Bassett Creek WMO 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1

Invoice # 23270051-2015-9

Project # 23/27-0051

Client # 59 November 06, 2015

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of September 26, 2015 through October 30, 2015

ENGINEERING

TECHNICAL SERVICES

Communications with administrator and recording secretary; review/edit administrator's draft email to TAC regarding new triggers and Requirements Document; look into springs information request from MDNR; communications with administrator regarding land use change reviews; communications with administrator and Chair de Lambert regarding old channel area north of Hwy 55 and request for MnDOT to clean culverts; compile and provide 1987 superstorm information to Golden Valley city staff in response to request; Hennepin County pictometry: communications with administrator and counsel regarding Hennepin County pictometry agreement, complete and send user information spreadsheet for pictometry access, communications with Hennepin County staff, review the license agreement and user manual and write up key points; communications with administrator and Alternate Commissioner Goddard regarding most recent set of construction plans for project; communications with MDNR staff regarding Flood Damage Reduction grant funding; review SSURGO data and provide information to Commissioner Black; communications with Commissioner Mueller regarding use of shade plants in projects.

James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$175.00 per hour\$	367.50
Karen L. Chandler, Consultant/Advisor 19.3 hours @ \$160.00 per hour\$	3,088.00
Sterling G. Williams, Engineer/Scientist/Specialist III 1.0 hours @ \$125.00 per hour\$	125.00
Brent A. Lindstrom, Engineer/Scientist/Specialist III 1.5 hours @ \$125.00 per hour\$	187.50
Jennifer A. Koehler, Engineer/Scientist/Specialist II 0.5 hours @ \$120.00 per hour\$	60.00
Technicians/Administrative\$	475.00
Subtotal, Technical Services\$	4,303.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for October 2015 meeting; review/edit draft September meeting minutes; prepare for October Commission meeting, including setting up and attending pre-meeting conference call with Chair de Lambert and administrator to review meeting agenda; communications with Commission legal counsel; provide grant tracking information to administrator; prepare XP SWMM project update memo for October Commission meeting; prepare and provide cost and task information to administrator for Plan "look back"/accounting; and coordination and communications with administrator and internal staff regarding follow-up tasks and status of assigned tasks from October Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 8.4 hours @ \$175.00 per hour\$	1,470.00
Karen L. Chandler, Consultant/Advisor 29.3 hours @ \$160.00 per hour\$	4,688.00
Sterling G. Williams, Engineer/Scientist/Specialist III 4.9 hours @ \$125.00 per hour\$	612.50
Technicians/Administrative\$	17.00
Expenses (Webex)	18.05
Subtotal, Monthly Meeting Preparation\$	6,805.55

TAC PREPARATION

Review JPA; communications with Commission legal counsel; prepare proposed revisions to September TAC meeting notes and email to administrator; and prepare agenda background/discussion points for November 5 TAC meeting packet and email to administrator.

Karen L. Chandler, Consultant/Advisor	
9.7 hours @ \$160.00 per hour\$	1,552.00
Subtotal, TAC Preparation\$	1,552.00

WETLAND ISSUES

Respond to wetland question from Minneapolis staff regarding BCWMC review.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$175.00 per hour\$_	87.50
Subtotal, Wetland Issues\$	87.50

CHANNEL MAINTENANCE FUND

Review and prepare proposed edits for channel maintenance fund strategies and provide comments to administrator; and visit erosion site on North Branch Bassett Creek (potential channel maintenance fund project) with administrator, Crystal city staff and St. Louis Park city staff.

James P. Herbert, Principal Engineer Scientist 2.2 hours @ \$175.00 per hour\$	385.00
Karen L. Chandler, Consultant/Advisor	
1.9 hours @ \$160.00 per hour\$	304.00

