

October 2023 Board Packet

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Agenda

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Regular Board Meeting Agenda

Wednesday, October 4, 2023

6:30 PM

This month's meeting will be held at the District office (2665 Noel Drive, Little Canada, MN) but also via the video conferencing platform Zoom. Board members, staff, consultants, and general public will be able to join in person OR via video and/or phone. The public will be able to listen to meeting but not participate with the exception of the visitor comments portion of the agenda. Instructions for joining in on the Zoom meeting can be found after the agenda.

- 1. Call to Order 6:30 PM
- 2. Approval of Agenda (pg. 3)
- 3. Consent Agenda: To all be approved with one motion unless removed from consent agenda for discussion.
 - A. Approval of Regular Meeting Minutes September 6, 2023 (pg. 7)
 - B. Treasurer's Report and Bill List (pg. 14)
 - C. Stewardship Grant Program
 - i. 23-47 CS Westbrock, rain garden (pg. 25)
 - D. Change Order No. 2 Arbogast Underground Stormwater Filter (pg. 27)
- 4. Visitor Comments (limited to 4 minutes each)
- 5. Permit Program
 - A. Applications
 - i. 23-23 Bailey Nursery Wetland CAP, Woodbury (pg. 39)
 - B. Enforcement Action Report (pg. 52)
- 6. Stewardship Grant Program
 - A. Applications see consent agenda
 - B. Budget Status Update (pg. 58)
- 7. Action Items
 - A. Pioneer Park Accept Plans and Solicit Bids (pg. 60)
- 8. Attorney Report
- 9. Board Discussion Topics
- 10. New Reports and/or Presentations
 - A. BMP Inspector Intern Experience Presentation (no packet materials)
 - B. Targeted Retrofit Program A Decade in Review Presentation (pg. 88)
 - C. Watershed Management Plan Gaps Analysis Scope Summary (pg. 103)
- 11. Administrator's Report (pg. 105)
 - A. Meetings Attended
 - B. Upcoming Meetings and Dates
 - C. Board Action Log and Updates
 - D. Staff Presentations at Upcoming Conferences
 - E. Minnesota Watersheds Updates
 - F. Integrating Natural Hazard Mitigation and Clean Water Act Planning and Project Implementation Workshop

12. Project and Program Status Reports (pg. 110)

Project Feasibility Studies

- A. Interim Emergency Response Planning
- B. Kohlman Creek Flood Risk Feasibility Study
- C. Ames Lake Area Flood Risk Reduction Planning Study
- D. Owasso Basin/North Star Estates Improvements
- E. Resiliency Study for non-Beltline Tributary Areas
- F. Retrofit Inventory

Research Projects

- G. Kohlman Lake Aquatic Plant Management Effects Study
- H. Shallow Lake Aeration Study

Project Operations

- I. 2023 Automated Lake Level Station Maintenance and Rain Gage Installation
- Capital Improvements
 - J. Woodbury Target Store Stormwater Retrofit Project
 - K. Roosevelt Homes Targeted Retrofit Project
 - L. Stewardship Grant Program Support
 - M. Arbogast Stormwater Filtration BMP
 - N. Double Driveway Pond and Fish Creek Tributary Improvements
 - O. Pioneer Park Stormwater Reuse

CIP Project Repair and Maintenance

- P. Beltline 5-year Inspection
- Q. Routine CIP Inspection and Unplanned Maintenance Identification

Program Updates

- R. Natural Resources Program
- S. Public Involvement and Education Program
- T. Communications and Outreach Program
- U. Citizen Advisory Committee (CAC) Update
- 13. Manager Comments and Next Month's Meeting
- 14. Adjourn



NOTICE OF BOARD MEETING Wednesday, October 4, 2023 6:30 PM

Hybrid Meeting: In-Person and Web Conference

This month's meeting will be held at the District office (2665 Noel Drive, Little Canada, MN) AND via the video conferencing platform Zoom. Board members, staff, consultants, and general public will be able to join in person or via Zoom. The public will be able to listen to meeting but not participate with the exception of the visitor comments portion of the agenda. Visitor comment may be given in person or via Zoom. Instructions for joining in on the Zoom meeting can be found below.

