

Miller  
Santo  
VanSyckel

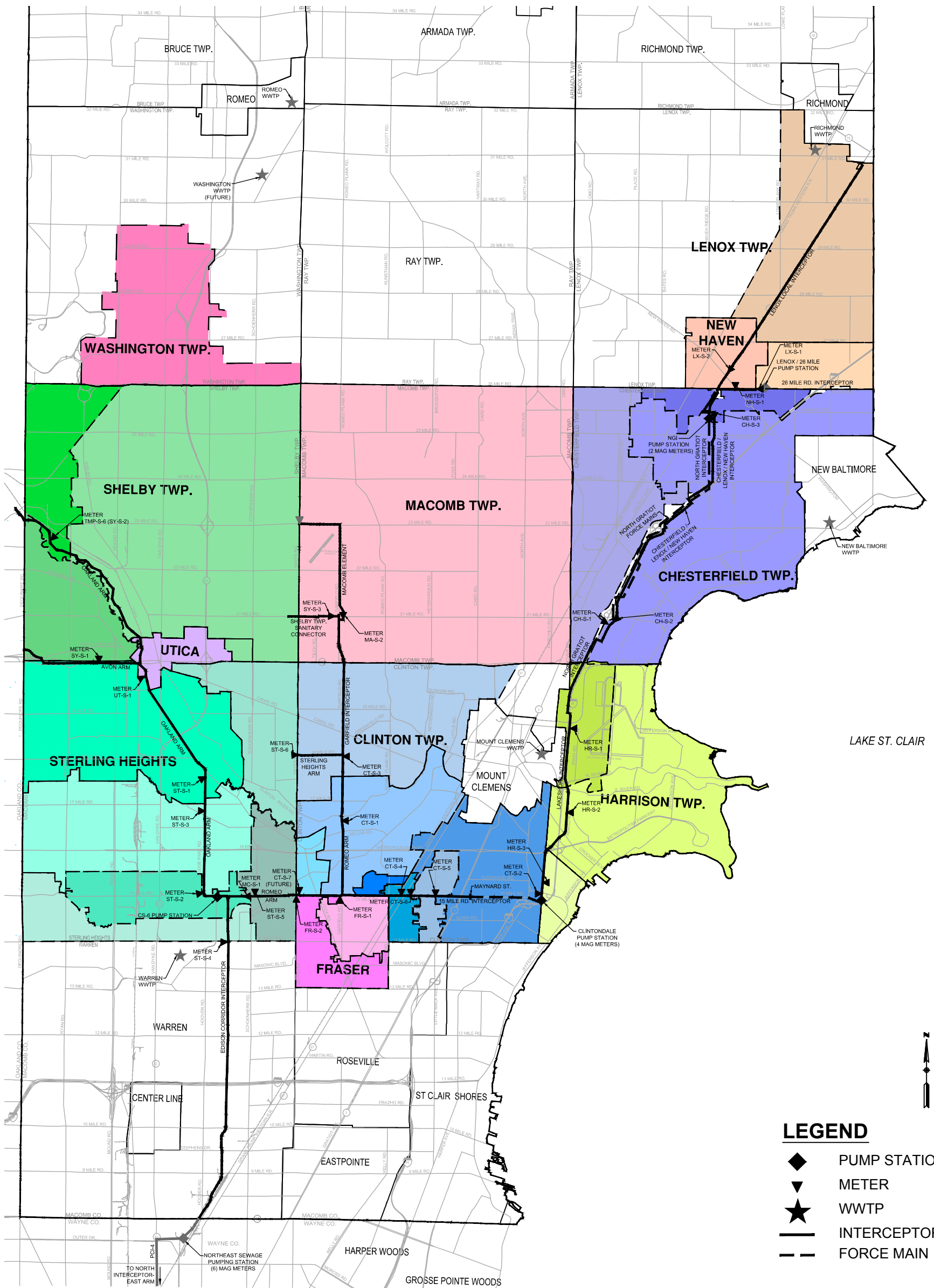
MACOMB INTERCEPTOR DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
NOVEMBER 14, 2022  
11:15 A.M.  
AGENDA

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

**Call in Number: 1-307-314-3902  
.Access Code: 199 831 865**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for November 14, 2022	
3. Approval of Minutes for October 24, 2022	3
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	7
6. Clintondale Pump Station Electrical Room AC Upgrades - Contractor Recommendation - Vince Astorino	27
Motion: To award the proposal for the Clintondale Pump Station Electrical Room Air Conditioning Project to DE-CAL Services Group for \$274,400.	
7. Covid Wastewater State Grant - Phase 3 Contract Amendment - Additional Day per Week Sampling at 1 Site - Vince Astorino	33
Motion: To approve a \$37,195 amendment to the Aquasite contact for additional site testing and authorization to execute the amended State grant agreement.	
8. Consideration for approval of invoices (see attached)	41
9. Financial Report – Bruce Manning	43
10. 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 October 24, 2022, at 10:14 A.M.

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

ALSO PRESENT: Daniel Acciavatti, Deputy of Government Relations; Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Steve Downing, Construction & Maintenance Manager; Norb Franz, Communications Manager; Harold Haugh, Member; Bruce Manning, Finance Manager; Pam Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor

PRESENT VIA TELECONFERENCE: Bryan Santo, Member; Mary Shepard, Environmental and Safety Services Supervisor, City of Sterling Heights

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

Adopted: YEAS: 2  
NAYS: 0

Minutes of the meeting of September 12, 2022 were presented. A motion was made by Mr. VanSyckel, supported by Ms. Miller to approve the minutes as presented.

Adopted: YEAS: 2  
NAYS: 0

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

Mr. Downing updated on the Segment 5 Rehabilitation project stating that the contractors are still spray lining the 8 foot pipe and making good progress. We are still working on the CS-12 permanent structure and are working through some issues after an event on October 5<sup>th</sup>. He presented photos of the work being performed and noted in one of the photos how impressive it is that Oscar Renda is able to get the pipe almost completely dewatered daily for the spray lining to be performed. The manufacturer of the spray lining material had originally bid on this job. Their bid was the highest and they explained that the reason is because of the work they believed it would take to get the pipe adequately dewatered to perform the spray lining. They have been out to the project and complimented the hard work by Oscar Renda. Ms. Miller asked how long the spray lining takes to dry. Mr. Downing explained that the prep time for the dewatering takes until just before noon, then they have a couple hours to spray, then 3 hours of cure time before flow is released.

Ms. Miller mentioned that we are using the contractors from Segment 5 to help repair a sinkhole that had formed at 10 Mile Road and Mound Road. We are using a new technique with carbon fiber to repair the bottom of the CMP pipe that has rotted out as the rest of the pipe is fine. It was an ideal scenario to pilot this new technique.

