



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  
October 2, 2020

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
August 29, 2020 through September 25, 2020

**ENGINEERING**

TECHNICAL SERVICES

Communications and coordination with Plymouth staff and internal staff regarding Medicine Lake staff gage replacement; internal communications regarding project tasks/schedule; internal communications regarding upcoming MS4 permit and chloride management requirements; meeting with administrator regarding chloride management plan recommendation on plat review letters, linear project review results, and BCWMC jurisdictional boundary; communications with administrator regarding plan amendment and virtual meeting formats; and review BCWMC 2021 budgets and CIP projects.

James P. Herbert, Principal Engineer/Scientist 2.6 hours @ \$200.00 per hour.....	\$ 520.00
Karen L. Chandler, Principal Engineer/Scientist 8.7 hours @ \$180.00 per hour.....	\$ 1,566.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.3 hours @ \$105.00 per hour.....	\$ 31.50
<b>Subtotal, Technical Services.....</b>	<b>\$ 2,117.50</b>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for September Commission meeting; prepare draft update memo and table summarizing linear project water quality requirements (2017 vs. 2015) for September Commission meeting and send to administrator for review, and revise/final memo for meeting packet per administrator comments; review/edit draft August meeting minutes; prepare for September Commission meeting, including pre-meeting conference call with administrator and Chair Prom, prepare information and visuals regarding October deep tunnel inspection, and review meeting packet; communications with administrator and internal staff regarding follow-up items from September Commission meeting and upcoming meeting agenda items; communications and virtual meeting with administrator, commission attorney and internal staff regarding conflict of interest

agenda item and BCWMC JPA; and prepare additional linear project follow-up information regarding potential site constraints (GIS figures) and total phosphorus loading/treatment.

James P. Herbert, Principal Engineer/Scientist 10.3 hours @ \$200.00 per hour.....	\$	2,060.00
Karen L. Chandler, Principal Engineer/Scientist 29.8 hours @ \$180.00 per hour.....	\$	5,364.00
Gregory Wilson, Engineer/Scientist/Specialist IV 1.0 hours @ \$170.00 per hour.....	\$	170.00
Josh Phillips, Engineer/Scientist/Specialist II 10.0 hours @ \$105.00 per hour.....	\$	1,050.00
Edward Anderson, Engineer/Scientist/Specialist I 5.0 hours @ \$90.00 per hour.....	\$	450.00
Technicians/Administrative.....	\$	703.00
<b>Subtotal, Monthly Meeting Preparation .....</b>	<b>\$</b>	<b>9,797.00</b>

TAC PREPARATION

Prepare for October 1 TAC meeting, including meeting with administrator and communications with administrator and internal staff regarding TAC meeting agenda and meeting materials.

Karen L. Chandler, Principal Engineer/Scientist 3.0 hours @ \$180.00 per hour.....	\$	540.00
<b>Subtotal, TAC Preparation .....</b>	<b>\$</b>	<b>540.00</b>

PLAT REVIEW

Association Free Lutheran Bible School (2019-21)

Review resubmittal for erosion and sediment control, rate control and water quality; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 0.6 hours @ \$200.00 per hour.....	\$	120.00
Josh P. Phillips, Engineer/Scientist/Specialist II 3.8 hours @ \$105.00 per hour.....	\$	399.00
<b>Subtotal, Association Free Lutheran Bible School (2019-21).....</b>	<b>\$</b>	<b>519.00</b>

2203 Peninsula Road (2019-26)

Coordination with Medicine Lake planning consultant regarding project inspections.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour.....	\$	100.00
<b>Subtotal, 2203 Peninsula Road (2019-26).....</b>	<b>\$</b>	<b>100.00</b>

Xchange Medical Office Bldg (2020-22)

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

James P. Herbert, Principal Engineer/Scientist 2.3 hours @ \$200.00 per hour .....	\$ 460.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.7 hours @ \$105.00 per hour .....	\$ <u>493.50</u>
<i>Subtotal, Xchange Medical Office Bldg .....</i>	<i>\$ 953.50</i>

Plymouth Commons Drainage Impr. (2020-23)

