



Mr. Jim Prom  
Bassett Creek Watershed Management Commission  
7800 Golden Valley Road  
Golden Valley, MN 55427

Page # 1  
Invoice # 23270051-2019-11  
Project # 23/27-0051  
Client # 59  
January 3, 2020

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
November 30, 2019 through December 27, 2019

**ENGINEERING**

TECHNICAL SERVICES

Communications with administrator and internal staff regarding MPCA 2020-2021 Sweeney Branch biota monitoring, differences between MPCA and BCWMC monitoring programs/methods, and potential cost savings; re-submit comments regarding 30% plans for sanitary sewer in Bryn Mawr Meadows Park and crossing of Bassett Creek; communications with administrator and internal staff regarding petroleum-contaminated sediments in Bryn Mawr Meadows Park and impact on CIP project; communications with Golden Valley staff and internal staff regarding city's questions about administrative floodway on property between Golden Valley Road and Dresden Lane in Golden Valley, including review of FEMA floodway data, and provide floodplain elevation for property; review draft City of St. Louis Park Wetland Management Plan, and attend December 10 meeting with St. Louis Park staff, city consultant and administrator regarding wetland management plan; and communications with administrator and internal staff regarding MPCA MTD meeting attendance.

James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour.....	\$ 585.00
Karen L. Chandler, Principal Engineer/Scientist 14.0 hours @ \$175.00 per hour.....	\$ 2,450.00
Jennifer L. Brekken, Consultant/Advisor 0.3 hours @ \$155.00 per hour.....	\$ 46.50
Michelle A. Kimble, Engineer/Scientist/Specialist III 0.5 hours @ \$135.00 per hour.....	\$ 67.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 3.9 hours @ \$135.00 per hour.....	\$ 526.50
Karen S. Wold, Engineer/Scientist/Specialist III 2.1 hours @ \$130.00 per hour.....	\$ 273.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.6 hours @ \$110.00 per hour.....	\$ 66.00

Josh P. Phillips, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour .....	\$	19.00
Expenses (Mileage) .....	\$	<u>12.76</u>
<i>Subtotal, Technical Services</i> .....	\$	<b>4,046.26</b>

**MONTHLY MEETING PREPARATION**

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for December Commission meeting; review/edit draft November meeting minutes; prepare for December Commission meeting, including pre-meeting conference call with Chair Prom and administrator and review meeting packet; and communications with administrator and internal staff regarding follow-up items from December Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 5.0 hours @ \$195.00 per hour .....	\$	975.00
Karen L. Chandler, Principal Engineer/Scientist 14.2 hours @ \$175.00 per hour .....	\$	2,485.00
Technicians/Administrative .....	\$	<u>480.00</u>
<i>Subtotal, Monthly Meeting Preparation</i> .....	\$	<b>3,940.00</b>

**TAC PREPARATION**

Prepare revised memo to TAC and provide to administrator to post on website; internal meeting regarding follow-up questions from November 25 TAC meeting; review administrator's memo regarding TAC meeting for December Commission meeting packet; develop cost estimate impacts of changes to the BCWMC stream and lake monitoring programs proposed by the TAC; provide administrator with information regarding the cost impacts; and communications with administrator and internal staff.

Karen L. Chandler, Principal Engineer/Scientist 6.4 hours @ \$175.00 per hour .....	\$	1,120.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 8.3 hours @ \$135.00 per hour .....	\$	1,120.50
Christopher J. Bonick, Engineer/Scientist/Specialist III 1.5 hours @ \$125.00 per hour .....	\$	<u>187.50</u>
<i>Subtotal, TAC Preparation</i> .....	\$	<b>2,428.00</b>

***Subtotal Technical Services* ..... \$ **10,414.26****

**PLAT REVIEW**

**215 Peninsula Road – WCA**

Communications with applicant in response to questions; provide wetland status information for review memo for December Commission meeting; and prepare and submit WCA Notice of Decision for wetland boundary and type approval.

Karen S. Wold, Engineer/Scientist/Specialist III  
2.7 hours @ \$130.00 per hour ..... \$ 351.00  
*Subtotal, 215 Peninsula Road - WCA..... \$ 351.00*

215 Peninsula Road (2019-26)

Review grading, drainage and erosion control plans for erosion and sediment control and floodplain requirements; prepare review memo for December Commission meeting; and prepare and send approval letter to city representatives.

James P. Herbert, Principal Engineer/Scientist  
2.5 hours @ \$195.00 per hour ..... \$ 487.50  
Karen L. Chandler, Principal Engineer/Scientist  
0.6 hours @ \$175.00 per hour ..... \$ 105.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
3.9 hours @ \$95.00 per hour ..... \$ 370.50  
Edward M. Anderson, Engineer/Scientist/Specialist I  
0.8 hours @ \$85.00 per hour ..... \$ 68.00  
*Subtotal, 215 Peninsula Road..... \$ 1,031.00*

Four Seasons Mall Redevelopment (2019-25)

Review grading, drainage and erosion control plans for water quality, floodplain, rate control, and erosion and sediment control requirements; prepare memo for December Commission meeting regarding site redevelopment, BCWMC requirements and status of review; and communications with administrator and applicant regarding review status.

