resourceful. naturally. engineering and environmental consultants



Mr. James Prom Bassett Creek Watershed Management Commission 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1

Invoice # 23270051-2020-9

Project # 23/27-0051

Client # 59 November 6, 2020

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of September 26, 2020 through October 30, 2020

ENGINEERING

TECHNICAL SERVICES

Communications with Plymouth staff regarding floodplain mitigation question; communications with commissioners, alternate commissioners and TAC regarding tunnel viewing opportunity; prepare for and meet with commissioners and TAC at Bassett Creek tunnel outlet; communications with internal staff regarding 2021 project staffing and Sharepoint site; communications with administrator regarding issues with figures in the Parkers/Mt Olivet feasibility study, create new PDF figures from GIS, and provide figures to administrator; communications with Golden Valley staff regarding floodplain information; communications with administrator, Golden Valley staff and MPRB staff regarding Bassett Creek obstructions/beaver dams and review floodplain profile in the area; communications regarding scheduling of Medicine Lake meeting; and communications with administrator regarding status of chloride project.;

James P. Herbert, Principal Engineer/Scientist 4.8 hours @ \$200.00 per hour\$	960.00
Karen L. Chandler, Principal Engineer/Scientist 7.2 hours @ \$180.00 per hour\$	1,296.00
Jennifer Koehler, Engineer/Scientist/Specialist III 3.7 hours @ \$145.00 per hour\$	536.50
Josh P. Phillips, Engineer/Scientist/Specialist II 1.2 hours @ \$105.00 per hour\$	126.00
Erin Feehily, Engineer/Scientist/Specialist I 0.3 hours @ \$ 90.00 per hour\$	27.00
Technicians/Administrative\$_	63.00
Subtotal, Technical Services\$	3,008.50

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for October Commission meeting; linear projects water quality requirements (2017 vs. 2015): perform additional analysis (per Commission direction) regarding additional water quality data for specific projects, and potential site constraints, including soils, depth to bedrock, depth to groundwater, drinking water supply management areas, karst, and contamination, prepare draft memo, table and figures for October Commission meeting regarding additional analysis, meet with administrator to review draft memo, and revise/final memo for meeting packet; review/revise administrator's memo regarding addressing potential conflicts of interest; review Commission attorney's Flood Control Project memo and communications with attorney and administrator; review/edit draft September meeting minutes; prepare for October Commission meeting, including pre-meeting conference call with administrator and Chair Prom, and review photos, prepare presentation and prepare video regarding October deep tunnel inspection, and coordination with internal staff regarding meeting attendance/presentations; and communications with administrator and internal staff regarding follow-up items from October Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 15.6 hours @ \$200.00 per hour\$	3,120.00
Karen L. Chandler, Principal Engineer/Scientist 40.7 hours @ \$180.00 per hour\$	7,326.00
Josh Phillips, Engineer/Scientist/Specialist II 15.5 hours @ \$105.00 per hour\$	1,627.50
Edward Anderson, Engineer/Scientist/Specialist I	405.00
5.5 hours @ \$90.00 per hour\$	495.00
Technicians/Administrative\$_	968.50
Subtotal, Monthly Meeting Preparation\$	13,537.00

TAC PREPARATION

Prepare for October 1 TAC meeting, including communications with internal staff regarding water quality monitoring; follow-up with administrator regarding October 1 TAC meeting and next steps; review/edit administrator's draft TAC memo for October Commission meeting; and look into subwatershed assessments, including communications with administrator and internal staff.

Subtotal, Technical Services\$	\$17.360.50
Subtotal, TAC Preparation\$	815.00
Margaret Rattei, Engineer/Scientist/Specialist III 0.2 hours @ \$140.00 per hour\$	28.00
Gregory Wilson, Engineer/Scientist/Specialist IV 0.5 hours @ \$170.00 per hour\$	85.00
Karen L. Chandler, Principal Engineer/Scientist 3.9 hours @ \$180.00 per hour\$	702.00

