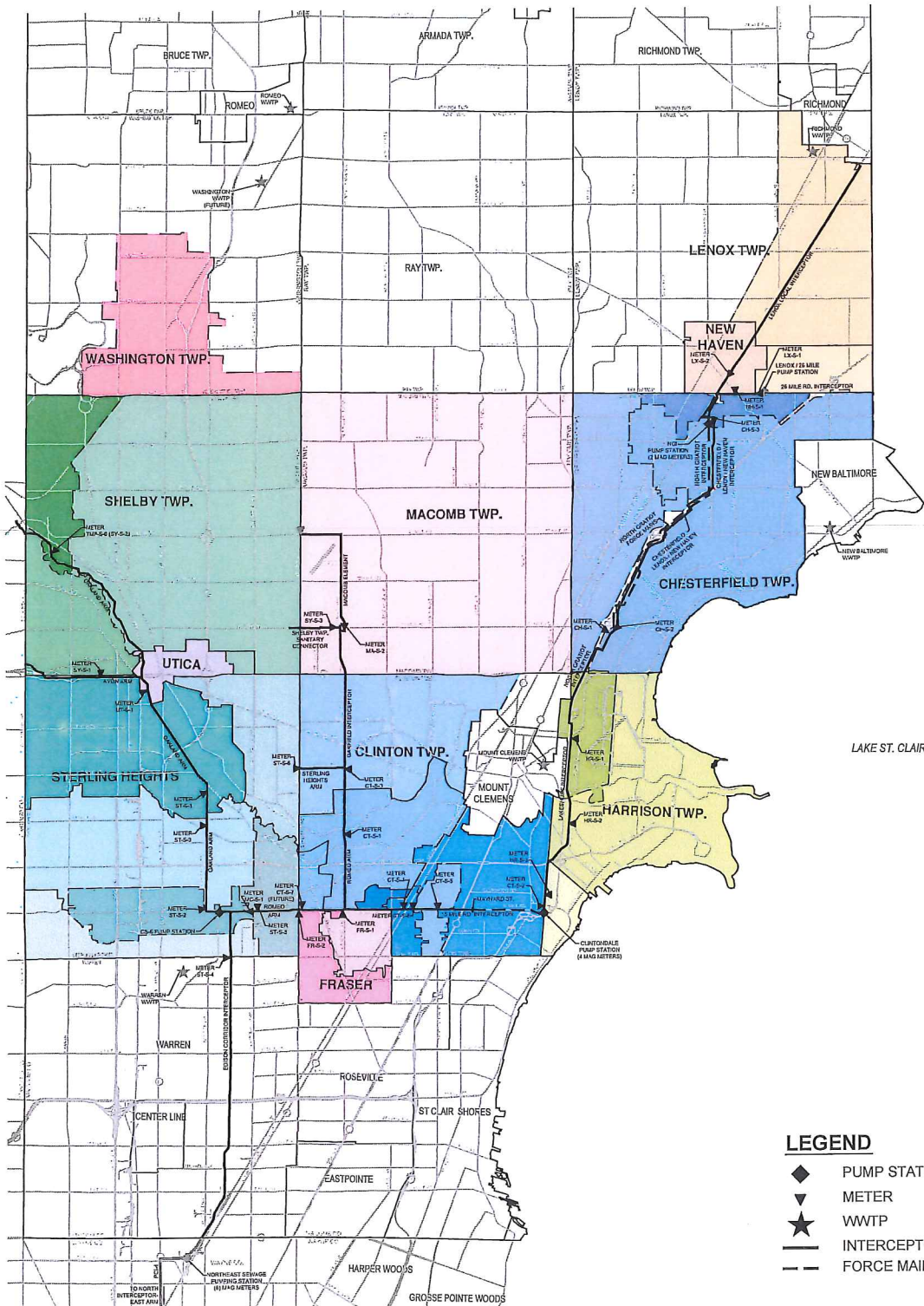


MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
JANUARY 13, 2020
10:00 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for January 13, 2020	
3. Approval of Minutes for December 9, 2019	3
4. Public Participation	
5. Project Updates – Vince Astorino/Stephen Downing	
6. MIDDD Grouting Program Continuation - Garfield & Lakeshore Interceptors – Vince Astorino	5
Motion: To approve the extension of the previously signed contract with Doetsch for the grouting of the Garfield and Lakeshore Interceptors at a not-to-exceed cost of \$3 million.	
7. MIDDD Grouting Program Engineering Oversight – Vince Astorino	8
Motion: To approve the Grouting Engineering Oversight and Administration proposal from AEW at a not-to-exceed cost of \$438,009.50.	
8. Abood Settlement – 15 Mile Interceptor Collapse – Brian Baker	16
Motion: To approve the Settlement Agreement and Release with Michael Abood totaling \$4,750 and authorize Aloia & Associates P.C. to proceed to finalize the transaction.	
9. Consideration for approval of invoices (see attached)	21
10. Financial Report – Bruce Manning	23
11. Adjourn	

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



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



Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER

fitch
 UPDATED: FEBRUARY 2017

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on December 9, 2019, at 10:22 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Robert Mijac, Member

ALSO PRESENT: Vince Astorino, Operations & Flow Manager, Brian Baker, Chief Deputy, Bruce Manning, Financial Manager, Stephen Downing, Construction & Maintenance Manager, Kellie Kource, Drain Account Specialist, Dan Heaton, Communications Manager, Karen Czernel, Deputy, Macomb County Public Works

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

Adopted: YEAS: 2
NAYS: 0

Minutes of the meeting of November 18, 2019 were presented. A motion was made by Mr. Santo, 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. Astorino updated the board that grouting is close to finished on Segment 5. Segment 5 design is at 50% drawings and we submitted them to EGLE as part of the SRF requirements. We are putting together a plan to expand grouting to other critical areas.

