

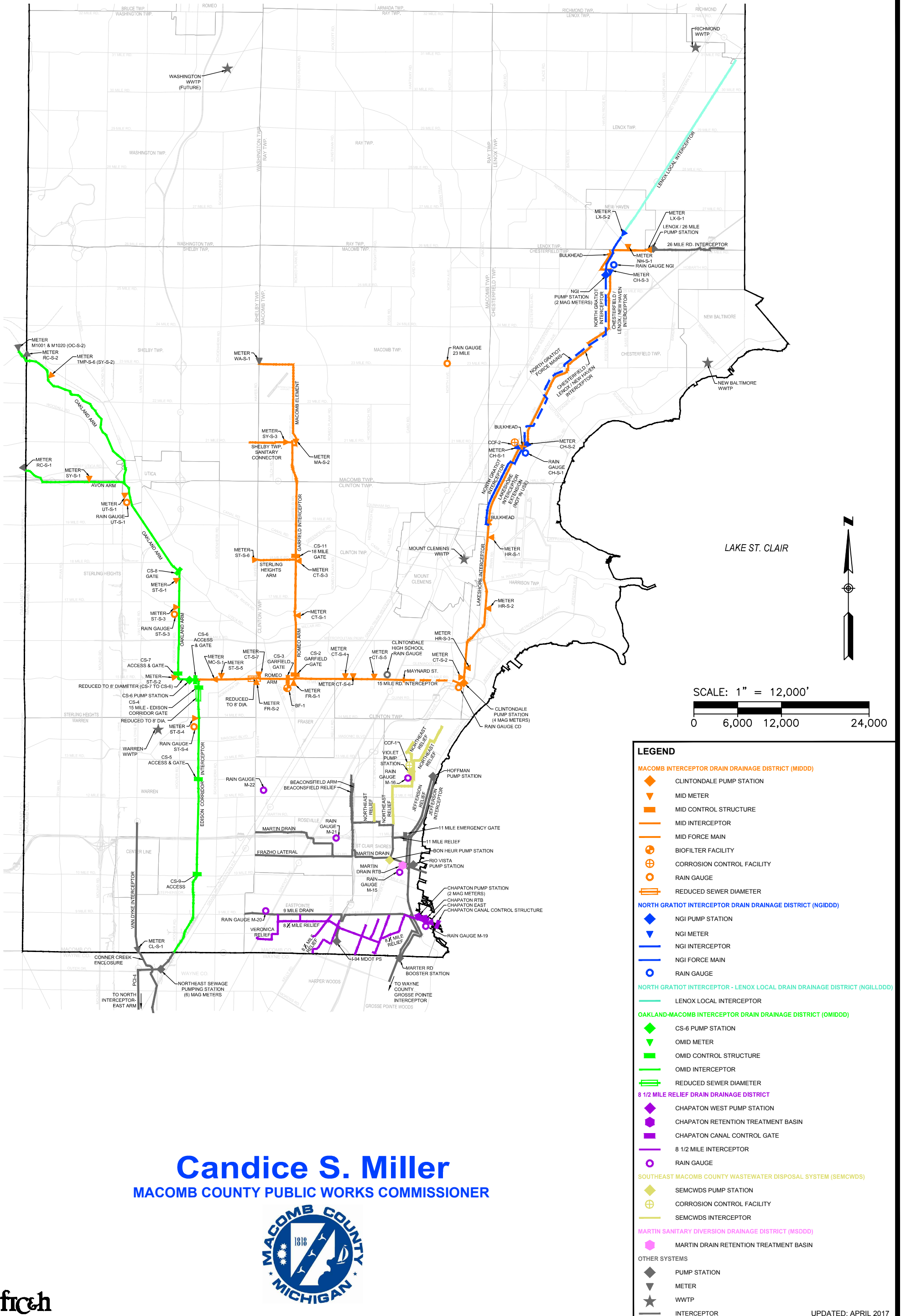
MARTIN SANITARY DIVERSION DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
JULY 12, 2021  
10:00 A.M.  
AGENDA