Jeffrey D. Weiss, Engineer/Scientist/Specialist II		
1.7 hours @ \$120.00 per hour	.\$	204.00
Subtotal, Channel Maintenance Fund		893.00
Subtotal Technical Services	.\$	13,641.05
PLAT REVIEW		
Mini-Hops Gymnastics (2015-16)		
Final coordination with applicant and city staff.		
James P. Herbert, Principal Engineer Scientist 1.0 hours @ \$175.00 per hour	.\$	175.00
Karen L. Chandler, Consultant/Advisor 0.4 hours @ \$160.00 per hour	.\$	64.00
Subtotal, Mini Hops Gymnastics	.\$	239.00
Golden Villas (2015-20)		
Review revised plans; communications with applicant; and prepare and send applicant.	prov	al letter to city
James P. Herbert, Principal Engineer Scientist 2.6 hours @ \$175.00 per hour	.\$	455.00
Karen L. Chandler, Consultant/Advisor 0.2 hours @ \$160.00 per hour	.\$	32.00
Candice M. Kantor, Engineer/Scientist/Specialist II 1.1 hours @ \$95.00 per hour	.\$	104.50
Subtotal, Golden Villas	.\$	591.50
Ramada Conversion (2015-24)		
Review grading, drainage and erosion control plans; communications with deve send review/comment letter to city staff; review revised plans; and prepare and to city staff.		
James P. Herbert, Principal Engineer Scientist 1.5 hours @ \$175.00 per hour	.\$	262.50
Candice M. Kantor, Engineer/Scientist/Specialist II 5.6 hours @ \$95.00 per hour	.\$	532.00
Subtotal, Ramada Conversion	.\$	794.50
Plymouth Creek Christian Church Add (2015-25)		
Review grading, drainage and erosion control plans; prepare and send review/costaff; review revised plans; and prepare and send approval letter to city staff.	omm	ent letter to city
James P. Herbert, Principal Engineer Scientist 1.3 hours @ \$175.00 per hour	.\$	227.50

Candice M. Kantor, Engineer/Scientist/Specialist II	
1.5 hours @ \$95.00 per hour\$_	142.50
Subtotal, Plymouth Creek Christian Church Add\$	370.00

Sochacki Trail Paving (2015-26)

Review revised plans; communications/coordination with city and TRPD staff; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist	
4.0 hours @ \$175.00 per hour\$	700.00
Candice M. Kantor, Engineer/Scientist/Specialist II	
0.7 hours @ \$95.00 per hour <u>\$</u>	66.50
Subtotal, Sochacki Trail Paving\$	766.50

Sochacki Trail Paving (2015-26), WCA LGU Administration

Prepare for and attend site meeting to review wetland issues; communication with applicant (TRPD) regarding additional submittal needed for WCA decision request; review de minimis exemption request and prepare a recommendation and draft Notice of Decision, and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 2.5 hours @ \$175.00 per hour\$	437.50
Karen S. Wold, Engineer/Scientist/Specialist II 5.2 hours @ \$115.00 per hour\$	598.00
Expenses (Mileage)	14.95
Subtotal, Sochacki Trail Paving, WCA LGU Administration\$	1,050.45

2241 Legend Dr. (2015-28)

Review plans; prepare review memo and map for October Commission meeting; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 1.1 hours @ \$175.00 per hour\$	192.50
Karen L. Chandler, Consultant/Advisor 0.7 hours @ \$160.00 per hour\$	112.00
Candice M. Kantor, Engineer/Scientist/Specialist II 3.9 hours @ \$95.00 per hour\$	370.50
Technicians/Administrative\$_	25.50
Subtotal, 2241 Legend Dr\$	700.50

Proto Labs Parking Lot (2015-29)

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

James P. Herbert, Principal Engineer Scientist 2.0 hours @ \$175.00 per hour\$	350.00
Karen L. Chandler, Consultant/Advisor 0.8 hours @ \$160.00 per hour\$	128.00
Candice M. Kantor, Engineer/Scientist/Specialist II 2.4 hours @ \$95.00 per hour\$	228.00
Technicians/Administrative\$_	25.50
Subtotal, Proto Labs Parking Lot\$	731.50
239 Peninsula Road (Solar) (2015-30)	
Review plans; communications with applicant; and prepare draft review memo for Commission meeting.	November
James P. Herbert, Principal Engineer Scientist 0.5 hours @ \$175.00 per hour\$	87.50
Candice M. Kantor, Engineer/Scientist/Specialist II 2.8 hours @ \$95.00 per hour\$	266.00
Technicians/Administrative\$	42.50
Subtotal, 239 Peninsula Road (Solar)\$	396.00
1130 Angelo Drive (2015-31)	
Preliminary review and meeting with applicant.	
James P. Herbert, Principal Engineer Scientist 0.5 hours @ \$175.00 per hour\$	87.50
Technicians/Administrative\$	42.50
Subtotal, 1130 Angelo Drive\$	130.00
Subtotal Plat Review\$	5,769.95