Mr. Mijac entered the meeting at 10:30 A.M.

Mr. Downing stated that we also have the RFP for Segment 6 design out for bid that will be back in January. Drop shaft projects are being scheduled with Inland currently.

A motion was made by Mr. Santo, supported by Ms. Miller to receive and file the project update by Mr. Astorino and Mr. Downing.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the three-year Meter Maintenance Proposal from ADS Environmental Services at a total cost of \$543,915 (MIDD share \$490,410).

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the Amended Purchase Agreement (Time Only Extension) – M59/Garfield Property.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$5,886,692.28 to the board for review and approval.

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

Adopted: YEAS: 3
NAYS: 0

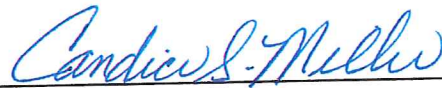
A motion to receive and file the financial report given by Mr. Manning was made by Mr. Santo and supported by Mr. Mijac.

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0

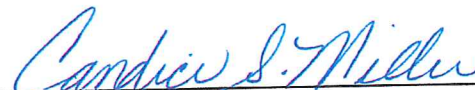
The meeting was adjourned at 10:37 p.m.



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 taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on December 9, 2019 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 12/9/19



To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Vincent Astorino, Operations and Flow Manager

Date: January 7, 2020

Subject: MIDDD Grouting Program Continuation Recommendation – Doetsch

On August 5, 2019, the Macomb Interceptor Drain Drainage District (MIDDD) entered into a time-and-materials agreement with Doetsch Environmental Services, Inc. (Doetsch) for grouting services along the Romeo Arm Interceptor. The work is located along 15 Mile Road from the ITC Corridor to Fontana Drive and is being performed as part of the MIDDD's routine inspection and preventative maintenance program. This reach of sewer was specifically targeted because of observed infiltration during routine inspections and recent pipe collapses immediately east of the work area. Doetsch's primary task involves drilling fill-ports into the side of the concrete interceptor and injecting an acrylamide chemical grout. The purpose is to fill cracks in the pipe to prevent the infiltration of groundwater and the migration of surrounding soils into the pipe. Thus far, the program has been effective with the areas of observed infiltration being successfully sealed.

MCPWO has identified additional locations within the MIDDD system that require attention. The locations consist of areas of observed infiltration (increased probability of failure) and areas beneath critical features & infrastructure (increased consequence of failure). The general locations are along Garfield Road from 15 Mile Road to 21 Mile Road and within the Lakeshore Interceptor from the Clintondale Pump Station to Henry B. Joy Boulevard. Approximately 14,300 LF of pipe along these two reaches of sewer has been identified to be grouted.

After observing the bid results from similar grouting projects within southeast Michigan, it is the opinion of our office that the equipment, labor, and material prices provided by Doetsch are highly competitive. The extension of the grouting program at the current rates provide a significant cost savings to the MIDDD versus proceeding with a formal competitive bidding process.

MCPWO has taken the current progress of the grouting operation and rates that are being used by Doetsch and extrapolated them over the proposed areas to be grouted. With their current rates, a NTE value of \$3,000,000 is being proposed for their continued grouting operation. Comparing that to competitively bid out projects in the area, we are seeing a 60% savings in cost for the work that is to be performed compared to low bid prices.

It is the recommendation of our office that the MIDDD board members approve the extension of the previously signed contract with Doetsch at the NTE value of 3 million dollars. The MIDDD currently has over 25 million available in reserves that can be used to fund this work. Upon board approval, the contractor would be issued a written Work Change Directive to proceed with the additional work at the previously

approved rates. Full-time inspection of the work will be provided by a consultant under a separate contract with the MIDD.

Attachments: Doetsch Fee Schedule

Doetsch

ENVIRONMENTAL SERVICES

21221 Mullin Ave. Warren MI 48089

August 4, 2019

Stephen Downing
 Construction and Maintenance Manager
 Macomb County Public Works
 21777 Dunham Road
 Clinton Township, MI 48036

RE: MID Emergency Grouting

Mr. Downing,

<u>Equipment</u>	<u>ST</u>	<u>OT</u>	<u>DT</u>	
GROUT TRUCK WITH GENERATOR	\$ 100.00	\$ 100.00	\$ 100.00	P/HR
BLOWER WITH GENERATOR	\$ 25.00	\$ 25.00	\$ 25.00	P/HR
SUPPLY AND CONFINED SPACE TRLR	\$ 20.00	\$ 20.00	\$ 20.00	P/HR
CCTV UNIT	\$ 80.00	\$ 80.00	\$ 80.00	P/HR

<u>LABOR</u>	<u>ST</u>	<u>OT</u>	<u>DT</u>	
EQUIPMENT OPERATOR	\$ 70.00	\$ 80.00	\$ 95.00	P/HR
LABORER/CSE TECH	\$ 65.00	\$ 75.00	\$ 90.00	P/HR
PROJECT MANAGER	\$ 75.00	\$ 85.00	\$ 100.00	P/HR

