



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

Page # 1
Invoice # 23270051-2018-7
Project # 23/27-0051
Client # 59
September 7, 2018

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
July 28, 2018 through August 31, 2018

ENGINEERING

TECHNICAL SERVICES

Review new NPDES construction stormwater permit for infiltration prohibitions; communications with administrator responding to homeowner concerns over subwatershed diversion proposed as part of previously-approved Golden Valley PMP project (BCWMC #2017-40); communications with administrator regarding watershed-based funding meeting and RSVP to BWSR; create and provide maps and GIS data of Phase 2 model results to Minneapolis, per request; communications with administrator regarding budget tasks; and communications with Minneapolis staff regarding erosion control.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Karen L. Chandler, Principal Engineer/Scientist 5.7 hours @ \$175.00 per hour	\$	997.50
Ross S. Mullen, Engineer/Scientist/Specialist II 0.8 hours @ \$100.00 per hour	\$	80.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.5 hours @ \$85.00 per hour.....	\$	212.50
Technicians/Administrative.....	\$	<u>104.50</u>
<i>Subtotal, Technical Services.....</i>	\$	<i>1,451.50</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator, Golden Valley staff, and internal staff regarding draft/final agenda and meeting packet for August Commission meeting; review/edit draft July meeting minutes; prepare for August Commission meeting, including pre-meeting call with administrator, communications with administrator and internal staff regarding Sweeney Aeration Study presentation, and provide slides to administrator for public hearing on CIP projects; and communications with administrator and internal staff regarding follow-up items from August Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 5.0 hours @ \$190.00 per hour	\$ 950.00
Karen L. Chandler, Principal Engineer/Scientist 22.0 hours @ \$175.00 per hour	\$ 3,850.00
Technicians/Administrative.....	\$ 458.00
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 5,258.00</i>

CIP PRIORITIZATION PROCESS

Prepare for and attend July 31 committee meeting.

Karen L. Chandler, Principal Engineer/Scientist 2.1 hours @ \$175.00 per hour	\$ 367.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 3.0 hours @ \$135.00 per hour	\$ 405.00
<i>Subtotal, CIP Prioritization Process.....</i>	<i>\$ 772.50</i>
Subtotal Technical Services	\$ 7,482.00

PLAT REVIEW

Minneapolis Impound Lot Facility Improvements (2017-37)

Communications with applicant regarding revised site design.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.9 hours @ \$85.00 per hour	\$ 76.50
<i>Subtotal, Mpls Impound Lot Facility Improvements.....</i>	<i>\$ 76.50</i>

Meadowbrook Elementary NW Addition (2018-14)

Send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour	\$ 95.00
<i>Subtotal, Meadowbrook Elementary NW Addition.....</i>	<i>\$ 95.00</i>

Ridgedale Active Adults Apartments (2018-16)

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

James P. Herbert, Principal Engineer/Scientist 2.8 hours @ \$190.00 per hour	\$ 532.00
Josh P. Phillips, Engineer/Scientist/Specialist I 6.3 hours @ \$85.00 per hour	\$ 535.50
<i>Subtotal, Ridgedale Active Adults Apartments.....</i>	<i>\$ 1,067.50</i>

Sanitary & Storm Sewer Rehab-15th Ave & TH 55 (2018-22)

Review grading, drainage and erosion control plans; prepare and send approval/comment letter to city staff; review revised submittal; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 1.8 hours @ \$190.00 per hour	\$ 342.00
Josh P. Phillips, Engineer/Scientist/Specialist I 3.5 hours @ \$85.00 per hour.....	\$ 297.50
Technicians/Administrative.....	\$ 28.50
Expenses (Postage)	\$ 0.47
<i>Subtotal, Sanitary & SS Rehab-15th Ave & TH 55</i>	<i>\$ 668.47</i>

Westwood Hills Nature Center (2018-23)

Review grading, drainage and erosion control plans; and prepare and send approval/comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 2.3 hours @ \$190.00 per hour	\$ 437.00
Josh P. Phillips, Engineer/Scientist/Specialist I 9.1 hours @ \$85.00 per hour.....	\$ 773.50
Technicians/Administrative.....	\$ 28.50
<i>Subtotal, Westwood Hills Nature Center</i>	<i>\$ 1,239.00</i>

Subtotal Plat Review.....\$ 3,146.47

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley staff regarding CIP project review; and communications with MPRB staff regarding sink hole.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$190.00 per hour	\$ 190.00
Subtotal, Preliminary Communications.....	\$ 190.00

NON-FEE REVIEWS

Blue Line LRT

Communications with Blue Line LRT staff and internal staff regarding submittal and review; and plat review set up.