NON-FEE REVIEWS AND PRELIMINARY COMMUNICATIONS

PRELIMINARY COMMUNICATIONS

Communications with consultant regarding proposed development site; communications with MnDOT and Minneapolis staff regarding proposed project at TH 55; communications with Golden Valley staff and Loppet Foundation regarding contact information; communications with Crystal staff regarding proposed development and potential WCA issues, and provide a summary of WCA LGU procedures to Crystal staff; call from property owner's consultant regarding proposed work in floodplain of Sweeney Lake (per city direction); and communications with Golden Valley staff regarding Douglas Drive project review submittal.

James P. Herbert, Principal Engineer/Scientist 2.2 hours @ \$175.00 per hour\$	385.00
Karen L. Chandler, Consultant/Advisor 2.5 hours @ \$160.00 per hour\$	400.00

Karen S. Wold, Engineer/Scientist/Specialist II	
2.1 hours @ \$115.00 per hour\$_	241.50
Subtotal, Plat Review – Preliminary Communications\$	1,026.50

NON-FEE REVIEWS

BLUE LINE LRT/BOTTINEAU TRANSITWAY

Communications with Robbinsdale resident regarding approval processes; and communications with Blue Line LRT staff regarding resident concerns.

Karen L. Chandler, Consultant/Advisor	
0.6 hours @ \$160.00 per hour	\$ 96.00
Subtotal, Blue Line LRT/Bottineau Transitway	\$ 96.00

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Review wetland delineation report and request joint application form from Blue Line LRT wetland consultant.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.2 hours @ \$115.00 per hour\$_	23.00
Subtotal, Golden Valley\$	23.00

<u>Minneapolis</u>

Review wetland delineation report and request joint application form from Blue Line LRT wetland consultant.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.1 hours @ \$115.00 per hour\$_	11.50
Subtotal, Minneapolis\$	11.50

Robbinsdale

Review wetland delineation report and request joint application form from Blue Line LRT wetland consultant.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.2 hours @ \$115.00 per hour\$_	23.00
Subtotal, Robbinsdale\$	23.00
Total Blue Line LRT WCA LGU Admin\$	57.50

SW LRT

Communications with administrator regarding proposed direct connection to the Bassett Creek tunnel, including options and next steps for moving forward; internal discussions regarding XP-SWMM hydrograph at tunnel entrance; prepare for and attend meeting with administrator and Minneapolis staff regarding possible new connection to new tunnel; and compile maps showing watershed information from various sources, including 1978 agreement, HEC-1 modeling, XP-SWMM modeling, and Twins Stadium modeling.

James P. Herbert, Principal Engineer Scientist	
7.5 hours @ \$175.00 per hour\$	1,312.50
Karen L. Chandler, Consultant/Advisor	
7.3 hours @ \$160.00 per hour\$	1,168.00
Gregory J. Wilson, Engineer/Scientist/Specialist III	75.00
0.5 hours @ \$150.00 per hour\$	75.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 3.1 hours @ \$120.00 per hour\$	372.00
Expenses (Mileage/parking)	24.38
Subtotal, SW LRT\$	2,951.88
TH 169 Drainage Improvements (SP 2772-111)	
Coordination and communication with MnDOT and internal staff regarding drainage	ge issues.
James P. Herbert, Principal Engineer Scientist	
2.3 hours @ \$175.00 per hour\$_	402.50
Subtotal, TH 169 Drainage Improvements\$	402.50
Subtotal Non-Fee Reviews\$	3,507.88
Subtotal Non-Fee Review and Preliminary Communication\$	4,534.38
COMMISSION AND TAC MEETINGS	
COMMISSION AND TAC MEETINGS Attend October 15 Commission meeting.	
	400.00
Attend October 15 Commission meeting. Karen L. Chandler, Consultant/Advisor	400.00 400.00
Attend October 15 Commission meeting. Karen L. Chandler, Consultant/Advisor 2.5 hours @ \$160.00 per hour\$_	
Attend October 15 Commission meeting. Karen L. Chandler, Consultant/Advisor 2.5 hours @ \$160.00 per hour	
Attend October 15 Commission meeting. Karen L. Chandler, Consultant/Advisor 2.5 hours @ \$160.00 per hour	400.00
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Attend October 15 Commission meeting. Karen L. Chandler, Consultant/Advisor 2.5 hours @ \$160.00 per hour	400.00 rember TAC 92.50 525.00

