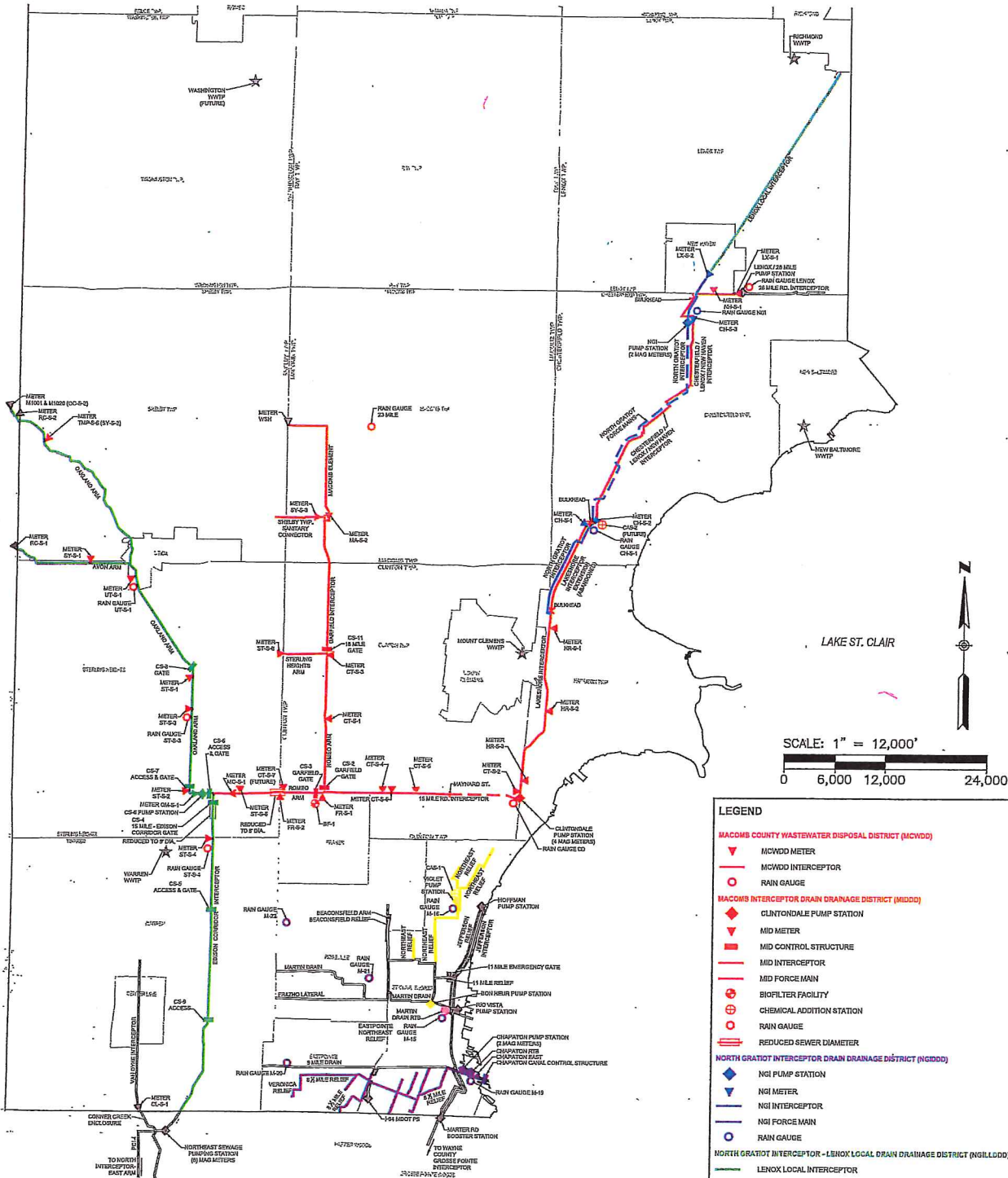


Miller  
Santo  
Klinefelt

EIGHT AND ONE-HALF MILE RELIEF DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
OCTOBER 15, 2018  
10:30 A.M.  
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for October 15, 2018	
3. Approval of Minutes for September 10, 2018	3
4. Public participation	
5. Project Updates – Vince Astorino	
6. Consideration for approval of invoices (see attached)	6
7. Financial Report – Bruce Manning	27
8. Adjourn	

# MACOMB COUNTY WASTEWATER SYSTEMS



**LEGEND**

**MACOMB COUNTY WASTEWATER DISPOSAL DISTRICT (MCWDD)**

- MCWDD METER
- MCWDD INTERCEPTOR
- RAIN GAUGE

**MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDD)**

- CLINTONDALE PUMP STATION
- MID METER
- MID CONTROL STRUCTURE
- MID INTERCEPTOR
- MID FORCE MAIN
- BIOFILTER FACILITY
- CHEMICAL ADDITION STATION
- RAIN GAUGE
- REDUCED SEWER DIAMETER

**NORTH GRATIOT INTERCEPTOR DRAIN DRAINAGE DISTRICT (NGIDD)**

- NGI PUMP STATION
- NGI METER
- NGI INTERCEPTOR
- NGI FORCE MAIN
- RAIN GAUGE

**NORTH GRATIOT INTERCEPTOR - LENOX LOCAL DRAIN DRAINAGE DISTRICT (NGILLDD)**

- LENOX LOCAL INTERCEPTOR

**OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (OMIDD)**

- CS-6 PUMP STATION
- OMID METER
- OMID CONTROL STRUCTURE
- OMID INTERCEPTOR
- REDUCED SEWER DIAMETER

**1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT**

- CHAPATON WEST PUMP STATION
- CHAPATON RETENTION TREATMENT BASIN
- CHAPATON CANAL CONTROL GATE
- 1/2 MILE INTERCEPTOR
- RAIN GAUGE

**SOUTH-EAST MACOMB COUNTY WASTEWATER DISPOSAL DISTRICT (SEMCWDD)**

- SEMCWDD PUMP STATION
- CHEMICAL ADDITION STATION
- SEMCWDD INTERCEPTOR

**MARTIN SANITARY DIVERSION DRAINAGE DISTRICT (MSDD)**

- MARTIN DRAIN RETENTION TREATMENT BASIN

**OTHER SYSTEMS**

- PUMP STATION
- METER
- WWTP
- INTERCEPTOR

**Candice S. Miller**  
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



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 September 10, 2018, at 10:33 A.M.

