrento in Sterling Heights. The project will be issued for bids this Spring and construction will start late summer or early fall. Like the MIDD, the facilities will mitigate the nuisance odors emitting from the system and protect the concrete pipe from hydrogen sulfide induced corrosion. This is part of a multi-year collaboration between the MIDD and OMIDD.

MIDD Wastewater Master Plan Update

The first county-wide Wastewater Master Plan in decades was started several years ago and is now complete.

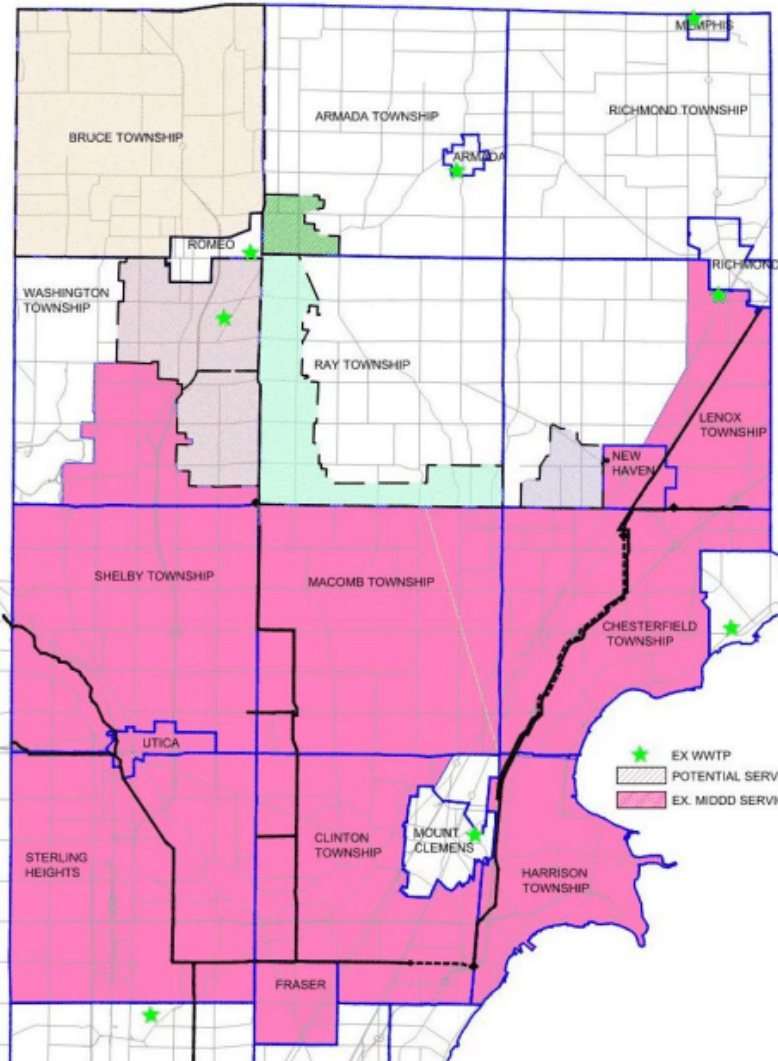
The plan was needed to ensure that our underground infrastructure continues to be a critical component of current and potential future economic activity, while also protecting the environment. The current and future sewer needs of each community were determined with input from local officials.

The plan was originally expected to take 18 months to complete, but we subsequently added several additional options for potentially service to our northern communities. The plan balances the needs of communities in the southern part of Macomb County, and those to the north.

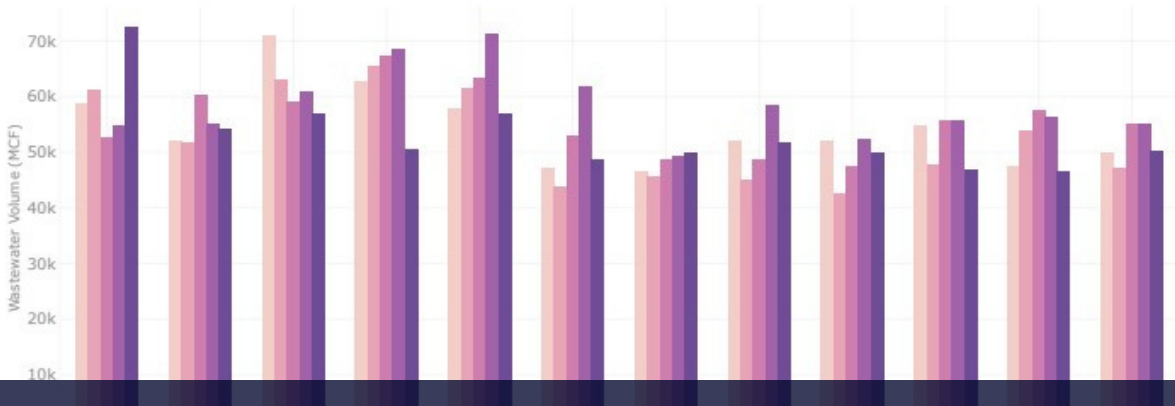
The plan finds that with continued future infrastructure rehabilitation over the next 25 years -- continued inspections, grouting, pipe lining, and corrosion control facilities -- there is enough total flow capacity to serve current and future customers through 2045. Importantly, no community's flow capacities have been decreased. In fact, most community capacity limits have increased.

“The master plan will allow us to best serve our communities by ensuring we have the infrastructure necessary to continue to enhance the quality of life we all enjoy here in Macomb County and to serve as a critical component of economic prosperity for this and future generations,” Macomb County Public Works Commissioner Candice S. Miller said.

Figure 4.2 – Potential Service Area



Community	Proposed Maximum Allowable Flow (cfs)
Chesterfield Township	39.66
Clinton Township	104.40
Fraser	21.70
Harrison Township	28.49
Lenox Township	11.64
Macomb Township	43.00/48.00
New Haven	6.40
Shelby Township	61.00
Sterling Heights	139.60
Utica	7.90
Washington Township	10.00/15.00/24.00



Go With The Flow: Meter Dashboard Available to Community Leaders

Thirty sanitary sewer outlet meter facilities maintained by the Macomb County Public Works Office allow officials from the communities in the Macomb Interceptor Drain Drainage District to view the data that's used to calculate billing of sewer service.

These facilities monitor and collect data on the sewage volumes on a continuous basis. A cloud-based meter data management tool -- called ACE -- allows municipal finance administrators, elected officials, wastewater and DPW officials to view the data on a user-friendly dashboard. Previously, they would have to wait for Public Works staff to download the data and provide it in a spreadsheet.

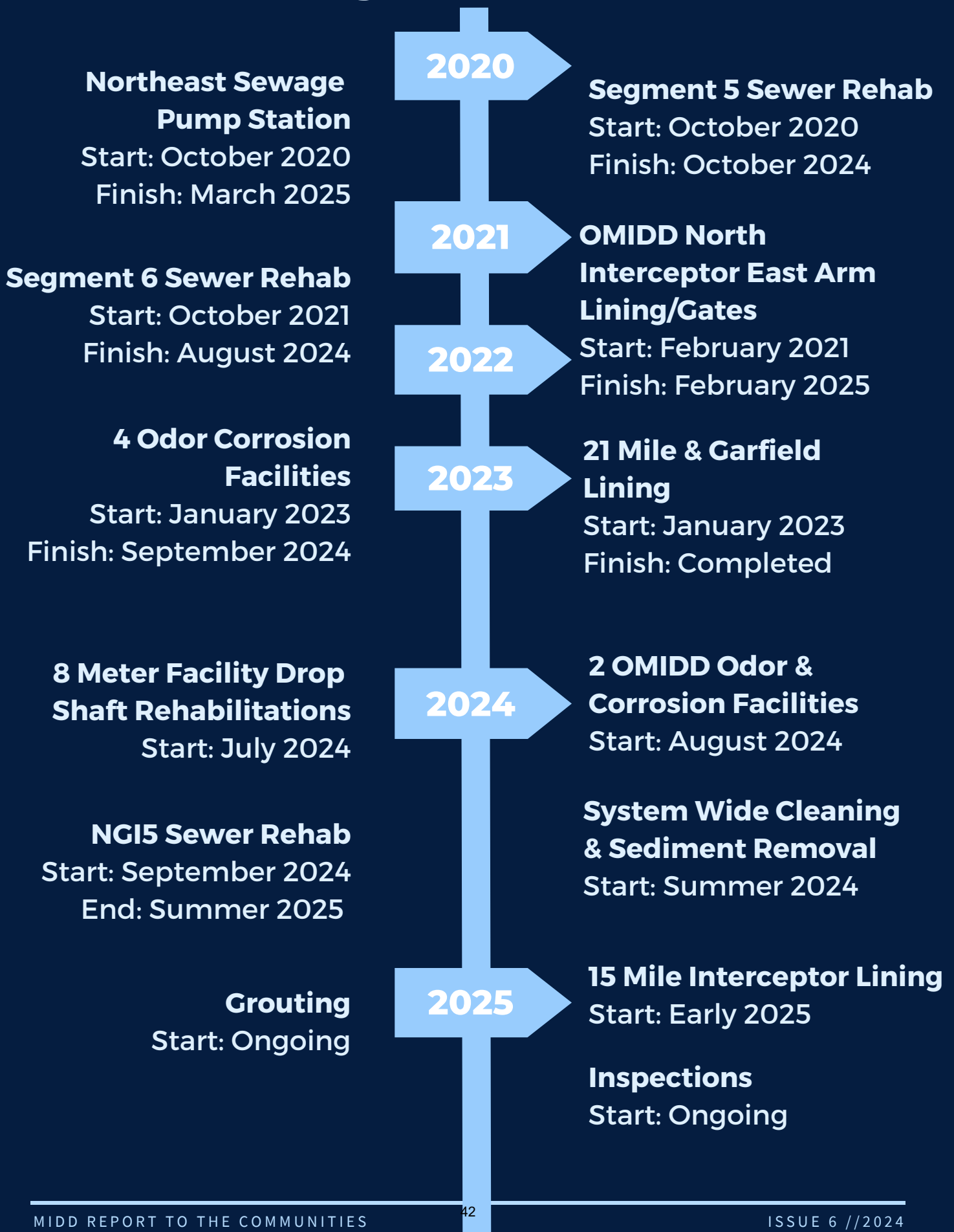
Data from rain gauges is also included in the dashboard. An analysis of sewage flow and rainfall totals can determine whether there is any infiltration of ground water into the sanitary system. Infiltration of storm water increases the amount of flow measured by the meters and increases cost to the local community.

COMMUNITY DASHBOARD IS INTENDED TO PROVIDE A QUICK LIVE SNAPSHOT OF COMMUNITY SANITARY SEWAGE FLOW METERS:

KEY FEATURES INCLUDE:

- 24-HOUR INTERACTIVE TREND OF ALL SANITARY SEWAGE FLOW METERS.
- DAILY AND HISTORIC RAINFALL TOTALS
- DATA QUALITY (SANITARY SEWAGE FLOW METER UPTIME PERCENTAGE)
- 24-HOUR ANALYTICS ON LOW, NORMAL AND HIGH FLOWS
- 90-DAY CERTIFICATION HISTORY; AS REVIEWED AND CERTIFIED BY MCPWO

MIDD Projects Timeline





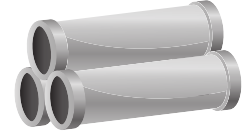
MIDD By The Numbers



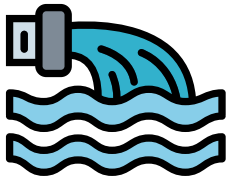
11 Communities Served



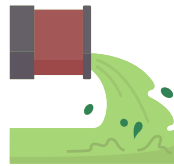
600,000 Residents & Businesses Served



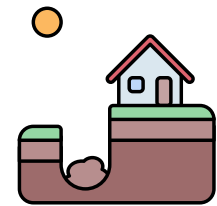
29 Miles of Interceptor



2.2 Billion Cubic Feet Annual Flow Volume



ZERO Sanitary Sewer Overflows since 2016



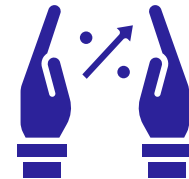
ZERO Sinkholes since 2016



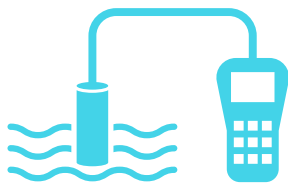
31 Billing Flow Meters



\$12.4 Million in Savings from Refinancing Bonds



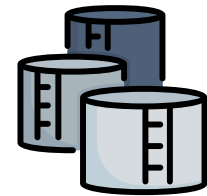
2.8% Avg. Annual Rate Adjustment since 2017 vs. 15% Annual Increases from 2010-2016



43,000 SCADA Remote Sensors



Contractors spent 259 days working in underground pipe in 2022



12 billion gallons of flow stored & safely released while workers present underground



17 Employees



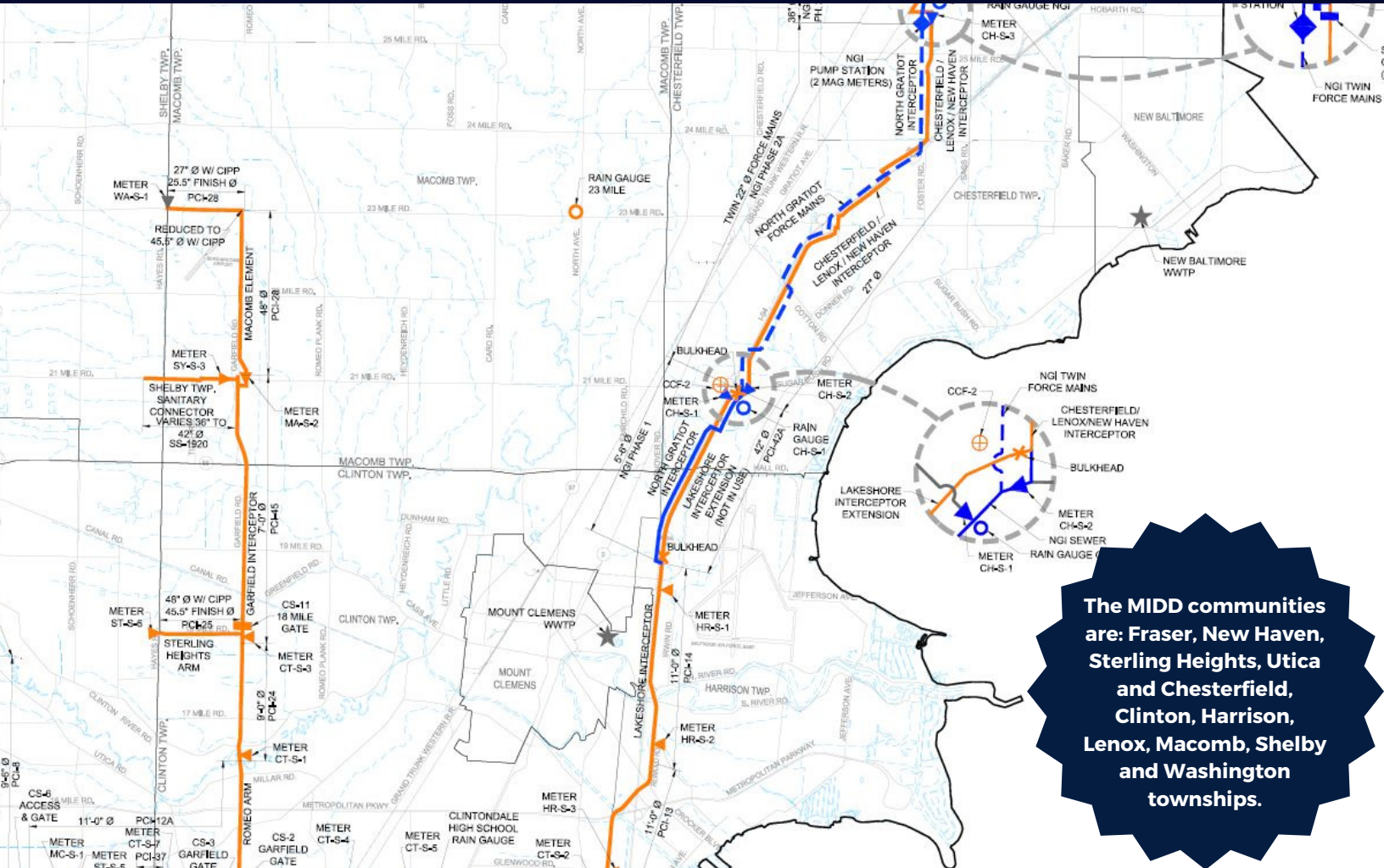
21 Rain Gauges



784 Manholes

REPORT A POLLUTER: 24-Hour Toll Free Emergency Hotline 1-877-679-4337


If a discharge is detected in a Macomb County drain, please contact the Macomb County Public Works Office.