James P. Herbert, Principal Engineer/Scientist  
2.0 hours @ \$195.00 per hour ..... \$ 390.00  
Karen L. Chandler, Principal Engineer/Scientist  
3.1 hours @ \$175.00 per hour ..... \$ 542.50  
Ross S. Mullen, Engineer/Scientist/Specialist II  
0.6 hours @ \$110.00 per hour ..... \$ 66.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
26.2 hours @ \$95.00 per hour ..... \$ 2,489.00  
Edward M. Anderson, Engineer/Scientist/Specialist I  
0.4 hours @ \$85.00 per hour ..... \$ 34.00  
*Subtotal, Four Seasons Mall Redevelopment..... \$ 3,521.50*  
***Subtotal Plat Review..... \$ 4,903.50***

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with developer's engineer regarding LEEF site in Minneapolis; communications with Crystal staff regarding flood elevation at 3501 Douglas Drive and BCWMC requirements; and

communications with administrator, Minneapolis staff, and Minneapolis consultant regarding variance request process for sanitary sewer project.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$195.00 per hour .....	\$ 97.50
Karen L. Chandler, Principal Engineer/Scientist 2.9 hours @ \$175.00 per hour .....	\$ <u>507.50</u>
<b>Subtotal, Preliminary Communications.....</b>	<b>\$ 605.00</b>

NON-FEE REVIEWS

Bassett Creek Valley

Provide additional comments to Minneapolis staff and Wenck regarding Bassett Creek Valley study report; review final Bassett Creek Valley study report and prepare draft final comments on report.

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$195.00 per hour .....	\$ 156.00
Karen L. Chandler, Principal Engineer/Scientist 4.2 hours @ \$175.00 per hour .....	\$ 735.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.2 hours @ \$110.00 per hour .....	\$ <u>22.00</u>
<i>Subtotal, Bassett Creek Valley.....</i>	<i>\$ 913.00</i>
<b>Subtotal Non-Fee Reviews .....</b>	<b>\$ 913.00</b>
<b>Subtotal Preliminary Communications and Non-Fee Reviews .....</b>	<b>\$ 1,518.00</b>

COMMISSION AND TAC MEETINGS

Attend December 19 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist 2.7 hours @ \$175.00 per hour .....	\$ <u>472.50</u>
<b>Subtotal, Commission and TAC Meetings.....</b>	<b>\$ 472.50</b>

SURVEYS & STUDIES

<b>Subtotal Surveys &amp; Studies .....</b>	<b>\$ 0.00</b>
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WATER QUALITY/MONITORING

Cavanaugh and Northwood Lakes Monitoring

Download water quality data to database; review Northwood Lake water quality data; perform analyses of Northwood Lake zooplankton samples collected August 19 and September 10, 2019; and prepare data summary spreadsheet for total phosphorus, dissolved oxygen, temperature, and specific conductivity for isopleth analyses.

Margaret R. Rattei, Engineer/Scientist/Specialist III 9.0 hours @ \$135.00 per hour .....	\$ 1,215.00
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Technicians/Administrative.....	\$	488.50
<i>Subtotal, Cavanaugh and Northwood Lakes Monitoring .....</i>	\$	1,703.50

North Branch Monitoring Year 2

Site visit to reinstall specific conductance/temperature sensor in stream; program datalogger; collect snowmelt grab sample, replace battery, and perform flow measurement on December 4; download and review data; remove specific conductance/temperature sensor; review and approve MCES lab invoice; and MCES lab charges.

Christopher J. Bonick, Engineer/Scientist/Specialist III 13.0 hours @ \$125.00 per hour.....	\$	1,625.00
Sean Campbell, Engineer/Scientist/Specialist I 2.3 hours @ \$80.00 per hour .....	\$	184.00
Expenses (MCES/Verizon Wireless/mileage/2WD vehicle) .....	\$	1,166.54
<i>Subtotal, North Branch Monitoring Year 2 .....</i>	\$	2,975.54
<b><i>Subtotal, Water Quality/Monitoring.....</i></b>	<b>\$</b>	<b>4,679.04</b>

WATER QUANTITY

<b><i>Subtotal, Water Quantity.....</i></b>	<b>\$</b>	<b>0.00</b>
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FLOOD CONTROL PROJECT ANNUAL INSPECTION & DOUBLE BOX CULVERT INSPECTION

Annual inspection: prepare annual inspection memo/report and provide to administrator for December Commission meeting, prepare letters to cities and MnDOT regarding inspection results, and communications with internal staff regarding report.