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

James P. Herbert, Principal Engineer/Scientist 3.2 hours @ \$200.00 per hour .....	\$ 640.00
Josh P. Phillips, Engineer/Scientist/Specialist II 3.9 hours @ \$105.00 per hour .....	\$ 409.50
Technicians/Administrative.....	\$ <u>81.50</u>
<i>Subtotal, Plymouth Commons Drainage Impr. (2020-23).....</i>	<i>\$ 1,131.00</i>

Ace Properties (2020-24)

Review submittal for erosion and sediment control; communications with city staff; and prepare and send comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$200.00 per hour .....	\$ 420.00
Josh P. Phillips, Engineer/Scientist/Specialist II 3.1 hours @ \$105.00 per hour .....	\$ 325.50
Technicians/Administrative.....	\$ <u>80.00</u>
<i>Subtotal, Ace Properties (2020-24) .....</i>	<i>\$ 825.50</i>

**Subtotal Plat Review.....\$ 3,529.00**

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Preliminary site review for 8300 10th Ave project in Golden Valley; Currie Commons project (Minneapolis): preliminary review of project, pre-application meeting with administrator, developer, and developer's engineer regarding project and work in floodplain, internal communications regarding floodplain requirements, and virtual meeting with administrator and Commission attorney regarding floodplain issues; MDNR permit application review for work adjacent to Bassett Creek tunnel; and preliminary site review for 10708 South Shore Drive in Plymouth.

James P. Herbert, Principal Engineer/Scientist 6.3 hours @ \$200.00 per hour .....	\$ 1,260.00
Karen L. Chandler, Principal Engineer/Scientist 1.4 hours @ \$180.00 per hour .....	\$ 252.00
Josh P. Phillips, Engineer/Scientist/Specialist II 2.4 hours @ \$105.00 per hour .....	\$ <u>252.00</u>

*Subtotal, Preliminary Communications* ..... \$ 1,764.00

NON-FEE REVIEWS

*Subtotal Non-Fee Reviews*..... \$ 0.00

***Subtotal Preliminary Communications and Non-Fee Reviews* .....\$ 1,764.00**

COMMISSION AND TAC MEETINGS

Attend September 17 Commission meeting (virtual).

James P. Herbert, Principal Engineer/Scientist  
 1.8 hours @ \$200.00 per hour ..... \$ 360.00

Karen L. Chandler, Principal Engineer/Scientist  
 2.3 hours @ \$180.00 per hour ..... \$ 414.00

Josh P. Phillips, Engineer/Scientist/Specialist II  
 1.1 hours @ \$105.00 per hour ..... \$ 115.50

***Subtotal, Commission and TAC Meetings*.....\$ 889.50**

SURVEYS & STUDIES

Subtotal Surveys & Studies ..... \$ 0.00

WATER QUALITY/MONITORING

General Water Quality

Prepare North Branch Bassett Creek 2018-2019 stream water quality and flow data graphs for BCWMC website.

Greg Williams, Engineer/Scientist/Specialist III  
 1.0 hours @ \$145.00 per hour ..... \$ 145.00

Aaron Brown, Engineer/Scientist/Specialist I  
 0.4 hours @ \$85.00 per hour ..... \$ 34.00

*Subtotal, General Water Quality* ..... \$ 179.00

Sweeney – Twin Lake Monitoring

Prepare for and perform September 8 monitoring of Sweeney Lake and Twin Lake; QA/QC review of lab data from Pace Laboratories; communications with lab regarding lab report corrections; final review of corrected lab reports; filing chain of custody forms and lab reports; enter lab data into EQiS; Pace Laboratories charges for lab analyses of samples collected on 8/4/2020 and 8/18/2020; and download aquatic plant data from FTP site from August plant surveys of Sweeney Lake and Twin Lake and upload to project folder.