To access the meeting via webcast, please use this link: https://us02web.zoom.us/j/84924309295?pwd=b3hSZWpNTVN2VW9sU21XdThEdIJ0QT09

The meeting room will open at 6:20 pm with the meeting starting at 6:30 pm. To connect to audio you may choose to use your computer audio options or you may use your mobile device to call. The phone access number is **(312) 626-6799**. The Meeting ID is **849 2430 9295**. The meeting password is **537402**. If you have any questions, please contact Tina Carstens at <u>tina.carstens@rwmwd.org</u>.

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Consent Agenda

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Ramsey-Washington Metro Watershed District Minutes of Regular Board Meeting September 6, 2023

The Regular Meeting of September 6, 2023, was held at the District Office Board Room, 2665 Noel Drive, Little Canada, Minnesota, and via Zoom web conferencing at 6:30 p.m. A video recording of the meeting can be found at https://youtu.be/GKi-7St2kt0. Video time stamps included after each agenda item in minutes.

PRESENT:

Val Eisele, President Dr. Pam Skinner, Vice President Matt Kramer, Treasurer Ben Karp, Secretary Mark Gernes, Manager

ALSO PRESENT:

Tina Carstens, District Administrator Laurann Kirschner, Attorney for District Brendan Dougherty, Barr Engineering Kyle Kubitza, Water Monitoring Technician Pat Williamson, Natural Resources Specialist Paige Ahlborg, Project Manager Nicole Maras, Permit Coordinator Erin Anderson Wenz, Bar Engineering Dave Vlasin, Watershed Project Coordinator

1. CALL TO ORDER

The meeting was called to order by President Eisele at 6:30 p.m.

2. APPROVAL OF AGENDA (00:10)

<u>Motion</u>: Manager Kramer moved, Manager Gernes seconded, to approve the agenda as presented. Motion carried unanimously.

3. CONSENT AGENDA (00:28)

- A. <u>Approval of Minutes from August 2, 2023</u>
- B. <u>Treasurer's Report and Bill List</u>
- C. <u>Stewardship Grant Program</u>
 - i. 23-43 CS: Blasena, Rain Garden
 - ii. 23-46 CS: Griffin, Shoreline and Native Habitat Restoration
 - iii. Additional Funding Request: 23-20 CS: Escape Climbing, Rain Gardens
- D. Change Order No. 1 Arbogast Underground Stormwater Filter

Motion: Manager Gernes moved, Manager Skinner seconded, to approve the consent agenda as presented.

Further discussion: President Eisele commented that in the future it would be helpful to have an estimate of different items on change orders when there are multiple things, using the additional funding request for 23-20 CS as an example.

ABSENT:

Manager Karp referenced 23-46 CS and asked if items of this nature are reviewed for best practices related to water discharge. He noted that in this instance there is some water discharge onto the neighboring property, but acknowledged that the property also accepts runoff from that neighboring property, so it does seem to make sense. Paige Ahlborg stated that did come up in discussion, but this is not a project the District assisted in design. She stated that a full review of the design was completed and would follow up to ensure the plans were signed off on.

Motion carried unanimously.

4. VISITOR COMMENTS (4:34)

None.

5. PERMIT PROGRAM (4:40)

A. Applications - None

B. Monthly Enforcement Report

During August, 29 notices were sent to address: install/maintain inlet protection (5), install/maintain perimeter control (6), install/maintain construction entrance (2), sweep streets (3), stabilize exposed soils (2), contain liquid/solid wastes (1), remove discharged sediment (4), maintain/protect permanent BMPs (3), install/maintain ditch checks (1), and general permit requirements (2).

President Eisele asked if contractors with multiple issues during a project are tracked. Nicole Maras replied that it depends upon who the site supervisor is, as that can vary and provide different experiences. She noted that staff does remember those that have multiple issues. She stated that the Permit Inspector is going meet with this contractor to follow up because of the multiple issues and inspections and to discuss increased enforcement abilities.

Manager Karp recognized that this has not been a time of heavy rain but one month of noncompliance is an issue. Nicole Maras stated that because this is a municipal road project, the District does not hold escrow, and reviewed some of the enforcement actions that could be considered.