<u>OTHER</u>	
GROUT	\$ 20.00 PER GALLON
ADDITIONAL SUPPLIES	COST + 10%
ADDITIONAL RENTALS	COST + 10%
PPE	INCLUDED

Thank you for the opportunity to be of service,



Joseph G Schotthoefer IV



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Vincent Astorino, Operations and Flow Manager

Date: December 12, 2019

Subject: MIDDD System-Wide Grouting Operation Oversight Recommendation

The Macomb Interceptor Drain Drainage District (MIDDD) has contracted with the consulting firm FK Engineering Associates, PLLC (FKE) to administer the Segment 5 Grouting Project along a portion of the Romeo Arm Interceptor in Sterling Heights. The purpose of the project is to fill cracks in the pipe to prevent the infiltration of groundwater and the migration of surrounding soils into the pipe. Thus far, the program has been effective with the areas of observed infiltration being successfully sealed.

Doetsch Environmental Services, Inc. (Doetsch) is the contractor performing the grouting operations. The equipment, labor, and material prices provided by Doetsch are highly competitive and, therefore, it is the recommendation of our office that the grouting program be continued to address additional locations within the MIDDD system.

The current lead, FKE, has done an excellent job developing the plans, providing full-time inspection and performing project management. FKE is currently the prime consultant for the design of the Segment 5 rehabilitation project which is set to kick-off in mid-2020. They are also going to assist with helping develop the next phases of work to be completed as part of the overall MIDDD project plan.

Moving forward, it is the recommendation of our office that AEW be appointed as the new project lead. We feel that since the protocols for the project are already established we can consolidate oversight operations. AEW, specifically Mr. Louis J. Urban, is also highly qualified to act as the new project manager. Mr. Urban is currently involved with the Segment 5 Grouting Project and has previously managed OMID grouting projects as well as the 2016 Sinkhole remediation efforts.

Our office put together cost estimates to grout all remaining areas within the MID system that are deemed as critical areas. These areas consist of locations where there is current infiltration as identified from the 2017 inspection. It also consists of areas where the interceptors may cross under the Clinton River, Clinton River Spillway, I-94, M-59, and so on. In total, there is over 14,000 feet of interceptor that will be grouted as part of this next phase of work. This work is estimated to take over 200 days to complete and approximately 3.6 million dollars. These are estimates using the current rate of schedule on Segment 5 grouting operation and they may change depending on what is found in the field.

AEW has submitted a proposal to perform oversight and administer this work from start to finish. Their NTE value is \$438,009.50 and falls in line with our offices estimates for this scope of work. They have agreed to not charge OT for this work which work planned is minimum 10 hour days and 6 days a week. As another

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

good faith gesture, AEW is also not charging for vehicle rates, mileage, and confined-space entry rates. We have also compared their proposed hourly rates and they are similar to the current rates of FKE.

It is the recommendation of our office that the MIDDD board members approve the selection of AEW as the new project lead for the 2020 MID Grouting Program. Upon board approval, MCPWO staff will coordinate with AEW to finalize a contract.

MACOMB INTERCEPTOR DRAIN
DRAINAGE DISTRICT

ANDERSON, ECKSTEIN & WESTRICK, INC.:

By: Candice S. Miller
Its: Board Chairperson

By:
Its:

Attachments: AEW Proposal 12-12-19



ANDERSON, ECKSTEIN & WESTRICK, INC.
CIVIL ENGINEERS SURVEYORS ARCHITECTS

51301 Schoenherr Road
Shelby Township, MI 48315

586.726.1234
www.aewinc.com

December 12, 2019

Vincent Astorino, Operations and Flow Manager
Macomb County Public Works
21777 Dunham Road
Clinton Township, MI 48036

Reference: 2020 MIDDD Interceptor Grouting Program – Request for Proposal Response

Dear Mr. Astorino,

It is with great interest that we submit our proposal to provide for Professional Engineering Services on the 2020 MIDDD Sewer Grouting Program. The scope and details of the grouting effort were presented in our meeting December 3, 2019 and is the basis for the proposal. The assumptions and personnel are included in our engineer's estimate of probable cost as attached. AEW has assembled a team based upon your requested personnel with the experience and expertise to make this project a success.

We have comprehensive knowledge of the interceptor system, grouting techniques, relationships, communication and the coordination skills necessary ensure success. Established in 1968, Anderson, Eckstein and Westrick, Inc. (AEW) has provided municipal engineering services for over 50 years, we currently serve over 32 southeast Michigan municipalities. The Macomb County office of Public Works is one of our earliest and most valued clients. We are honored by your consideration of Anderson, Eckstein and Westrick and if selected look forward to serving you once again.

Respectfully,

A handwritten signature in blue ink, appearing to read 'L. Urban'.

Louis J. Urban, P.E.
Senior Project Engineer

A handwritten signature in blue ink, appearing to read 'Roy C. Rose'.

