

EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
MARCH 13, 2023
10:15 A.M.
AGENDA

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

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

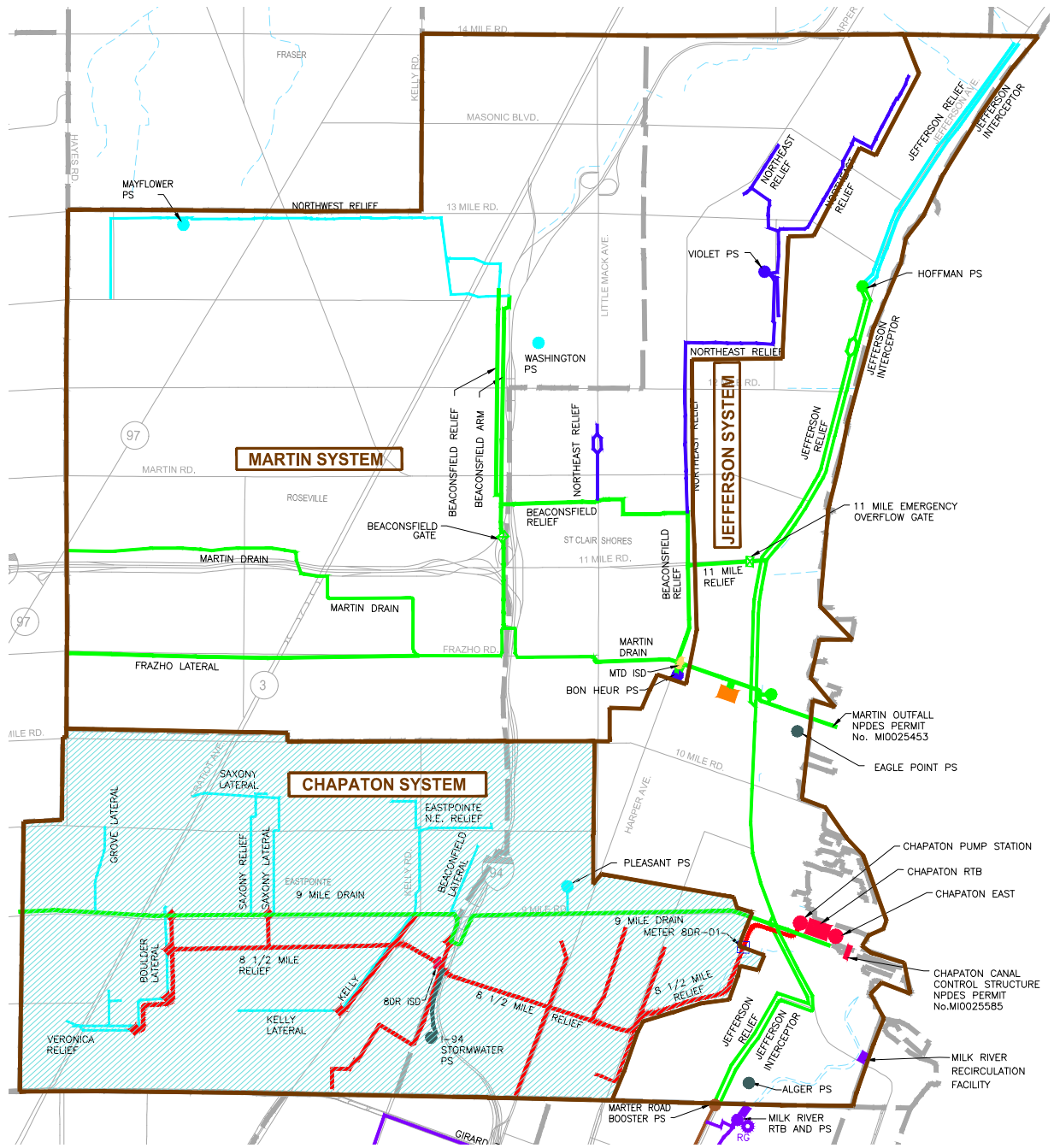
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|---|------|
| 1. Call of meeting to order and roll call | |
| 2. Approval of Agenda for March 13, 2023 | |
| 3. Approval of Minutes for February 13, 2023 | 3 |
| 4. Public Participation | |
| 5. Project & Operational Updates – Vince Astorino | 5 |
| 6. Interceptor Inspection Program – Vince Astorino | 14 |
| Motion: To award the Task 2 base bid amount of \$403,919.38 from the Taplin Group, LLC to perform the work associated with the 2023 Interceptor Inspection Program. | |
| 7. Consideration for approval of invoices (see attached) | 20 |
| 8. Financial Report – Bruce Manning | 21 |
| 9. Adjourn | |

Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

CHAPATON SYSTEM MAP

Macomb County, MI

Southeast Macomb Sanitary District Wastewater Master Plan



SYSTEM LEGEND
(AS OF DATE OF PUBLICATION)

- SYSTEM BOUNDARY

DISTRICT LEGEND
(AS OF DATE OF PUBLICATION)

- 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT
- SOUTHEAST MACOMB COUNTY WASTEWATER DISPOSAL SYSTEM
- MARTIN SANITARY DIVERSION DISTRICT
- SOUTHEAST MACOMB SANITARY DISTRICT
- NORTHEAST SEWAGE DISPOSAL SYSTEM
- MILK RIVER INTERCOUNTY DRAIN DRAINAGE DISTRICT
- LOCAL MUNICIPALITY
- OTHER

ASSET LEGEND

- PUMP STATION
- FLOW CONTROL STRUCTURE
- RTB
- GRAVITY INTERCEPTOR
- IN-SYSTEM STORAGE DEVICE
- OVERFLOW POINT
- LEVEL SENSOR
- RAIN GAUGE
- FLOW METER

PLOT INFO: Z:\2018\181053\CAD\PRECED\SEMSD_OVERALL.DWG_LAYOUT: FIG 3-6_CHAPATON SYS DATE: 7/20/2021 TIME: 1:33:59 PM USER: WESEDK1

PROJECT NO.
181053

3.6

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on February 13, 2023, at 10:06 A.M.

PRESENT: Brian Baker, Acting Chair
Bryan Santo, Member
Sarah Lucido, Member

ALSO PRESENT: Vince Astorino, Operations & Flow Manager; Stephen Downing, Construction and Maintenance Manager; Bruce Manning, Finance Manager; Pam Sonnenberg, Administrative Assistant; Don VanSyckel, Board of Commissioners

PRESENT VIA TELECONFERENCE: Mary Shepherd, Environmental and Safety Services Supervisor City of Sterling Heights

The meeting was called to order by the Acting Chair, Brian Baker. A motion was made by Ms. Lucido, supported by Mr. Santo to approve the agenda as presented.

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of January 9, 2023 were presented. A motion was made by Mr. Santo, supported by Ms. Lucido 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. Astorino began the project update stating that there were no wet weather events this past month at Chapaton. We were able to hold at Chapaton this week as we had a lot of storage left. As for projects, the only major construction project going on at Chapaton right now is the In-System-Storage project. It is mainly at Beaconsfield and Oak. The team is progressing well. They are at approximately 30 feet below grade at the moment. Rain has been a small hindrance because there is no dewatering. Mr. Baker asked how they are dewatering and Mr. Astorino said they are digging trenches to a sump pump. Temporary electrical has been hooked up. He then presented some aerial photos of the job.

The Canal Rehabilitation project is continuing with electrical at 90%, rehab at 90% complete and permits have been submitted to the state.

Mr. VanSyckel asked how the top will be finished when the job is complete. Mr. Astorino told him that it will have hatches and be flush with the road.

Mr. Baker asked Mr. Astorino if there have been any complaints. Mr. Astorino said that the only complaint he has had was from a resident complaining of porch separation. He said he worked with her quite a bit, showing her vibration data. We think there may be a prior issue in general with the area because the neighbors seem to be having these issues too. There is preconstruction video that

shows some settling issues where a water main was replaced in the past and possibly not restored correctly. We gave her all of our findings and have not heard back.

A motion was made by Ms. Lucido supported by Mr. Santo to receive and file project updates.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$216,451.39 to the board for review and approval.

A motion was made by Mr. Santo, supported by Ms. Lucido 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 Ms. Lucido and supported by Mr. Santo.

Adopted: YEAS: 3
NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Ms. Lucido, that the meeting of the Eight and One-Half Mile Relief Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 10:17 A.M.