PRESENT: Candice Miller, Chair  
Bryan Santo, Member  
Veronica Klinefelt, Member

ALSO PRESENT: Robert Mijac, Macomb County Board of Commissioners, Brian Baker, Chief Deputy, Karen Czernel, Deputy, Vincent Astorino, Operations and Flow Manager, Evans Bantios, P.E., Construction & Maintenance Manager, Thomas Stockel, Construction Engineer, Dan Heaton, Public Relations Manager, Denise Harwood, Accountant, Barbara Delecke, Administrative Services, Macomb County Public Works (MCPW); Jordan Scott, Sterling Heights Dept. of Public Works

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

Minutes of the meeting of August 13, 2018 were presented. A motion was made by Ms. Klinefelt supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3  
NAYS: 0

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

The Chapaton RTB NPDES Permit will be renewed on October 1, 2018. The new permit will require total residual chlorine tracking and the influent sampling has been removed, which will be a cost savings.

There are two new projects in the 2018-2019 Budget. Both projects will increase the storage capacity of the Chapaton facility. The first design project will extend the canal for an additional 10 million gallons of storage. The second design project will install gates in the 8 ½ Mile Relief Interceptor to allow for an additional 13 million gallons of storage during wet weather events. Staff will talk to Southeast Macomb Sanitary District (SEMSD) about installing another gate in the 9 Mile Relief Drain, which would increase storage even more. Total additional storage would significantly increase.

Another part of the Master Plan would be to see if it is feasible to bring another pipe down from the Martin Sanitary Diversion District to the 8 ½ Mile Relief Drain District.

One hundred thousand dollars from the Lake St. Clair Clean Water Initiative project has been approved to fast-track a study on a new storm line down Frazho Road that would discharge into the lake.

A motion to receive and file the Permit Update was made by Mr. Santo, supported by Ms. Klinefelt.

Adopted: YEAS: 3  
NAYS: 0

The proposed budget was presented to the board and previously submitted to the communities. There will be an increase in the budget with the new NPDES Permit requirements and SAW Grant items that were identified. Design funds have been allocated for the extension of the canal, installation of gates to allow in system storage in the 8 ½ Mile Relief Drain, along with building improvements and higher County internal service costs.

A motion was made by Ms. Klinefelt, supported by Mr. Santo to approve the 2018-2019 budget as presented.

Adopted: YEAS: 3  
NAYS: 0

The Chair presented the invoices totaling \$441,027.99 to the board for review and approval.

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

Adopted: YEAS: 3  
NAYS: 0

A motion to receive and file the financial report given by Mr. Baker was made by Mr. Santo and supported by Ms. Klinefelt.

Adopted: YEAS: 3  
NAYS: 0

There being no further business, it was moved by Ms. Klinefelt, supported by Mr. Santo, 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 10:57 a.m.

  
\_\_\_\_\_  
Candice S. Miller, Chair  
Macomb County Public Works Commissioner



STATE OF MICHIGAN  
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on September 10, 2018 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: 9/12/18

9451.bd

EIGHT AND ONE-HALF MILE RELIEF DRAIN - 10/15/18

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance	
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	Colville Electric Co., LLC	\$ 2,037.97	Invoice #WO18-0745 - 9/14/18	Electrical Repairs on Flushing System		
		Astorino	Cummins Bridgeway	\$ 2,490.47	Invoice #S6-2490 - 8/17/18	Replace Battery Charger on Generator		
		Astorino	DTE Energy	\$ 13,352.28	Monthly Electric - 8/9/18 - 9/10/18	SWFPs		
		Astorino	Macomb County	\$ 543.44	Invoice #301077 - 9/11/18	Monthly Fuel		
		Astorino	Macomb Interceptor Drain	\$ 1,353.54	Reimbursement for Personnel - August 2018			
		Astorino	OHM Advisors	\$ 3,485.00	Invoice #197065 - 9/6/18 Engineering Services - ending 8/25/18	Chapaton TRC Monitoring	\$ 9,746.25	
		Astorino	RG Eisenhardt Contracting, Inc.	\$ 12,720.00	Invoice #4418 - 9/21/18	Repair Catch Basin		
		Astorino	Swan Analytical Instruments	\$ 6,511.75	Invoice #IN-US18-2364 - 9/12/18	Materials used in lab for TRC testing		
		Astorino	Tetra Tech, Inc.	\$ 15,110.91	Invoice #51349113 - 8/31/18 Engineering Services - ending 8/24/18	Chapaton Expansion Study	\$ 35,955.06	
		Astorino	Wade Trim	\$ 13,438.75	Invoice #M2012687 - 9/26/18 Engineering Services - 8/26/18 - 9/22/18	RTB Segmentation/Disinfection Study	\$ 82,952.50	
					\$ 71,044.11			

# Colville Electric Co., LLC

15210 Toepfer Dr.  
Eastpointe, MI 48021

# Invoice

Invoice #	WO18-0745
Due Date	Date
9/14/2018	8/15/2018

Bill To
Macomb County DPW 23001 Nine Mile Rd. St. Clair Shores, MI 48080

Job Location
Chapton Station

P.O. No.	Terms	Tech
	Net 30	

Date	Description	Quantity	Rate	Amount
	Replaced old disconnects with new disconnects Wired valves 8,13,6,7 Set limits for each valve			
	1/4-20 Unistrut Spring Nut	16	1.334	21.34
	1-5/8' Galvanized Unistrut, Slotted	20	3.1823	63.65
	7/8' Galvanized Unistrut, Slotted	20	2.7372	54.74
	1/4" hex bolts	30	0.12	3.60
	1/4" flat washers	25	0.09	2.25
	1/4" Lead set anchors	6	0.73	4.38
	#12 ring terminal lugs	5	0.23	1.15
	Ideal Tan Wirenut	25	0.2282	5.71
	15A 600V	5	16.23	81.15
	Labor(@\$80/hr):AM	9.75	80.00	780.00
	Labor(@\$80/hr):ND	9.75	80.00	780.00
	Labor(@\$80/hr):DC	3	80.00	240.00

