

**NOTICE OF MEETINGS**  
**DRAINAGE BOARD FOR THE FOLLOWING DRAINS:**

1. Drainage District Policy
2. Bloomfield Village CSO Drain
3. Clinton River Water Resource Recovery Facility
4. George W. Kuhn Drain
5. Evergreen- Farmington Sanitary Drain
6. Augusta Drain
7. Minnow Pond Drain
8. Nelson Drain
9. Northwest Oakland Sanitary Sewer
10. Pebble Creek Drain

NOTICE IS HEREBY GIVEN THAT MEETINGS OF THE DRAINAGE BOARD FOR THE ABOVE-MENTIONED DRAINS WILL COMMENCE IN THE OAKLAND COUNTY PUBLIC WORKS BUILDING, ONE PUBLIC WORKS DRIVE, WATERFORD, MICHIGAN, AND VIA **MICROSOFT TEAMS** AT 2:00 P.M., ON **TUESDAY, NOVEMBER 15, 2022**, TO CONDUCT NECESSARY AND APPROPRIATE BUSINESS OF THE DRAIN BOARDS. THOSE THAT WISH TO PARTICIPATE REMOTELY MAY FOLLOW THE INSTRUCTIONS ATTACHED TO THIS NOTICE. ALL BOARD MEMBERS WILL BE PARTICIPATING IN-PERSON.

DURING THE MEETING, THERE WILL BE AN AGENDA ITEM FOR PUBLIC COMMENT, DURING WHICH THE PUBLIC MAY PROVIDE INPUT OR ASK QUESTIONS OF THE BOARD. IN THE EVENT A MEMBER OF THE PUBLIC WOULD LIKE TO SUBMIT THEIR INPUT OR QUESTIONS TO BE READ AT THE MEETING BY THE BOARD CHAIRPERSON, PLEASE PROVIDE THE INPUT OR QUESTIONS IN WRITING TO STEPHANIE LAJDZIAK AT [LAJDZIAKS@OAKGOV.COM](mailto:LAJDZIAKS@OAKGOV.COM). PERSONS WITH DISABILITIES THAT NEED ASSISTANCE PARTICIPATING IN THE MEETING SHOULD CONTACT STEPHANIE LAJDZIAK AT [LAJDZIAKS@OAKGOV.COM](mailto:LAJDZIAKS@OAKGOV.COM).

JIM NASH  
Oakland County Water Resources Commissioner  
Telephone: 248-858-0958

Posted by: November 9, 2022

# Microsoft Teams meeting

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## **1. Drainage District Policy**

## **AGENDA**

### **DRAINAGE BOARD FOR POLICY MATTERS**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of September 27, 2022
3. Public Comments
4. Present proposed 2023 Meeting Schedule
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR POLICY MATTERS**

September 27, 2022

A meeting of the Drainage Board for Policy Matters was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 27<sup>th</sup> of September 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held June 28, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

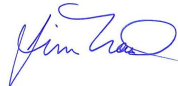
A proposal from Meadowbrook Insurance Agency regarding the renewal of the General Liability, Public Official Liability Policy, and Pollution Liability was presented. It was moved by Markham, supported by Woodward to authorize the Chairperson to bind coverage in accordance with the insurance proposal recommendations from Meadowbrook Insurance Agency with Lexington (AIG) and approve payment of any premium and/or other invoices associated with the policy renewals.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



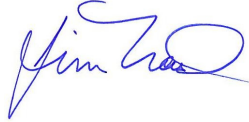
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for Policy Matters, Oakland County, Michigan, held on the 27<sup>th</sup> day of September 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for Policy Matters.



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Jim Nash, Chairperson

Dated: September 27, 2022

## **Chapter 20 Drainage Board 2023 Meeting Schedule**

*These meetings will take place at 2 p.m. in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan and on the fourth Tuesday of each month unless otherwise indicated:*

January 24<sup>th</sup>

February 28<sup>th</sup>

March 28<sup>th</sup>

April 25<sup>th</sup>

May 23<sup>rd</sup>

June 27<sup>th</sup>

\*July 18<sup>th</sup> (*third Tuesday due to MACDC Annual Summer Conference*)

August 22<sup>nd</sup>

September 26<sup>th</sup>

October 24<sup>th</sup>

\*November 28<sup>th</sup>

\*December 19<sup>th</sup> (*third Tuesday due to Christmas*)



## **2. Bloomfield Village CSO**



## **AGENDA**

### **DRAINAGE BOARD FOR THE BLOOMFIELD VILLAGE CSO DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$32,175.00
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE BLOOMFIELD VILLAGE CSO DRAIN**

October 25, 2022

A meeting of the Drainage Board for the Bloomfield Village CSO Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$587,937.09 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$587,937.09.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from George Nichols, P.E., Civil Engineer III, dated October 25, 2022, requesting the Board approve the invoice (as attached) from D'Angelo in the amount of \$858,351.81 for work associated with the repair of the sinkhole at 3055 Bradford was presented. It was moved by Markham, supported by Woodward, to approve the D' Angelo invoice in the amount of \$858,351.81 as presented.

ADOPTED: Yeas - 3  
Nays - 0

Kelsey Cooke, Manager & Chief Legal Officer, presented the Board with a Partial Settlement Agreement and Partial Release executed on October 19, 2022, between Oakland

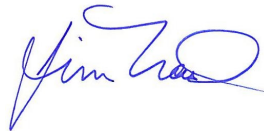
County Water Resources and Joseph and Tamara Jonna regarding 3055 Bradford. It was moved by Markham, supported by Woodward, to accept the Partial Settlement Agreement and Partial Release as presented.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



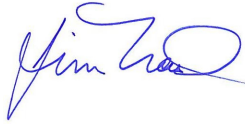
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Bloomfield Village CSO Drain, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Bloomfield Village CSO Drain Drainage District.



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Jim Nash, Chairperson

Dated: October 25, 2022

MEMO TO: Mr. Jim Nash, Chairman  
of the Drainage Board for the BLOOMFIELD VILLAGE CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting

*For Shawn Phelps*

DATE: November 15, 2022

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices for the period ending November 09, 2022

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
10/28/2022	V # SINV00139827	Systems Specialties	Invoice #56752 - Material and Supplies	<u>\$ 3,925.00</u>
			Project # 1-3552 Subtotal	<u>\$ 3,925.00</u>
10/28/2022	V # SINV00139827	Systems Specialties	Invoice #56752 - Material and Supplies	<u>\$ 28,250.00</u>
			Project # 1-7068 Subtotal	<u>\$ 28,250.00</u>
			Total	<u>\$ 32,175.00</u>

**3. Clinton River Water  
Resource Recovery Facility**

## **AGENDA**

### **DRAINAGE BOARD FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$306,316.82
5. Other business
6. Approve pro rate payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY**

October 25, 2022

A meeting of the Drainage Board for the Clinton River Water Resource Recovery Facility was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$21,062.85 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$21,062.85.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$226,995.97 (as attached) was presented. It was moved by Nash, supported by Markham, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$226,995.97.

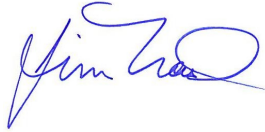
ADOPTED: Yeas - 3  
Nays - 0



It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



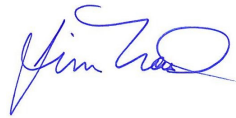
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Clinton River Water Resource Recovery Facility, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Clinton River Water Resource Recovery Facility.



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Jim Nash, Chairperson

Dated: October 25, 2022

MEMO TO: Mr. Jim Nash, Chairman  
of the Drainage Board for the CLINTON RIVER WATER RESOURCE RECOVERY FACILITY DRAIN - (Maintenance)

FROM: Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting

*for SHAWN PHELPS*

DATE: November 15, 2022

SUBJECT: Request for Approval of Invoices

The following is a detail of charges paid from the Drain Revolving Fund and Invoices for the period of October 22, 2022 to November 8, 2022.

Payable To	Ref No.	For	Amount
Atlas Copco Compressors LLC	TBP	Invoice # 1122111377 - Material and Supplies	\$ 3,432.10
PVS Technologies Inc	TBP	Invoice # 320961 - Chemical Treatment	2,352.00
PVS Technologies Inc	TBP	Invoice # 320963 - Chemical Treatment	4,066.72
PVS Technologies Inc	TBP	Invoice # 321487 - Chemical Treatment	3,281.60
PVS Technologies Inc	TBP	Invoice # 321507 - Chemical Treatment	2,188.48
PVS Technologies Inc	TBP	Invoice # 321961 - Chemical Treatment	4,080.16
Polydyne Inc	TBP	Invoice # 1681776 - Chemical Treatment	22,770.00
Jones Chemicals Inc	TBP	Invoice # 897909 - Chemical Treatment	6,272.26
Jones Chemicals Inc	TBP	Invoice # 898965 - Chemical Treatment	6,437.15
Jones Chemicals Inc	TBP	Invoice # 899680 - Chemical Treatment	3,307.28
Biotech Agronomics Inc	TBP	Invoice # 3199 - Land Application	79,256.30
Biotech Agronomics Inc	TBP	Invoice # 3222 - Land Application	75,695.03
HOH Water Technology	TBP	Invoice # 638606 - Contracted Services	1,802.00
D3W Industrials	TBP	Invoice # 3559 - Material and Supplies	5,720.00
D.J. Conley Associates, Inc	TBP	Invoice # SI-47872-1 - Contracted Services	8,115.00
Tetra Tech Inc	TBP	Invoice # 51971118 - Contracted Services	1,360.00
Tetra Tech Inc	TBP	Invoice # 51943548 - Contracted Services	1,360.00
Paradigm Labs Inc	TBP	Invoice # 31441 - Material and Supplies	1,163.00
Dickinson Wright PLLC	V # SINV00141573	Invoice # 1740882 - Legal Services - 09/30/22	21.30
United Lawnscape	TBP	Invoice UE505334 - Contracted Services	3,459.00
United Lawnscape	TBP	Invoice UE505335 - Contracted Services	1,770.00
CSM Mechancial LLC	TBP	Invoice # 22-435.1 - Equipment Rental	16,054.40
Pro-Seal Service Group	TBP	Invoice # 223828 - Contracted Services	2,091.00
			<b>Subtotal \$ 256,054.78</b>
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 417015 - Contracted Services - 10/28/22 - Proj # 1-3492	\$ 2,043.00
			<b>Subtotal - Project 1-3492 \$ 2,043.00</b>
Jacobs Consultants, Inc	TBP	Invoice # C6A19600-06 - Contracted Services - Proj # 1-3662	\$ 1,821.86
			<b>Subtotal - Project 1-3429 \$ 1,821.86</b>
NTH Consultants Ltd	V # SINV00141583	Invoice # 631006 - Engineering Services - 10/14/22 - Proj # 1-7162	\$ 9,582.69
			<b>Subtotal - Project 1-7162 \$ 9,582.69</b>
Jacobs Consultants, Inc	V # SINV00141656	Invoice # C6A19600-07 - Contracted Services - Proj # 1-7070	\$ 12,690.33
			<b>Subtotal - Project 1-7070 \$ 12,690.33</b>
NTH Consultants Ltd	V # SINV00141586	Invoice # 631007 - Engineering Services - 10/14/22 - Proj # 1-7082	\$ 12,576.47
			<b>Subtotal - Project 1-7082 \$ 12,576.47</b>
NTH Consultants Ltd	V # SINV00141658	Invoice # 631008 - Engineering Services - 10/14/22 - Proj # 1-7127	\$ 11,361.69
			<b>Subtotal - Project 1-7127 \$ 11,361.69</b>
Fishbeck, Thompson, Carr & Huber Inc	TBP	Invoice # 417001 - Contracted Services - 11/03/22 - Proj # 1-33042	\$ 186.00
			<b>Subtotal - Project 1-73042 \$ 186.00</b>
			<b>Total \$ 306,316.82</b>

## **4. George W. Kuhn Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE GEORGE W. KUHN DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$7,093.25
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$52,778.41
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE GEORGE W. KUHN DRAIN**

October 25, 2022

A meeting of the Drainage Board for the George W. Kuhn Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.


A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$108,749.88 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$108,749.88.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.




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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the George W. Kuhn Drain, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the George W. Kuhn Drain Drainage District.



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Jim Nash, Chairperson

Dated: October 25, 2022

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the GEORGE W. KUHN DRAIN - (Construction)

**FROM:** Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting *for SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Board approval of payment of the following invoices:

The following is a detail of Construction Fund charges for period ending November 9, 2022.

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	OHM Advisors	Invoice # 51739 - Professional Service Consultant - 05/21/22	\$ 1,882.50
	TBP	OHM Advisors	Invoice # 44682 - Professional Service Consultant - 05/30/22	4,790.75
	TBP	OHM Advisors	Invoice # 56742 - Professional Service Consultant - 10/15/22	420.00
			<b>Total</b>	<b>\$ 7,093.25</b>



**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the GEORGE W. KUHN DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting *FOR SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Board approval of payment of the following invoices:

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Dickinson Wright PLLC	TBP	Invoice # 1740899 - Legal Services - 09/30/22	\$ 8,194.77
		<b>Subtotal</b>	<b>\$ 8,194.77</b>
Shaw Service & Maintenance	TBP	Invoice # 910007142 - Contracted Services - 03/23/22 - 10/14/22	\$ 5,318.00
		<b>Subtotal Project # 1-7155</b>	<b>\$ 5,318.00</b>
Shaw Service & Maintenance	TBP	Invoice # 910007139 - Contracted Services - 9/14/22 - 10/06/22	\$ 23,557.64
		<b>Subtotal Project # 1-3474</b>	<b>\$ 23,557.64</b>
ICS Integration Services LLC	TBP	Invoice # 2518 - Contracted Services	\$ 15,708.00
		<b>Subtotal Project # 1-3408</b>	<b>\$ 15,708.00</b>
		<b>Total</b>	<b>\$ 52,778.41</b>

**5. Evergreen-Farmington  
Sanitary Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. GLWA Contract Amendment/Model Contract Update
5. Present Bond Resolution and Special Assessment Roll
6. Present Memorandum from Philip Kerby, P.E. Operations Engineer, dated November 15, 2022, requesting the Board authorize Fishbeck to proceed with the construction observation services outlined in the proposal dated August 24,2022, for an amount not-to-exceed \$65,000
7. Present Engineering Work Order No. 4 for Fishbeck regarding specific additional tasks and compensation for the Construction Administration of 8 Mile Corrective Action Plan – Phase 1 and Phase 2 for a not-to-exceed amount of \$2,922,500
8. Present Construction Estimate No.1 for Construction of the Walnut No. 3 Pump Station Rehabilitation in the amount of \$579,100 and a transfer to reserve in the amount of \$60,450
9. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$89,331.44
10. Other business
11. Approve pro rata payment to Drainage Board members
12. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN**

October 25, 2022

A meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

Change Order No. 4 for Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$2,311,820.95 was presented. It was moved by Markham, supported by Woodward, to approve Change Order No. 4 from Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$2,311,820.95 as presented.

ADOPTED: Yeas - 3  
Nays - 0

Change Order No. 5 for Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$1,044,145.02 was presented. It was moved by Markham, supported by Woodward, to approve Change Order No. 5 from Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$1,044,145.02 as presented.

ADOPTED: Yeas - 3  
Nays - 0

Change Order No. 6 for Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$3,005,633.15 was presented. It was moved by Markham, supported by Woodward, to approve Change Order No. 6 from

Walsh Construction for construction of the 8 Mile Corrective Action Plan – Phase 1 for a net increase in the amount of \$3,005,633.15 as presented.

ADOPTED: Yeas - 3  
Nays - 0

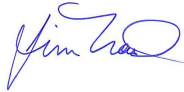
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$110,197.42 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$110,197.42.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Evergreen-Farmington Sanitary Drain, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Evergreen-Farmington Sanitary Drain Drainage District.



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Jim Nash, Chairperson

Dated: October 25, 2022

At a meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain (the “Drainage Board”) held on November 15, 2022.

PRESENT: \_\_\_\_\_

\_\_\_\_\_

ABSENT: \_\_\_\_\_

The following resolution was offered by \_\_\_\_\_ and seconded by \_\_\_\_\_:

**RESOLUTION APPROVING SPECIAL ASSESSMENT ROLL AND AUTHORIZING THE  
ISSUANCE OF EVERGREEN-FARMINGTON SANITARY DRAIN BONDS**

WHEREAS, pursuant to petitions filed with the Oakland County Water Resources Commissioner by the Charter Township of West Bloomfield and the City of Southfield, proceedings have been taken under the provisions of Chapter 20 of Act 40, Public Acts of Michigan, 1956, as amended (the “Drain Code”), for the location, establishment and construction of the Evergreen-Farmington Sanitary Drain (the “Petitioned Project”), consisting of all improvements necessary to bring the previously established Evergreen-Farmington Sewage Disposal System into compliance with Administrative Consent Order 04995 entered by the State of Michigan Department of the Environment, Great Lakes, and Energy on August 14, 2019, and that now serve the Evergreen-Farmington Sanitary Drain located in the City of Auburn Hills, the Village of Beverly Hills, the Village of Bingham Farms, the City of Birmingham, the Charter Township of Bloomfield, the City of Bloomfield Hills, the City of Farmington, the City of Farmington Hills, the Village of Franklin, the City of Keego Harbor, the City of Lathrup Village, the City of Orchard Lake Village, the City of Southfield, the City of Troy and the Charter Township of West Bloomfield in the County of Oakland, Michigan; and

WHEREAS, the Drainage Board, on November 17, 2020 approved the Final Order of Determination for the Petitioned Project, and on June 22, 2021 approved a Final Order of

Apportionment of the cost of the Petitioned Project to be borne by the several public corporations, as follows:

City of Auburn Hills	0.46%
Village of Beverly Hills	5.75%
Village of Bingham Farms	0.69%
City of Birmingham	0.11%
Charter Township of Bloomfield	9.54%
City of Bloomfield Hills	1.44%
City of Farmington	0.34%
City of Farmington Hills	28.29%
Village of Franklin	0.21%
City of Keego Harbor	0.32%
City of Lathrup Village	3.06%
City of Orchard Lake Village	0.37%
City of Southfield	38.17%
City of Troy	3.15%
Charter Township of West Bloomfield	8.10%
	<u>100.00%</u>

; and

WHEREAS, the Chairperson of this Drainage Board (the “Chairperson”) presented an estimate of the aggregate cost of a portion of the Petitioned Project to be financed pursuant to this resolution (said portion to be referred to herein as the “Project”) in the amount of \$127,540,000; and

WHEREAS, the Evergreen-Farmington Sanitary Drain Drainage District (the “Drainage District”) proposes to sell bonds in one or more series to defray the cost of all or part of the Project; and

WHEREAS, the Chairperson has prepared in accordance with the provisions of Chapter 20 of the Drain Code and presented to the Drainage Board a special assessment roll assessing \$127,540,000 of the cost of the Project against the foregoing public corporations in accordance with the Final Order of Apportionment; and

WHEREAS, one or more series of said bonds may be sold in a negotiated sale to the Michigan Finance Authority (the “Authority”) in order to enable the Authority to provide assistance with respect to the Project from the State Water Pollution Control Revolving Fund (the “SRF Program”).



BE IT RESOLVED BY THE DRAINAGE BOARD FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN, as follows:

1. APPROVAL OF SPECIAL ASSESSMENT ROLL. Special Assessment Roll No. 1 for the Evergreen-Farmington Sanitary Drain (“Roll No. 1”), upon which special assessment roll are spread assessments against the City of Auburn Hills, the Village of Beverly Hills, the Village of Bingham Farms, the City of Birmingham, the Charter Township of Bloomfield, the City of Bloomfield Hills, the City of Farmington, the City of Farmington Hills, the Village of Franklin, the City of Keego Harbor, the City of Lathrup Village, the City of Orchard Lake Village, the City of Southfield, the City of Troy and the Charter Township of West Bloomfield (the “Communities”), aggregating the principal sum of \$127,540,000, is approved and ordered filed with the Chairperson. The aggregate amount assessed and the amount assessed against each public corporation shall be adjusted (a) at the time bonds are sold, in accordance with this resolution and as provided in one or more orders of the Chairperson of the Drainage Board, each order corresponding to a series of bonds issued pursuant to this resolution (any such orders referred to collectively herein as the “Supplemental Order”) and (b) in connection with bonds sold to the Authority through the SRF Program, at the time the Project or any portion of the Project financed with a series of bonds sold to the Authority through the SRF Program is completed and administratively closed out by the Authority and the Michigan Department of Environment, Great Lakes, and Energy (“EGLE”); provided, however, that any additional roll prepared pursuant to this subsection, subject to any prepayments as provided in Section 2, shall spread assessments against all of the Communities as provided herein, and the aggregate amount assessed pursuant to Roll No. 1 or any corresponding Roll No. 1 Supplemental Order shall not exceed \$135,000,000 without the prior approval of the Drainage Board.