Brian Baker, Acting Chair
Macomb County Public Works Chief Deputy

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 February 13, 2023 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Brian Baker, Acting Chair
Macomb County Public Works Chief Deputy

DATED: 2/13/23



Candice S. Miller

Public Works Commissioner
Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: March 13, 2022

Subject: Construction Projects Status Updates for the March 2023 Board Meeting

The following provides a status update for construction work completed within the 8 ½ Mile Relief Drain Drainage District (8MRDDD) for the previous month.

Wet Weather Operations

No wet weather events this past month.

Two good sized events that Chapaton was able to store and treat and did not have to discharge. For the 2/27/23 event, Chapaton was the only basin in the region that did not spill.

Chapaton In-System Storage Project

Contractor: Weiss Construction

Engineering Consultant: Tetra Tech

Project Description:

The primary focus of the project is the construction of an access shaft and installation of the In-System Storage Device at Beaconsfield and Oak in Eastpointe. This project will achieve an additional 3.5 million gallons of storage within the 8.5 Mile Relief tunnel.

Significant project tasks that have occurred over the past month:

1. Submittals are being received and processed by the engineering team.
2. Construction activities per Update Period:
 - Continued staging construction materials delivered & stored along Beaconsfield greenbelt.

- Maintained secured work site with swing gates and privacy fence screening at construction sites.
- Continued Beaconsfield site vibration and sensor monitoring and documentation during and shaft construction as required.
- Continued dewatering and maintaining adequate working conditions within the interior of the Beaconsfield shaft as necessary.
- Started excavation for 1st mud-mat location per tunnel support sequence, approximately **36-ft** below grade within the Beaconsfield shaft as required.
- Continued to load out excavated spoils off site as planned.
- Continued installing timber lagging retaining walls around the interior of Beaconsfield shaft as required.
- Continued applying flow fill grout to fill voids behind timber lagging from over-excavation as required.
- Prepared and assembled large timber cribbing to support Beaconsfield tunnel during excavation and concrete pad placement as designed.
- Fabricated materials, *Tunnel Eye Support*, required to support soil at the east and west walls where tunnel runs through the shaft as designed.

3. Construction look ahead:

- Continue deliveries of construction materials along Beaconsfield greenbelt.
- Continue Beaconsfield site vibration monitoring & documentation.
- Complete installation of timber lagging retaining walls in the interior of the Beaconsfield as required.
- Complete placement of flow fill grout at voids behind shaft lagging and seal timber walls as necessary.
- Install (Weld/Cut/Grind) anchors and materials for placement of *Tunnel Eye Supports* at each end of shaft where the tunnel runs through the Beaconsfield shaft.
- Continue excavation process to undermine existing 11.5ft tunnel *via* proposed design sequence as required.
- Install cribbing and supports to existing 11.5ft tunnel during undermining of existing tunnel as required.
- Place low strength concrete mud-mat and high strength mass concrete under-side of existing 11.5ft tunnel in proposed design sequence as required.

Construction Costs:

| | Date (if applicable) | Amount |
|--------------------------|----------------------|----------------|
| Original Contract Amount | | \$9,673,200.00 |
| Change Order #1 | 9/15/22 | \$269,666.49 |
| Revised Contract Amount | | \$9,942,866.49 |
| Total Spent to Date | Pay Apps. #1 - 11 | \$3,704,851.47 |
| Remaining Budget | | \$6,238,015.02 |

Figure 1 – North Side of Tunnel



Figure 2 – Preparing to Install Lagging South Side of Tunnel



Figure 3 – Undermining North Side Tunnel at West Wall



Figure 4 – Undermining South Side Tunnel at West Wall



Figure 5 – 15ft Tunnel Support Timber



Figure 6 – Excavated Approx. 32FT Facing East



Figure 7 – Drone Aerial at 100 FT





Candice S. Miller

Public Works Commissioner
Macomb County

To: Board Members of the following Drainage Districts:

- Macomb Interceptor Drain Drainage District (MIDDD)
- Eight and One-Half Mile Relief Drain Drainage District (8MRDDD)