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

**Call in Number: 1-304-397-0482  
Access Code: 127 484 588**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for July 12, 2021	
3. Approval of Minutes for June 14, 2021	3
4. Public Participation	
5. Project Update – Vince Astorino	5
6. Martin In-System Storage Device (ISD) Design – Vince Astorino	7
Motion: To approve the proposal from Fishbeck, ASI, and NTH in the total amount of \$358,720 to perform the work associated with the Martin ISD Design	
7. Consideration for approval of invoices (see attached)	15
8. Financial Report – Bruce Manning	16
9. Adjourn	

# MACOMB COUNTY WASTEWATER SYSTEMS



**Candice S. Miller**

MACOMB COUNTY PUBLIC WORKS COMMISSIONER



UPDATED: APRIL 2017

An adjourned meeting of the Intra-County Drainage Board for the **MARTIN SANITARY DIVERSION DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on June 14, 2021, at 10:01 A.M.

PRESENT: Candice S. Miller, Chair  
Harold Haugh, Member  
Bryan Santo, Member

ALSO PRESENT: Veronica Klinefelt, Macomb County Board of Commissioners; Brian Baker, Chief Deputy, Jeff Bednar P.E., Environmental Resources Manager, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Vince Astorino, Operations & Flow Manager, Kellie Kource, Drain Account Specialist, Norb Franz, Communications Manager, Danielle Devlin, Environmental Specialist, Macomb County Public Works; Sydney Hilgendorf, Sterling Heights, Dan Aviaciatto, Supervisor, Chesterfield Township

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

Adopted: YEAS: 3  
NAYS: 0

Minutes of the meeting of May 10, 2021 were presented. A motion was made by Mr. Santo, supported by Mr. Haugh 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 updated the board that we are now running off of the new disinfection pumps at Martin and all systems are operating as expected. The in-system storage design and the construction bids for the flushing system are the next projects for Martin.

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

Adopted: YEAS: 3  
NAYS: 0

The Chair presented the invoices totaling \$78,141.77 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. Haugh 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. Haugh and supported by Mr. Santo.

Adopted: YEAS: 3  
NAYS: 0

There being no further business, it was moved by Mr. Haugh, supported by Mr. Santo that the meeting of the Martin Sanitary Diversion Drain Board be adjourned.

Adopted: YEAS: 3  
NAYS: 0

The meeting was adjourned at 10:07 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 taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on June 14, 2021 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: 6/14/21



**Candice S. Miller**

Public Works Commissioner  
Macomb County

To: Martin Sanitary Diversion Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: July 12, 2021

Subject: Construction Projects Status Updates for June 2021 Board Meeting

The following provides a status update for construction work completed within the Martin Sanitary Diversion Drain District (MSDDD) for the previous month.

### Wet Weather Operations

**Wet Weather Event:** June 25, 2021

**Rainfall:** 2.46 inches

**Treated Discharge Volume:** 48.5 MG Total

**Water Quality Numbers:** 62 cts / 100 ml geometric mean

**Description:** This rain event was a significant event for SE Michigan. The 8 ½ Mile Drain Board update provided the complications that arose during this event due to significant rain totals and downstream pump station complications. Due to the successful operations at Chapaton, Martin was not significantly impacted by downstream operations. The largest issue that arose during this event was due to street flooding and having to put a hold on sending staff to the facility. Since MCPWO has installed the real-time total residual chlorine units, everything at Martin was visible through SCADA and operators were able to manage the station remotely. If a problem would have come up then MCPWO would have made it to the facility.

# Chapaton & Martin Disinfection Replacement Project

**Contractor:** Weiss Construction

**Engineering Consultant:** Wade Trim

## **Project Description:**

This project consists of the complete replacement of the disinfection systems at Chapaton and Martin. Macomb County Public Works Office (MCPWO) staff identified that a critical capital improvement need for the Chapaton and Martin RTB's was the replacement of the disinfection systems. These are systems that were installed in approximately 1978 and have exceeded the end of their useful life. MCPWO staff has worked diligently to keep the existing disinfection pumps in service as they are prone to failure and require expensive, difficult to obtain parts. The project involves all disinfection chemical feed pumps, new electrical controls and VFDs, and new disinfection and sample piping within the Chapaton RTB.