The MIDD communities are: Fraser, New Haven, Sterling Heights, Utica and Chesterfield, Clinton, Harrison, Lenox, Macomb, Shelby and Washington townships.

Macomb County Public Works Office
Commissioner Candice S. Miller

 21777 Dunham
Clinton Township, MI 48036

 586-469-5325

 public.works@macombgov.org

 Report a Polluter: 24-Hour Toll Free
Emergency Hotline
1-877-679-4337



Macomb Interceptor Drainage District (MIDD)
FY 2025 Budget & Charges
Executive Summary

March 2024

The proposed Macomb Interceptor Drainage District (MIDD) budget for the fiscal year beginning July 1, 2024 totals \$97.5 million. The FY 2025 budget increased \$2.6 million or 2.8%. For the sixth consecutive year, the average charge adjustment remains less than 3%.

Because Commissioner Miller has successfully secured Federal, State and County funds for MIDD projects, this has avoided having to issue new project debt which has lowered needed rate adjustments.

The Great Lakes Water Authority (GLWA) and Oakland Macomb Interceptor District (OMID) costs account for two-thirds of the total MIDD budget. GLWA approved a 2.7% increase to OMID which results in a 2.9% increase to the MIDD, as Macomb's sewage flows are increasing more than Oakland's. The pending GLWA Highland Park debt recovery credits totaling \$2.3 million to the MIDD are not factored in and will be passed on when GLWA issues the credits.

OMID costs rose 0.8% as the prior year budget included debt for the Northeast Interceptor East Arm (NIEA) lining & gates. Most communities elected to prepay these costs which lowered the bond amount financed. Further, the debt for the OMID Odor & Corrosion facilities was also budgeted last year. This debt will be issued later this summer and the estimated debt payments are budgeted and begin in FY 2025. Communities will be notified and can elect to pre-pay their share to avoid interest costs.

MIDD-only costs account for one-third of the total budget. With the upcoming completion of the 15 Mile linings (Segments 5 and 6) and Odor and Control Facilities and those costs dropping off, next year's budget funds several needed MIDD projects without incurring debt including:

- \$12 million for additional priority sewer linings based on recent inspection data.
- \$3.9 million for rehabbing and relining nine sewer drop shafts based on recent inspection data.

The average sewer charge adjustment to the 11 MIDD communities is 2.8%. There is a slight charge variability among the communities due to sewer flow volumes and for those who elected to pre-pay FY 24 OMID debt. The budget is based on average sewer flows over the past 10 years which mirrors both GLWA and OMID charge methodologies which helps to reduce rate volatility.

Attached is a more detailed budget and charge information which will explain the expenditures by cost center. The 2024 MIDD Report also explains the current and future work being done on your behalf in the district.

Should you have any questions, please do not hesitate to contact the Macomb County Public Works Office.

**MIDD Budget
Total Sewer Charges**

Cost Category	2023/2024 Budget	2024/2025 Budget	Change	% Change	% of Total
GLWA-OMID	48,224,470	49,423,410	1,198,940	2.5%	50.7%
GLWA CSO Program	1,052,320	1,286,780	234,460	22.3%	1.3%
Total GLWA	49,276,790	50,710,190	1,433,400	2.9%	52.0%
OMID Capital	869,700	869,700	0	0.0%	0.9%
OMID O&M	3,509,320	3,899,510	390,190	11.1%	4.0%
OMID New Debt (Odor & Corrosion)	1,274,380	627,830	(646,550)	-50.7%	0.6%
OMID Existing Debt	7,852,590	8,222,830	370,240	4.7%	8.4%
Total OMID	13,505,990	13,619,870	113,880	0.8%	14.0%
Subtotal GLWA and OMID	62,782,780	64,330,060	1,547,280	2.5%	66.0%
MIDD Existing Debt	14,382,530	14,156,500	(226,030)	-1.6%	14.5%
MIDDD O&M/Charge Required Revenue	17,717,200	19,011,920	1,294,720	7.3%	19.5%
Total MIDDD	32,099,730	33,168,420	1,068,690	3.3%	34.0%
Total Budget	94,882,510	97,498,480	2,615,970	2.8%	100.0%

MIDDD COMMUNITIES
PRIOR YEAR COMPARISON

Cost Category	2023/2024 Charge	2024/2025 Charge	Difference	% Change	Page #
1) GLWA-OMID	48,224,470	49,423,410	1,198,940	2.5%	2
2) GLWA CSO Program	1,052,320	1,286,780	234,460	22.3%	2
3) Sub Total GLWA	49,276,790	50,710,190	1,433,400	2.9%	
4) OMID Capital Improvements	869,700	869,700	0	0.0%	2
5) OMID O&M	3,509,320	3,899,510	390,190	11.1%	2
6) Sub Total OMID	4,379,020	4,769,210	390,190	8.9%	
7) MIDDD O&M/Charge Required Revenue	17,717,200	19,011,920	1,294,720	7.3%	2,4
8) Sub Total	71,373,010	74,491,320	3,118,310	4.4%	
9) OMID Existing Debt	7,852,590	8,222,830	370,240	4.7%	3
10) OMID New Debt	1,274,380	627,830	(646,550)	-50.7%	4
12) MIDDD Existing Debt	14,382,530	14,156,500	(226,030)	-1.6%	3
13) Sub Total Debt(See page 3)	23,509,500	23,007,160	(502,340)	-2.1%	
TOTAL	94,882,510	97,498,480	2,615,970	2.8%	

Communities	2023/2024 Charge	2024/2025 Charge	Difference	% Change
Chesterfield Twp	7,585,731	7,804,010	218,279	2.9%
Clinton Twp	19,813,873	20,273,511	459,638	2.3%
Fraser	3,936,229	4,029,111	92,882	2.4%
Harrison Twp	5,761,121	5,902,373	141,252	2.5%
Lenox Twp	1,680,930	1,743,437	62,507	3.7%
Macomb Twp	12,941,582	13,340,049	398,467	3.1%
New Haven	1,149,006	1,168,294	19,288	1.7%
Shelby Twp	8,964,052	9,229,566	265,514	3.0%
Sterling Heights	28,877,650	29,753,195	875,545	3.0%
Utica	1,550,838	1,582,459	31,621	2.0%
Wash Twp	2,621,498	2,672,475	50,977	1.9%
TOTAL	94,882,510	97,498,480	2,615,970	2.8%

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
 2024-2025 SEWER CHARGES
 Effective July 1, 2024

	Total Annual	% Macomb County	Allocated to Macomb Cty	Monthly	Ten Year Rolling Average per actual consumption 7/1/2013-6/30/2023										Total	
					Chesterfld Twp	Clinton Twp	Fraser Twp	Harrison Twp	Lenox Twp	Macomb Twp	New Haven Twp	Shelby Twp	Sterling Heights	Ulta		Wash Twp
OMIDD Charges to MIDDD					7.4645%	20.8645%	4.1571%	6.1598%	1.2313%	14.2562%	0.8466%	9.8515%	30.8101%	1.6324%	2.7044%	100.00%
GLWA-OMID	72,003,800	68.64%	49,423,410	4,118,618	307,434	860,152	171,214	253,689	50,712	587,240	34,867	405,745	1,268,949	67,232	111,384	4,118,618
GLWA CSO Program	2,126,200	60.52%	1,286,780	107,232	8,005	22,395	4,458	6,605	1,320	15,289	908	10,564	33,038	1,750	2,900	107,232
GLWA Sub Total	74,130,000		50,710,190	4,225,850	315,439	882,547	175,672	260,294	52,032	602,529	35,775	416,309	1,301,987	68,982	114,284	4,225,850
OMID Capital Improvements	1,300,000	66.90%	869,700	72,470	5,409	15,135	3,013	4,464	892	10,333	614	7,139	22,328	1,183	1,960	72,470
OMID O&M	5,681,100	68.64%	3,899,510	324,959	24,257	67,866	13,509	20,016	4,001	46,333	2,751	32,013	100,120	5,305	8,788	324,959
OMID Sub Total	6,981,100		4,769,210	397,429	29,666	83,001	16,522	24,480	4,893	56,666	3,365	39,152	122,448	6,488	10,748	397,429
Total GLWA and OMID Charges(see Exhibit A)	81,111,100		55,479,400	4,623,279	345,105	965,548	192,194	284,774	56,925	659,195	39,140	455,461	1,424,435	75,470	125,032	4,623,279
Stormwater Pump Station O&M	80,000	100.00%	80,000	6,667	833	833	0	4,167	0	0	0	0	834	0	0	6,667
Sewage Disposal Charges - Mt. Clemens	422,300	100.00%	422,300	35,192	0	35,192	0	0	0	0	0	0	0	0	0	35,192
MIDDD O&M/Charge Required Revenue(pg 4)	18,509,620	100.00%	18,509,620	1,542,468	115,137	322,136	64,121	95,009	18,992	219,928	13,059	151,956	475,236	25,179	41,715	1,542,468
MIDDD Sub Total	19,011,920		19,011,920	1,584,327	115,970	358,161	64,121	99,176	18,992	219,928	13,059	151,956	476,070	25,179	41,715	1,584,327
Total	100,123,020		74,491,320	6,207,606	461,075	1,323,709	256,315	383,950	75,917	879,123	52,199	607,417	1,900,505	100,649	166,747	6,207,606
O&M Total	5,532,904	15,884,512	3,075,784	4,607,404	911,008	10,549,481	626,394	7,289,009	22,806,064	1,207,792	2,000,968	74,491,320				
Debt Total	2,271,106	4,388,999	953,327	1,294,969	832,429	2,790,568	541,900	1,940,557	6,947,131	374,667	671,507	23,007,160				
Grand Total	7,804,010	20,273,511	4,029,111	5,902,373	1,743,437	13,340,049	1,168,294	9,229,566	29,753,195	1,582,459	2,672,475	97,498,480				

DEBT WORKSHEET
OMID and MIDD

MIDD 2024-2025 DEBT WORKSHEET

Not Part of Monthly Invoice. Will be invoiced separately every 6 months
Does not include paying or calculation agent fees

MIDD DEBT SERVICE(FIXED BASED ON ORIGINAL FLOW)	Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnx Twp	Macomb Twp	New Haven Twp	Shelby Twp	St. Hgts	Ulrica	Wash Twp	Total
OMI CWRF #5368-01 26,076,000	726,150	136,990	-	863,140	66,092	188,480	38,949	50,305	4,222	113,205	9,015	79,846	276,374	15,568	21,084	863,140
OMI 2019(\$4,510,000) Refund of Series 2010B	213,725	26,055	-	239,780	18,359	52,359	10,819	13,975	1,173	31,449	2,504	22,182	76,778	4,325	5,857	239,780
OMI 2014A	248,432	90,968	-	339,400	25,834	73,676	15,224	19,964	1,650	44,252	3,524	31,212	108,036	6,086	8,242	339,400
OMI-2011 \$25,530,000 SRF 5368-02	628,321	167,989	-	796,320	78,841	223,988	46,285	59,781	5,017	280,329	0	10,714	328,439	18,501	25,056	796,320
OMI-2013 SRF 5368-03	1,572,816	366,844	-	1,939,660	163,661	466,730	96,448	124,570	10,454	280,329	22,324	22,324	684,362	38,552	52,210	1,939,660
OMI 2020 NESPS and NIEA(\$57,215,000)	1,371,058	1,416,742	-	2,787,800	152,561	600,606	115,578	176,341	26,958	400,341	23,233	282,146	882,975	46,830	80,231	2,787,800
OMI 2019(\$5,205,000) Acquisition rights & contribution to GLWA	434,249	10,231	-	444,480	0	144,347	31,887	48,651	7,437	0	6,905	77,842	243,608	12,920	22,135	444,480
OMI SAW Loan Project 2001-01	329,491	113,699	-	443,190	0	29,829	38,526	47,466	0	0	0	0	211,660	11,923	0	443,190
OMI 2024 NIEA Contract No 2 \$5,730,000	159,551	211,509	-	371,060	54,808	31,111	47,466	39,318	7,346	88,831	5,288	61,454	193,877	10,291	17,062	371,060
OMI 2024 Odor/Corrosion Facilities Construction Projected \$14,000,000 ⁽¹⁾	347,881	279,949	-	627,830	46,720	131,290	26,373	39,318	9,020	241,819	19,258	170,558	590,361	33,256	45,037	627,830
Refunded Clintondale Pump Station Rehab	1,300,000	543,750	-	1,843,750	141,176	402,612	83,199	107,456	9,020	241,819	5,489	48,622	166,288	9,480	12,839	1,843,750
NGI 2015 Refunding District Apportionment 37.9992%	369,592	157,018	-	526,610	40,248	114,775	23,718	30,633	2,571	68,937	5,489	4,472	15,478	872	1,181	526,610
NGI Bond Series 2010 \$16,985 million District Appt 4.6529%	32,338	26,281	(10,279)	48,340	3,702	10,556	2,181	2,817	236	6,340	505	4,472	15,478	872	1,181	48,340
MIDD 2017A Shikhole Bond	1,805,000	2,372,100	-	4,177,100	295,284	885,316	175,765	243,647	31,822	575,838	33,780	416,779	1,326,079	75,526	117,262	4,177,100
MIDD SRF 5624-01-Macomb Element	140,000	42,810	-	182,810	13,370	40,048	8,108	10,452	1,038	24,865	1,718	17,675	57,282	3,459	4,795	182,810
MIDD SRF 5659-03 Segment 5 \$2,500,000 ⁽²⁾	-	-	-	-	369,662	1,054,218	217,853	281,367	23,617	633,190	50,421	446,597	1,545,829	87,078	117,928	4,827,760
MIDD-2017 Refunding(2010) Appt 87.2903%	2,980,580	1,947,185	(10,279)	4,827,760	1,470,018	4,388,989	953,327	1,294,989	132,561	2,509,396	194,656	1,659,385	6,947,131	374,667	530,921	20,456,030
Totals-Fixed	12,556,184	7,910,130	(10,279)	20,456,030												

INDIVIDUAL DEBT SERVICE(NEGOTIATED)	Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnx Twp	Macomb Twp	New Haven Twp	Shelby Twp	St. Hgts	Ulrica	Wash Twp	Total
NGI 2015 Refunding Remaining Apportionment 62.0008%	601,408	256,192	-	857,600	546,778	0	0	0	200,493	110,329	0	0	0	0	0	857,600
NGI Bond Series 2010 Remaining Apportionment 95.3471%	682,662	538,576	(210,638)	960,600	254,310	0	0	0	498,375	236,915	0	0	0	0	0	990,600
MIDD-2017 Refunding(2010) Remaining Appt 12.7097%	419,420	283,510	-	702,930	801,088	0	0	0	699,868	281,172	347,244	281,172	0	0	140,586	702,930
Totals-Negotiated	1,683,490	1,078,278	(210,638)	2,551,130	2,271,106	4,388,989	953,327	1,294,989	832,429	2,790,568	541,900	1,940,557	6,947,131	374,667	671,507	23,007,160
TOTAL by COMMUNITY																

1) Total OMID and MIDD
OMID 8,850,660
MIDD 14,156,500
23,007,160

INFORMATIONAL ONLY-NOT INCLUDED IN MIDD BUDGET CALCULATION

Principal	Interest	Interest Rebate	Total	Chesterfield Twp.	Clinton Twp	Fraser	Harr Twp	Lnx Twp	Macomb Twp	New Haven Twp	Shelby Twp	St. Hgts	Ulrica	Wash Twp	Total
NGI Lenox Local Refunding	660,000	266,500	-	926,500	926,500	0	0	0	0	0	0	0	0	0	926,500
Refunded NGI 2006-Phase 5	110,000	65,250	-	175,250	117,552	0	0	0	0	57,698	0	0	0	0	175,250
Totals-informational	770,000	331,750	-	1,101,750	1,044,052	0	0	0	0	57,698	0	0	0	0	1,101,750
Total					1,876,481					599,598					2,476,079

NOTE

- The total debt payment is a projected number. Exact numbers will be known when bond closes in July 2024.
- Due to the receipt of State ARPA funds, this SRF loan will be paid off in April 2024.