WATER QUALITY/MONITORING

Respond to question from Metropolitan Council staff regarding past Medicine Lake sediment monitoring activities; communications with administrator and internal staff regarding water quality reporting; communications with administrator regarding GIS files for website and provide GIS data to Commission website consultant; review and revise water quality content for website; look into administrator request to provide CIP project locations for website; and develop and provide lake water quality information (figures, data plots and quick facts) to Commission website consultant. Westwood Lake Monitoring: QA/QC review of laboratory report and invoice; verify water quality data and enter data into EQUIS; Stream Biotic Index Monitoring: Prepare for and perform macroinvertebrate and stream morphology surveys at six stations; download photos; prepare and ship macroinvertebrate samples to subconsultant for analysis, and communications with MPCA staff regarding invertebrate IBI and internal communications.

Henry M. Runke, Principal Engineer/Scientist 2.0 hours @ \$175.00 per hour\$	350.00
Karen L. Chandler, Consultant/Advisor 2.0 hours @ \$160.00 per hour\$	320.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.2 hours @ \$150.00 per hour\$	180.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.1 hours @ \$125.00 per hour\$	137.50
Sterling G. Williams, Engineer/Scientist/Specialist III 4.4 hours @ \$125.00 per hour\$	550.00
Christopher J. Bonick, Engineer/Scientist/Specialist II 23.2 hours @ \$115.00 per hour\$	2,668.00
Briana I Drake, Engineer/Scientist/Specialist I 5.6 hours @ \$75.00 per hour\$	420.00
Technicians/Administrative\$	2,508.00
Expenses (Pace Analytical/mileage/2WD vehicle/	
Velocity flow meter/WQ meter) <u>\$</u>	675.37
Subtotal, Water Quality/Monitoring\$	7,808.87
WATER QUANTITY	
Measure and review lake level elevations as part of the lake-gauging program.	
Technicians/Administrative\$	1,080.00
Expenses (Mileage/2WD vehicle)\$	161.25
Subtotal, Water Quantity\$	1,244.70

FLOOD CONTROL PROJECT INSPECTION

Coordination and communication with city staff and administrator regarding flood control project inspection; perform annual inspection of flood control project structures; download photos; and prepare draft inspection report.

James P. Herbert, Principal Engineer Scientist 3.5 hours @ \$175.00 per hour\$	612.50
Patrick E. Brockamp, Engineer/Scientist/Specialist I	012.30
11.8 hours @ \$80.00 per hour\$	944.00
Technicians/Administrative\$_	2,628.00
Subtotal, Flood Control Project Inspection\$	4,184.50
TOTAL ENGINEERING\$	38,456.95
SECRETARIAL SERVICES	
SECRETARIAL SERVICES EXPENSES	
Expenses for postage.	
Expenses (Postage)\$_	49.20
TOTAL SECRETARIAL SERVICES EXPENSES\$	49.20
PLANNING	
NEXT GENERATION PLAN	
Project closeout and final records management.	
Karen L. Chandler, Consultant/Advisor 0.2 hours @ \$160.00 per hour\$	32.00
Sterling G. Williams, Engineer/Scientist/Specialist III	7.62.70
4.5 hours @ \$125.00 per hour\$ Expenses (FedEx)\$	562.50 21.43
Subtotal, Next Generation Plan\$	615.93
TOTAL PLANNING (Next Generation Plan)\$	615.93
PLANNING (Funded through Flood Control Project Long-term Maintenance	Funds)
TOTAL PLANNING (Maintenance Funds)\$	0.00
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)	
Download and review flow data; and perform flow measurement calculations.	
Christopher J. Bonick, Engineer/Scientist/Specialist II 2.3 hours @ \$115.00 per hour\$_	264.50
Subtotal, Watershed Outlet Monitoring Program\$	264.50
TOTAL WOMP\$	264.50
CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)	
CEDAR LAKE ROAD TO GOLDEN VALLEY ROAD, 2012 MAIN STEM	
Update BWSR Clean Water Fund grant tracking worksheet; internal meeting regarding grant status, reimbursements, documentation and to-date costs; and look into grant reporting options.	
Karen L. Chandler, Consultant/Advisor 0.9 hours @ \$160.00 per hour\$	144.00
Amy R. Anderson, Engineer/Scientist/Specialist I 2.5 hours @ \$90.00 per hour\$_	225.00
Subtotal, Cedar Lk Rd to Golden Valley Rd\$	369.00
HONEYWELL POND EXPANSION (2016) (BC-4)	
Communications with administrator, city staff and city consultant regarding status of 90% plans.	
Karen L. Chandler, Consultant/Advisor 0.5 hours @ \$160.00 per hour\$_	80.00
Subtotal, Honeywell Pond Expansion\$	80.00
NORTHWOOD LAKE IMPROVEMENT PROJECT (2016) (NL-1)	
Communications with administrator, city staff and city consultant regarding status	of 90% plans.
Karen L. Chandler, Consultant/Advisor 0.3 hours @ \$160.00 per hour\$_	48.00
Subtotal, Northwood Lake Improvement Project\$	48.00