2. SUPPLEMENTAL ORDERS. The amounts assessed against each public corporation pursuant to Roll No. 1 that are not prepaid shall be divided into annual installments by the Chairperson on behalf of the Drainage Board in the Supplemental Order and the aggregate

annual installments shall be in amounts not exceeding the annual principal maturities of the bonds issued by the Drainage District.

3. STATEMENT OF APPROVAL OF SPECIAL ASSESSMENT ROLL. The Chairperson shall execute the statement affixed to Roll No. 1 setting forth the date of such approval.

4. INSTALLMENTS AND INTEREST. The annual installments of the assessments against the public corporations, as shall be set forth in the Supplemental Order of the Chairperson, unless prepaid prior thereto as provided herein, shall become due each year on the date indicated in the Supplemental Order, and the amounts of the assessments from time to time unpaid shall bear interest, from the date set forth in the Supplemental Order until paid, which is sufficient to pay the interest on the bonds to be issued by the Drainage District which interest shall be payable annually as set forth in the Supplemental Order. Prepayments of assessments against public corporations, as they may be adjusted pursuant to the Supplemental Order, shall be prepaid on or before December 30, 2022.

5. PREPAYMENT OF INSTALLMENTS. Any of the public corporations that have not prepaid its assessment in full on or before December 30, 2022, as provided in Paragraph 4 herein, may pay in advance of maturity all or any part of an annual installment only at such time, in such manner and in such amount as would allow the Drainage District to redeem a like amount of Bonds together with the interest thereon paid by the public corporation to the date of redemption.

6. CERTIFICATION TO ASSESSED PUBLIC CORPORATIONS. The Chairperson of the Drainage Board, within 10 days of the date hereof, shall certify to each public corporation assessed the amount of the total assessment against it and within 10 days of the date of a Supplemental Order shall certify to each public corporation the amount of the adjusted assessment, if any, the amounts of the various installments, the due date of each installment and the interest upon the assessment from time to time unpaid. Also, each year as provided by law, the Chairperson shall notify each public corporation assessed of the amount of the installment and interest next becoming due.

7. DETERMINATION OF NECESSITY. The Project is necessary for the public health and in order to defray the cost thereof it is necessary to issue bonds as hereinafter provided.

8. AUTHORIZATION OF BONDS – PURPOSE. Bonds of the Drainage District aggregating the principal sum of not to exceed One Hundred Thirty-Five Million Dollars (\$135,000,000) (the “Bonds”), as determined by the Chairperson at the time of sale, shall be issued and sold in one or more series pursuant to the provisions of the Drain Code and other applicable statutory provisions, for the purpose of defraying the cost of acquiring and constructing all or part of the Project.

9. BOND DETAILS. The Bonds shall be designated “Evergreen-Farmington Sanitary Drain Bonds, Series 2023;” with such other designations, including, without limitation, designations for multiple series, as determined by the Chairperson; *provided that*, if any series of the Bonds are not issued in calendar year 2023, the Chairperson may re-designate such series of Bonds to reflect the year in which such series of Bonds are issued; shall be dated as of such date as shall be approved by the Chairperson at the time of sale; shall be numbered from 1 upwards; and shall be fully registered. The Bonds shall be sold to the Authority through the SRF Program and each series of Bonds shall be in the form of a single bond in the denomination of the aggregate principal amount of such series of Bonds, with an exhibit attached thereto which identifies the annual maturities for such series of Bonds, and the references herein to a series of “SRF Bonds” shall mean that single bond registered in the name of the Authority; shall bear interest at a rate not to exceed 2.50% per annum, pursuant to the terms of the SRF Program and as approved by the Chairperson at the time of sale, from the date of delivery of the various principal installments as hereinafter described, payable on such dates as shall be determined by the Chairperson at the time of sale, and shall mature on such dates and in such years as shall be determined by the Chairperson at the time of sale. Any series of SRF Bonds is expected to be delivered to the Authority as the initial purchaser thereof in installments equal to the amounts advanced from time to time by the Authority to the Drainage District pursuant to the Purchase Contract and the Supplemental Agreement (each as hereinafter defined) corresponding to that series of SRF Bonds.

10. PAYMENT OF PRINCIPAL AND INTEREST. The principal of and interest on the Bonds shall be payable in lawful money of the United States. So long as SRF Bonds are registered in the name of the Authority, the SRF Bonds shall be payable as to principal, redemption premium, if any, and interest at such bank or trust company or other place as shall be designated in writing to the Drainage District by the Authority (the “Authority’s Depository”). So long as the Authority is the owner of SRF Bonds, the Drainage District agrees that it will deposit with the Authority’s Depository payments of the principal of, premium, if any, and interest on the SRF Bonds in immediately available funds at least five business days prior to the date on which any such payment is due, whether by maturity, redemption or otherwise. If SRF Bonds are not registered in the name of the Authority, the principal of and premium, if any, on the SRF Bonds shall be payable upon surrender thereof at the office of the bond registrar and paying agent and the interest shall be payable by check, draft, electronic transfer or other means determined by the bond registrar and paying agent to the registered owner of the SRF Bonds at the address appearing on the registration books of the Drainage District kept by the bond registrar and paying agent as of the 15th day of the month preceding the month in which an interest payment is due.

11. PRIOR REDEMPTION. The Bonds shall be subject to redemption prior to maturity upon the terms and conditions set forth in the forms of bonds contained in Section 15 hereof.

12. BOND REGISTRAR AND PAYING AGENT. The Chairperson shall designate, and may enter into an agreement with, a bond registrar and paying agent for the Bonds which shall be an officer of the Drainage District or a bank or trust company located in the State of Michigan which is qualified to act in such capacity under the laws of the United States of America or the State of Michigan. The Chairperson from time to time as required may designate a similarly qualified successor bond registrar and paying agent.

13. EXECUTION, AUTHENTICATION AND DELIVERY OF BONDS. The Bonds shall be executed in the name of the Drainage District by the manual or facsimile signatures of the

Chairperson and at least one other member of the Drainage Board and authenticated by the manual signature of an authorized representative of the bond registrar and paying agent. After the Bonds have been executed and authenticated for delivery to the original purchaser thereof, they shall be delivered by the Chairperson to the purchaser upon receipt of the purchase price. Additional Bonds bearing the facsimile signatures of the Chairperson and at least one other member of the Drainage Board may be delivered to the bond registrar and paying agent for authentication and delivery in connection with the exchange or transfer of Bonds. The bond registrar and paying agent shall indicate on each Bond the date of its authentication.

14. EXCHANGE AND TRANSFER OF BONDS. Any Bond, upon surrender thereof to the bond registrar and paying agent with a written instrument of transfer satisfactory to the bond registrar and paying agent duly executed by the registered owner or his duly authorized attorney, at the option of the registered owner thereof, may be exchanged for Bonds of any other authorized denominations of the same aggregate principal amount and maturity date and bearing the same rate of interest as the surrendered Bond.

Each Bond shall be transferable only upon the books of the Drainage District, which shall be kept for that purpose by the bond registrar and paying agent, upon surrender of such Bond together with a written instrument of transfer satisfactory to the bond registrar and paying agent duly executed by the registered owner or his duly authorized attorney.

Upon the exchange or transfer of any Bond, the bond registrar and paying agent on behalf of the Drainage District shall cancel the surrendered Bond and shall authenticate and deliver to the transferee a new Bond or Bonds of any authorized denomination of the same aggregate principal amount and maturity date and bearing the same rate of interest as the surrendered Bond. If, at the time the bond registrar and paying agent authenticates and delivers a new Bond pursuant to this section, payment of interest on the Bonds is in default, the bond registrar and paying agent shall endorse upon the new Bond the following: "Payment of interest on this bond is in default. The last date to which interest has been paid is \_\_\_\_\_, \_\_\_\_."

The Drainage District and the bond registrar and paying agent may deem and treat the person in whose name any Bond shall be registered upon the books of the Drainage District as the absolute owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment of the principal of and interest on such Bond and for all other purposes, and all payments made to any such registered owner, or upon his order, in accordance with the provisions of this resolution shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid, and neither the Drainage District nor the bond registrar and paying agent shall be affected by any notice to the contrary. The Drainage District agrees to indemnify and save the bond registrar and paying agent harmless from and against any and all loss, cost, charge, expense, judgment or liability incurred by it, acting in good faith and without negligence hereunder, in so treating such registered owner.

For every exchange or transfer of Bonds, the Drainage District or the bond registrar and paying agent may make a charge sufficient to reimburse it for any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer, which sum or sums shall be paid by the person requesting such exchange or transfer as a condition precedent to the exercise of the privilege of making such exchange or transfer.

15. FORM OF BONDS. The Bonds shall be in substantially the following form, with such adjustments as may be necessary to sell the Bonds through the SRF Program, as shall be determined by the Chairperson at the time of sale of the Bonds:

**FORM OF BOND**

**UNITED STATES OF AMERICA  
STATE OF MICHIGAN  
COUNTY OF OAKLND  
EVERGREEN-FARMINGTON SANITARY DRAIN DRAINAGE DISTRICT  
EVERGREEN-FARMINGTON SANITARY DRAIN BOND, SERIES 2023[ ]**

INTEREST RATE

MATURITY DATE

DATE OF ORIGINAL ISSUE

Registered Owner: Michigan Finance Authority

Principal Amount:

The Evergreen-Farmington Sanitary Drain Drainage District (the “Drainage District”), County of Oakland, State of Michigan, acknowledges itself indebted to and for value received hereby promises to pay to the Registered Owner identified above, or registered assigns, the Principal Amount set forth above or so much thereof as shall have been advanced to the Drainage District pursuant to a Purchase Contract between the Drainage District and the Michigan Finance Authority (the “Authority”) and a Supplemental Agreement by and among the Drainage District, the Authority and the State of Michigan acting through the Department of Environment, Great Lakes, and Energy on the maturity dates and in the amounts set forth on Exhibit A attached hereto unless redeemed prior thereto as hereinafter provided, the final payment being made upon presentation and surrender of this bond at \_\_\_\_\_, in \_\_\_\_\_, Michigan, the bond registrar and paying agent, or at such successor bond registrar and paying agent as may be designated pursuant to the Resolution identified below; and to pay to the Registered Owner, as shown on the registration books at the close of business on the 15th day of the calendar month preceding the month in which an interest payment is due, by check, draft, electronic transfer or other means determined by the bond registrar and paying agent, interest at the rate per annum specified above on such Principal Amount, to the extent advanced to the Drainage District pursuant to the Purchase Contract and the Supplemental Agreement until the Drainage District’s obligation with respect to the payment of such Principal Amount is discharged. Interest is payable on the first days of \_\_\_\_\_ and \_\_\_\_\_ in each year, commencing on \_\_\_\_\_ 1, 20\_\_\_. Principal and interest are payable in lawful money of the United States of America.

In the event of a default in the payment of principal or interest hereon when due, whether at maturity, by redemption or otherwise, the amount of such default shall bear interest (the “additional interest”) at a rate equal to the rate of interest that is two percent above the Authority’s cost of providing funds (as determined by the Authority) to make payment on the bonds of the Authority issued to provide funds to purchase this bond but in no event in excess of the maximum

rate of interest permitted by law. The additional interest shall continue to accrue until the Authority has been fully reimbursed for all costs incurred by the Authority (as determined by the Authority) as a consequence of the Drainage District's default. Such additional interest shall be payable on the interest payment date following demand of the Authority. In the event that (for reasons other than the default in the payment of any municipal obligation purchased by the Authority) the investment of amounts in the reserve account established by the Authority for the bonds of the Authority issued to provide funds to purchase this bond fails to provide sufficient available funds (together with any other funds that may be made available for such purpose) to pay the interest on outstanding bonds of the Authority issued to fund such account, the Drainage District shall and hereby agrees to pay on demand only the Drainage District's pro rata share (as determined by the Authority) of such deficiency as additional interest on this bond.

During the time funds are being drawn down by the Drainage District under this bond, the Authority will periodically provide the Drainage District a statement showing the amount of principal that has been advanced and the date of each advance, which statement shall constitute prima facie evidence of the reported information; provided that no failure on the part of the Authority to provide such a statement or to reflect a disbursement or the correct amount of a disbursement shall relieve the Drainage District of its obligation to repay the outstanding principal amount actually advanced, all accrued interest thereon, and any other amount payable with respect thereto in accordance with the terms of this bond.

This bond is one of a series of bonds aggregating the principal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) issued by the Drainage District under and pursuant to and in full conformity with the Constitution and Statutes of Michigan (especially Act 40, Public Acts of 1956, as amended) and a bond authorizing resolution adopted by the Drainage Board for the Drainage District (the "Resolution") for the purpose of defraying part of the cost of locating, establishing and constructing the Evergreen-Farmington Sanitary Drain. The bonds of this series are issued in anticipation of the collection of an equal amount of installments of a special assessment assessed against the City of Auburn Hills, the Village of Beverly Hills, the Village of Bingham Farms, the City of Birmingham, the Charter Township of Bloomfield, the City of Bloomfield Hills, the City of Farmington, the City of Farmington Hills, the Village of Franklin, the City of Keego Harbor, the City of Lathrup Village, the City of Orchard Lake Village, the City of Southfield, the City of Troy and the Charter Township of West Bloomfield on a special assessment roll for the Evergreen-Farmington Sanitary Drain, which assessments are the general obligations of said public corporations, and a Supplemental Order of the Chairperson. The full faith and credit of the Drainage District have been pledged for the prompt payment of the principal of and interest on this bond as the same become due and, in addition, the full faith and credit of the County of Oakland have been pledged therefor. Taxes imposed by said public corporations and the County of Oakland are subject to constitutional tax rate limitations.

This bond is transferable, as provided in the Resolution, only upon the books of the Drainage District kept for that purpose by the bond registrar and paying agent, upon the surrender of this bond together with a written instrument of transfer satisfactory to the bond registrar and paying agent duly executed by the Registered Owner or his attorney duly authorized in writing. Upon the exchange or transfer of this bond a new bond or bonds of any authorized denomination, in the same aggregate principal amount and of the same interest rate and maturity, shall be authenticated and delivered to the transferee in exchange therefor as provided in the Resolution,



and upon payment of the charges, if any, therein provided. Bonds so authenticated and delivered shall be in the denomination of \$5,000 or any integral multiple thereof not exceeding the aggregate principal amount for each maturity.

The bond registrar and paying agent shall not be required to transfer or exchange bonds or portions of bonds that have been selected for redemption.

This bond is subject to redemption prior to maturity at the option of the Drainage District and with the prior written consent of the Authority and on such terms as may be required by the Authority, in such order as shall be determined by the Drainage District, on any one or more interest payment dates. This bond may be partially redeemed in the amount of \$5,000 or any integral multiple thereof. If less than the entire principal amount of the bond maturing in any year is to be redeemed, the portion of the bond to be redeemed shall be selected by lot. The redemption price shall be the par value of the bond or portion of the bond called to be redeemed plus interest to the date fixed for redemption.

Not less than thirty days' notice of redemption shall be given to the holder of the bond called to be redeemed by mail to the registered holder at the registered address. That portion of the bond called for redemption shall not bear interest after the date fixed for redemption, provided funds are on hand with the bond registrar and paying agent to redeem the same.

Notwithstanding any other provision of this bond, so long as the Authority is the owner of this bond, (a) this bond is payable as to principal, premium, if any, and interest at U.S. Bank Trust Company, National Association, or at such other place as shall be designated in writing to the Drainage District by the Authority (the "Authority's Depository"); (b) the Drainage District agrees that it will deposit with the Authority's Depository payments of the principal of, premium, if any, and interest on this bond in immediately available funds by 12:00 noon at least five business days prior to the date on which any such payment is due whether by maturity, redemption or otherwise; in the event that the Authority's Depository has not received the Drainage District's deposit by 12:00 noon on the scheduled day, the Drainage District shall immediately pay to the Authority as invoiced by the Authority an amount to recover the Authority's administrative costs and lost investment earnings attributable to that late payment; and (c) written notice of any redemption of this bond shall be given by the Drainage District and received by the Authority's Depository at least 40 days prior to the date on which such redemption is to be made.

It is hereby certified, recited and declared that all acts, conditions and things required to exist, happen and be performed precedent to and in the issuance of the bonds of this series, existed, have happened and have been performed in due time, form and manner as required by law, and that the total indebtedness of said Drainage District, including the series of bonds of which this bond is one, does not exceed any constitutional or statutory limitation.

IN WITNESS WHEREOF, the Evergreen-Farmington Sanitary Drain Drainage District, County of Oakland, State of Michigan, by its Drainage Board, has caused this bond to be executed in its name by the manual or facsimile signatures of the Chairperson and Secretary of the Drainage Board. This bond shall not be valid unless the Certificate of Authentication has been manually executed by an authorized representative of the bond registrar and paying agent.

EVERGREEN-FARMINGTON SANITARY  
DRAIN DRAINAGE DISTRICT

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Chairperson of the Drainage Board

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Secretary of the Drainage Board

CERTIFICATE OF AUTHENTICATION

This bond is one of the bonds described in the within mentioned Resolution.

\_\_\_\_\_  
Bond Registrar and Paying Agent

By: \_\_\_\_\_  
Authorized Representative

AUTHENTICATION DATE:

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto \_\_\_\_\_  
(please print or type name, address and taxpayer identification number of transferee) the within  
bond and all rights thereunder and hereby irrevocably constitutes and appoints  
\_\_\_\_\_  
attorney to transfer the within bond on the books kept for registration thereof, with full power of  
substitution in the premises.

Dated: \_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

Signature(s) must be guaranteed by an eligible guarantor institution participating in a Securities Transfer Association recognized signature guarantee program.

EXHIBIT A

Based on the schedule provided below unless revised as provided in this paragraph, repayment of principal of this bond shall be made until the full amount advanced to the Drainage District is repaid. In the event the Order of Approval issued by the Department of Environment, Great Lakes, and Energy (the "Order") approves a principal amount of assistance less than the amount of this bond delivered to the Authority, the Authority shall only disburse principal up to the amount stated in the Order. In the event (1) that the payment schedule approved by the Drainage District and described below provides for payment of a total principal amount greater than the amount of assistance approved by the Order, (2) that less than the principal amount of assistance approved by the Order is disbursed to the Drainage District by the Authority or (3) that any portion of the principal amount of assistance approved by the Order and disbursed to the Drainage District is prepaid or forgiven, the Authority shall prepare a new payment schedule which shall be effective upon receipt by the Drainage District.

MATURITY DATE

[ \_\_\_\_\_ ] 1

PRINCIPAL AMOUNT

END OF BOND FORM

16. SECURITY. The Bonds shall be issued in anticipation of, and are payable primarily from, the collection of the several installments of special assessments against the public corporations assessed on Roll No. 1 and any Supplemental Order of the Chairperson. The full faith and credit of the Drainage District are pledged for the payment of the principal of and interest on the Bonds as the same become due, and, in addition, the full faith and credit of the County of Oakland have been pledged therefor by a two-thirds vote of the members elect of the Board of Commissioners of the County of Oakland.

17. DEFEASANCE. In the event cash or direct obligations of the United States or obligations the principal of and interest on which are guaranteed by the United States, or a combination thereof, the principal of and interest on which, without reinvestment, come due at times and in amounts sufficient to pay, at maturity or irrevocable call for earlier optional redemption, the principal of, premium if any, and interest on the Bonds or any portion of the Bonds, shall have been deposited in trust, this resolution shall be defeased with respect to such Bonds and the owners of the Bonds shall have no further rights under this resolution except to receive payment of the principal of, premium if any, and interest on the Bonds from the cash or securities deposited in trust and the interest and gains thereon and to transfer and exchange Bonds as provided herein.

18. ESTIMATES OF PERIOD OF USEFULNESS AND COST. The estimated period of usefulness of the Project is determined to be thirty (30) years and upwards. The estimated cost of the Project (\$127,540,000), as submitted to this Drainage Board and attached as Exhibit A, is approved and adopted.