Mr. Downing then updated on Segment 6 Rehabilitation. The CS-13 structure is mostly complete. This week they will be spray lining protective coating on the inside of the structure and we are coordinating the delivery of the new sluice gate.

Mr. Astorino updated on the Garfield Interceptor Lining project. Doetsch is starting to mobilize for the cleaning at 21 Mile and Garfield Road. We are planning on receiving the product mid-to end of November. We just received our road permit from the Department of Roads and we will be posting notifications on our website and Macomb Township's website because of the traffic shift in that area. Ms. Miller said that this area really needs work before something bad happens. She said that Mr. Astorino was going to put a tent up in that location so that people can observe the work and see why it is needed. Mr. Astorino said there will be a live feed for people to view as well. Mr. Haugh asked if Commissioner Sabitini is aware that this is going to take place because it is his district, and Mr. Baker added that it will be posted on our website. Mr. VanSyckel said that he would inform Commissioner Sabitini.

Mr. Astorino continued by updating on the Interceptor Inspection Program. There are four Drop Shafts remaining for inspection and review of the data has not revealed any additional areas of concern.

Mr. Downing continued with a Phase II Grouting update. The crew has not worked since July 2022. The crew has decided that the grouting will be done on an afternoon or night shift however there is a staffing shortage. We are in the process of having FK Engineering in to get the critical areas done for an annual inspection. If there are any areas identified during that inspection, we will then mobilize Doetsch to perform grouting.

Lastly, Mr. Downing updated on the Meter Facility Rehabilitation. The Contractor is finalizing the closeout documents. Mr. Downing followed with a separate memo presenting the project close out.

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

Adopted: YEAS: 2  
NAYS: 0

Mr. Downing presented on the MIDD Odor and Corrosion Contractor Award recommendation. He recapped by saying that there was an odor and corrosion study that was performed by Jacobs Engineering, under the management of the MCPWO staff. We bid this previously and only had one bidder. We resolicited bids from July 8, 2022 – September 8, 2022. There were 5 bids submitted. Our lowest bidder, L. D'Agostini & Sons was about \$1.25 million lower than the first bid. Mr. VanSyckel asked what the filters were made out of. Mr. Downing told him that it is like pebbles of carbon, but it lasts longer and you get more media. It's also warranted for 10 years, however some have seen it last 15-20 years. Mr. VanSyckel asked how you would know if it's working, and Mr. Astorino said that we have sensors that will measure the effectiveness.

A motion was made by Mr. VanSyckel, supported by Ms. Miller to approve and award the bid for the Odor and Corrosion project to L. D'Agostini & Sons for \$11,799,678.78.

Adopted: YEAS: 2  
NAYS: 0

Mr. Downing presented on the Odor & Corrosion – Construction Contract Administration recommendation. Tetra Tech provided a proposal to perform oversight and administer the project from start to finish. The schedule right now is estimated at 21 months, however the contractor is hopeful that it will be completed sooner. If it is completed sooner, of course the cost will be less. Mr. VanSyckel asked if there were any materials costs in the proposal. Mr. Downing confirmed it has labor costs only. Mr. VanSyckel stated that is a lot of money for services. Mr. Downing said that typically there is a percentage based construction cost and the rule of thumb is usually 7 ½ - 10% of the

construction cost and this fits into that. He also noted that Tetra Tech manages their construction oversight costs extremely well.

A motion was made by Mr. VanSyckel, supported by Ms. Miller to approve the proposal from Tetra Tech for a not to exceed amount of \$973,590 to provide construction contact administration services for the Odor and Corrosion project.

Adopted: YEAS: 2  
NAYS: 0

Mr. Downing updated on the Metering Facility Rehabilitation Project Construction Contract Close-out recommendation. In September 2022, Weiss Construction completed all construction work associated with this project and now the project can be closed out. Change Order No. 3 represents the final balancing change order that is a net decrease and will result in zeroing out of unused allowances and quantities of unit price work. The total construction cost for the rehabilitation for the three meter facilities is \$785,761.98. There was a total budget of \$1,450,000 for Design, Construction, and CCA services for these facilities. The total final cost is \$1,058,901.98 which is \$391,098.02 under budget.

A motion was made by Mr. VanSyckel, supported by Ms. Miller to approve the final Change Order No. 3 for a net decrease of \$77,406.87.

Adopted: YEAS: 2  
NAYS: 0

The Chair presented the invoices totaling \$1,293,047.71 to the board for review and approval.

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

Adopted: YEAS: 2  
NAYS: 0

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

Adopted: YEAS: 2  
NAYS: 0

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

Adopted: YEAS: 2  
NAYS: 0

The meeting was adjourned at 10:48 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 October 24, 2022 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: 10/24/22



**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 & Flow Manager

**Date:** November 14, 2022

**Subject:** Construction Projects Status Updates for November 2022 Board Meeting

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

### **Segment 5 Rehabilitation**

**Contractor:** Oscar Renda

**Engineering Consultant:** FK Engineering

#### **Project Description:**

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

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

1. Continued development, review, and approval of the required construction submittals.
2. Ground dewatering well maintenance and monitoring.
3. Continued spray-lining the 8-foot diameter interceptor (PCI-37).
4. Performed CIPP Lining of the CT-S-7 and FR-S- connecting sewers.
5. Performed spray-lining of the CT-S-7 FR-S-2 drop manholes.

6. Continued construction of the CS-12 permanent structure, which includes:
  - a. Rebar installation for the walls and gate columns
  - b. Concrete formwork removal/installation
  - c. Concrete placement for permanent structure walls

**Construction Costs:**

	Date	
Original Contract Amount	10/21/2020	\$28,807,500.00
Current Contract Amount	10/31/2022	\$31,702,534.88
Total Spent to Date	10/31/2022	\$14,560,877.93
Remaining Budget	10/31/2022	\$17,141,656.95