James P. Herbert, Principal Engineer/Scientist 6.1 hours @ \$195.00 per hour .....	\$	1,189.50
Karen L. Chandler, Principal Engineer/Scientist 1.9 hours @ \$175.00 per hour .....	\$	332.50
Patrick E. Brockamp, Engineer/Scientist/Specialist II 3.8 hours @ \$105.00 per hour .....	\$	399.00
Josh P. Phillips, Engineer/Scientist/Specialist II 13.7 hours @ \$95.00 per hour .....	\$	1,301.50
<b><i>Subtotal, Flood Control Annual Proj Inspect&amp;Dbl Box Culvert\$</i></b>	<b>\$</b>	<b>3,222.50</b>

MUNICIPAL PLAN REVIEWS

Communications with administrator, city staff, and internal staff regarding status of official controls.

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$175.00 per hour .....	\$	70.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 2.5 hours @ \$140.00 per hour .....	\$	350.00
<i>Subtotal, Municipal Plan Reviews .....</i>	\$	420.00

**Subtotal, Municipal Plan Reviews .....\$ 420.00**

**TOTAL ENGINEERING .....\$ 25,629.80**

**WATERSHED OUTLET MONITORING PROGRAM (WOMP)**

Follow up communications with MCES staff on potential relocation sites.

Christopher J. Bonick, Engineer/Scientist/Specialist III  
 0.5 hours @ \$125.00 per hour .....\$ 62.50  
*Subtotal, Watershed Outlet Monitoring Program .....\$ 62.50*  
**TOTAL WOMP .....\$ 62.50**

**APM/AIS WORK**

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

**CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)**

FOUR SEASONS AREA WQ PROJECT (NL-2)

90% CIP review: review "above-and-beyond" water quality treatment provided by proposed BMPs (filtration basin, underground filtration system, stormwater ponds, iron-enhanced sand filter bench, and wetland restoration), including review of plans and P8 model; meeting with developer's consultant (Loucks) regarding above and beyond water quality treatment, results of review, P8 modeling of treatment devices and recommended changes to iron-enhanced sand filter; review revised plans and P8 model; compare current proposed water quality treatment with 2017 proposed treatment and versions of P8 model; prepare memo for December Commission meeting regarding site redevelopment, BCWMC requirements and status of review; and communications with administrator and applicant regarding review status and follow-up from December Commission meeting.

James P. Herbert, Principal Engineer/Scientist  
 4.6 hours @ \$195.00 per hour .....\$ 897.00  
 Karen L. Chandler, Principal Engineer/Scientist  
 16.5 hours @ \$175.00 per hour .....\$ 2,887.50  
 Gregory J. Wilson, Consultant/Advisor  
 11.6 hours @ \$165.00 per hour.....\$ 1,914.00  
 Josh P. Phillips, Engineer/Scientist/Specialist II  
 32.1 hours @ \$95.00 per hour .....\$ 3,049.50  
 Technicians/Administrative.....\$ 13.00  
**Subtotal, Four Seasons Area WQ Project (NL-2) .....\$ 8,761.00**

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

Internal meeting to discuss public meeting graphic boards; perform desktop wetland delineation, prepare report and prepare/submit joint (WCA) permit application; perform threatened and endangered species desktop review; perform cultural resources review and prepare memo; prepare draft memo regarding sediment sampling characterization; internal meeting to discuss feasibility study concept designs; update XP-SWMM model; report coordination; and prepare and send project email updates.

Karen L. Chandler, Principal Engineer/Scientist 2.3 hours @ \$175.00 per hour .....	\$	402.50
Terri A. Olson, Engineer/Scientist/Specialist III 0.2 hours @ \$140.00 per hour .....	\$	28.00
Shanna R. Braun, Engineer/Scientist/Specialist III 0.5 hours @ \$135.00 per hour .....	\$	67.50
Karen S. Wold, Engineer/Scientist/Specialist III 1.9 hours @ \$130.00 per hour .....	\$	247.00
John W. Juntilla, Engineer/Scientist/Specialist II 12.2 hours @ \$120.00 per hour .....	\$	1,464.00
Patrick E. Brockamp, Engineer/Scientist/Specialist II 6.1 hours @ \$105.00 per hour .....	\$	640.50
Lulu Fang, Engineer/Scientist/Specialist II 1.0 hours @ \$95.00 per hour .....	\$	95.00
Brendan H. Dougherty, Engineer/Scientist/Specialist I 0.5 hours @ \$90.00 per hour .....	\$	45.00
Joshua R. Vosejpk, Engineer/Scientist/Specialist I 1.5 hours @ \$85.00 per hour .....	\$	127.50
Tyler A. Conley, Engineer/Scientist/Specialist I 17.9 hours @ \$75.00 per hour .....	\$	1,342.50
Expenses (Mileage) .....	\$	<u>13.34</u>
<b>Subtotal, Main Stem Dredging Project Feasibility Study.....</b>	<b>\$</b>	<b>4,472.84</b>