Terri A. Olson, Engineer/Scientist/Specialist III  
 1.3 hours @ \$145.00 per hour ..... \$ 188.50

Margaret R. Rattei, Engineer/Scientist/Specialist III  
 0.4 hours @ \$140.00 per hour ..... \$ 56.00

Technicians/Administrative..... \$ 1,106.00

Expenses (Pace Analytical/mileage/2WD vehicle/4WD vehicle/

canoe/WQ meter/bottle sampler/ice/zooplankton Net/filtration apparatus).....	\$	1,603.50
<i>Subtotal, Sweeney-Twin Lake Monitoring .....</i>	\$	2,954.00

Sweeney Branch Monitoring Year 1

Prepare for and conduct monitoring of August 31 storm event; wash sample bottles from August 31 storm sampling; edit the equipment software program to optimize sample collection; visit monitoring site to assess the intake installation improvements and to check the temperature and conductivity sensors; and download, review, and file data in the project folder.

Chris Bonick, Engineer/Scientist/Specialist III 3.5 hours @ \$130.00 per hour .....	\$	455.00
Technicians/Administrative.....	\$	291.00
Expenses (Met Council/Verizon Wireless/mileage/2WD vehicle).....	\$	580.62
<i>Subtotal, Sweeney Branch Monitoring Year 1 .....</i>	\$	1,326.62

2020 Sweeney Branch Biotic Index Monitoring

Communications with MPCA staff and internal staff regarding the MPCA's monitoring location for samples collected by MPCA at the Sweeney Branch biotic index location; internal staff communications regarding monitoring habitat and macroinvertebrates at Sweeney Branch biotic index location in October 2020; visit Sweeney Branch biotic index monitoring site and mark upstream, mid-point, and downstream monitoring locations; and prepare for October habitat and macroinvertebrate monitoring.

Karen L. Chandler, Principal Engineer/Scientist 1.1 hours @ \$180.00 per hour .....	\$	198.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.6 hours @ \$140.00 per hour .....	\$	364.00
Technicians/Administrative.....	\$	369.00
Expenses (GPS/mileage/4WD vehicle).....	\$	111.50
<i>Subtotal, Sweeney Branch Biotic Index Monitoring.....</i>	\$	1,042.50

***Subtotal, Water Quality/Monitoring.....\$ 5,502.12***

WATER QUANTITY

Measure and review lake elevations as part of the lake-gauging program, including photos and checking of Medicine Lake staff gage bracket for new installation.

Technicians/Administrative.....	\$	500.00
Expenses (mileage/2WD vehicle) .....	\$	65.00
<b><i>Subtotal, Water Quantity.....</i></b>	<b>\$</b>	<b>565.00</b>

Deep Tunnel Inspection

Prepare safety plan for inspection; prepare contracts for subcontractors; obtain tunnel inspection permits; and communications, meetings and coordination with Minneapolis staff, U.S. Army Corps of Engineers staff, subcontractors, and administrator regarding inspection preparation and drawdown.

James P. Herbert, Principal Engineer/Scientist 8.5 hours @ \$200.00 per hour.....	\$ 1,700.00
Joe Welna, Engineer/Scientist/Specialist III 10.5 hours @ \$145.00 per hour.....	\$ 1,522.50
Tyler Fincher, Engineer/Scientist/Specialist II 6.5 hours @ \$115.00 per hour.....	\$ 747.50
<b>Subtotal, Deep Tunnel Inspection.....</b>	<b>\$ 3,970.00</b>
<b>TOTAL ENGINEERING.....</b>	<b>\$ 28,674.12</b>

**ANNUAL REPORT**

<b>TOTAL ANNUAL REPORT .....</b>	<b>\$ 0.00</b>
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**WATERSHED OUTLET MONITORING PROGRAM (WOMP)**

WOMP Rating Curve

Perform September 3 flow measurement at WOMP station; download flow file; and send flow measurement information to MCES staff.

Chris Bonick, Engineer/Scientist/Specialist III 4.0 hours @ \$130.00 per hour.....	\$ 520.00
Expenses (GPS/mileage/2WD vehicle/velocimeter).....	\$ 112.90
<i>Subtotal, WOMP Rating Curve .....</i>	<i>\$ 632.90</i>
<b>TOTAL WOMP .....</b>	<b>\$ 632.90</b>

**APM/AIS WORK**

<b>TOTAL APM/AIS WORK.....</b>	<b>\$ 0.00</b>
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**CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)**

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

Conference call with administrator and Minneapolis staff regarding implementation options for project; internal communications regarding status of project; follow-up virtual meeting with administrator regarding implementation options; and internal communications regarding meeting follow-up.