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

1. Removed old pumps and demolished pump pads
2. Cleaned-up tools, materials, and work area
3. Began compiling and submitting close-out documents (as-builts, O&M manuals, warranties, etc.)
4. Performed punchlist walkthrough with Weiss, Wade Trim, and MCPWO

## **Construction Costs:**

	Date (if applicable)	Amount
Original Contract Amount		\$995,925.00
Change Order #1	12/16/20	(\$16,337.83)
Change Order #2	04/28/21	(\$21,333.02)
Revised Contract Amount		\$958,254.15
Total Spent to Date	Pay Apps #1-7	\$821,941.33
Remaining Budget		\$136,312.82



Figure 1 – Old Pulsafeeder disinfection pumps (1978)



Figure 2 – Pump Room after pump and pad removal

**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



**Candice S. Miller**

Public Works Commissioner  
Macomb County

**To: Martin Sanitary Diversion Drainage District (MSDDD) Board Members**

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

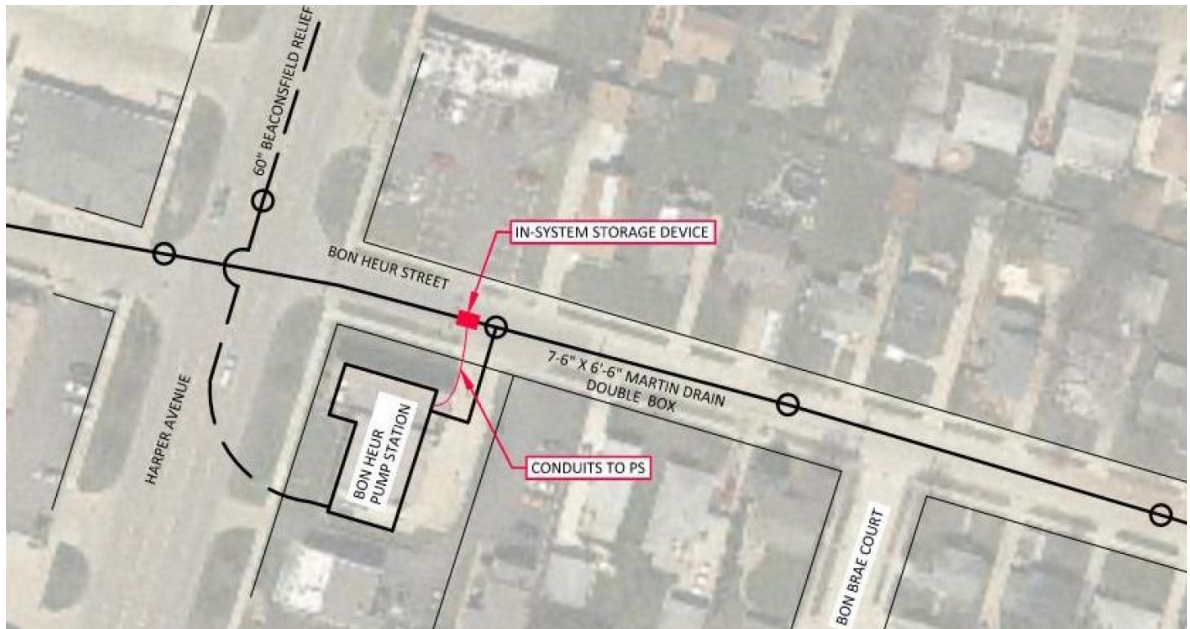
**Date: July 12, 2021**

**Subject: Martin In-System Storage Device**

Macomb County Public Works Office (MCPWO), on behalf of the Martin Sanitary Diversion Drainage District (MSDDD), has developed a plan to store flow in the existing Martin Drain, during wet weather events, to reduce the amount of treated & permitted Combined Sewer Overflow (CSO) within the drainage district. The initial concept was developed as part of findings in the Southeast Macomb Sanitary District (SEMSD) Wastewater Master Plan (WWMP). The WWMP identified approximately 5.2 Million Gallons (MG) of available storage within the existing collection system that could be used to capture CSO volumes. Utilizing existing drain infrastructure for volume storage is defined as In-System Storage by means of installing an In-System Storage Device (ISD).