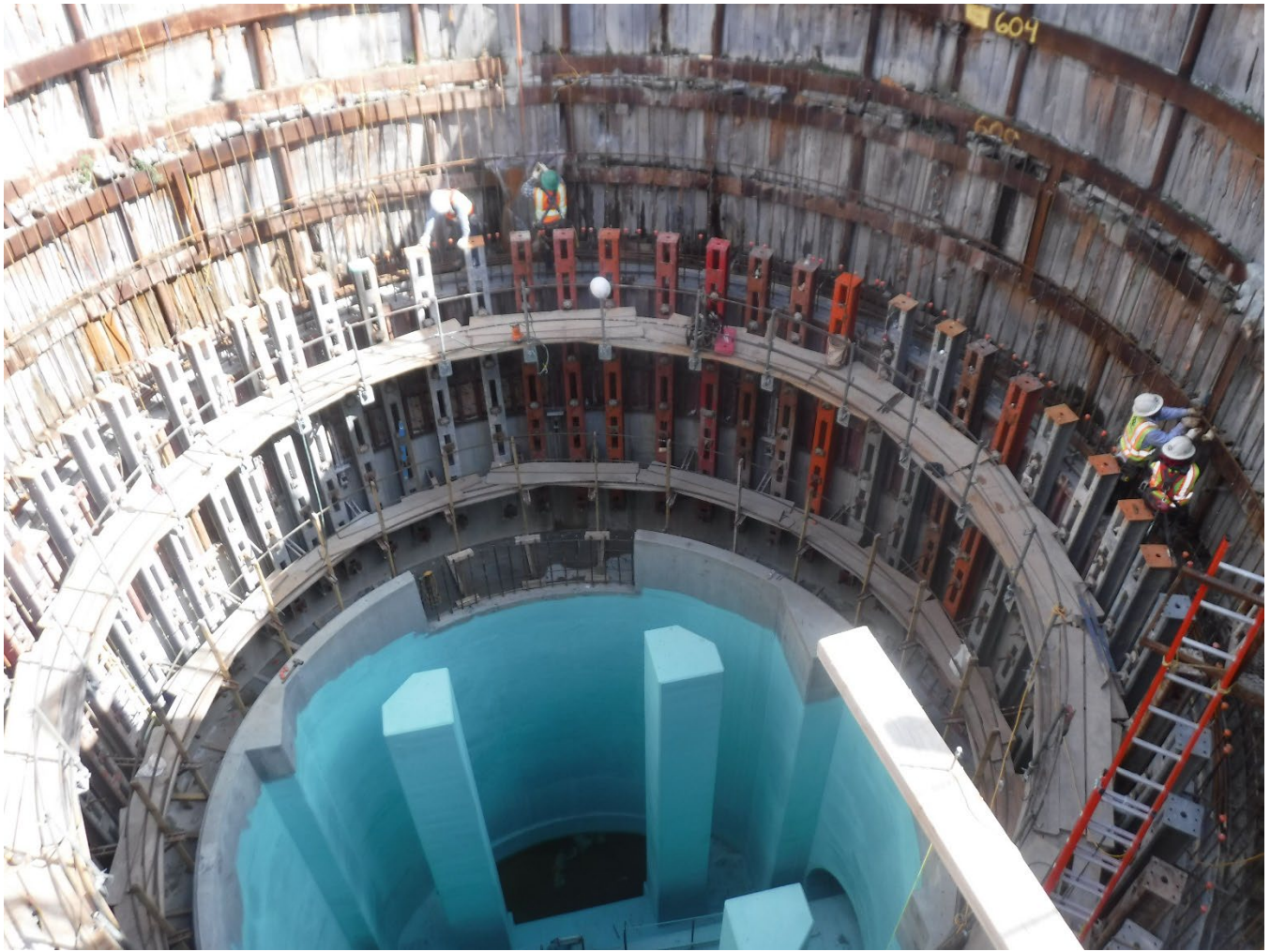


*Figure 1 – Application of Geo-polymer Curing Agent PCI-37*





*Figure 2 - CS-12 Rebar Installation*



*Figure 3 - CS-12 Wall Formwork Installation*



*Figure 4 - CS-12 Wall Formwork Installation*



*Figure 5 - CS-12 Wall Formwork Removal*



*Figure 6 - PCI-37 Power Washing*



*Figure 7 - PCI-37 Spray Lining Application*

## **Segment 6 Rehabilitation**

**Contractor:** Ric-Man Construction

**Engineering Consultant:** FK Engineering

### **Project Description:**

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

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

The project started in September 2021 and is scheduled to be completed in May 2023.

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

1. The Contractor continues to develop and submit the required submittals to the Engineer & Owner for review.
2. The Project team is working with the insurance carrier on a Builder's Risk Claim to determine if a claim condition exists for the damaged HOBAS pipe and installation of the remaining 240 feet of pipe.
  - a. The Insurance carrier's forensic Engineer submitted a Request for Information, the Project Team collected the requested information and submitted accordingly. The review of this information is ongoing.
3. The construction of the permanent CS-13 structure was completed.
4. Completed excavation and construction of the TERS for the access shaft at manhole #1.
5. Placed the concrete for the CS-13 control cabinet equipment pad.

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	10/31/2022	\$13,674,209.70
Total Spent to Date	10/31/2022	\$5,159,465.18
Remaining Budget	10/31/2022	\$8,514,744.52