MIDDD
Operations Maintenance
Budget to Actual

Description	Page #	Actual				Projected 6/30/2024	Budget			% Change
		2022/2023	12/31/2023	Actual	6/30/2024		2023/2024	2024/2025	Budget Change	
EXPENSE										
Public Works Wastewater Personnel	5	1,748,751	946,365		2,009,350	1,984,020	2,089,790	105,770		5.3%
Office Operations/Insurance	6	333,324	48,566		401,470	406,450	417,550	11,100		2.7%
SCADA	7	184,697	39,002		129,090	117,260	127,960	10,700		9.1%
Sewer Systems Projects/Studies/Eng. Design	8	5,119,381	8,348,201		19,166,700	15,840,330	29,272,340	13,432,010		84.8%
Legal Services	9	32,137	2,690		27,690	75,000	60,000	(15,000)		-20.0%
Clintondale PS O&M	10	633,861	387,864		867,910	786,890	1,129,220	342,330		43.5%
NGI O&M	11	154,442	31,894		89,500	88,500	150,000	61,500		69.5%
Meters O&M	12	91,301	125,267		203,220	189,400	191,500	2,100		1.1%
Control Structures and Pump Station O&M	13	49,533	9,028		41,500	178,930	193,830	14,900		8.3%
Biofilters O&M	14	9,198	4,764		16,000	19,800	27,600	7,800		39.4%
Contribution Life Cycle Reserve	7,10,11,13,14	184,300	184,300		184,300	184,300	184,300	0		0.0%
Interceptor O&M	15	3,202,097	744,244		1,325,810	18,614,210	15,838,810	(2,775,400)		-14.9%
Stormwater Pump Stations	16	131,000	25,000		50,000	50,000	80,000	30,000		60.0%
Sewage Disposal Charges - Mt. Clemens		224,929	150,480		390,480	410,000	422,300	12,300		3.0%
Debt Service--SRF and Revenue Bonds	17	2,458,140	337,815		1,966,620	675,630	683,190	7,560		1.1%
Total		14,557,091	11,385,480		26,869,640	39,620,720	50,868,390	11,247,670		28.4%
REVENUE										
Reimbursements	18	561,202	119,904		194,900	150,000	175,000	25,000		16.7%
Settlements	18	0	0		0	100,000	100,000	0		0.0%
Sale of property-M59 & Garfield	18	2,195,000	0		0	0	0	0		0.0%
COVID Monitoring Grant	18	839,527	164,766		863,190	345,630	0	(345,630)		-100.0%
Net Reimbursement from ARPA Funds	18	0	0		3,035,260	0	0	0		100.0%
MIDDD O&M/Charge Required Revenue	2	17,159,080	8,858,600		17,717,200	17,717,200	19,011,920	1,294,720		7.3%
Carryforward	18	0	0		0	20,907,890	29,346,720	8,438,830		40.4%
Use of Clintondale Pump Station Reserve	18	0	0		240,000	0	309,750	309,750		100.0%
Interest		775,433	1,290,937		2,090,940	400,000	1,925,000	1,525,000		381.3%
Total		21,530,242	10,434,207		24,141,490	39,620,720	50,868,390	11,247,670		28.4%
Total Reserve		60,456,754			55,700,195	25,622,203	21,599,146			
Broken out as follows:										
SCADA Life Cycle		188,460			239,760	239,760	291,060			
Clintondale PS Life Cycle		600,000			435,000	675,000	200,250			
NGI Life Cycle		240,000			270,000	270,000	300,000			
Control Structures Life Cycle		25,000			30,000	30,000	35,000			
Biofilters Life Cycle		184,000			207,000	207,000	230,000			
Life Cycle Sub-Total		1,237,460			1,181,760	1,421,760	1,056,310			
Debt Reserve		136,829			136,829	136,829	136,829			
Non Committed Reserve		21,086,936			20,406,007	21,028,354	20,406,007			
Refund to District-Seg 5 and Seg 6					4,628,879	3,035,260	0			
Carryforward		37,995,529	see page 18		29,346,720	20,907,890	29,346,720			
Spending of Carryforward					(20,907,890)	(29,346,720)				
TOTAL RESERVES		60,456,754			55,700,195	25,622,203	21,599,146			

**Public Works Wastewater Disposal Division
Personnel Cost**

Position	Number of Positions	BUDGET 2023/2024	BUDGET 2024/2025
Operation & Flow Manager	1	114,330	129,542
50% Charged to other drainage districts		(57,170)	(64,771)
Construction and Maint Manager	1	114,340	129,542
WW Eng II/Construction Supervisor	3.5	349,620	367,992
50% charged to other drainage districts (Wagner & Rozycki)		(103,940)	(110,271)
Wastewater Field Supervisor	1	79,090	81,435
SCADA Engineer	1	94,490	107,059
SCADA Operator-FT	1	78,090	80,435
50% charged to other drainage districts(Welser and Schmitt)-SCADA		(86,290)	(93,747)
Senior Asset Mgmt Technician(Hockman)	0.5	42,950	45,567
GIS Technician Senior(Contesti)	1	86,700	89,279
Community Services Coordinator-(Childs)	1	69,650	78,169
GIS Specialist/Engineering Tech-(Cakal ⁽¹⁾)	0.5	31,360	34,235
Wastewater Field Operator	3	166,370	179,634
Portion of Field Operators wages charged to other districts		(54,000)	(55,620)
Drain Account Specialist	1	53,340	54,941
Incentive Pay, P. E.		3,300	3,300
1/3 Admin support from GF(Candice,Brian,Dan,Norb,Emily)	1.65	198,450	208,367
	17.15	1,180,680	1,265,088
Overtime		220,000	220,000
Engineering portion of OT charged to other districts		(40,000)	(40,000)
Standby Pay		22,000	22,000
Longevity		1,800	1,800
	Subtotal	203,800	203,800
Fringe Benefits		687,070	707,758
Fringe Benefits charged to other drainage districts		(115,530)	(116,536)
Net Fringe Benefits	Subtotal	571,540	591,222
Accounting Support Staff	Subtotal	1,956,020	2,060,110
		28,000	29,680
		1,984,020	2,089,790

NOTES:

1) MIDD is responsible for 50%, and the other 50% is shared with the General Fund.

MIDDD
Office Operations

MIDDD OFFICE OPERATIONS	2023/2024 BUDGET	2024/2025 BUDGET	NOTES
Bank Fees	200	200	Wire fees for payment of debt and OMID invoices.
Dues, Membership & Subscriptions	7,000	7,000	
Equipment Repair & Maintenance	12,000	12,000	
Equipment	50,000	10,000	
F-150	0	47,000	Replacement truck for Greg Santo. His current vehicle is over 100k miles and is due for replacement.
Inspection Vehicle ⁽¹⁾	0	100,000	
Moved from Interceptor Inspection(Pg 15)	0	(100,000)	Inspection Vehicle to be funded by reducing Interceptor Inspections carryforward.
Gasoline(County)	20,000	20,000	
Internal Service Cost(County)	30,000	35,000	Cross charge from county for telephone, car insurance, and building insurance
Insurance	225,750	225,750	Liability and underground coverage.
Office Supplies	500	500	
Operating Supplies	2,000	2,000	
Personnel-Non WWS Employees	9,900	10,200	Charge for Chapaton personnel working on MIDDD assets
Postage & Shipping	100	100	
NexGen	15,000	15,000	Asset management used for MIDDD. County IT Department and other drainage districts pay a portion.
Training	12,000	10,000	Includes confined space training, which is an annual expense.
Uniforms	1,800	2,000	
Weather Radar	3,200	1,300	Switched companies to SDS Weather
Telephone	10,000	11,000	
Vehicle Maintenance	7,000	8,500	
Total	406,450	417,550	

1) MCPWO is working towards staff performing inspections using a drone and other systems within a lot of the MIDDD sewers. It is recommended that a vehicle be assigned to this effort. A Ford Transit Van would be ideal for this, as equipment such as the needed confined space equipment, monitors and desk for viewing the live inspection in a dark environment could all be housed in the vehicle. Our current vehicles which consist of trucks and an Explorer are not conducive to this effort. This vehicle will help the district obtain high quality inspection video for engineers to review and will ultimately reduce long-term inspection costs by millions of dollars.

SCADA

WO #	SCADA	2023/2024 BUDGET	2024/2025 BUDGET
92104	Cell modem service (Verizon) 45 units ⁽¹⁾	18,900	19,730
92111	Comcast Business Service ⁽¹⁾	18,060	20,960
WO18077	SCADA As Needed Engineering ⁽²⁾	50,000	45,000
WO19011	Wonderware Software Support Annual Renewal ⁽¹⁾	12,540	14,250
WO19012	VEEAM support Annual Renewal ⁽¹⁾	2,280	2,850
WO19015	VMWare Software Support Annual Renewal ⁽¹⁾	7,980	9,120
WO19102	WIN-911 Upgrade ⁽³⁾	0	8,550
WO21030	Spare parts for MIDDD control panels	7,500	7,500
	Total New Projects	117,260	127,960
	Total Carryover Projects	0	0
	TOTAL ALL PROJECTS	117,260	127,960
	Future costs of upgrade-Life Cycle ⁽⁴⁾	51,300	51,300

NOTES:

- 1) Slight increase due to rise in price.
- 2) To cover activity for SCADA programming, network and server maintenance.
- 3) Win-911 is a component of the SCADA system that sends alarm notifications.
Our current version of the software is obsolete and needs to be upgraded to stay under support. The new version has been completely redesigned and will require some initial configuration and testing.
- 4) Used for future server upgrades.

SYSTEM PROJECTS/STUDIES/CONSULTING

Project #	System Projects/Studies/Consulting	2023/2024 BUDGET	2024/2025 BUDGET
	Replenish reserve from CPS refunding ⁽¹⁾	618,680	0
WO18072	As Needed Engineering ⁽²⁾	200,000	200,000
WO18322	Annual Meter Dye Testing ⁽³⁾	50,000	50,000
WO19020	Data Review-Aquasight ⁽⁴⁾	100,000	100,000
	15 Mile Storage Facility-Design ⁽⁵⁾	0	100,000
	15 Mile Interceptor Lining-East of Segment 6 to Groesbeck ⁽⁶⁾	0	10,000,000
80154	General Construction/Engineering Contingency-All projects ⁽⁷⁾	0	1,000,000
	ST-S-3 Drop Shaft Rehab ⁽⁸⁾	0	1,000,000
WO22048	2023 Drop Shaft Rehab Design/Construction/CCA ⁽⁹⁾	0	2,900,000
	Odor and Corrosion Construction/CCA ⁽¹⁰⁾	0	454,000
WO22068	Covid Testing 2023-Grant Funded	340,630	0
	Total New Projects	1,309,310	15,804,000
80154	General Construction/Engineering Contingency-All projects ⁽⁷⁾	2,650,000	2,650,000
WO222048	2023 Drop Shaft Rehab Design, Construction, & CCA ⁽⁹⁾	2,400,000	2,199,000
WO22050	Odor and Corrosion Construction/CCA ⁽¹⁰⁾	9,144,820	1,400,260
WO18351	SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab ⁽¹¹⁾	75,000	32,910
WO19023	Level Sensors/Pressure/H2S-Meters ⁽¹²⁾	261,200	208,830
WO19024	Segment 5 Construction & CCA ⁽¹³⁾	0	4,977,340
WO21025	Segment 6 Construction & CCA-ARPA ⁽¹⁴⁾	0	0
	North Gratiot Interceptor Lining Project-Design/CCA & Construction ⁽¹⁵⁾	0	2,000,000
	Total Carryover Projects	14,531,020	13,468,340
	TOTAL ALL PROJECTS	15,840,330	29,272,340

See notes on pages 8a and 8b

**SYSTEM PROJECTS/STUDIES/CONSULTING
NOTES**

1) Stopped collecting one year early due to other projects requiring funding in 2025.

2) GLWA Assistance	30,000
Flow Control	75,000
Other	95,000
<u>Total</u>	<u>200,000</u>

3) This service is essential to ensure that all of the billing meters within the MIDDD are accurately reporting.

4) On-going maintenance fees.

5) The MIDDD currently does not have any storage room available for spare equipment, portable generator, and other equipment which should be stored within an enclosed building. Since the improvements have taken place at the Biofilter property on 15 Mile Road there is a significant amount of room on that property to build a storage building there. A facility at this location would be an ideal spot as it is centrally located within the county assets. First phase for this would be design. Total estimated project cost is \$1 million. Items are currently stored at Clintondale and Chapaton. A lot of the equipment is stored outside. Items to be stored are spare equipment, stop logs, portable generators, pumps, arrow boards, cones, and new spare equipment from new facilities being constructed.

6) The 2023 inspection program identified key areas of need across the MIDDD system. The area with the highest critical need was the 15 Mile Interceptor. Approximately 4,400 lf of 5-foot diameter pipe has significant amounts of rebar exposed. This project is projected at \$15 million to cover design, construction, and CCA. Depending on cost, will also collect in 25/26 budget.

7) Contingency for possible overages for Segment 5, Segment 6 and Odor & Corrosion.

8) The work will include the rehabilitation (spray-lining or CIPP) of the drop manhole and connecting sewer for the meter facility. Additionally, there is cost associated with relocating the meter electrical and SCADA equipment into the new OMID Odor & Corrosion Control Building. The cost for this work will be tracked separately within the OMID project and documented with an agreement between the Drain Districts.

9) Additional collection of funds for the 2024 Drop Shaft Rehab project. There are 7 sites as part of the initial proposed design package for this project. After review of additional inspection footage there is an 8th site being added to the rehab needs. These additional funds cover design, cca, and construction for all of the sites. \$5.3 million is the total projected required for the project.

	2023 Budget	1,600,000
Savings from SY-S-1, SY-S-2, & WA-S-1 Meter Rehab	2023 Exp	800,000
Less Projected 2024 Expenses	<u>TOTAL</u>	(5,559)
		<u>2,199,001</u>

**SYSTEM PROJECTS/STUDIES/CONSULTING
NOTES**

10) There are 4 components to this project (NGI, CPS, Biofilter, and 21 Mile & Garfield).

	LDS Const	Tetra Tech CCA	Other	Total	MIDDD Portion
21 Mile and Garfield Biofilter	5,054,184	453,200	134,000	5,641,384	5,641,384
NGI will be paid for out of remaining Phase 2 funds	3,711,531	291,990	133,000	4,136,521	4,136,521
CPS (onization Equip was not awarded & added Forceman)	1,525,645	122,660	63,000	1,711,305	0
Total	1,677,337	186,800	133,000	1,997,137	1,997,137

Moved \$220,000 from NGI Forcemain and repaving parking lot

Construction of new Odor & Corrosion Control Facilities at the CPS and MA-S-2 locations. Modification of the existing Fraser Bio-Filter, converting it to an engineered media system.

2023 and 2024 Budget	11,101,042
Moved from NGI	220,000
Total	11,321,042
Projected Cost	11,775,042
Additional Funding Required	(454,000)

11) Project is complete. However, a small amount will be kept for future warranty inspection.

12) Three sites will have H2S sensors to help monitor corrosion and pressure concerns and will be connected to SCADA.

Project is on hold until Odor & Corrosion H2S monitoring equipment is in operation and tested.

13) Funds to pay for the costs of Segment 5 repairs and engineering.

ARPA funds will be used to pay for project expenses after March 3, 2021.

FUNDING for SEG 5

Source	Grouting	Eng	Const	Other	Total	Carryover
Sinkhole Settlement	1,573,670	10,426,330	500,000	500,000	12,500,000	22,566,000
Budget 2019	500,000		1,000,000	1,000,000	3,850,000	
Budget 2020	2,878,150	626,060	85,600	260,190	1,150,000	
Budget 2021			1,150,000		2,505,992	
SRF-5659-03		3,210,906	17,197,654	3,660,000	20,408,560	
State ARPA Funds			408,000	408,000	3,660,000	
2017 Bond					408,000	
2010 Bond					408,000	
Refund to District ^{a)}		(1,593,616)			(1,593,616)	
Total	2,878,150	4,317,020	35,433,576	1,260,190	43,888,936	

14) Costs of Segment 6 will be covered by ARPA funds.

FUNDING for SEG 6

Source	Eng-FKE	Const-Ric	Man	Other	Total
Budget 2020	1,000,000				1,000,000
Budget 2021	875,000				875,000
Budget 2022	313,210	910,460		276,330	1,500,000
Federal Funds		1,000,000			1,000,000
State ARPA Funds	2,188,210	12,674,210		688,390	15,550,810
Refund to District ^{a)}	(2,048,473)	(910,460)		(76,330)	(3,035,263)
Total	2,327,947	13,674,210		888,390	16,890,547

Net Reimbursement of ARPA-Sum of A

	4,628,879
--	-----------

15) Approximately 2,300 lf of 36-54" pipe has been identified from a recent inspection program to require rehabilitation. Manholes through this reach will also be epoxy lined. Initial cost estimates for this are \$2 million to line the pipe.
\$2,000,000 was moved from grouting. See page 15 note 3.