Roy C. Rose, P.E.
Principal Engineer

Enclosures:

MCPWO December 3, 2019 Meeting Topics / AEW Understanding and Assumptions
2020 MIDDD Interceptor Grouting Program - Engineers Estimate of Probable Cost
AEW Hourly – Base Fee Schedule Exhibit "A"



2020 MIDDD Sewer Grouting Program

MCPWO December 3, 2019 Meeting Topics / AEW Understanding and Assumptions

The current 2019 PCI-12A grouting project is anticipated to be completed in January of 2020. The 2020 MIDDD Sewer Grouting Program is an extension of this program that is intended to address the known leaks in the remaining MIDDDD interceptor sewer system as well as proactively grout reaches under critical infrastructure. The MCPWO has selected the grout locations and estimated a yearlong effort to complete the task based on the 2019 project contractor production rates.

All grouting protocols from the current 2019 grouting project shall be forwarded to AEW from MCPWO representatives for consistency in record keeping and development of as-built drawings. MCPWO will setup and populate a DropBox account with:

- Applicable CAD files
- RedZone report
- HRC project plan
- Grouting spreadsheet format
- DFR Word Format
- All applicable documents and protocols

The MCPWO will provide the HRC MIDDD project plan for AEW use in conjunction with MCPWO provided CAD drawings of the interceptor grout locations. AEW will produce AutoCAD 2017 drawings in accordance with the MCPWO standards for project use. As-Built drawings will be generated by AEW from the CAD drawings showing the grouting characteristics for each location.

AEW will generate traffic control plans for each location and submit to the local and state regulatory agencies for permits. All information shall be gathered from record or other sources and no field survey work is required or proposed. The cost of permits will be borne by the contractor and is not included in the engineer's opinion of probable costs.

The current 2019 grouting effort in PCI-12A relies on Control Structure 3 and Clintondale Pump Station operations for flow control. Flow control support from MCPWO will be limited for most of the intended 2020 project grouting reaches. However, the MCPWO is expected to provide the anticipated work time for reaches having flow control measures.

Due to limited flow control it is estimated that the contractor will be working from a movable platform to perform the grouting effort. AEW will meet with the contractor to relay grouting vehicle success and failures from previous grouting programs to expedite the contractor's learning curve in his development of a grouting platform system.



Macomb County Office of Public Works

December 12, 2019

Page 2

The contractor will determine the daily schedule and AEW will enter the sewer for daily observation under the contractor's CSE permit.

- It is estimated that work times will be Monday through Saturday with a 10 hour work day
- It is understood by AEW that the grouting work is weather-dependent and may be cancelled/shortened with minimal notice ahead of projected wet-weather. Compensation will be requested only for services performed up until the time of cancellation.
- One additional hour per day for AEW observation Daily Field Reports
- One hour per day for pay applications change orders and other record keeping efforts
- Daily Field Reports (DFR's) will be in Field Manager format
- A photo log documenting the work in picture and video format will be updated daily
- Pre and Post CCTV is required and will be provided by AEW observation using a GoPro system to ensure the owner is aware of the pre grouting, current grouting record and post grouting interceptor condition.

Contract Administration and project coordination will be performed by Louis Urban with assistance from Chris Frayer, Kevin Zauel and Sydney Kanan for specific tasks. Observation will be performed primarily by Chris Birkett with alternates of Kevin Duckwitz and Kevin Anderson. It has been requested that a single observer be utilized to accomplish the task and therefore the engineer's opinion of probable cost reflects this request. If it is determined that the anticipated task requires additional resources, manpower or equipment the engineer will coordinate with MCPWO representatives for a fair and equitable resolution.

- Monthly progress meetings
- Monthly progress / board reports
- Daily observation
- Daily communication and coordination via text or email notifications
- Daily contract administration and coordination

Conceptual Work Plan

It is understood that flow control coordination is a critical component of the 2020 MIDDD Sewer Grouting Program. There will be flow control for the proposed grouting work utilizing the Clintondale Pump Station, however, other projects such as the NIEA Rehabilitation, the PCI-12A Romeo Arm Segment 5 Lining, MIDDD Drop Shaft Repair Program, and the OMIDDD Grouting Program will be utilizing the NESPS, MIDDD and OMIDDD control structures that will affect the water surface elevation in the system. We will coordinate with project managers and the flow control managers for the MIDDD, OMIDDD and GLWA project schedules and flow control measures.



Macomb County Office of Public Works

December 12, 2019

Page 3

The chemical grouting work will start from CS-3 along the Romeo Arm and extend north through the Garfield Arm to 21 Mile Road. Operations will then move to the Lakeshore Interceptor working upstream to address the critical areas identified by the MCPWO. The intent is to work from downstream to upstream gaining time and elevation to successfully grout the lower reaches before flow elevation conflicts with the aforementioned projects are realized. The grouting production rate will be used to determine if there will be schedule conflicts. Schedule conflicts will determine if an alternate approach to the work such as second shifts or a second daytime crew can be engaged. It is understood that the scope of the project is estimated and therefore revisions to the grouting program will be addressed as complications are revealed.

Engineers Estimate of Probable Cost

The attached estimate provides a breakdown of the anticipated AEW staff, hours and cost to provide contract administration for the anticipated yearlong project. In a good faith AEW will not be charging overtime rates, vehicle rates, CSE equipment expenses and mileage costs. We are very appreciative that the MCPWO has chosen AEW to manage this project and we look forward to working with you in your efforts to rehabilitate Macomb County infrastructure.

