



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

Page # 1  
Invoice # 23270051-2016-12  
Project # 23/27-0051  
Client # 59  
February 03, 2017

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
December 31, 2016 through January 27, 2017

**ENGINEERING**

TECHNICAL SERVICES

Prepare local water management plan checklist, edit annual city checklist and provide documents to administrator; communications with Crystal staff and administrator regarding snow storage site; assist administrator with preparing/revising Hennepin County AIS grant application, including drafting text regarding technical aspects of work, communications with administrator, plant survey subconsultant and Three Rivers Park District staff, preparing budget, and looking into potential carp survey addition to grant application; respond to administrator's questions regarding Twin Lake monitoring; communications with administrator regarding shutting down old BCWMC website and 2017 budgets; prepare for and attend January 20<sup>th</sup> meeting with administrator, commissioner Hoschka, alternate commissioner McDonald Black, Sweeney Lake resident and city staff regarding preparation for Sweeney Lake aeration study; and internal meeting regarding Atlas 14 policy ramifications for development reviews.

Karen L. Chandler, Principal Engineer/Scientist 19.2 hours @ \$170.00 per hour.....	\$ 3,264.00
Gregory J. Wilson, Consultant/Advisor 4.3 hours @ \$155.00 per hour.....	\$ 666.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 19.3 hours @ \$130.00 per hour.....	\$ 2,509.00
Sterling G. Williams, Engineer/Scientist/Specialist III 9.5 hours @ \$130.00 per hour.....	\$ 1,235.00
<i>Subtotal, Technical Services.....</i>	<i>\$ 7,674.50</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for January 2017 meeting; review/edit draft December meeting minutes; prepare for January Commission meeting, including attend pre-meeting 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 January Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 5.9 hours @ \$190.00 per hour .....	\$	1,121.00
Karen L. Chandler, Principal Engineer/Scientist 8.7 hours @ \$170.00 per hour .....	\$	1,479.00
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$105.00 per hour .....	\$	21.00
Technicians/Administrative.....	\$	266.00
Expenses (Mileage) .....	\$	<u>3.21</u>
<i>Subtotal, Monthly Meeting Preparation.....</i>	\$	<i>2,890.21</i>

TECH ANALYSES (H&H ETC.)

Provide Medicine Lake Road and Winnetka Avenue (DeCola Ponds) XP-SWMM model to New Hope consultant (per administrator's authorization).

Jennifer A. Koehler, Engineer/Scientist/Specialist III 0.3 hours @ \$130.00 per hour .....	\$	<u>39.00</u>
<i>Subtotal, Tech Analyses (H&amp;H, Etc.) .....</i>	\$	<i>39.00</i>

TAC PREPARATION

Review/edit TAC memo for January Commission meeting and email to administrator.

Karen L. Chandler, Principal Engineer/Scientist 1.3 hours @ \$170.00 per hour .....	\$	<u>221.00</u>
<i>Subtotal, TAC Preparation.....</i>	\$	<i>221.00</i>
<b><i>Subtotal Technical Services .....</i></b>	<b>\$</b>	<b><i>10,824.71</i></b>

PLAT REVIEW

@glenwood Campus (2016-29)

Prepare for and attend January 27<sup>th</sup> meeting at City of Minneapolis offices with administrator, applicant, agencies, and city staff.

James P. Herbert, Principal Engineer/Scientist 5.2 hours @ \$190.00 per hour .....	\$	988.00
Expenses (Mileage/parking) .....	\$	<u>17.91</u>
<i>Subtotal, @glenwood Campus.....</i>	\$	<i>1,005.91</i>

CSAH 24 Reconstruction Project (2016-32)

Coordination with administrator regarding review.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour .....	\$ 95.00
Technicians/Administrative.....	\$ 9.00
<i>Subtotal, CSAH 24 Reconstruction Project.....</i>	<i>\$ 104.00</i>

Ridgedale Corner Shoppes (2016-34)

Project closeout.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.5 hours @ \$75.00 per hour.....	\$ 37.50
<i>Subtotal, Ridgedale Corner Shoppes.....</i>	<i>\$ 37.50</i>

Crest Ridge Senior Housing (2016-37)

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

James P. Herbert, Principal Engineer/Scientist 3.1 hours @ \$190.00 per hour .....	\$ 589.00
Candice M. Kantor, Engineer/Scientist/Specialist II 0.2 hours @ \$105.00 per hour .....	\$ 21.00
Josh P. Phillips, Engineer/Scientist/Specialist I 11.4 hours @ \$75.00 per hour.....	\$ 855.00
<i>Subtotal, Crest Ridge Senior Housing.....</i>	<i>\$ 1,465.00</i>

Northwood N. Infrastructure Improvements (2016-38)

Review grading, drainage and erosion control plans; prepare review memo for January Commission meeting packet; prepare and send approval/comment letter to city staff; review revised grading, drainage and erosion control plans; and communications with city's consultant.