Karen L. Chandler, Principal Engineer/Scientist 2.2 hours @ \$180.00 per hour.....	\$ 396.00
Michelle Kimble, Engineer/Scientist/Specialist III 3.2 hours @ \$ 145.00 per hour.....	\$ 464.00
<b>Subtotal, Bryn Mawr Meadows WQ Imp Project.....</b>	<b>\$ 860.00</b>

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

Engineer and Perform In-lake Alum Treatment

Prepare draft and final Contract Documents for alum treatment; prepare Engineer's cost estimate for alum treatment contractor; and post Advertisement for Bids and Contract Documents.

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$180.00 per hour .....	\$	72.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 42.2 hours @ \$170.00 per hour .....	\$	7,548.00
Edward Anderson, Engineer/Scientist/Specialist II 1.6 hours @ \$ 90.00 per hour .....	\$	144.00
<i>Subtotal, Engineer and Perform In-lake Alum Treatment.....</i>	<i>\$</i>	<i>7,739.00</i>

Carp Control Options Design-Permit-Implement

Site visit to review baited box net configuration for carp control at Schaper Pond.

Gregory J. Wilson, Engineer/Scientist/Specialist IV 2.2 hours @ \$170.00 per hour .....	\$	374.00
Expenses (mileage).....	\$	17.25
<i>Subtotal, Carp Control Options Design-Permit-Implement.....</i>	<i>\$</i>	<i>391.25</i>
<b><i>Subtotal, Sweeney Lake Water Quality Improvements.....</i></b>	<b><i>\$</i></b>	<b><i>7,781.25</i></b>

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

Communications with administrator and internal staff regarding Hennepin County ERF grant application; internal communications regarding permitting; internal meeting and virtual meeting with administrator regarding implementation options; and communications with administrator regarding implementation options, schedule, funding and cash flow.

Karen L. Chandler, Principal Engineer/Scientist 5.1 hours @ \$180.00 per hour .....	\$	918.00
Patrick Brockamp, Engineer/Scientist/Specialist II 2.2 hours @ \$ 115.00 per hour .....	\$	253.00
<b><i>Subtotal, Main Stem Dredging Project.....</i></b>	<b><i>\$</i></b>	<b><i>1,171.00</i></b>

DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10)

Communications regarding scheduling of kickoff meeting; perform wetland delineation and prepare wetland delineation report; SHPO data request and review; send file review request to MPCA staff and review historical aerial imagery for site changes/filling; and review survey subconsultant quotes, communications with survey firms, and prepare subconsultant contract.

Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$180.00 per hour .....	\$	144.00
Jennifer Brekken, Engineer/Scientist/Specialist IV 2.0 hours @ \$160.00 per hour .....	\$	320.00
Jennifer Koehler, Engineer/Scientist/Specialist III 1.5 hours @ \$145.00 per hour .....	\$	217.50

Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II		
1.5 hours @ \$110.00 per hour .....	\$	165.00
Tyler Conley, Engineer/Scientist/Specialist I		
11.4 hours @ \$ 85.00 per hour .....	\$	969.00
Joshua Vosejpka, Engineer/Scientist/Specialist I		
1.5 hours @ \$ 90.00 per hour.....	\$	135.00
Vinson Williams, Engineer/Scientist/Specialist I		
4.3 hours @ \$ 85.00 per hour.....	\$	365.50
Expenses (mileage/GPS) .....	\$	<u>71.39</u>
<b>Subtotal, DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study .....</b>	<b>\$</b>	<b>2,387.39</b>

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

Prepare for and attend September 15 project kickoff meeting with administrator and Golden Valley staff; meeting with Golden Valley staff to brainstorm storyboard ideas for public engagement meeting #1; communications with internal staff regarding field investigation tasks and schedules (sediment sampling, geotechnical investigations); complete bathymetric survey of Medley Pond; perform wetland delineation and prepare draft wetland delineation report; execute agreement with subcontractor (EFN) for topographic, utility, and tree survey; begin desktop reviews for threatened/endangered species and cultural resources; and develop feasibility report template.