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

FEASIBILITY STUDY

Internal project kick-off meeting; plan Phase I assessment tasks to meet overall project schedule; and review areas to be stabilized to assist with Phase I planning.

Daniel J. Fetter, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour\$	195.00
Jeffrey T. Lee, Principal Engineer/Scientist 1.5 hours @ \$150.00 per hour\$	225.00
Jennifer L. Brekken, Engineer/Scientist/Specialist III 3.6 hours @ \$135.00 per hour\$	486.00
Peter J. Hinck, Engineer/Scientist/Specialist II 1.4 hours @ \$120.00 per hour\$	168.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 3.0 hours @ \$120.00 per hour\$	360.00
Amanda K. Bohnenblust, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour\$	57.50
Lauren M. Lardin, Engineer/Scientist/Specialist II 0.8 hours @ \$95.00 per hour\$	76.00
Michelle L. Waters, Engineer/Scientist/Specialist II 3.2 hours @ \$95.00 per hour\$	304.00
Christian E. Frias, Engineer/Scientist/Specialist II 4.0 hours @ \$95.00 per hour\$	380.00
Carly F. Lintner, Engineer/Scientist/Specialist I 0.5 hours @ \$80.00 per hour\$	40.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 1.0 hours @ \$75.00 per hour\$	75.00
Technicians/Administrative\$_	310.50
Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill\$	2,677.00

PLYMOUTH CREEK RESTORATION, ANNAPOLIS LN TO 2,500 FT UPSTREAM OF ANNAPOLIS LN (2017 CR-P)

FEASIBILITY STUDY

Prepare for and lead October 26 technical stakeholder meeting; create figures and summary poster boards for public stakeholder meeting; prepare for and participate in October 26 public stakeholder meeting; examine hydraulic modeling through project area; work on preliminary concept designs and cost estimates; process field notes and create preliminary wetland delineation mapping; work on Phase I data review and write-up; and communications with administrator and Plymouth city staff.

Jeffrey T. Lee, Principal Engineer/Scientist	
2.0 hours @ \$150.00 per hour\$	300.00

Karen L. Chandler, Consultant/Advisor 2.0 hours @ \$160.00 per hour\$	320.00
Peter J. Hinck, Engineer/Scientist/Specialist II 4.0 hours @ \$120.00 per hour\$	480.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 18.9 hours @ \$120.00 per hour\$	2,268.00
Adam J. Howard, Engineer/Scientist/Specialist II 29.0 hours @ \$95.00 per hour\$	2,755.00
Michelle L. Waters, Engineer/Scientist/Specialist II 17.4 hours @ \$95.00 per hour\$	1,653.00
Christopher R. Ross, Engineer/Scientist/Specialist I 2.0 hours @ \$65.00 per hour\$	130.00
Brian K. Burgner, Engineer/Scientist/Specialist I 9.6 hours @ \$90.00 per hour\$	864.00
James L. Lind, Engineer/Scientist/Specialist I 0.4 hours @ \$90.00 per hour\$	36.00
Kelly A. Wild, Engineer/Scientist/Specialist I 1.1 hours @ \$85.00 per hour\$	93.50
Technicians/Administrative\$	96.00
Expenses (Historical Information Gathers/Mileage)\$_	335.88
Subtotal, Plymouth Creek Restoration, Annapolis Ln to 2,500 Ft Upstream of Annapolis Ln\$	9,331.38
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$	12,505.38