Carryover:	
2023 and 2024 Budget	11,101,042
Moved from NGI	220,000
Act Cost through 6/30/2023	(2,482,883)
Proj cost 6/30/24	(7,437,900)
Remaining	1,400,259

MIDDD LEGAL SERVICES

Legal Services	2023/2024 BUDGET	2024/2025 BUDGET
MIDDD Legal Services	75,000	60,000
Total	75,000	60,000

**CLINTONDALE PUMP STATION
OPERATIONS and MAINTENANCE**

Project #	Clintondale Pump Station O & M	2023/2024 BUDGET	2024/2025 BUDGET
WO19031	O&M ⁽¹⁾	110,500	120,000
WO19013	Spare Parts	15,000	15,000
	Barscreen Chain and Drivehead Replacement ⁽²⁾	0	175,000
	PS Exterior Lighting ⁽³⁾	0	20,000
	PS Plug Valve Differential Pressure Sensor Replacements ⁽⁴⁾	0	30,000
	Clintondale Pump Station Pump #4 Replacement-Contingency ⁽⁵⁾	0	50,230
	Clintondale Pump Station Pump #4 Replacement-Life Cycle Reserve ⁽⁶⁾	0	309,750
92101/92103	Utilities	280,000	280,000
	Total New Projects	405,500	999,980
WO22052	Plug Valve Replacement ⁽⁷⁾	43,720	29,240
WO22053	CPS Electrical Room AC ⁽⁸⁾	237,670	0
WO22062	PLC Equipment Replacement ⁽⁹⁾	100,000	100,000
	Total Carryover Projects	381,390	129,240
	TOTAL ALL PROJECTS	786,890	1,129,220
	Life Cycle/Future repairs ⁽¹⁰⁾	75,000	75,000

NOTES

- Increase due to rise in number of repairs.
- During a recent preventive maintenance visit it was found that the Duperon barscreen chain and drivehead for the automated screens were in poor shape. It is anticipated to cost \$175,000 to make these repairs.
- Currently half of the outdoor light fixtures are not working properly. This project will upgrade the 29 outdoor light fixtures to LED which will not only fix the lighting issues but also improve on energy savings for the facility.
- The pressure sensors installed on the plug valves are nearing the end of their useful life and are in need of replacement. There are a total of 8 pressure sensors in need of replacement.
- It is recommended that an additional \$50,230 be allocated for this project to account for any unforeseen conditions. This would make the total \$600,000 for pump #4 replacement.
- In the fall of 2023, pump #4 at CPS started experiencing higher than normal vibrations. After investigation, it was found that the sealed shaft had cracked and required replacement. This is a significant repair as the entire pump has to be removed to repair the shaft. Therefore, all components of the pump will be replaced during this work. MCPWO bid this work out and the work was awarded in the amount of \$549,767. Design and CCA is being covered by the MIDD as-needed budget task. The main replacement costs will be covered by life-cycle funds.
- 3 of 4 pumps done. Unable to complete final pump until pump 4 is replaced which will be late summer 2024.
- Projected to be completed by June 30, 2024.
- The PLC equipment needs to be replaced.
- Future replacement cost for impeller, pump shaft, discharge header, diffuser bowl, etc.

Life Cycle Reserve Calculation	
2023 Amount	600,000
2024 Collection	75,000
Project 2024	(240,000)
Proj 6/30/24	435,000
2025 Collection	75,000
2025 Expense	(309,747)
2025 Balance	200,253

**NORTH GRATIOT INTERCEPTOR
OPERATIONS and MAINTENANCE**

Project #	NGI O & M	2023/2024 BUDGET	2024/2025 BUDGET
WO19033	O&M	40,500	40,500
WO19034	Spare Parts	2,500	2,500
	Four Wet Well Level Sensor Upgrades ⁽¹⁾		50,000
WO19038	Pump Station Wet Well Cleaning ⁽²⁾	0	10,000
92101/92102	Pigging	25,000	25,000
	Utilities	20,500	22,000
	Total New Projects	88,500	150,000
		0	0
		0	0
		0	0
	Total Carryover Projects	0	0
	TOTAL ALL PROJECTS	88,500	150,000
	Life Cycle/Future repairs ⁽³⁾	30,000	30,000

NOTES

- 1) The level sensors within both wet wells at the NGI PS are nearing the end of their useful life. All four sensors need to be replaced and re-installed properly. Currently wires for the sensors and floats are hanging in the wet well and wrap around pumps which will obviously cause issues.
- 2) Both wet wells at the NGI PS are due to be jettied and vactored out as it has been several years since last completed. This operation will help to remove debris from the wet wells and ensure debris is staying out of the pumps.
- 3) Future replacement cost for pumps, HVAC, and force main.

**METERS
OPERATION and MAINTENANCE**

Project #	METERS O & M	2023/2024 BUDGET	2024/2025 BUDGET
WO19106	Meter Maintenance-3 year contract	141,000	141,000
92101	Utilities ⁽¹⁾	8,400	10,500
WO19043	As Needed-Maintenance/Engineering	40,000	40,000
	Total New Projects	189,400	191,500
		0	0
	Total Carryover Projects	0	0
	TOTAL ALL PROJECTS	189,400	191,500

NOTES

- 1) Slight increase due to rise in price.

**MIDD CONTROL STRUCTURES and PUMP STATION
OPERATION and MAINTENANCE**

Project #	Control Structures & Pump Station O&M	2023/2024 BUDGET	2024/2025 BUDGET
WO19044	O&M-CS 3	10,000	10,000
WO19045	Spare Parts-CS 3	1,000	1,000
WO22055	O&M-CS 12 ⁽¹⁾	25,000	25,000
WO22056	Spare Parts-CS 12	1,250	1,250
WO22055	Utilities-CS 12 ⁽²⁾	5,000	20,000
WO22057	O&M-CS 13 ⁽³⁾	10,000	10,000
WO22058	Spare Parts-CS 13	1,250	1,250
WO22057	Utilities-CS 13	5,000	5,000
	Total	58,500	73,500
WO19046	CS-3 Improvements ⁽⁴⁾	120,430	120,330
	Total Carryover Projects	120,430	120,330
	TOTAL ALL PROJECTS	178,930	193,830
	Life Cycle	5,000	5,000

Notes:

- 1) CS-12 is a new pump station that has been added to support the Segment 5 work. It is also going to be used for future inspections, maintenance, and repairs of the Romeo Arm and Garfield Interceptor.
- 2) Six pumps are part of CS-12 which is more than the other structures.
- 3) Utilities were higher than projected for 23/24 budget. With startup of CS 12, utilities are now for a full year.
- 4) CS-13 has been added to support the Segment 6 work. This control structure will be kept in place long-term to support any inspections, maintenance, and repairs downstream in the 15 Mile Interceptor and Romeo Arm.
- 4) Project to rehab the gate, seals, hydraulic hoses, etc.

**BIOFILTERS
OPERATIONS and MAINTENANCE**

Project #	BIOFILTERS O & M	2023/2024 BUDGET	2024/2025 BUDGET
WO19047	O&M	10,000	10,000
WO19048	Spare Parts	1,000	1,000
TBD	Utilities Fraser-CCF 1	8,300	8,300
TBD	Utilities Macomb-CCF 2 ⁽¹⁾	500	8,300
	Total New Projects	19,800	27,600
	Total Carryover Projects	0	0
		0	0
	TOTAL ALL PROJECTS	19,800	27,600
	Life Cycle ⁽²⁾	23,000	23,000

NOTES

- 1) Macomb Township Bio-Filter at 21 Mile and Garfield. Expected to go online July/August 2024 so utility costs are expected to increase.
- 2) Future replacement cost for media bed filter material, centrifugal fan, driveway, flow conditioner, etc.

**INTERCEPTOR
OPERATIONS and MAINTENANCE**

Project #	Interceptor	2023/2024 BUDGET	2024/2025 BUDGET
WO22059	Annual Critical Area Inspections ⁽¹⁾	110,000	110,000
	Sewer AI-Inspection Coding Service ⁽²⁾	0	100,000
	Total New Projects	110,000	210,000
WO22008	Grouting ⁽³⁾	4,926,770	2,726,770
WO22022	Interceptor Inspections ⁽⁴⁾	2,027,440	1,352,040
WO22060	Interceptor Cleaning/Sediment Removal ⁽⁵⁾	11,550,000	11,550,000
	Total Carryover Project	18,504,210	15,628,810
	TOTAL ALL PROJECTS	18,614,210	15,838,810

See notes on page 15a

**INTERCEPTOR
OPERATIONS and MAINTENANCE**

NOTES

- 1) Annual inspection of high risk areas, including Clinton River and Red Run.
- 2) The MIDDD currently approved a contract with SewerAI to bring in and code inspection footage. There is approximately \$24,000 in annual fixed fees and then MCPWO plans to continue bringing in inspection footage which will be charged to be coded.
- 3) On-going grouting within the MID interceptors to seal any leaks or repairs that need to be made.

Carryover:

2020 Budget-Savings from Drop Shaft Repair	2,900,000
2021 Budget-Originally called Phase II and Phase III Grouting	1,425,000
2022 Budget-Repair work stemming from inspection repair program/Phase III Grouting	3,200,000
2023 Budget	1,000,000
2024 Budget	1,000,000
2021 Expenses	(2,108,331)
2022 Expenses	(2,259,362)
2023 Expenses	(230,537)
North Gratiot Interceptor Lining Project-Design/CCA & Construction	(2,000,000)
2024 Projected Expenses	(200,000)
TOTAL	2,726,770

- 4) Due to other projects with higher priority, we will not collect this year. However, we will restart in FY 2026.
- 4) No planned inspections for the upcoming fiscal year.
- Beginning this year, MCPWO is working towards staff performing inspections using a drone and other systems within a lot of the MIDDD sewers.
- Due to other projects with higher priority, we will not collect this year. However, we will restart in FY 2026.

Carryover:

Source	Amount
2020 Budget	1,000,000
2021 Budget	1,000,000
2024 Budget	500,000
2020 Expense	(61,555)
2021 Expense	(86,149)
2022 Expense	(108,166)
2023 Proj Exp	(297,590)
Sprinter Van	(100,000)
2024 Proj Exp	(494,500)
TOTAL	1,352,040

- 5) This will be an activity that will occur on a 10-year basis and has not been done system wide since the MIDDD took over control from DWSD. The Lakeshore Interceptor and Romeo Arm/Garfield North of 15 Mile are top priority for this project. During the next inspection a plan will be developed for this cleaning program so that it can be competitively bid. Ultimately, this could be up to a \$20 million system wide cleaning project.
- The 2017 inspection showed that there are approximately 194,000 CF of sediment within the interceptors that need to be removed. This does not include the work that is already taking place in Segments 5 & 6. The estimated cost to remove that debris is \$15,800,000. These numbers will be updated with the 2023 inspection.
- Due to other projects with higher priority, we will not collect this year. However, we will restart in FY 2026.

**PUMP STATIONS-STORMWATER
OPERATIONS and MAINTENANCE**

Chapter	Community	Various Pump Stations	2023/2024 BUDGET	2024/2025 BUDGET
4	Chesterfield	Schmidt	10,000	10,000
4	Clinton Twp	Bridgewood	10,000	10,000
4	Sterling Heights	Hildebrandt	10,000	10,000
4	Harrison Twp	Murdock Ballard ⁽¹⁾	20,000	50,000
		Total	50,000	80,000

NOTE

1) Funding towards the cleanout of the upstream drain to protect the pump station pumps.

**Revenue Bond
and
Projected SRF Calculation**

Payment Date	2023/2024 BUDGET	2024/2025 BUDGET
SRF 5487-01 ⁽¹⁾	539,830	544,640
SRF 5540-01 ⁽¹⁾	135,800	138,550
Seg 5 SRF(5659-03) Debt ⁽²⁾	0	0
Total	675,630	683,190

NOTES

- 1) SRF 5487-01 and 5540-01 are classified as revenue bonds so they must be included in the rate calculation on page 4, unlike the debt shown on page 3.
- 2) Segment 5 SRF loan closed in July of 2020. However, we are using ARPA funds to cover a portion of the costs and will close Segment 5 loan. SRF 5659-03 will not be administratively complete by debt payment due date of Spring 2024 so principal payment of \$1,240,000 will be applied to the final SRF loan amount. Final Payment of \$1,290,992, which includes interest, will be paid from MIDDD reserves.

Debt Reserve 6/30/24			
Debt #	7/1/2023	Funded	Payment 6/30/2024
SRF 5540-01	27,366	135,800	(135,800)
SRF 5487-01	109,463	539,830	(539,830)
TOTAL	136,829	675,630	(675,630)

Projected Debt Reserve 6/30/25			
Debt #	7/1/2024	Funded	Payment 6/30/2025
SRF 5540-01	27,366	138,550	(138,550)
SRF 5487-01	109,463	544,640	(544,640)
TOTAL	136,829	683,190	(683,190)

Fall 2024	
5540-01(Biofilter) Interest	12,350
5540-01(Biofilter) Principal	115,000
5487-01(Meter Rehab) Interest	59,820
Total	187,170
Spring 2025	
5540-01(Biofilter) Interest	11,200
5487-01(Meter Rehab) Principal	425,000
5487-01(Meter Rehab) Interest	59,820
Total	496,020
Grand Total	
	683,190

Revenue Detail

Revenue	2023/2024 BUDGET	2024/2025 BUDGET
Reimbursements ⁽¹⁾	150,000	175,000
COVID Monitoring Grant ⁽²⁾	345,630	0
Settlements ⁽³⁾	100,000	100,000
Carryforward ⁽⁴⁾	20,907,890	29,346,720
MIDDD O&M/Charge Required Revenue	17,717,200	19,011,920
Use of Clintondale Pump Station Reserve(see Page 10)	0	309,750
Interest	400,000	1,925,000
Total	39,620,720	50,868,390

NOTES

- 1) Reimbursement from OMID for personnel, SCADA, other and engineering. Also from other drainage districts for SCADA and engineering assistance.
- 2) State grant for COVID wastewater monitoring throughout Macomb County is ending. Includes reimbursement for personnel.
- 3) As part of the bankruptcy settlement, MIDDD as part of class 14 has been issued Class B notes that mature in 2044. There is still a delay in settling with other claimants.
- 4) Remaining projects that were charged in prior years and need to be carried forward for completion in 24/25

General Construction/Engineering Contingency-All projects	Eng	2,650,000
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	Eng	32,910
Level Sensors/Pressure/H2S-Meters	Eng	208,830
Segment 5 Construction & CCA	Eng	4,977,340
2023 Drop Shaft Rehab Design, Construction, & CCA	Eng	2,199,000
Odor and Corrosion Construction/CCA	Eng	1,400,260
North Gratiot Interceptor Lining Project-Design/CCA & Const	Eng	2,000,000
PLC Equipment Replacement	CPS	100,000
Plug Valve Replacement	CS-3	29,240
Improvement to Hydraulic Cylinder	CS-3	120,330
Grouting	Intercept	2,726,770
Interceptor Inspections	Intercept	1,352,040
Interceptor Cleaning/Sediment Removal	Intercept	11,550,000
TOTAL	TOTAL	29,346,720

- 5) Expected net reimbursement for Segment 6



Oakland-Macomb Interceptor Drain Drainage District

TO: Mike Gregg, Chairman
Oakland-Macomb Interceptor Drain Drainage District (OMIDDD)

FROM: Raphael Chirolla; Financial Services OCWRC
Bruce Manning, Financial Manager MCPWO

SUBJECT: Rate Year (RY) 2024/25 Budget Recommendation

DATE: March 20, 2024

Staff of the Macomb County Public Works Commissioner's Office and the Oakland County Water Resources Commissioner's Office recently met to discuss the budget, cost allocation, and capital improvement plan for the upcoming rate year. Staff recommends that the Board approve the proposed sewer charges contained herein for the rate year beginning July 1, 2024.