James P. Herbert, Principal Engineer/Scientist 1.2 hours @ \$190.00 per hour	\$ 228.00
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Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour	\$ 35.00
Technicians/Administrative.....	\$ <u>47.50</u>
<i>Subtotal, Blue Line LRT.....</i>	<i>\$ 310.50</i>

Wellington Development/ B. Cr. Valley

Internal meeting and communications with developer regarding recommendations for preliminary phased development plan.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$190.00 per hour	\$ 285.00
Karen L. Chandler, Principal Engineer/Scientist 1.9 hours @ \$175.00 per hour	\$ <u>332.50</u>
<i>Subtotal, Wellington Dev./B. Cr. Valley.....</i>	<i>\$ 617.50</i>
Subtotal Non-Fee Reviews	\$ 928.00
Subtotal Preliminary Communications and Non-Fee Reviews	\$ 1,118.00

COMMISSION AND TAC MEETINGS

Attend August 15 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist 2.8 hours @ \$175.00 per hour	\$ <u>490.00</u>
Subtotal, Commission and TAC Meetings.....	\$ 490.00

SURVEYS & STUDIES

Subtotal Surveys & Studies.....	\$ 0.00
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WATER QUALITY/MONITORING

Sweeney Lake Aeration Study

Calibrate three-dimensional lake water quality modeling for two climatic conditions and complete simulation of eight management scenarios; analyze historical water quality monitoring and modeling data for flow/total phosphorus loading patterns; prepare for and attend June 14 meeting with Commissioner Harwell, Alternate Commissioner McDonald Black, administrator, Golden Valley staff, and MDNR staff to present study results and discuss informational meeting, including preparing presentation and draft fact sheet; prepare for and attend August 1 informational meeting to present study results, including meeting with administrator and Golden Valley staff; prepare draft report regarding modeling results and methodology; prepare presentation for August 16 Commission meeting; and attend August 16 Commission meeting to present results.

Karen L. Chandler, Principal Engineer/Scientist 19.3 hours @ \$175.00 per hour	\$ 3,377.50
Gregory J. Wilson, Consultant/Advisor 71.5 hours @ \$160.00 per hour.....	\$ 11,440.00

Keith M. Pilgrim, Consultant/Advisor 40 hours @ \$160.00 per hour	\$ 6,400.00
Kathryn G. Ryan, Engineer/Scientist/Specialist II 0.8 hours @ \$115.00 per hour	\$ 92.00
Technicians/Administrative.....	\$ 1,669.00
Expenses (Mileage)	\$ <u>65.40</u>
<i>Subtotal, Sweeney Lake Aeration Study.....</i>	<i>\$ 23,043.90</i>

Routine Lake Monitoring - Parkers and Westwood Lakes

Download and review August aquatic plant survey data for Westwood Lake and communications with subconsultant; coordinate with internal staff, TRPD staff and Westwood Hills Nature Center staff regarding August and September sampling of Parkers and Westwood Lakes; prepare and send equipment for August sampling events; review lab reports, revised lab reports and lab invoices; and communications with lab.

Henry M. Runke, Principal Engineer/Scientist 1.5 hours @ \$175.00 per hour	\$ 262.50
Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour	\$ 35.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 9.4 hours @ \$135.00 per hour	\$ 1,269.00
Erin M. Dietrich, Engineer/Scientist/Specialist III 0.9 hours @ \$145.00 per hour	\$ 130.50
Terri A. Olson, Engineer/Scientist/Specialist III 3.0 hours @ \$135.00 per hour	\$ 405.00
Technicians/Administrative.....	\$ 514.50
Expenses (Pace Analytical Services/Endangered Resource Services/Quicksilver Express Courier)	\$ <u>2,881.48</u>
<i>Subtotal, Routine Lake Monitoring – Parkers and Westwood</i>	<i>\$ 5,497.98</i>

Stream Water Quality/Quantity Monitoring - North Branch

Storm event sampling and composite samples; download and review data; troubleshoot “no connection” issue and reset modem; and survey elevation at monitoring station, set benchmark, and download and review survey data.