PLAT REVIEW Starbucks Annapolis Ln Plymouth (2018-29) Communications with city staff regarding construction status and review drawing	ng.	
James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour	\$	100.00
Subtotal, 2174 Starbucks Annapolis Ln Plymouth (2018-29)	\$	100.00
Association Free Lutheran Bible School (2019-21) Review resubmittal for erosion and sediment control, rate control and water send approval letter to city staff; and communications with city staff and approval.		prepare and
James P. Herbert, Principal Engineer/Scientist 1.8 hours @ \$200.00 per hour	\$	360.00
Josh P. Phillips, Engineer/Scientist/Specialist II 2.5 hours @ \$105.00 per hour	\$	<u> 262.50</u>
Subtotal, Association Free Lutheran Bible School (2019-21)	\$	622.50
Four Seasons Mall Redevelopment (2019-25) Review resubmittal for erosion and sediment control, rate control and water send approval letter to city staff; and communications with applicant.	quality;	prepare and
James P. Herbert, Principal Engineer/Scientist 1.4 hours @ \$200.00 per hour	\$	280.00
Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$180.00 per hour	\$	54.00
Josh P. Phillips, Engineer/Scientist/Specialist II 2.0 hours @ \$105.00 per hour	\$	210.00

Leef South (2020-06)

Communications with city staff regarding project status.

Josh P. Phillips, Engineer/Scientist/Specialist II	
0.3 hours @ \$105.00 per hour\$_	31.50
Subtotal, Leef South (2020-06)\$	31.50

Subtotal, Four Seasons Mall Redevelopment (2019-25).....\$

544.00

Irving Ave Sanitary Sewer Repl (2020-16)

Communications with city staff and applicant regarding project status.

James P. Herbert, Principal Engineer/Scientist 1.6 hours @ \$200.00 per hour\$	320.00
Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$180.00 per hour\$	54.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.3 hours @ \$105.00 per hour\$_	31.50

Subtotal	Irvina Ava	Canitary	Courar	Donl	/2020	16)	¢	405.50
Subtotal.	ırvına Ave	Sanitary	sewer	ĸebi	(2020-	10)		405.50

Xchange Medical Office Bldg (2020-22)

Review resubmittal for erosion and sediment control, rate control and water quality; prepare and send comment letter to city staff; review resubmittal for erosion and sediment control, rate control and water quality; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$200.00 per hour	.\$	300.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.0 hours @ \$105.00 per hour	.\$	420.00
Subtotal, Xchange Medical Office Bldg (2020-22)	\$	720.00

Ace Properties (2020-24)

Review resubmittal for erosion and sediment control; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$200.00 per hour\$	300.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
0.4 hours @ \$105.00 per hour\$	42.00
Subtotal, Ace Properties (2020-24)\$	342.00

Element Apartments (2020-25)

Review submittal for erosion and sediment control, rate control and water quality; prepare and send comment letter to city staff; review resubmittal for erosion and sediment control, rate control and water quality; prepare and send approval letter to city staff; and communications with city staff.

James P. Herbert, Principal Engineer/Scientist 3.3 hours @ \$200.00 per hour\$	660.00
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$180.00 per hour\$	72.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.5 hours @ \$105.00 per hour\$	472.50
Technicians/Administrative\$_	70.00
Subtotal, Element Apartments (2020-25)\$	1,274.50

Van Heest Retaining Wall (2020-26)

Review plans for work in Sweeney Lake floodplain; communications with city staff and applicant; and prepare draft memo for November Commission meeting.

James P. Herbert, Principal Engineer/Scientist 0.6 hours @ \$200.00 per hour\$	120.00
Josh P. Phillips, Engineer/Scientist/Specialist II	120.00
3.0 hours @ \$105.00 per hour\$	315.00

Technicians/Administrative	\$	72.50
Expenses (postage)	\$.50
Subtotal, Van Heest Retaining Wall (2020-26)	\$	508.00
1875 Kyle Pl. Shoreline Resto (2020-27) Review plans for work in Sweeney Lake floodplain; and communications with	city st	aff.
James P. Herbert, Principal Engineer/Scientist 0.2 hours @ \$200.00 per hour	\$	40.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.6 hours @ \$105.00 per hour	\$	63.00
Technicians/Administrative	\$_	73.00
Subtotal, 1875 Kyle Pl. Shoreline Resto (2020-27)	\$	176.00
Currie Commons (2020-28) Preliminary review; and communications with applicant.		
James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$200.00 per hour	\$	200.00
Technicians/Administrative	\$	40.00
Subtotal, Currie Commons (2020-28)	\$	240.00
Subtotal Plat Review	\$	4,964.00

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Preliminary site review and communications with city staff regarding Sweeney Lake native plantings, Tennant site, Markay Ridge home, and Inglewood; communications with developer's engineer regarding BCWMC requirements for future Plymouth development submittal; communications with administrator regarding Hollydale development; and review MDNR permit application for Plymouth project and provide comments to administrator.