President Eisele stated that it would be nice to see a follow up next month on this permit. He commented that it would be nice to see the City step in as well.

Manager Karp asked if there is a reason the District does not hold escrow on a municipal project, other than being a good partner. Tina Carstens replied that the District has never held escrow for those types of projects in her time with the District. Laurann Kirschner commented that is also her understanding as she did not believe there is anything outright prohibiting that type of action.

Nicole Maras stated that the City will also be at the meeting tomorrow with the contractor and Permit Inspector. She commented that the City has gotten more involved during this past month when there have been chronic issues.

Manager Gernes commented that he was surprised not to see the Heights (former golf course) on this list and asked if the site has been inspected. Nicole Maras stated that she can make a note to have an update on that project next month and confirmed that site is inspected at least twice per month. She provided an overview of the activity, noting that they are currently working on soil remediation. She anticipated that wetland mitigation work would soon begin.

6. STEWARDSHIP GRANT PROGRAM (15:02)

A. Applications – See Consent Agenda

B. <u>Budget Status Update</u>

Paige Ahlborg commented that there are still available funds, and the District continues to receive applications for residential projects.

7. ACTION ITEMS (15:41)

A. Roosevelt Homes Accept Plans and Solicit Bids

Paige Ahlborg stated that staff reached out in 2018/2019 but the property owner was not interested. She stated that staff reached out again last year, and the property owner expressed issues with flooding of the parking lot and maintenance facility. She stated that phase one would modify the existing basin on the west and add a smaller basin to assist with the flood events.

Erin Anderson-Wenz commented that this site is within a District equity area and experiences localized flooding. She highlighted elements that are included in the report including estimated cost, project benefits, and how the project scores with the District prioritization tool.

<u>Motion</u>: Manager Skinner moved, Manager Kramer, seconded, to approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals. Motion carried unanimously.

B. <u>Permit Rule Amendment Response to Comments and Approval</u>

Nicole Soderholm stated that this process began last year in conjunction with Capital Region Watershed District (CRWD). She noted that the draft changes to the rules were released to the Technical Advisory Committee (TAC) in the winter with an informal comment period during February and March. She reviewed the additional input that was solicited, which wrapped with the official comment period this summer and a public hearing at the July meeting. She stated that staff has prepared the formal responses to comments received and advised of a change that was made to the maximum trail width (from eight feet to ten feet) based on the input of comments received. She reviewed the actions before the Board tonight and noted that if approved, the new rules would be implemented January 1st. She noted that CRWD is also reviewing this item at its Board meeting tonight.

i. Approval of Watershed Management Rules – Resolution 23-01

ii. Approval of Cost Cap for Linear Projects – Resolution 23-02

iii. Approval of Stormwater Impact Fund Contribution Amount – Resolution 23-03

<u>Motion</u>: Manager Skinner moved, Manager Kramer seconded, to approve the rule revisions and adopt Resolution 23-01, Resolution 23-02, and Resolution 23-03. Motion carried unanimously.

C. 2024 Preliminary Budget and Levy Public Hearing

Tina Carstens explained that the draft resolution before the Board tonight would approve the preliminary budget and levy for 2024. She noted that the carryover numbers shown in the table would continue to be refined as they move forward in the process before adoption of the final budget and levy in December. She stated that at the last review, the proposed levy was seven percent but has since been reduced to 6.55 percent. She reviewed the different projects within the capital improvement projects proposed for 2024. She displayed the percentage of budget spent on each program area, noting that 79 percent of the District budget is spent on projects. She reviewed historical budget and levy trends.

Manager Gernes commented that it seems that the general fund budget remains somewhat stable, and the levy is used to fund projects. He asked and received confirmation that grant funds applied for and received would not be reflected. Tina Carstens explained that the decision on some grant applications would be known prior to December and therefore could reduce the amount needed through the levy for those projects. She stated that additional discussions could also be held if grant funds are not awarded for projects that are grant dependent.