Chg: 8 1/2 Mile

Date	9-10-18
Chief Deputy	MB
Engineer(s)	
Manager(s)	UA
Coordinator(s)	BP
Finance Officer	<i>[Signature]</i>

PROJ40513 9300D

Staff 9-18-18	<b>Total</b>	\$2,037.97
---------------	--------------	------------

Board 10-15-18 *Past Due Invoices Are Subject To 1.5% Per Month Finance Charge.*  
If you have any questions, please call 586.774.9110

**CHAPATON RETENTION TREATMENT BASIN AND PUMP STATION**

**23001 NINE MILE ROAD  
ST. CLAIR SHORES, MI 48080**

**PURCHASE ORDER**

BUDGET EXPENSE # 93000 FILE # 1519-3-921

DATE ORDERED: 8/15/18 PURCHASE ORDER # \_\_\_\_\_

DATE RECEIVED: 8/15/18 SELLER'S INVOICE # WO18-0745

NAME OF DRAIN: 8 1/2 Mile Relief

NAME OF PRODUCT, REASON FOR PURCHASE AND LOCATION USED: \_\_\_\_\_

Electrical repairs on Chapaton flushing system

COMPANY ORDER PLACED WITH: Colville Electric Co., LLC

AMOUNT: \$2,037.97





# Sales and Service

NEW HUDSON MI BRANCH  
54250 Grand River Avenue  
New Hudson, MI 48165-  
(248)573-1900

RECEIVED  
SEP 10 2018  
BY: MH

Payment terms are 30 days from invoice date unless otherwise agreed upon in writing. Remit to:  
#774494  
4494 Solutions Center  
Chicago, IL 60677-4004

\$2490.47

INVOICE NO
S6-2490
REMIT TO:#774494 4494 Solutions Center Chicago,IL 60677-4004

### BILL TO

MACOMB COUNTY DPW  
21777 DUNHAM RD  
CLINTON TWP, MI 48036-1005

### OWNER

MACOMB COUNTY OPW  
23001 9 MILE RD  
ST CLAIR SHORES, MI 48080-  
PETER TROMBLEY - 586 772-3425

PAGE 1 OF 2

\*\*\* CHARGE \*\*\*

DATE	CUSTOMER ORDER NO.	DATE IN SERVICE	ENGINE MODEL	PUMP NO.	EQUIPMENT MAKE
17-AUG-2018			GFGA		ONAN
CUSTOMER NO.	SHIP VIA	FAIL DATE	ENGINE SERIAL NO.	CPL NO.	EQUIPMENT MODEL
207709		25-JUL-2018	HM08H31673201		GEN SET
REF. NO.	SALESPERSON	PARTS DISP.	MILEAGE/HOURS	PUMP CODE	UNIT NO.
190808	CF492		/ 199.7		CHAPATAN

QUANTITY ORDERED	BACK ORDERED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	PRODUCT CODE	UNIT PRICE	AMOUNT
			HM08H31673201	OSN/MSN/VIN			
				COMPLAINT			
				CAUSE			
				CORRECTION			
				COVERAGE			

UNIT IS PUTTING OUT A LOW VOLTAGE SIGNAL.  
 BAD CHARGER  
 7-26-18 DROVE TO JOB SITE AND GAINED ACCESS TO THE GENERATOR, CHECKED FLUIDS - OK. PETE SET UP AN EXERCISE THROUGH SCADA, LOAD TESTED BATTERIES (1415 / 1460 CCA) - OK, TURNED BATTERY CHARGER UP TO 26.6 VDC FROM 25.8 VDC. TESTED GENERATOR AND NO FAULTS SHOWED UP, LEFT IN AUTO. WILL SEND QUOTE FOR NEW BATTERY CHARGER.  
 8-16-18 DROVE TO JOB SITE AND FOUND BREAKER TO SHUT OFF BATTERY CHARGER, REMOVED OLD CHARGER AND INSTALLED NEW ONE. SET UP PARAMETERS AND TESTED BATTERIES - OK  
 RAN UNIT TO TESTED CHARGER - OK. LEFT IN AUTO

1	1	NRG22-10-RC	CHARGER	E1-AUX	703.35	703.35
---	---	-------------	---------	--------	--------	--------

Chy: 8 1/2 Mile

Date 9.10.18  
 Chief Deputy BB  
 Engineer(s) \_\_\_\_\_  
 Manager(s) UA  
 Coordinator(s) UA  
 Finance Officer UA

PA 040584 93000

PARTS:	703.35	
PARTS COVERAGE CREDIT:		0.00 CR
TOTAL PARTS:	703.35	
SURCHARGE TOTAL:		0.00
LABOR:		1,358.00
LABOR COVERAGE CREDIT:		0.00 CR
TOTAL LABOR:	1,358.00	
TRAVEL:		56.00
TRAVEL COVERAGE CREDIT:		0.00 CR
TOTAL TRAVEL:	56.00	
MISC.:		373.12
MISC. COVERAGE CREDIT:		0.00 CR
TOTAL MISC.:	373.12	

Billing Inquiries? Call (877)480-6970

THERE ARE ADDITIONAL CONTRACT TERMS ON THE REVERSE SIDE OF THIS DOCUMENT, INCLUDING LIMITATION ON WARRANTIES AND REMEDIES, WHICH ARE EXPRESSLY INCORPORATED HEREIN AND WHICH PURCHASER ACKNOWLEDGES HAVE BEEN READ AND FULLY UNDERSTOOD.