The main elements of the proposed budget and sewer charges are as follows:

- 1) The Great Lakes Water Authority (GLWA) approved a 2.6% increase in sewer charges to OMIDDD.
- 2) The proposed operation and maintenance budget includes an increase of 13.8% (see Exhibit A)
- 3) The proposed revenue requirement is increasing by 3.1%.
- 4) The method for determining the split between Oakland and Macomb was approved on March 20, 2019, and will remain in place through RY 2024/25 unless GLWA modifies the sewer charge methodology. The cost allocation using this methodology is as follows:
 - a. GLWA common-to-all and OMIDDD operations and maintenance costs are allocated based on the ten-year rolling average as shown in Exhibit B. This year's allocation is 31.36% Clinton Oakland Sewage Disposal System (COSDS) and 68.64% to the Macomb Interceptor Drain Drainage District (MIDDD).
 - b. GLWA's Combined Sewage Overflow Program is allocated 39.48% to COSDS and 60.52% to MIDDD per the 1999 Rate Settlement Agreement.
 - c. Capital Improvement Reserve contributions are allocated based on the current GLWA Contract Capacity split of 33.10% for the COSDS and 66.90% for the MIDDD.
- 5) The budget proposes to fund \$1,150,000 of new major maintenance work and \$3,300,000 of new capital improvements from the OMIDDD operation and maintenance fund, in addition to projects that are not revenue financed (see Exhibit C).

Recommended Action: Approve the proposed operating budget (Exhibit A), cost allocation (Exhibit B), and the Capital Improvement Program (Exhibit C) for the rate year beginning July 1, 2024, as presented.

Effective July 1, 2024

Exhibit A

Annual Operating Charges

	Current 2024		2025 Budget	COSDS %	MIDD %	Annual		Monthly	
	Budget					COSDS	Macomb	COSDS	MIDD
GLWA									
Common-to-all and OMIDDD Charges	\$ 70,483,000	\$	72,003,800	31.36%	68.64%	\$ 22,580,392	\$ 49,423,408		
CSO Program	1,738,800		2,126,200	39.48%	60.52%	839,424	1,286,776		
Total	72,221,800		74,130,000			23,419,816	50,710,184	\$ 1,951,651.33	\$ 4,225,848.67
OMIDDD									
Operations and Maintenance Expense									
Sewer System Maintenance	614,000		661,910	31.36%	68.64%	207,575	454,335		
Sewer System Engineering	98,530		131,260	31.36%	68.64%	41,163	90,097		
Pump Maintenance Unit	2,184,160		2,660,280	31.36%	68.64%	834,264	1,826,016		
Systems Control Unit	270		-	31.36%	68.64%	-	-		
Mapping Unit	680		530	31.36%	68.64%	166	364		
Miss Dig	-		240	31.36%	68.64%	75	165		
General and Administrative	1,381,940		1,416,370	31.36%	68.64%	444,174	972,196		
Subtotal	4,279,580		4,870,590			1,527,417	3,343,173	127,284.75	278,597.75
Non Operating	-		-	31.36%	68.64%	-	-		
Major Maintenance	1,150,000		1,150,000	31.36%	68.64%	360,640	789,360	30,053.33	65,780.00
Emergency Maintenance	-		-	31.36%	68.64%	-	-		
Capital Improvement	1,300,000		1,300,000	33.10%	66.90%	430,300	869,700	35,858.33	72,475.00
Subtotal	2,450,000		2,450,000			790,940	1,659,060		
O&M Non-Rate Revenue	(300,490)		(339,490)	31.36%	68.64%	(106,464)	(233,026)	(8,872.00)	(19,418.83)
FY 2025 Total Fixed Charges	\$ 78,650,890	\$	81,111,100			\$ 25,631,709	\$ 55,479,391	2,135,975.74	4,623,282.59

Capital Improvements are defined as investments that are made to assets that exceed \$5,000 and increase the useful life of assets by five years or more.

Estimated Debt Service	2010A mfa 5368-01	2010B	2011A mfa 5368-02	2013A mfa 5368-03	2014A	2015A mfa 2001-01	2019 refunding	2019 revenue	2020A	2023 Issuance Projected Debt*	2020B 2023 issue	2024A Issuance Projected Debt**	Total Debt Service
	1,675,375	-	1,623,875	3,952,750	475,144	544,625	458,498	509,798	3,275,900	-	-	-	14,419,314
	1,676,000	-	1,622,250	3,952,750	473,294	544,750	466,098	507,164	3,274,150	430,744	938,956	-	13,886,155
Total OMIDDD Related Revenue Requirements													94,997,255

* 2023 issuance projected debt for 2024 using a dated date of 9/1/2023, funding of approximately \$28 million (NIEA Phase 2 \$16 million and Odor&Corrosion \$12 million), final maturity 7/1/2043, and true interest cost of approximately 3.2%.

** 2024 issuance projected debt for 2025 using dated date of 7/13/2024, funding of approximately \$14 million, final maturity 7/1/2044, and true interest cost of approximately 3.4%.

**Oakland-Macomb Interceptor Drain Drainage District
Fiscal Year (FY) 2024/25 Budget**

February 9, 2024

Effective July 1, 2024

Exhibit B

Flow Data

Year	Fiscal Year	OMIDDD Allocation Flows		OMIDDD Allocation Flows	
		COSDS (cfs)	MIDDD (cfs)	COSDS (%)	MIDDD (%)
1	FY2013/14	30.74	64.80	32.18%	67.82%
2	FY2014/15	29.74	64.76	31.47%	68.53%
3	FY2015/16	29.36	65.06	31.09%	68.91%
4	FY2016/17	30.60	66.45	31.53%	68.47%
5	FY2017/18	34.05	69.60	32.85%	67.15%
6	FY2018/19	34.05	69.60	32.85%	67.15%
7	FY2019/20	32.52	70.82	31.47%	68.53%
8	FY2020/21	27.02	64.16	29.64%	70.36%
9	FY2021/22	32.11	73.61	30.37%	69.63%
10	FY2022/23	27.49	64.46	29.90%	70.10%
Current FY2023/24 (10-Yr Average)		31.01	67.17	31.58%	68.42%
Prop. FY2024/25 (10-Yr Average)		30.77	67.33	31.36%	68.64%

1. All annual flows are based on the average monthly flow rates, proportioned based on the number of days in each month.
2. COSDS Flows for fiscal years FY2013/14 and FY2014/15 include a 30% adjustment to account for diversion to the Clinton River Wastewater Resource Reclamation Facility (CRWRRF).
3. Due to a catastrophic failure at the CRWRRF (COSDS's non-OMID outlet), there was volatility in the flow delivered from COSDS to OMID in FY2017/18 and FY2018/19. When paired, these two years offset each other and the volatility is mitigated. The OMID rates are based on a rolling 10-year average flow rate. In Rate Years 2028/29 and 2029/30, these volatile years will roll off the average, which will create volatility in the average if the actual values are used. To reduce this future volatility, the actual COSDS-to-OMID flows and MIDDD flows for FY2017/18 (COSDS = 37.74 cfs, MIDDD = 67.29 cfs) and FY2018/19 (COSDS = 30.35 cfs, MIDDD = 71.90 cfs) have both been replaced with the average for these two years (COSDS = 34.045 cfs, Macomb = 69.595 cfs).
4. Except as noted above, COSDS fiscal year flows are based on measured flow, which includes actual diversion to CRWRRF.
5. Allocation flows have been revised slightly since prior Exhibit B submittals as part of a detailed review of the data. Overall OMIDDD Allocation percents have not changed. See February 9, 2024 memo for details.

EXHIBIT C
OAKLAND MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
CAPITAL IMPROVEMENT PROGRAM
February 2024

Fund FND82912 Oakland Macomb InterceptorCh21

Description	2023 Actual	2024 Updated	2025 Proposed
UNDESIGNATED BEGINNING BALANCE	\$5,023,285	\$6,523,398	\$2,023,398
Transfer to Emergency Reserve		(\$4,500,000)	
Transfer to Capital Reserve			(\$2,000,000)
Net Change from Operations	\$1,500,113		
UNDESIGNATED ENDING BALANCE	\$6,523,398	\$2,023,398	\$23,398
MAINTENANCE RESERVE BEGINNING BALANCE	\$2,848,992	\$3,625,242	\$2,825,242
Maintenance Reserve Revenue	\$1,171,931	\$1,150,000	\$1,150,000
PRJ-13014 NESPS Emergency Contingencies	(\$3,793)	(\$90,000)	
PRJ-13015 OMID Immediate Repairs	(\$70,704)	(\$10,000)	
P4 VFD Replacement		(\$1,000,000)	
CCTV Inspection		(\$250,000)	(\$250,000)
PLC Replacement at NESPS Generator		(\$100,000)	
Wet Well Cleaning		(\$500,000)	(\$400,000)
NLB Bar Screen Purchase			(\$400,000)
General Major Maintenance	(\$321,184)		
Total Maintenance Reserve Expense	(\$395,681)	(\$1,950,000)	(\$1,050,000)
MAINTENANCE RESERVE ENDING BALANCE	\$3,625,242	\$2,825,242	\$2,925,242
EMERGENCY RESERVE BEGINNING BALANCE	\$3,000,000	\$3,461,128	\$7,961,128
Emergency Reserve Revenue	\$375,000	\$0	
Expenses	\$86,128		
Transfer from Undesignated		\$4,500,000	
EMERGENCY RESERVE ENDING BALANCE	\$3,461,128	\$7,961,128	\$7,961,128
CAPITAL RESERVE BEGINNING BALANCE	\$2,413,875	\$2,101,444	\$1,301,444
Capital Reserve Revenue	\$1,035,868	\$1,300,000	\$1,300,000
Transfer from Undesignated			\$2,000,000
PRJ-13016 OMID Flow Control Improvements	(\$2,572)		
1-3019 OMID NIEA Sewer Rehabilitation Design			\$2,236,913
1-3020 NESPS Mechanical and Electrical Upgr/Design			\$3,905,972
PRJ-17059 OMID Odor/Corrosion System Design	(\$767,970)	(\$500,000)	\$500,000
PRJ-17060 OMID Flow Ctrl Struct Rehab	(\$338,645)	(\$300,000)	(\$7,500,000)
CS-6 Bypass System Installation			(\$1,000,000)
MIDDD Segment 5-OMID Portion		(\$1,000,000)	
General Capital	(\$239,111)	(\$300,000)	(\$100,000)
Total Capital Reserve Expense	(\$1,348,299)	(\$2,100,000)	(\$1,957,115)
CAPITAL RESERVE ENDING BALANCE	\$2,101,444	\$1,301,444	\$2,644,329
Reserve			
Undesignated	\$6,523,398	\$2,023,398	\$23,398
Major Maintenance	\$3,625,242	\$2,825,242	\$2,925,242
Emergency Maintenance	\$3,461,128	\$7,961,128	\$7,961,128
Capital	\$2,101,444	\$1,301,444	\$2,644,329
NET POSITION ENDING BALANCE	\$15,711,212	\$14,111,212	\$13,554,097
12.5% of the Operations and Maintenance Budget		\$9,562,673	\$9,875,074

EXHIBIT C
OAKLAND MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
CAPITAL IMPROVEMENT PROGRAM
February 2024

Fund FND82912 Oakland Macomb InterceptorCh21

Current Construction Funds as of 12/31/2023

Project Description	Remaining Funds Committed for Capital Projects (In-progress)
PRJ-13308 OMID NI-EA CONSTRUCTION	\$3,431,553
PRJ-13309 NESPS MECH-ELEC CONSTRUCTION	\$7,982,508
PRJ-13252 OMID Segment 5 (2020 Series Bond Sale)	\$2,494,297
PRJ-17384 NIEA Contract II PCI-18/19 Bond Admin	\$47,809
PRJ-17408 NIEA Contract II Bond CONSTRUCTION	\$14,140,475
PRJ-17408 NIEA Contract II GLWA Anticipated Contribution	\$4,500,000
Total Remaining Expense in Construction Funds	\$32,596,642

Future Bonded Projects Through 2024

Project Description	Project Estimate
OMID Odor/Corrosion Facility Construction (Summer 2024)	\$14,000,000
Total Bonded Projects	\$46,596,642

FY 2025 Wholesale Sewer Service Charge Schedule Calculation **Revised 1/22/24** *
OMID - no change from 1/10/24 for this customer

PROPOSED
EFFECTIVE JULY 1, 2024 FOR ALL BILLS
ISSUED ON OR AFTER AUGUST 1, 2024

	(1)	(2)	(3)	(4)	(5)
	Existing	Index	Index	Proposed	FY 2025
	FY 2024	Adjustment	Adjustment	FY 2025	Fixed
	<u>Charges</u>	<u>%</u>	<u>\$</u>	<u>Charges</u>	<u>Monthly Charge</u>
	\$		\$	\$	\$
1	Revenue Requirement Analysis Summary				
	Wholesale Revenue Requirements for SHARES	3.0%	14,151,200	491,465,200	
2	OMID SHARE - %	-0.3%	-0.045%	14.544%	
3	OMID Allocated Wholesale Rev Req'ts	2.6%	1,843,900	71,478,700	5,956,600
4	Detroit Ownership Adjustment	1.0%	13,800	1,409,400	117,500
5	Green Infrastructure Reallocation	N/A	44,900	44,900	3,700
6	Adjusted Allocated Wholesale Revenue Req'ts	2.7%	1,902,600	72,933,000	6,077,800
7	OMID Specific Cost Allocation (per Contract)	1.8%	35,100	1,976,700	164,700
8	Total Revenue Requirements	2.7%	1,937,700	74,909,700	6,242,500
	(a) SHARE Calculation Summary		CSO	TOTAL	
9	OMID Unit Share	12.937%	Sanitary		
10	Cost Pool Allocation Weighting	51.5%	Volume		
11	OMID SHARE	6.662%	Allocation		
		22.947%			
		32.5%			
		7.458%			
		2.651%			
		16.0%			
		0.424%			

See Table 2

(a)

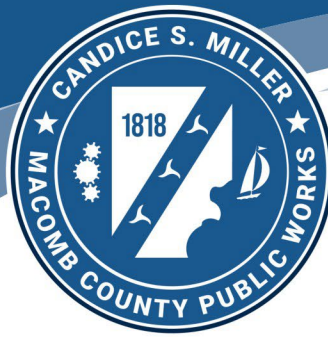
See Table 2
Ln 8 x Ln 9

* The charges in this document are preliminary in nature and are subject to change or modification by the Great Lakes Water Authority Board following a public hearing on the FY 2025 Financial Plan and service charge schedules for the System. The public hearing is scheduled for February 28, 2024. The Notice of this Public Hearing can be found in the customer portal.

FY 2025 Wholesale Sewer Service Charges - SHARE Change Analysis *Revised 1/22/24*
OMID - no change from 1/10/24 for this customer

Flow Balance Impact on SHARES		Existing SHARES	Calculated SHARES	Variance	% Variance
Unit of Service Share					
1	Total Contributed Volume Share	12.71%	12.94%	0.23%	1.8%
2	Sanitary Volume Share	22.69%	22.95%	0.26%	1.1%
3	CSO 83/17 Share	2.65%	2.65%	0.00%	0.0%
Cost Pool Weighted Share					
4	Total Contributed Volume Share	6.86%	6.99%	0.12%	1.8%
5	Sanitary Volume Share	7.37%	7.46%	0.08%	1.1%
6	CSO 83/17 Share	0.36%	0.36%	0.00%	0.0%
7	SHARE - <i>Flow Volume</i> Impacts Only	14.59%	14.80%	0.21%	1.4%
Cost of Service Study Impact on SHARES					
Flow					
		Calculated SHARES	Proposed SHARES	Variance	% Variance
8	WRRF	65.8%	64.7%	-1.1%	-1.7%
9	Conveyance	20.9%	19.2%	-1.6%	-7.7%
10	CSO 83/17	13.4%	16.1%	2.7%	20.2%
11	Total	100.0%	100.0%	0.0%	0.0%
12	Total Contributed Volume	54.0%	51.5%	-2.5%	-4.6%
13	Sanitary Volume	32.5%	32.5%	0.0%	0.0%
14	CSO 83/17	13.5%	16.0%	2.5%	18.5%
15	Total	100.0%	100.0%	0.0%	0.0%
Cost Pool Weighted Share (a)					
16	Total Contributed Volume Share	6.99%	6.66%	-0.32%	-4.6%
17	Sanitary Volume Share	7.46%	7.46%	0.00%	0.0%
18	CSO 83/17 Share	0.36%	0.42%	0.07%	18.5%
19	SHARE - <i>Cost of Service Study</i> Impacts Only	14.80%	14.54%	-0.26%	-1.7%
20	Total SHARE	14.59%	14.54%	-0.04%	-0.3%

TFG
 THE FOSTER GROUP



TO: Macomb Interceptor Drain Drainage District Board Members

FROM: Vincent Astorino, Operations Director

DATE: April 8, 2024

RE: North Gratiot Interceptor Phase 5 Lining – Design Recommendation

As part of the 2020 Interceptor Inspection Program, MCPWO coordinated the inspection of over 26 miles of sewers throughout numerous districts within Macomb County. For various reasons, certain inspections were delayed and all of the data was not provided until 2023. Upon receipt of the inspection footage MCPWO input the information into SewerAI, a web-based platform for storing, managing, and in certain cases, automatically PACP scoring the CCTV footage using their proprietary AutoCode feature. The NGI5 reach was denoted as an area requiring rehabilitation.