President Eisele commented that the intent for many years has been to keep the levy stable but recently they have completed multiple feasibility studies that identify ways that the District could reduce flood risk and therefore it makes sense that the levy would increase to fund those projects. Tina Carstens noted that there were several years where the District was in planning mode, and it is now ready to execute some of those projects.

Tina Carstens reviewed the impact of the proposed levy on residential homestead taxes. She also provided comparison information on the impact at different levy rates as previously requested by the Board.

President Eisele opened the public hearing.

No comments.

President Eisele closed the public hearing.

President Eisele asked and received confirmation that this would be adoption of the preliminary budget and levy, and final adoption would occur in December. He stated that if there is a grant received, that could reduce the levy but suggested that there be additional discussion because the District is in the execution of project phase and therefore it could help to build those funds that will be needed.

Manager Gernes stated that if the budget were to decrease, would they need to provide additional justification or would that set precedent. Tina Carstens stated that this would be the typical path forward, starting at the highest point that they would be and then refine that lower. She stated that the justification would become important if they desired to increase the budget and levy prior to final adoption.

i. <u>Approval of 2024 Preliminary Budget and Levy Certification to Ramsey and Washington</u> <u>Counties</u> –

Resolution 23-04

<u>Motion</u>: Manager Skinner moved, Manager Gernes seconded, to approve the draft budget for purpose of the preliminary levy and approve Resolution 23-04. Motion carried unanimously.

8. ATTORNEY REPORT (40:17)

Laurann Kirschner reviewed the legal activities that she assisted with during the last month including routine maintenance and access agreements and publication of the notice for the public hearing.

9. BOARD ISSUES, POLICIES, AND OPERATION (FOR DISCUSSION AT MEETING) (40:50)

President Eisele asked and received confirmation that the Board is finding value in the tours. Manager Gernes suggested the Rosevelt Homes site as a future tour location.

10. NEW REPORTS AND/OR PRESENTATIONS (42:30)

A. Cottage Place Wetland Restoration Presentation

Erin Anderson Wenz stated that this site was identified in 2018 as a potential site for a retrofit rain garden. She explained that upon further review they discovered area that was wetland and that fell on public property, therefore the intent switched from a retrofit rain garden project to a wetland restoration project.

Brendan Dougherty identified the proposed project location, comparing the property ownership boundaries to the wetland delineation information. He noted that historically the wetland was 9.23 acres and as of 2018 was 2.34 acres. He provided historical information on the wetland and development of the surrounding areas. He reviewed the soil survey map and information learned through the delineation in 2018 related to the existing condition of the wetland area. He provided a summary of the results of the phase one and two environmental assessments that were completed and also provided details on the path water flows in this area.

President Eisele commented that it would seem that they would be expanding the usefulness of the wetland which could help to reduce the potential for flooding in that area. Erin Anderson Wenz commented that they would be adding storage.

Brendan Dougherty identified the current boundary of the wetland compared to the proposed expansion to the wetland.

Manager Gernes commented that it appears that the hydrology would be done more through grading than a change in the way water flows through the system. Erin Anderson Wenz noted that part of the project would be to review the culvert and optimize that.

Brendan Dougherty commented that tree preservation will be a large portion of the project. He stated that they would also be providing a connection through a trail and would create a mound that would serve as an overlook and could include natural play elements. He stated that they would remove the invasive trees and species and would be added native trees and habitat.

Manager Karp asked if they have considered box culverts that could serve as a boardwalk. Erin Anderson Wenz confirmed that could be reviewed as an option.

President Eisele acknowledged that this is a concept and there are a lot of ideas that could come forward that would also help to engage the community.

Brendan Dougherty stated that a major goal of the project is to restore the wetland to more resemble what existed previously. He reviewed the next steps in the process.

Erin Anderson Wenz stated that the scope summary was included in the memorandum and provided an overview of those items and the process, including the points at which staff will check in with the Board. She stated that today they are asking for approval to continue on tasks four, five and six. She reviewed the proposed timeline, with construction to potentially begin in about one year or so.

Tina Carstens provided additional details on the involvement of Shoreview noting that the City Council would be discussing this at a workshop in September. She noted that they would also work with the other stakeholders in the area to ensure input is received from those parties.