From: Vincent Astorino, Operations & Flow Manager

Date: March 13, 2023

Subject: 2023 Interceptor Inspection Program – Contractor Recommendation

Macomb County Public Works Office (MCPWO), on behalf of the two Drainage Districts noted above, has coordinated the 2023 Interceptor Inspection Program. This program will consist of routine televising and inspection of the large interceptors throughout these systems. Given the recent pipe failures within the Romeo Arm Interceptor, sonar and laser scanning will also be performed within the MIDDD. The sonar data will also be used to document the sediment within the MIDDD interceptors so that a future project to remove that sediment can utilize that data. Inspections of non-reinforced concrete pipe occurs every three (3) years and reinforced concrete pipe every six (6) years. Furthermore, the inspections within the MIDDD are in accordance with the Administrative Consent Order (ACO-004875) entered by the MIDDD with the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Approximately 24 miles of pipe ranging from 2-feet to 12-feet in diameter will be inspected across both districts as part of this project.

In June 2022, the Boards approved MCPWO staff to engage NTH Consultants, Ltd. to prepare contract documents, assist with bidding, and provide construction oversight for the Program from start to finish. Detailed plans and specifications were then prepared and the project was publicly advertised on MITN. On March 6, 2023, MCPWO received the three (3) unit price bids as follows:

| Contractor | Task 1 - MIDDD | Task 2 - 8MRDDD | Total |
|------------------------|-----------------------|---------------------|----------------|
| Taplin Group, LLC | \$591,319.40 | \$403,919.38 | \$995,238.78 |
| RedZone Robotics, Inc. | \$932,891.50 | \$665,509.00 | \$1,598,400.50 |
| Pipetek | \$1,161,099.30 | \$545,459.00 | \$1,706,558.30 |
| Eng. Est | \$1,212,792.00 | \$371,833.00 | \$1,584,625.00 |
| NTH Fee | \$81,549.00 | \$81,507.00 | \$163,056.00 |
| Total Project Cost | \$672,868.4 | \$485,426.38 | - |
| Budgeted Amount | \$1,773,300.00 | \$500,000.00 | - |
| | | | |

NTH performed a review of the documents submitted by Taplin Group, LLC and has indicated they believe they are capable of performing the work for the as-bid price.

MCPWO staff is recommending the following action:

That the MIDDD board award the contract to Taplin Group, LLC in the total Task 1 base bid amount of \$591,319.40 to perform the work associated with the 2023 Interceptor Inspection Program within the MIDDD.

and,

That the 8MRDDD board award the contract to Taplin Group, LLC in the total Task 2 base bid amount of \$403,919.38 to perform the work associated with the 2023 Interceptor Inspection Program within the 8MRDDD.

The bid form is based on unit price rates for the pipe lengths to be inspected. The plans were developed using the best available record information but the actual quantities may vary slightly from the as-bid amount. Full-time observation will be performed and the actual inspected areas will be tracked closely. Additionally, the bid form has been structured by Task such that each District will only be invoiced for work performed in the respective District. Upon board approvals, MCPWO staff will coordinate with Taplin Group, LLC to finalize the contract.

Attachments: NTH Recommendation Letter Dated 03-07-23
Taplin Bid Form Dated 03-03-23



Mr. Steve Wagner, Engineer II
Macomb County Public Works Office
21777 Dunham Road
Clinton Township, Michigan 48036

March 7, 2023
NTH Project 22000325

**RE: Recommendation for Award
2023 Interceptor Inspection Program
MCPWO Project Number: WWS-2022-005**

Dear Mr. Wagner:

This letter presents our recommendation for award of the inspection contract for the 2023 Interceptor Inspection Program Task 1 -Macomb Interceptor Drain Drainage District (MIDDD) and Task 2 Eight and One-Half Mile Relief Drain Drainage District (8MRDDD) sewers in Macomb County, Michigan. As you are aware, NTH Consultants, Ltd. (NTH) issued drawings and specifications in February 2023 to Macomb County Public Works Office (MCPWO) to solicit bids for the inspection of the referenced sewer systems. Bids were received on Monday, March 6, at 2:00 PM at the Chapaton CSO Basin office.

Three bids were received and reviewed by NTH and the MCPWO. The bidders included Red Zone Robotics, Inc., Taplin Group, LLC., and Pipetek Infrastructure Services. The three bidders were responsive and included signed bids along with the required bid bonds. During our initial review, we noted that Taplin and Pipetek had entered values for mobilization in excess of the maximum specified value of 5 percent of the bid price. As instructed, we have corrected these values to 5 percent on the Bid Tab Summaries.