Christopher J. Bonick, Engineer/Scientist/Specialist III 9.5 hours @ \$125.00 per hour	\$ 1,187.50
Heather N. Hlavaty, Engineer/Scientist/Specialist II 3.1 hours @ \$95.00 per hour	\$ 294.50
Sean Campbell, Engineer/Scientist/Specialist I 5.0 hours @ \$80.00 per hour	\$ 400.00

Technicians/Administrative.....	\$	689.50
Expenses (Verizon Wireless/mileage)	\$	<u>215.21</u>
<i>Subtotal, North Branch Stream Water Quality/Quantity Monitor...</i>	\$	<i>2,786.71</i>

Biotic Index Monitoring

Communications with internal staff regarding macroinvertebrate monitoring, analysis and reporting.

Margaret R. Rattei, Engineer/Scientist/Specialist III 0.5 hours @ \$135.00 per hour	\$	<u>67.50</u>
<i>Subtotal, Biotic Index Monitoring</i>	\$	<i>67.50</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	\$	<i>31,396.09</i>

WATER QUANTITY

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

Technicians/Administrative.....	\$	760.00
Expenses (Mileage/2WD Field)	\$	<u>144.78</u>
<i>Subtotal, Water Quantity.....</i>	\$	<i>904.78</i>

FLOOD CONTROL PROJECT INSPECTION+DEEP TUNNEL

Coordinate with administrator, internal staff and U.S. Army Corps of Engineers staff regarding deep tunnel portion of 2018 flood control project inspection work.

James P. Herbert, Principal Engineer/Scientist 1.8 hours @ \$190.00 per hour	\$	<u>342.00</u>
<i>Subtotal, Flood Control Proj Inspect+Deep Tunnel.....</i>	\$	<i>342.00</i>

MUNICIPAL PLAN REVIEWS

Crystal LSWMP Review

Communications with Crystal staff regarding local surface water management plan comments.

Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 0.5 hours @ \$135.00 per hour	\$	<u>67.50</u>
<i>Subtotal, Crystal LSWMP</i>	\$	<i>67.50</i>

New Hope LSWMP Review

Begin review of New Hope local surface water management plan; and communications with New Hope staff.

Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$	87.50
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Sterling 'Greg' Williams, Engineer/Scientist/Specialist III	
1.5 hours @ \$135.00 per hour	\$ 202.50
<i>Subtotal, New Hope LSWMP</i>	<i>\$ 290.00</i>
<i>Subtotal, Municipal Plan Reviews</i>	<i>\$ 357.50</i>

XP-SWMM MODEL UPDATES-REVIEWS

<i>Subtotal, XP-SWMM Model Updates-Reviews</i>	<i>\$ 0.00</i>
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TOTAL ENGINEERING	\$ 45,236.84
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WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Conduct flow measurement at WOMP station; and download and send data to MCES staff.

Christopher J. Bonick, Engineer/Scientist/Specialist III	
4.0 hours @ \$125.00 per hour	\$ 500.00
Expenses (Mileage, 2WD Field Vehicle/Sontek ADV)	\$ 106.08
<i>Subtotal, Watershed Outlet Monitoring Program</i>	<i>\$ 606.08</i>
TOTAL WOMP	\$ 606.08

APM/AIS WORK

Communications with administrator regarding starry stonewort infestation in Medicine Lake and next steps per AIS Rapid Response Plan; and respond to MPRB staff question regarding potential risks of AIS movement resulting from urban portage event from Wirth Lake to Sweeney/Twin Lakes.

Karen L. Chandler, Principal Engineer/Scientist	
1.3 hours @ \$170.00 per hour	\$ 227.50
Margaret R. Rattei, Engineer/Scientist/Specialist III	
0.7 hours @ \$135.00 per hour	\$ 94.50
<i>Subtotal, APM/AIS Work</i>	<i>\$ 322.00</i>
TOTAL APM/AIS WORK	\$ 322.00

ADMINISTRATIVE SERVICES

Coordinate with administrator and internal staff regarding August meeting packet preparation; download completed agenda items for packet; and print, collate, and mail meeting packets.

