



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

Page # 1
Invoice # 23270051-2016-9
Project # 23/27-0051
Client # 59
November 4, 2016

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
October 1, 2016 through October 28, 2016

ENGINEERING

TECHNICAL SERVICES

Revise draft BCWMC project review flow chart as graphic for website; communications with administrator and internal staff regarding project reviews; communications with administrator, Crystal staff and Hennepin County Emergency Services regarding sharing water information with the county; communications with administrator regarding upcoming meetings; internal discussion regarding status of old BCWMC website server; internal communications regarding status of WCA reviews; and communications with administrator.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$	90.00
Karen L. Chandler, Principal Engineer/Scientist 5.7 hours @ \$165.00 per hour	\$	940.50
Sterling G. Williams, Engineer/Scientist/Specialist III 0.5 hours @ \$130.00 per hour	\$	65.00
Technicians/Administrative.....	\$	212.50
<i>Subtotal, Technical Services.....</i>	<i>\$</i>	<i>1,308.00</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for October 2016 meeting; prepare for October Commission meeting, including set up and attend pre-meeting conference call with chair de Lambert and administrator to review meeting agenda; provide grant tracking information to administrator; and coordination and communications with administrator and internal staff regarding follow-up tasks from October Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 6.8 hours @ \$180.00 per hour	\$ 1,224.00
Karen L. Chandler, Principal Engineer/Scientist 12.8 hours @ \$165.00 per hour	\$ 2,112.00
Candice H. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$100.00 per hour	\$ 20.00
Technicians/Administrative.....	\$ 427.50
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 3,783.50</i>

TAC PREPARATION

Communications with BWSR staff regarding MS4 exemption for state buffer requirements; prepare for October TAC meeting; and review/edit draft TAC memo and email to administrator.

Karen L. Chandler, Principal Engineer/Scientist 1.7 hours @ \$165.00 per hour	\$ 280.50
<i>Subtotal, TAC Preparation.....</i>	<i>\$ 280.50</i>

Subtotal Technical Services \$ 5,372.00

PLAT REVIEW

10th Avenue – UP Rail Culvert Repair (2015-36)

Communications with Golden Valley staff regarding status of crossing and city request for preliminary review; review Golden Valley consultant's memo regarding conceptual design of crossing; review Phase 1 and Phase 2 XP-SWMM model results in the area; internal meetings regarding conceptual design and next steps; conference call to Golden Valley staff regarding results of preliminary review; and prepare and send email to Golden Valley staff with preliminary review comments regarding proposed crossing.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$180.00 per hour	\$ 360.00
Karen L. Chandler, Principal Engineer/Scientist 4.1 hours @ \$165.00 per hour	\$ 676.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.7 hours @ \$125.00 per hour (6/1/16, 6/2/16, 6/22/16)	\$ 212.50
<i>Subtotal, 10th Avenue-UP Rail Culvert Repair.....</i>	<i>\$ 1,249.00</i>

Morries Lincoln of St. Louis Park (2016-08)

Coordination with city staff regarding revised plan.

James P. Herbert, Principal Engineer/Scientist
0.3 hours @ \$180.00 per hour \$ 54.00
Subtotal, Morris Lincoln of St. Louis Park..... \$ 54.00

SWLRT Minneapolis (2016-17)

Coordination with SWLRT consultant regarding BCWMC comment letter.

James P. Herbert, Principal Engineer/Scientist
0.5 hours @ \$180.00 per hour \$ 90.00
Subtotal, SWLRT Minneapolis..... \$ 90.00

Hutton House-10715 S Shore Drive (2016-25)

Prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist
1.0 hours @ \$180.00 per hour \$ 180.00
Subtotal, Hutton House-10715 S Shore Drive..... \$ 180.00

226 Peninsula Road - WCA (2016-26)

Respond to applicant question regarding excavation in wetlands.

James P. Herbert, Principal Engineer/Scientist
0.6 hours @ \$180.00 per hour \$ 108.00
Karen S. Wold, Engineer/Scientist/Specialist II
0.2 hours @ \$120.00 per hour \$ 24.00
Subtotal, 226 Peninsula Road - WCA..... \$ 132.00

226 Peninsula Road (2016-26)

Communications with property owner regarding BCWMC floodplain requirements; and plat review set up.

Karen L. Chandler, Principal Engineer/Scientist
0.4 hours @ \$165.00 per hour \$ 66.00
Technicians/Administrative..... \$ 45.00
Subtotal, 226 Peninsula Road..... \$ 111.00

@glenwood Campus (2016-29)

Review revised grading, drainage and erosion control plans; review revised hydraulic model; update draft review memo for Commission meeting; prepare and send comment letter to city staff; attend meeting with Minneapolis staff to discuss comments; and communications with applicant's consultant, Minneapolis staff and administrator.