Summaries of the corrected bid tabs are included in Tables 1 and 2, attached to this letter. The total Base Bid for each firm is included in Table 3. We understand the intent of the MCPWO is to issue a single contract to the most favorable bidder for both tasks. Upon our review of the corrected bid tabs, we noted that Taplin Group had used the same unit rate for the inspection for each of the different pipe sizes and for both the multi-sensor inspection and the closed-circuit television inspection portions of the project. In addition, their fees for the traffic control were much less than the other two bidders.

We sent an e-mail to Mr. David Balogh, Executive Vice President of Taplin, to confirm they understood the specifications and requirements of this project. Mr. Balogh responded, "Taplin Group approached this with the concept they are utilizing one inspection system capable of doing both technologies (CCTV and Multi-Sensor) with Cues FSX Platform regardless of active or dry flow conditions. The single unit price covers the cost of the equipment in its entirety being onsite". In addition, Mr. Balogh stated they propose to utilize Spartan Barricade for the traffic control, and they fully understand the requirements from the Macomb County Department of Roads.

Based on the unit prices received, the Total Base Bid Price, and the responses received from Taplin, we recommend awarding the 2023 Interceptor Inspection Project to Taplin Group, LLC.



Mr. Steve Wagner, Engineer II

March 7, 2023

If you have any questions about this recommendation or require additional information, please contact John Kosnak, P.E.

Sincerely,

NTH Consultants, Ltd.

DocuSigned by:
John R. Kosnak
08D80029F4504E2...

John R. Kosnak, P.E.
Principal Engineer / Project Manager
jkosnak@nthconsultants.com
(248) 662-2725

DocuSigned by:
Charles J. Roarty, Jr.
1B505E3681BF483...

Charles J. Roarty, Jr., P.E.
Senior Vice President
croarty@nthconsultants.com
(313) 237-3936

JRK/CJR/mam

Attachment

TABLE 1 - MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT BID TABS

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price \$ | Bid Amount \$ | Bid Unit Price \$ | Bid Amount \$ | Bid Unit Price \$ | Bid Amount \$ |
|---|---|------|--------------------|---------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| TASK 1 - MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT | | | | REDZONE | | TAPLIN | | PIPETEK | |
| 1.1 | Mobilization (5% Max.) | LS | 1 | 40,000.00 | 40,000.00 | 29,599.41 | 29,540.00** | 30,000.00 | 30,000.00 |
| 1.2 | Traffic Control | LS | 1 | 45,000.00 | 45,000.00 | 12,425.40 | 12,425.40 | 25,000.00 | 25,000.00 |
| 1.3 | San Swr, Inspect, Manage Data, 5' Dia. (force main PCI-15B) | LF | 7,289 | 8.50 | 61,956.50 | 6.71 | 48,909.19 | 7.20 | 52,480.80 |
| 1.4 | San Swr, Inspect, Manage Data, 5' Dia. (PCI-15C) | LF | 11,425 | 7.50 | 85,687.50 | 6.71 | 76,661.75 | 7.20 | 82,260.00 |
| 1.5 | San Swr, Inspect, Manage Data, 7' Dia. And 9' Dia. (PCI-45 and PCI-24) | LF | 23,331 | 10.00 | 233,310.00 | 6.71 | 156,551.01 | 13.50 | 314,968.50 |
| 1.6 | San Swr, Inspect, Manage Data, 11' Dia. (PCI-13, & 14) | LF | 22,691 | 12.50 | 283,637.50 | 6.71 | 152,256.61 | 18.00 | 402,438.00 |
| 1.7 | San Swr, Inspect, Manage Data, 11' Dia. and 11' Dia. w/ 9'-2" Liner (PCI 12A) | LF | 12,664 | 12.50 | 158,300.00 | 6.71 | 84,975.44 | 18.00 | 227,952.00 |
| 1.8 | Structure Modifications (if required) | LS | 1 | 15,000.00 | 15,000.00 | 20,000.00 | 20,000.00 | 10,000.00 | 10,000.00 |
| 1.9 | Permit Allowance | DLR | 10,0000 | 1 | \$10,000.00 | 1 | \$10,000.00 | 1 | \$10,000.00 |
| Task 1 - MIDDD Subtotal: Total of All Unit Price Bid Items | | | | \$932,891.50 | | \$591,319.40** | | \$1,161,099.30 | |