The 9-mile-long NGI system was constructed in five phases in the early 2000's and consists of several pipe sizes and configurations. Beginning just west of the Selfridge Air National Guard Base, the NGI runs north approximately paralleling I-94 through Chesterfield Township before terminating in the Village of New Haven. At the downstream end, the pipe is 66" RCP before transitioning to twin 22" HDPE forcemains fed by the NGI Pump Station near Gratiot Ave and 25 Mile Road.

Upstream of the NGI PS the NGI consists of a 36" RCP corresponding to Phases 3, 4, & 5 but only totaling one mile. Phases 3 and 4 were fitted with a PVC Sheet Liner (T-Lock) but Phase 5 was left as bare concrete. It's unclear why this decision was made but it's important to note that, although sequentially last, NGI5 was constructed first and routed through a separate interceptor for approximately eight years. It's possible early signs of degradation were observed and led to the decision to line the downstream sections.

An additional factor related to NGI5's accelerated degradation is the slow-moving, high strength sewage. Since construction of the NGI, Lenox Township has experienced slower-than-anticipated growth and this pipe that was designed to service a population of over 50,000 currently serves a fraction of that. The high sewage strength has long been suspected to be leachate from the Pine Tree Acres Landfill, the primary upstream flow input into the NGI5. A map of the area of concern can be found below.

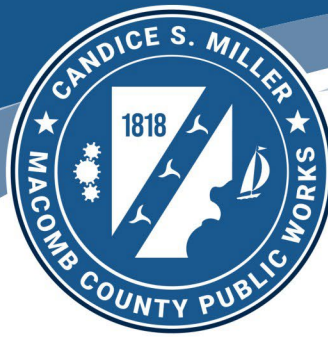


Regardless of the reasons for the degradation, MCPWO wishes to rehabilitate this reach consisting of the following assets:

Table 1 - NGI5 Lining Project Assets

Asset	Diameter	Quantity	Rehab Method
NGI5 Pipe	36"	2,173 LF	CIPP
NGI5 Manholes	48"	7 EA	Epoxy-Coating
LX-S-2 Meter Pipes	48"	85 LF	CIPP
LX-S-2 Meter Manholes	84"	1 EA	Epoxy-Coating
LX-S-2 Meter Chamber	-	1 EA	TBD – Inspection Required

MCPWO put together a request for proposal (RFP) and sent it out to Hubbell, Roth & Clark (HRC), who has an as-needed engineering contract with the Macomb Interceptor Drain Drainage District (MIDDD). HRC was chosen to provide pricing for this project due to their long history of similar lining projects and knowledge of the MID system.



HRC was provided with a proposed scope for the project and project deadlines which include providing MCPWO with the final bid package by July 1, 2024. HRC provided a proposal for design and bidding services which is attached to this memo. Their NTE design fee is \$89,470 which is 4.5% of the projected total project cost of \$2 million. As part of the 24/25 MIDD budget, \$2 million has been allocated to this project.

MCPWO is recommending to award the North Gratiot Interceptor Phase 5 Lining project design to HRC in the NTE amount of \$89,470.

Attachments: HRC Proposal Dated 3/12/24



March 12, 2024

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

Attn: Mr. Steven Wagner, Engineer II

RE: Proposal for Professional Engineering Services
North Gratiot Interceptor Phase 5 (NGI5) Lining Project
MCPWO Project Number: WWS-2024-002

HRC Job No. 20240172

Dear Mr. Wagner:

We are pleased to provide this proposal for engineering services for the Basis of Design, Contract Documents and Bidding, and Construction Contract Administration for the North Gratiot Interceptor Phase 5 (NGI5) Lining Project.

Firm Credentials

Hubbell, Roth & Clark, Inc. (HRC) has provided planning, study, design, and construction engineering services to municipalities, counties, private, and industrial clients for over 150 wastewater treatment plants and collection systems since its founding in 1915. HRC has received numerous patents for innovative wastewater treatment solutions and has earned numerous industry awards.

Most important, however, is the fact that HRC has been successfully providing engineering services to the Macomb County Public Works Office (MCPWO) for over 40 years. We have designed projects ranging from large facilities to small sanitary pump station renovations to sanitary sewer rehabilitation. HRC has master planned sanitary sewer systems, water systems, and stormwater systems for many of the communities in Macomb County and partnered with the MCPWO in these communities to design and construct those infrastructures. Our history within Macomb County is unsurpassed by our peers and brings valuable insight to MCPWO on this and future projects.

Project Approach

The intention of this project is to review existing information, confirm the rehabilitation options identified by the MCPWO, and prepare plans and specifications for bidding in order to secure a contract to complete rehabilitation on the NGI5 system. The proposed scope of services includes both design and construction services. Per the MCPWO's requests, costs have only been provided for Tasks 1 and 2. The Tasks are as follows:

Task 1 – Basis of Design

Task 2 – Contract Documents and Bidding

Task 3 – Construction Contract Administration (Scope only, no pricing at this time)

Task 1 – Basis of Design

It is our understanding that the entire NGI5 has been televised and scored using SewerAI. As part of this process, this segment of pipe was identified as needing rehabilitation. Preliminary assessment of the pipe and manholes in this area have identified that the pipe should be CIPP lined, and the manhole rehabilitated with an epoxy-coating. There is also a meter chamber upstream of the NGI5 (LX-S-2) which needs full inspection. The sewers upstream and downstream of LX-S-2 have also been identified as needing CIPP lining, and the manhole downstream of LX-S-2 is in

need of rehabilitation with an epoxy-coating. The scope of the rehabilitation of the meter chamber itself is to be determined based on further inspection. To complete this task, HRC proposes the following sub-tasks. Costs for each subtask are included on the attached table.

- Review all historical information related to the project site, including construction drawings, shop drawings, inspections, photos, and any other information provided by MCPWO. It appears that inspection data is available for the manholes and the pipes, and this data will be considered in the basis of design review.
- Confirm that the rehabilitation vision identified by MCPWO is the best strategy to rehabilitate these assets. This will include looking at alternative lining or curing methods, as well as confirming the liner design based on the characteristics of the sanitary sewage flow. The higher strength flow may result in a more robust liner design.
- Perform a full structural evaluation of the LX-S-2. This will be performed by a licensed structural engineer and include a confined space entry. It is our understanding that MCPWO will provide top-side support for the entry, including a tripod, rescue services, gas monitors, traffic control, etc. so HRC will provide a structural engineer for structure entry to evaluate the structure only. No analysis will be completed on the flume, electrical or metering equipment, grating, or other non-structural aspects of the structure. It is anticipated that one (1) engineer will do the entry and perform the structural assessment.
- Once the inspection of LX-S_2 is completed, a Basis of Design report will be provided outlining the findings from the inspection and the proposed rehabilitation approach for meter chamber. This report will also provide information on the rehabilitation methodology for the rest of the system based on the review noted above. A meeting will be held following the submittal of the Basis of Design report to discuss the findings and finalize the rehabilitation methodologies.

Task 2 - Contract Documents

Once the proposed rehabilitation methods are agreed upon, HRC will provide contract documents for bidding. To complete this task, the following subtasks will be completed. Costs for each subtask are included on the attached table.

- Prepare the complete Bid Package in accordance with the approved recommendations and Owner direction as a result of Task 1.
 - The contract drawings will include plan and profile sheets that indicate the location of the sewers and manholes relative the road. It is our understanding that the County will provide GIS information to show the road rights-of-way (ROW) and easement locations. The drawings will include the locations and type of proposed pipe and manhole rehabilitation recommended, spot repairs, at grade repairs, and existing features that are pertinent to construction. All drawings will be developed in AutoCAD in accordance with MCPWO standards. The preparation of the plans does not include any topographic survey. Recent aerial imagery will be used in place of conventional topographic survey. Limited field verification may be done to confirm the GIS mapping in specific areas. It is anticipated that the manhole chimneys and cones will need to be removed to insert the liner. Assuming that is confirmed during design, the drawings shall include details of any restoration necessary to return the disturbed areas to their existing conditions. Plans will be developed using the record drawings overlaid on updated aerials. Existing profiles will be used.
 - The bid documents shall include a bypass pumping schematic plan. This will be based on the flow data provided by MCPWO. This will show sufficient detail and scale for the recommended bypass pumping arrangement. However, we understand that the final signed and sealed bypass pumping design will be the responsibility of the Contractor.
 - A traffic control plan will be developed and included in the bid documents.

- The drawings and specifications will be developed using the MCPWO NEXGEN naming convention to identify all assets. It is our understanding that this information will be provided to the selected contractor.
- Specifications will be prepared for the project. The Division 00 specifications, including the Agreement and General Conditions, will be provided by MCPWO and HRC will provide all other specs, including all technical specifications. All specifications will be provided in MasterFormat 2020 in accordance with MCPWO standards.
- HRC will provide 60%, 90%, and 100% construction documents for review. Cost estimates will be included at each milestone phase.
- HRC will assist with all necessary permit applications and assist MCPWO in securing the permits. It is our understanding that permit fees will not be included in the consultant fees.
- Once the Bidding Package is completed, HRC will assist with bidding.
 - Answer bidder questions and prepare addenda as necessary.
 - Review bids, verify references, and provide a bid award recommendation.
 - Conduct and summarize any interviews or pre-award meetings as necessary.

Task 3 – Construction Contract Administration

As part of this task, HRC will complete the following subtasks. Per the request of the County, pricing for this task is not being provided at this time.

- Prepare, conduct, and summarize the kick-off meeting with awarded contractor – HRC will schedule, prepare an agenda, and conduct a kick-off meeting with all affected parties. Once the meeting is complete, detailed notes will be prepared outlining the discussion.
- Submittals/Shop Drawing/Maintenance of Traffic/Flow Control Reviews – HRC will review all submittals as required in the project specifications for conformance with the contract documents and County standards. All submittals, plans and shop drawings will be reviewed prior to the work being completed.
- Request for Information review – Once the contract is awarded and underway, HRC will respond to all RFIs from the selected contractor.
- Pay Application Review – HRC will review all quantities and provide recommendations for payment on a monthly basis. It is assumed HRC will prepare the pay estimate documentation and the MCPWO will provide final review and signature.
- Regular construction progress meetings – HRC will facilitate and memorialize regular construction progress meetings to follow up on progress and assure that the contractor is meeting the schedule. We anticipate these meetings to occur on a bi-weekly basis with one per month virtually and one per month in person.
- Full-time construction observation and daily reporting– HRC will provide full time on-site Owner representation throughout the duration of the rehabilitation operations.
- Contract close-out – Once the work is complete, HRC will provide contract close-out services. These services will consist of confirming dates for final and substantial completion to assure Time of Completion as stated in the contract is met, modifying drawings based on discrepancies in the field, cataloging submittals and changes made during the contract to prepare a project manual for assistance in future inspection programs, developing a punch list, and preparation of a final balancing change order. It should be noted that any additional inspection work or re-review needed due to inferior quality submittals by the contractor shall not be included.

Project Costs

HRC proposes to provide Professional Engineering services for the North Gratiot Interceptor Phase 5 (NGI5) Lining Project with fees not to exceed \$89,470.00. Refer to the attached table for the breakdown of tasks and associated

hours by HRC staff classification. Services provided by HRC as requested outside of the above scope or on an as-needed or as-required basis beyond the tasks and deliverables documented above shall be performed at the rates provided in our as-needed Contract with the MCPWO (WWS-2022-RFP-001), which is attached for your reference. Pricing for Task 3 will be provided at a later date.

Key Project Staff

This project will be administered through our Bloomfield Hills office. Mr. Jesse VanDeCreek, P.E. will be the Partner-in-charge and Ms. Karyn M. Stickel, P.E., Senior Associate will be the Project Manager. Mr. Brad Shepler, P.E., Senior Associate will provide technical support with the assistance of our experienced Civil and Asset Management Department staff. The inspection of the LX-S-2 structure will be completed by one of our four (4) licensed structural engineers.

Project Schedule

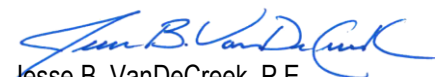
We understand that the MCPWO would like to have this project ready for bidding by July 1, 2024. Assuming a Notice to Proceed date no later than April 15, we anticipate the following schedule:

Notice to Proceed (within 30 days of proposal submittal)	April 15, 2024
Inspection of LX-S-2 Structure	Week of April 15, 2024
Basis of Design Completed	April 26, 2024
Meeting to discuss and finalize findings	Week of April 29, 2024
60% Plans and Cost Estimate	May 17, 2024
90% Plans and Cost Estimate	June 14, 2024
100% (IFB) Plans and Cost Estimate	July 1, 2024
Bidding and Award	July/August 2024
NTP to Selected Contractor	September 1, 2024

We thank you in advance for considering us for this engineering work and we appreciate this opportunity to assist you with this important project. We look forward to hearing from you soon. Should you have any questions, comments or require additional information, please contact the undersigned or our office at (248) 454-6300.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.


Jesse B. VanDeCreek, P.E.
Vice President

Attachment

pc: MCPWO; Mr. Vince Astorino, Mr. Steve Rozycki
HRC; B. Shepler, K. Stickel, File

**STAFF HOUR PROJECTIONS
MACOMB COUNTY PUBLIC WORKS OFFICE
PROFESSIONAL ENGINEERING SERVICES (NORTH GRATIOT INTERCEPTOR PHASE 5 LINING PROJECT)**

HRC JOB #20240172

TASK	STAFF HOURS BY LABOR CATEGORY								TOTAL HOURS	TOTAL ESTIMATED FEES
	PRINCIPAL	PM SENIOR ASSOCIATE	TECH SENIOR ASSOCIATE	STRUCTURAL ENGINEER	PROJECT ENGINEER	GRAD/STAFF ENGINEER	CADD TECH	ADMIN SUPPORT		
	\$190.00	\$182.00	\$182.00	\$160.00	\$135.00	\$120.00	\$115.00	\$85.00	HOURS	LABOR
1. BASIS OF DESIGN										
a. Review Historical Information		2	2		4	4			12	\$ 1,750
b. Confirm Rehabilitation Vision	1	2	4		16	16			39	\$ 5,360
c. Structural Evaluation of LX-S-2		2		12					14	\$ 2,280
d. Prepare Report of Findings		4	4	24	8	16		2	58	\$ 8,470
Sub Total - Task 1	1	10	10	36	28	36	0	2	123	\$ 17,860
2. NGI5 Contract Documents										
a. Contract Drawings		4	8	40	24	64	80		220	\$ 28,700
b. Bypass Schematic		2	8		16	24	16		66	\$ 8,700
c. Traffic Control Plan		2	2		8	8	20		40	\$ 5,070
d. Project Specifications		8	4	16	16	40		8	92	\$ 12,380
e. Permits		2	2		8	12		4	28	\$ 3,590
f. 60% Submittal with Cost Estimate		4	4	4	4	4			20	\$ 3,120
g. 90% Submittal with Cost Estimate		2	2	2	2	2			10	\$ 1,560
h. 100% Submittal with Cost Estimate	1	2	2	2	2	2			11	\$ 1,750
i. Bidder Questions and Addenda		4	2		2	4		4	16	\$ 2,180
j. Review Bids and Prepare Recommendation		4	2		4	4		2	16	\$ 2,280
k. Pre-award Meeting		4	2		4	4		2	16	\$ 2,280
Sub Total - Task 2	1	38	38	64	90	168	116	20	535	\$ 71,610
TASK 1-2 TOTALS	2	48	48	100	118	204	116	22	658	\$ 89,470



Hubbell, Roth & Clark, Inc.