James P. Herbert, Principal Engineer/Scientist 1.4 hours @ \$200.00 per hour\$	280.00
Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$180.00 per hour\$	126.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
4.4 hours @ \$105.00 per hour\$	462.00
Subtotal, Preliminary Communications\$	868.00
NON-FEE REVIEWS	
Subtotal Non-Fee Reviews\$	0.00
Subtotal Preliminary Communications and Non-Fee Reviews\$	868.00

COMMISSION AND TAC MEETINGS

Attend October 1 TAC meeting (virtual) and October 15 Commission meeting (virtual).

SURVEYS & STUDIES Subtotal Surveys & Studies	\$ 0.00
Subtotal, Commission and TAC Meetings	\$ 1,782.50
Josh P. Phillips, Engineer/Scientist/Specialist II 1.5 hours @ \$105.00 per hour	\$ 157.50
Gregory Wilson, Engineer/Scientist/Specialist IV 1.5 hours @ \$170.00 per hour	\$ 255.00
Karen L. Chandler, Principal Engineer/Scientist 4.5 hours @ \$180.00 per hour	\$ 810.00
James P. Herbert, Principal Engineer/Scientist 2.8 hours @ \$200.00 per hour	\$ 560.00

WATER QUALITY/MONITORING

<u>Sweeney – Twin Lake Monitoring</u>

Review and summarize aquatic plant survey data, prepare maps of individual species from all plant surveys, and complete Chi Squared analyses of plant survey data; communications with MDNR staff regarding the Plant IBI; complete Plant IBI computations; communications with administrator to obtain 2017 phytoplankton data and Plant IBI data from Wenck and review Wenck data; analyze phytoplankton samples collected from the north and south basins in Sweeney Lake and Twin Lake on April 21, June 15, July 13, August 3, August 17, and September 8; analyze zooplankton samples collected from Twin Lake and the north basin of Sweeney Lake on April 21, June 15, July 13, August 3, August 17, and September 8; analyze zooplankton samples collected from the south basin of Sweeney Lake on April 21 and June 15; review PACE Analytical lab report from the September 8 monitoring of Sweeney Lake and Twin Lake; internal communications regarding 2020 Sweeney Lake monitoring results; and subcontractor charges (Endangered Resource Services) for aquatic plant surveys of Sweeney Lake (May 9 – pre-treatment), and Sweeney Lake and Twin Lake (June 22 and August 26), and Pace Analytical charges for analyses of samples from Sweeney Lake and Twin Lake collected on September 8.

Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$180.00 per hour\$	144.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.1 hours @ \$145.00 per hour\$	14.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 99.3 hours @ \$140.00 per hour\$	13,902.00
Technicians/Administrative\$	34.50
Expenses (Pace Analytical/Endangered Resource Services)\$	5,285.00
Subtotal, Sweeney-Twin Lake Monitoring\$	19,380.00

Sweeney Branch Monitoring Year 1

Collect monthly grab samples on September 28 and October 30; collect October 12 storm sample; perform equipment maintenance, including battery replacement and troubleshooting power issues.

