



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

Page # 1
Invoice # 23270051-2018-11
Project # 23/27-0051
Client # 59
March 2, 2018

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
January 27, 2018 through February 23, 2018

ENGINEERING

TECHNICAL SERVICES

Follow-up with MDNR staff regarding status of FEMA modeling agreement; year-end budget review; communications with internal staff regarding 2018 budgets; update 2017 individual plat review costs; communications with Medicine Lake consultant regarding Medicine Lake flood elevation; Medicine Lake zebra mussels: prepare for and attend February 5 meeting with MDNR, TRPD, and MAISRC staff and administrator regarding zebra mussel survey design, prepare Medicine Lake bathymetric map for meeting, communications with administrator regarding meeting and follow-up, and communications with MDNR staff regarding zebra mussel monitoring protocol; meeting with administrator regarding potential tunnel tour; provide pond prioritization files to administrator; revise watershed base map; AIS Rapid Response Plan (RRP): conference call and communications with MAISRC staff regarding AIS RRP concerns, review/edit revised AIS RRP in response to MAISRC concerns, communications with administrator regarding email to stakeholders about AIS RRP, provide revised document to administrator, review administrator's edits to RRP, create final version of RRP and provide final document to administrator; communications with Golden Valley staff regarding modeling of the Boone Avenue pump station; review/edit administrator's draft Commission/committee meeting calendar and agendas, and communications with internal staff regarding 2018 meeting agenda items; review staff evaluations and develop follow-up actions; conference call with administrator regarding AIS Rapid Response Plan comments/next steps, Sweeney Aeration Study budget, and staff evaluation follow-up ideas; February 13 meeting with MPRB staff, Minneapolis staff, and administrator regarding Bassett Creek Park concept plans; communications with administrator, chemical provider and internal staff regarding Aquathol (herbicide) price increase; communications with administrator, Crystal staff and St. Louis Park staff regarding BCWMC's buffer and shoreland requirements; communications with Crystal staff regarding Flood Control project policies; and meeting with administrator regarding miscellaneous items.

James P. Herbert, Principal Engineer/Scientist		
0.5 hours @ \$190.00 per hour	\$	95.00
Karen L. Chandler, Principal Engineer/Scientist		
27.4 hours @ \$175.00 per hour	\$	4,795.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III		
0.8 hours @ \$140.00 per hour	\$	112.00

Margaret R. Rattei, Engineer/Scientist/Specialist III 14.5 hours @ \$135.00 per hour	\$	1,957.50
Ross S. Mullen, Engineer/Scientist/Specialist II 1.4 hours @ \$100.00 per hour	\$	140.00
Kelly A. Wild, Engineer/Scientist/Specialist II 1.3 hours @ \$95.00 per hour	\$	123.50
Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour.....	\$	8.50
Joshua R. Vosejka, Engineer/Scientist/Specialist I 1.0 hours @ \$80.00 per hour	\$	80.00
Technicians/Administrative.....	\$	152.00
<i>Subtotal, Technical Services</i>	<i>\$</i>	<i>7,463.50</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for February Commission meeting; review/edit draft January meeting minutes; review and edit administrator's draft memos regarding staff evaluation follow-up and 2017 budget; prepare for February Commission meeting, including setting up and attending pre-meeting conference call with Chair de Lambert, Vice Chair Mueller, and administrator; and coordination and communications with administrator and internal staff regarding follow-up items from February Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 4.0 hours @ \$190.00 per hour	\$	760.00
Karen L. Chandler, Principal Engineer/Scientist 16.1 hours @ \$175.00 per hour	\$	2,817.50
Gregory J. Wilson, Consultant/Advisor 2.0 hours @ \$160.00 per hour	\$	320.00
Technicians/Administrative.....	\$	<u>600.00</u>
<i>Subtotal, Monthly Meeting Preparation</i>	<i>\$</i>	<i>4,497.50</i>

WCA LGU Administration

Complete the 2017 WCA annual reporting form and submit to BWSR.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Karen S. Wold, Engineer/Scientist/Specialist II 2.2 hours @ \$125.00 per hour	\$	<u>275.00</u>
<i>Subtotal, WCA LGU Administration</i>	<i>\$</i>	<i>332.00</i>

TAC PREPARATION

Communications with administrator regarding March TAC meeting agenda and materials; and review draft TAC meeting materials.