19. PRINCIPAL AND INTEREST FUND. There shall be established for the Bonds a Principal and Interest Fund that shall be kept in a separate bank account. From the proceeds of the sale of the Bonds there shall be set aside in the Principal and Interest Fund any premium and accrued interest received from the purchaser of the Bonds at the time of delivery of the same. An amount equal to the interest due on the Bonds which may be capitalized, if any, shall also be placed in the Principal and Interest Fund and shall be used solely to pay the principal of and interest on

the Bonds authorized herein. The Chairperson is authorized to determine what amounts of interest shall be capitalized. All collections of installments of the assessments against the public corporations assessed (including principal and interest) on Roll No. 1 (and not prepaid) and the Supplemental Order of the Chairperson shall be placed in the Principal and Interest Fund and shall be used solely to pay the principal of and interest on the Bonds authorized herein.

20. CONSTRUCTION FUND. The remainder of the proceeds of the sale of the Bonds, together with the special assessments that have been prepaid as provided in Paragraphs 4 and 5, shall be set aside in a construction fund and used to pay the expenses of the issuance of the Bonds and the costs of acquiring and constructing the Project, including any engineering, legal and other expenses incidental thereto. Any unexpended balance of the proceeds of the sale of the Bonds remaining after completion of the construction of the Project shall be used as provided in Section 497 of the Drain Code.

21. APPROVAL OF MICHIGAN DEPARTMENT OF TREASURY. The issuance and sale of the Bonds are subject to permission being granted therefor by the Department of Treasury of the State of Michigan under Act 34, Public Acts of 2001, as amended, and the Chairperson is hereby authorized and directed, if necessary, to make application to the Department of Treasury for permission to issue and sell the Bonds as provided by the terms of this resolution.

22. SALE, ISSUANCE, DELIVERY, TRANSFER AND EXCHANGE OF BONDS. The Bonds shall be sold at a private, negotiated sale to the Authority, and the Drainage Board hereby determines that such negotiated sale is in the best interests of the Drainage District and is the most cost effective and efficient way to sell the Bonds. The sale of any series of SRF Bonds shall be made pursuant to the terms and conditions to be set forth in a Purchase Contract (the "Purchase Contract") and a Supplemental Agreement (the "Supplemental Agreement") and the Chairperson is authorized to determine the principal amount of such series of SRF Bonds to be sold and to execute and deliver the Purchase Contract and the Supplemental Agreement in such forms as shall be approved by the Chairperson by order executed at the time of sale. In addition, the Chairperson and any member of the Drainage Board are each authorized to execute and deliver

to the Authority such certificates or documents as the Authority or bond counsel shall require and to do all other things necessary to effectuate the sale, issuance, delivery, transfer and exchange of such SRF Bonds in accordance with the provisions of this resolution.

Approval by the Drainage District of the matters delegated in this Section 22 or any other sections may be evidenced by execution of an Order by the Chairperson or the execution or approval of such documents by the Chairperson. The Chairperson, together with the Oakland County Treasurer (the Treasurer for the Drainage District), or any one of them, are authorized to execute any documents or certificates necessary to complete the transaction, including, but not limited to, any certificates, receipts, orders, agreements, instruments, security reports, a blanket letter of representations, and any certificates relating to federal or state securities laws, rules or regulations.

23. REPLACEMENT OF BONDS. Upon receipt by the Chairperson of the Drainage Board of proof of ownership of an unmatured Bond, of satisfactory evidence that the Bond has been lost, apparently destroyed or wrongfully taken and of security or indemnity that complies with applicable law and is satisfactory to the Chairperson, the Chairperson may authorize the bond registrar and paying agent to deliver a new executed Bond to replace the Bond lost, apparently destroyed or wrongfully taken in compliance with applicable law. In the event an outstanding matured Bond is lost, apparently destroyed or wrongfully taken, the Chairperson may authorize the bond registrar and paying agent to pay the Bond without presentation upon the receipt of the same documentation required for the delivery of a replacement Bond. The bond registrar and paying agent, for each new Bond delivered or paid without presentation as provided above, shall require the payment of expenses, including counsel fees, which may be incurred by the bond registrar and paying agent and the Drainage District in the premises. Any Bond delivered pursuant to the provisions of this Section 23 in lieu of any bond lost, apparently destroyed or wrongfully taken shall be of the same form and tenor and be secured in the same manner as the Bond in substitution for which such Bond was delivered.



24. TAX COVENANT. The Drainage District covenants to comply with all requirements of the Internal Revenue Code of 1986, as amended, necessary to assure that the interest on the Bonds will be and will remain excludable from gross income for federal income tax purposes. The Chairperson is authorized to do all things necessary to assure that the interest on the Bonds will be and will remain excludable from gross income for federal income tax purposes.

25. REDUCTION IN PRINCIPAL AMOUNT OF BOND ISSUE. If the Chairperson shall determine that it is not necessary to sell any series of the Bonds in the amount of \$127,540,000 because of prepayments of special assessments, a reduction on the computation of costs, or otherwise, the Chairperson may by order reduce the principal amount of such series of Bonds to be sold to the amount deemed necessary so long as the proceeds of the sale of the Bonds will be sufficient to pay all of the costs of the portion of the Project intended to be financed by such series of Bonds. In the event the principal amount of any series of Bonds is reduced pursuant to this section, the Chairperson shall reduce the amount of such series of Bonds maturing in any one or more years as necessary and may enter an Order amending the annual installments of the special assessments due on Roll No. 1.

26. AMENDMENT TO ROLL NO.1. Roll No. 1 may be prepared in part based on estimates of the costs of the Project. In addition to other supplements, amendments or revisions authorized by this resolution, upon receipt of the final costs of the Project, the Chairperson is authorized to amend Roll No. 1 to reduce the amount of the assessments and the annual installments of the special assessments due on Roll No. 1 based on the final costs of the Project; provided, however, the amount of such special assessments and annual installments shall not be less than the amount of principal outstanding on any Bonds corresponding to Roll No. 1 and issued pursuant to this resolution.

27. AMENDMENTS AND SUPPLEMENTAL RESOLUTIONS. The Drainage Board may from time to time adopt such amendments to this resolution as are necessary for the

issuance of the Bonds. In addition, the Drainage Board may adopt such supplemental resolutions as are necessary for the issuance of any series of Bonds authorized pursuant to this resolution.

28. CONFLICTING RESOLUTIONS. All resolutions and parts of resolutions insofar as they may be in conflict herewith are hereby rescinded.

YEAS:

NAYS:

RESOLUTION DECLARED ADOPTED.

EXHIBIT A

ESTIMATE OF COST  
EVERGREEN-FARMINGTON SANITARY DRAIN BONDS

Design Engineering	\$ 2,403,704
Planning Cost	\$ 3,653,442
Admin Cost	\$ 11,640,415
Bid Cost	\$ 2,000
Land Cost	\$ 214,508
Financial Advisor Fee	\$ 105,575
Michigan Department of Treasury Fee	\$ 1,100
Bond Counsel Fee	\$ 157,500
Bond Advertisement, Publications, Misc.	\$ 2,500
Construction Engineering	\$ 5,587,207
Other (Capacity Purchase)	\$ 32,183,845
Construction Costs	\$ 64,370,293
<hr/>	
Subtotal Prior Contingency	\$120,322,090
<hr/>	
Plus Contingency 6% (Rounded)	\$ 7,217,910
<hr/>	
Total Project Cost	\$127,540,000
Size of Bond Issue	\$127,540,000

STATE OF MICHIGAN     )  
                                          )ss  
COUNTY OF OAKLAND    )

I hereby certify that the foregoing is a true and complete copy of a resolution adopted at a meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain, Oakland County, Michigan, held on November 15, 2022, the original of which resolution is on file in the office of the Oakland County Water Resources Commissioner and is available to the public.

I further certify that notice of the meeting was given in accordance with the Open Meetings Act.

---

Chairperson of the Drainage Board

**SPECIAL ASSESSMENT ROLL NO. 1  
FOR THE  
EVERGREEN-FARMINGTON SANITARY DRAIN  
(An Intra-County Drain Project in the County of Oakland, Michigan)**

Project: To construct improvements to the Evergreen-Farmington Sanitary Drain  
 Total Estimated Cost: \$127,540,000  
 Total Amount to be Assessed: \$127,540,000

Public Corporations	Percentage of Apportionment	Total Assessment	Amount of Prepaid Assessments Payment Due 30-Dec-2022	Amount of Assessment to be Paid in Installments	Percentage of Bond Issue
City of Auburn Hills	0.46%	\$586,684	\$-0-	\$586,684	0.46%
Village of Beverly Hills	5.75%	\$7,333,550	\$-0-	\$7,333,550	5.75%
Village of Bingham Farms	0.69%	\$880,026	\$-0-	\$880,026	0.69%
City of Birmingham	0.11%	\$140,294	\$-0-	\$140,294	0.11%
Charter Township of Bloomfield	9.54%	\$12,167,316	\$-0-	\$12,167,316	9.54%
City of Bloomfield Hills	1.44%	\$1,836,576	\$-0-	\$1,836,576	1.44%
City of Farmington	0.34%	\$433,636	\$-0-	\$433,636	0.34%
City of Farmington Hills	28.29%	\$36,081,066	\$-0-	\$36,081,066	28.29%
Village of Franklin	0.21%	\$267,834	\$-0-	\$267,834	0.21%
City of Keego Harbor	0.32%	\$408,128	\$-0-	\$408,128	0.32%
City of Lathrup Village	3.06%	\$3,902,724	\$-0-	\$3,902,724	3.06%
City of Orchard Lake Village	0.37%	\$471,898	\$-0-	\$471,898	0.37%
City of Southfield	38.17%	\$48,682,018	\$-0-	\$48,682,018	38.17%
City of Troy	3.15%	\$4,017,510	\$-0-	\$4,017,510	3.15%
Charter Township of West Bloomfield	8.10%	\$10,330,740	\$-0-	\$10,330,740	8.10%
<b>Total</b>	<b>100.00%</b>	<b>\$127,540,000</b>	<b>\$-0-</b>	<b>\$127,540,000</b>	<b>100.00%</b>

The amounts assessed against the City of Auburn Hills, the Village of Beverly Hills, the Village of Bingham Farms, the City of Birmingham, the Charter Township of Bloomfield, the City of Bloomfield Hills, the City of Farmington, the City of Farmington Hills, the Village of Franklin, the City of Keego Harbor, the City of Lathrup Village, the City of Orchard Lake Village, the City of Southfield, the City of Troy and the Charter Township of West Bloomfield which are not prepaid shall be payable in installments as follows:

See attached.

Interest on unpaid installments to begin on January 1, 2023, and installments shall be payable October 1, 2023, and annually thereafter at a rate that will provide amounts sufficient to pay the interest when due on all series of the Evergreen-Farmington Sanitary Drain Drainage District's Drain Bonds to be issued by the Drainage District.

The foregoing special assessment roll was approved by the Drainage Board for the Evergreen-Farmington Sanitary Drain on November 15, 2022.

\_\_\_\_\_  
Chairperson, Drainage Board

I hereby certify that the foregoing special assessment roll was prepared in accordance with the directions of the Drainage Board for the Evergreen-Farmington Sanitary Drain and the statutory provisions applicable thereto.

\_\_\_\_\_  
Chairperson, Drainage Board

**EVERGREEN-FARMINGTON SANITARY DRAIN**  
**EVERGREEN-FARMINGTON SANITARY DRAIN DRAINAGE DISTRICT**  
**DRAIN BONDS, SERIES 2023**

SEE ATTACHED SCHEDULE

EVERGREEN-FARMINGTON SANITARY DRAIN  
INSTALLMENT PAYMENTS FOR SPECIAL ASSESSMENT ROLL NO. 1

[Attached]

**Evergreen-Farmington Sanitary Drain Drainage District  
County of Oakland, State of Michigan**

**Drain Installments**

<b>Public Corporations</b>	<b>Total Installments</b>	<b>City of Auburn Hills</b>	<b>Village of Beverly Hills</b>	<b>Village of Bingham Farms</b>	<b>City of Birmingham</b>	<b>Charter Township of Bloomfield</b>	<b>City of Bloomfield Hills</b>	<b>City of Farmington</b>	<b>City of Farmington Hills</b>	<b>Village of Franklin</b>	<b>City of Keego Harbor</b>	<b>City of Lathrup Village</b>	<b>City of Orchard Lake Village</b>	<b>City of Southfield</b>	<b>City of Troy</b>	<b>Charter Township of West Bloomfield</b>
<b>Apportionment</b>	100%	0.46%	5.75%	0.69%	0.11%	9.54%	1.44%	0.34%	28.29%	0.21%	0.32%	3.06%	0.37%	38.17%	3.15%	8.10%
<b>Installments Due</b>																
10/01/2027	\$ 5,315,000	\$ 24,449	\$ 305,613	\$ 36,674	\$ 5,847	\$ 507,051	\$ 76,536	\$ 18,071	\$ 1,503,614	\$ 11,162	\$ 17,008	\$ 162,639	\$ 19,666	\$ 2,028,736	\$ 167,423	\$ 430,515
10/01/2028	5,415,000	24,909	311,363	37,364	5,957	516,591	77,976	18,411	1,531,904	11,372	17,328	165,699	20,036	2,066,906	170,573	438,615
10/01/2029	5,515,000	25,369	317,113	38,054	6,067	526,131	79,416	18,751	1,560,194	11,582	17,648	168,759	20,406	2,105,076	173,723	446,715
10/01/2030	5,620,000	25,852	323,150	38,778	6,182	536,148	80,928	19,108	1,589,898	11,802	17,984	171,972	20,794	2,145,154	177,030	455,220
10/01/2031	5,725,000	26,335	329,188	39,503	6,298	546,165	82,440	19,465	1,619,603	12,023	18,320	175,185	21,183	2,185,233	180,338	463,725
10/01/2032	5,830,000	26,818	335,225	40,227	6,413	556,182	83,952	19,822	1,649,307	12,243	18,656	178,398	21,571	2,225,311	183,645	472,230
10/01/2033	5,940,000	27,324	341,550	40,986	6,534	566,676	85,536	20,196	1,680,426	12,474	19,008	181,764	21,978	2,267,298	187,110	481,140
10/01/2034	6,055,000	27,853	348,163	41,780	6,661	577,647	87,192	20,587	1,712,960	12,716	19,376	185,283	22,404	2,311,194	190,733	490,455
10/01/2035	6,165,000	28,359	354,488	42,539	6,782	588,141	88,776	20,961	1,744,079	12,947	19,728	188,649	22,811	2,353,181	194,198	499,365
10/01/2036	6,280,000	28,888	361,100	43,332	6,908	599,112	90,432	21,352	1,776,612	13,188	20,096	192,168	23,236	2,397,076	197,820	508,680
10/01/2037	6,400,000	29,440	368,000	44,160	7,040	610,560	92,160	21,760	1,810,560	13,440	20,480	195,840	23,680	2,442,880	201,600	518,400
10/01/2038	6,520,000	29,992	374,900	44,988	7,172	622,008	93,888	22,168	1,844,508	13,692	20,864	199,512	24,124	2,488,684	205,380	528,120
10/01/2039	6,640,000	30,544	381,800	45,816	7,304	633,456	95,616	22,576	1,878,456	13,944	21,248	203,184	24,568	2,534,488	209,160	537,840
10/01/2040	6,765,000	31,119	388,988	46,679	7,442	645,381	97,416	23,001	1,913,819	14,207	21,648	207,009	25,031	2,582,201	213,098	547,965
10/01/2041	6,895,000	31,717	396,463	47,576	7,585	657,783	99,288	23,443	1,950,596	14,480	22,064	210,987	25,512	2,631,822	217,193	558,495
10/01/2042	7,025,000	32,315	403,938	48,473	7,728	670,185	101,160	23,885	1,987,373	14,753	22,480	214,965	25,993	2,681,443	221,288	569,025
10/01/2043	7,155,000	32,913	411,413	49,370	7,871	682,587	103,032	24,327	2,024,150	15,026	22,896	218,943	26,474	2,731,064	225,383	579,555
10/01/2044	7,290,000	33,534	419,175	50,301	8,019	695,466	104,976	24,786	2,062,341	15,309	23,328	223,074	26,973	2,782,593	229,635	590,490
10/01/2045	7,425,000	34,155	426,938	51,233	8,168	708,345	106,920	25,245	2,100,533	15,593	23,760	227,205	27,473	2,834,123	233,888	601,425
10/01/2046	7,565,000	34,799	434,988	52,199	8,322	721,701	108,936	25,721	2,140,139	15,887	24,208	231,489	27,991	2,887,561	238,298	612,765
	<b>\$ 127,540,000</b>	<b>\$ 586,684</b>	<b>\$ 7,333,550</b>	<b>\$ 880,026</b>	<b>\$ 140,294</b>	<b>\$ 12,167,316</b>	<b>\$ 1,836,576</b>	<b>\$ 433,636</b>	<b>\$ 36,081,066</b>	<b>\$ 267,834</b>	<b>\$ 408,128</b>	<b>\$ 3,902,724</b>	<b>\$ 471,898</b>	<b>\$ 48,682,018</b>	<b>\$ 4,017,510</b>	<b>\$ 10,330,740</b>



**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER**

**MEMORANDUM**

**TO:** Jim Nash, Chairperson  
Evergreen-Farmington Sanitary Drain Drainage District

**FROM:** Philip Kerby P.E., Operations Engineer

**SUBJECT:** EFSDS I-696 Crossing at Farmington Rd.

**DATE:** November 4, 2022

Fishbeck has provided a proposal to provide construction observation services for the 15" sewer replacement project crossing under I-696 at Farmington Rd. Fishbeck has been involved in this project providing preliminary engineering services, assistance with bidding, and plan review. The project team Fishbeck has made available for this project has a wealth of experience with the guided pilot tube auger boring method for installing gravity sewer pipe. Their observation and reports will help ensure a properly constructed sewer and well documented records.

**RECOMMENDED ACTION:** Authorize Fishbeck to proceed with the construction observation services outlined in the proposal dated August 24, 2022, for an amount not to exceed \$65,000.

August 24, 2022  
Project No. 210854

Phil Kerby  
Oakland County Water Resources Commissioner  
One Public Works Drive, Building 95 West  
Waterford, MI 48328

**Proposal for Professional Engineering Services  
Sanitary Sewer Replacement Project – Under I-696 at Farmington Road  
Construction Observation**

Dear Mr. Kerby:

Fishbeck is pleased to submit the following proposal to provide the Oakland County Water Resources Commissioner (WRC) with construction observation assistance during the construction of the 15-inch sanitary sewer under the I-696 freeway at Farmington Road.

## Background

WRC awarded the project to D.V.M. Utilities, Inc. (DVM) as a design/build. It is our understanding that DVM has acquired permits and should begin construction in early September 2022.

Fishbeck has been involved in the project providing preliminary engineering, assistance with bidding, and plan review.

## Scope of Services

Fishbeck's scope of services is based on an active construction duration of 8 weeks and will include the following:

- Full-time construction observation and daily reporting.
- As-needed engineering services.
- Coordination with DVM for them to perform material testing and survey staking.

## Project Team

Fishbeck proposes the following team for this project:

- Contract Administration – Bryan Turczynski, PE
- Project Engineer – John Becht
- Inspector – Owen Miller

## Service Hours

The breakdown of service hours is currently estimated as follows:

- Contract Administration:
  - 2 hours, for project duration.

- Project Engineer:
  - 5 hours during active construction.
- Inspector:
  - 40 hours for initial startup and Preconstruction Meeting.
  - 400 hours during active construction.
  - 40 hours for project closeout.
  - 55 trips to the project site totaling 1,045 miles utilizing a Fishbeck vehicle.

## Assumptions

The following assumptions were made in the formation of this proposal:

- The active construction duration is 8 weeks.
- Fishbeck will provide full-time onsite inspection services.
- Daily field reports, utilizing Microsoft Word, will be used to document construction activities.
- Documentation will be according to WRC standards.
- Material testing will be performed by DVM.
- Survey staking will be performed by DVM.
- Construction administration will be performed by WRC.

## Professional Services Fees

Fishbeck proposes to provide the referenced scope of services on a time and materials basis for a not-to-exceed fee of Sixty-Five Thousand Dollars (\$65,000). The estimated hours and cost may be adjusted to fit the contractor's schedule as implemented, with the WRC's approval. All work performed will be invoiced using Fishbeck hourly rates. Mileage expenses will be invoiced in accordance with current federal reimbursement rates and/or Fishbeck company vehicle rates.

## Authorization

This work will be performed under the terms and conditions of our existing Contract No. 6490. If you concur with our scope of services, please issue a Purchase Order and return to my attention at [mesedki@fishbeck.com](mailto:mesedki@fishbeck.com).