Karen L. Chandler, Principal Engineer/Scientist	
2.3 hours @ \$175.00 per hour	\$ 402.50
Josh P. Phillips, Engineer/Scientist/Specialist I	
4.1 hours @ \$85.00 per hour	\$ 348.50

Technicians/Administrative.....	\$	351.50
Expenses (Postage)	\$	32.16

TOTAL ADMINISTRATIVE SERVICES.....\$ 1,134.66

ANNUAL REPORT

TOTAL ANNUAL REPORT\$ 0.00

WEBSITE

TOTAL WEBSITE.....\$ 0.00

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ 0.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Prepare for and collect water quality sample; analyze 2017 precipitation data and compare to pond flows; review lab data; communications with carp survey subconsultant; and expenses for carp survey subconsultant.

Henry M. Runke, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour	\$	35.00
Gregory J. Wilson, Consultant/Advisor 1.7 hours @ \$160.00 per hour	\$	272.00
Heather N. Hlavaty, Engineer/Scientist/Specialist I 5.1 hours @ \$95.00 per hour	\$	484.50
Samantha A. Beck, Engineer/Scientist/Specialist I 3.0 hours @ \$70.00 per hour	\$	210.00
Technicians/Administrative.....	\$	63.00
Expenses (Carp Solutions/Pace Analytical/Quicksilver Express/Mileage).....	\$	1,227.76
Subtotal, Schaper Pond 2018 Monitoring and Reporting.....	\$	2,292.26

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

Prepare for and hold July 31 agency site review meeting for wetland delineation; and data management.

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$175.00 per hour	\$	52.50
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Brian K. Burgner, Engineer/Scientist/Specialist II	
4.6 hours @ \$100.00 per hour	\$ 460.00
Subtotal, Bryn Mawr Meadows Feasibility Study	\$ 512.50

WESTWOOD LAKE WATER QUALITY IMPROVEMENT PROJECT (2019) (WST-2)

Develop initial ideas for BCWMC sign and provide to administrator for upcoming Education Committee meeting.

Michelle A. Kimble, Engineer/Scientist/Specialist III	
3.5 hours @ \$130.00 per hour	\$ 455.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
0.1 hours @ \$85.00 per hour	\$ 8.50
Subtotal, Westwood Lake WQ Feasibility Study	\$ 463.50

JEVNE PARK STORMWATER MANAGEMENT FEASIBILITY STUDY (2020) (ML-21)

Prepare agenda and figure for August 13 kickoff meeting; review administrator's draft letter to residents; attend August 13 kick-off meeting with Medicine Lake representatives and administrator; prepare and send minutes from kickoff meeting; follow-up communications with Medicine Lake representatives and administrator regarding kickoff meeting; review administrator's draft letters to residents regarding surveys and wetland delineations; and prepare for and attend August 20 meeting with Medicine Lake representatives to discuss proposed concept.

Karen L. Chandler, Principal Engineer/Scientist	
4.9 hours @ \$175.00 per hour	\$ 857.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
14.6 hours @ \$140.00 per hour	\$ 2,044.00
Brendan H. Dougherty, Engineer/Scientist/Specialist I	
0.2 hours @ \$85.00 per hour	\$ 17.00
Technicians/Administrative	\$ 7.50
Expenses (Mileage)	\$ 6.54
Subtotal, Jevne Park Stormwater Feasibility Study	\$ 2,932.54

CRANE LAKE IMPROVEMENT PROJECT (2020) (CL-3)

Communications with administrator, Minnetonka staff and internal staff regarding feasibility study review; prepare for and attend meeting with Minnetonka staff and their consultant regarding the CIP improvement project and feasibility study; and provide follow-up plans to city staff.

James P. Herbert, Principal Engineer/Scientist	
3.1 hours @ \$190.00 per hour	\$ 589.00
Karen L. Chandler, Principal Engineer/Scientist	
0.3 hours @ \$170.00 per hour	\$ 52.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
3.1 hours @ \$140.00 per hour	\$ 434.00

Expenses (Mileage)\$ 22.35
Subtotal, Crane Lake Improvement Project\$ 1,097.85

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 7,298.65

TMDL WORK

TOTAL TMDL WORK\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....\$ 0.00

SUMMARY TOTALS

Total Engineering\$ 45,236.84
Total WOMP.....\$ 606.08
Total APM/AIS Work.....\$ 322.00
Total Administrative Services.....\$ 1,134.66
Total Annual Report/Website/Public Communications\$ 0.00
Total TMDL Work\$ 0.00
Total Capital Improvement Projects (Tax Levy).....\$ 7,298.65
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)\$ 0.00
TOTAL PAYABLE.....\$ 54,598.23

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