Start 9-18-18  
Done 10-15-18

9

SIGNATURE

DATE



Payment terms are 30 days from invoice date unless otherwise agreed upon in writing. Remit to:  
 #774494  
 4494 Solutions Center  
 Chicago, IL 60677-4004

NEW HUDSON MI BRANCH  
 54250 Grand River Avenue  
 New Hudson, MI 48165-  
 (248)573-1900

INVOICE NO
S6-2490
REMIT TO:#774494 4494 Solutions Center Chicago,IL 60677-4004

**BILL TO**

MACOMB COUNTY DPW  
 21777 DUNHAM RD  
 CLINTON TWP, MI 48036-1005

**OWNER**

MACOMB COUNTY OPW  
 23001 9 MILE RD  
 ST CLAIR SHORES, MI 48080-  
 PETER TROMBLEY - 586 772-3425

PAGE 2 OF 2

\*\*\* CHARGE \*\*\*

DATE	CUSTOMER ORDER NO.	DATE IN SERVICE	ENGINE MODEL	PUMP NO.	EQUIPMENT MAKE
17-AUG-2018			GFGA		ONAN
CUSTOMER NO.	SHIP VIA	FAIL DATE	ENGINE SERIAL NO.	CPL NO.	EQUIPMENT MODEL
207709		25-JUL-2018	HM08H31673201		GEN SET
REF. NO.	SALESPERSON	PARTS DISP.	MILEAGE/HOURS	PUMP CODE	UNIT NO.
190808	CF492		/ 199.7		CHAPATAN

QUANTITY ORDERED	BACK ORDERED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	PRODUCT CODE	UNIT PRICE	AMOUNT
			OSN/MSN/VIN HM08H31673201				
				SHOP SUPPLIES			141.12
				ROAD MILEAGE FS PG			232.00
TAX EXEMPT NUMBERS:						LOCAL	0.00

Billing Inquiries? Call (877)480-6970

THERE ARE ADDITIONAL CONTRACT TERMS ON THE REVERSE SIDE OF THIS DOCUMENT, INCLUDING LIMITATION ON WARRANTIES AND REMEDIES, WHICH ARE EXPRESSLY INCORPORATED HEREIN AND WHICH PURCHASER ACKNOWLEDGES HAVE BEEN READ AND FULLY UNDERSTOOD.

SUB TOTAL: 2,490.47

TOTAL TAX: 0.00

TOTAL AMOUNT: US \$ **2,490.47**

10

AUTHORIZED BY (print name) \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

**CHAPATON RETENTION TREATMENT BASIN AND PUMP STATION**

**23001 NINE MILE ROAD  
ST. CLAIR SHORES, MI 48080**

**PURCHASE ORDER**

BUDGET EXPENSE # \_\_\_\_\_ FILE # 1519-3-910-95

DATE ORDERED: 8/17/18 PURCHASE ORDER # \_\_\_\_\_

DATE RECEIVED: 8/17/18 SELLER'S INVOICE # S6-2490

NAME OF DRAIN: 8 ½ Mile Relief

NAME OF PRODUCT, REASON FOR PURCHASE AND LOCATION USED: \_\_\_\_\_

Low voltage signal on generator – replaced battery charger

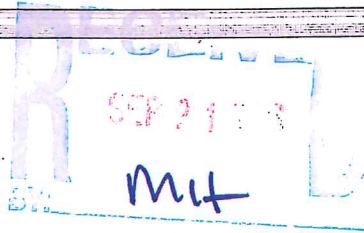
COMPANY ORDER PLACED WITH: Cummins Bridgeway

AMOUNT: \$2,490.47



# Account Information

MACOMB COUNTY  
MACOMB COUNTY DRAIN COMM  
21777 HUNHAM RD  
CLINTON TWP, MI 48036



**Account Number** 9100-0005-3785

DTE-Energy Federal ID No. 38-3217752

## Programs you are enrolled in:

18-469

## How to contact us:

Power Outage See Detail Charges  
Billing Inquiry 1-734-397-4309

Please make any inquiry or complaint about this bill to DTE Energy before the Due Date. DTE Energy is regulated by the Michigan Public Service Commission, Lansing, Michigan

# Important Information

Electric rate filing. We have filed a request with the Michigan Public Service Commission in Case No. U-20162 to adjust power supply and distribution rates. A copy of our filing and explanation of the proposed changes may be viewed at our offices and at <http://efile.mpasc.state.mi/efile>.

Chg: 8 1/2 Mile

Date	9.23.18
Chief Clerk	BD
Engineer	
Manager (S)	UA
Coordinator (S)	BD
Finance Officer	hkm

PA-040707 92300





# Detail Charges

For Service at: 23001 E 9 Mile Rd, St Clair Shores, MI 48082

Outage Contact Number: 1-313-235-1300

Invoice: 200001059665

Billing Period: 07/10/2018 through 08/08/2018

Days Billed: 30

## Metering Information

Meter Number	Start Date	Start Read	Stop Date	Stop Read	Read Difference	Units Multiplier	Usage Used	Type
6321448	07/10	283.9A	08/08	289.1A	5.2	6,400.0000	33,280.0	P - In-V
6321448	07/10	353.1A	08/08	358.7A	5.6	6,400.0000	35,840.0	P - In-W
6321449	07/10	0.0A	08/08	0.0A	0.0	- 6400.0000	0.0	P - Out-W
6321449	07/10	0.8A	08/08	0.8A	0.0	- 6400.0000	0.0	P - Out-V
6321451	07/10	0.4A	08/08	0.4A	0.0	6,400.0000	0.0	P - In-V
6321451	07/10	0.4A	08/08	0.4A	0.0	6,400.0000	0.0	P - In-W
<b>Total KVARH</b>							<b>33,280.00</b>	
<b>Total KWH</b>							<b>35,840.00</b>	