Karen L. Chandler, Principal Engineer/Scientist	
1.4 hours @ \$175.00 per hour	\$ 245.00
<i>Subtotal, TAC Preparation.....</i>	<i>\$ 245.00</i>

CIP PRIORITIZATION PROCESS

February 22 meeting with administrator and internal staff to brainstorm CIP project prioritization ideas.

Karen L. Chandler, Principal Engineer/Scientist	
1.7 hours @ \$175.00 per hour	\$ 297.50
Erin Anderson Wenz, Consultant/Advisor	
1.2 hours @ \$165.00 per hour	\$ 198.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III	
1.0 hours @ \$135.00 per hour	\$ 135.00
<i>Subtotal, CIP Prioritization Process.....</i>	<i>\$ 630.50</i>

Subtotal Technical Services \$ 13,168.50

PLAT REVIEW

CSAH 66 Culvert Replacement (2017-19)

Prepare and send approval/comment letter to city staff; review revised XP-SWMM model; communications with applicant regarding design scenario and re-run XP-SWMM model for new scenario; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist	
2.9 hours @ \$190.00 per hour	\$ 551.00
Ross S. Mullen, Engineer/Scientist/Specialist II	
4.1 hours @ \$100.00 per hour	\$ 410.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
1.5 hours @ \$85.00 per hour	\$ 127.50
<i>Subtotal, CSAH 66 Culvert Replacement.....</i>	<i>\$ 1,088.50</i>

Fretham 26th Addition (2018-01)

Review grading drainage and erosion control plans; communications with applicant, and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$190.00 per hour	\$ 285.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
2.3 hours @ \$85.00 per hour.....	\$ 195.50
Technicians/Administrative.....	\$ 47.50
<i>Subtotal, Fretham 26th Addition.....</i>	<i>\$ 528.00</i>

Hwy 55 Frontage Rd Reconstruction (2018-02)

Review grading drainage and erosion control plans; communications with applicant, and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$190.00 per hour	\$	190.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.7 hours @ \$85.00 per hour.....	\$	229.50
Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Hwy 55 Frontage Rd Reconstruction.....</i>	<i>\$</i>	<i>467.47</i>

Buhler Food App Centre Addition (2018-03)

Plat review set up and initial review.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour.....	\$	42.50
Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Buhler Food App Centre Addition.....</i>	<i>\$</i>	<i>90.47</i>

Golden Valley 2018 PMP (2018-04)

Plat review set up.

Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Golden Valley 2018 PMP.....</i>	<i>\$</i>	<i>47.97</i>

Subtotal Plat Review.....\$ 2,222.41

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Preliminary review of St. Louis Park Lifetime Fitness addition and communications with St. Louis Park staff; review MDNR public waters permit for Hennepin County; preliminary review of Plymouth Commons project; communications with MPRB staff; communications with @glenwood applicant regarding Phase II model and main stem CIP project; and communications with administrator and internal staff regarding Supplemental EA for SWLRT.

Karen L. Chandler, Principal Engineer/Scientist 1.8 hours @ \$175.00 per hour	\$	315.00
James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$190.00 per hour	\$	570.00

Josh P. Phillips, Engineer/Scientist/Specialist I
0.7 hours @ \$85.00 per hour..... \$ 59.50
Subtotal, Preliminary Communications..... \$ 944.50

NON-FEE REVIEWS

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

***Subtotal Preliminary Communications and Non-Fee Reviews* \$ 944.50**

COMMISSION AND TAC MEETINGS

Attend February 15 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist
3.0 hours @ \$175.00 per hour \$ 525.00
***Subtotal, Commission and TAC Meetings*..... \$ 525.00**

SURVEYS & STUDIES

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

WATER QUALITY/MONITORING

Sweeney Lake Aeration Study

Develop three-dimensional lake water quality model, including Sweeney Lake bathymetry, model input file development, in-lake water quality files necessary for model development, model set-up, and initial phases of model trouble shooting; and internal communications regarding model and schedule changes.