<u>Motion</u>: Manager Gernes moved, Manager Karp seconded, to direct staff and Barr Engineering to continue to follow the tasks within the scope summary. Motion carried unanimously.

B. Kohlman Creek Flood Risk Reduction – County Road C Culvert Scope Summary

Tina Carstens stated that this is a result of the Kohlman Creek Feasibility Study. She stated that this was identified and fit within the County road project. She stated that if this is not completed at this time, the County policy would require that the newly paved roadway not be disturbed for six years. She noted that this is a relatively lost cost option. She stated that there is a County meeting tomorrow where more information would be learned on whether the County or the District bid this project element.

<u>Motion</u>: Manager Kramer moved, Manager Karp seconded, to direct staff and Barr Engineering to continue with tasks one and three. Motion carried unanimously.

C. Board Governance Manual

Tina Carstens provided an overview of the updates to the governance manual and noted additional updates that will be made to the document in order to better match up how the Board operates.

President Eisele stated that he had difficulty in finding this type of document for similar watershed districts. Tina Carstens stated that she was able to gain models from the League of Minnesota Cities, received some information from Nine Mile Creek Watershed District, and the Minnesota Watersheds Manual. President Eisele stated that this is a unique organization that has an amazing staff but also has a Board for governance.

Manager Gernes commented that he believes that this is laid out well as a draft.

Manager Karp agreed that this is well laid out.

President Eisele commented that perhaps this is reviewed each year in March.

President Eisele asked for more details on executive sessions. Tina Carstens replied that those are essentially the closed meetings and provided examples such as the Administrator review or discussion of legal matters. Laurann Kirschner noted that a closed session can also be used to discuss real estate offers in addition to staff reviews and matters of litigation.

Tina Carstens welcomed any additional comments via email and noted that if there are additional changes, she can distribute the updated draft to the Board. She also welcomed thoughts on the bylaws to be sent via email.

11. ADMINISTRATOR'S REPORT (1:39:38)

- A. <u>Meetings Attended</u> No comments.
- B. Upcoming Meetings and Dates

Tina Carstens noted that the Watershed Excellence Awards which will be held on November 16th.

C. Board Action Log and Updates

No comments.

D. Board and CAC Tour

Tina Carstens asked the Board to respond to the poll to select a date for the event.

E. Minnesota Watersheds Updates

Tina Carstens noted that an update was included in the packet, along with a link to the newsletter.

F. <u>Integrating Natural Hazard Mitigation and Clean Water Act Planning and Project Implementation Workshop</u> Tina Carstens noted that she will attend this workshop the following week and will report back to the Board.

12. PROJECT AND PROGRAM STATUS REPORTS (1:46:20)

Project Feasibility Studies

- A. Interim Emergency Response Planning
- B. Kohlman Creek Flood Risk Feasibility Study
- C. <u>Ames Lake Area Flood Risk Reduction Planning Study</u>
- D. Owasso Basin/North Star Estates Improvements
- E. <u>Resiliency Study for Non-Beltline Tributary Areas</u>

Research Projects

- F. Kohlman Lake Aquatic Plants and Nutrients Study
- G. Shallow Lake Aeration Study

Capital Improvements

- H. <u>Woodbury Target Store Stormwater Retrofit Projects</u>
- I. <u>Roosevelt Homes Targeted Retrofit Projects</u>
- J. <u>Stewardship Grant Program Support</u>
- K. <u>Arbogast Stormwater Filtration BMP</u>
- L. Double Driveway Pond and Fish Creek Tributary Improvements
- M. <u>Pioneer Park Stormwater Reuse</u>
- N. <u>Street Sweeping Pilot Program</u>
- CIP Project Repair and Maintenance
- O. <u>Beltline 5-Year Inspection</u>
- P. <u>New Technology Mini Case Study: Comparison of Various Soil Amendments for Water Quality</u> Program Updates
- Q. <u>Natural Resources Program</u>
- R. <u>Public Involvement and Education Program</u>
- S. <u>Communications and Outreach Program</u>

President Eisele referenced Item D, noting that it seems that there has been back and forth with that group for a while and asked if there would be a plan to begin work in 2024. Erin Anderson Wenz replied that it is a tricky site and therefore they have been working with the stakeholders and site conditions. President Eisele asked if there is a stop gap if there is to be a heavy snow year and there are additional delays. Tina Carstens stated that they did complete emergency response planning that was shared with the property owners prior to moving down this path.