Invoice: 200001059665 Service Name: Chapaton Pumping Station

Item: 7004376662 Cycle: 05

General Service Municipal Pumping-Net Metering Cat1

## Billing Status Information

1	On-peak Billing Demand	230	KW	ESTABLISHED	08/02/2018	17:00
3	65% High OP Bill Dmd June-Oct prec 11 mths	1697	KW	ESTABLISHED	06/27/2018	17:30
8	Highest Single Billing Demand	2908	KW	ESTABLISHED	08/01/2018	03:00
A	Current PV High Monthly Demand	2908	KW	ESTABLISHED	08/01/2018	03:00
B	50% of the Contract Capacity for PV	0	KW			
C	Primary Voltage Maximum Demand	4101	KW	ESTABLISHED	08/28/2017	21:00
	Contract Capacity for Location	6738	KW	ESTABLISHED	08/16/2016	05:00
	Power Factor (ratio) for all voltages	73	PCT			
	Total Number of days in the Billing Period	30	DAYS			
	Avg Kilowatthours Used Per Day This Period	1195	KWH			
	kWh percentage change from a year ago	-28	PCT			
	Avg Kilowatthours Used Per Day A Year Ago	1668	KWH			
	Metered outflow	0	KWH			
	Net Delivery Billed (inflow)	35840	KWH			
	Net Inflow (In - Out)	35840	KWH			

## Charges for 07/10/2018 through 08/08/2018

### Power Supply Charges:

Power Supply Energy:						
Power Supply Energy Charge	35,840	KWH			Per Total KWH	0.00
Power Supply Capacity Charge (08/01/2018-08/08/2018)	16,000	KWH	@ \$	0.0299700	Per Total KWH	479.52
Power Supply Capacity Charge (07/10/2018-07/31/2018)	19,840	KWH	@ \$	0.0321400	Per Total KWH	637.66
Power Supply Non Capacity Charge (08/01/2018-08/08/2018)	16,000	KWH	@ \$	0.0478000	Per Total KWH	764.80
Power Supply Non Capacity Charge (07/10/2018-07/31/2018)	19,840	KWH	@ \$	0.0477800	Per Total KWH	947.96
Surcharges:						
Power Supply Cost Recovery Factor	35,840	KWH	@ \$	-0.0008700	Per Total KWH	- 31.18
Sub Total:						2,798.76

### Delivery Charges:

Service Charge						11.25
Distribution:						
Distribution Energy (07/10/2018-07/31/2018)	19,840	KWH	@ \$	0.0386500	Per Total KWH	766.82
Distribution Energy (08/01/2018-08/08/2018)	16,000	KWH	@ \$	0.0361400	Per Total KWH	578.24
Surcharges:						
Nuclear Surcharge	35,840	KWH	@ \$	0.0007650	Per Total KWH	27.42
Energy Waste Reduction	2	MTR	@ \$	37.2200000		74.44
LIEAF Factor	2	MTR	@ \$	0.9300000		1.86
Sub Total:						1,460.03
Special Facilities Charge						2,500.00

### Invoice Subtotal

6,758.79

Michigan State Sales Tax On Taxable Portion

0.00

### Invoice Total

\$6,758.79



# Summary Of Charges

**Account Number 9100-0005-3785**

Previous Balance as of 07/12/2018 7,136.61  
Payment(s) and Credit(s) - 7,136.61  
Remaining Balance \$0.00

## Current Charges

Service Location	Item	Service Type	Rate	Bill Period	Amount
23001 E 9 Mile Rd	7004376662	General Service Municipal Pumping-Net Metering Cat1	EFCND3_WP	07/10 - 08/08/18	6,758.79
	7004376662	General Service Municipal Pumping-Net Metering Cat1	EFCND3_WP	08/09 - 09/10/18	6,593.49
		<b>Taxes</b>			<b>0.00</b>
		<b>Miscellaneous Charges</b>			<b>0.00</b>
		<b>Current Bill</b>			<b>\$13,352.28</b>

**Amount Due on or before Due Date of 10/08/2018 \$13,352.28**

Your current charges are due on October 8, 2018. A 2% late payment charge will be applied if paid after the due date.

Staff 10.2.18  
Board 10.15.18



Vo1085 02

MACOMB COUNTY DEPARTMENT OF ROADS  
117 South Groesbeck  
Mt. Clemens, MI 48043-0000

INVOICE

Period Ending - 08/31/2018

Phone: 586-463-8671

0004  
County of Macomb  
120 North Main Street, 2nd Floor  
Mount Clemens, MI 48043-0000

PAY FROM THIS INVOICE

Invoice Number 301077  
Invoice Date 09/11/2018  
Work Order Number CFM002

County Fleet Mtce-Fuel  
Macomb County Fuel billing

Department  
PUBLIC WORKS

Total  
4,039.31

Amount Due: 4,039.31

Invoice # 301077 \$4,039.31

mt

**Tammy Goike**  
101 44101 - Public Works  
**\$1,795.32**  
639 44101 - Drain Maintenance  
**\$677.09**

**Public Works**  
Pump Station <sup>8 1/2</sup>  
**\$543.44**  
Wastewater <sup>MIDDD</sup>  
**\$1,023.46**

Date 9-18-18  
Chief Deputy \_\_\_\_\_  
Engineer (s) \_\_\_\_\_  
Manager(s) \_\_\_\_\_  
Coordinator(s) \_\_\_\_\_  
Finance Officer btm

Chy:  
**PA 04 0685**  
**93002**

Please send payment within 30 days and include the invoice number on your check.  
If you have any questions, please feel free to call Kathy at 586-463-0324



Invoice Number	Due From	Due to	Amount
060-18	MIDDD	8.5 Mile	\$1,266.63
059-18	MIDDD	8.5 Mile	\$994.26
			<b>\$2,260.89</b>

Invoice Number	Due From	Due to	Amount
079-18	8.5 Mile	MIDDD	\$3,614.43
			<b>\$3,614.43</b>

8.5 Mile Due to MIDDD	\$3,614.43
MIDDD Due to 8.5 Mile	\$2,260.89
<b>Total Due from 8.5 Mile to MIDDD</b>	<b>\$1,353.54</b>

Staff 9-18-18  
 - Rand 10-15-18

Chg: 8 1/2 Mile

Date	9.10.18
Chief Deputy	BD
Engineer(s)	
Manager(s)	UA
Coordinator(s)	BD
Finance Office	BA