Gregory J. Wilson, Consultant/Advisor
1.0 hours @ \$160.00 per hour \$ 160.00
Keith M. Pilgrim, Consultant/Advisor
55.5 hours @ \$160.00 per hour \$ 8,880.00
Subtotal, Sweeney Lake Aeration Study..... \$ 9,040.00

General Water Quality Tasks

Review Lost Lake, Sweeney Lake, and Twin Lake 2017 water quality reports and discuss with internal staff; communications with administrator regarding Twin Lake sediment testing; and communications with Wenck staff regarding water quality report revisions.

Henry M. Runke, Principal Engineer/Scientist
0.5 hours @ \$175.00 per hour \$ 87.50
Karen L. Chandler, Principal Engineer/Scientist
2.1 hours @ \$175.00 per hour \$ 367.50
Margaret R. Rattei, Engineer/Scientist/Specialist III
1.9 hours @ \$135.00 per hour \$ 256.50
Subtotal, General Water Quality Tasks..... \$ 711.50

Biotic Index Monitoring

Internal communications to prepare for 2018 monitoring, including sample sites and schedule.

Margaret R. Rattei, Engineer/Scientist/Specialist III 0.1 hours @ \$135.00 per hour	\$	13.50
Technicians/Administrative.....	\$	<u>27.00</u>
<i>Subtotal, Biotic Index Monitoring</i>	\$	40.50
Subtotal, Water Quality/Monitoring	\$	9,792.00

WATER QUANTITY

Measure and review lake level elevations as part of the lake-gauging program.

Technicians/Administrative.....	\$	450.00
Expenses (Mileage/2WD Field)	\$	<u>56.25</u>
Subtotal, Water Quantity	\$	506.25

XP-SWMM Model Updates-Reviews

Revise Boone Ave lift station in updated XP-SWMM model; complete model update to incorporate Liberty Crossing final design drawings, including debugging, QAQC and model revisions; prepare draft XP-SWMM model update request to member cities, including review/compilation of BCWMC CIP projects and project reviews to include in data request.

Karen L. Chandler, Principal Engineer/Scientist 2.0 hours @ \$175.00 per hour	\$	350.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 2.1 hours @ \$130.00 per hour	\$	294.00
Ross S. Mullen, Engineer/Scientist/Specialist II 6.2 hours @ \$100.00 per hour	\$	620.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 5.9 hours @ \$95.00 per hour	\$	560.50
Josh P. Phillips, Engineer/Scientist/Specialist I 0.2 hours @ \$85.00 per hour.....	\$	<u>17.00</u>
Subtotal, XP-SWMM Model Updates-Reviews	\$	1,841.50
TOTAL ENGINEERING	\$	29,000.16

ANNUAL REPORT

TOTAL ANNUAL REPORT\$ **0.00**

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ **0.00**

WEBSITE

TOTAL WEBSITE.....\$ 0.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Provide precipitation data to MCES, in response to request; and attempts to establish connection to/download data from WOMP station.

Christopher J. Bonick, Engineer/Scientist/Specialist II
 1.0 hours @ \$125.00 per hour \$ 125.00
Subtotal, Watershed Outlet Monitoring Program \$ 125.00
TOTAL WOMP\$ 125.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

DECOLA PONDS B&C IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-2, BC-3, BC-8)

Prepare for and observe environmental test trench investigation, including contracting, preparing Project Health and Safety Plan (PHASP), creating map and GPS waypoints, work plan review, internal meeting to prepare for field investigation, instrument calibration, equipment preparation, and onsite staking of excavation locations; review laboratory invoices; enter test trenching data into EQUIS, verify data, and create criteria table; communications with Golden Valley staff; internal meeting to review tree survey results and add surface definition to results; internal meetings to brainstorm and discuss concept plans for flood mitigation and water quality treatment, including maximum and minimum grading concepts; begin developing concept plans, including develop grading plans; develop matrix outline; prepare GIS maps; and prepare and send project updates to administrator and city staff.