13. MANAGER COMMENTS AND NEXT MONTH'S MEETING (1:54:00)

President Eisele recognized there have been some small tweaks to the agenda and how meetings are conducted and welcomed the Board to send any feedback or additional suggestions to Tina Carstens.

14. ADJOURN

<u>Motion</u>: Manager Skinner moved, Manager Kramer seconded, to adjourn the meeting at 8:25 p.m. Motion carried unanimously.

Fiscal Year 2023 9/30/2023

Budget Category	Budget Item	Account Number	Original Budget	Budget Transfers	Current Month Expenses	Year-to-Date Expenses	Current Budget Balance	Percent of Budget
Manager	Per diems	4355	\$7,000.00	-	-	375.00	\$6,625.00	5.36%
manager	Manager expenses	4360	3,000.00	-	-	-	3,000.00	0.00%
Committees	Committee/Bd Mtg. Exp.	4365	3,500.00	-	641.70	4,343.66	(843.66)	124.10%
	Sub-Total: Managers/Committees:	1000	\$13,500.00	\$0.00	\$641.70	\$4,718.66	\$8,781.34	34.95%
Employees	Staff salary/taxes/benefits	4010	1,860,000.00	Ş0.00	196,660.65	1,321,911.93	538,088.07	71.07%
Linployees	Employee expenses	4010	15,000.00		320.24	7,829.74	7,170.26	52.20%
	District training & education	4350	75,000.00	_	1,613.52	16,222.64	58,777.36	21.63%
	Sub-Total: Employees:	4550	\$1,950,000.00	\$0.00	\$198,594.41	\$1,345,964.31	\$604,035.69	69.02%
Administration/	GIS system maint. & equip.	4170	10,000.00	Ş0.00	ŞI50,554.4I	3,339.25	6,660.75	33.39%
Office	Data Base/GIS Maintenance	4170	20.000.00	-	98.94	98.94	19,901.06	0.49%
Once	Equipment maintenance	4305	2,000.00	-	96.94	96.94	2,000.00	0.009
	Telephone	4303	2,000.00	-	59.38	474.80	1,525.20	23.749
	Office supplies	4310	7,000.00	-	124.27	7,373.89	(373.89)	105.349
	IT/Internet/Web Site/Software Lic.	4320	85,000.00	-	8,315.90	66,725.18	(373.89) 18,274.82	78.50%
			2,000.00	-	209.94	527.64	1,472.36	26.389
	Postage	4330		-			· ·	
	Printing/copying	4335	5,000.00	-	294.00	3,973.28	1,026.72	79.479
	Dues & publications	4338	15,000.00	-	2,221.00	14,860.00	140.00	99.07%
	Janitorial/Trash Service	4341	15,000.00	-	-	8,023.38	6,976.62	53.49%
	Utilities/Bldg.Contracts	4342	30,000.00	-	628.39	7,350.42	22,649.58	24.50%
	Bldg/Site Maintenance	4343	125,000.00	-	163.50	89,404.64	35,595.36	71.529
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	60,000.00	-	-	57,143.00	2,857.00	95.24%
	Office equipment	4703	100,000.00	-	-	4,992.52	95,007.48	4.99%
	Vehicle lease, maintenance	4810-40	20,000.00	-	738.83	5,766.21	14,233.79	28.839
	Sub-Total: Administration/Office:		\$503,000.00	\$0.00	\$12,854.15	\$270,053.15	\$232,946.85	53.69%
Consultants/	Auditor/Accounting	4110	75,000.00	-	2,949.85	54,688.76	20,311.24	72.92%
Outside Services	Engineering-administration	4121	132,000.00	-	7,625.00	63,323.37	68,676.63	47.97%
	Engineering-permit I&E	4122	10,000.00	-	62.50	637.50	9,362.50	6.38%
	Engineering-eng. review	4123	70,000.00	-	6,835.00	43,418.50	26,581.50	62.03%