2020 MIDD INTERCEPTOR GROUTING PROGRAM		Engineers Estimate of Probable Cost		Estimated Staff Hours By Classification										Total Estimated Fees			
				AEW SERVICES													
				Principal Engineer	Project Manager	Senior Project Engineer	Senior Project Engineer	Senior Project Engineer	Team Leader	Team Leader	Team Leader	Field Technician	Clerical		Total Hours		
PROJECT MANAGEMENT AND OVERSIGHT				Roy Rose	Louis Urban	Kevin Zavel Mike Vigneron	Chris Frayer Sydney Kanan	Frank Varticelli	Jeff Allegoet	Pat Marcus	Chris Birkett Kevin Anderson	Michel Anwaki Brenda Birkham					
Engineering Sub-Task				\$ 171.00	\$ 171.50	\$ 161.00	\$ 161.00	\$ 120.50	\$ 120.50	\$ 120.50	\$ 99.50	\$ 48.00					
1	Contract Administration and Observation			2	4											6	\$ 1,028.00
2	Project Kickoff meeting / minutes				6		6									12	\$ 1,995.00
3	Meetings with Contractor to expedite grout platform development				4				60							64	\$ 7,916.00
4	CAD Drawing development for recording and as-builts				30		10						4			44	\$ 7,253.00
5	Review of existing MIDD reports, Red Zone, HRC Project Plan, Etc				20		5									25	\$ 4,235.00
6	Adoption & Development of 2019 protocols for 2020 grouting program						40		40							80	\$ 11,260.00
7	Traffic Control Plans & Permit Submittal															40	\$ 6,440.00
8	Daily Flow Control Coordination and Communication - 10 minutes/day for 52 weeks															3120	\$ 310,440.00
9	PACP Certified Observation - 10 hours/day 6 days/week				24											321	\$ 36,055.50
10	Observation DFR and Photo Log - 1 hour/day 5 days/week				6		12									90	\$ 6,417.00
11	Pay applications change orders, record keeping - 6 hours per month + 1 hour / month oversight			12	48											60	\$ 10,284.00
12	Monthly Progress Meetings / Minutes - Assume 4 hours each event															48	\$ 8,232.00
13	Monthly Progress / Board Reports - 4 hours / month				48											24	\$ 3,864.00
14	Request for information review - 2 hours / month						24									48	\$ 7,728.00
15	Structural Deficiency Antilization & Repair Considerations- 4 hours / month						48									48	\$ 6,756.00
16	Review inspection videos - 2 hours / month						24		12							40	\$ 4,820.00
17	CAD As-Builts / Record Drawings				8											8	\$ 3,386.00
	Contract close-out			2	198		136		12	140	12	3445	80			4120	\$ 438,009.50
Total				16	198	136	81	12	140	12	3445	80				4120	\$ 438,009.50



EXHIBIT "A"

HOURLY-BASE FEE SCHEDULE

PROFESSIONAL SERVICES

Where it is agreed that fees for services will be based upon the time worked on the project, such fees will be computed at the following rates:

<u>Classification Hourly Rate</u>	<u>2020 Rates</u>
Principal Engineer/Surveyor/Architect	\$175.00
Project Manager	\$171.50
Senior Project Engineer	\$161.00
Project Engineer/Project Surveyor/ Resident Project Representative	\$146.00
Operation and Maintenance Specialist	\$140.00
Graduate Engineer/Surveyor/Architect	\$120.50
Team Leader/Designer	\$120.50
Drafter/Technician	\$ 99.50
Clerical	\$ 48.00
One-person Survey Crew (Crew Chief) w/Truck and Equipment	\$171.50
Two-person Survey Crew (Crew Chief and Instrument Man w/Truck and Equipment)	\$235.50
Three-person Survey Crew (Crew Chief and Instrument Man and Assistant w/Truck and Equipment)	\$290.50
Three Person Sewer Crew	\$340.00
Four Person Sewer Crew	\$415.00
Construction Observer	\$ 99.50

If necessary, the Consultant would serve on litigation or as an expert witness at a rate of 1.5 times the current hourly rate.

These rates are inclusive of all overhead items that are normal business operations. No reimbursable for normal business operations will be allowed, i.e., mileage, faxes, phone bills, etc.

Hourly-Basis Fee Schedule to be adjusted beginning January 1, 2021.

Effective January 1, 2020.

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
AGENDA ITEM WORKSHEET

Meeting Date: Monday, January 13, 2020
Name of Project: 15 Mile Interceptor Collapse
Property Owner: Michael Abood Revocable Trust
Subject Property: 16128 15 Mile Road, Fraser, Michigan 48026

Case Synopsis:

This is a request for the MIDDD's review and approval of the enclosed Settlement Agreement and Release for a total compensation amount of **\$4,750.00**. The cost is for reimbursement of funds of items repaired and/or restored at the Subject Property related to the 15 Mile Interceptor Collapse. This is the last open property damage claim file our office has related to this catastrophic event and this settlement was reached after several years of negotiation.

This agreement resolves all outstanding compensation and restoration claims relating to the Subject Property. All totals included in the enclosed Settlement Agreement and Release were previously discussed and recommended for approval by Macomb County Public Works' administration.

Recommendation:

Approve the enclosed Settlement Agreement and Release totaling **\$4,750.00**, as a full and final resolution of all claims relating to the Subject Property, and authorize Aloia & Associates, P.C. to proceed to finalize the transaction.