If you have any questions or require additional information, please feel free to contact me.

Sincerely,



**Maria E. Sedki, PE**

Vice President/Senior Civil Engineer

By email

Copy: Bryan D. Turczynski, PE – Fishbeck

**Jim Nash Oakland County Water Resources Commissioner  
Evergreen Farmington Sanitary Drain Drainage District  
For the 8 Mile Road Corrective Action Plan Phase 1 and Phase 2  
Southfield  
Oakland County, Michigan**

**Engineering Work Order No. 4**

**Date: 10/31/2022**

**To: Fishbeck**

**For: Construction Administration of 8 Mile CAP Phase 1 and Phase 2**

**DESCRIPTION**

This Engineering Work Order (EWO) is required to define specific additional tasks and compensation related to the 8 Mile Road CAP Pump Station and Sanitary Sewer Overflow (SSO) Chamber Improvements - Phase 1; and 8 Mile Road Pump Station 54- Inch Relief Force Main - Phase 2 that falls under Section 1 of Contract No. 6321. This EWO serves as your approval for compensation of the following additional services as delineated in your attached proposal dated September 7, 2022.

The following scope of work is for the construction administration for the 8 Mile CAP Phase 1 and Phase 2 projects. The 8 Mile Road Pump Station and SSO Chamber Improvements is a using the delivery method of Construction Manager at Risk (CMAR). The 8 Mile Road Pump Station 54-Inch Relief Force Main is using a traditional design/bid/build deliver method. Fishbeck designed both projects.

Fishbeck will work with a team of engineering firms to complete the construction administration services. PMA will assist with review of schedules from the Contractor; NTH Consultants, Ltd. will assist in construction administration support and material testing during the Phase 2 work; and FKE will provide geotechnical assistance and material testing during the Phase 1 work. Fishbeck's scope of work is summarized below:

**8 Mile Road Pump Station and SSO Chamber Improvements – Phase I**

**Pre-Construction**

- Assist Walsh as needed in the issuance of the pre-purchased equipment packages including generator, electrical switchgear, transformer, motor control center, pumps, and valves and actuators.
- Respond to Requests for Information (RFIs) for the pre-purchased equipment.
- Review shop drawings for pre-purchased equipment.
- Prepare scope narrative for the construction bid packages and assist Walsh in the issuance of packages (assume 10 packages).
- Attend Pre-Bid Meetings for each bid package (assume 10 meetings)
- Assist in reviewing the bid packages (assume 3 bids for each of the 10 bid packages).
- Assist WRC in the review of Walsh's final GMP.

## Construction

- Purchase Procore software for the duration of the construction phase.
- Help set up the project in Procore.
- Provide document control.
- Review shop drawings (assume 325).
- Respond to RFI's.
- Assist in the review of change orders.
- Assist in providing bulletins.
- Attend the Preconstruction Meeting and periodic Progress Meetings (assume a total of 48 meetings).
- Attend onsite meetings as needed (assume 25 meetings).
- Provide specialty inspections and equipment startup (assume 10 site meetings).
- Develop record drawings based on contractor red line information.
- Develop Operation and Maintenance Plan for WRC staff.
- Assist in project closeout and final download of files from Procore to the WRC network.

## 8 Mile Road Pump Station 54-Inch Relief Force Main – Phase II

- Purchase Procore software for the duration of the construction phase
- Help set up the project in Procore.
- Provide document control.
- Review shop drawings (assume 20).
- Respond to RFIs.
- Assist in the review of change orders.
- Assist in providing bulletins.
- Attend the Preconstruction Meeting and periodic Progress Meetings (assume a total of 12 meetings).
- Attend onsite meetings as needed (assume 5 meetings).
- Develop record drawings based on contractor red line information.
- Assist in project closeout and final download of files from Procore to the WRC network.

The proposed scope of services is broken down below by phases as follows:

8 Mile Road CAP Phase 1	\$2,630,500
8 Mile Road CAP Phase 2	\$292,000
Total	\$2,922,500

**Fees for this Engineering Work Order shall be billed on a time and material basis according to the contract standard fee and rate schedule as modified by your proposal. The total amount of the Engineering Services Agreement is to be increased by a not to exceed amount of \$2,922,500. This increases the total allowed project amount under this contract to \$4,244,670.60. This amount is not to be exceeded without written authorization from this office.**

<b>RECOMMENDED</b>	<b>DATE:</b> 11/1/2022	<b>ACCEPTED</b>	<b>DATE:</b> November 1, 2022
By:	<i>Evangelos Bantios</i>	By:	<i>Maria Sedki</i>
Evans Bantios Assistant Chief Engineer OCWRC		Maria Sedki, P.E. Vice President Fishbeck	
<b>APPROVED</b>	<b>DATE:</b>	<b>APPROVED</b>	<b>DATE:</b> 11/03/2022
By:		By:	<i>Sid Lockhart</i>
Joel Brown Chief Engineer OCWRC		Sid Lockhart Special Projects Manager OCWRC	
Approved by the Drainage District Board on:			

Department No.:	6010101	Account No.:	730639
Fund No.:	58410	Program No.:	149667
Project No.:	1-3181	Project Activity:	ENGCON
Contract No.:	6321	Contract Exp:	06/30/2026

October 31, 2022  
Project No. 210169

Evans Bantios, PE  
Oakland County Water Resources Commissioner  
One Public Works Drive, Building 95 West  
Waterford, MI 48328

**Proposal for Professional Engineering Services  
Evergreen Farmington Sanitary Drain Drainage District – 8 Mile Road Outlet Corrective Action Plan  
Construction Administration – Change Order No. 5 Request**

Dear Mr. Bantios:

Fishbeck is pleased to submit the following proposal to provide the Oakland County Water Resources Commissioner (WRC) with Construction Administration (CA) assistance for the Evergreen Farmington Sanitary Drain Drainage District (EFSDDD) 8 Mile Road Outlet Corrective Action Plan Improvements.

## Background

The EFSDDD 8 Mile Road Outlet Corrective Action Plan Improvements consists of two phases:

- 8 Mile Road Pump Station and Sanitary Sewer Overflow (SSO) Chamber Improvements – Phase I
- 8 Mile Road Pump Station 54-Inch Relief Force Main – Phase II

The 8 Mile Road Pump Station and SSO Chamber Improvements includes improvements to the 8 Mile Pump Station and modifications to the Evergreen Emergency SSO Chamber. The project is progressing with Construction Manager at Risk (CMAR) project delivery. Walsh Construction Group (Walsh) is under contract to provide preconstruction services during design. Preconstruction will end with Walsh submitting a guaranteed maximum price (GMP) to complete the construction.

The 8 Mile Road Pump Station 54-Inch Relief Force Main phase includes construction of the 54-inch relief force main in 8 Mile Road from the 8 Mile Road Pump Station to the Evergreen Emergency SSO Chamber. This phase is progressing with traditional design/bid/build project delivery.

Fishbeck is currently under contract to provide only design and bidding services for both phases. This proposal is for providing CA assistance during both preconstruction and construction of the 8 Mile Road Pump Station and SSO Chamber Improvements phase and during construction of the 8 Mile Road Pump Station 54-Inch Relief Force Main project.

## Scope of Services

Based on discussions with WRC staff, it is our understanding that for both phases, PMA Consultants will be assisting with the scheduling; NTH Consultants, Ltd. (NTH) will provide complete CA services as well as material testing; and WRC staff will provide construction project management, full-time onsite inspection, and staking services. Fishbeck will provide engineering assistance, set up staking control points, and provide document control assistance. FK Engineering Associates (FKE) will continue to be a subconsultant to Fishbeck, providing

geotechnical instrumentation and testing services during construction for the 8 Mile Road Pump Station and SSO Chamber Improvements – Phase I.

Refer to the attached construction roles matrix for a brief summary of the roles and assignments as determined at the June 30, 2022, meeting. Fishbeck's following scope of services is based on the agreed upon construction roles matrix.

## **8 Mile Road Pump Station and SSO Chamber Improvements – Phase I**

### Preconstruction:

Preconstruction includes Walsh pre-purchasing long lead equipment, issuing bid packages for the individual construction trades, and providing a GMP. Our proposal assumes Walsh will submit the GMP by October 26, 2022. Fishbeck's CA scope during preconstruction will include:

- Assist Walsh as needed in the issuance of the pre-purchased equipment packages including generator, electrical switchgear, transformer, motor control center, pumps, and valves and actuators (total of 6 packages).
- Respond to Requests for Information (RFIs) for the pre-purchased equipment.
- Review shop drawings for pre-purchased equipment.
- Prepare scope narrative for the construction bid packages and assist Walsh in the issuance of the packages (assume 10 packages).
- Attend Pre-Bid Meetings for each bid package (assume 10 meetings).
- Assist in reviewing the bid packages (assume 3 bids for each of the 10 bid packages).
- Assist WRC in the review of Walsh's final GMP.

### Construction:

Based on the June 30, 2022, meeting, it is assumed construction will start in April 2023, with substantial completion in the fall of 2026 and final completion in the spring of 2027. Fishbeck's CA assistance scope for this phase assumes a 4-year construction duration, during which we will provide the following:

- Purchase Procore software for the duration of the construction phase.
- Help set up the project in Procore.
- Provide document control.
- Review shop drawings (assume 325).
- Respond to RFIs.
- Assist in the review of change orders.
- Assist in providing bulletins.
- Attend the Preconstruction Meeting and periodic Progress Meetings (assume a total of 48 meetings).
- Attend onsite meetings as needed (assume 25 meetings).
- Provide specialty inspections and equipment startup (assume 10 site meetings).
- FKE to provide material testing and geotechnical assistance in accordance with their attached proposal.
- Develop record drawings based on contractor red line information.
- Develop Operation and Maintenance Plan for WRC staff.
- Assist in project closeout and final download of files from Procore to the WRC network.



## 8 Mile Road Pump Station 54-Inch Relief Force Main – Phase II

It is assumed construction will start in January 2023, with substantial completion in December 2024 and final completion in the spring of 2025. Fishbeck’s CA assistance scope for this phase assumes a 12-month construction duration, during which, we will provide the following:

- Help set up the project in Procore.
- Provide document control.
- Reviewing shop drawings (assume 20).
- Respond to RFIs.
- Assist in the review of change orders.
- Assist in providing bulletins.
- Attend the Preconstruction Meeting and periodic Progress Meetings (assume a total of 12 meetings).
- Attend onsite meetings as needed (assume 5 meetings).
- Develop record drawings based on contractor red line information.
- Assist in project closeout and final download of files from Procore to the WRC network.

## Professional Services Fees

We propose to provide the scope of services on a time and material basis for a not-to-exceed fee of Two Million Nine Hundred Twenty-Two Thousand Five Hundred Dollars (\$2,922,500), broken down by phase as follows:

8 Mile Road Pump Station and SSO Chamber Improvements – Phase I	\$2,630,500
8 Mile Pump Station 54-Inch Relief Force Main – Phase II	\$292,000
Total	\$2,922,500

Refer to the attached spreadsheets for an estimate of the hours.

## Authorization

This work will be performed under the terms and conditions of our existing Professional Service Contract No. 006490. If you concur with our scope of services, please issue a Purchase Order and return to our attention at [mesedki@fishbeck.com](mailto:mesedki@fishbeck.com).

If you have any questions or require additional information, please feel free to contact us.

Sincerely,



**Joseph Siwek, PE, LEED AP**  
Senior Water & Wastewater Engineer



**Maria E. Sedki, PE**  
Vice President/Senior Civil Engineer

Attachments  
By email

# Evergreen Farmington Sanitary Drain Drainage District (EFSDDD) - 8 Mile Road Outlet Corrective Action Plan

## Construction Roles

Updated: 9/27/2022

Walsh: CMAR Contractor  
 Contractor TBD - Contractor on FM Project  
 Fishbeck: Design Engineer  
 FKE: Geotech Engineer, Material Testing  
 WRC: Owner, Inspector, and CA  
 NTH: Assistant CA, Material Testing

	NTP	Sub Comp	Final Comp
8 Mile Road Pump Station & SSO Chamber Improvements – Phase I:	April 2023	Fall 2026	Spring 2027
8 Mile Road Pump Station 54" Relief Force Main – Phase II:	Jan 2023	Dec 2024	Spring 2025

Tasks	Phase I: CMAR						Phase II: Design/Bid/Build					
	Walsh	Fishbeck	FKE	WRC Inspector	WRC PM	NTH	Contractor	Fishbeck	FKE	WRC Inspector	WRC PM	NTH
<b>Bid Review</b>												
Review GMP/Bids		X			X	X		X			X	X
<b>Project Setup</b>												
Upload drawings and specifications to ProCore		X						X				
Set up directories and permissions in ProCore		X						X				
Provide WRC Standard Forms					X						X	
Upload WRC standard forms to ProCore		X						X				
Upload Construction contracts to ProCore		X						X				
Upload insurance certificates to ProCore	X											X
Acquire all Permits and Upload to ProCore	X						X					
Upload sworn statements	X						X					
Review all sworn statements						X						X
Upload subcontracts	X						X					
<b>Document Control</b>												
Weekly check-in on all Uploads		X						X				
Tracking Missing Documents		X						X				
Quarterly Download of Info from ProCore to WRC		X						X				
<b>Pre-Con Mtg</b>												
Prepare Package and Run Meeting	X											X
Attend Mtg	X	X		X	X	X	X	X		X	X	X
Prepare Meeting Minutes	X											X
Upload info to ProCore	X											X
<b>Daily Work</b>												
Schedule and Manage work and subcontractors	X						X					
Perform Regular Inspection				X						X		
Complete IDRs				X						X		
Upload IDRs and Photos to ProCore				X						X		
Review IDRs					X	X					X	X
<b>Testing &amp; Specialty Inspection</b>												
Schedule Material Testing	X						X					
Perform Material Testing			X									X
Upload Testing to ProCore						X						
Review Testing Results					X	X					X	X
Fishbeck Site Visits		X						X				
Upload Fishbeck Site Visit Notes to ProCore		X						X				
Schedule Specialty Inspections by Outside Sources	X											
Review Specialty Inspection Results					X	X						
Upload Specialty Inspection Results to ProCore						X						

# Evergreen Farmington Sanitary Drain Drainage District (EFSDDD) - 8 Mile Road Outlet Corrective Action Plan

## Construction Roles

Updated: 9/27/2022

Walsh: CMAR Contractor  
 Contractor TBD - Contractor on FM Project  
 Fishbeck: Design Engineer  
 FKE: Geotech Engineer, Material Testing  
 WRC: Owner, Inspector, and CA  
 NTH: Assistant CA, Material Testing

	NTP	Sub Comp	Final Comp
8 Mile Road Pump Station & SSO Chamber Improvements – Phase I:	April 2023	Fall 2026	Spring 2027
8 Mile Road Pump Station 54" Relief Force Main – Phase II:	Jan 2023	Dec 2024	Spring 2025

Tasks	Phase I: CMAR						Phase II: Design/Bid/Build					
	Walsh	Fishbeck	FKE	WRC Inspector	WRC PM	NTH	Contractor	Fishbeck	FKE	WRC Inspector	WRC PM	NTH
<b>Staking</b>												
Request Staking	X						X					
Setup Control		X						X				
Perform Staking				X						X		
Upload Cutsheets to ProCore				X						X		
<b>Progress Meetings</b>												
Prepare Package and Run Meeting	X											X
Attend Mtgs	X	X		X	X	X	X	X		X	X	X
Prepare Meeting Minutes	X											X
Upload info to ProCore	X											X
<b>Shop Drawings</b>												
Prepare Shop Drawing	X						X					
Upload submittal to ProCore	X						X					
Forward Submittal from ProCore to Reviewer(s)		X						X				
Review Submittal		X	X					X	X			
Compile Comments and Return to Contractor		X						X				
<b>RFI's</b>												
Prepare RFI	X						X					
Upload to ProCore	X						X					
Forward RFI from ProCore to Reviewer(s)		X						X				
Provide RFI Response to CA		X						X				
CA Official Response back to Contractor					X	X					X	X
Upload Response to ProCore						X						X
<b>Pay Certificates</b>												
Generate Initial Quantities	X						X					
Approve Pay Estimates & Get Signed						X						X
Upload sworn statements & waiver of liens	X						X					
Review all statements						X						X
Submit for WRC Payment					X						X	
Upload to ProCore						X						X
<b>Change Orders</b>												
Submit Request for Change Order	X						X					
Review and Approve Change Order		X			X	X		X			X	X
Submit for WRC Payment					X						X	
Upload to ProCore						X						X

# Evergreen Farmington Sanitary Drain Drainage District (EFSDDD) - 8 Mile Road Outlet Corrective Action Plan

## Construction Roles

Updated: 9/27/2022

Walsh: CMAR Contractor  
 Contractor TBD - Contractor on FM Project  
 Fishbeck: Design Engineer  
 FKE: Geotech Engineer, Material Testing  
 WRC: Owner, Inspector, and CA  
 NTH: Assistant CA, Material Testing

	NTP	Sub Comp	Final Comp
8 Mile Road Pump Station & SSO Chamber Improvements – Phase I:	April 2023	Fall 2026	Spring 2027
8 Mile Road Pump Station 54" Relief Force Main – Phase II:	Jan 2023	Dec 2024	Spring 2025

Tasks	Phase I: CMAR						Phase II: Design/Bid/Build					
	Walsh	Fishbeck	FKE	WRC Inspector	WRC PM	NTH	Contractor	Fishbeck	FKE	WRC Inspector	WRC PM	NTH
<b>Bulletins</b>												
Determine if Bulletin is needed					X	X					X	X
Prepare Bulletin and Issue		X				X		X				X
Upload Bulletin to ProCore						X						X
<b>Claims</b>												
Submitted by Contractor	X						X					
Negotiations		X			X	X		X			X	X
Submit for WRC Payment					X						X	
Upload to ProCore						X						X
<b>As-Builts</b>												
Provide Red line info	X						X					
Prepare As-Builts		X						X				
<b>Project Closeout</b>												
Final Walk	X	X		X	X	X	X	X		X	X	X
Prepare Punch List & upload in ProCore						X						X
Finalize Closeout Documents					X	X					X	X
Upload Closeout Documents to ProCore						X						X
Final Download from ProCore to WRC File		X						X				

Fishbeck Estimated Work Hours and Fees

Project Name: **Evergreen Farmington Sanitary Drain Drainage District – 8 Mile Road Outlet Corrective Action Plan**  
 Phase: **8 Mile Road Pump Station & SSO Chamber Improvements – Phase I**  
 Task: **Construction Administration Assistance**  
 Project Location/Client: **Oakland County Water Resource Commissioner's Office**  
 Date: **October 31, 2022**  
 Prepared By: **M. Sedki**

Construction Delivery Method: **CMAR**  
 Estimated Notice to Proceed: **April 2023**  
 Substantial Completion: **Fall 2026**  
 Final Completion: **Spring 2027**  
 Construction Duration: **3.5 years**  
 Fishbeck CA Assistance Duration: **4.5 years**