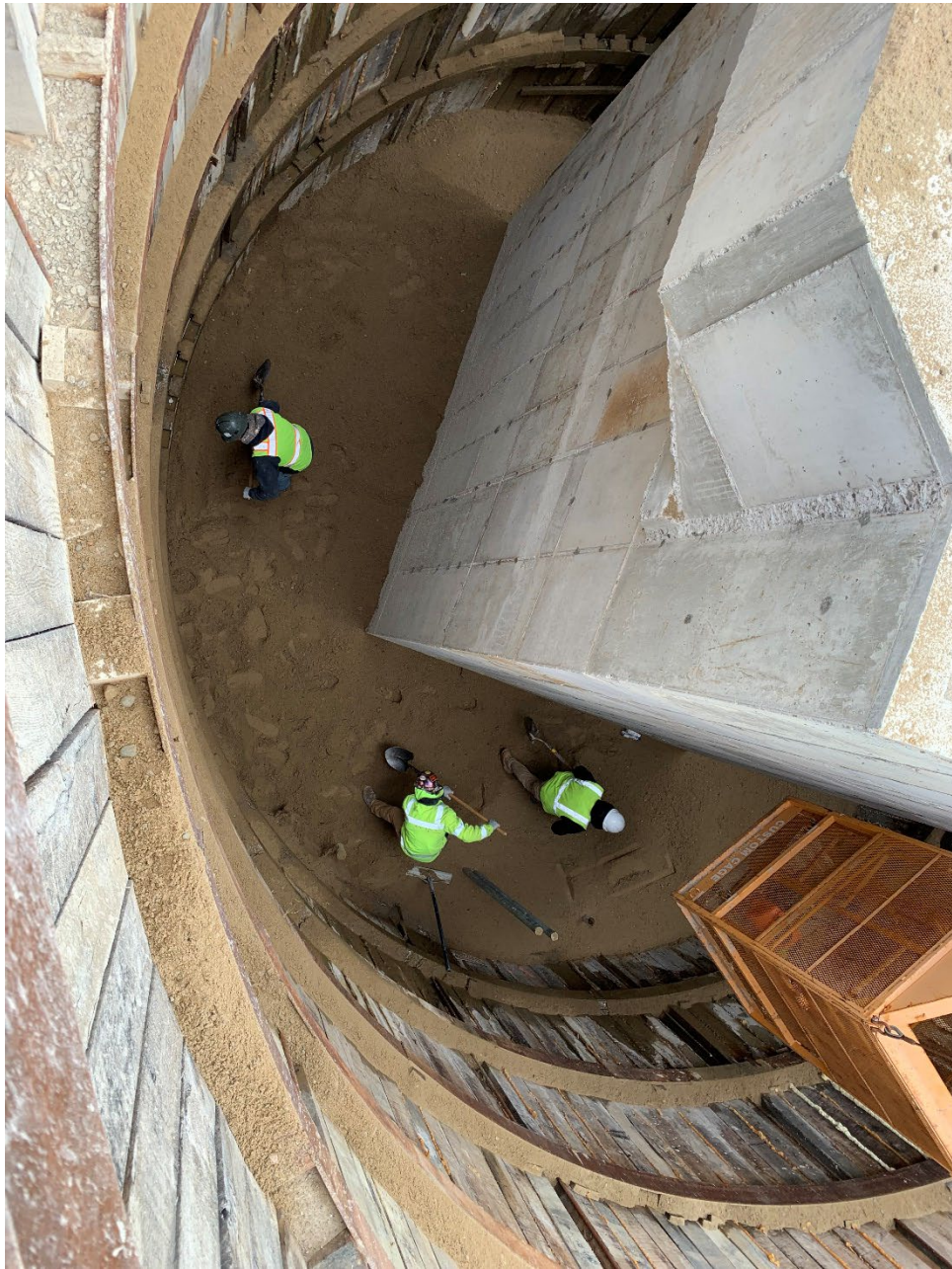


Figure 8 - CS-13 Concrete Top Placement





*Figure 9 - CS-13 Concrete Top Placement*



*Figure 10 - CS-13 Sand Back-fill*



*Figure 11 - CS-13 Equipment Pad Concrete Placement*



*Figure 12 – CS-13 Sand Back-fill*



*Figure 13 - Manhole #1 TERS*

*Garfield Interceptor Lining Project*

**Contractor:** SAK Construction, LLC

**Engineering Consultant:** AEW

**Project Description:** MCPWO identified 755 feet of 7-foot diameter pipe within the Garfield Interceptor that has been aggressively attacked with Hydrogen Sulfide damage. This stretch of pipe was immediately labeled as an immediate repair and MCPWO underwent an analysis of options for repairs. The selected option was a Spiral Wound PVC liner which has been installed around the world but is the first time being installed within Michigan. This product has a guaranteed useful life of 50-years and is being treated as a pilot project within the MID system.

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

- Submittals have been submitted and reviewed by MCPWO and AEW.
- Doetsch mobilized and cleaned the area that is to be lined.
- Road permit has been obtained by MCDOR.
- Project notifications have been posted to the MCPWO website and sent to nearby businesses and Macomb Township.

**Construction Costs:**

	Date (if applicable)	
Original Contract Amount	8/25/2022	\$2,394,385.00
Total Spent to Date	10/31/22	\$84,145.50
Remaining Budget	10/31/2022	\$2,310,239.50



*Figure 14 – Blocks and Debris Removed from the Garfield Interceptor*



*Figure 15 – Doetsch Cleaning Setup*



## Interceptor Inspection Program

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

**Engineering Consultant:** Fishbeck

### **Project Description:**

The 2020 sewer inspection program was awarded to Doetsch Environmental Services in November 2020. The inspection program includes inspection of approximately 26 miles of sanitary sewer, 360 manholes and other aspects of the sanitary sewage infrastructure across multiple drainage districts, including the MIDDD.

The MIDDD portion of the inspection program includes 101,335 linear feet (19.25 miles) of pipe ranging in diameter from 24" to 132" and 145 manhole structures. Additionally, inspection of 8 junction chambers and 8 Drop Shaft/Connecting sewers will be performed.

The inspection interval for the entire system is based on a 3-year cycle, where non-reinforced concrete pipe is inspected every 3 years and reinforced concrete pipe is inspected every 6 years. The 2020 inspection program is the largest ever performed by the Macomb County Public Works Office. The project started in May 2021 and is expected to be completed in November of 2022.

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

1. The Consultant is reviewing the data and preparing inspection reports.
2. The Owner's Representatives, Engineering Consultant and Contractor are coordinating completion of the remaining areas to be inspected, which included:
  - a. 4 Drop Shaft and Connecting Sewers
    - i. CT-S-1 connection requires sediment removal to inspect. Requested pricing from Doetsch to clean and have been working with Clinton Twp on a cost share for the sediment removal.
  - b. Lenox Local missing segments. Waiting on pricing from Doetsch to inspect and clean those segments due to heavy sediment buildup.
3. Review of the data has not revealed any additional areas of concern.

### **Construction Costs:**

	Date (if applicable)	
Original Contract Amount	1/19/2021	\$280,034.00
Total Spent to Date	9/30/2022	\$184,971.35
Remaining Budget	9/30/2022	\$95,062.65

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

## Phase II Grouting

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

**Engineering Consultant:** AEW

### **Project Description:**

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

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

1. The crew has not worked since late July 2022.
2. AEW, Doetsch and MCPWO personnel have evaluated where the crew will move to next which is dependent upon the flow control needs and coordination with other projects. This coordination will require grouting to occur on afternoons or nights based on where in the system whether they are working in the Garfield or Lakeshore Interceptors.

### **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	10/31/2022	\$6,000,000.00
Total Spent to Date	10/31/2022	\$4,432,736.20
Remaining Budget	10/31/2022	\$1,567,263.80



**Candice S. Miller**

Public Works Commissioner  
Macomb County

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

**CC: File**

**From: Vincent Astorino, Operations & Flow Manager**

**Date: November 14, 2022**

**Subject: Clintondale Pump Station Electrical Room AC Upgrades – Contractor Recommendation**

Macomb County Public Works Office (MCPWO), on behalf of the Macomb Interceptor Drain Drainage District, has coordinated the Clintondale Pump Station Electrical Room AC Upgrades project. The improvements as part of this project consist of installing a Roof Top Unit (RTU) air conditioning unit to provide much-needed cooling to the existing Electrical Room at the pump station. The Clintondale Pump Station was originally constructed in 1973 and, upon transfer of ownership from DWSD to the newly-formed MIDDD, was significantly rehabilitated in 2015. The pump station has performed very well since the rehabilitation project, serving as the backbone of the easterly portion of the MIDDD system.

One exception to the station's performance is the ambient temperature within the Electrical Room under certain conditions. Although not occupied by workers, the room contains numerous electrical components critical to the operation of the station. The existing ventilation system is able to exhaust hot air out of the room as well as bring in fresh air from outside. However, this configuration does not provide adequate cooling when the outdoor temperature is high and essentially just replaces hot air with hot air. When wet-weather mode is initiated at the pump station, two or more pumps start and the heat rejection from their companion variable frequency drives (VFDs) further increases the temperature in the room. Certain components will even turn off in order to protect themselves from damage.

The proposed improvements utilize existing ductwork and work in harmony with the existing blowers. This configuration will allow the cooling to still be provided via fresh air whenever possible. During extreme instances (and generally coinciding when the station's operation is crucial) the new AC system will start and begin cooling the room.