SETTLEMENT AGREEMENT AND RELEASE

Property Owner: Michael Abood Revocable Trust ("Property Owner")

Address: 16128 15 Mile Road, Fraser, MI 48026, ID# 11-31-201-004 ("Subject Property")

WHEREAS, on December 24, 2016, a sinkhole developed on 15 Mile Road in the City of Fraser, County of Macomb, State of Michigan, necessitating the subsequent remediation, restoration and reconstruction project ("Project") undertaken by the Macomb Interceptor Drain Drainage District ("MIDDD").

WHEREAS, as a result of the Project, the Property Owner acknowledges that the MIDDD and its contractors, engineers, consultants, employees and agents, have completed the restoration and repair work listed in Exhibit A, and that all equipment has been removed from the Subject Property relating to the Project.

WHEREAS, the Property Owner acknowledges that such restoration and repair work listed in Exhibit A, was performed.

WHEREAS, the Property Owner acknowledges that the MIDDD nor its agents have any further obligation to perform any additional restoration and repair work at the Subject Property.

For and in consideration of mutual benefits for both parties

NOW THEREFORE, by signing this Settlement Agreement and Release (the "Agreement"), and in exchange for the payment of Four Thousand, Seven Hundred Fifty and 00/100 dollars (\$4,750.00) from the MIDDD to the Property Owner within seven (7) days of the execution of this Agreement, the Property Owner, on behalf of itself and its tenants, affiliates, related entities, successors, assigns, trustees and beneficiaries, expressly agrees this Agreement is a full and final resolution of all of the Property Owner's claims arising out of the December 24, 2016, Macomb Interceptor Drain collapse and subsequent restoration and reconstruction project occurring in the City of Fraser on or near 15 Mile Road between Hayes Road and Utica Road ("Event") and/or the Project.

Moreover, the Property Owner hereby releases and forever discharges the MIDDD, the County of Macomb, the Macomb County Department of Public Works and the Macomb County Department of Public Works Commissioner Candice S. Miller, and their respective predecessors, successors, contractors, employees and agents acting by, through or in concert with any of them ("Releasees"), from any and all claims, damages and liabilities, known or unknown, arising from or out of the Event and/or the Project, whether in law and equity. This Agreement also specifically resolves all claims that the Property Owner had or could have claimed under the Michigan Uniform Condemnation Procedures Act, MCL 213.51, et. seq.

Property Owner acknowledges and agrees that to the extent it has received any other insurance monies compensating them for these losses that are being reimbursed herein by MIDD, it is its responsibility to pay over and reimburse the insurance company with these funds.

It is expressly understood that this Agreement is a resolution of a disputed claim between Property Owner and Releasees and is not to be construed as an admission of liability by Releasees under any theory of law or equity, and that liability by the Releasees is expressly denied.

General Terms:


- a. Validity of Agreement: If any provision of this Agreement or the application thereof to any person or circumstances shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provisions to other persons or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.
- b. Law and Venue: It is the intention of the parties hereto that this Agreement shall be interpreted, construed, and enforced according to the laws of Michigan. Macomb County shall be the exclusive jurisdiction to enforce this Agreement.
- c. No Oral Modification Clause: Neither this Agreement nor any provisions thereof may be changed, waived, discharged, or terminated orally, but only by an instrument in writing signed by all of the parties to this Agreement.
- d. Mutual Drafters: This Agreement has been voluntarily drafted by all parties hereto and all parties have had the opportunity to consult the counsel of their choice. Each party acknowledges that they have read and fully understand the terms of this Agreement and/or reviewed it with their counsel, with adequate opportunity and time to review and edit the Agreement. This Agreement has been a result of negotiations, and each party is fully aware of its contents and its legal effect. This Agreement has been signed by each party voluntarily.
- e. Entire Agreement: This Agreement embodies the entire understanding of the parties and all of the terms and conditions with respect to the matters discussed in this Agreement; it supersedes and annuls any and all other or former agreements, contracts, promises, or representations, whether written or oral, expressed or implied, made by, for, or on behalf of the parties regarding these matters; and it may not be altered, superseded, or otherwise modified except in writing signed by all of the signatories to this Agreement. All executed copies of this Agreement are duplicate originals, equally admissible as evidence.
- f. Counterparts: This Agreement may be executed in counterparts, including facsimile signatures or transmissions of signatures in Adobe Acrobat (PDF) format, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

- g. Authority: The individuals signing this Agreement, on behalf of their respective parties, represent and warrant that they have the authority to sign this Agreement.
- h. Cooperation: All parties agree to cooperate fully and execute any and all supplementary documents and take all additional actions that may be necessary or appropriate to give full force and effect to the basic terms of this Agreement. Time is of the essence in this Agreement.
- i. Waiver: Failure by any party to enforce any of the remedies provided to it in this Agreement will not be deemed a waiver of those rights.

IN WITNESS WHEREOF, Michael Abood, Trustee of the Michael Abood Revocable Trust, has executed this Settlement Agreement and Release on the date indicated below.