Chris Bonick, Engineer/Scientist/Specialist III		
3.0 hours @ \$130.00 per hour\$	390.00	
Kallie Doeden, Engineer/Scientist/Specialist II		
0.6 hours @ \$100.00 per hour\$	60.00	
Heather Hlavaty, Engineer/Scientist/Specialist II 2.2 hours @ \$110.00 per hour\$	242.00	
Technicians/Administrative\$	643.00	
Expenses (Verizon Wireless/mileage/2WD vehicle/Conductivity Meter/Ice/Turbidimeter) <u>\$</u>	<u> 185.24</u>	
Subtotal, Sweeney Branch Monitoring Year 1\$	1,520.24	
2020 Sweeney Branch Biotic Index Monitoring Prepare for and perform the Sweeney Branch habitat survey and macroinvertebrate monitoring on September 29; and complete post-monitoring work tasks.		
Margaret R. Rattei, Engineer/Scientist/Specialist III 0.7 hours @ \$140.00 per hour\$	98.00	
Chris Bonick, Engineer/Scientist/Specialist III 5.5 hours @ \$130.00 per hour\$	715.00	
Technicians/Administrative\$	616.00	
Expenses (GPS/mileage/2WD&4WD vehicle/Water Meter)\$_	210.38	
Subtotal, Sweeney Branch Biotic Index Monitoring\$	1,639.38	
Subtotal, Water Quality/Monitoring\$	22,539.62	
WATER QUANTITY Measure and review lake elevations as part of the lake-gauging program.		
Technicians/Administrative\$	400.00	
Expenses (mileage/2WD vehicle)\$_	65.00	
Subtotal, Water Quantity\$	465.00	
Flood Control Project Inspection-Annual Prepare for annual inspection, including scheduling and communications with city	staff.	
James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour\$	100.00	
Patrick Brockamp, Engineer/Scientist/Specialist II 1.0 hours @ \$115.00 per hour\$	115.00	
Josh P. Phillips, Engineer/Scientist/Specialist II 2.1 hours @ \$105.00 per hour\$_	220.50	

Subtotal, Flood Control Project Inspection-Annual.....\$ 435.50

Deep Tunnel Inspection

Prepare for and conduct inspection of deep tunnel on October 6 – 8, including communications, coordination and meeting with U.S. Army Corps of Engineers staff, Minneapolis staff, and subcontractors, and loading/unloading of equipment; review and process tunnel inspection data and photos; prepare report text and figures; and charges from Armstrong Crane and Rigging (access subcontractor) and Rescue Resources (safety subcontractor).

James P. Herbert, Principal Engineer/Scientist 13.9 hours @ \$200.00 per hour\$	2,780.00
Joe Welna, Engineer/Scientist/Specialist III 49.0 hours @ \$145.00 per hour\$	7,105.00
Tyler Fincher, Engineer/Scientist/Specialist II 14.7 hours @ \$115.00 per hour\$	1,690.50
Samuel Redinger, Engineer/Scientist/Specialist II 12.3 hours @ \$115.00 per hour\$	1,414.50
Nathaniel Born, Engineer/Scientist/Specialist II 7.5 hours @ \$100.00 per hour\$	750.00
Colleen Long, Engineer/Scientist/Specialist I 6.6 hours @ \$85.00 per hour\$	561.00
Taylor Kuechle, Engineer/Scientist/Specialist I 54.3 hours @ \$80.00 per hour\$	4,344.00
Technicians/Administrative\$	1,980.00
Sub Consultant (Rescue Resources/Armstrong Crane & Rigging)\$	9,299.82
Expenses (EEBA/radios/camera/field book/gas meter/spray paint/mileage/2WD vehicle/tablet)	

Double Box Culvert Inspection

Prepare memo regarding box culvert repairs (including cost estimate) for October Commission meeting and provide to administrator.

James P. Herbert, Principal Engineer/Scientist 5.4 hours @ \$200.00 per hour\$	1,080.00
Karen L. Chandler, Principal Engineer/Scientist 1.9 hours @ \$180.00 per hour\$	342.00
Joe Welna, Engineer/Scientist/Specialist III 4.0 hours @ \$145.00 per hour\$ Subtotal, Double Box Culvert Inspection\$	

<u>Mississi</u>	ppi	WMO	Plan	Review

Communications with administrator; and download WMO plan files for review.

Karen L. Chandler, Principal Engineer/Scientist	
0.5 hours @ \$180.00 per hour\$_	90.00
Subtotal, Mississippi WMO Plan Review\$	90.00
Subtotal, Municipal Plan Review\$	90.00

TOTAL ENGINEERING\$	81,014.12
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ANNUAL REPORT

TOTAL ANNUAL REPORT\$ 0.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP\$ 0.00

APM/AIS WORK

TOTAL APM/AIS WORK.....\$ 0.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

Four Seasons Area WQ Project (NL-2)

Communications with administrator and internal staff regarding CIP vs. project-required BMPs and project scheduling; review P8 water quality model resubmittal; and review water quality treatment provided by CIP project.