In June 2022, MCPWO engaged METCO Services (via their existing as-needed contract) to prepare the contract documents. A detailed alternative analysis was performed by METCO prior to preparing the final plans and specifications. Given the relatively low construction cost as compared to other MIDDD projects and HVAC-focused scope, MCPWO staff felt it appropriate to provide this design package to pre-qualified HVAC contractors. Four (4) HVAC contractors were presented the bid package and on November 7, 2022, MCPWO received the two (2) lump sum bids and is summarized as follows:

Contractor	Bid Price	Comment
De-Cal, Inc.	\$274,400.00	-
Wm. Floyd Company	\$422,000.00	Bid received from Weiss Const. with Floyd as primary sub
J.F. Cavanaugh Co.	No Bid	Elected not to bid; did not want to act as GC
John E. Green Company	No Bid	Elected not to bid
Engineer's Estimate	\$304,180.00	METCO estimate dated 10/13/22

METCO has performed a review of De-Cal's proposal and has indicated they believe they are capable of performing the work.

**MCPWO staff is recommending to award the contract to De-Cal, Inc. in the total amount of \$274,400.00 to perform the work associated with the Clintondale Pump Station Electrical Room AC Upgrades.** MCPWO staff is confident that De-Cal will be able to perform the work for the bid price. Upon board approval, MCPWO staff will coordinate with De-Cal to finalize the contract.

Attachments: De-Cal Bid Form Dated 11-07-22  
METCO Recommendation Letter Dated 11-08-22

November 8, 2022

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

Attn: Vincent Astorino  
Operations and Flow Manager

RE: WWS-2018-002 – As-Needed Engineering Services  
Clintondale Pump Station Electrical Room AC Upgrade - Project No. WWS-2022-013  
Bid Evaluation and Recommendation

Dear Mr. Astorino

Background:

This project's scope is to install a roof-top air conditioning unit at the MCPW Clintondale Pump Station, completed with structural steel roof-top support frame, duct work, louvers, dampers, and associated equipment and work detailed in the attached Issued for Bids package.

The project request for proposal was delivered via email to (3) prospective bidding Contractors, DE-CAL Service Group (DE\_CAL), John E. Green Company (JEG), and the Weiss Construction Co., L.L.C/ W.M. Floyd Company team (WEISS), on Thursday, October 20, 2022. One addendum was issued during the bidding period. On November 7, 2022 before 3:00 PM, MCPW and MECTO received the following two (2) bids:

<u>Bidder</u>	<u>As-Read Bid</u>
DE-CAL Service Group	\$274,400.00
Weiss Construction Co., L.L.C	\$422,000.00

Bid Evaluation:

Both of the two (2) bids were tabulated and audited for accuracy and completeness with results noted below:

A. Completeness of the Bids

Both of the bids were evaluated to ensure completeness of the bids. It was found that that the DE-CAL bid had the following items that need to be confirmed prior to accepting their bid:

- Adding duct insulation to the existing interior ductwork omitted the work item from their Description of Work for adding duct insulation to the existing interior ductwork, per note A on drawing 502. DE-CAL shall confirm that this work item is included prior to accepting their bid.
- Under Exclusions they listed blueprints or "CAD drawings, engineering". ON Sheet 200, the notes under "STRUCTURAL SUBMITTALS" calls for fabrication drawings of the structural steel support frame to be stamped and sealed by a structural engineer licensed in the State of Michigan. DE-CAL shall confirm that these requirements are included prior to accepting their bid.
- Under Exclusions they listed additional exclusions that included, but are not limited to "electrical infrastructure" and "temporary rental equipment" that are noted as "other than listed above". These exclusions should be confirmed to

cover "other than listed above and as noted in the Contract Documents" prior to accepting their bid. The scope of work is what is listed in the Contract Documents.

The WEISS bid was complete, but a significantly higher bid amount.

B. Experience

Based on information provided in the bids it is noted that DE-CAL Service Group and Weiss Construction Co., L.L.C both have adequate experience in the installation of HVAC equipment and the associated work identified in the documents, and have shown they are qualified to complete the work properly and effectively, as set forth in the bid documents.

Recommendation:

METCO, through this bid evaluation, has found that the low bidder, DE-CAL Service Group (DE\_CAL), is competent and capable of performing the work set forth in the bid documents. Therefore, METCO recommends that the low and responsive bid in the amount of \$274,400.00 from DE-CAL Service Group (DE\_CAL) be considered by MCPWO for contract award on this Project.

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

Respectfully,

METCO SERVICES, INC.

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

Daniel J. Martel, AIA  
Senior Project Manager

Cc: S. Wagner P.E. - MCPW



24659 Schoenherr Rd.  
Warren, MI 48089  
586.619.0281  
586.754.4371 fax

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## **Proposal**

Quote #**P522221**

**11/7/2022**

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### **MCPWO**

**Clintondale Pump Station**

Email: [mcpwoprojectinfo@macombgov.org](mailto:mcpwoprojectinfo@macombgov.org)

Project: **WWS-2022-013 Clintondale Pump Station Electrical Room AC Upgrade**

### **- Description of work -**

#### **- Provide labor, equipment and materials to:**

- Relocate existing unit heater in preparation for new ductwork per **WWS-2022-013** drawings.
- Move and relocate light fixture, conduit and temperature monitoring sensors per **WWS-2022-013** drawings.
- Cut hole in block wall to accommodate new return air damper section per **WWS-2022-013** drawings.
- Install all structural steel, framing and supports per **WWS-2022-013** drawings.
- All roofing alterations to accommodate structural steel and ductwork per **WWS-2022-013** drawings.
- Using a crane, place new **Carrier M# 50A8-030-E1M64GBA A/C Only RTU** on structural steel per **WWS-2022-013** drawings.
- Install all RTU accessories per **WWS-2022-013** drawings.
- Install new return air damper in block wall per **WWS-2022-013** drawings.
- Fabricate and install new supply and return ductwork, per **WWS-2022-013** drawings.
- Install all ductwork supports and hangers per **WWS-2022-013** drawings.
- Install all dampers and grills per **WWS-2022-013** drawings.
- Insulate all outdoor ductwork per **WWS-2022-013** drawings.
- All electrical wiring, conduit, hangers, supports, labeling and identification per **WWS-2022-013** drawings.
- Install new RTU control panel per **WWS-2022-013** drawings.
- Install new control wiring, conduit, hangers and supports to interlock all components per **WWS-2022-013** drawings.
- Perform start-up on newly installed RTU and Control Panel to ensure all operations are working properly.
- Permits.
- Clean up all used materials and dispose off site.