James P. Herbert, Principal Engineer/Scientist
7.2 hours @ \$180.00 per hour \$ 1,296.00

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$165.00 per hour	\$ 66.00
Candice H. Kantor, Engineer/Scientist/Specialist II 12.3 hours @ \$100.00 per hour	\$ 1,230.00
Ross S. Mullen, Engineer/Scientist/Specialist I 1.7 hours @ \$90.00 per hour	\$ 153.00
<i>Subtotal, @glenwood Campus.....</i>	<i>\$ 2,745.00</i>

Twin City Outdoor Services (2016-33)

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

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$180.00 per hour	\$ 270.00
Candice H. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$100.00 per hour	\$ 20.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.6 hours @ \$70.00 per hour.....	\$ 182.00
<i>Subtotal, Twin City Outdoor Services</i>	<i>\$ 472.00</i>

Ridgedale Corner Shoppes (2016-34)

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

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$180.00 per hour	\$ 180.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.7 hours @ \$70.00 per hour.....	\$ 119.00
Technicians/Administrative.....	\$ 81.00
Expenses (Postage)	\$ 0.47
<i>Subtotal, Ridgedale Corner Shoppes.....</i>	<i>\$ 380.47</i>

Minneapolis Marriott West (2016-35)

Review grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$ 90.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.8 hours @ \$70.00 per hour.....	\$ 126.00

Technicians/Administrative.....	\$	<u>27.00</u>
<i>Subtotal, Minneapolis Marriott West.....</i>	\$	<i>243.00</i>

Berger Financial Group Addition (2016-36)

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

James P. Herbert, Principal Engineer/Scientist 2.3 hours @ \$180.00 per hour	\$	414.00
Candice H. Kantor, Engineer/Scientist/Specialist II 0.9 hours @ \$100.00 per hour	\$	90.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.6 hours @ \$70.00 per hour.....	\$	182.00
Technicians/Administrative.....	\$	54.00
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Berger Financial Group Addition</i>	\$	<i>740.47</i>

Subtotal Plat Review..... \$ ***6,396.94***

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley staff regarding floodplain issues; communication with consultant regarding Golden Valley project; communication with consultant regarding BCWMC review requirements; and communications with Plymouth staff.

James P. Herbert, Principal Engineer/Scientist 3.7 hours @ \$180.00 per hour	\$	<u>666.00</u>
<i>Subtotal, Plat Review – Preliminary Communications.....</i>	\$	<i>666.00</i>

NON-FEE REVIEWS

BLUE LINE LRT/BOTTINEAU TRANSITWAY

Communications with Blue Line LRT staff regarding floodplain issues, high water at TH55, flows to/from old/new tunnel, survey data request, and meeting setup; internal meeting regarding floodplain and drainage in old channel area near TH55; and communications with Golden Valley staff.

James P. Herbert, Principal Engineer/Scientist 2.5 hours @ \$180.00 per hour	\$	450.00
Karen L. Chandler, Principal Engineer/Scientist 2.6 hours @ \$165.00 per hour	\$	429.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.4 hours @ \$125.00 per hour (6/1/16, 6/2/16, 6/22/16)	\$	<u>175.00</u>

Subtotal, Blue Line LRT/Bottineau Transitway..... \$ 1,054.00

SP 2772-111 TH 169 Drainage Improvements (2015-33)

Review revised grading, drainage and erosion control plans; and communications with applicant regarding drainage issues.

James P. Herbert, Principal Engineer/Scientist
0.5 hours @ \$180.00 per hour \$ 90.00

Candice H. Kantor, Engineer/Scientist/Specialist II
1.0 hours @ \$100.00 per hour \$ 100.00

Subtotal, SP 2772-111 TH 169..... \$ 190.00

Subtotal Non-Fee Reviews \$ 1,244.00

Subtotal Preliminary Communications and Non-Fee Reviews \$ 1,910.00

COMMISSION AND TAC MEETINGS

Attend October 6 TAC meeting and October 20 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist
3.9 hours @ \$165.00 per hour \$ 643.50

Subtotal, Commission and TAC Meetings..... \$ 643.50

SURVEYS & STUDIES

APM/AIS TASK FORCE

Prepare for and attend October 25 APM/AIS committee meeting; and communications with administrator and Plymouth staff regarding DNR attendance at next meeting.