MICHAEL ABOOD REVOCABLE TRUST

Witness:


 By: Michael Abood
 Its: Trustee

By: 

Date: 12/12/2019

Date: 12/12/19

MACOMB INTERCEPTOR DRAIN
 DRAINAGE DISTRICT

Witness:

By: Candice S. Miller
 Its: Authorized Board Member and
 Macomb County Public Works Commissioner

By: _____

Date: _____

Date: _____

EXHIBIT A

Property Owner: Michael Abood Revocable Trust

("Property Owner")

Address: 16128 15 Mile Road, Fraser, MI 48026, ID# 11-31-201-004

("Subject Property")

Description of items repaired and/or restored:

1. Placed and graded topsoil and seed.
2. Two HMA patches were used to fill in small depressions in the HMA parking lot.

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance		
Macomb Interceptor Drain	Chapter 20 Chesterfield - 7.1724% Clinton - 21.1566% Fraser - 4.0713% Harrison - 6.2117% Lenox - .9496% Macomb - 14.1023% New Haven - .8184% Shelby - 9.9387% Sterling Heights - 31.1032% Utica - 1.6497% Washington - 2.8262%	Baker	Aloia & Associates, P.C.	\$ 921.50	Invoice #19214 - 12.1.19	Garfield/M59 Property	\$ 81,545.15		
		Astorino	CH2M Hill Engineers, Inc.	\$ 14,748.51	Invoice #707997CH014 - 12.4.19	Odor & Corrosion Study			
		Astorino	City of Mt. Clemens	\$ 14,207.81	Invoice #28001190 - 12.6.19	Sewer Bill			
		Astorino	DTE Energy	\$ 1,369.00	Invoice #19-573 - 12.3.19	Monthly Electric - 10.31.19 - 12.2.19			
		Astorino	Discount Tire	\$ 918.00	Invoice #2029353 - 12.20.19	Tires - 064 x 233 - Welser - Ford Explorer			
		Astorino	FK Engineering Associates	\$ 119,109.75	Invoice #17-134-018 - 11.14.19	As-Needed Geotechnical Services - Grouting	\$ 93,326.11		
		Astorino	Fishbeck, Thompson, Carr & Huber, Inc.	\$ 1,931.25	Invoice #387863 - 12.9.19	Wastewater Master Plan	\$ 557,045.95		
		Astorino	Fishbeck, Thompson, Carr & Huber, Inc.	\$ 712.92	Invoice #387856 - 12.9.19	GLWA Assistance through 11.29.19			
		Astorino	Hubbell, Roth & Clark, Inc.	\$ 11,243.51	Invoice #175403 - 12.12.19	Meter Rehab Design	\$ 5,726.24		
		Astorino	Hubbell, Roth & Clark, Inc.	\$ 9,698.13	Invoice #175402 - 12.12.19	Meter Rehab Design	\$ 16,969.75		
		Astorino	Hubbell, Roth & Clark, Inc.	\$ 8,291.25	Invoice #43538 - 12.6.19	Legal Services - Contracts			
		Astorino	Macomb County Department of Roads	\$ 1,465.99	Invoice #301430 - 11.12.19	Monthly Fuel			
		Astorino	METCO Consulting Services	\$ 8,414.48	Invoice #1717-09 - 12.02.19	Flow Control Services	\$ 72,852.30		
		Downing	NTH Consultants, Ltd.	\$ 9,719.55	Invoice #61180042 - 11.25.19	Meter & Drop Shaft Rehab Design	\$ 1,927,098.83		
		Astorino	NTH Consultants, Ltd.	\$ 3,062.50	Invoice #620950 - 12.23.19	Meter & Drop Shaft Rehab	\$ 189,736.33		
		Astorino	Wade Trim	\$ 1,558.24	Invoice #2016445 - 12.3.19	As-Needed Services	\$ 84,610.84		
		Clintondale P.S.		Astorino	Clinton Township Treasurer	\$ 3,099.93	Invoice #19-599 - 11.30.19	Water and Sewer 10.21.19 - 11.26.19	
				Astorino	DTE Energy	\$ 20,648.10	Invoice #19-570 - 12.2.19	Monthly Electric - 11.4.19 - 12.2.19	
		15 Mile Sinkhole		Astorino	HESCO	\$ 4,740.00	Invoice #10622 - 12.13.19	Gate Maintenance	
				Astorino	METCO Consulting Services	\$ 7,500.00	Invoice #1717-10 - 12.17.19	Heat Trace Design - ARV's	\$ 65,352.30
				Astorino	Motor City Electric Technologies	\$ 600.00	Invoice #92508 - 06.04.19	Calibrate SMAR pressure transmitters for 4	
				Baker	Aloia & Associates, P.C.	\$ 693.50	Invoice #19111 - 11.1.19	Sterling Heights vs. MIDD	
				Baker	Aloia & Associates, P.C.	\$ 12,669.99	Invoice #19110 - 11.1.19	MIDD vs. Inland, Jay Dee, Metco	
	Baker		Aloia & Associates, P.C.	\$ 9,386.70	Invoice #19218 - 12.1.19	MIDD vs. Inland, Jay Dee, Metco			
	Baker		KHVPP, PLC	\$ 19,574.00	Invoice #43537 - 12.6.19	Water Hammer Lawsuits			
	Baker		KHVPP, PLC	\$ 8,257.50	Invoice #43539 - 12.6.19	Sterling Heights vs. MIDD			
	Baker		N1 Discovery, LLC	\$ 2,104.29	Invoice #N1D4593 - 11.29.19	Document Scanning			
	Baker		N1 Discovery, LLC	\$ 4,425.00	Invoice #N1D4571 - 11.29.19	Data Hosting			
	Baker		N1 Discovery, LLC	\$ 2,106.25	Invoice #N1D4513 - 10.31.19	Data Hosting			
	Astorino		TBM Property Management LLC	\$ 750.00	Invoice #411 - 12.2.19	Pipe and Material Storage			