James P. Herbert, Principal Engineer/Scientist 1.8 hours @ \$200.00 per hour\$	360.00
Karen L. Chandler, Principal Engineer/Scientist 4.1 hours @ \$180.00 per hour\$	738.00
Josh Phillips, Engineer/Scientist/Specialist II 3.8 hours @ \$105.00 per hour\$_	399.00
Subtotal, Four Seasons Area WQ Project (NL-2)\$	1,497.00

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT (2020) (BC-5)

Communications with administrator and internal staff regarding implementation options for project.

Subtotal, Bryn Mawr Meadows WQ Imp Project (2020) (BC-5)\$	318.50
Michelle Kimble, Engineer/Scientist/Specialist III 1.7 hours @ \$ 145.00 per hour\$	246.50
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$180.00 per hour\$	72.00

SWEENEY LAKE WATER QUALITY IMPROVEMENT PROJECT (2020) (SL-8)

Engineer and Perform In-lake Alum Treatment

Post Advertisement for Bids and Contract Documents for alum treatment; respond to contractor questions; hold bid opening; prepare bid tabulation and recommendations for Contract award, including review of low bidders qualifications and experience; prepare for Commission meeting for action on Contract award; issue Notice of Award; apply for/obtain MPCA permit for alum treatment; notify MDNR fisheries staff regarding alum treatment dates; coordinate contract agreement between Commission and SOLitude (contractor); issue Notice to Proceed; coordinate mobilization planning and pretreatment conference with SOLitude, administrator, City of Golden Valley staff and Hidden Lakes HOA; communications with SOLitude; and alum treatment oversight/water monitoring.

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Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$180.00 per hour\$	108.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 66.8 hours @ \$170.00 per hour\$	11,356.00
Keith Pilgrim, Engineer/Scientist/Specialist IV 0.2 hours @ \$160.00 per hour\$	32.00
Kevin Menken, Engineer/Scientist/Specialist II 13.0 hours @ \$ 120.00 per hour\$	1,560.00
Technicians/Administrative\$	69.00
Expenses (mileage/4WD vehicle/water quality meter/boat &,trailer/motor/Finance and Commerce)\$_	630.25
Subtotal, Engineer and Perform In-lake Alum Treatment\$	13,755.25

Carp Control Options Design-Permit-Implement

Communications with Carp Solutions regarding results of carp control efforts at Schaper Pond and Sweeney Lake.

Gregory J. Wilson, Engineer/Scientist/Specialist IV	
1.5 hours @ \$170.00 per hour\$_	255.00
Subtotal, Carp Control Options Design-Permit-Implement\$	255.00
Subtotal, Sweeney Lake Water Quality Improvement Project	
(2020) (SL-8)\$	14,010.25

MAIN STEM DREDGING PROJECT (2021) (BC-7)

Review/edit administrator's draft ERF grant application, communications with Hennepin County staff, and provide revised application to administrator; communications with administrator and internal staff regarding WBIF work plan; communications with Golden Valley staff regarding sediment sampling of lagoons; and review administrator's draft memo regarding implementation.

	Karen L. Chandler, Principal Engineer/Scientist
990.00	\$ 5.5 hours @ \$180.00 per hour
	·
	Jennifer Brekken, Engineer/Scientist/Specialist IV
1,008.00	\$ 6.3 hours @ \$160.00 per hour

Subtotal, Main Stem Dredging Project (2021) (BC-7)\$	2,228.00
2.0 hours @ \$ 115.00 per hour\$_	230.00
Patrick Brockamp, Engineer/Scientist/Specialist II	

DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10) Download environmental files from the MPCA for desktop review; perform MnRAM assessment; develop draft wetland delineation report; prepare draft joint permit application for wetland delineation report approval; review cultural resource data from SHPO and prepare summary for feasibility report; and review biological resource and threatened and endangered species database and prepare summary for feasibility report.