Hourly Rate Schedule Valid Until December 31, 2025
Prepared for:

Macomb County Public Works Office
Macomb Interceptor Drain Drainage District
MCPWO Project Number: WWS-2022- RFP-001

<u>Category</u>	<u>Billable Rates</u>
Principal	152.00 - 220.00
Sr. Associate/Managing Engineer	185.00 - 208.00
Associate/Managing Engineer	133.00 - 193.00
Department Manager	149.00 - 188.00
Manager	114.00 - 176.00
Supervisor	105.00 - 151.00
Sr. Project Engineer/Architect/Surveyor	138.00 - 196.00
Project Engineer/Architect/Surveyor	116.00 - 158.00
Staff Engineer/Architect/Surveyor	105.00 - 126.00
Senior Project Analyst	152.00 - 153.00
Project Analyst	85.00 - 155.00
Graduate Engineer/Architect I/II	76.00 - 129.00
Technical Specialist	170.00 - 170.00
Designer	108.00 - 153.00
Sr. Cadd Technician	88.00 - 128.00
Cadd Technician	72.00 - 105.00
Survey Technician	116.00 - 117.00
Survey Party Chief	88.00 - 135.00
Survey - Field Technician	57.00 - 88.00
Project Representatives	112.00 - 196.00
Sr. Construction Observer	89.00 - 107.00
Construction Observer I/II	51.00 - 86.00
Construction - Office Technician	57.00 - 77.00
Testing Coordinator	89.00 - 89.00
Testing Technician	52.00 - 77.00
Administrative Support**	49.00 - 156.00

Billable rates for Hubbell, Roth & Clark, Inc. include Unemployment and Payroll taxes, contributions for Social Security, Retirement benefits, Medical and Life insurance benefits, normal printing costs telephones, fax, computer time, mileage, other overhead costs, and profit.

Allowable Reimbursable expenses will be invoiced at our cost which is defined as the direct costs plus 10%.

** This Category includes Computer, Reproduction and Administrative Staff.





Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: April 8, 2024

Subject: Segment 6 Rehabilitation Ric-Man Construction Change Order No. 4 –WCD No. 3 and No. 4

This change order includes the addition of reinforcement in the geo-polymer spray-lining of CS-2 and CS-3 and the addition of transitional tapers with geo-polymer spray lining from HOBAS to concrete pipe at MH-01 and MH-05 in the 15 Mile Interceptor.

The addition of reinforcement in CS-2 and CS-3 stems from observations during a routine inspection when FK Engineering personnel observed an increased amount of deterioration and concrete sectional loss in the control structures compared with previous inspections. As a result of this observation, FK Engineering developed the scope and applicable details in Work Change Directive No. 3.

The work associated with Work Change Directive No. 4, includes the addition of a transitional taper with geo-polymer spray-lining from HOBAS to existing concrete pipe at MH-01 (downstream) and MH-05 (upstream).

The Work Change Directives were issue to Ric-Man to provide pricing which has been reviewed by the Engineer and Owner's representative and is attached for reference.

The recommendation is that the Macomb Interceptor Drain Drainage District Board approve the Change Order No. 4 to Ric-Man Construction for the lump sum add of \$343,080.20 and extend the contract times by 37 calendar days as outlined in the attached change order.

Attachments: Change Order No. 4
Work Change Directive No. 3 and No. 4 Cost Backup

CHANGE ORDER NO.: 4

Owner:	Macomb Interceptor Drain Drainage District	Owner's Project No.:	WWS-2021-002
Engineer:	FK Engineering Associates	Engineer's Project No.:	20-058
Contractor:	Ric-Man Construction	Contractor's Project No.:	21-DSG6
Project:	Segment 6 Rehabilitation		
Contract Name:	Segment 6 Rehabilitation		
Date Issued:	March 29, 2024	Effective Date of Change Order:	March 29, 2024

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

Description:

Increase to contract price due to WCD#3 (Installation of reinforcement in CS-2 and CS-2 spray lining) & WCD#4 (upstream HOBAS taper) \$343,080.24 and 37 calendar days

Attachments:

WCD #3&4 RCI Quote, WCD#3 & WCD #4

Change in Contract Price	Change in Contract Times
Original Contract Price: \$ <u>13,541,545.00</u>	Original Contract Times: Substantial Completion: <u>January 28, 2023</u> Ready for final payment: <u>February 27, 2023</u>
Increase from previously approved Change Order No. 1 through 3: \$ <u>\$153,154.40</u>	Increase from previously approved Change Orders No.1 to No. 3: Substantial Completion: <u>May 25, 2023</u> Ready for final payment: <u>June 25, 2023</u>
Contract Price prior to this Change Order: \$ <u>13,694,699.40</u>	Contract Times prior to this Change Order: Substantial Completion: <u>May 25, 2023</u> Ready for final payment: <u>June 25, 2023</u>
Increase this Change Order: \$ <u>343,080.20</u>	Increase this Change Order: Substantial Completion: <u>37 calendar days</u> Ready for final payment: <u>37 calendar days</u>
Contract Price incorporating this Change Order: \$ <u>14,037,779.60</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>July 1, 2023</u> Ready for final payment: <u>August 1, 2023</u>

Recommended by Engineer (if required)		Authorized by Contractor	
By (signature):	<u>Zachary Carr</u>	_____	_____
Name & Title:	<u>Zachary Carr, Vice-President</u>	_____	_____
Date:	<u>March 29, 2024</u>	_____	_____
	Authorized by Owner	Approved by Funding Agency	
By (signature):	_____	_____	_____
Name & Title:	_____	_____	_____
Date:	_____	_____	_____

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
<p>BID ITEM = 3004 Description = WCD #3 CS2 & CS3 REINFORCEMENT Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000 WCD # 3 provide reinforcement to control structures 2 & 3 and repairs to invert @ CS 3 WCD # 4 provide tapers to MH #1 & 5 on the 15 Mile Interceptor from newly installed 54" Hobas pipe to existing 60" sewer. RCI is requesting a change order in the amount of \$343,080.24 for WCD'S # 3 with Rev1 & WCD4. Thus request will take an additional 37 calendar days</p>										
3004.1	Materials		Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 50	WC: MI6306		
251010	Galvanized Stripe@106%	1.00	1.00 LS	15,250.000		16,165				16,165
2GANRENT	Gantry Rental@106%	1.00	1.00 LS	5,341.500		5,662				5,662
2S1002	Rebar Chairs, 1"@106%	1.10	8,233.50 LF	0.630		5,498				5,498
2S2005	Epoxy Coated Mesh@106%	1.10	111.10 EA	65.000		7,655				7,655
2S3013	Tie Wire & Access@106%	1.00	20.00 EA	6.760		143				143
2S3016	Mechanical Fastne@106%	1.00	608.00 EA	8.080		5,207				5,207
2XPUMPRENT	Xylem Pump Rental@106%	1.00	1.00 LS	13,564.800		14,379				14,379
3L9001	Screws@106%	1.00	60.00 EA	17.510			1,114			1,114
\$55,823.15				[]		54,710	1,114			55,823
3004.2	Labor/Equipment		Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 50	WC: MI6306		
<u>WD3</u>	Work Directive 3		270.00 CH	Prod:	27.0000 S	Lab Pcs:	5.00	Eqp Pcs:	3.00	
8C50TAT	50 Ton All Terrain Cra	1.00	270.00 HR	138.330		37,349				37,349
8L936	CAT 938 Loader	1.00	270.00 HR	71.591		19,330				19,330
8TP2500ST	Chevy Silverado 2500	1.00	270.00 HR	12.109		3,269				3,269
FM	Foreman	1.00	270.00 MH	40.000	24,852					24,852
LB5	Laborer - Class 5	2.00	540.00 MH	25.000	32,032					32,032
OP	Operator - Michigan	1.00	270.00 MH	41.000	25,488					25,488
OP - SPECIAL	Operator - Crane	1.00	270.00 MH	42.500	26,069					26,069
\$168,387.60	1,350.0000 MH/LS		1,350.00 MH	[51529.5]	108,440		59,948			168,388
3004.3	Subcontractor		Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 50	WC: MI6306		
4SCOAT	Conc Coating - Sub	1.00	1.00 LS	86,500.000				86,500		86,500
=====>	Item Totals: 3004 - WCD #3 CS2 & CS3 REINFORCEMENT									
\$310,710.75	1,350.0000 MH/LS		1,350.00 MH	[51529.5]	108,440	54,710	1,114	59,948	86,500	310,711
310,710.750	1 LS				108,439.50	54,709.51	1,113.64	59,948.10	86,500.00	310,710.75
\$310,710.75	*** Report Totals ***		1,350.00 MH		108,440	54,710	1,114	59,948	86,500	310,711

>>> indicates Non Additive Activity
-----Report Notes:-----
The estimate was prepared with TAKEOFF Quantities.
This report shows TAKEOFF Quantities with the resources.

Bid Date: 03/24/21 Owner: Engineering Firm:
Estimator-In-Charge:

JOB NOTES
Labor 09-01-2017
Equipment 12-27-2017

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
<hr/>										
BID ITEM =	3004									
Description =	WCD #3 CS2 & CS3 REINFORCEMENT	Unit =	LS	Takeoff Quan:		1.000	Engr Quan:	1.000		

*****Estimate created on: 03/22/2021 by User#: 11 - Gino D'Agostini
Source estimate used: L:\HEAVYBID\EST\RMMIMAST

*****Estimate created on: 03/11/2022 by User#: 11 - Gino D'Agostini
Source estimate used: L:\HEAVYBID\EST\MIDDSEG6

* on units of MH indicate average labor unit cost was used rather than base rate.
[] in the Unit Cost Column = Labor Unit Cost Without Labor Burdens
In equipment resources, rent % and EOE % not = 100% are represented as XXX%YYY where XXX=Rent% and YYY=EOE%
-----Calendar Codes-----
40 40 Hour Work Week (5-8)
410 40 hour week (4 days)
50 50 Hour Work Week (5-10) (Default Calendar)
60 60 Hour Work Week (6-10)

ESTIMATE SUMMARY (BID PRICES)

Bid #	Client Bid#	Total Cost	Total Cost	Markup	Balanced Bid Total	Balanced Bid Unit Price	Pricing Status	Bid Price	Bid Total
3004	LS	WCD #3 CS2 & CS3 REINF	314,282.89	9.2% 28,797	343,080	343,080.24		343,080.240	343,080.24
TOTALS:		314,282.89		28,797	343,080				343,080.24

Code between Balanced Bid & Bid Price: U=Unbalanced, F=Frozen, C=Closing Biditem (item to absorb unbalancing differences).

** in front of the Biditem indicates a Non-Additive item

ESTIMATE SUMMARY (BID PRICES)

Bid #	Client Bid#	Total	Total Cost		Balanced	Balanced Bid	Pricing	Bid	Bid
Quantity	Unit	Cost	Unit Price	Markup	Bid Total	Unit Price	Status	Price	Total

BID COSTS =====> 314,283
ACTUAL MARKUP =====> 28,797
TOTAL BID =====> 343,080

Spread Indirects on: TOTAL COST Spread Markup on: TOTAL COST

Default Markup %:

- Labor: 15%
- Burden: 15%
- Perm Matl: 15%
- Const Matl: 0%
- Sub: 5%
- Eqp Op Exp: 0%
- Co. Equip: 0%
- Rented Eqp: 0%
- Trucking: 0%
- Gen Con: 0%
- Allowance: 0%

Spread Addons & Bond TOTAL COST

Bond Calculations

Selected Bond Table: B Description: Class B

	Contract Amount	Rate per 1000	Bond Amount
First:	\$ 100,000	9.50	\$ 950.00
Next:	\$ 2,400,000	9.50	\$ 2,309.26
Next:	\$ 2,500,000	6.70	\$ 0.00
Next:	\$ 2,500,000	6.30	\$ 0.00
Next:	\$ 2,500,000	5.30	\$ 0.00
Remainder:		5.30	\$ 0.00
	Subtotal:		\$ 3,259.26
Time Threshold1:	Extended Time Rate 1:	%	\$ 312.89
Time Threshold2:	Extended Time Rate 2:	%	\$ 0.00
Length of Job: ¹⁸	Total Bond Amount:		3,572.15

----- ESTIMATE NOTES: -----

Bid Date: 03/24/2021

Owner:

Engineering Firm:

Estimator-In-Charge:

Desired Bid (if specified) = 0

Last Summary on 03/04/2024 at 12:18 PM.

Last Spread on 03/04/2024 at 12:18 PM.



To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: April 8, 2024

Subject: Segment 6 Rehabilitation HOBAS Damage – Builder’s Risk Claim Summary

This memo provides a summary of the final results of the Builder’s Risk Claim related to the defective work repairs to the HOBAS pipe damage experienced in March 2022. The total amount of the claim approved is \$678,555.64.

The complete breakdown of costs incurred by the Ric-Man Construction (RCI) and FK Engineering (FKE) is summarized in the attached memo from FKE to RCI. Additionally, a summary of the final outcome of the claim is summarized in this memo.

Since this is a payment resulting from an insurance claim settlement, it will not be treated as a modification to the contract by way of a change order. In lieu of a change order, the Contractor will submit an invoice for their total amount due of \$383,816.46 and FKE will submit an invoice for their total amount due of \$269,739.18.

The MIDDD has received payment for the full amount of approved less the \$100,000 deductible in the amount of \$578,555.64. The MIDDD is responsible for \$75,000 toward the deductible in accordance with the contract documents.

The motion is that the Macomb Interceptor Drain Drainage District Board receive and file this final report on the Builder’s Risk Claim Summary for the defective work repairs to the HOBAS damage experienced during installation in March of 2022.

Attachments: FKE-RCI.026 Memo

FK Engineering Associates

Excellence in Infrastructure and Underground Engineering



30425 Stephenson Hwy.
Madison Heights, MI 48071
Phone: 248-817-2946

Mr. Gino D' Agostini
Ric-Man Construction, Inc.
38600 Van Dyke Ave Suite 100
Sterling Heights, MI 48312

March 15, 2024
Revised March 28, 2024
FKE / RCI 026R1

RE: Macomb Interceptor Drain Drainage District
Segment 6 Rehabilitation Project
Builder's Risk Claim – Final Proof of Loss - Draft

Mr. D'Agostini,

This letter provides a summary of the result of the Builder's Risk Claim in regard to the defective work repairs to HOBAS pipe damage that was experienced in March 2022. Detailed costs incurred by RCI associated with the repair of the HOBAS pipe were provided in RCI/FK-018R1. In general, RCI's costs were broken down as follows:

• Dewatering associated with Shaft Construction -	\$183,529.62
• Shaft Construction -	\$470,692.48
• Costs associated with delays -	\$136,607.40
• Costs associated with HOBAS Pipe Repairs -	\$234,288.39
Total:	\$1,025,117.89

Similar to RCI, the Engineering team submitted costs broken down by task:

• Shaft Construction Engineering -	\$51,319.21
• HOBAS Repair Engineering -	\$224,782.65
Total:	\$276,101.86

Based on the insurance carriers review, they have judged that no costs associated with the construction of the shaft are covered under this policy as it was considered "Expediting and Extra Expenses" and is limited to 20% of the total amount of physical damage. The insurance carrier has recognized a total amount of \$340,680.38 for reimbursement to MCPWO for RCI's efforts related to the actual repair of the HOBAS pipe. The carrier has also recognized 100% of the engineering fees, \$224,782.65, associated with the HOBAS Repairs. No engineering fees associated with shaft construction were recognized. The above recognized costs amount to \$565,463.03, which is considered the amount of physical loss on the claim. Expediting and Extra

Expenses at 20% of the recognized physical loss breaks down to \$68,136.08 for RCI's efforts, and \$44,956.53 for Engineering efforts, for a total of \$113,092.61 This culminates in a total claim amount of \$678,555.64 considering 20% for E&E.

A summary of the outcome of the claim in respect to the Engineering total submitted costs is shown below:

Total Engineering submitted cost:	\$276,101.86
Engineering Approved Physical Loss Costs:	\$224,782.65
Engineering 20% Extra & Expediting:	\$44,956.53
Total amount due to Engineering:	\$269,739.18
Total Engineering shortfall:	\$6,362.68

In total, RCI is due the entire amount of the recognized physical loss (\$340,680.38), plus 20% for E&E (\$68,136), less RCI's portion of the deductible (-\$25,000).

RCI Approved Physical Loss Costs:	\$340,680.38
RCI 20% Extra & Expediting:	\$68,136.08
Deductible:	-\$25,000
Total amount due to RCI:	<u>\$383,816.46</u>

A summary of the outcome of the claim in respect RCI's total submitted costs is shown below:

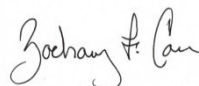
Total RCI submitted cost:	\$1,025,117.89
Total Recognized RCI costs:	\$383,816.46
Total RCI shortfall:	<u>\$641,301.43</u>

The amount due to RCI, \$383,816.46, will be issued separate from the project. Please submit an invoice to the MIDDD for the above amount. Please do not hesitate to contact us if you have any questions,

Respectfully,



Nicholas J. Kacynski, P.E.
Resident Engineer



Zachary F. Carr, P.E.
Project Manager

CC: Ricky Giannetti, RCI
Stephen Downing, MIDDD
Keith Lumma, MIDDD
Chris Frayer, AEW



NICKEL & SAPH, INC.