PA040575 70200  
 RV01525



# MIDDD

## Operation, Maintenance & Repair Reimbursement Work Order Project Report

<b>Drain</b>	8 1/2 Mile Relief Drain	<b>Invoice Period</b>	8/11/18 - 9/7/18
<b>Account #</b>		<b>Invoice No.</b>	079-18
<b>Drain #</b>		<b>Wismer #</b>	

**DESCRIPTION:**

**WORK PERFORMED:**

Operations & maintenance - 8/13/18, 8/22/18, 8/23/18, 8/24/18, 8/27/18, 8/28/18

fill shift - 8/11/18; stand-by - 8/11/18

PERSONNEL	STAFF HOURS	1.5 OT HOURS	HOURLY RATE WITH FRINGE	1.5 OT RATE	SUB TOTAL
GELLE			46.29	59.95	0.00
PIRKOVIC (8/11, 8/13, 8/22, 8/23, 8/24, 8/27, 8/28)	47	24	46.29	59.95	3,614.43
ROSKOPP			46.62	60.45	0.00
SANTO			57.60	76.76	0.00

**TOTAL: \$ 3,614.43**

<b>Date</b>
<b>Chief Deputy</b>
<b>Engineer(s)</b>
<b>Manager(s)</b>
<b>Coordinator(s)</b>
<b>Finance Officer</b>

9433.bd

# 8 1/2 Mile Relief Drain

## Operation, Maintenance & Repair Reimbursement Work Order Project Report

<b>Drain</b>	MID	<b>Invoice Period</b>	8/11/18 - 9/7/18
<b>Account #</b>		<b>Invoice No.</b>	059-18
<b>Drain #</b>		<b>Wisner #</b>	

**DESCRIPTION:**

**WORK PERFORMED:**

Daily Monitoring - 8/11/18 - 9/7/18

PERSONNEL	STAFF HOURS	1.5 OT HOURS	HOURLY RATE WITH FRINGE	1.5 OT RATE	SUB TOTAL
AVERY			39.39		
BENDA (8/31)	1		41.35	54.05	41.35
BUGAMELLI			23.59		0.00
DEHRING (8/15, 8/21, 8/24, 8/26, 8/30, 9/1)	6		41.66	54.52	249.96
LAVIGNE (8/12, 8/14, 8/16, 8/18, 8/22, 8/28, 9/2, 9/6)	8		41.35	54.05	330.80
LUPO (8/14, 8/17, 8/19, 8/23, 8/25, 8/29, 9/3, 9/4, 9/7)	9		41.35	54.05	372.15
SCHMEISER			41.76	54.67	0.00
SEMROW			30.13	40.30	0.00
TROMBLEY			52.14	70.07	0.00

**TOTAL: \$ 994.26**

<b>Date</b>
<b>Chief Deputy</b>
<b>Engineer(s)</b>
<b>Manager(s)</b>
<b>Coordinator(s)</b>
<b>Finance Officer</b>

9432.bd

# 8 1/2 Mile Relief Drain

## Operation, Maintenance & Repair Reimbursement Work Order Project Report

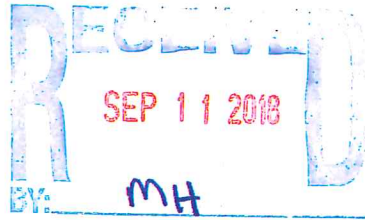
<b>Drain</b>	MID	<b>Invoice Period</b>	8/11/18 - 9/7/18
<b>Account #</b>		<b>Invoice No.</b>	060-18
<b>Drain #</b>		<b>Wismer #</b>	
<b>DESCRIPTION:</b>			
<b>WORK PERFORMED:</b>			
Metering inspections - CH-S-1/CH-S-2 - 8/15/18; fatburg inspection - 8/17/18; install temperature water valve, ARV maintenance - 8/30/18, 9/4/18, 9/5/18; biofilter - install coupling on main air blower - 8/28/18; fab manhole cover and install on 15 Mile & Eberlein - 8/27/18			

PERSONNEL	STAFF HOURS	1.5 OT HOURS	HOURLY RATE WITH FRINGE	1.5 OT RATE	SUB TOTAL
AVERY			39.39		
BENDA (8/15, 8/17, 8/30, 9/4, 9/5)	19		41.35	54.05	785.65
BUGAMELLI			23.59		0.00
DEHRING			41.66	54.52	0.00
LAVIGNE			41.35	54.05	0.00
LUPO			41.35	54.05	0.00
SCHMEISER (8/15)	2		41.76	54.67	83.52
SEMROW (9/5)	8		30.13	40.30	241.04
TROMBLEY (8/27, 8/28)	3		52.14	70.07	156.42

**TOTAL: \$ 1,266.63**

<b>Date</b>
<b>Chief Deputy</b>
<b>Engineer(s)</b>
<b>Manager(s)</b>
<b>Coordinator(s)</b>
<b>Finance Officer</b>

9432.bd



Macomb County Public Works Office  
 Attn: Vincent Astorino  
 21777 Dunham Road  
 Clinton Township, MI 48036

Invoice Date: 09/06/2018  
 Invoice #: 197065  
 Project: 0314-18-0010

Project Name: Chapaton TRC Monitoring

Job # WWS 18-012  
 Email to michelle.houvener@macombgov.org

For Professional Services Rendered through: 8/25/2018

Description	Fee	Prior Billed	Total Available	Current Billing
Task 1 Understanding Facility and Site	6,500.00	3,993.75	2,506.25	2,485.00
Task 2 Performing Pilot Study	2,500.00	2,775.00	0.00	0.00
Task 3 Data Analysis and Summary	3,000.00	0.00	3,000.00	1,000.00
Task 4 Integrating Monitoring into Long-term Goals	4,000.00	0.00	4,000.00	0.00
Task 5 Deliverables	4,000.00	0.00	4,000.00	0.00
<b>Amount Due This Invoice **</b>	<b>20,000.00</b>	<b>6,768.75</b>	<b>13,231.25</b>	<b>3,485.00</b>