Quotation: Valid for 15 days

Payment Terms: Net 30 days





24659 Schoenherr Rd.  
Warren, MI 48089  
586.619.0281  
586.754.4371 fax

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## **Proposal**

Quote #**P522221**

**11/7/2022**

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Note: There is no need for vibration isolators for supporting unit on structural steel as the new RTU comes with them built into the unit. There is no need for duct mounted smoke detectors as new unit comes with factory install smoke detector.

Note: MCPWO will be responsible for have their alarm contractor to integrate their alarm panel into new RTU.

Note: Scaffolding will be assembled for the duration of project so the proposed work can be performed safely.

Note: The proposed work listed above will be performed on straight time during normal working hours only.

- Exclusions – Overtime or shift work, building infrastructure, electrical infrastructure, isolation valves, blueprints or CAD drawing, engineering, temporary rental equipment, service or repair work other than what is listed above, temporary rental equipment, additional parts other than listed above, site conditions that would cause delay to the above work & any other service work other than listed above.

The above work will be done in a safe and workmanlike manner for the sum of **\$274,400.00**

Upon Approval, Please Sign and Return: Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Respectfully submitted,

*Jason Thomas*

Service Project Manager / Estimator

(Office) 586-619-0281

(Cell) 810-278-3448

(E-Mail) [jasont@de-cal.com](mailto:jasont@de-cal.com)

Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. \*This proposal does not constitute an agreement.







**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: November 14, 2022

Subject: State Grant for COVID Wastewater Monitoring – Aquasight Phase 3 Amendment Recommendation

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

	Dollar Amount	Time Range
Phase 1	\$578,683	6/1/21 to 9/30/21
Phase 2	\$1,366,943	10/1/21 to 9/30/22
Phase 3	\$728,180	10/1/22 to 7/31/23
Phase 3 Amendment	\$37,195	10/1/22 to 7/31/23
<b>Total Amount</b>	<b>\$2,711,001</b>	

MCPWO is currently working within the Phase 3 grant period and has been working with the Macomb County Health Department, Aquasight, Hesco, and Oakland University. This program has been successful to this point and with this program there are a total of 19 sites around Macomb County. These sites are currently being tested 1 time per week. The data to this point has typically been ahead of clinical testing by 7-10 days which can help our health department make informed decisions in advance.

The State has requested to add an additional sampling day per week to the Warren WWTP. The pricing to accomplish that is \$37,195 which will run to 7/31/23. The State has approved that amount and we are now working through the contract amendment. This entire amount is 100% covered by the MDHHS grant.

**MCPWO is recommending that the board approve Aquasight in the amount of \$37,195 and approval for Vince Astorino to sign the Phase 3 contract amendment.**

Their proposal has been attached for reference.

Attachment: Aquasight Phase 3 Amendment Proposal

**ORDER FORM AND SCOPE OF SERVICES**

1. OWNER: **MACOMB INTERCEPTOR DRAIN  
DRAINAGE DISTRICT  
21777 Dunham Road  
Clinton Township, MI 48036**
  
2. Program: **CEWS  
COVID-19 Early Warning System  
(Appendix A, B, D)**
  
3. Term: **October 1<sup>st</sup>, 2022, to July 31<sup>th</sup> 2023**
  
4. Fees: **\$37,195  
(Appendix C)**
  
5. “CEWS” Program Details
  - Scope of Work (Appendix A)
  - Project Plan (Appendix B)
  - Project Costs (Appendix C)
  - Monitoring Sites (Appendix D)
  
6. Terms & Conditions:
  - Project will start Oct 1<sup>st</sup>, 2022, and end July 31<sup>th</sup>, 2023.
  - Fees will be invoiced as defined in the schedule in Appendix E and is payable within 30 days.
  - General terms and conditions are attached in Appendix F and is approved by MIDD and applied on existing on-going contracts
  - Terms and Conditions as per existing MIDD Contract number WWS-2019-007 will apply for this program
  - Sample preparation and lab testing will be performed by OU labs as per protocols defined by the lab

- WW based COVID-19 testing is a rapidly evolving science, and standards, testing and interpretation are being developed. MSU/OU experts assigned will make best efforts to ensure latest available best practice protocols will be utilized for the pilot program
- ACE platform will be used for flow data

**OWNER: MACOMB INTERCEPTOR  
DRAIN DRAINAGE DISTRICT**

**PROVIDER:**

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By: Candice S. Miller  
Its: Public Works Commissioner

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By: Mahesh Lunani  
Its: CEO

## A. Scope of Work

**Project Management and Coordination:** Overall project management and coordination for the sewage surveillance program at sites described in Appendix D and across six different agencies and local health departments. This includes development of schedule, creation of work plan, engineering & installation of composite samplers, sampling dates, sampling kit preparation, pre-paid shipment packages, chain of custody forms, on-ground logistics management, lab coordination, results review, issue management, LHD coordination and project meetings.

**Sampling Infrastructure Design and Installation:** Optimal site identification, site feasibility analysis, selection of the right sampler, purchase samplers, composite samplers, hardware installation, perform flow testing and troubleshooting, and determine optimal sampling aliquot and time window.

**Weekly Sample Logistics and Delivery:** Establish the schedule for on-site sample pick up and drop off, crew of two to three people preparing samplers, picking up samples and delivering samples to lab. For sites that are shipping the samples, pre-paid shipping labels as well as sample kits including cool packs will be provided to ensure sample is well preserved for testing and minimal lift on WWTP teams' operator's time.

**Lab Testing, Variants Analysis and Raw ddPCR Data Quality Checks:** Molecular quantification of SARS-CoV-2 virus is conducted using CDC qPCR detection method. The SARS CoV-2 target is amplified by ddPCR using CDC recommended primer and probe sets (N1 and N2). The percent recovery for each sample is analyzed by spiking the sample with Phi6 bacteriophage. Quality assurance and control measures (QA/QC) are performed for all samples. A minimum of 10,000 droplets are required that pass droplet formation QA/QC before a sample can be considered for further analysis. Positive and negative ddPCR controls are run concurrently with all samples for ddPCR analysis. For variant analysis, we will use a strategy developed by GT Molecular, LLC that allows us to assess the relative abundance of the UK, South Africa, and Brazilian variants.

**Data Analytics, Reporting & Communication:** meta data on sampling site, quality checks on lab data outputs, data conversion, calibration, and normalization. Create analytics and trending, variant analysis, heat maps, on-line dashboard updates, use of clinical case data, correlation and statistical analysis, rapid and instant communication with LHDs and reporting agencies, set up of automated notification system of results availability, follow up on actions.

**Training and Access to Surveillance System:** Train on how to access the reporting tool, review lab data, interpret the normalization information, read trends, analytics and heat map, when and what actions to take and closely coordinate with LHD and decision-making authorities.

**LHD and/or Stakeholder Timely Decision-Making Integration:** Frequent touchpoints will be established with decision making and LHD as and when required. Twice a week when the system goes live with new insights so decisions can be made on additional testing and/or isolation or enhanced social distancing activities. This communication along with access by LHD for the reporting system has been made available to severely cut down communication time.