James P. Herbert, Principal Engineer/Scientist 5.5 hours @ \$190.00 per hour .....	\$ 1,045.00
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$170.00 per hour .....	\$ 68.00
Josh P. Phillips, Engineer/Scientist/Specialist I 8.9 hours @ \$75.00 per hour.....	\$ 667.50
Technicians/Administrative.....	\$ 54.00
<i>Subtotal, Northwood N. Infrastructure Improvements.....</i>	<i>\$ 1,834.50</i>

French Regional Park Street Improvements (2016-39)

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

Josh P. Phillips, Engineer/Scientist/Specialist I 4.2 hours @ \$75.00 per hour.....	\$	315.00
Technicians/Administrative.....	\$	81.00
Expenses (Postage) .....	\$	0.47
<i>Subtotal, French Regional Park Street Improvements.....</i>	<i>\$</i>	<i>396.47</i>
<b>Subtotal Plat Review.....</b>	<b>\$</b>	<b>4,843.38</b>

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Review DNR permit application, coordinate with administrator, and prepare comments; preliminary coordination with applicant regarding Currie development in Minneapolis; and communications with Medicine Lake planner regarding requirements for single family home project.

James P. Herbert, Principal Engineer/Scientist 4.0 hours @ \$190.00 per hour .....	\$	760.00
<b>Subtotal, Plat Review – Preliminary Communications.....</b>	<b>\$</b>	<b>760.00</b>

NON-FEE REVIEWS

<b>Subtotal Non-Fee Reviews .....</b>	<b>\$</b>	<b>0.00</b>
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<b>Subtotal Preliminary Communications and Non-Fee Reviews .....</b>	<b>\$</b>	<b>760.00</b>
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COMMISSION AND TAC MEETINGS

Attend January 19 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist 3.2 hours @ \$170.00 per hour .....	\$	544.00
<b>Subtotal, Commission and TAC Meetings.....</b>	<b>\$</b>	<b>544.00</b>

SURVEYS & STUDIES

APM/AIS TASK FORCE

Prepare for and attend January 24 APM/AIS committee meeting.

Karen L. Chandler, Principal Engineer/Scientist 3.0 hours @ \$170.00 per hour .....	\$	510.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 3.2 hours @ \$130.00 per hour .....	\$	416.00

Expenses (Mileage) .....	\$	26.22
<i>Subtotal, APM/AIS Task Force</i> .....	\$	952.22
<b><i>Subtotal, Surveys &amp; Studies</i></b> .....	<b>\$</b>	<b>952.22</b>

WATER QUALITY/MONITORING

Respond to questions from administrator regarding additional Sweeney Lake in-lake monitoring and potential additional sediment sampling of Sweeney Lake (including costs); and respond to questions from Sweeney Lake Association regarding upcoming Sweeney Lake study and operation of Sweeney Lake aeration system.

Medicine Lake, Northwood Lake and Crane Lake 2016 monitoring: Prepare isopleth figures; compute plant IBI scores; data analyses; prepare data summaries and graphs, including trend analyses; prepare and review draft water quality report; and prepare draft presentation of water quality results for upcoming Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist 6.4 hours @ \$170.00 per hour .....	\$	1,088.00
Gregory J. Wilson, Consultant/Advisor 6.7 hours @ \$155.00 per hour .....	\$	1,038.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 109.3 hours @ \$130.00 per hour .....	\$	14,209.00
Evan G. Christianson, Engineer/Scientist/Specialist III 3.6 hours @ \$145.00 per hour .....	\$	522.00
Sterling G. Williams, Engineer/Scientist/Specialist III 14.0 hours @ \$130.00 per hour .....	\$	1,820.00
Kevin D. Menken, Engineer/Scientist/Specialist II 1.0 hours @ \$110.00 per hour .....	\$	110.00
Technicians/Administrative.....	\$	3,756.50
<b><i>Subtotal, Water Quality/Monitoring</i></b> .....	<b>\$</b>	<b>22,544.00</b>

WATER QUANTITY

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

Technicians/Administrative.....	\$	405.00
Expenses (Mileage/2WD field vehicle) .....	\$	53.36
<b><i>Subtotal, Water Quantity</i></b> .....	<b>\$</b>	<b>458.36</b>

FLOOD CONTROL PROJECT INSPECTION

Prepare and send letters to city staff regarding 2016 annual BCWMC Flood Control Project structures inspection results; and communications with Plymouth staff and administrator.