	Client Manager	Project Manager	Asst PM /Sr. Office Tech	Document Control/Office Tech	Sr. Civil Engineer	Sr. Process Engineer	Sr. Structural Engineer	Sr. Electrical Engineer	Sr. Electrical Engineer	Sr. Mechanical Engineer	Sr. Environmental Engineer	Sr. Architect	Engineer/Architect	Staff Engineer/Architect	Sr. CAD/GIS Technician	CAD/GIS Technician	2 Person Survey Crew	Production Support	Total Hours	Labor Fee	Expenses	Outside Services (FKE)	Totals																				
	Sedki	Oostdyk	Hofert	Ross	Siwek	Siwek	Otte	Condie	Dwyer	Hirth	TBD	Finney	Varies	Varies	Secord	Varies	Varies	Varies																									
<b>5 year Avg WRC Billing Rates</b>																						\$240	\$201	\$150	\$111	\$201	\$201	\$201	\$201	\$201	\$190	\$201	\$165	\$133	\$150	\$121	\$310	\$98					
<b>Task 1 - Pre-Construction Phase</b>																			<b>436</b>	<b>\$ 81,934</b>	<b>\$ 118</b>	<b>\$ -</b>	<b>\$ 82,052</b>																				
<b>Prepurchase Electrical Equipment</b>																			0	\$ -			\$ -																				
Bid Package Assistance	10	10				16		8	24									8	68	\$ 14,058			\$ 14,058																				
Shop Drawing Review								8	24									8	40	\$ 7,216			\$ 7,216																				
RFIs						8		4	8									4	24	\$ 4,412			\$ 4,412																				
<b>Prepurchase of Process Equipment</b>																			0	\$ -			\$ -																				
Bid Package Assistance (2 packages)	10	10				24							8		8				60	\$ 11,754			\$ 11,754																				
Shop Drawing Review						8		4	4				24					8	48	\$ 7,960			\$ 7,960																				
RFIs						8							8					4	20	\$ 3,320			\$ 3,320																				
<b>Preconstruction Bid Package Review</b>																			0	\$ -			\$ -																				
Assist With Bid Package Preparation (Assume 10 Total)	10	10				24	8	8		8			24						92	\$ 18,018			\$ 18,018																				
PreBid Meeting						12												4	16	\$ 2,804	\$ 118		\$ 2,922																				
RFIs						16	8	8		8			24					4	68	\$ 12,392			\$ 12,392																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
<b>Task 2 - Project Setup</b>																			<b>310</b>	<b>\$ 55,662</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 55,662</b>																				
Purchase of ProCore (Total for 5 years)																			0	\$ -	\$ 110,000		\$ 110,000																				
Upload drawings and specifications to ProCore				4	4								4		4				16	\$ 2,508			\$ 2,508																				
Set up directories and permissions in ProCore	4	2	20	40	4													70	\$ 9,606			\$ 9,606																					
Provide WRC Standard Forms																			0	\$ -			\$ -																				
Upload WRC standard forms to ProCore			4	10	10													24	\$ 3,720			\$ 3,720																					
Upload Construction contracts to ProCore			4	10	10													24	\$ 3,720			\$ 3,720																					
Upload insurance certificates to ProCore				4	4													8	\$ 1,248			\$ 1,248																					
Acquire all Permits and Upload to ProCore																			0	\$ -			\$ -																				
Upload sworn statements																			0	\$ -			\$ -																				
Review all sworn statements																			0	\$ -			\$ -																				
Upload subcontracts																			0	\$ -			\$ -																				
Monthly Invoicing	28	108			32														168	\$ 34,860			\$ 34,860																				
																			0	\$ -			\$ -																				
<b>Task 3 - Document Control</b>																			<b>2130</b>	<b>\$ 244,854</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 244,854</b>																				
Weekly check-in on all Uploads		60		1872															1932	\$ 219,852			\$ 219,852																				
Tracking Missing Documents																			0	\$ -			\$ -																				
Quarterly Download of Info from ProCore to WRC		18	36	144															198	\$ 25,002			\$ 25,002																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
<b>Task 4 - PreCon and Progress Meetings</b>																			<b>390</b>	<b>\$ 77,888</b>	<b>\$ 1,000</b>	<b>\$ -</b>	<b>\$ 78,888</b>																				
Prepare Package and Run Meeting																			0	\$ -			\$ -																				
Attend Mtg - Monthly Progress Meetings (2023 - 2026 = 48mt)	24					216	24		24	24									312	\$ 63,648	\$ 1,000		\$ 64,648																				
Prepare Meeting Minutes																			0	\$ -			\$ -																				
Upload info to ProCore																			0	\$ -			\$ -																				
Coordination with MDOT	8				40								20					10	78	\$ 14,240			\$ 14,240																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
<b>Task 5 - Daily Work</b>																			<b>0</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>																				
Schedule and Manage work and subcontractors																			0	\$ -			\$ -																				
Perform Regular Inspection																			0	\$ -			\$ -																				
Complete IDRs																			0	\$ -			\$ -																				
Upload IDRs and Photos to ProCore																			0	\$ -			\$ -																				
Review IDRs																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
<b>Task 6 - Material Testing and Specialty Inspection</b>																			<b>3548</b>	<b>\$ 681,440</b>	<b>\$ 10,000</b>	<b>\$ 534,510</b>	<b>\$ 1,225,950</b>																				
Schedule Material Testing																			0	\$ -			\$ -																				
Perform Material Testing (includes 10% Markup)																			0	\$ -	\$ 534,510		\$ 534,510																				
Upload Testing to ProCore																			0	\$ -			\$ -																				
Review Testing Results																			0	\$ -			\$ -																				
Fishbeck Site Visits	48			200		2200	200	200		100	60	200	300					40	3548	\$ 681,440	\$ 10,000		\$ 691,440																				
Upload Fishbeck Site Visit Notes to ProCore																			0	\$ -			\$ -																				
Schedule Specialty Inspections by Outside Sources																			0	\$ -			\$ -																				
Review Specialty Inspection Results																			0	\$ -			\$ -																				
Upload Specialty Inspection Results to ProCore																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
<b>Task 7 - Staking</b>																			<b>50</b>	<b>\$ 14,410</b>	<b>\$ 2,000</b>	<b>\$ -</b>	<b>\$ 16,410</b>																				
Request Staking																			0	\$ -			\$ -																				
Setup Control					10													40	50	\$ 14,410	\$ 2,000		\$ 16,410																				
Perform Staking																			0	\$ -			\$ -																				
Upload Cutsheets to ProCore																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				
																			0	\$ -			\$ -																				

Fishbeck Estimated Work Hours and Fees

Project Name: **Evergreen Farmington Sanitary Drain Drainage District – 8 Mile Road Outlet Corrective Action Plan**  
 Phase: **8 Mile Road Pump Station & SSO Chamber Improvements – Phase I**  
 Task: **Construction Administration Assistance**  
 Project Location/Client: **Oakland County Water Resource Commissioner's Office**  
 Date: **October 31, 2022**  
 Prepared By: **M. Sedki**

Construction Delivery Method: **CMAR**  
 Estimated Notice to Proceed: **April 2023**  
 Substantial Completion: **Fall 2026**  
 Final Completion: **Spring 2027**  
 Construction Duration: **3.5 years**  
 Fishbeck CA Assistance Duration: **4.5 years**

	Client Manager	Project Manager	Asst PM /Sr. Office Tech	Document Control/Office Tech	Sr. Civil Engineer	Sr. Process Engineer	Sr. Structural Engineer	Sr. Electrical Engineer	Sr. Electrical Engineer	Sr. Mechanical Engineer	Sr. Environmental Engineer	Sr. Architect	Engineer/Architect	Staff Engineer/Architect	Sr. CAD/GIS Technician	CAD/GIS Technician	2 Person Survey Crew	Production Support	Total Hours	Labor Fee	Expenses	Outside Services (FKE)	Totals
<b>Task 8 - Shop Drawings</b>																			<b>1194</b>	<b>\$ 181,818</b>	<b>\$ -</b>	<b>\$ 11,000</b>	<b>\$ 192,818</b>
Prepare Shop Drawing																			0	\$ -			\$ -
Upload submittal to ProCore																			0	\$ -			\$ -
Forward Submittal from ProCore to Reviewer(s)		24		100															124	\$ 15,924			\$ 15,924
Review Submittal					40	100	100	75	75	40	16		100	100				200	846	\$ 138,870	\$ 11,000		\$ 149,870
Compile Comments and Return to Contractor		24		200															224	\$ 27,024			\$ 27,024
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 9 - RFIs</b>																			<b>1176</b>	<b>\$ 189,680</b>	<b>\$ -</b>	<b>\$ 11,000</b>	<b>\$ 200,680</b>
Prepare RFI																			0	\$ -			\$ -
Upload to ProCore																			0	\$ -			\$ -
Forward RFI from ProCore to Reviewer(s)																			0	\$ -			\$ -
Provide RFI Response to CA					40	360	40	40		40	16		40	240	160			200	1176	\$ 189,680	\$ 11,000		\$ 200,680
CA Official Response back to Contractor																			0	\$ -			\$ -
Upload Response to ProCore																			0	\$ -			\$ -
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 10 - Pay Certificates</b>																			<b>192</b>	<b>\$ 36,864</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 36,864</b>
Generate Initial Quantities																			0	\$ -			\$ -
Provide assistance to NTH/WRC with review						96		48					48						192	\$ 36,864			\$ 36,864
Approve Pay Estimates & Get Signed																			0	\$ -			\$ -
Upload sworn statements & waiver of liens																			0	\$ -			\$ -
Review all statements																			0	\$ -			\$ -
Submit for WRC Payment																			0	\$ -			\$ -
Upload to ProCore																			0	\$ -			\$ -
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 11 - Change Orders</b>																			<b>436</b>	<b>\$ 71,928</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 71,928</b>
Submit Request for Change Order																			0	\$ -			\$ -
Review and Approve Change Order	4				16	120	24	24		24			24	160				40	436	\$ 71,928			\$ 71,928
Submit for WRC Payment																			0	\$ -			\$ -
Upload to ProCore																			0	\$ -			\$ -
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 12 - Bulletins</b>																			<b>282</b>	<b>\$ 52,414</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 52,414</b>
Determine if Bulletin is needed																			0	\$ -			\$ -
Prepare Bulletin and Issue	4					50	40	40		40			100					8	282	\$ 52,414			\$ 52,414
Upload Bulletin to ProCore																			0	\$ -			\$ -
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 13 - Claims</b>																			<b>500</b>	<b>\$ 98,348</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 98,348</b>
Submitted by Contractor																			0	\$ -			\$ -
Negotiations	24					160	100	100		20		40	40					16	500	\$ 98,348			\$ 98,348
Submit for WRC Payment																			0	\$ -			\$ -
Upload to ProCore																			0	\$ -			\$ -
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 14 - As-Builts</b>																			<b>230</b>	<b>\$ 45,548</b>	<b>\$ 2,000</b>	<b>\$ -</b>	<b>\$ 47,548</b>
Provide Red line info																			0	\$ -			\$ -
Prepare As-Builts	2			4		40	16	16		16		16		40	40		40	230	\$ 45,548	\$ 2,000		\$ 47,548	
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 15 - Project Closeout</b>																			<b>124</b>	<b>\$ 19,844</b>	<b>\$ 500</b>	<b>\$ -</b>	<b>\$ 20,344</b>
Final Walk						16	6		6	6								4	38	\$ 7,226	\$ 500		\$ 7,726
Prepare Punch List & upload in ProCore																			0	\$ -			\$ -
Finalize Closeout Documents																			0	\$ -			\$ -
Upload Closeout Documents to ProCore																			0	\$ -			\$ -
Final Download from ProCore to WRC File	4	8	24	40		10												86	\$ 12,618			\$ 12,618	
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Task 16 - O&amp;M Plan</b>																			<b>526</b>	<b>\$ 95,324</b>	<b>\$ 416</b>	<b>\$ -</b>	<b>\$ 95,740</b>
Develop Draft O&M Plans (PS & SSO Chamber)						100			40	40			120					16	316	\$ 57,548			\$ 57,548
Workshops with WRC Staff	4					16			16				16					8	60	\$ 10,816	\$ 416		\$ 11,232
Finalize O&M Plan						40			20	20			60					10	150	\$ 26,960			\$ 26,960
																			0	\$ -			\$ -
																			0	\$ -			\$ -
<b>Total Hours</b>	<b>184</b>	<b>274</b>	<b>88</b>	<b>2,628</b>	<b>210</b>	<b>3,640</b>	<b>566</b>	<b>583</b>	<b>241</b>	<b>386</b>	<b>92</b>	<b>256</b>	<b>960</b>	<b>540</b>	<b>212</b>	<b>0</b>	<b>80</b>	<b>584</b>	<b>11524</b>				
<b>Total Fee</b>																				<b>\$ 1,947,956</b>	<b>\$ 126,034</b>	<b>\$ 556,510</b>	<b>\$ 2,630,500</b>

Fishbeck Estimated Work Hours and Fees

Project Name: **Evergreen Farmington Sanitary Drain Drainage District – 8 Mile Road Outlet Corrective Action Plan**  
 Phase: **8 Mile Road Pump Station 54-inch Relief Force Main – Phase II**  
 Task: **Construction Administration Assistance**  
 Project Location/Client: **Oakland County Water Resource Commissioner's Office**  
 Date: **October 31, 2022**  
 Prepared By: **M. Sedki**

Construction Delivery Method: **Design/Bid/Build**  
 Estimated Notice to Proceed: **January 2023**  
 Substantial Completion: **December 2024**  
 Final Completion: **Spring 2025**  
 Construction Duration: **1.5 years**  
 Fishbeck CA Assistance Duration: **1.5 years**

	Client Manager	Project Manager	Asst PM /Sr. Office Tech	Document Control/Office Tech	Sr. Civil Engineer	Engineer	Staff Engineer	Sr. CAD/GIS Technician	CAD/GIS Technician	2 Person Survey Crew	Production Support	Total Hours	Labor Fee	Expenses	Outside Services (FKE)	Totals
<b>Task 1 - Project Setup</b>												<b>139</b>	<b>\$ 21,479.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 21,479.00</b>
Upload drawings and specifications to ProCore				4	1	4						9	\$ 1,305.00			\$ 1,305.00
Set up directories and permissions in ProCore	4	2	10	32	4							52	\$ 7,218.00			\$ 7,218.00
Provide WRC Standard Forms												0	\$ -			\$ -
Upload WRC standard forms to ProCore				10	2							12	\$ 1,512.00			\$ 1,512.00
Upload Construction contracts to ProCore				10	2						2	14	\$ 1,708.00			\$ 1,708.00
Upload insurance certificates to ProCore				4	4						2	10	\$ 1,444.00			\$ 1,444.00
Acquire all Permits and Upload to ProCore											2	2	\$ 196.00			\$ 196.00
Upload sworn statements											2	2	\$ 196.00			\$ 196.00
Review all sworn statements												0	\$ -			\$ -
Upload subcontracts											2	2	\$ 196.00			\$ 196.00
Monthly Invoicing	12	24										36	\$ 7,704.00			\$ 7,704.00
												0	\$ -			\$ -
<b>Task 2 - Document Control</b>												<b>396</b>	<b>\$ 46,788.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 46,788.00</b>
Weekly check-in on all Uploads		24		312								336	\$ 39,456.00			\$ 39,456.00
Tracking Missing Documents												0	\$ -			\$ -
Quarterly Download of Info from ProCore to WRC		4	8	48								60	\$ 7,332.00			\$ 7,332.00
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 3 - PreCon and Progress Meetings</b>												<b>218</b>	<b>\$ 40,420.00</b>	<b>\$ 600.00</b>	<b>\$ -</b>	<b>\$ 41,020.00</b>
Prepare Package and Run Meeting												0	\$ -			\$ -
Progress Meetings (Monthly - 12 Months)					72	8						80	\$ 15,792.00	\$ 500.00		\$ 16,292.00
Prepare Meeting Minutes												0	\$ -			\$ -
Upload info to ProCore												0	\$ -			\$ -
Progress Meetings (Monthly - 12 Months)												0	\$ -			\$ -
Coordination with MDOT	10				68	40					20	138	\$ 24,628.00	\$ 100.00		\$ 24,728.00
												0	\$ -			\$ -
<b>Task 4 - Daily Work</b>												<b>0</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Schedule and Manage work and subcontractors												0	\$ -			\$ -
Perform Regular Inspection												0	\$ -			\$ -
Complete IDRs												0	\$ -			\$ -
Upload IDRs and Photos to ProCore												0	\$ -			\$ -
Review IDRs												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 5 - Material Testing and Specialty Inspection</b>												<b>232</b>	<b>\$ 46,080.00</b>	<b>\$ 1,000.00</b>	<b>\$ -</b>	<b>\$ 47,080.00</b>
Schedule Material Testing												0	\$ -			\$ -
Perform Material Testing												0	\$ -			\$ -
Upload Testing to ProCore												0	\$ -			\$ -
Review Testing Results												0	\$ -			\$ -
Fishbeck Site Visits	8				192	24						224	\$ 44,472.00	\$ 1,000.00		\$ 45,472.00
Upload Fishbeck Site Visit Notes to ProCore												0	\$ -			\$ -
Schedule Specialty Inspections by Outside Sources												0	\$ -			\$ -
Review Specialty Inspection Results					8							8	\$ 1,608.00			\$ 1,608.00
Upload Specialty Inspection Results to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 6 - Staking</b>												<b>20</b>	<b>\$ 5,764.00</b>	<b>\$ 889.00</b>	<b>\$ -</b>	<b>\$ 6,653.00</b>
Request Staking												0	\$ -			\$ -
Setup Control					4					16		20	\$ 5,764.00	\$ 889.00		\$ 6,653.00
Perform Staking												0	\$ -			\$ -
Upload Cutsheets to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 7 - Shop Drawings</b>												<b>114</b>	<b>\$ 17,382.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17,382.00</b>
Prepare Shop Drawing												0	\$ -			\$ -
Upload submittal to ProCore												0	\$ -			\$ -
Forward Submittal from ProCore to Reviewer(s)		4		8								12	\$ 1,692.00			\$ 1,692.00
Review Submittal					24	40					24	88	\$ 13,776.00			\$ 13,776.00
Compile Comments and Return to Contractor		4		10								14	\$ 1,914.00			\$ 1,914.00
												0	\$ -			\$ -
												0	\$ -			\$ -

**Fishbeck Estimated Work Hours and Fees**

Project Name: **Evergreen Farmington Sanitary Drain Drainage District – 8 Mile Road Outlet Corrective Action Plan**  
 Phase: **8 Mile Road Pump Station 54-inch Relief Force Main – Phase II**  
 Task: **Construction Administration Assistance**  
 Project Location/Client: **Oakland County Water Resource Commissioner's Office**  
 Date: **October 31, 2022**  
 Prepared By: **M. Sedki**

Construction Delivery Method: **Design/Bid/Build**  
 Estimated Notice to Proceed: **January 2023**  
 Substantial Completion: **December 2024**  
 Final Completion: **Spring 2025**  
 Construction Duration: **1.5 years**  
 Fishbeck CA Assistance Duration: **1.5 years**

	Client Manager	Project Manager	Asst PM /Sr. Office Tech	Document Control/Office Tech	Sr. Civil Engineer	Engineer	Staff Engineer	Sr. CAD/GIS Technician	CAD/GIS Technician	2 Person Survey Crew	Production Support	Total Hours	Labor Fee	Expenses	Outside Services (FKE)	Totals
<b>Task 8 - RFIs</b>												<b>80</b>	<b>\$ 12,992.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 12,992.00</b>
Prepare RFI												0	\$ -			\$ -
Upload to ProCore												0	\$ -			\$ -
Forward RFI from ProCore to Reviewer(s)												0	\$ -			\$ -
Provide RFI Response to CA					24	40					16	80	\$ 12,992.00			\$ 12,992.00
CA Official Response back to Contractor												0	\$ -			\$ -
Upload Response to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 9 - Pay Certificates</b>												<b>54</b>	<b>\$ 10,206.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,206.00</b>
Generate Initial Quantities												0	\$ -			\$ -
Provide assistance to NTH/WRC with review					36	18						54	\$ 10,206.00			\$ 10,206.00
Approve Pay Estimates & Get Signed												0	\$ -			\$ -
Upload sworn statements & waiver of liens												0	\$ -			\$ -
Review all statements												0	\$ -			\$ -
Submit for WRC Payment												0	\$ -			\$ -
Upload to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 10 - Change Orders</b>												<b>150</b>	<b>\$ 26,320.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 26,320.00</b>
Submit Request for Change Order												0	\$ -			\$ -
Review and Approve Change Order	10				60	60					20	150	\$ 26,320.00			\$ 26,320.00
Submit for WRC Payment												0	\$ -			\$ -
Upload to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 11 - Bulletins</b>												<b>110</b>	<b>\$ 19,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 19,000.00</b>
Determine if Bulletin is needed												0	\$ -			\$ -
Prepare Bulletin and Issue	10				40	40					20	110	\$ 19,000.00			\$ 19,000.00
Upload Bulletin to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 12 - Claims</b>												<b>32</b>	<b>\$ 6,456.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,456.00</b>
Submitted by Contractor												0	\$ -			\$ -
Negotiations	8				16	8						32	\$ 6,456.00			\$ 6,456.00
Submit for WRC Payment												0	\$ -			\$ -
Upload to ProCore												0	\$ -			\$ -
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 13 - As-Builts</b>												<b>102</b>	<b>\$ 20,172.00</b>	<b>\$ 700.00</b>	<b>\$ -</b>	<b>\$ 20,872.00</b>
Provide Red line info												0	\$ -			\$ -
Prepare As-Builts	2			4	8	40		24		24		102	\$ 20,172.00	\$ 700.00		\$ 20,872.00
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Task 14 - Project Closeout</b>												<b>94</b>	<b>\$ 15,570.00</b>	<b>\$ 182.00</b>	<b>\$ -</b>	<b>\$ 15,752.00</b>
Final Walk					8	8					2	18	\$ 3,124.00	\$ 182.00		\$ 3,306.00
Prepare Punch List & upload in ProCore												0	\$ -			\$ -
Finalize Closeout Documents					8	8						16	\$ 2,928.00			\$ 2,928.00
Upload Closeout Documents to ProCore												0	\$ -			\$ -
Final Download from ProCore to WRC File	2	6	8	20	20						4	60	\$ 9,518.00			\$ 9,518.00
												0	\$ -			\$ -
												0	\$ -			\$ -
<b>Total Hours</b>	<b>66</b>	<b>68</b>	<b>26</b>	<b>462</b>	<b>601</b>	<b>338</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>40</b>	<b>116</b>	<b>1741</b>				
<b>Total Fee</b>													<b>\$ 288,629.00</b>	<b>\$ 3,371.00</b>	<b>\$ -</b>	<b>\$ 292,000.00</b>





30425 Stephenson Hwy.  
Madison Heights, MI 48071

Ms. Maria E. Sedki, P.E.  
Vice President  
Fishbeck  
39500 Mackenzie Drive, Suite 100  
Novi, Michigan 48377

September 28, 2022

**Attn. - Mr. Joe Siwek, P.E.**

RE: Proposal for Geotechnical Instrumentation & Testing Services  
8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1  
Southfield, Michigan

Dear Mr. Siwek,

Based on our recent conversations, FK Engineering (FKE) is pleased to present this proposal to provide Geotechnical Instrumentation & Testing Services for the above project. In the following sections we present relevant project background, our proposed scope of services citing assumptions, and our estimated professional fees separated by task.