After initial review and discussion with the WWMP team, it became apparent that the ISD identified was a cost effective solution to reducing the amount of treated & permitted CSO discharged. At this time, on behalf of the MSDDD, MCPWO had Fishbeck (WWMP prime firm) create and submit a Project Plan to obtain a State Revolving Fund (SRF) loan from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for construction of the ISD. The proposed project outlined installing the ISD in the Martin Drain double box sewer downstream of the Bon Heur Pump Station along Bon Heur Street. The Martin Drain ISDs will increase the volume of wet weather storage in the system and reduce the frequency and volume of treated and permitted combined sewer overflow (CSO) from the Martin Retention Treatment Basin (RTB) by approximately 20% annually. Presented on the next page is a map of the proposed ISD location.



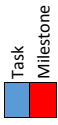


In an attempt to make this project “shovel ready” when potential state and federal funding is available, MCPWO has fast-tracked the design of this project. To meet a fast-tracked design schedule, MCPWO has reached out to the approved as-needed engineers for the MSDDD which are Fishbeck, Applied Science, Inc. (ASI), and NTH Consultants, Ltd. (NTH) to request a proposal to design the ISD. For this work, the as-needed engineering team will be using the current hourly rates that were established as part of their as-needed contract. There is currently \$500,000 of one-time funding coming off the budget in October and SEMSD has promised \$1 million for this specific project. These funds will be used to cover the design costs for this project.

**MCPWO staff is recommending to award the contract to Fishbeck, ASI, and NTH in the total amount of \$358,720 to perform the work associated with the Martin ISD Design.** As part of the proposal, \$35,820 is included as allowance items to cover unknowns found in the infrastructure survey. The intent is to only use this money if necessary. Their proposal is attached.

Attachments: Fishbeck, ASI, & NTH Design Proposal





TASK	2021							2022								
	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October
<b>Project Management</b>																
Notice to Proceed																
Kickoff Meeting																
Progress Meetings																
<b>Task 1 - Infrastructure Survey</b>																
3D Scan Martin Drain																
Condition Assessment of Martin Drain																
Memo Summarizing Pipe Condition Assessment																
Prepare AutoCAD & PDF As-built Drawings																
<b>Task 2 - Utility Survey</b>																
Perform Survey																
Prepare AutoCAD & PDF As-built Drawings																
<b>Task 3 - Basis of Design</b>																
Prepare Draft Report																
Internal QA/QC																
<b>Submit Draft BOD Report to MCPWO</b>																
MCPWO Review																
Finalize Report																
<b>Submit Final BOD Report to MCPWO</b>																
<b>Task 4 - Final Design</b>																
Develop 60% Plans, Specifications & Construction Cost Estimate																
Internal QA/QC																
<b>Submit 60% Plans to MCPWO for Review</b>																
60% Workshop																
Develop 90% Plans & Specs & Construction Cost Estimate																
Issue Plans for Permit																
Permit Agency Approvals																
Internal QA/QC																
<b>Submit 90% Plans to MCPWO for Review</b>																
90% Workshop																
Develop 100% Plans & Specifications																
Internal QA/QC																
<b>Part I &amp; II SRF Applications Due</b>																
<b>Submit 100% Bidding Documents</b>																
<b>Task 5 - Bidding</b>																
Bidding Period																
<b>Bid Opening</b>																
Bid Evaluation and Review																
Contract Award																
<b>Part III SRF Application Due with Bid Data Submittal</b>																
EGLE Order of Approval Issued																
EGLE Notice to Proceed																

Martin Sanitary Diversion Drainage District  
 Martin Drain In-System Storage Devices  
 WO19006 - Task 2.h  
 Estimated Work Hours and Fees

Task	Fishbeck	ASI	NTH	Total
Task 1 - Infrastructure Survey	\$15,376.00	\$0.00	\$10,080.00	\$25,456.00
Task 2 - Utility Survey	\$6,114.00	\$0.00	\$0.00	\$6,114.00
Task 3 - Basis of Design	\$23,706.00	\$52,772.00	\$14,050.00	\$90,528.00
Task 4 - Final Design	\$68,266.00	\$75,466.00	\$36,070.00	\$179,802.00
Task 5 - Bidding	\$6,578.00	\$4,762.00	\$0.00	\$11,340.00
Sub-Total - Base Fee	\$120,040.00	\$133,000.00	\$60,200.00	\$313,240.00
Markup (5%)				\$9,660.00
<b>Total - Base Fee</b>				<b>\$322,900.00</b>
Allowance #1 - Additional Survey	\$4,012.00	\$0.00	\$0.00	\$4,012.00
Allowance #2 - Easement Agreement Documentation	\$2,456.00	\$0.00	\$0.00	\$2,456.00
Allowance #3 - Electrical for Additional Level Sensors/Flow Meters	\$11,492.00	\$0.00	\$0.00	\$11,492.00
Allowance #4 - Additional Structural Analysis	\$0.00	\$0.00	\$17,010.00	\$17,010.00
Sub-Total - Allowance	\$17,960.00	\$0.00	\$17,010.00	\$34,970.00
Markup (5%)				\$850.00
<b>Total - Allowance</b>				<b>\$35,820.00</b>