Karen L. Chandler, Principal Engineer/Scientist
3.0 hours @ \$165.00 per hour \$ 495.00

Margaret R. Rattei, Engineer/Scientist/Specialist III
3.1 hours @ \$130.00 per hour \$ 403.00

Expenses (Mileage) \$ 12.96

Subtotal, APM/AIS Task Force \$ 910.96

Subtotal, Surveys & Studies \$ 910.96

WATER QUALITY/MONITORING

Northwood and Crane Lakes 2016 monitoring: Review Crane Lake water quality lab data; communications with administrator, plant survey subconsultant, and University of Wisconsin expert regarding *Barbaratus lymnothamnus* in Westwood and Crane Lakes; internal communications regarding laboratory QA/QC and data analysis; organize 2016 field and laboratory data for data table production; communications with laboratory; and review and file laboratory reports.

Henry M. Runke, Principal Engineer/Scientist 1.0 hours @ \$175.00 per hour	\$	175.00
Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$165.00 per hour	\$	115.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.2 hours @ \$130.00 per hour	\$	286.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.7 hours @ \$130.00 per hour	\$	91.00
Technicians/Administrative.....	\$	151.50
Expenses (Pace Analytical Services)	\$	<u>326.70</u>
Subtotal, Water Quality/Monitoring.....	\$	1,145.70

WATER QUANTITY

Measure and review lake level elevations as part of the lake-gauging program; and internal communications regarding Westwood Lake outlet survey results.

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$165.00 per hour	\$	66.00
Technicians/Administrative.....	\$	720.00
Expenses (Mileage/2WD field vehicle)	\$	<u>132.24</u>
Subtotal, Water Quantity.....	\$	918.24

FLOOD CONTROL PROJECT INSPECTION

Coordination and communication with city staff and administrator regarding annual Flood Control Project inspection; prepare for and perform annual inspection of BCWMC Flood Control Project structures; and prepare draft inspection report.

James P. Herbert, Principal Engineer/Scientist 4.6 hours @ \$180.00 per hour	\$	828.00
Patrick E. Brockamp, Engineer/Scientist/Specialist I 15.2 hours @ \$85.00 per hour.....	\$	1,292.00
Josh P. Phillips, Engineer/Scientist/Specialist I 12.9 hours @ \$70.00 per hour.....	\$	903.00
Technicians/Administrative.....	\$	347.50
Expenses (Postage)	\$	<u>39.42</u>
Subtotal, Flood Control Project Inspection	\$	3,409.92

MUNICIPAL PLAN REVIEW

Communications with Medicine Lake consultant regarding floodplain ordinance revisions; communications with MWMO staff regarding BCWMC comments on MWMO plan amendment pertaining to weir in old tunnel; review MWMO's response to comments and revised plan amendment text; and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist 1.8 hours @ \$165.00 per hour.....	\$ 297.00
Subtotal, Municipal Plan Review.....	\$ 297.00
TOTAL ENGINEERING	\$ 21,004.26

SECRETARIAL SERVICES

SECRETARIAL SERVICES EXPENSES

Expenses for postage.

Expenses (Postage)	\$ 18.75
TOTAL SECRETARIAL SERVICES EXPENSES	\$ 18.75

ANNUAL REPORT

TOTAL ANNUAL REPORT	\$ 0.00
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PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS	\$ 0.00
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WEBSITE

TOTAL WEBSITE	\$ 0.00
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WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Attend meeting with administrator, MCES staff, and BCWMC consultant to discuss proposed 2017 changes to WOMP program; review and internal discussion of MCES' WOMP monitoring changes; and communications with administrator regarding implications of the proposed changes.

Karen L. Chandler, Principal Engineer/Scientist 0.1 hours @ \$165.00 per hour	\$ 16.50
Gregory J. Wilson, Consultant/Advisor 2.8 hours @ \$155.00 per hour	\$ 434.00

Christopher J. Bonick, Engineer/Scientist/Specialist II	
2.5 hours @ \$120.00 per hour	\$ 300.00
<i>Subtotal, Watershed Outlet Monitoring Program</i>	<i>\$ 750.50</i>
TOTAL WOMP	\$ 750.50

DIGITIZE HISTORIC PAPER FILES

TOTAL DIGITIZE HISTORIC PAPER FILES.....	\$ 0.00
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CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

FOUR SEASONS MALL AREA WATER QUALITY PROJECT (NL-2)

Communications with administrator and Plymouth staff regarding status of development project.