## **PROJECT BACKGROUND**

Oakland County Water Resources Commissioner (OCWRC) is considering several upgrades to the existing sanitary sewer system along 8 Mile Road from the 8 Mile Pumping Station (Muirwood Drive) to the Southfield Freeway in Southfield, Michigan. We understand that Phase 1 focuses primarily on the 8 Mile Road Pump Station (located on 8 Mile Road, west of Muirwood Drive) and Evergreen SSO Chamber (located on 8 Mile Road, west of Evergreen).

The existing 8 Mile Road Pump Station extends about 61 feet below ground surface with a wet well zero elevation equal to 587.58. The pump station is primarily constructed of cast-in-place concrete and is divided into a dry well area and a wet well area. There are currently five pumps within the pump station, numbered Pump 1 through Pump 5. The pump station site consists of grass lawns, asphalt, and concrete pavements, and has existing underground utilities throughout the site including water, storm sewer (site drainage system), several gravity and forcemain sanitary sewers, electric, natural gas, and fiber optic. The site is bordered on the east by Muirwood Drive (asphalt pavement) and on the north by Sam's Club.

Proposed improvements to the structure include new pumps and associated plumbing, mechanical, and electrical improvements as well as a new roof. These improvements require alterations to the pump station concrete structure, new asphalt and concrete pavements, a new cast-in-place concrete vault for a new 54-inch forcemain sanitary sewer, new site utilities, and new concrete pads for electrical equipment. To facilitate this work, OCWRC has acquired construction easements for staging and laydown areas around the pump station.

The Evergreen SSO Chamber extends approximately 22 feet below ground surface. The chamber lies beneath 8 Mile Road within the MDOT right-of-way. Improvements to the chamber include new frames for stop logs and a new penetration for a 54-inch forcemain sewer. OCWRC has acquired construction easements on the north side of the chamber to facilitate this work.

During the design, FKE performed and issued Geotechnical Investigation Reports for the project. These reports are dated August 11, 2021, and August 22, 2020. FKE also performed an investigation in June 2022 with an associated report forthcoming.

Fishbeck has provided the following project documents to FKE:

- Project Plan Set titled, “8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1” dated July 29, 2022.
- Project Specification Set titled, “8 Mile Road Pump Station and Overflow Chamber Improvements” dated July 28, 2022.
- A Project Construction Schedule by Walsh dated August 2, 2022.

As a continuation of the overall services on this project, Fishbeck is requesting a proposal from FKE to provide select geotechnical instrumentation and material testing services to be performed during the construction stage, slated to start mobilization in April 2023 with completion anticipated in July 2027 (*overall construction duration of 4 years 3 months, so we have assumed 4 years: 2023, 2024, 2025, and 2026 for costing purposes*).

All material testing and geotechnical instrumentation services performed/located within the MDOT right-of-way along 8 Mile Road Roadway and the 8 Mile Road Median will be performed by others and are not considered part of the scope of work as presented herein.

## PROPOSED SCOPE OF SERVICES

We propose the following scope of services to meet the geotechnical instrumentation and testing services as it pertains to the proposed improvements to the 8 Mile Pump Station and Evergreen SSO sites. We have separated our proposed services by task for clarity purposes:

- Task 1 – Geotechnical Instrumentation Installation
- Task 2 – Geotechnical Instrument Monitoring & Reporting
- Task 3 – Field Material Testing

### Task 1 - Geotechnical Instrumentation Installation

We propose to install the geotechnical instrumentation as indicated in the project specifications. Assumptions/consideration for pricing for this installation are shown in *italics* where applicable.

FKE will retain the required subcontractors and oversee installation of the required instruments at the 8 Mile Road Pump Station Site and Evergreen SSO Site. The project specifications indicate that the Contractor is to perform preconstruction video/survey of:

- 8 Mile Pump Station Addition
- WRC Water Building
- 20074 W 8 Mile Road (Coin Laundry)
- 20066 W 8 Mile Road (Wendy's)

The project specifications indicate that preconstruction survey will determine the number and location of instruments for the purpose of crack monitoring and settlement monitoring. Therefore, we have assumed the number of instruments as indicated.

**Specified Instrumentation - Crack Gauges and Settlement Monitoring Points:** We assume that *four crack gauges* will be required per building for a total of *16 gauges*. We assume that *six settlement monitoring points (SMPs)* will be required per building for a total of *24 SMPs*. SMPs will consist of either a stainless steel nail installed in pavement or a marking on a structure of concern. Occasional replacement of these instruments is anticipated. We have included 15% will require replacement during the overall construction schedule, as necessary.

*Although not explicitly indicated by the project documents, we expect inclinometers, vibrating wire piezometers, and vibration monitoring devices will likely be required at these sites during construction.*

FKE plans to have a registered professional engineer on site to supervise the first installation of each instrument type. Subsequent installations of each instrument type will be supervised by an approved staff engineer.

FKE will be responsible for contacting MISSDIG prior to any drilling or excavation work. Fishbeck will be responsible for initial layout/staking of instruments prior to installation.

**SMPs:** Per the project documents, SMPs are required for monitoring at existing structures where excavations are proposed. SMPs may consist of a ¼-inch x 2-inch-long masonry nail, PK Nails, and/or a 3/8-inch x 5-1/8-inch-long bolt equal to HAS Threaded Rods Super A193 B7 steel with adhesive capsules equal to HVU (M10) manufactured by Hilti, and/or rebar driven into the ground. These points will be installed at pre-determined locations by FKE. *SMPs will be monitored (read) by the project surveyor. Survey efforts are not part of our indicated fees. Obtained information to be shared with FKE for interpretation.*

**Inclinometers:** Currently, project documents do not specify inclinometers. If needed, inclinometers will consist of 2.75-inch outside diameter ABS casing with flush, non-telescoping joints. Inclinometers will be installed between proposed excavations and structures of concern (such as Coin Laundry or WRC Water Building). *Inclinometers will be 80 feet deep each. Our indicated fee assumes two inclinometers will be installed.* Surface protection will consist of a traffic rated cast iron road box or similar.

**Vibrating Wire Piezometers (VWP):** Due to proposed excavations, VWPs may be required at the pump station and SSO sites. We will use a portable VWP readout device for monitoring. Surface protection will consist of a traffic rated cast iron road box. These instruments will be installed at pre-determined locations by a drilling subcontractor under the direction of FK Engineering. *We have assumed a drilling depth of 75 feet for each of the VWPs. We have assumed that these will be installed with the inclinometers, so our indicated fee assumes two VWPs will be installed.*

**Telltale (TT):** Due to excavations in proximity to existing utilities, telltales may be installed to monitor movement of existing underground utilities. These points will consist of a black metal pipe that rests on top of an existing utility. The bar will be sleeved with a Schedule 40 PVC riser. Surface protection will consist of a traffic rated cast iron road box. These points will be installed at pre-determined locations a drilling subcontractor, under the direction of FKE. *TTs will be monitored by the project surveyor. Survey efforts are not part of our indicated fees. Obtained information to be shared with FKE. We have assumed that two Tell Tales will be installed.*

**Vibration Monitoring:** Vibration monitoring may be desired at the project locations and during specific vibration inducing construction activities. Currently, wireless vibration monitoring devices are available with 6-to-12-month battery lifespans. Several of these devices will be required to continuously monitor work areas over the course of the project. *We have assumed two vibration monitoring devices on site for a cumulative duration of 12 months (i.e., 3*

*months/year for 4 years). These may be moved from time to time depending on ongoing construction activities.*

If selected, we plan to leave a vibration monitoring device on site and will download data remotely once per week. Should significant alerts indicate high levels of vibrations, we will be able to share this information with the project team in a timely manner. Weekly data downloads will be included in our instrumentation reports accordingly.

## **Task 2 – Geotechnical Instrumentation Monitoring & Reporting**

FKE (**and the project surveyor**) will take Baseline Readings of all installed instruments ahead of the start of construction activities. Baseline readings for SMPs and TTs will consist of two consistent sets of readings, made on separate days, within 10 days of installation. Baseline readings for VWPs will consist of an average of daily readings. Baseline readings for inclinometers will consist of three consecutive readings performed at least one day after the inclinometer installation.

### Crack Gauges and SMPs

Per project documentation, crack gauges are to be recorded one per day throughout project duration. We have assumed that the Resident Project Representative (RPR) will be able to gather this information and provide to FKE to include in our weekly instrumentation reports. On days when we are on site to read other instruments, we will also capture crack gauge status (i.e., 2 times per week).

SMPs will be surveyed by others and the results provided to FKE. These readings will be reviewed by FKE and included in our monitoring reports accordingly. These are to be read two times per week.

### Inclinometers, VWPs, and TTs

VWPs and Inclinometers will be read 2 times per week while construction activities such as excavations, open excavations, trenching, or other earthwork are performed within approximately 200 feet of the instrument. These instruments will be read once per month otherwise to maintain baseline values.

TTs will be surveyed by others and the results provided to FKE. These readings will be reviewed by FKE and included in our monitoring reports accordingly. These are to be read two times per week.

*We have assumed 32 visits per calendar year for these readings. This amount to 128 site visits overall. We have estimated 5 hours of site time per visit to facilitate these readings, including travel time. We assumed 16 Monitoring Reports per calendar year, for an overall total of 64 Monitoring Reports.*

Should more frequent observation be required due to observed movements, then this effort will be discussed with Fishbeck as the project requires, as additional costs could result. This estimate is to define general parameters for the pricing purposes.

Geotechnical monitoring includes fees for the instruments to facilitate the readings and related travel expenses. FKE will provide equipment for reading inclinometers including an inclinometer probe, cable, reel, and tablet. FKE will also provide the electronic readout device required for reading the VWP's.

FKE will evaluate instrumentation readings and provided survey information from SMPs and TTs and prepare a weekly summary report.

### **Task 3 – Concrete and Density Testing**

FKE will provide as-needed concrete and compaction (density) testing during construction. These services will be performed by an experienced geotechnical engineer or technician. FKE will provide the necessary equipment to facilitate testing, including air meter, cylinder molds, curing box, company truck, and Troxler density gauge. Equipment costs are included in our fees. We have made the following assumptions to develop our indicated fees:

- *Average of 12 cylinder mold sets (four 4" X 8" cylinder molds per set) made per year, for a project duration of 5 years (60 cylinder sets in total)*
- *4-hour duration per visit including travel time.*
- *72 site visits to perform select density testing, with 4-hour duration per visit.*

For concrete cylinder breaks, we have assumed 4 breaks per set (typically one 7 day, and two 28-day breaks, with spare to be broken at Tetra Tech's discretion. Cylinder breaks are included in our daily testing fee.

FKE will provide testing data immediately when it becomes available and will document these results in summarized reports as needed. *We have included this effort in our daily fee (approximately 2 hours of effort).*

**PROFESSIONAL FEES**

Based on the above project background and scope of services, we propose to perform our scope of services for the following fees separated by task for clarity purposes. Due to the expected project schedule, we have forecasted our efforts for four years considering a **5% per year increase** for each task as indicated.

Task 1 – Geotechnical Instrumentation Installation

Task 1 is separated between standard geotechnical instrumentation equipment to be installed in 2023 and vibration monitoring, which may be active at different periods throughout the construction schedule. For vibration monitoring, we assumed a shorter duration than the full construction schedule, as we assumed this would not be needed for all facets of construction.

<b>Task 1 Geotechnical Instrumentation Installation (Installed in 2023)</b>	
Device	FKE Effort
Crack gauges and SMPs for four buildings – <i>install 16</i> <i>(15% replacement over project duration)</i>	\$12,500 <sup>1</sup>
SMPs – <i>install 24</i> <i>(15% replacement over project duration)</i>	\$12,500 <sup>1</sup>
Inclinometer (80-foot, each with VWP) – <i>install 2</i>	\$7,500 <sup>2</sup>
VWP Installation – <i>install 2</i>	\$7,500 <sup>2</sup>
Telltale – <i>install 2</i>	\$5,000
<b>TOTAL</b>	<b>\$35,000</b>

1) Include precondition survey report and video review

2) Cost reflects dual installation with VWPs

<b>Task 1 Continued Vibration Monitoring (Assume 12 Months of Monitoring)</b>		
Device	Monthly Rate	12 Months
Vibration Monitoring Device – Install 2 <sup>1</sup>	\$1,400/each	\$33,600
<b>TOTAL</b>		<b>\$33,600</b>

1) Vibration monitoring devices to be moved numerous times during project duration



Task 2 – Geotechnical Instrumentation Monitoring & Reporting

Task 2 is separated between the required fieldwork to read the installed instruments and the preparation of monitoring reports. As noted with vibration monitoring, we assumed that there will be periods during construction that do not require weekly and/or monthly monitoring reports. Therefore, we note our assumptions on duration and quantities as indicated.

<b>Task 2 Geotechnical Instrumentation Fieldwork</b>				
<b>Year<sup>1</sup></b>	<b>Duration</b>	<b>Per Visit Est.</b>	<b>No. of Visits</b>	<b>Total Estimate</b>
2023	5 Hours	\$1,000	32	\$32,000
2024	5 Hours	\$1,050	32	\$33,600
2025	5 Hours	\$1,103	32	\$35,296
2026	5 Hours	\$1,157	32	\$37,024
<b>TOTAL</b>				<b>\$137,920</b>

<b>Task 2 Continued - Monitoring Report Preparation</b>			
<b>Year</b>	<b>Report Preparation</b>	<b>No. of Reports<sup>1</sup></b>	<b>Total Estimate</b>
2023	\$1,500	16	\$24,000
2024	\$1,575	16	\$25,200
2025	\$1,654	16	\$26,464
2026	\$1,736	16	\$27,776
<b>TOTAL</b>			<b>\$103,440</b>

1) Include Baseline Report

Task 3 – Concrete and Density Testing

Task 3 is separated between field density testing and concrete testing assuming the noted durations as discussed herein.

<b>Task 3 - Field Density Testing</b>				
<b>Year<sup>1</sup></b>	<b>Duration</b>	<b>Per Visit Est.</b>	<b>No. of Visits</b>	<b>Total Estimate</b>
2023	4 Hours	\$800	18	\$14,400
2024	4 Hours	\$840	18	\$15,120
2025	4 Hours	\$882	18	\$15,876
2026	4 Hours	\$926	18	\$16,668
<b>TOTAL</b>				<b>\$62,064</b>

<b>Task 3 - Concrete Testing</b>				
<b>Year<sup>1</sup></b>	<b>Duration</b>	<b>Per Visit Est.</b>	<b>No. of Visits</b>	<b>Total Estimate</b>
2023	4 Hours	\$800	15	\$12,000
2024	4 Hours	\$840	15	\$12,600
2025	4 Hours	\$882	15	\$13,230
2026	4 Hours	\$926	15	\$13,890
Breaks		240	\$75	\$18,000
<b>TOTAL</b>				<b>\$69,720</b>



The following table provides an overall summary for the scope of work as discussed herein. We have added a 10% contingency.

Overall Task Summary	
Task 1 Geotechnical Instrumentation Installation (Installed in 2023)	\$35,000
Task 1 Continued Vibration Monitoring (12 Months of Monitoring)	\$33,600
Task 2 Geotechnical Instrumentation Fieldwork	\$137,920
Task 2 Continued - Monitoring Report Preparation	\$103,440
Task 3 - Field Density Testing	\$62,064
Task 3 - Concrete Testing	\$69,720
Contingency 10%	\$44,174
<b>OVERALL TOTAL</b>	<b>\$485,918</b>

Additional services beyond those presented and described above will only be done with Fishbeck's prior authorization. We have attached our fee schedules and Standard Terms and Conditions associated with our services. These rates will be used for services approved outside of those presented herein with prior approval of Fishbeck as necessary. We understand that our services as discussed herein will be authorized by a Subconsultant Agreement issued by Fishbeck that references this proposal.

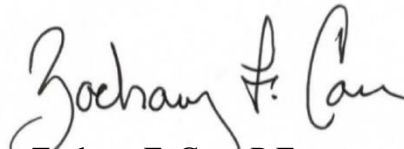
We appreciate the opportunity to submit this proposal for your consideration. Please contact me should you have any questions regarding this proposal.

Respectfully Submitted,

FK Engineering Associates



Peter F. Wenderski, P.E.  
Assistant Project Engineer



Zachary F. Carr, P.E.  
Vice President



## 2022 Standard Fee and Rate Schedule -Eff. 08/01/22

Fees for services will be charged on an hourly basis according to the following schedule:

<b><u>Personnel Title</u></b>	<b><u>Hourly Rate</u></b>
Principal	\$250.00
Principal Engineer/Officer	\$210.00
Senior Project Engineer/Geologist	\$175.00
Project Engineer/Geologist	\$165.00
Assistant Project Engineer/Geologist	\$150.00
Senior Staff Engineer/Geologist/CADD Operator	\$140.00
Staff Engineer/Geologist	\$120.00
Senior Technician	\$85.00
Field Technician	\$78.00
Administrative Assistant	\$72.00
Senior Engineering Intern	\$65.00
Engineering Intern/Tech 3	\$65.00
Engineering Intern/Tech 2	\$60.00
Engineering Intern/Tech 1	\$55.00

Field Technician over-time will be billed at 1.3 x the hourly rate.

Fees for other standard expenses will be charged on a unit rate basis as follows:

<b><u>Item</u></b>	<b><u>Rate</u></b>
Standard Company Vehicle Mileage Rate	.80 cents per mile
Company Vehicle Usage	\$95 per day/\$435 per week/\$1545 per month up to 50 miles/day included - additional mileage charged at Standard Company Vehicle Mileage Rate
ATV Usage	\$75 per day/\$1,000 per month
B&W Copies (over 50 sheets/day)	\$0.12 per sheet
Color Copies (over 15 sheets/day)	\$0.60 per sheet
Plotter Copies	\$0.50 per sq. ft.
Subcontractors	Cost plus 12%
Direct Expenses	Cost plus 10%
Per diem	Breakfast: \$8.00/day, Lunch: \$10.00/day, Dinner: \$20.00/day

### **Other Terms**

- 1) Invoices are due upon receipt. Invoices greater than 15 days old will be assessed a late fee of 1.5% per month for each 1-30 day period beyond 15 days.
- 2) Hourly rates for testimony will be charged at 1.40 times the standard rates indicated above.