## B. Project Plan

City of Warren WWTP Sampling		Start By	End By	
2x/wk Sampling continues	Bryan Clor	10/1/22		
ddPCR analysis continues	Dave Szlag	10/1/22		
Data Uploaded into CEWS	Dave Szlag, Parna Bandyopadhyay	10/1/22		
As needed communication with MCHD	Mahesh Lunani, David Inman	10/1/22		
Caseload/Spread Report	Parna Bandyopadhyay		7/31/23	Data shared with MDHHS

### C. Project Costs

Category	Oct -22 to July 2023
Project Management, Set Up New Sites, Planning and Day to Day Program Execution, LHD Integration, Site Meta Data	\$ 10,750
	\$ -
Site Review, Sampling Infrastructure Design & Installation, Flow Testing and Optimization	\$ -
	\$ -
Weekly Sampling Kits, Sample Pick Up and Drop Off Logistics, Shipment & Delivery via UPS, Chain of Custody, Schedule Management	\$ 2,795
	\$ -
Lab Testing Kits, Variant Analysis, ddPCR Data Quality Checks, System & Data Management	\$ 17,200
	\$ -
Sewage Surveillance Analytics & Reporting, Surveillance System, Notification and Communication, Clinical Case Data and Correlations	\$ 6,450
<b>Total</b>	<b>\$ 37,195</b>

#### **D. Additional Monitoring Sites**

**Warren WWTP**  
**32360 Warkop Avenue, Warren, MI 48093.**  
**Estimated Population Served is 135,000**  
**Collection Start Data 10/1/2022 to July/31/2023**

### E. Invoicing Schedule

Invoice Date	Amount
Dec-22	\$ 4,649.38
Jan-23	\$ 4,649.38
Feb-23	\$ 4,649.38
Mar-23	\$ 4,649.38
Apr-23	\$ 4,649.38
May-23	\$ 4,649.38
Jun-23	\$ 4,649.38
Jul-23	\$ 4,649.38



<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>	
<b>Macomb Interceptor Drain</b>	Chapter 20							
	Chesterfield – 7.4212%							
	Clinton – 21.2122%							
	Fraser – 4.1667%							
	Harrison – 6.3461%							
	Lenox – 1.1179%							
	Macomb – 14.0617%							
	New Haven – 0.8255%							
	Shelby – 9.7911%							
	Sterling Heights – 30.6812%							
	Utica – 1.6170%							
	Washington – 2.7596%							
		Astorino		Access Interactive LLC	\$ 25,639.50	Invoice #INV000109837 - 07.05.22	SCADA Server	
		Downing		Anderson, Eckstein, & Westrick	\$ 1,112.50	Invoice #139494 - 09.15.22	Garfield Interceptor Pilot Program - August 2022	\$ 126,761.00
		Downing		Anderson, Eckstein, & Westrick	\$ 2,677.80	Invoice #140157 - 10.13.22	Garfield Interceptor Pilot Program - September 2022	\$ 124,083.20
		Downing		Anderson, Eckstein, & Westrick	\$ 966.00	Invoice #140154 - 10.13.22	MID Grouting Program - 08.29.22 - 09.25.22	\$ 200,887.15
		Astorino		Aquasight	\$ 79,175.00	Invoice #000737 - 10.31.22	Covid-19 Monitoring - Grant	\$ 617,330.00
		Astorino		Belle Tire	\$ 973.95	Invoice #39816341 - 10.12.22	Tire Service - 2015 Ford F-150 (Greg S.)	
		Astorino		City of Mt. Clemens	\$ 19,275.29	Invoice #28005018 - 10.07.22	Monthly Utilities - August 2022	
		Astorino		Department of Roads	\$ 1,841.25	Invoice #302249 - 09.14.22	Fleet Fuel - August 2022	
		Astorino		Department of Roads	\$ 1,656.28	Invoice #302274 - 10.12.22	Fleet Fuel - September 2022	
		Astorino		Department of Roads	\$ 20,000.00	Invoice #22-336 - 10.24.22	Garfield/21 Mile- Permit/Deposit	
		Astorino		DTE Energy	\$ 1,032.64	Account #9100 335 6116 8 - 10.11.22	Monthly Electric 08.31.22 - 09.29.22	
		Astorino		Fishbeck	\$ 18,080.50	Invoice #415808 - 10.05.22	Wastewater Master Plan 09.03.22 - 09.30.22	\$ 257,335.49
		Astorino		HESCO	\$ 2,582.00	Invoice #2213945 - 10.11.22	Probe Replacement CT-S-1	
		Astorino		Home Depot	\$ 518.18	Invoice #8016808 - 05.25.22	Supplies - SCADA	
		Downing		FK Engineering Associates	\$ 58,013.61	Invoice #22-058-028-2 - 10.11.22	Segment 6 Rehabilitation 09.04.22 - 09.30.22	\$ 801,407.58
		Downing		FK Engineering Associates	\$ 17,189.26	Invoice #22-058-028 - 10.11.22	Segment 6 Rehabilitation 10.01.22 - 10.08.22	\$ 801,407.58
		Downing		FK Engineering Associates	\$ 91,404.20	Invoice #20-152-022 - 10.11.22	Romeo Arm Lining Segment 5 CCA - 09.2022	\$ 1,617,651.70
		Downing		FK Engineering Associates	\$ 27,082.73	Invoice #20-152-022-2 - 10.11.22	Romeo Arm Lining Segment 5 CCA - 10.2022	\$ 1,617,651.70
	Astorino		METCO Consulting Services	\$ 6,463.34	Invoice #1717-40 - 11.01.22	Flow Control Services 10.03.22 - 10.30.22	\$ 23,447.81	
	Downing		Oscar Renda Contracting	\$ 403,200.00	Invoice #WO19024 Est #26 - 10.28.22	Romeo Arm Segment 5 Lining	\$ 17,141,656.95	
	Downing		Ric-Man Construction	\$ 378,462.22	Invoice #WO21026 Est #14 - 11.03.22	Segment 6 Services 10.01.22 - 10.31.22	\$ 8,514,744.52	
	Astorino		SAK Construction	\$ 50,703.05	Invoice #WWS-2022-006 APP 1 - 10.31.22	Garfield Interceptor Lining Project - September 2022	\$ 2,310,239.50	
	Astorino		SAK Construction	\$ 33,442.45	Invoice #WWS-2022-006 APP 1A - 10.31.22	Garfield Interceptor Lining Project - September 2022	\$ 2,310,239.50	
	Astorino		Verizon	\$ 1,298.53	Invoice #9914193333 - 08.23.22	Monthly Cellular - 07.27.22 - 08.23.22 (Eq. Fund)		
	Astorino		Verizon	\$ 2,178.35	Invoice #9914193333 - 08.23.22	Monthly Cellular - 07.27.22 - 08.23.22		
	Downing		Weiss Construction	\$ 90,362.66	Invoice #WO18351 Est #9 - 10.07.22	Metering Facility Rehab Projecct - FINAL		
	Downing		Weiss Construction	\$ 2,136.84	Invoice #WO18351 Est #9 - 10.07.22	Metering Facility Rehab Projecct - FINAL		
	Astorino		Wonderware North	\$ 8,482.61	Invoice #99376 - 10.17.22	Wonderware Renewal		