Sub-Total (Base + Allowance)	\$138,000.00	\$133,000.00	\$77,210.00	\$348,210.00
Markup (5%)				\$10,510.00
<b>Total (Base + Allowance)</b>				<b>\$358,720.00</b>

Preliminary Opinion of Probable Construction Cost	\$4,256,000.00
Base Design Fee (\$)	\$322,900.00
Base Design Fee (%)	7.59%
Total Design Fee (\$)	\$358,720.00

Martin Sanitary Diversion Drainage District  
Martin Drain In-System Storage Devices  
WO19006 - Task 2.h  
Estimated Work Hours and Fees

**Assumptions**

**Task 1 - Infrastructure Survey**  
1 MCPWO will provide confined space rescue and assist in traffic control

**Task 2 - Utility Survey**  
1 Title Commitments - may be needed for up to 4 properties

**Task 3 - Basis of Design**  
1 Up to a total of 3 options will be evaluated (led by ASI).

**Task 4 - Final Design**  
1 SCADA integration to be performed by MCPWO  
2 Power and SCADA system connections will be made inside the Bon Heur Pump Station. It is assumed that the existing power distribution system has capacity, including any required standby power provisions. It is also assumed that spare I/O cards exist or can be added to existing control panels. Programming will be performed by the Owner.  
3 New equipment (blowers, air compressors, etc.) will be located inside the existing Bon Heur Pump Station.

**Task 5 - Bidding**  
1 MCPWO will be responsible for posting the bid documents on MITN

**Allowance #1 - Additional Survey**  
1 Assumed 5 sites, 2 for flow meters/level sensors and 3 for venting

**Allowance #2 - Easement Agreement Documentation**  
1 Fishbeck to prepare easement exhibit and legal description. Macomb County to negotiate and prepare agreement

**Allowance #3 - Electrical for Additional Level Sensors/Flow Meters**  
1 Assumed 2 sites for flow meters/level sensors  
Each site will require a new electrical service (coordination with DTE), portable generator connection provisions, and SCADA control panel (by others), similar to CS-2 13.

**Allowance #4 - Additional Structural Analysis**  
1 Will be used only upon approval from MCPWO and only if structural analysis reveals serious deficiencies in the pipe that require extensive structural support or if selected ISD requires extensive structural support





Martin Sanitary Diversion Drainage District  
Martin Drain In-System Storage Devices  
WO19006 - Task 2.h  
Estimated Work Hours and Fees