## 2022 Standard Equipment Usage Rates

*Fees will be charged on a day, weekly, or monthly basis according to the following schedule:*

### Geotechnical, Groundwater, and Geophysical Equipment

Vibration Monitoring (InstanTel Micromate/Veva).....	\$ 100 / Day _ \$375 / Week _ \$1400 / Month
Powercase w/ Sierra Modem and Solar Panel for Micromate (in addition to Micromate) .	\$ 80 / Day _ \$150 / Week _ \$350 / Month
Digitilt Inclinometer, Cable, Tablet .....	\$ 65 / Day _ \$260 / Week _ \$775 / Month
Double Ring Infiltrometer.....	\$ 260 / Use
Flow Meter.....	\$ 155 / Day_ \$515 / Week
Level Troll (slug testing) .....	\$ 205 / Day _ \$410 / Week
PosiTest Coating Thickness Gage and Holiday Detector .....	\$ 950 / Day
Schonstedt Utility Locator .....	\$ 750 / Day
Super Sting Soil Resistivity Detector.....	\$ 2,000 / Day
Vibrating Wire Analyzer.....	\$ 75 / Day_ \$310 / Week_ \$1030 / Month
Wireless Gateway.....	\$ 350 / Month
Wireless Node.....	\$ 140 / Month

### Various Test and Field Equipment

3-Axis Crack Monitoring Gauge .....	\$ 100 / each
Crack Gauges .....	\$ 50 / Each
Concrete Testing Equipment .....	\$ 75 / Day _ \$205 / Week _ \$410 / Month
Confined Space Equipment Level 1 includes 10-minute SCBA, gas meter, harness, Tyvek suit, gloves, waders, lights .....	\$ 100 / Day _ \$220/ Week _ \$570/ Month
Confined Space Equipment Level 2 includes Level 1 equipment plus one fall control Device, assumes one entrant; for each additional entrant, charge Level 1 CSE .....	\$ 450 / Day _ \$1500/ Week _ \$4500/ Month
Confined Space Equipment Level 3 includes Level 1 equipment plus two fall control devices, assumes two entrants; for each additional entrant, charge Level 1 CSE ...	\$ 650 / Day _ \$2500/ Week _ \$6500/ Month
Drysuit .....	\$ 500 / Use
Dynamic Cone Penetrometer.....	\$ 130 /Day _ \$410 / Week _ \$1545 / Month
Inspection Boat.....	\$ 100 / Day
Generator .....	\$ 50 / Day _ \$205 / Week _ \$620 / Month
Housel Penetrometer .....	\$ 50 / Day
K-90 Core Drill Machine.....	\$ 250 / Day
Sewer Mandrel .....	\$ 2500 / Day
Survey Equipment.....	\$ 130 / Day_ \$335 / Week _ \$980 / Month
Traffic Control (Truck mounted & signs only).....	\$ 155 / Day _ Per Set up
Troxler E Gauge Model 4590 Soil Density.....	\$ 25 / per test; 250/Day Max; 150/Day Min
Video Equipment – including GoPros .....	\$ 155 / Day _ \$465 / Week _ \$1445/ Month
Vane Shear.....	\$ 200 / Each
Trailer – 6’ x 14’ Open Trailer .....	\$ 300 / Day
General Field Equipment (Small tools, power tools and all equipment not listed herein) ..	\$ 50 / Day_ \$100 / Week _ \$300 / Month

### Environmental Monitoring Equipment

Photoionization Detector .....	\$ 105 / Day _ \$330 / Week
Level B Protection includes emergency self-contained breathing apparatus (SCBA), chemical resistant gloves and clothes, chemical resistant steel toed boots with steel boot shank.....	\$ 225 / Person / Day
Level C Protection includes air purifying respirator, chemical resistant clothing with hood, outer and inner chemical resistant gloves, chemical resistant steel toed boots, chemical resistant outer boot covers As needed: escape mask, face shield, hard hat, coveralls.....	\$ 80 / Person / Day
Level D Protection includes coveralls, chemical resistant steel toed boots, disposable boot covers, safety glasses As needed: escape mask, hard hat, face shield.....	\$ 35 / Person / Day



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## 2022 Standard Equipment Usage Rates (cont.)

### Project Software

SW010 - Aqtesolv.....	\$	100	per project
SW020 - AutoCad .....	\$	75	/Week 250/ Month
SW030 - Civil Tech Shoring 8 .....	\$	100	per Project
SW040 - gInt .....	\$	200	per Project
SW050 - GeoStudio.....	\$	2000	per Project
SW060 - GRL Weap .....	\$	300	per Project
SW070 - LPile .....	\$	300	per Project
SW080 - Slope /W.....	\$	2000	per Project
SW090 - SpecText .....	\$	5000	per Project
SW100 - UnWedge.....	\$	1200	per Project

## 2022 Standard Lab Rates

*Fees will be charged on a per test basis according to the following schedule:*

Code / Description	ASTM/AASHTO Method	Rate
LT 010-Organic Content	D 2974/T 267	\$35.00 /each
LT 020-Atterberg Limits	D 4318/T 89 & T 90*	\$40.00 /each
LT 030-Brass Liner Usage	n/a	\$2.00 /each
LT 040-Consolidation Testing	D 2345	\$350.00 / each
LT 050-Dry Density Soil Testing	D 2216	\$15.00 / each
LT 060-Hand Penetrometer Test	n/a	\$20.00 / each
LT 070-Hydrometer Analysis Soil Gradation	D 422/T 88*	\$60.00 / each
LT 080-Material Passing No. 200 Sieve	D 1140	\$30.00 / each
LT 090-pH Determination	D 4972	\$20.00 / each
LT 100-Sieve Analysis (Washed Through No. 200 Sieve) Soil Gradation	D422/T 88*	\$30.00 / each
LT 110-Unconfined Compression Test (Controlled Strain) Linear	D 2166/T 208*	\$25.00 / Liner
LT 120-Unconfined Compression Test (Controlled Strain) Shelby	D 2166/T 208*	\$40.00 / Shelby
LT 130-Water Content Soil Testing	D 2216/T 265*	\$15.00 / each
LT 140-Concrete Compressive Strength Testing	C39*	\$35.00/ each
LT 150-Modified Proctor Test	D1557	\$275.00/ each

**\*Note: Fees are for lab equipment use only; hourly rates for personnel will also apply.**



## Standard Terms and Conditions for Engineering Services

These Standard Terms and Conditions for Engineering Services (hereafter referred to as “Terms and Conditions”) shall apply to and govern the agreement entered into between FK Engineering Associates (hereafter referred to as “Consultant”) and the party engaging Consultant to provide services under the aforementioned agreement (hereafter referred to as “Client”). All engineering services, design services, detail drawing services, consulting and training services, construction engineering, construction contract administration, and inspection and analysis services by Consultant (collectively referred to herein as “Engineering Services”) are subject to these Terms and Conditions. All written proposals or quotations referencing and incorporating these Terms and Conditions (hereafter referred to as “Proposal”) issued by Consultant are an offer to provide for the agreed-upon fee, Engineering Services pursuant to these Terms and Conditions, and subject to all the provisions of the Proposal. No waiver or modification of these Terms and Conditions shall be binding on Consultant unless authorized and agreed to in writing by Consultant. Client’s acceptance of the Proposal (hereafter referred to as “Authorization”) shall be in written form referencing the Proposal and defining any additional modifications to the proposal, including any modifications to these Terms and Conditions. Any such modifications must be agreed to in writing by the Consultant and the Client, for such modifications to be binding. Collectively, the Proposal and Client’s Authorization are hereafter included in these Terms and Conditions all of which are referred to as the “Agreement”.

1. **SCOPE.** The scope of work for the Engineering Services to be provided to Client (hereafter referred to as “Scope of Services”) is specifically set forth in the Proposal submitted to Client by Consultant. If Client requests a change in the Scope of Services to be provided, Consultant reserves the right to revise delivery schedules and make an equitable adjustment to the price. Client acknowledges and agrees that Consultant is providing the Engineering Services only and is not providing or participating in the provision of any product(s). Consultant will not be obligated to provide any services which are (a) outside of the Scope of Services defined in the applicable documentation; (b) outside its area of expertise; or (c) in violation of any applicable laws, codes or regulations.
2. **PROJECT INFORMATION.** Client shall make available in a timely manner at no charge to Consultant all drawings, technical data, measurements, or other information and resources reasonably required by Consultant for the performance of the Engineering Services. The Consultant shall be entitled to rely on the accuracy and completeness of services and information furnished by the Client, including services and information provided by other design professionals or consultants directly to the Client. These services and information include, but are not limited to, surveys, tests, reports, diagrams, drawings and legal information. Client shall issue a written Authorization specifically referencing the Proposal.
3. **PRICES/TAXES.** Prices for the Engineering Services are subject to escalation in the event of an increase in any direct reimbursable costs associated with the project. Unless otherwise stated or agreed, Consultant’s prices do not include sales, use, or similar taxes.
4. **PAYMENT TERMS.** Standard payment terms are net 30 days from the date of the invoice unless modified in the Proposal. Fees will be accrued in accordance with the Consultants’ Standard Fee and Rate Schedule, or as stated otherwise in the Proposal. If the services are provided for a period exceeding 30 days, progress payments will normally be required.
5. **STANDARD OF CARE.** Consultant will provide the Engineering Services in accordance with generally accepted standard professional engineering practice normally exercised in the location and at the time the Engineering Services are provided to Client using reasonable care and skill consistent with that ordinarily exercised by members of the profession under similar conditions. However, Consultant does not guarantee the success of Client’s project. As such, except as set forth in this Section, Consultant makes no warranties or guarantees, whether express, implied, or statutory, regarding or relating to the Engineering Services furnished under this Agreement. Consultant specifically disclaims all implied warranties of merchantability and fitness for a particular purpose with respect to the Engineering Services.
6. **LIMITATION OF LIABILITY.** Consultant’s liability for a claim of any kind arising out of the Engineering Services provided pursuant to this Agreement shall in no case exceed the price paid by Client or \$25,000, whichever is greater and will apply to all contractual and tort obligations. In no event shall Consultant be liable for any special, indirect, incidental or consequential damages, including loss of profits or business interruption or loss of use of equipment, however caused arising from the Engineering Services provided pursuant to this Agreement.
7. **WAIVER OF CONSEQUENTIAL DAMAGES.** The Consultant and Client waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party’s termination of this Agreement.
8. **DELIVERY/FORCE MAJUERE.** Consultant shall have no liability for delays or any other breach of its obligations resulting from an Act of God, pandemics, war, riot, explosion, accident, act of government, work stoppage, default of subcontractor or supplier of materials, or any other cause beyond the reasonable control of Consultant.
9. **CANCELLATION, SUSPENSION OR DELAY.** Client may cancel the Agreement upon written notice to Consultant and payment of an agreed upon cancellation charge, which shall include all costs incurred by Consultant prior to the cancellation plus a reasonable profit. The Engineering Services may be suspended or delayed by Client with Consultant’s prior written consent. If Consultant agrees to a suspension or delay, Client shall reimburse Consultant for all costs incurred up to the date of such suspension or delay, plus a reasonable profit. All other costs related to and risks incidental to resumption of the Engineering Services shall be borne by Client.

## FK Engineering Associates

10. **CONSULTANT'S PROPERTY.** Except as otherwise specifically set forth in the scope of work provided as part of the proposal or quotation, all documents, including drawings, specifications, computer files, electronic media, data, engineering calculations, notes, and other documents and instruments prepared or furnished by Consultant (collectively the "Documentation") are the property of Consultant. Consultant shall retain all common law, statutory and other reserved rights, including copyright, applicable to the Documentation. The Documentation is not intended or represented to be suitable for use on any other project. Any reuse of the Documentation without written verification or adaptation by Consultant for the specific purpose intended is prohibited and will be at Client's sole risk and without liability or legal exposure to Consultant. Client agrees to defend, indemnify and hold Consultant harmless against all claims, damages, losses, and expenses (including reasonable attorneys' fees) arising from or in any way connected with the unauthorized use or modification of the Documentation by Client or any person or entity that acquires or obtains the Documentation from or through Client without the written authorization of Consultant.
11. **INTELLECTUAL PROPERTY RIGHTS.** Each party shall retain ownership of all intellectual property it had prior to commencement of the Engineering Services. However, Consultant shall own exclusively all rights in any ideas, inventions, or works of authorship created in or resulting from the Engineering Services, including but not limited to all patent rights, copyrights, moral rights, rights in proprietary information, trademark rights and other intellectual property rights, and Client will execute assignments as necessary to achieve that result.
12. **CERTIFICATIONS.** If the Client requests the Consultant to execute certificates, the proposed language of such certificates shall be submitted to the Consultant for review at least 14 days prior to the requested dates of execution. The Consultant shall not be required to execute certificates that would require knowledge, services or responsibilities beyond the scope of the agreement, nor shall any certificates be construed as a warranty or guarantee by the Consultant.
13. **UNAUTHORIZED CHANGES.** Consultant shall have no liability to Client or others for changes made to the Documentation by Client without Consultant's prior written approval.
14. **INDEMNITY.** Client will defend, indemnify, and hold Consultant harmless from all claims, damages, losses, and expenses (including reasonable attorneys' fees) arising out of the provision of the Engineering Services by Consultant under this Agreement, including claims related to Consultant's use of Client supplied drawings, measurements, data, or any other information provided by Client that is used in performing the Engineering Services, and including any third party claims. However, in no event shall Client be liable under this provision for claims arising out of and to the extent of the negligence or willful misconduct of Consultant. Consultant will indemnify, and hold Client harmless from all damages, liabilities, and expenses (including reasonable attorneys' fees) to the extent of the Consultant's negligent performance of the Engineering Services under this Agreement, including the Consultant's employees and others for whom the Consultant is legally liable.
15. **COMPLIANCE WITH LAWS.** The parties agree to comply with all applicable federal, state, or local laws in connection with the Engineering Services being provided pursuant to this Agreement.
16. **ASSIGNMENT.** Client may not assign the Agreement between Consultant and Client without the prior written consent of Consultant. Likewise, Consultant may not assign the Agreement between Consultant and Client without the prior written consent of Client.
17. **THIRD-PARTY BENEFICIARIES.** Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against Consultant. Consultant's Engineering Services are being performed solely for Client's benefit, and no party or entity shall have any claim against Consultant because of this Agreement or the performance or nonperformance of the Engineering Services.
18. **INDEPENDENT CONTRACTORS.** Each party will be and act as an independent contractor and not as an agent or partner of, or joint venture with, the other party for any purpose related to this Agreement or the transactions contemplated by this Agreement, and neither party by virtue of this Agreement will have any right, power, or authority to act or create any obligation, expressed or implied, on behalf of the other party.
19. **CONSTRUCTION PHASE.** The Consultant shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the construction work on any project, nor shall the Consultant be responsible for the contractor's failure to perform the construction work in accordance with the requirements of the plans and specifications prepared by Consultant. The Consultant shall not have control over or charge of, and shall not be responsible for, acts or omissions of the contractor or of any other persons or entities performing portions of the construction work. In addition, the Consultant shall have no control over, charge of, or have responsibility for, any temporary structures built or used by the Contractor during the course of construction. It is understood and agreed that the Consultant shall have no power, authority, right or obligation to furnish or erect or cause to be furnished or erected any scaffolding, hoists, stays, ladders, slings, hangers, blocks, pulleys, braces, irons, ropes or other related devices or equipment. To the extent the Consultant makes any observations of the site as required under the terms of this Agreement, such observations shall not include observations of any scaffolding, hoists, stays, ladders, slings, hangers, blocks, pulleys, braces, irons, ropes, temporary structures or other related devices or equipment.
20. **CONTRACTOR SUBMITTALS.** The Consultant shall review the contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the plans and specifications issued by the Consultant. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the contractor's responsibility. The Consultant's review



## FK Engineering Associates

shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Consultant, of any construction means, methods, techniques, sequences or procedures. The Consultant's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

21. **CONSTRUCTION OBSERVATION.** If requested, the Consultant shall visit the project construction site to generally observe the construction work and answer any questions that the Client may have. However, the Consultant shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the construction work, or to determine whether the construction work is being constructed in accordance with the Contract Documents. If the Client desires the Consultant to perform more frequent or comprehensive observations of the construction work, this Agreement shall be amended to specifically state the additional scope of service, along with the additional compensation to be paid to the Consultant for performing such service.
22. **JOBSITE SAFETY.** Neither the performance of the services by the Consultant, nor the presence of the Consultant at a project construction site, shall impose any duty on the Consultant, nor relieve the construction contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the construction work in accordance with the plans and specifications and any health or safety precautions required by any regulatory agencies or applicable law. The Consultant and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The Client agrees that the construction contractor shall be solely responsible for jobsite and worker safety.
23. **RESPONSIBILITY FOR CONSTRUCTION.** Evaluations of the Client's project budget, the preliminary estimate (opinion) of construction cost and detailed estimates (opinions) of construction cost, if any, prepared by the Consultant, represent the Consultant's judgment as a design professional familiar with the construction industry. It is recognized, however, that neither the Consultant nor the Client has control over the cost of labor, materials or equipment, over the contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Consultant cannot and does not warrant or represent that bids or negotiated prices will not vary from the Client's project budget or from any estimate (or opinion) of construction cost or evaluation prepared or agreed to by the Consultant.
24. **MERGER.** This Agreement shall not be terminated by the merger or consolidation of either party into or with any other entity.
25. **INSURANCE.** The Consultant will carry commercial general liability insurance and professional liability insurance relative to the Scope of Service under the Agreement. Specific limits, terms, and additional insured parties must be provided to the Consultant by the Client and agreed upon by the parties in advance of execution of the agreement.
26. **WAIVER OF SUBROGATION.** The Consultant and Client waive all rights against each other and any of their contractors, subcontractors, consultants, agents and employees, each of the other, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to a written contract or other property insurance applicable to the construction work. The Consultant and Client, as appropriate, shall require of their contractors, subcontractors, consultants, agents and employees, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policy shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.
27. **SUCCESSORS AND ASSIGNS.** All of the provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, if any, successors, and assigns.
28. **CHOICE OF LAW.** The laws of the state of Michigan shall govern this Agreement, the construction of its terms and the interpretation of the rights and duties of the parties hereto.
29. **ARBITRATION.** Any controversies arising out of the terms of this Agreement or its interpretation shall be settled in Oakland County, Michigan in accordance with the rules of the American Arbitration Association, and the judgment upon award may be entered in any court having jurisdiction thereof.
30. **HEADINGS.** Section headings are not to be considered a part of this Agreement and are not intended to be a full and accurate description of the contents hereof.
31. **WAIVER.** Waiver by one party hereto of breach of any provision of this Agreement by the other shall not operate or be construed as a continuing waiver.
32. **NOTICES.** Any and all notices, demands, or other communications required or desired to be given hereunder by any party shall be in writing and shall be validly given or made to another party if personally served, or if deposited in the United States mail, certified or registered, postage prepaid, return receipt requested. If such notice or demand is served personally, notice shall be deemed constructively made at the time of such personal service. If such notice, demand or other communication is given by mail, such notice shall be conclusively deemed given five days after deposit thereof in the United States mail addressed to the party to whom such notice, demand or other communication is to be given. Any party hereto may change its address for purposes of this paragraph by written notice.
33. **ENTIRE AGREEMENT.** These terms and Conditions together with the Proposal and Authorization constitute the entire understanding and agreement of the parties, and any and all prior agreements, understandings, and representations are hereby terminated and canceled in their entirety and are of no further force and effect. The Agreement may be amended



## **FK Engineering Associates**

only by written instrument signed by both Client and Consultant.

34. **UNENFORCEABILITY OF PROVISIONS.** If any provision of the Agreement or of these Terms and Conditions as incorporated into the Agreement, or any portion thereof, is held to be invalid and/or unenforceable, then the remainder of the Agreement and related Terms and Conditions shall nevertheless remain in full force and effect.