INSURANCE SINCE 1929

MAILING ADDRESS:

P.O. BOX 46907
MT. CLEMENS, MI 48046-6907

OFFICE ADDRESS:

44 MACOMB PLACE
MT. CLEMENS, MI 48043
(586) 463-4573 • (810) 765-8887
1-800-657-7373 • FAX: (586) 463-3135
www.nickelsaph.com

March 26, 2024

Mr. Brian Baker
Macomb County Intra-County Drains &
Drainage Districts
21777 Dunham Road
Clinton Twp., MI 48036

Dear Mr. Baker:

Please accept the following renewal proposal of certain liability coverages secured for the Intra-County drains and drainage districts.

Carrier: Argonaut Insurance Company
A. M. Best Rating: A- XII, Developing. Admitted by the State of Michigan.

General Liability

Aggregate Limit: \$2,000,000
Occurrence Limit: \$1,000,000
Personal and Advertising Injury: \$1,000,000
Products/Completed Operations Aggregate: \$2,000,000
Deductible per Occurrence: \$100,000

Automobile Liability

Occurrence Limit: \$1,000,000
Deductible: \$100,000

Coverage is afforded for non-owned and rented autos only. No aggregate limitation applies.

Public Officials' Liability

Aggregate Limit: \$2,000,000
Per Wrongful Act Limit: \$1,000,000
Deductible each Wrongful Act: \$100,000
Claims Made Policy Form
Prior Acts/Retroactive Date: April 26, 2021

Excess Liability

Each Occurrence or Wrongful Act:	\$10,000,000
Annual Aggregate:	\$10,000,000

Premium

Annual Premium:	\$235,739
Optional Terrorism Risk Insurance:	\$6,172
Total Annual Premium:	\$241,911

The expiring annual premium was \$229,845. The renewal offering has increased \$12,066 or 5.25%. The year before, the premium increased \$19,232 or 9.13%. Last year, Terrorism Risk Insurance was included (optional coverage). Premium is not subject to annual audit.

The liability premium is based, in part, upon expenditures. Last year ('21/'22) an amount of \$79,527,750 was reported. This year ('22/'23) an amount of \$63,751,545 was reported.

Afforded liability limits are separate from each other. Payment of claims for one line of coverage will not affect or reduce the limits dedicated to the remaining lines of coverage. Please refer to policy forms for terms, definitions, conditions, and exclusions.

The deductibles apply to both the payment of claim adjustment expenses and third-party damage payments. Once the deductible is exhausted, the specific limit is dedicated to the payment of third-party damages alone; claim expenses are outside of the afforded limits. We recommend the continued third-party administrator (TPA) relationship with the ASU Group or other approved TPA.

Argonaut has included their proprietary "360" endorsement which adds the following coverage enhancements to the General Liability: Blanket Additional Insured (when required by written contract, agreement, or permit). Broadcasting, Publishing, and Telecasting offenses are covered under Personal Injury. By separate endorsement, Limited Pollution Liability Coverage (extended for Property Damage under the General Liability policy – excludes Bodily Injury) is added for the reverse flow of sewage (endorsement GL-210 [07/00]).

As with the expiring contract, Argonaut is offering: **1)** a traditional underlying and excess policy format. No impact on the afforded coverages: same carriers (underlying and excess), same claims and underwriting staff, and same occurrence limit of liability - \$11,000,000. **2)** Covered claims are subject to a \$100,000 deductible. **3)** The Public Officials' liability coverage is offered on a Claims Made policy form in lieu of an Occurrence form. A retroactive date of April 26, 2021 will apply to covered claims. **4)** The excess liability policy does not afford excess automobile liability coverage; the proposed policy affords \$1,000,000 Hired & Non-owned Automobile Liability. The coverage is afforded by way of a Combined (Bodily Injury and Property Damage) Single Limit formant (as before). The afforded limit is provided per Occurrence with no aggregate restrictions (again, same as before). **5)** The combined aggregate limit of liability for covered General Liability and Public Officials' Liability claims is \$11,000,000.

In addition to securing the afforded liability coverages, we continue to monitor additions or improvements to the districts' physical assets. We have been advised that no measurable changes occurred over the past year. You will recall that all property insurance is secure under Macomb County's property insurance policy.

Please review this information and contact me with any questions or concerns. I plan to attend the next Board meeting on Monday, April 8, 2024 (the current coverage expires on April 26, 2024). Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen R. Saph, Jr.", written in a cursive style.

Stephen R. Saph, Jr., LIC
Agent

Enclosure

Chapter 20
Insurance Cost Breakdown
April 26, 2024 Renewal

DRAIN NAME	2024 PERCENT	PORTION OF INSURANCE
Eight Half Mile Relief	17.210%	\$ 41,632.88
Martin Sanitary Diversion	0.590%	\$ 1,427.27
MIDDD	82.200%	\$ 198,850.84

Insurance bill	\$ 241,911.00
----------------	---------------

*** After an analysis of the 2023 expenses, other drain's portions were minimal and insignificant

MIDDD Costs	
Liability	\$ 198,850.84
Third-Party Administrator	\$ 1,750.00
Underground Infrastructure	<u>\$ 21,000.00</u>
MIDDD Total Cost	\$ 221,600.84

Chapter 20
Insurance Cost Breakdown
April 26, 2024 Renewal

DRAIN NAME	2023 PERCENT	\$ INSURANCE BREAKDOWN 2023	2024 PERCENT	\$ INSURANCE BREAKDOWN 2024	\$ Increase over last year	Percent Increase over last year
Eight Half Mile Relief	8.590%	\$ 19,744	17.210%	\$ 41,632.88	\$ 21,889	110.87%
Martin Sanitary Diversion	1.662%	\$ 3,820	0.590%	\$ 1,427.27	\$ (2,393)	-62.64%
MIDDD	89.748%	\$ 206,281	82.200%	\$ 198,850.84	\$ (7,430)	-3.60%

Insurance Premium		\$ 229,845		\$ 241,911	\$ 12,066	5.25%
-------------------	--	------------	--	------------	-----------	-------

*** After an analysis of the 2023 expenses, other drain's portions were minimal and insignificant

Chapter 20
Insurance Cost Breakdown
April 26, 2024 Renewal

DRAIN NAME	2024 PERCENT	PORTION OF INSURANCE	2023	2022	2021	2020	2019	2018
Eight Half Mile Relief	17.210%	\$ 41,632.88	8.59%	5.18%	5.436%	3.40%	2.00%	2.00%
Martin Sanitary Diversion	0.590%	\$ 1,427.27	1.66%	0.90%	0.662%	0.60%	0.00%	0.00%
MIDDD	82.200%	\$ 198,850.84	89.75%	93.92%	93.901%	96.00%	98.00%	98.00%

Insurance bill	\$ 241,911.00	229,845	210,613	197,864	189,360	185,706	182,352
----------------	---------------	---------	---------	---------	---------	---------	---------

*** After an analysis of the 2023 expenses, other drain's portions were minimal and insignificant

MIDDD Costs	
Liability	\$ 198,850.84
Third-Party Administrator	\$ 1,750.00
Underground Infrastructure	\$ 21,000.00
MIDDD Total Cost	\$ 221,600.84

MACOMB INTERCEPTOR DRAINAGE DISTRICT
03/19/24 - 04/02/24

<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	Aquasight	\$ 85,645.00	Invoice #000839 - 03.06.24	Sewage Surveillance February 2024 - Grant	\$ 445,773.00
		Astorino	Aquasight	\$ 85,645.00	Invoice #000850 - 04.01.24	Sewage Surveillance March 2024 - Grant	\$ 360,128.00
		Downing	County of Macomb	\$ 1,200.00	Invoice #NASTT 2024 - 01.30.24	K. Lumma No-Dig Training	
		Astorino	DTE Energy	\$ 3,372.72	Invoice #24-178 - 03.04.24	Monthly Electric - 02.01.24 - 03.01.24 - CS12	
		Astorino	Fishbeck	\$ 700.00	Invoice #434786 - 03.20.24	GLWA Engineering Assistance through 03.15.24	
		Astorino	Fishbeck	\$ 4,904.04	Invoice #434779 - 03.20.24	As-Needed Engineering Flow Analysis	\$ 161,744.96
		Astorino	FK Engineering	\$ 16,338.47	Invoice #23-158-005 - 03.11.24	Drop Shaft Rehabilitation through 03.16.24	\$ 397,314.77
		Downing	L. D'Agostini	\$ 338,776.00	Invoice #APP13 - 03.15.24	Odor and Corrosion through 03.15.24	\$ 3,824,123.25
		Downing	Meadowbrook	\$ 8,225.63	Invoice #13786 - 03.05.24	Extend Segment 6 Excess Liability through 11.06.24	
		Downing	Meadowbrook	\$ 10,639.50	Invoice #13787 - 03.05.24	Extend Segment 6 Excess Liability through 11.06.24	
		Downing	Meadowbrook	\$ 3,587.50	Invoice #13854 - 03.05.24	Extend Segment 6 Excess Liability through 11.06.24	
		Downing	Meadowbrook	\$ 7,745.93	Invoice #13855 - 03.05.24	Extend Segment 6 General Liability through 11.06.24	
		Downing	Meadowbrook	\$ 10,895.75	Invoice #13882 - 03.05.24	Extend Segment 6 Excess Liability through 11.06.24	
		Downing	Meadowbrook	\$ 5,881.45	Invoice #13900 - 03.05.24	Extend Segment 6 Primary Excess Liability	
		Downing	Meadowbrook	\$ 52,962.00	Invoice #14022 - 03.26.24	OCIP SAFETY Quarterly Payment	
	Downing	Meadowbrook	\$ 15,152.58	Invoice #13966 - 03.26.24	Extend Seg. 5 & 6 Pollution Liability through 12.31.24		
	Downing	Meadowbrook	\$ 48,139.00	Invoice #14018 - 03.26.24	Extend Seg. 5 & 6 Builders Risk through 12.31.24		
	Downing	Meadowbrook	\$ 3,583.40	Invoice #14029 - 03.26.24	Extend Segment 5 & 6 OPPI through 12.31.24		
	Astorino	Nexgen	\$ 15,451.50	Invoice #3914 - 01.29.24	Asset Management Software - 01.01.23 - 06.30.24		
	Astorino	Nexgen	\$ 13,390.00	Invoice #3914 - 01.29.24	Asset Management I.T. - 01.01.23 - 06.30.24		
	Astorino	NTH Consultants	\$ 5,380.89	Invoice #635270 - 03.06.24	2023 Interceptor Inspection through 02.16.24	\$ 592.00	
	Downing	Oscar Renda	\$ 901,568.92	Invoice #APP43 - 03.26.24	Romeo Arm Segment 5 Lining through 03.26.24	\$ 5,474,635.74	
	Engelmann	Printing By Johnson	\$ 2,925.68	Invoice #49408 - 03.29.24	2024 MIDD Report Booklets		
	Astorino	SewerAI Corporation	\$ 20,801.50	Invoice #2024-18 - 02.29.24	Pay As You Go - Inspection Footage		
	Downing	Tetra Tech	\$ 26,730.63	Invoice #52207112 - 02.29.24	Odor and Corrosion CCA through 02.23.24	\$ 440,621.79	
	Astorino	Verizon	\$ 553.83	Invoice #9957434037 - 02.23.24	Monthly Cellular - 01.24.24 - 02.23.24		

MACOMB INTERCEPTOR DRAINAGE DISTRICT
03/19/24 - 04/02/24

<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>
CPS		Astorino	Clinton Township	\$ 3,063.88	Invoice #24-182 - 03.04.24	Monthly Water - February 2024	
		Astorino	De-Cal	\$ 2,260.00	Invoice #WO90024091-1 - 03.15.24	Maintenance on HVAC Equipment	
		Astorino	DTE Energy	\$ 27,158.12	Invoice #24-177 - 03.03.24	Monthly Electric - 02.02.24 - 03.03.24	
CS3		Astorino	Spencer Oil Company	\$ 949.75	Invoice #701313 - 02.27.24	Control Structure Hydraulic Fluid	
METERS		Astorino	Cross Brothers Excavating	\$ 2,552.32	Invoice #6883 - 03.14.24	Meter Site Repair	
		Astorino	Hesco	\$ 12,622.28	Invoice #APP 12 - 03.13.24	Meter Maintenance - 02.01.24 - 02.29.24	\$ 334,987.72
NGI		Astorino	DTE Energy	\$ 1,714.56	Invoice #24-172 - 03.01.04	Monthly Electric - 01.31.24 - 02.29.24	
OMID		Downing	Oakland County Treasurer	\$ 4,471,317.83	Invoice #CI036198 - 03.31.24	Sewer Disposal - March 2024	
SCADA		Astorino	Verizon	\$ 1,073.70	Invoice #9957434037 - 02.23.24	Monthly Cellular - 01.24.23 - 02.23.24	
Total				\$ 6,212,909.36			

Budget to Actual
MIDDD
As of March, 2024 = 75%

DESCRIPTION	2024 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	49,276,790		36,961,201	12,315,589	75.0%
OMID O&M	4,379,020		3,284,265	1,094,755	75.0%
Settlement	100,000			100,000	0.0%
Reimbursements	150,000		123,280	26,720	82.2%
PY Revenue-Fund Balance	20,907,890			20,907,890	0.0%
Reimb-Local Communities	17,717,200		13,287,900	4,429,300	75.0%
State Grant-ARPA Seg 5 & 6	-		17,968,249	-	0.0%
COVID Grant	345,630		500,250	(154,620)	0.0%
Interest	400,000		796,995	(396,995)	199.2%
<i>Total Revenue Accounts</i>	93,276,530	-	72,922,140	38,322,639	78.2%
EXPENSE ACCOUNTS					
GLWA-OMID	49,276,790		36,961,201	12,315,589	75.0%
OMID O&M	4,379,020		3,284,265	1,094,755	75.0%
Public Works Wastewater Disposal Division	1,984,020		5,774	1,978,246	0.3%
Office Operations/Insurance	406,450		109,717	296,733	27.0%
SCADA	117,260		57,465	59,795	49.0%
Engineering					
Replenish reserve from CPS refunding	618,680			618,680	0.0%
As Needed Engineering	200,000		63,181	136,819	31.6%
Annual Meter Dye Testing	50,000		26,581	23,419	53.2%
Data Review-Aquasight	100,000			100,000	0.0%
Odor and Corrosion Construction/CCA	811,040		1,912,263	(1,101,223)	235.8%
Covid Testing 2023-Grant Funded	340,630		500,250	(159,620)	146.9%
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		133,887	2,266,113	5.6%
Odor and Control-Construction	8,333,780		3,890,465	4,443,315	46.7%
Segment 6 Construction Administration (ARPA)			1,328,722	(1,328,722)	
Segment 6 Construction/CCA (ARPA)			3,880,203	(3,880,203)	
Segment 5 Construction Admin (ARPA)			809,595	(809,595)	
Segment 5 Construction (ARPA)			11,949,729	(11,949,729)	
Legal Services	75,000		1,510	73,490	2.0%
Clintondale PS O&M	786,890		565,937	220,953	71.9%
NGI O&M	88,500		52,474	36,026	59.3%
Meters O&M	189,400		172,286	17,114	91.0%
Control Structures and Pump Station O&M	178,930		13,976	164,954	7.8%
Biofilter O&M	19,800		1,414	18,386	7.1%
Contribution Life Cycle Reserve	184,300			184,300	0.0%
Interceptor O&M	18,614,210		695,368	17,918,842	3.7%
Stormwater Pump Stations	50,000		37,500	12,500	75.0%
Sewage Disposal Charges - Mt. Clemens	410,000		251,660	158,340	61.4%
Debt Service - Revenue Bonds	675,630		506,723	168,908	75.0%
<i>Total Expense Accounts</i>	93,276,530	-	67,238,562	26,037,968	72.1%

	O&M Balance 6/30/2023	O&M	Total 3/31/2024
Cash - Operating	59,727,429	5,683,578	65,411,007
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		72,922,140	72,922,140
Expenditures		67,238,562	67,238,562
			0
Equity*	59,727,429		65,411,007

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