Description of Work	NTH												Total Hours	Expenses	Total Costs (Sub-Task)	Total Costs (Task)
	Senior Officer	Senior Principal Engineer	Principal Engineer	Senior Project Engineer	Project Engineer	Senior Staff Engineer	Staff Engineer	CADD Designer	Word Processor	Title	Title	Title				
	Name	Name	Name	Name	Name	Name	Name	Name	Name	Name	Name	Name				
MCPWO Rates	\$215.00	\$185.00	\$165.00	\$145.00	\$125.00	\$115.00	\$95.00	\$85.00	\$55.00	\$100.00	\$100.00	\$100.00				
<b>Tasks</b>																
<b>Task 1 - Infrastructure Survey</b>																<b>\$10,080.00</b>
Set Horizontal and Vertical Control													0		\$0.00	
Martin Drain & Bon Heur Discharge Scanning													0		\$0.00	
Survey Processing													0		\$0.00	
Prepare CAD Drawings/pipe sections and alignment													0		\$0.00	
Submit Point Cloud to Owner (RECAP FILES and RPano)													0		\$0.00	
Concrete Pipe Inspection and Sounding	5		12		24								66	\$400.00	\$6,455.00	
Memo summarizing Pipe condition Assessment	8			2	8			4	4				34	\$55.00	\$3,625.00	
Pre survey safety meeting/ equipment check													0		\$0.00	
Scanner (1Day)													0		\$0.00	
mileage													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Task 2 - Utility Survey</b>																<b>\$0.00</b>
Research Utilities													0		\$0.00	
Topographical Survey/Structure inventory													0		\$0.00	
CADD/Drafting													0		\$0.00	
Submit pdf & AutoCAD set of updated Record Drawings													0		\$0.00	
Extraction of Scan Data													0		\$0.00	
Title Commitments (Assume 4 properties)													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Task 3 - Basis of Design</b>																<b>\$14,050.00</b>
Task Coordination with Team Members	2								2				4	\$60.00	\$600.00	
Progress Meetings (Assume 2)	4			4									8		\$1,440.00	
Update SWMM Model & Perform Transient Analysis													0		\$0.00	
Evaluate Gate/Dam Options													0		\$0.00	
Venting Analysis													0		\$0.00	
Identify and locate flow meters/level sensors													0		\$0.00	
Develop Operation Scheme													0		\$0.00	
Geotechnical Investigation and Report	2			14	4			2	2				20	\$1,915.00	\$4,835.00	
Structural Evaluation	7			14	20	4		8					82		\$7,175.00	
Electrical Evaluation													0		\$0.00	
Demolition, Site civil, traffic control, Soil erosion, landscaping													0		\$0.00	
Identify all Permit requirements													0		\$0.00	
Attend Mtgs w MCPWO and EGLE (Assume 3)													0		\$0.00	
Develop Costing Options													0		\$0.00	
Update Project Schedule													0		\$0.00	
Basis of Design Report - Draft													0		\$0.00	
Basis of Design Report - Final													0		\$0.00	
													0		\$0.00	
<b>Task 4 - Final Design</b>																<b>\$36,070.00</b>
Task Coordination with Team Members	10								8				18	\$80.00	\$2,670.00	
Progress Meetings	14			12									26		\$4,750.00	
Permitting													0		\$0.00	
Structural Plans & Specifications	18	8		28	12	44		16	8				134		\$17,770.00	
Process Plans & Specifications													0		\$0.00	
Electrical Plans & Specifications													0		\$0.00	
Site/MOT Plans & Specifications													0		\$0.00	
Develop Facility O&M Protocol													0		\$0.00	
Overall Specifications and Pay Items													0		\$0.00	
SRF Coordination and Submittals													0		\$0.00	
City Coordination and Submittals													0		\$0.00	
60% and 90% engineer's opinion of probable construction cost	4	8		8		8			2				30		\$4,530.00	
60% and 90% Construction Schedule													0		\$0.00	
60% Design Review Workshop													0		\$0.00	
90% Design Review Workshop													0		\$0.00	
100% Plans and Specifications	6			12		24		4	4				50		\$6,350.00	
													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Task 5 - Bidding</b>																<b>\$0.00</b>
Attend Pre-Proposal Mtg													0		\$0.00	
Prepare Addenda and Answer Questions													0		\$0.00	
Bid Opening													0		\$0.00	
Bid Review, Evaluation and Recommendations													0		\$0.00	
Conduct Pre-Award Mtg w Low Bidder													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Allowance #1 - Additional Survey</b>																<b>\$0.00</b>
Research Utilities													0		\$0.00	
Survey													0		\$0.00	
CADD/Drafting													0		\$0.00	
Submit pdf & AutoCAD set of updated Record Drawings													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Allowance #2 - Easement Agreement Documentation</b>																<b>\$0.00</b>
Prepare Documents													0		\$0.00	
													0		\$0.00	
													0		\$0.00	
<b>Allowance #3 - Electrical for Additional Level Sensors/Flow Meters</b>																<b>\$0.00</b>
Electrical Design													0		\$0.00	
													0		\$0.00	
<b>Allowance #4 - Additional Structural Analysis</b>																<b>\$17,010.00</b>
Additional Structural Evaluation				14	4			2					20		\$2,700.00	
Additional Structural Plans				24	16	44		10	6				100		\$11,720.00	
Additional Specifications	2	2		6		8							18		\$2,590.00	
													0		\$0.00	
													0		\$0.00	
<b>Total</b>	<b>82</b>	<b>18</b>	<b>12</b>	<b>124</b>	<b>98</b>	<b>136</b>	<b>0</b>	<b>46</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>610</b>	<b>\$2,510.00</b>	<b>\$77,210.00</b>	<b>\$77,210.00</b>