James P. Herbert, Principal Engineer/Scientist 9.8 hours @ \$190.00 per hour .....	\$	1,862.00
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Technicians/Administrative.....	\$	945.00
<b>Subtotal, Flood Control Project Inspection .....</b>	<b>\$</b>	<b>2,807.00</b>
<b>TOTAL ENGINEERING .....</b>	<b>\$</b>	<b>43,733.67</b>

**SECRETARIAL SERVICES**

<b>TOTAL SECRETARIAL SERVICES EXPENSES .....</b>	<b>\$</b>	<b>0.00</b>
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**ANNUAL REPORT**

<b>TOTAL ANNUAL REPORT .....</b>	<b>\$</b>	<b>0.00</b>
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**PUBLIC COMMUNICATIONS**

<b>TOTAL PUBLIC COMMUNICATIONS .....</b>	<b>\$</b>	<b>0.00</b>
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**WEBSITE**

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

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Perform flow measurement; download data; and set up new datalogger file for 2017.

Christopher J. Bonick, Engineer/Scientist/Specialist II		
3.0 hours @ \$120.00 per hour .....	\$	360.00
Expenses (Mileage/2WD field vehicle) .....	\$	36.77
<i>Subtotal, Watershed Outlet Monitoring Program .....</i>	<i>\$</i>	<i>396.77</i>
<b>TOTAL WOMP .....</b>	<b>\$</b>	<b>396.77</b>

**DIGITIZE HISTORIC PAPER FILES**

<b>TOTAL DIGITIZE HISTORIC PAPER FILES.....</b>	<b>\$</b>	<b>0.00</b>
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**CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)**

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

Prepare for and attend January 6<sup>th</sup> meeting with regulators, chair de Lambert, administrator, Plymouth staff, and Agora consultants regarding wetland restoration project; post-meeting discussion with chair de

Lambert, administrator, and Plymouth staff regarding city/BCMWC review and agreement with Agora developer; communications with commissioner Elder regarding Agora development; review administrator's memo regarding Agora development for January Commission meeting packet (per administrator's request); communications with development appraiser and administrator; provide construction observation estimate to administrator; communications with administrator regarding Agora agreement; and provide recommended Agora agreement language and cost information to Commission legal counsel and administrator.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$190.00 per hour .....	\$	380.00
Karen L. Chandler, Principal Engineer/Scientist 7.4 hours @ \$170.00 per hour .....	\$	1,258.00
Candice H. Kantor, Engineer/Scientist/Specialist II 1.0 hours @ \$105.00 per hour .....	\$	105.00
Expenses (Mileage) .....	\$	<u>4.82</u>
<i>Subtotal, Four Seasons Mall Area Water Quality Project (NL-2).....</i>		<i>\$ 1,747.82</i>

NORTHWOOD LAKE IMPROVEMENT PROJECT NON-MPCA REIMBURSABLE

BWSR Clean Water Fund grant administration: communications with administrator and internal staff regarding annual reporting requirements; review information from administrator regarding Northwood Lake project CWF grant reporting; meeting with administrator regarding BWSR eLink; and follow-up with administrator regarding BWSR feedback.

Karen L. Chandler, Principal Engineer/Scientist 1.6 hours @ \$170.00 per hour .....	\$	272.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 3.9 hours @ \$130.00 per hour .....	\$	<u>507.00</u>
<i>Subtotal, Northwood Lake Non-MPCA Reimbursable.....</i>		<i>\$ 779.00</i>

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

Respond to administrator's questions regarding Hennepin County Environmental Response Fund grant.

Daniel J. Fetter, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour .....	\$	<u>100.00</u>
<i>Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill.....</i>		<i>\$ 100.00</i>

BASSETT CREEK PARK & WINNETKA PONDS DREDGING FEASIBILITY STUDY

Prepare for and attend January 17<sup>th</sup> project meeting with agency stakeholders (DNR, USACE, MPCA,) city staff, vice chair Mueller and administrator; finalize revised lab report data for sediment sampling results; internal discussions regarding sediment sampling results; communications with the USACE regarding map revisions for the wetland delineation; review historical imagery for the project area to determine historical wetland status; prepare figures and concept plans for the initially proposed alternatives; compute

sediment volumes to be removed in both ponds; compute permanent pool volumes in both ponds; develop contours for deepening a portion of Bassett Creek Park Pond; communications with vice chair Mueller regarding wetland delineation and historic wetland status; and communications with Crystal staff and administrator.