Karen L. Chandler, Principal Engineer/Scientist		
5.9 hours @ \$180.00 per hour .....	\$	1,062.00
Jennifer Brekken, Engineer/Scientist/Specialist IV		
2.4 hours @ \$160.00 per hour .....	\$	384.00
Jennifer Koehler, Engineer/Scientist/Specialist III		
2.4 hours @ \$145.00 per hour .....	\$	348.00
Shanna Braun, Engineer/Scientist/Specialist III		
1.5 hours @ \$145.00 per hour .....	\$	217.50
John Juntilla, Engineer/Scientist/Specialist III		
4.7 hours @ \$125.00 per hour.....	\$	587.50
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II		
30.1 hours @ \$110.00 per hour.....	\$	3,311.00
Tyler Olsen, Engineer/Scientist/Specialist II		
0.1 hours @ \$ 95.00 per hour.....	\$	9.50
Erin Feehily, Engineer/Scientist/Specialist I		
4.2 hours @ \$ 90.00 per hour.....	\$	378.00
Tyler Conley, Engineer/Scientist/Specialist I		
18.3 hours @ \$ 85.00 per hour .....	\$	1,555.50
Vinson Williams, Engineer/Scientist/Specialist I		
7.5 hours @ \$ 85.00 per hour.....	\$	637.50



Technicians/Administrative.....	\$	2,800.00
Expenses (mileage/2WD vehicle/spray paint/gps/Robotic Total Station) .....	\$	657.69
<b>Subtotal, Medley Park Stormwater Treatment Facility Feasibility Study.....</b>		
	<b>\$</b>	<b>11,948.19</b>
<b>TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....</b>	<b>\$</b>	<b>24,147.83</b>

<b>TMDL WORK</b>
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TMDL IMPLEMENTATION REPORTING

P8 Model Update

Update status.

Gregory J. Wilson, Engineer/Scientist/Specialist IV		
0.5 hours @ \$170.00 per hour .....	\$	85.00
<b>TOTAL TMDL WORK .....</b>	<b>\$</b>	<b>85.00</b>

<b>IMPROVED FEMA FLOODPLAIN MODELING &amp; MAPPING (MDNR)</b>
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IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Floodplain, Floodway, Cross-Section Shapefiles

Final QAQC of FEMA floodplain mapping; follow-up with MDNR staff regarding mapping comments; final processing of draft 1% change event inundation mapping and depth grids and development mapping audit package and submittal to MDNR for review; and follow-up regarding zone A versus AE mapping issues.

Karen L. Chandler, Principal Engineer/Scientist		
0.5 hours @ \$180.00 per hour .....	\$	90.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III		
11.2 hours @ \$145.00 per hour .....	\$	1,624.00
Joshua Vosejka, Engineer/Scientist/Specialist I		
23.1 hours @ \$90.00 per hour .....	\$	2,079.00
<i>Subtotal, Floodplain, Floodway, Cross-Section Shapefiles .....</i>	<i>\$</i>	<i>3,793.00</i>
<b>TOTAL IMPROVED FEMA FLOODPLAIN MODELING &amp; MAPPING (MDNR).....</b>	<b>\$</b>	<b>3,793.00</b>

<b>SUMMARY TOTALS</b>
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<b>Total Engineering .....</b>	<b>\$ 28,674.12</b>
<b>Total WOMP.....</b>	<b>\$ 632.90</b>
<b>Total Annual Report.....</b>	<b>\$ 0.00</b>
<b>Total APM/AIS Work.....</b>	<b>\$ 0.00</b>
<b>Total TMDL Work .....</b>	<b>\$ 85.00</b>
<b>Total Capital Improvement Projects (Tax Levy).....</b>	<b>\$ 24,147.83</b>
<b>Total Improved FEMA Floodplain Modeling &amp; Mapping (MDNR) .....</b>	<b>\$ <u>3,793.00</u></b>
<b>TOTAL PAYABLE.....</b>	<b>\$ 57,332.85</b>

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



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