Karen L. Chandler, Principal Engineer/Scientist	
0.2 hours @ \$165.00 per hour	\$ 33.00
<i>Subtotal, Four Seasons Mall Area Water Quality Project (NL-2).....</i>	<i>\$ 33.00</i>

MAIN STEM RESTORATION, CEDAR LK RD TO DUPONT, PLUS FRUEN MILL (2017CR-M)

Hennepin County Environmental Response Fund grant application: prepare ERF grant application and send to administrator for review; complete ERF application, including compiling attachments; communications with MPCA staff regarding status of Response Action Plan review; and communications with administrator, Hennepin County staff, and Minneapolis staff.

Karen L. Chandler, Principal Engineer/Scientist	
0.4 hours @ \$165.00 per hour	\$ 66.00
Daniel J. Fetter, Principal Engineer/Scientist	
1.5 hours @ \$200.00 per hour	\$ 300.00
Jennifer L. Brekken, Engineer/Scientist/Specialist III	
9.8 hours @ \$140.00 per hour	\$ 1,372.00
<i>Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill.....</i>	<i>\$ 1,738.00</i>

BASSETT CREEK PARK & WINNETKA PONDS DREDGING FEASIBILITY STUDY BCP-2

Review sediment sample analytical laboratory reports, revised reports and invoice; coordination with laboratory; process analytical laboratory data and create data table; prepare for and complete field wetland delineations for Bassett Creek Park Pond and Winnetka Pond East; upload field data from wetland delineations; prepare wetland delineation figures; process photos from wetland delineation; begin drafting wetland delineation report; and communications with Crystal and BCWMC staff.

Henry M. Runke, Principal Engineer/Scientist	
0.5 hours @ \$175.00 per hour	\$ 87.50

Terri A. Olson, Engineer/Scientist/Specialist III 5.0 hours @ \$130.00 per hour	\$ 650.00
Brian K. Burgner, Engineer/Scientist/Specialist II 18.7 hours @ \$95.00 per hour	\$ 1,776.50
Candice H. Kantor, Engineer/Scientist/Specialist II 0.3 hours @ \$100.00 per hour	\$ 30.00
James J. Lind, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour.....	\$ 47.50
Joshua R. Vosejka, Engineer/Scientist/Specialist I 1.1 hours @ \$75.00 per hour.....	\$ 82.50
Technicians/Administrative.....	\$ 483.50
Expenses (Mileage/2WD field vehicle/Jon boat and trailer/digital camera/vibra coring system/GPS Survey System).....	\$ <u>803.93</u>
<i>Subtotal, Bassett Crk Pk & Winnetka Ponds Dredging Feasibility Study.....</i>	
	\$ 3,961.43
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)	\$ 5,732.43

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Revise/update P8 model.

Gregory J. Wilson, Consultant/Advisor 0.5 hours @ \$155.00 per hour	\$ <u>77.50</u>
<i>Subtotal, TMDL Implementation Reporting</i>	<i>\$ 77.50</i>
TOTAL TMDL WORK.....	\$ 77.50

XP-SWMM PHASE II

XP-SWMM PHASE II

North Branch & Main Stem Modeling

Prepare summary of Westwood Lake outlet survey results; Highway 55 survey information updates; QAQC XP-SWMM model from Medicine Lake to Highway 55; update downstream model with new tailwater condition; correct inflow hydrograph (verifying no uncaptured water); correct Fruen Mill area; address model instabilities; internal discussion regarding next steps – geometry changes by N Minneapolis, model instabilities, and old tunnel backflow; update report with new table comparing FIS vs. model results; downstream model updates; coordination with BCWMC N-Mpls and City N-Mpls models; and update N-Mpls tailwater conditions at the old tunnel.

Jennifer A. Koehler, Engineer/Scientist/Specialist III 9.9 hours @ \$125.00 per hour	\$	1,237.50
Ross S. Mullen, Engineer/Scientist/Specialist I 5.2 hours @ \$90.00 per hour	\$	468.00
Lulu Fang, Engineer/Scientist/Specialist I 3.1 hours @ \$75.00 per hour	\$	232.50
<i>Subtotal, XP-SWMM Phase II.....</i>	\$	<i>1,938.00</i>
TOTAL XP-SWMM PHASE II.....	\$	1,938.00

SUMMARY TOTALS

Total Engineering	\$	21,004.26
Total Secretarial Services Expenses	\$	18.75
Total Annual Report/Website/Public Communications	\$	0.00
Total WOMP	\$	750.50
Total Digitize Historic Paper Files.....	\$	0.00
Total Capital Improvement Projects (Tax Levy).....	\$	5,732.43
Total TMDL Work	\$	77.50
Total XP-SWMM Phase II.....	\$	1,938.00
TOTAL PAYABLE.....	\$	29,521.44

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