** Mobilization value reduced to 5% of total contract value

Table 2 -- EIGHT & ONE-HALF MILE RELIEF DRAIN DRAINAGE DISTRICT BID TABS

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price \$ | Bid Amount \$ | Bid Unit Price \$ | Bid Amount \$ | Bid Unit Price \$ | Bid Amount \$ |
|--|---|------|--------------------|---------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| TASK 2 – EIGHT & ONE-HALF MILE RELIEF DRAIN DRAINAGE DISTRICT | | | | REDZONE | | TAPLIN | | PIPETEK | |
| 2.1 | Mobilization (5% Max.) | LS | 1 | 30,000.00 | 30,000.00 | 21,214.14 | 20,190.00** | 30,000.00 | 27,260.00** |
| 2.2 | Traffic Control | LS | 1 | 45,000.00 | 45,000.00 | 8,283.60 | 8,283.60 | 25,000.00 | 25,000.00 |
| 2.3 | San Swr, Inspect, Manage Data, 24"-35" Dia. | LF | 2,935 | 8.00 | 23,480.00 | 6.71 | 19,693.85 | 5.00 | 14,675.00 |
| 2.4 | San Swr, Inspect, Manage Data, 36"-60" Dia. | LF | 11,962 | 8.00 | 95,696.00 | 6.71 | 80,265.02 | 6.50 | 77,753.00 |
| 2.5 | San Swr, Inspect, Manage Data, 61"-90" Dia. | LF | 12,266 | 8.00 | 98,128.00 | 6.71 | 82,304.86 | 8.50 | 104,261.00 |
| 2.6 | San Swr, Inspect, Manage Data, 11.5'-12.0' Dia. | LF | 21,571 | 15.00 | 323,565.00 | 6.71 | 144,741.41 | 10.00 | 215,710.00 |
| 2.7 | Structure Modifications (if required) | LS | 1 | 10,000.00 | 10,000.00 | 20,000.00 | 20,000.00 | 10,000.00 | 10,000.00 |
| 2.8 | Manhole, Inspect, Manage Data | EA | 152 | 195.00 | 29,640.00 | 121.32 | 18,440.64 | 400.00 | 60,800.00 |
| 2.9 | Permit Allowance | DLR | 10,0000 | 1 | 10,000.00 | 1 | 10,000.00 | 1 | 10,000.00 |
| Task 2 - 8MRDDD Subtotal: Total of All Unit Price Bid Items | | | | \$665,509.00 | | \$403,919.38** | | \$545,459.00** | |

** Mobilization value reduced to 5% of total contract value

TABLE 3 - TOTAL BASE BID PRICE

| REDZONE | TAPLIN | PIPETEK |
|-----------------------|-----------------------|-------------------------|
| \$1,598,400.50 | \$995,238.78** | \$1,706,558.30** |