<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>
<u>Biofilter</u>		Astorino	City of Fraser	\$ 873.54	Invoice #22-329 - 09.16.22	Monthly Utilities 08.16.22 - 09.16.22	
		Astorino	De-Cal, Inc.	\$ 556.20	Invoice #WO90022085-3 - 10.04.22	3rd Quarter HVAC Preventive Maintenance	
<u>CPS</u>		Astorino	Clinton Township Treasurer	\$ 3,158.45	Invoice #22-327 - 10.04.22	Monthly Water - 08.23.22 - 09.27.22	
		Astorino	Colville Electric Co., LLC	\$ 8,164.88	Invoice #22503 - 10.18.22	Plug Valve 2 Replacement	
		Astorino	De-Cal, Inc.	\$ 2,011.20	Invoice #WO90022091-3 - 10.04.22	3rd Quarter HVAC Preventative Maintenance	
		Astorino	DTE Energy	\$ 16,516.94	Account #9100 406 1350 7 - 09.28.22	Monthly Electric 08.02.22 - 09.01.22	
		Astorino	DTE Energy	\$ 14,796.44	Account #9100 406 1350 7 - 10.27.22	Monthly Electric 09.02.22 - 10.03.22	
		Astorino	METCO Consulting Services	\$ 16,620.08	Invoice #1717-39 - 11.01.22	Electrical Room/AC-Design	\$ 29,911.15
		Astorino	METCO Consulting Services	\$ 15,109.16	Invoice #1717-39 - 11.01.22	Electrical Room/AC-Design	\$ 29,911.15
		Astorino	Access Interactive LLC	\$ 4,786.04	Invoice #INV000109837 - 07.05.22	SCADA Server	
<u>OMID</u>		Astorino	Wonderware North	\$ 1,380.89	Invoice #99376 - 10.17.22	Wonderware Renewal	
<b>Total</b>				\$ 1,429,924.56			

**Budget to Actual**  
**MIDDD**  
**As of Oct 31, 2022 = 33%**

DESCRIPTION	2023		ACTUAL	REMAINING BUDGET	PCT UTILIZED
	FINAL BUDGET	ENCUMBERED			
<b>REVENUE ACCOUNTS</b>					
GLWA-OMID	48,014,249		16,006,966	32,007,283	33.3%
OMID O&M	4,358,913		1,452,971	2,905,942	33.3%
Settlement	100,000			100,000	0.0%
Reimbursements	225,000		1,220	223,780	0.5%
PY Revenue-Fund Balance	16,738,220			16,738,220	0.0%
Reimb-Local Communities	17,159,080		5,719,693	11,439,387	33.3%
COVID Grant	-		414,706		
Interest	50,000		68,243	(18,243)	136.5%
<b>Total Revenue Accounts</b>	<b>86,645,462</b>	<b>-</b>	<b>23,663,799</b>	<b>63,396,369</b>	<b>27.3%</b>
<b>EXPENSE ACCOUNTS</b>					
GLWA-OMID	48,014,249		16,006,966	32,007,283	33.3%
OMID O&M	4,358,913		1,452,971	2,905,942	33.3%
Public Works Wastewater Disposal Division	1,889,760		9,594	1,880,166	0.5%
Office Operations/Insurance	343,100		32,966	310,134	9.6%
SCADA	461,990		80,100	381,890	17.3%
<b>Engineering</b>					
Replenish reserve from CPS refunding	618,680			618,680	0.0%
Drop shaft rehab Design	1,600,000		177,965	1,422,035	11.1%
METCO As Needed	75,000		29,073	45,927	38.8%
Data Review-Aquasight	58,000		18,000	40,000	31.0%
Annual Meter Dye Testing	50,000		26,181	23,819	52.4%
As Needed Engineering	250,000		39,649	210,351	15.9%
Odor and Corrosion Construction/CCA	3,280,000		4,223	3,275,777	0.1%
GLWA Assistance	30,000		4,151	25,849	13.8%
General Construction/Engineering Contingency-All Projects	450,000			450,000	0.0%
Garfield Interceptor Lining Pilot	-		56,165	(56,165)	100.0%
As Needed Applied Science	25,000			25,000	0.0%
As Needed Metco	60,000		7,433	52,567	12.4%
Level Sensors/Pressure/H2S-Meters	214,200			214,200	0.0%
Odor and Control-Construction	7,010,000		101,410	6,908,590	1.4%
Segment 6 Construction Administration	685,530		517,355	168,175	75.5%
Segment 6 Construction/CCA from reserve	-		1,498,882	(1,498,882)	100.0%
Wastewater Master Plan from reserve	-		18,081	(18,081)	100.0%
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	927,790		16,733	911,057	1.8%
Segment 5 Construction Admin	972,500		298,559	673,941	30.7%
COVID Grant	-		414,706	(414,706)	100.0%
Segment 5 Construction from reserve	611,240		1,001,790	(390,550)	163.9%
Legal Services	75,000		4,640	70,360	6.2%
Clintondale PS O&M	870,000		158,532	711,468	18.2%
NGI O&M	307,500		14,517	292,983	4.7%
Meters O&M	228,400		13,933	214,467	6.1%
Control Structures and Pump Station O&M	281,370		46,895	234,475	16.7%
Biofilter O&M	25,500		4,271	21,229	16.7%
Contribution Life Cycle Reserve	184,300			184,300	0.0%
Interceptor O&M	9,898,300		434,962	9,463,338	4.4%
Stormwater Pump Stations	131,000		43,667	87,333	33.3%
Sewage Disposal Charges - Mt. Clemens	200,000		83,421	116,579	41.7%
Debt Service - Revenue Bonds	2,458,140		819,380	1,638,760	33.3%
<b>Total Expense Accounts</b>	<b>86,645,462</b>	<b>-</b>	<b>23,437,170</b>	<b>63,208,292</b>	<b>27.0%</b>

	O&M Balance 6/30/2022	O&M	Total 10/31/2022
Cash - Operating	34,922,137	226,629	35,148,766
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		23,663,799	23,663,799
Expenditures		23,437,170	23,437,170
			0
Equity*	34,922,137		35,148,766

**Detail of 2022 Equity\***

Reserve at 6/30/2022	10,665,604
Construction/ Engineering Reserve	23,088,928
Life Cycle Reserve	1,167,605