Karen L. Chandler, Principal Engineer/Scientist 9.0 hours @ \$170.00 per hour .....	\$	1,530.00
Brian K. Burgner, Engineer/Scientist/Specialist II 3.0 hours @ \$95.00 per hour .....	\$	285.00
Karen S. Wold, Engineer/Scientist/Specialist II 1.0 hours @ \$120.00 per hour .....	\$	120.00
Candice H. Kantor, Engineer/Scientist/Specialist II 17.0 hours @ \$105.00 per hour .....	\$	1,785.00
Charles M. Hinds, Engineer/Scientist/Specialist I 6.6 hours @ \$80.00 per hour .....	\$	528.00
Technicians/Administrative.....	\$	42.50
Expenses (Mileage) .....	\$	<u>17.66</u>
<i>Subtotal, Bassett Creek Park &amp; Winnetka Ponds Dredging Feasibility Study.....</i>		
	\$	<i>4,308.16</i>
<b>TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....</b>	<b>\$</b>	<b>6,934.98</b>

<b>TMDL WORK</b>
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<b>TOTAL TMDL WORK .....</b>	<b>\$</b>	<b>0.00</b>
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<b>XP-SWMM PHASE II</b>
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XP-SWMM PHASE II

North Branch & Main Stem Modeling

Final calibration of the XPSWMM model, especially at WOMP station; discuss and final tailwater conditions at the Mississippi River; run Atlas 14 100-year design storm event, and review and check the results; develop final model files including GIS and inputs; develop, review and revise draft Phase 2 XPSWMM modeling report for submittal to Commission for review at January Commission meeting; prepare presentation for BCWMC January Commission meeting; prepare for and attend January Commission meeting; and prepare for February TAC meeting, including compiling figures.

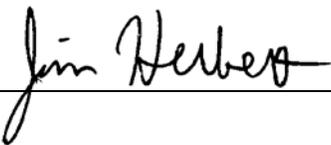
James P. Herbert, Principal Engineer/Scientist 9.7 hours @ \$190.00 per hour .....	\$	1,843.00
Karen L. Chandler, Principal Engineer/Scientist 11.2 hours @ \$170.00 per hour .....	\$	1,904.00

Jennifer A. Koehler, Engineer/Scientist/Specialist III 46.1 hours @ \$130.00 per hour .....	\$	5,993.00
Matthew A. Comben, Engineer/Scientist/Specialist II 21.0 hours @ \$100.00 per hour .....	\$	2,100.00
Ross S. Mullen, Engineer/Scientist/Specialist I 74.9 hours @ \$95.00 per hour .....	\$	7,115.50
Josiah J. Hawley, Engineer/Scientist/Specialist I 0.4 hours @ \$95.00 per hour .....	\$	38.00
Lulu Fang, Engineer/Scientist/Specialist I 40.1 hours @ \$80.00 per hour .....	\$	<u>3,208.00</u>
Subtotal, XP-SWMM Phase II.....	\$	22,201.50
<b>TOTAL XP-SWMM PHASE II.....</b>	<b>\$</b>	<b>22,201.50</b>

<b>SUMMARY TOTALS</b>
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<b>Total Engineering .....</b>	<b>\$</b>	<b>43,733.67</b>
<b>Total Secretarial Services Expenses .....</b>	<b>\$</b>	<b>0.00</b>
<b>Total Annual Report/Website/Public Communications .....</b>	<b>\$</b>	<b>0.00</b>
<b>Total WOMP.....</b>	<b>\$</b>	<b>396.77</b>
<b>Total Digitize Historic Paper Files.....</b>	<b>\$</b>	<b>0.00</b>
<b>Total Capital Improvement Projects (Tax Levy).....</b>	<b>\$</b>	<b>6,934.98</b>
<b>Total TMDL Work .....</b>	<b>\$</b>	<b>0.00</b>
<b>Total XP-SWMM Phase II.....</b>	<b>\$</b>	<b><u>22,201.50</u></b>
<b>TOTAL PAYABLE.....</b>	<b>\$</b>	<b>73,266.92</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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