MACOMB INTERCEPTOR DRAIN 12/17/19 - 12/30/19

<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>
Meters		Astorino	ADS Environmental Services	\$ 1,300.00	Invoice #35345 -11.16.19	Flow Monitoring O&M - New Meters	\$ 14,100.00
		Astorino	HESCO	\$ 15,580.00	Invoice #161024 - 37	Preventative Maintenance	\$ 57,950.00
		Astorino	HESCO	\$ 5,525.25	Invoice #10618 - 12.12.19	Meter Maintenance	
NGI		Astorino	DTE Energy	\$ 1,369.00	Invoice #19-573 - 12.3.19	Monthly Electric - 10.31.19 - 12.2.19	
		Astorino	National Industrial Maintenance	\$ 1,100.00	Invoice #36850 - 10.31.19	Clean Rock Basket	
OMID		Downing	Oakland County	\$ 4,585,548.67	Invoice #SDS0006836 - 12.9.19	Sewer Disposal September 2019	
SCADA		Astorino	Tetra Tech, Inc.	\$ 8,575.00	Invoice #51527570 - 12.6.19	SCADA Standards Development & Communications Study	\$ 25,371.86
Total				\$ 4,922,925.57			

Budget to Actual
MIDD
As of Dec 31, 2019 = 50%

DESCRIPTION	2020 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	46,904,696		23,477,984	23,426,712	50.1%
OMID O&M	8,121,888		3,384,125	4,737,763	41.7%
Settlement	-		517,116	(517,116)	100.0%
Reimbursements	200,000		74,127	125,873	37.1%
PY Revenue-Fund Balance	9,610,000			9,610,000	0.0%
Washington Twp Meter Project	250,000			250,000	0.0%
Reimb-Local Communities	10,927,799		4,553,245	6,374,554	41.7%
Interest	300,000		140,021	159,979	46.7%
Total Revenue Accounts	76,314,383	-	32,146,617	44,167,766	42.1%
EXPENSE ACCOUNTS					
GLWA-OMID	46,904,696		23,477,984	23,426,712	50.1%
OMID O&M	8,121,888		3,384,125	4,737,763	41.7%
Public Works Wastewater Disposal Division	1,721,123		375,998	1,345,125	21.8%
Office Operations/Insurance	322,800		74,337	248,463	23.0%
SCADA	196,634		110,926	85,708	56.4%
Engineering					
GLWA Assistance	20,000		14,533	5,467	72.7%
Washington Township meter	500,000			500,000	0.0%
Data Review-Aquasight	240,000		200,000	40,000	83.3%
Contribution to Segment 5 Construction/Repairs	3,850,000			3,850,000	0.0%
15 Mile Interceptor Design East of Garfield (Seg 6)	1,000,000			1,000,000	0.0%
Seg 5 Engineering Design	1,000,000		27,568	972,432	2.8%
Drop Shaft Repairs(MA-S-2),CT-S-2, HR-S-2, ST-S-5,UT-S-1)	5,750,000		25,300	5,724,700	0.4%
System wide odor and corrosion study	350,000		155,833	194,167	44.5%
SY-S-1 & SY-S-2 Meter Rehab	1,200,000		33,035	1,166,966	2.8%
Meter Dye Dilution Testing/As needed	100,000			100,000	0.0%
Saw Grant	-		25,561	(25,561)	100.0%
McMARS Operations	50,000		5,760	44,240	11.5%
Aquasight Operations	50,000		50,000	-	100.0%
As Needed FTCH	50,000		5,598	44,402	11.2%
As Needed CH2M	70,000		20,394	49,606	29.1%
As needed FK Engineering	55,000		159,411	(104,411)	289.8%
As Needed Wade Trim	45,000		12,361	32,639	27.5%
As Needed Metco	70,000		77,148	(7,148)	110.2%
As Needed Applied Science	70,000		70,000	0	0.0%
Emergency Grouting	-		1,029,098	(1,029,098)	100.0%
Wastewater Master Plan/Contract Capacity	500,000		106,134	393,866	21.2%
Legal Services	500,000		266,005	233,995	53.2%
Clintondale PS O&M	345,000		195,060	149,940	56.5%
NGI O&M	330,000		45,057	284,943	13.7%
Meters O&M	415,000		159,969	255,031	38.5%
CS-3 O&M	226,000			226,000	0.0%
Biofilter O&M	277,500		115,291	162,209	41.5%
Contribution Life Cycle Reserve	171,700			171,700	0.0%
Interceptor O&M	1,000,000			1,000,000	0.0%
Stormwater Pump Stations	65,800		32,900	32,900	50.0%
Sewage Disposal Charges - Mt. Clemens	200,000		69,726	130,274	34.9%
Debt Service - Revenue Bonds	546,242		273,121	273,121	50.0%
Total Expense Accounts	76,314,383	-	30,528,232	45,786,151	40.0%

	O&M Balance 6/30/2019	O&M	Total 12/31/2019
Cash - Operating	25,896,373	1,618,386	27,514,759
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		32,146,617	32,146,617
Expenditures		30,528,232	30,528,232
Equity*	25,896,373		27,514,759

Detail of 2019 Equity*

Projected reserve at 6/30/2019(No Land Sale)	12,180,673
Projected Engineering Reserve	9,610,000
Projected Sinkhole Surplus	3,400,000
Life Cycle Reserve	705,700