** Mobilization value reduced to 5% of total contract value

| <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> |
|--------------------------|--|----------------|------------------------|---------------|--------------------------------------|---|------------------------|
| 8 1/2 Mile Relief | Chapter 20 State of MI – 16.04% County of Macomb – 2.25% Dept. of Roads – 2.25% Eastpointe – 54.33% St. Clair Shores – 25.13% | | | | | | |
| | | Astorino | Access Interactive LLC | \$ 2,576.25 | Invoice #INV3761 - 02.13.23 | SCADA Maintenance | |
| | | Astorino | Consumers Energy | \$ 1,295.57 | Invoice #204923392544 - 02.07.23 | Monthly Utilities - 01.08.23 - 02.07.23 | |
| | | Astorino | Consumers Energy | \$ 1,620.27 | Invoice #207146991988 - 02.07.23 | Monthly Utilities - 01.08.23 - 02.07.23 | |
| | | Astorino | Consumers Energy | \$ 829.67 | Invoice #204923392543 - 02.07.23 | Monthly Utilities - 01.08.23 - 02.07.23 | |
| | | Astorino | DTE Energy | \$ 656.81 | Invoice #23-075 - 01.31.23 | Monthly Electric - 01.01.23 - 01.31.23 | |
| | | Astorino | DTE Energy | \$ 8,173.66 | Invoice #23-089 - 02.07.23 | Monthly Electric - 01.10.23 - 02.07.23 | |
| | | Astorino | HESCO | \$ 106,247.02 | Invoice #2214048 - 12.05.22 | Flow Meter Project | \$ 119,900.36 |
| | | Astorino | Kennedy Industries | \$ 2,300.00 | Invoice #635221 - 02.23.23 | Annual Pump Preventative Maintenance | |
| | | Astorino | NTH Consultants, Ltd | \$ 1,085.75 | Invoice #631958 - 02.03.23 | 2023 Interceptor Inspection Program - Design | \$ 57,899.50 |
| | | Astorino | NTH Consultants, Ltd | \$ 1,490.50 | Invoice #631957 - 02.03.23 | 9 Mile Emergency Bypass Rehab - 01.02.23 - 01.27.23 | \$ 117,087.50 |
| | | Astorino | NTH Consultants, Ltd | \$ 6,746.75 | Invoice #632061 - 02.17.23 | 2023 Interceptor Inspection Program - Design | \$ 51,152.75 |
| | | Astorino | NTH Consultants, Ltd | \$ 7,633.17 | Invoice #632069 - 02.17.23 | 9 Mile Emergency Bypass Rehab - 01.28.23 - 02.10.23 | \$ 109,454.33 |
| | | Astorino | Tetra Tech, Inc. | \$ 40,769.52 | Invoice #52029159 - 02.21.23 | In-System Storage CCA | \$ 624,455.21 |
| | | Astorino | Tetra Tech, Inc. | \$ 29,000.95 | Invoice #52033153 - 03.01.23 | In-System Storage CCA | \$ 595,454.26 |
| | | Astorino | Tetra Tech, Inc. | \$ 24,025.00 | Invoice #52029162 - 02.21.23 | Chapton Electrical/Generator Design | \$ 155,906.92 |
| | | Astorino | Tetra Tech, Inc. | \$ 5,043.75 | Invoice #52033671 - 03.02.23 | Chapton Electrical/Generator Design | \$ 150,863.17 |
| | | Astorino | Wade Trim | \$ 13,247.09 | Invoice #2026691 - 03.02.23 | Chapaton RTB Canal Rehab - Design | \$ 74,101.69 |
| | | Astorino | Weiss Construction | \$ 362,186.28 | Invoice #WWS-2021-006 #10 - 02.02.23 | In-System Storage through 01.20.23 | \$ 6,468,634.52 |
| | | Astorino | Weiss Construction | \$ 230,619.50 | Invoice #WWS-2021-006 #11 - 03.02.23 | In-System Storage through 02.04.23 | \$ 6,238,015.02 |
| | | Total | | \$ 845,547.51 | | | |