MOUNT OLIVET STREAM STABILIZATION PROJECT (2021)(ML-20) AND PARKERS LAKE DRAINAGE IMPROVEMENT PROJECT (2021)(PL-7) FEASIBILITY STUDY

Mount Olivet Stream Stabilization Project Feasibility Study (2021)(ML-20)

Complete wetland Notice of Determination coordination; develop site topographic and tree survey documentation; develop two conceptual alternatives; prepare presentation for agency/stakeholder meeting; and attend December 16 agency/stakeholder meeting.

Karen L. Chandler, Principal Engineer/Scientist 2.9 hours @ \$175.00 per hour .....	\$	507.50
Adam K. Howard, Engineer/Scientist/Specialist II 13.2 hours @ \$120.00 per hour .....	\$	1,584.00

Kallie B, Doeden, Engineer/Scientist/Specialist I 14.7 hours @ \$95.00 per hour .....	\$ 1,396.50
Joshua R. Vosejka, Engineer/Scientist/Specialist I 5.9 hours @ \$85.00 per hour .....	\$ 501.50
Tyler A. Conley, Engineer/Scientist/Specialist I 0.5 hours @ \$75.00 per hour .....	\$ 37.50
<i>Subtotal, Mount Olivet Stream Stabilization Project Feas Study.....</i>	<i>\$ 4,027.00</i>

Parkers Lake Drainage Improvement Project (2021)(PL-7)

Complete wetland Notice of Determination coordination; develop site topographic and tree survey documentation; develop seven conceptual alternatives; initiate XP-SWMM and P8 modeling for alternatives analysis; prepare presentation for agency/stakeholder meeting; and attend December 16 agency/stakeholder meeting.

Karen L. Chandler, Principal Engineer/Scientist 4.0 hours @ \$175.00 per hour .....	\$ 700.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 10.5 hours @ \$140.00 per hour.....	\$ 1,470.00
Adam K. Howard, Engineer/Scientist/Specialist II 13.3 hours @ \$120.00 per hour.....	\$ 1,596.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.8 hours @ \$110.00 per hour .....	\$ 88.00
Kallie B, Doeden, Engineer/Scientist/Specialist I 14.3 hours @ \$95.00 per hour .....	\$ 1,358.50
Joshua R. Vosejka, Engineer/Scientist/Specialist I 2.2 hours @ \$85.00 per hour .....	\$ 187.00
Samantha A. Beck, Engineer/Scientist/Specialist I 9.9 hours @ \$80.00 per hour .....	\$ 792.00
Tyler A. Conley, Engineer/Scientist/Specialist I 0.5 hours @ \$75.00 per hour .....	\$ 37.50
Expenses (Mileage) .....	\$ 6.96
<i>Subtotal, Parkers Lake Drainage Improvement Project Feas Study \$</i>	<i>6,235.96</i>

***Subtotal, Mt. Olivet Stream Stabilization Project & Parkers Lake Drainage Improvement Project Feasibility Study.....\$ 10,262.96***

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

Communications with administrator to schedule public open house.

Gregory J. Wilson, Consultant/Advisor 0.9 hours @ \$165.00 per hour .....	\$ 148.50
<b><i>Subtotal, Sweeney Lake Water Quality Improvements.....\$</i></b>	<b><i>148.50</i></b>



**TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....\$ 23,645.30**

**TMDL WORK**

**TOTAL TMDL WORK .....\$ 0.00**

**IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)**

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Develop Project Narrative

Communications with MDNR staff and administrator regarding contract amendment form, process and schedule; conference call with MDNR staff regarding anticipated schedule for hydraulic review and overall FEMA approval of model; and prepare draft amended scope for contract amendment.

Karen L. Chandler, Principal Engineer/Scientist  
 8.0 hours @ \$175.00 per hour .....\$ 1,400.00

Ross S. Mullen, Engineer/Scientist/Specialist II  
 1.4 hours @ \$110.00 per hour .....\$ 154.00

*Subtotal, Develop Project Narrative .....\$ 1,554.00*

**TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....\$ 1,554.00**

**SUMMARY TOTALS**

**Total Engineering .....\$ 25,629.80**

**Total WOMP.....\$ 62.50**

**Total APM/AIS Work.....\$ 0.00**

**Total TMDL Work .....\$ 0.00**

**Total Capital Improvement Projects (Tax Levy).....\$ 23,645.30**

**Total Improved FEMA Floodplain Modeling & Mapping (MDNR).....\$ 1,554.00**

**TOTAL PAYABLE.....\$ 50,891.60**

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