MARTIN SANITARY DIVERSION - 6/15/21 - 7/6/21

<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>
Martin Sanitary Diversion Drain	Chapter 20 Roseville - 78.09% St. Clair Shores - 21.91%	Manning	County of Macomb	\$ 48,016.86	Invoice #AR210594 - 6.9.21	Personnel/Operation Expenses 1st Quarter 2021	
		Astorino	DTE Energy	\$ 682.50	Invoice #RP2Q4-7Z5M - 6.19.21	Monthly Electric - 5.19.21 - 6.17.21	
		Astorino	Fishbeck	\$ 21,184.69	Invoice #401773 - 6.16.21	Flushing Project	\$ 38,040.60
		Manning	Macomb County Treasurer	\$ 1,430.00	Invoice #1-2021 Martin	Reimbursement to General Fund for Accounting	
		Astorino	Wade Trim	\$ 1,272.11	Invoice #2021247 - 6.24.21	Martin Disinfection Improvements	\$ 17,273.04
		Astorino	Weiss Construction	\$ 41,151.42	Invoice #PAY EST #7 - 6.22.21	Martin Disinfection Improvements	\$ 136,312.82
		<b>Total</b>			\$ 113,737.58		

YTD Budget

Fund: Martin Sanitary Diversion

As of Fiscal Period: Oct 1, 2020-June 30, 2021(75%)

DESCRIPTION	2021 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
<b>REVENUE ACCOUNTS</b>					
Investment Inc-Interest	4,500		963	3,537	21.4%
Reimb-Local Communities	920,550		920,550	-	100.0%
PY Revenue-Fund Balance	611,175			611,175	0.0%
<b>Total Revenue Accounts</b>	<b>1,536,225</b>	<b>-</b>	<b>921,513</b>	<b>614,712</b>	<b>60.0%</b>
<b>EXPENSE ACCOUNTS</b>					
Application/Permit Fee	6,000			6,000	0.0%
Dues, Training, Conf, Subs.	2,560			2,560	0.0%
<b>Engineering</b>					
-As Needed Engineering	18,725		13,918	4,807	74.3%
-Misc Sewer Repairs	20,000				
- Disinfection System Replacement	175,000		146,156	28,844	83.5%
-CCTV of Dewatering Line and Influent and Effluent Boxes	25,000		17,288	7,712	69.2%
-Design Flushing System Upgrades & First Flush Capture	865,000		50,802	814,198	5.9%
-Replace Drain Gate Hydraulic Accumulator <sup>(1)</sup>	-		11,036	(11,036)	100.0%
-Design Basin Equipment Hatch	9,950		2,050	7,900	20.6%
New Equipment	34,000		19,620	14,380	57.7%
Operating Supplies	48,640		17,547	31,093	36.1%
Other Professional Svcs	11,000		5,377	5,623	48.9%
Personnel Services	205,200		85,253	119,947	41.5%
Repair & Maintenance	28,740		20,484	8,256	71.3%
Scada System	46,260		21,478	24,782	46.4%
Utilities	40,150		27,925	12,225	69.6%
<b>Total Expense Accounts</b>	<b>1,536,225</b>	<b>-</b>	<b>438,934</b>	<b>1,077,291</b>	<b>28.6%</b>

	O&M Balance 9/30/2020	O&M	Total 6/30/2021
Cash - Operating	1,123,849	482,579	1,606,428
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		921,513	921,513
Expenditures		438,934	438,934
Equity	1,123,849		1,606,428

**Detail of 2020 Equity**

Design Basin Equipment Hatch	9,950
Replace Drain Gate Hydraulic Accumulator <sup>(1)</sup>	33,844
As Needed Engineering	18,725
Design Flushing System Upgrades & First Flush Capture	375,000
CCTV of Dewatering Line & Influent and Effluent Boxes	25,000
Disinfection System Replacement	129,501
TRC Equipment	7,500
Pickup Truck	3,900
SCADA Reserves	16,913
Capital Reserves	503,516