Chg: 8 1/2 Mile Ref

Date 9.11.18  
 Chief Deputy AB  
 Engineer(s) \_\_\_\_\_  
 Manager(s) UB  
 Coordinator(s) BD  
 Finance Officer ftm

PA040623 80300

REMIT TO:  
 OHM Advisors  
 34000 PLYMOUTH RD T 734.522.6711  
 LIVONIA, MICHIGAN 48150-1512 F 734.522.6427 OHM-Advisors.com

Staff 9-18-18  
 Board 10-15-18

Project Balance \$ 9746.25<sup>20</sup>





Macomb County Public Works Office  
 Attn: Vincent Astorino  
 21777 Dunham Road  
 Clinton Township, MI 48036

Invoice Date: 09/06/2018  
 Invoice #: 197065  
 Project: 0314-18-0010

**Task 1 Understanding Facility and Site**

**Fixed Rates Labor**

<i>Classification</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Graduate Engineer I	9.00	110.0000	990.00
Graduate Engineer II	2.50	120.0000	300.00
Graduate Engineer III	8.00	125.0000	1,000.00
Principal	1.00	195.0000	195.00
	Fixed Rates Labor subtotal	20.50	2,485.00
<b>Total Understanding Facility and Site</b>			<b>2,485.00</b>

**Task 3 Data Analysis and Summary**

**Fixed Rates Labor**

<i>Classification</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Graduate Engineer III	8.00	125.0000	1,000.00
<b>Total Data Analysis and Summary</b>			<b>1,000.00</b>

**Total Project: 0314180010 - Chapaton TRC Monitoring** **3,485.00**

REMIT TO:

**OHM Advisors**

34000 PLYMOUTH RD  
 LIVONIA, MICHIGAN 48150-1512

T 734.522.6711  
 F 734.522.6427

OHM-Advisors.com

V06717 (01)  
 8210017M  
 80126  
 CC0017  
 W018300  
**Invoice**

RG EISENHARDT CONTRACTING, INC.

9738 Gratiot  
 Columbus, MI 48063

Date	Invoice #
9/21/18	4418

Bill To  
 Macomb County Public Works  
**CHAPATON REPAIR**

S.O. No.	P.O. No.	Terms	Due Date	Project
		Net 15 Days	10/6/18	

Service Date	Description	Quantity	Rate	Measure	Amount
	Services provided for Consumers at 9 Mile Pup Station Location  Provided all necessary supervision, labor, material and equipment needed to perform the repair of the existing catch basin with the county's new grates.		12,720.00		12,720.00

A finance charge of 1.5% per month will be charged on all accounts past due.

Subtotal	\$12,720.00
<b>Sales Tax (6.0%)</b>	\$0.00
<b>Total</b>	<b>\$12,720.00</b>

Phone #	Fax #
5867272233	586-727-7170

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

Delivery address  
Macomb County Public Works  
23001 9 Mile Road  
St Clair Shores, MI 48080



**Invoice No. IN-US18-2364**

IL 60090 Wheeling, 09/12/2018

Page 1/1

Your Order No: 8-28-232  
Your Contact: Vince Astorino  
Customer No: 625052  
Date: 08/30/2018

Payment Condition: net 30 days  
Prices VAT: Sales Tax not included  
Delivery Terms: ex works

Pos.	Part-No.	Items	Quant.	Price	TOTAL USD
10	A-25.441.600.0	Analyzer AMI Codes-II TC SN 6403 AMI transmitter/controller in aluminum case on mounting panel with fotometer and flow cell for determination of total chlorine. Power supply 100-240 VAC,50/60 Hz or 24 VDC	1	5,000.00	5,000.00
20	A-87.127.020	Option pH for AMI Codes. Electronic print for transmitter AMI Codes, pH combined gel electrode and temperature sensor, incl. cables, overflow tube.	1	685.00	685.00
30	A-85.410.120	Reagent set Oxycon On-line DPD, 8 sets For the determination of free chlorines, chlorine dioxide and bromine. 8 sets. For air transport according to IATA classified as "dangerous goods"	1	405.00	405.00
40	A-85.419.200	Reagent set Oxycon On-line KI, 8 sets. Reagent set for the determination of total residual chlorine, monochloramines and ozone.	1	246.00	246.00
50	A-85.119.010	pH-Calibration set (1x pH 7, 1x pH 9, each 40 ml)	1	46.00	46.00
60	V-9703097	Freight and Insurance Costs -ACTUAL	1	129.75	129.75

TOTAL USD

UPS TRACKING  
1ZA154F50350087995  
1ZA154F50349734001

*Chg: 8 1/2 Mile Ref*

Date	<u>9.14.18</u>
Chief Deputy	<u>PR</u>
Engineer(s)	
Manager	<u>UA</u>
Coordinator	<u>MB</u>
Finance Officer	<u>HM</u>

\$6,511.75

*State 9-18-18*  
*Kiana 10-15-18*

**97600**



Tetra Tech, Inc.  
 424 Lewis Hargett Circle  
 Ste. 110  
 Lexington, KY 40503  
 (859) 223-8000

**BILL TO:** MACOMB COUNTY  
**ATTN:** FINANCE DEPARTMENT  
 OFFICE OF PUBLIC WORKS  
 COMMISSIONER  
 21777 DUNHAM RD  
 PO BOX 806  
 CLINTON TOWNSHIP, MI 48036

**INVOICE NUMBER:** 51349113  
**INVOICE DATE:** 08/31/2018  
**SERVICES THROUGH:** 08/24/2018  
**FEDERAL TAX ID#:** 95-4148514  
**TERMS:** NET 30

Project Contact - Vincent Astorino - vincent.astorino@macombgov.org  
 Notice of Award 2/14/18

**PROFESSIONAL SERVICES:**

Project Number 200-16347-18001 Macomb Chapaton Expansion Study-MCPWO Project: MCPWO-WWS-2018-004  
 Top Task 001 Study