Jennifer Brekken, Engineer/Scientist/Specialist IV 0.2 hours @ \$160.00 per hour\$	32.00
Jennifer Koehler, Engineer/Scientist/Specialist III 2.0 hours @ \$145.00 per hour\$	290.00
Karen Wold, Engineer/Scientist/Specialist III 2.2 hours @ \$135.00 per hour\$	297.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 1.1 hours @ \$110.00 per hour\$	121.00
Tyler Conley, Engineer/Scientist/Specialist I 13.7 hours @ \$ 85.00 per hour\$	1,164.50
Joshua Vosejpka, Engineer/Scientist/Specialist I 0.5 hours @ \$ 90.00 per hour\$_	<u>45.00</u>
Subtotal, DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10)\$	1,949.50

Medley Park Stormwater Treatment Facility Feasibility Study (2022)(ML-12)

Prepare for agency meeting, including preparing agenda, presentation, and scheduling; communications with internal staff regarding field investigations' reporting; complete geotechnical investigation (subcontractor); complete sediment sampling; submit Wetland Delineation Report to the LGU (City of Golden Valley) for review/comment; coordinate with subcontractor regarding topographic, utility, and tree survey; perform desktop reviews for cultural resources, threatened and endangered species, and environmental review; Public Engagement #1: prepare graphics and draft write-up and send to Golden Valley staff to develop the online video; and geotechnical subcontractor charges (Haugo Services).

Karen L. Chandler, Principal Engineer/Scientist 4.4 hours @ \$180.00 per hour\$	792.00
Jennifer Brekken, Engineer/Scientist/Specialist IV 2.3 hours @ \$160.00 per hour\$	368.00
Jennifer Koehler, Engineer/Scientist/Specialist III 0.7 hours @ \$145.00 per hour\$	101.50
Stephanie Theriault, Engineer/Scientist/Specialist III 0.5 hours @ \$130.00 per hour\$	65.00

TOTAL TMDL WORK\$	0.00	
IDL WORK		
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$	34,860.62	
Subtotal, Medley Park Stormwater Treatment Facility Feasibility Study (2022)(ML-12)\$	14,857.37	
Expenses (mileage/2WD vehicle/tubing/ice/boat&trailer/Vibra system/courier/Haugo Services/distilled water/photon detector lamp gloves/bags)	2,526.87	
Technicians/Administrative\$	477.00	
D'Arcy Mulder, Engineer/Scientist/Specialist I 2.5 hours @ \$ 85.00 per hour\$	212.50	
Erin Feehily, Engineer/Scientist/Specialist I 27.6 hours @ \$ 90.00 per hour\$	2,484.00	
Tyler Conley, Engineer/Scientist/Specialist I 10.6 hours @ \$ 85.00 per hour\$	901.00	
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 30.9 hours @ \$110.00 per hour\$	3,399.00	
Alexander Puetz, Engineer/Scientist/Specialist II 1.0 hours @ \$115.00 per hour\$	115.00	
Kevin Menken, Engineer/Scientist/Specialist II 7.0 hours @ \$120.00 per hour\$	840.00	
John Juntilla, Engineer/Scientist/Specialist III 14.5 hours @ \$125.00 per hour\$	1,812.50	
Karen Wold, Engineer/Scientist/Specialist III 2.0 hours @ \$135.00 per hour\$	270.00	
Terri Olson, Engineer/Scientist/Specialist III 3.4 hours @ \$145.00 per hour\$	493.00	

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Floodplain, Floodway, Cross-Section Shapefiles

Review notes regarding Zone A/AE modifications; communications with MDNR staff regarding project timeline and Zone A/AE issues; and follow-up.

handler, Principal Engineer/Scientist	
.2 hours @ \$180.00 per hour\$ 36.0	00
. Koehler, Engineer/Scientist/Specialist III	
2 hours @ \$145.00 per hour\$ 174.0)0

Subtotal, Floodplain, Floodway, Cross-Section Shapefiles\$	210.00
TOTAL IMPROVED FEMA FLOODPLAIN MODELING &	
MAPPING (MDNR)\$	210.00

SUMMARY TOTALS

Total Engineering\$	81,014.12
Total WOMP\$	0.00
Total Annual Report\$	0.00
Total APM/AIS Work\$	0.00
Total TMDL Work\$	0.00
Total Capital Improvement Projects (Tax Levy)\$	34,860.62
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)\$_	210.00
TOTAL PAYABLE\$	116.084.74

Barr declares under the penalties of law that this account, claim or demand is just and that no part of it has been paid.

In Herber