**Jim Nash, Oakland County Water Resources Commissioner  
 Evergreen Farmington Sanitary Drain Drainage District  
 For Construction of the Walnut No. 3 Pump Station Rehabilitation  
 Bloomfield Township  
 Oakland County, Michigan**

Construction Estimate No. 1

April 29, 2022 to October 25, 2022

Department No. : 6010101  
 Fund No. : 58410 ✓  
 Project No. : 1-3006

Account No. : 730352  
 Program No. : 149667 ✓  
 Activity : FAC  
 Vendor No. : 16424  
 Contract No. : 9895  
 Date of Contract : 4/29/2022  
 Completion Date : 3/25/2023

Contractor :  
 Lawrence M. Clarke Inc.  
 50850 Bemis Rd  
 Belleville, MI 48111

Original Contract Amount: \$1,209,000.00

Previous Change Order Numbers (none): \$0.00

Change Orders This Estimate Numbers (none): \$0.00

Total Net Change Orders: \$0.00

Adjusted Contract Amount: \$1,209,000.00

Subtotal To Date: (Sheet 2 of 2 Column 7) \$639,550.00

Less Deductions to Date: (Sheet 2 of 2 Column 7) \$0.00

Gross Estimate: (Work in Place) 52.90% \$639,550.00

Less Amount Reserved: (5% of Adjusted Contract Amount) \$60,450.00

Total Amount Allowed To Date: \$579,100.00

Less Previous Estimates: \$0.00

Net Payment Request To Be Paid To Contractor: \$579,100.00

Reserve Payment to Contractor \$0.00

Balance of Contract To Date ✓ \$569,450.00 Accounting Auditor: *BCR* 10/31/2022

Less Previous Transfers To Reserve: \$0.00

Amount of Current Transfer: \$60,450.00

Prepared by: *Evangelos Bantios*  
 Evangelos Bantios, P.E. - Project Engineer

Date: 10/31/2022

Recommended by: \_\_\_\_\_  
 Mark Mattson, P.E. - Consulting Engineer

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

Approved by: \_\_\_\_\_  
 Joel Brown, P.E. - Chief Engineer

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

Approved by: \_\_\_\_\_  
 Sid Lockhart, P.E. - Special Project Manager

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

Approved by Board on: \_\_\_\_\_

**JIM NASH  
 OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the EVERGREEN - FARMINGTON SANITARY DRAIN SYSTEM

**FROM:** Shawn Phelps, Chief of Fiscal Services *For Shawn Phelps*  
OCWRC Accounting

**DATE:** November 15, 2022

**SUBJECT:** Request for Board approval of payment of the following invoices:

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	Walsh Construction Company	Invoice # 222035 - #8 - Contracted Services - 10/01/22 - 10/31/22	\$ 86,434.44
			<b>Subtotal Project # 1-3181</b>	<b>86,434.44</b>
	TBP	DLZ	Invoice # 150667 - Professional Services Consultation	\$ 2,897.00
			<b>Subtotal Project # 1-3006</b>	<b>2,897.00</b>
			<b>Total</b>	<b>\$ 89,331.44</b>

**Chapter 20 Drainage Board Meeting**  
Regular Meeting – Tuesday, November 15, 2022

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**6. Augusta Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE AUGUSTA DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. Present Memorandum from Lynne Seymour, P.E., Chief Engineer, dated November 15, 2022, requesting the Board authorize the Chairman to accept the Clean Water State Revolving Fund grant funding and authorize Hubbell, Roth, and Clark to commence work outlined in the November 3, 2022, proposal for \$160,000
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,650.94
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE AUGUSTA DRAIN**

October 25, 2022

A meeting of the Drainage Board for the Augusta Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Carrie Ricker Cox, Chief Engineer, dated October 25, 2022, requesting the Board approve the allocation of \$15,000 to submit a State Revolving Fund Project Plan was presented. It was moved by Markham, supported by Woodward, to approve the allocation of \$15,000 to submit a State Revolving Fund Project Plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

A memorandum from Geoff Wilson, P.E., Assistant Chief Engineer, dated October 25, 2022, requesting the Board authorize Fishbeck to proceed with the services outlined on the proposal dated October 18, 2022, for an amount not-to-exceed \$22,500 was presented. It was moved by Woodward, supported by Markham, to authorize Fishbeck to proceed with the services outlined on the proposal dated October 18, 2022, for an amount not-to-exceed \$22,500 as presented.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



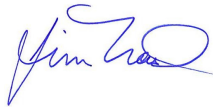
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Augusta Drain, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Augusta Drain Drainage District.



---

Jim Nash, Chairperson

Dated: October 25, 2022



**OAKLAND COUNTY  
WATER RESOURCES COMMISSIONER****MEMORANDUM**

**TO:** Jim Nash, Chairman  
Augusta Drain Drainage Board

**FROM:** Lynne Seymour, P.E., Chief Engineer

**SUBJECT:** Augusta Drain Clean Water State Revolving Fund Proposal for Approval

**DATE:** November 15, 2022

Earlier this year, the Oakland County Water Resources Commissioner's Office hired Hubbell, Roth, and Clark, Inc. (HRC) to develop a 2022 project plan in accordance with the Clean Water State Revolving Fund (CWSRF) guidance. The plan identifies 17 projects across the County and within multiple drainage districts to address nonpoint source pollution.

The Augusta Drain project will convert a vacant parcel, owned by the Augusta Drain Drainage District, into a community park with terraced bioretention cells to capture and filter stormwater runoff prior to entering the drain. It is anticipated the bioretention cells will accept more than 350,000 gallons of stormwater every year. By diverting stormwater to these bioretention cells and allowing it to filter through native vegetation, there will be an estimated reduction of 50 pounds of nitrogen, 45 pounds of total phosphorus, and 700 pounds of total suspended solids each year.

In May, the Augusta Drain Drainage Board signed a resolution adopting the SRF project plan. In doing so, it allowed the Drainage District to be eligible for a CWSRF loan. When the final CWSRF priority ranking list was published in October, it was announced that the Augusta Drain Green Infrastructure Project would receive 100% grant funding, up to \$1,335,000.

To meet all CWSRF deadlines, design engineering and community outreach on this project must commence immediately. HRC has provided a proposal (\$160,000) for professional engineering, survey services, plan and specification development, and community engagement assistance. Any additional work and construction that result from the design plans will require additional funding.

**Board Action Requested:**

**Authorize the Chairman to accept the CWSRF grant funding and authorize HRC to commence work outlined in its November 3, 2022 proposal for \$160,000.**



**MAILING:** PO Box 824  
Bloomfield Hills, MI 48303-0824

**SHIPPING:** 555 Hulet Drive  
Bloomfield Hills, MI 48302-0360

**PHONE:** 248-454-6300

**WEBSITE:** hrcenr.com

November 3, 2022

Oakland County Water Resources Commissioner  
1 Public Works Drive  
Waterford, Michigan 48328

Attn: Ms. Lynne Seymour, P.E., Chief Engineer

Re: Augusta Drain Project  
Clean Water State Revolving Fund (CWSRF)- Non-Point Source Funding  
Proposal of Professional Engineering Services

HRC Job No. 20221031

Dear Ms. Seymour

Per your request, Hubbell, Roth & Clark, Inc. (HRC) is pleased to submit this proposal to assist the OCWRC in the development of the EGLE approved nonpoint source project along the Augusta Drain and Norton Street in the City of Pontiac. This was OCWRC's highest priority project in the recently approved CWSRF-NPS Project Plan.

This \$1,335,000.00 project was awarded a 100% principal forgiveness grant with the addition of either American Rescue Plan Act (ARPA) money or the new Federal Infrastructure Investment and Jobs Act of 2021 (IIJA). Thus, the District will not need an assessment for the NPS work proposed. If non-eligible scope is added to the project, a local contribution may be needed.

## PROJECT DESCRIPTION

Land owned by the Augusta Drain Drainage District on Norton Street, between Sanderson Avenue and North Johnson Street in the City of Pontiac, will be improved with terraced bioretention cells to enhance water quality to treat pollutants that normally would enter the drain. Modifications to the stormwater catch basins and curb cuts from the Norton Street will divert runoff into the proposed bioretention cells. These cells will accept over 350,000 gallons of stormwater every year and will be sized to reduce approximately 20% of the direct discharge of stormwater in the community's stormwater system. By diverting stormwater to these bioretention cells and allowing it to filter through native vegetation, there will be an estimated reduction of 20 lbs of nitrogen (N), 20 lbs of total phosphorus (TP), and 120 lbs of total suspended solids (TSS) per year. The increase in storage time and volume will increase infiltration and decrease excess flow into the Augusta Drain which is already a highly flashy system. Alternative water quality BMPs were considered for this site, however, they were determined to not be cost-effective given the topography and slope of the project site.

This will be accomplished in a manner consistent with a park like setting including future walking paths, historical memorials, murals, and other placemaking opportunities to allow residents to engage in a public green space within a part of Pontiac that is void of other recreational. In conjunction with the goals of the City of Pontiac's Parks and Recreation Master Plan, this project would also act as the catalyst for future expansions of spur trails and access points to the Clinton River Trail throughout the City.

Our specific scope of services at this time is for the study, planning, design, and bidding of the CWSRF-NPS project. Construction Engineering services will be scoped once bids are received. In addition to the normal tasks associated with a project of this nature, HRC proposes to include support services related to public engagement, assistance with exploring aspects of environmental justice/equity, and coordination of this project scope with future efforts noted above as this project is the foundation for future investment in transforming this area of the City.

**Bloomfield Hills**  
555 Hulet Drive  
Bloomfield Hills, MI 48302  
248-454-6300

**Delhi OCWRC**  
2101 Aurelius Rd.  
Suite 2A  
Holt, MI 48842  
517-694-7760

**Grand Rapids**  
1925 Breton Road SE  
Suite 100  
Grand Rapids, MI 49506  
616-454-4286

**Howell**  
105 W. Grand River  
Howell, MI 48843  
517-552-9199

**Jackson**  
401 S. Mechanic St.  
Suite B  
Jackson, MI 49201  
517-292-1295

**Kalamazoo**  
834 King Highway  
Suite 107  
Kalamazoo, MI 49001  
269-665-2005

**Lansing**  
215 S. Washington  
SQ  
Suite D  
Lansing, MI 48933  
517-292-1488

HRC is proposing to partner with MKSK and InSite Design Studios to assist in the public engagement, placemaking coordination, and landscape architecture services. There is also an option for us to collaborate with E. Austell Associates, Inc. to help with engagement services. MKSK has collaborated with Elnora Austell on many other projects, and she has experience working in the City of Pontiac. Final levels of effort per firm and task assignment will be determined after the Kickoff and Conceptual Plan Phase noted below. However, costs for these efforts are included in this proposal.

## **SCOPE OF SERVICES**

### **Project Kick-off and Conceptual Plan Preparation**

We will hold a kick-off meeting with Oakland County to review and confirm the following:

- ≡ Project Scope and Schedule
- ≡ Engagement strategy and logistics
- ≡ Past planning efforts for this area (review previous targeted strategies for the neighborhood as well as goals/policies related to parks, health, mobility, etc.)
- ≡ Based on the outcome of the kickoff meeting, HRC will prepare a conceptual plan, illustrating the primary goals of the project to work as a base to begin preparation of design plans and estimates.

### **Public Engagement**

OCWRC staff will lead the public engagement efforts for this project. HRC/MKSK will assist as needed including:

- ≡ Assist with the planning, presentation, and follow up from two community meetings
- ≡ Review project considerations related to environmental justice and/or equity to help OCWRC build and improve their project planning and implementation.
- ≡ Review and coordination of future placemaking improvements such as walking trails, outdoor art, murals, landscaped areas, access points, historical markers, etc.

### **Data Collection**

The project team will collect and analyze the following data sources:

- ≡ Historical mapping, photos, pertinent City documents (zoning, Master Plan, etc.)
- ≡ Utility plans for all public and private utilities
- ≡ Topographic survey of the area
- ≡ Limited profile soil borings to characterize the treatment areas (may use G2 Consulting)

### **Plan Development**

Our team will perform the following:

- ≡ Generate 50% plans and an updated estimate of cost then meet with OCWRC and other stakeholders for review
- ≡ Generate 80% plans, specifications, and estimate of cost then meet with OCWRC and other stakeholders for review
- ≡ Complete all permit applications and apply for permits from any agency with jurisdiction including the City if needed
- ≡ Submit plans and specifications to EGLE for review related to the CWSRF grant
- ≡ Issue final plans and specifications suitable for bidding

### **CWSRF Loan/Grant Management**

- ≡ SRF Coordination Meetings with EGLE
- ≡ Prepare documentation require by EGLE for the project. Some of the documentation requirements are unknown at this time since the project has a grant attached to it. We were advised that the grants department at EGLE would be the project manager for EGLE and there may be different requirements than a standard CWSRF project.

### **Bidding**

This project will be bid in accordance with OCWRC policies modified as needed for the CWSRF loan/grant. HRC will assist as needed:

- ≡ Coordinate bid document distribution
- ≡ Respond to bidder inquires
- ≡ Assist with planning, attending, and documenting a pre-bid meeting with perspective bidders
- ≡ Issue and Addenda as needed
- ≡ Assist with the award of the project with EGLE approvals

### **ITEMS NOT INCLUDED IN THE SCOPE**

It is our understanding at this time that EGLE will not require federal agencies to be contacted to determine impacts from the project plan. This includes State Historical Preservation Office, Tribal Historical Preservation Office, Michigan Natural Features Inventory, and US Fish and Wildlife. If that requirement changes, additional costs may need to be included in the project. Preliminary or detailed design of any of the alternatives is not included in the cost estimate or our project scope or as described herein are not included.

### **PROJECT SCHEDULE FOR QUARTER 4 PROJECTS**

The anticipated EGLE schedule based on standard CWSRF is as follows:

April 24, 2023	EA's Published
May 15, 2023	Part I and Part II Application Due
May 24, 2023	FNSI Clearance Plans and Specs Approved
May 24, 2023	Bid Ad Published
June, 2023	Bids Received
July 5, 2023	Part III of Application Due Bid Data Submittal (with tentative contract award)
August 7, 2023	EGLE Order of Approval Issued
August 21, 2023	Borrower's Pre-Closing with MFA
August 28, 2023	MFA Closing
October 27 2023	Notice to Proceed Issued

With the condensed time frame, we recommend bi-weekly virtual progress meetings to discuss status, issues, projects, etc. to remain on track with the deadlines. These meetings are included in the fee as listed.

### **ESTIMATED COSTS**

Based on the above tasks, current estimate of costs, loan/grant application line items, and our estimate of effort needed to complete this assignment, we are proposing an initial budget of **\$160,000**. There are numerous scope elements that need to be refined and worked out as well as a desire to maximize water quality outcomes with the grant. Thus, it is difficult to determine a final not to exceed amount at this time. However, we will update our proposal after the concept and data collection phases noted above and inform OCWRC staff monthly of concerns. Our overall project goal is to use this

extraordinary opportunity to fund the most amount of physical improvements we can by minimizing non-construction costs to the extent possible while meeting CWSRF, OCWRC, EGLE, and local requirements.

Thank you for the opportunity to submit this proposal. We look forward to working with the OCWRC on this project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



James F. Burton, P.E.  
Vice President

Attachment

pc: HRC; File

Accepted By:

Signature: \_\_\_\_\_

Written Name: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the AUGUSTA DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting *A For SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Board approval of payment of the following invoices:

<u>Paid To</u>	<u>Reference</u>	<u>For</u>	<u>Amount</u>
Hubbell, Roth, & Clark, Inc	TBP	Invoice # 0196276 - Contracted Services - 04/16/22	\$ 3,650.94
		<b>Total</b>	<b><u><u>\$ 3,650.94</u></u></b>

## **7. Minnow Pond Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE MINNOW POND DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,650.94
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn



**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE MINNOW POND DRAIN**

May 24, 2022

A meeting of the Drainage Board for the Minnow Pond Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held August 24, 2021, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Lynne Seymour, P.E., Chief Engineer, dated May 24, 2022, requesting the Board to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan was presented. It was moved by Markham, supported by Woodward, to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$340.50 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$340.50.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.

A handwritten signature in blue ink, appearing to read "Jim Nash".

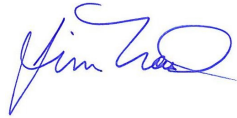
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Minnow Pond Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Minnow Pond Drain Drainage District.



---

Jim Nash, Chairperson

Dated: May 24, 2022

MEMO TO: Mr. Jim Nash, Chairman  
of the Drainage Board for the MINNOW POND DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services  
Drain Accounting

*For Shawn Phelps*

DATE: November 15, 2022

SUBJECT: Request for Reimbursement of Drain Revolving Fund

Request for Board approval of payment of the following invoices:

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Hubbell Roth & Clark Inc	TBP	Invoice # 0196276 - Contracted Services - 4-16-2022	\$ 3,650.94
		<b>Total</b>	<b>\$ 3,650.94</b>

## **8. Nelson Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE NELSON DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2022
3. Public Comment
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,650.94
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE NELSON DRAIN**

May 24, 2022

A meeting of the Drainage Board for the Nelson Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 24<sup>th</sup> day of May 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held October 26, 2021, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Lynne Seymour, P.E., Chief Engineer, dated May 24, 2022, requesting the Board to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan was presented. It was moved by Markham, supported by Woodward, to authorize the Chairperson to sign the resolution adopting the final State Revolving Fund project plan as presented.

ADOPTED: Yeas - 3  
Nays - 0

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$18,081 for the Nelson Drain (as attached) were presented. It was moved by Markham, supported by Woodward, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$18,081 as presented.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.

A handwritten signature in blue ink, appearing to read "Jim Nash".

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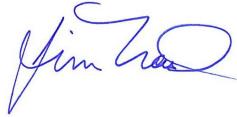
Jim Nash, Chairperson



STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Nelson Drain, Oakland County, Michigan, held on the 24<sup>th</sup> day of May 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Nelson Drain Drainage District.



---

Jim Nash, Chairperson

Dated: May 24, 2022

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the NELSON DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting

*FOR SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Approval of Invoices

The following is a detail of charges paid from the Drain Revolving Fund  
for the period ending November 09, 2022.

<u>G/L Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
	TBP	Hubbell Roth & Clark Inc	Invoice # 0196276 - Contracted Services - 4/16/2022	\$ 3,650.94
			<b>Total</b>	<b>\$ 3,650.94</b>

## **9. Northwest Oakland Sanitary Sewer Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE NORTHWEST OAKLAND SANITARY SEWER DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of October 25, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement from the Drain Revolving Fund the amount \$2,468.00
5. Other business
6. Approve pro rate payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE NORTHWEST OAKLAND SANITARY SEWER DRAIN**

October 25, 2022

A meeting of the Drainage Board for the Northwest Oakland Sanitary Sewer Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 25<sup>th</sup> day of October 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held September 27, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Sid Lockhart, P.E. – Deputy and Sepcial Projects Manager, dated October 25, 2022, requesting the Board receive and file the Project Update on the Request for Proposal for the Engineering Study for the Drainage District Project was presented. It was moved by Markham, supported by Woodward, to receive and file the Project Update on the Request for Proposal for the Engineering Study for the Drainage District Project as presented.

ADOPTED: Yeas - 3  
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$9,477.50 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$9,477.50.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



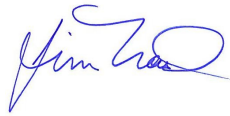
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Northwest Oakland Sanitary Sewer Drain, Oakland County, Michigan, held on the 25<sup>th</sup> day of October 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Northwest Oakland Sanitary Sewer Drain Drainage District.



---

Jim Nash, Chairperson

Dated: October 25, 2022

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the NORTHWEST OAKLAND SANITARY DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
OCWRC Accounting

*FOR SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Board approval of payment of the following invoices:

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
11/7/2022	V # SINV00141588	Dickinson Wright PLLC	Invoice # 1740896 - Legal Services - 09/30/22 - Proj # 1-7076	\$ 2,468.00
			Total - Proj #1-7076	<u>\$ 2,468.00</u>



## **10. Pebble Creek Drain**

## **AGENDA**

### **DRAINAGE BOARD FOR THE PEBBLE CREEK DRAIN**

November 15, 2022

1. Call meeting to order
2. Approve minutes of meeting of June 28, 2022
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$3,650.94
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD  
FOR THE PEBBLE CREEK DRAIN**

June 28, 2022

A meeting of the Drainage Board for the Pebble Creek Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 28<sup>th</sup> day of June 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held May 24, 2022, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3  
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

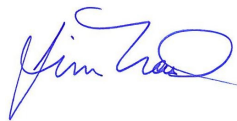
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$1,567.59 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$1,567.59.

ADOPTED: Yeas - 3  
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3  
Nays - 0

There being no further business, the meeting was adjourned.



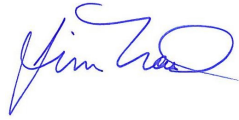
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Jim Nash, Chairperson

STATE OF MICHIGAN                    )  
                                                  )SS.  
COUNTY OF OAKLAND                )

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Pebble Creek Drain, Oakland County, Michigan, held on the 28<sup>th</sup> day of June 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Pebble Creek Drain Drainage District.



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Jim Nash, Chairperson

Dated: June 28, 2022

**MEMO TO:** Mr. Jim Nash, Chairman  
of the Drainage Board for the PEBBLE CREEK DRAIN

**FROM:** Shawn Phelps, Chief of Fiscal Services  
Drain Accounting

*SC FOR SHAWN PHELPS*

**DATE:** November 15, 2022

**SUBJECT:** Request for Reimbursement of Drain Revolving Fund

Request for Board approval of payment of the following invoices:

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Hubbell Roth & Clark Inc	TBP	Invoice # 0196276 - Contracted Services	\$ 3,650.94
		<b>Total</b>	<b>\$ 3,650.94</b>