Daniel J. Fetter, Principal Engineer/Scientist
 0.5 hours @ \$200.00 per hour \$ 100.00
 Kurt A. Leuthold, Principal Engineer/Scientist
 2.6 hours @ \$180.00 per hour \$ 468.00
 Karen L. Chandler, Principal Engineer/Scientist
 0.5 hours @ \$175.00 per hour \$ 87.50
 Fred J. Rozumalski, Consultant/Advisor
 1.5 hours @ \$155.00 per hour \$ 232.50
 Jennifer A. Koehler, Engineer/Scientist/Specialist III
 12.9 hours @ \$140.00 per hour..... \$ 1806.00
 Jennifer L. Brekken, Engineer/Scientist/Specialist III
 4.2 hours @ \$150.00 per hour \$ 630.00
 Brent A. Lindstrom, Engineer/Scientist/Specialist III
 0.5 hours @ \$130.00 per hour \$ 65.00

Terri A. Olson, Engineer/Scientist/Specialist III 0.5 hours @ \$135.00 per hour	\$	67.50
Kelly A. Caddy, Engineer/Scientist/Specialist II 1.2 hours @ \$115.00 per hour	\$	138.00
Kelly A. Wild, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour	\$	47.50
Patrick E. Brockamp, Engineer/Scientist/Specialist II 2.4 hours @ \$95.00 per hour	\$	228.00
Kevin D. Menken, Engineer/Scientist/Specialist II 0.2 hours @ \$115.00 per hour	\$	23.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 38.9 hours @ \$95.00 per hour	\$	3,695.50
Technicians/Administrative.....	\$	1,535.50
Expenses (Mileage, Stevens Drilling, Legend Technical Services, Quicksilver Express, GPS System, Photoionization Detector)	\$	<u>3,001.86</u>
Subtotal, DeCola Ponds B&C Feasibility Study	\$	12,125.86

WESTWOOD LAKE WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY

Communications with architects regarding current design and soil borings; communications with St. Louis Park staff; internal communications regarding project schedule, soil borings, and design concepts; and prepare and send project updates to administrator and city staff.

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$175.00 per hour	\$	70.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 4.5 hours @ \$130.00 per hour	\$	<u>585.00</u>
Subtotal, Westwood Lake WQ Feasibility Study	\$	655.00

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-5)

Prepare and review meeting minutes from regulatory agency meeting; internal review of wetland delineation report; communications with project team to set up design charrette follow-up meeting; internal team communications regarding design charrette meeting; prepare for and attend February 13 meeting with MPRB and Minneapolis staff regarding design charrette follow up/concept designs; internal communications regarding environmental/soil testing and concept alternatives; and prepare and send project updates to administrator, city staff and MPRB staff.

Kurt A. Leuthold, Principal Engineer/Scientist 2.5 hours @ \$180.00 per hour	\$	450.00
Karen L. Chandler, Principal Engineer/Scientist 3.7 hours @ \$175.00 per hour	\$	647.50
Michelle A. Kimble, Engineer/Scientist/Specialist III 10.3 hours @ \$130.00 per hour	\$	1,339.00

Shanna R. Braun, Engineer/Scientist/Specialist III 2.5 hours @ \$130.00 per hour	\$ 325.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.2 hours @ \$85.00 per hour	\$ 17.00
Expenses (Mileage)	\$ 14.17
Subtotal, Bryn Mawr Meadows Feasibility Study	\$ 2,792.67
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)	\$ 15,573.53

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Update P8 modeling inputs/output for Northwood Lake and Bassett Creek Park Pond models; calibration of Northwood Lake P8 model; provide P8 modeling files to Minnetonka staff, in response to request; and model and GIS data coordination/QAQC.

Gregory J. Wilson, Consultant/Advisor 8.8 hours @ \$160.00 per hour	\$ 1,408.00
Joshua R. Vosejka, Engineer/Scientist/Specialist I 18.5 hours @ \$80.00 per hour	\$ 1,480.00
<i>Subtotal, TMDL Implementation Reporting</i>	<i>\$ 2,888.00</i>
TOTAL TMDL WORK	\$ 2,888.00

SUMMARY TOTALS

Total Engineering	\$ 29,000.16
Total Annual Report/Website/Public Communications	\$ 0.00
Total WOMP	\$ 125.00
Total TMDL Work	\$ 2,888.00
Total Capital Improvement Projects (Tax Levy)	\$ 15,573.53
TOTAL PAYABLE	\$ 47,586.69

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