CAPITAL IMPROVEMENT PROJECTS (Funded through Flood Control Project Long-term Maintenance Funds)

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Revise subwatershed divides, including area tributary to Bassett Creek tunnels and areas bordering MWMO watersheds; and develop revised P8 model inputs.

Gregory J. Wilson, Engineer/Scientist/Specialist III 17.4 hours @ \$150.00 per hour\$	2,610.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 4.3 hours @ \$75.00 per hour\$	322.50
Subtotal, TMDL Studies\$	2,932.50

TOTAL TMDL STUDIES\$ 2,932.50

XP-SWMM PHASE II

XP-SWMM PHASE II

Plymouth Creek Modeling & Medicine Lake Direct Modeling:

Review pump data and discussion related to available data; provide pump curve assistance; request flow gage data at Plymouth Creek; follow-up with SRF and SEH regarding pumping information and pump curves; communications with MnDOT staff regarding storm sewer data needed for key points in Plymouth Creek and Medicine Lake watersheds; follow-up with TRPD staff regarding flow monitoring data; perform QAQC on XP-SWMM (continuity error) and discuss with project team; process impervious data for XP-SWMM model; review and update coordinate system, impervious assumptions, and watershed divides; coordinate system conversion; follow-up data requests to cities; follow-up with Chair de Lambert regarding Medicine Lake pressure transducer water level measurements; Plymouth Creek datum updates; send data request to Hennepin County; prepare GIS data for import into XP-SWMM; perform initial model runs, trouble shoot model results, and perform QAQC; perform preliminary water capture runs; fix model instabilities; add initial depths in ponds and wetlands; add right and left overbank to cross sections in model; and perform QAQC and resolve hydraulics error (-3%) which is outside acceptable range (-2 to +2%).

Flow Monitoring North Branch Bassett Creek:

Flow measurement/calculations; download data and replace battery; update data/graph spreadsheet; and swap batteries at station.

TOTAL XP-SWMM PHASE II\$	23,089.23
Subtotal, XP-SWMM Phase II\$	23,089.23
Expenses (Mileage/2WD&4WD vehicle)\$_	38.23
Technicians/Administrative\$	59.50
Lulu Fang, Engineer/Scientist/Specialist I 156.1 hours @ \$75.00 per hour\$	11,707.50
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 13.0 hours @ \$75.00 per hour\$	975.00
Ross S. Mullen, Engineer/Scientist/Specialist I 91.9 hours @ \$85.00 per hour\$	7,811.50
Christopher J. Bonick, Engineer/Scientist/Specialist II 5.5 hours @ \$115.00 per hour\$	632.50
Jennifer A. Koehler, Engineer/Scientist/Specialist II 12.1 hours @ \$120.00 per hour\$	1,452.00
Anne M. Phares, Engineer/Scientist/Specialist III 1.0 hours @ \$145.00 per hour\$	145.00
Karen L. Chandler, Consultant/Advisor 0.9 hours @ \$160.00 per hour\$	144.00
Timothy J. Anderson, Consultant/Advisor 0.8 hours @ \$155.00 per hour\$	124.00

SUMMARY TOTALS

Total Engineering\$	38,456.95
Total Secretarial Services Expenses\$	49.20
Total Planning (Next Generation Plan)\$	615.93
Total Planning (Maintenance Funds)\$	0.00
Total Annual Report/Website/Public Communications\$	0.00
Total WOMP\$	264.50
Total Capital Improvement Projects (Tax Levy)\$	12,505.38
Total Capital Improvement Projects (Maintenance Funds)\$	0.00
Total TMDL Work\$	2,932.50
Total XP-SWMM Phase II\$_	23,089.23
TOTAL PAYABLE\$	77,913.69

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

James P. Herbert