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Hufnagel, Carol L.	Program Manager	1.00	\$200.00	\$200.00
Kingsley, Kenneth	Sr Project Manager	4.00	\$200.00	\$800.00
Rubel, Brian M.	Program Manager	20.00	\$200.00	\$4,000.00
Takacs, Krista M.	Project Engineer 1	6.50	\$150.00	\$975.00
<b>TOTAL LABOR</b>		<b>31.50</b>		<b>\$5,975.00</b>
		<b>SUBTOTAL</b>		<b>\$5,975.00</b>

OTHER DIRECT CHARGES	TYPE	CURRENT QUANTITY	UNIT RATE	CURRENT AMOUNT
DOLLAR BILL COPYING	Outside Reproductions			\$36.39
UNITED PARCEL SERVICE INC	Postage/Shipping			\$9.12
<b>TOTAL OTHER DIRECT CHARGES</b>				<b>\$45.51</b>
		<b>SUBTOTAL</b>		<b>\$45.51</b>

Total Top Task# 001 \$6,020.51

Top Task 003 Sub-ASTI

SUBCONTRACTOR	TYPE	CURRENT AMOUNT
ASTI ENVIRONMENTAL	Subcontractor-External	\$8,264.00
<b>TOTAL SUBCONTRACTOR CHARGES</b>		<b>\$8,264.00</b>
	Plus Mark-up	826.40
	<b>SUBTOTAL</b>	<b>\$9,090.40</b>

Total Top Task# 003 \$9,090.40

Total Project# 200-16347-18001 \$15,110.91

TOTAL AMOUNT DUE THIS INVOICE: **\$15,110.91**

*WWS 18-004*

*Chg: 8 1/2 Mile*

Date	<i>9.4.18</i>
Chief Deputy	<i>AB</i>
Engineer (s)	
Manager (s)	<i>JK</i>
Coordinator (s)	<i>SD</i>
Finance Officer	<i>hmm</i>

*Staff 9-18-18*

*PA040510*

*80300*

*Board 10-15-18*

*Plt. Balance \$35,955.06*



109446(01)  
8210017M  
80138 CC0004

W018332

INVOICE

**Wade Trim**

Wade Trim  
500 Griswold Street • Suite 2500 • Detroit, MI 48226  
313.961.3650 • FAX: 313.961.0898 • www.wadetrिम.com  
Federal ID 38-1802386

Terms: Net 30 Days  
1.5% Per Month After 30 Days  
18% Annual Rate

Macomb County Public Works  
P.O. Box 806  
Mt. Clemens, MI 48046-0806

Attention: Stephen Downing  
Engineer II-Waste Water Services

Invoice Date : September 26, 2018  
Invoice # : M2012687  
Project # : MCW200401D

Remit payment to : Wade Trim  
500 Griswold Street  
Suite 2500  
Detroit, MI 48226

**Re: Basin Segmentation/Disinfection Sys**

For Professional Services rendered from 8/26/2018 through 9/22/2018

Chapaton RTB Segmentation and Disinfection

WWS 18-006

Total Salaries	\$13,438.75
Total Expenses	\$0.00
Professional Services Rendered	\$13,438.75

**Amount Due This Invoice** \$13,438.75 *pay*

Statement	
Prior Invoices	\$21,108.75
This Invoice	\$13,438.75
Total Invoiced	\$34,547.50
Paid to Date	\$21,108.75
Amount Outstanding	\$13,438.75

Fee Summary	
Authorized Fee	\$117,500.00
Total Invoiced	\$34,547.50
Amount Remaining	\$82,952.50

*for Chapato  
portion of  
WWS 18-00*

# Wade Trim

Wade Trim  
500 Griswold Street • Suite 2500 • Detroit, MI 48226  
313.961.3650 • FAX: 313.961.0898 • www.wadetrim.com  
Federal ID 38-1802386

## INVOICE

Terms: Net 30 Days  
1.5% Per Month After 30 Days  
18% Annual Rate

Invoice Date : September 26, 2018  
Invoice # : M2012687  
Project # : MCW200401D

### Phase: 200 -- Chapaton RTB Segmentation&Disinfect

#### Rate Schedule Labor

Classification	Hours	Rate	Amount
PM - Senior Professional	4.25	\$195.00	\$828.75
Project Admin	0.50	\$65.00	\$32.50
Senior Professional	64.50	\$195.00	\$12,577.50
<b>Total Rate Schedule Labor</b>	<b>69.25</b>		<b>\$13,438.75</b>

Total Phase : 200 -- Chapaton RTB Segmentation&Disinfect

Labor : \$13,438.75  
Expense : \$0.00

**Total Project: MCW200401D -- Basin Segmentation/Disinfection Sys**

**\$13,438.75**

Effort Description: Conducted meetings with technical staff to review study progress, schedule and coordinate study efforts. Completed the basin first flush compartment size analysis. Provided a technical memorandum on the basin first flush compartment size analysis. Completed the Chapaton existing disinfection system review and evaluation. Provided a technical memorandum on the Chapaton existing disinfection system evaluation. Initiated the development of basin first flush options.

**Income Statement**  
**8.5 Mile Relief**  
**As of Sept 30, 2018**

	9-30-2017	10-1-17 to 8-31-18	Sep-18	Total
	Total Fund	O&M	O&M	9/30/2018
<b>Revenues</b>		2,986,880	13,590	3,000,470
<b>Expenditures</b>		1,534,682	41,593	1,576,275
<b>Equity**</b>	3,105,754			4,529,949

**NOTES**

Reserves as of Sept 30, 2017	600,000
Required SRF repair & replacement reserve balance 9/	1,308,558
Total	<u>1,908,558</u>

**\*\* Broken out as follows:**

Engineering carryover balance at 9/30/2017	356,050
Repair and Maintenance carryover at 9/30/2017	422,000
SCADA reserve at 9/30/2017	40,000
Equipment carryover balance at 9/30/2017	131,800
Required SRF repair & replacement reserve balance 9/	1,308,558
Emergency Reserve	600,000