Budget to Actual
8.5 Mile Relief
As of February 28, 2023 =42%

| DESCRIPTION | 2023 FINAL BUDGET | ENCUMBERED | ACTUAL | REMAINING BUDGET | PCT UTILIZED |
|--|----------------------|------------|------------------|---------------------|--------------|
| REVENUE ACCOUNTS | | | | | |
| Interest Earned | 20,000 | | 71,177 | (51,177) | 355.9% |
| Other Revenue | 5,000 | | 301 | 4,699 | 6.0% |
| 8.5 O&M/Charge Required Revenue | 5,003,220 | | 2,501,610 | 2,501,610 | 50.0% |
| PY Revenue-Fund Balance | 4,412,010 | | | 4,412,010 | 0.0% |
| Use of Reserve from prior contributions | 3,738,110 | | | 3,738,110 | 0.0% |
| Use of Reserve(Flow Meters) | 350,000 | | | 350,000 | 0.0% |
| Use of SCADA Reserve | 64,750 | | | 64,750 | 0.0% |
| Use of Surplus from past collections | 1,051,830 | | - | 1,051,830 | 0.0% |
| Total Revenue Accounts | 14,644,920 | - | 2,573,088 | 12,071,832 | 17.6% |
| EXPENSE ACCOUNTS | | | | | |
| Application/Permit Fee | 6,000 | | 6,000 | - | 100.0% |
| Dues, Training, Conf, Subs. | 17,010 | | 165 | 16,845 | 1.0% |
| Engineering | | | | | |
| Sluice & Dewatering Gates Rehab/Replacement Project | 1,974,340 | | | 1,974,340 | 0.0% |
| Canal Rehab Design | 320,000 | | 188,886 | 131,114 | 59.0% |
| 8.5 Mile Inspection Project | 500,000 | | 9,663 | 490,337 | 1.9% |
| 9 Mile Drain & Dewater Accusonic Flow Meters | 350,000 | | 106,247 | 243,753 | 30.4% |
| 9 Mile Emergency Bypass Structural Rehab | 3,000,000 | | | 3,000,000 | 0.0% |
| Flushing | 1,895,660 | | 464 | 1,895,196 | 0.0% |
| Chapaton Electrical Upgrades(ARP Funds) | - | | 41,091 | (41,091) | 100.0% |
| As needed Engineering | 39,110 | | 10,229 | 28,881 | 26.2% |
| Sluice and Dewatering Gates Rehab/Replace Project(Was 9 Mile PS) | 2,025,660 | | 56,350 | 1,969,310 | 2.8% |
| Cost Share Army Corp Grant-Green Infrastructure Project | 162,500 | | | 162,500 | 0.0% |
| 9 Mile Bypass Pipe Structural Repairs-Construction/CA | 308,010 | | 1,491 | 306,519 | 0.5% |
| Chapaton Improvements-Office Space Downstairs | 100,000 | | | 100,000 | 0.0% |
| In-System Storage-Construction Admin and Construction | 1,659,410 | | 1,287,200 | 372,210 | 77.6% |
| New Equipment | 3,000 | | | 3,000 | 0.0% |
| Office Supplies | 500 | | | 500 | 0.0% |
| Operating Supplies | 81,800 | | 12,951 | 68,849 | 15.8% |
| Other Professional Svcs | 42,500 | | 18,968 | 23,532 | 44.6% |
| Personnel Services | 1,135,790 | | | 1,135,790 | 0.0% |
| Repair & Maintenance | 246,000 | | 25,766 | 220,234 | 10.5% |
| Contribution to Reserve | 288,240 | | | 288,240 | 0.0% |
| Scada System | 199,390 | | 22,108 | 177,282 | 11.1% |
| Utilities | 290,000 | | 45,601 | 244,399 | 15.7% |
| Total Expense Accounts | 14,644,920 | - | 1,833,180 | 12,811,740 | 12.5% |

| | O&M Balance 9/30/2022 | O&M | Total 2/28/2023 |
|----------------------------|--------------------------|-----------|--------------------|
| Cash - Operating | 9,802,509 | 739,908 | 10,542,417 |
| Accounts Receivable | | | 0 |
| Assets | | | 0 |
| Liabilities | | | 0 |
| Revenues | | 2,573,088 | 2,573,088 |
| Expenditures | | 1,833,180 | 1,833,180 |
| | | | 0 |
| Equity* | 9,802,509 | | 10,542,417 |

Detail of 2022 Equity*

| | | | |
|---|-----------|---------------------------------|-----------|
| 9 Mile Bypass Struct Rprs-Const/CA | 292,264 | Capital Reserve | 953,047 |
| As-Needed Engineering | 48,544 | Contribution from Macomb Cty | 2,000,000 |
| Chapaton Improvements-Lab/Office Space | 173,347 | In System Contrib from SEMSD | 1,351,239 |
| Chlorine storage tank #3 relining | 7,500 | LSCWWI 04B Transfer | 738,112 |
| Cost Share Army corp Grant-Green Infrastructure Project | 162,500 | SCADA Reserve | 155,140 |
| Fiber Optic Improvements | 16,130 | SRF Replacement Reserve | 2,592,140 |
| Firewall Hardware Design/Config | 12,900 | Painting | 25,000 |
| In-System Storage Design/Const Admin/Const | 116,276 | SolarWind -Network Mgmt Softwar | 9,670 |
| Obsolete Wireless backhaul replacement links | 16,120 | Storm PLC Replacments | 30,000 |
| Sluice & Dewatering Gates Rehab/Replace Proj(Was 9 Mile PS) | 1,102,581 | | |