	Engineering-permit review	4124	59,000.00	-	3,420.00	38,323.00	20,677.00	64.95%
	Project Feasibility Studies	4129	395,000.00	-	31,366.10	186,408.99	208,591.01	47.19%
	Attorney-permits	4130	5,000.00	-	-	110.16	4,889.84	2.20%
	Attorney-general	4131	40,000.00	-	4,664.00	16,793.60	23,206.40	41.98%
	Outside Consulting Services	4160	20,000.00	-	-	-	20,000.00	0.00%
	Sub-Total: Consultants/Outside Services:		\$806,000.00	\$0.00	\$56,922.45	\$403,703.88	\$402,296.12	50.09%
Programs	Educational programming	4370	70,000.00	-	3,517.32	24,623.32	45,376.68	35.18%
	Communications & Marketing	4371	50,000.00	-	139.50	4,607.03	45,392.97	9.21%
	Events	4372	51,000.00	-	750.00	50,459.86	540.14	98.94%
	Water QM-Engineering	4520-30	240,000.00	-	38,271.15	179,866.11	60,133.89	74.94%
	Project operations	4650	200,000.00	-	3,012.23	24,542.86	175,457.14	12.279
	SLMP/TMDL Studies	4661	142,000.00	-	39.00	1,374.00	140,626.00	0.97%
	Natural Resources/Keller Creek	4670-72	120,000.00	-	12,667.31	43,403.15	76,596.85	36.179
	Outside Prog.Support/Weed Mgmt.	44683	57,000.00	-	-	18,238.66	38,761.34	32.00%
	Research Projects	4695	155,000.00	-	11,980.20	95,093.81	59,906.19	61.35%
	Health and Safety Program	4697	4,000.00	-	-	2,398.39	1,601.61	59.96%
	Sub-Total: Programs:		\$1,089,000.00	\$0.00	70,376.71	\$444,607.19	\$644,392.81	40.83%
GENERAL FUND TO	ΓAL		\$4,361,500.00	\$0.00	\$339,389.42	\$2,469,047.19	\$1,892,452.81	56.61%
CIP's	CIP Project Repair & Maintenance	516	1,500,000.00	-	45,601.50	918,000.38	581,999.62	61.20%
	Targeted Retrofit Projects	518	1,500,000.00	-	219,871.08	862,148.16	637,851.84	57.48%
	Flood Risk Reduction Fund	520	5,200,000.00	-	12,958.50	626,101.68	4,573,898.32	12.04%
	Debt Services-96-97 Beltline/MM/Battle Creek	526	395,404.00	-	-	393,783.56	1,620.44	99.599
	Stewardship Grant Program Fund	529	1,128,000.00	-	198,923.68	497,843.21	630,156.79	44.149
	Double Driveway Water Quality Optimization	537	675,000.00	-	2,508.36	52,191.35	622,808.65	7.739
	Wetland Restoration Projects	540	500,000.00	-	_,=======	-	500,000.00	0.009
CIP BUDGET TOTAL			\$10,898,404.00	-	\$479,863.12	\$3,350,068.34	\$7,548,335.66	30.749
TOTAL BUDGET			\$15,259,904.00	\$0.00	\$819,252.54	\$5,819,115.53	\$9,440,788.47	38.139

Current Fund Balances:						
						Unaudited
	Unaudited Beginning Fund	Fund	Year to date	Current Month	Year to Date	Fund Balance
Fund:	Balance @ 12/31/22	Transfers	Revenue	Expenses	Expense	@ 09/30/23
101 - General Fund	\$2,313,604.42	-	2,319,275.94	339,389.42	2,469,047.19	2,163,833.17
516 - CIP Project Repair & Maintenance	1,143,456.57	-	630,667.61	45,601.50	918,000.38	856,123.80
518 - Targeted Retrofit Projects	164,101.49	-	853,083.34	219,871.08	862,148.16	155,036.67
520 - Flood Damage Reduction Fund	5,075,970.05	-	193,829.74	12,958.50	626,101.68	4,643,698.11
526 - Debt Services-96-97 Beltline/MM/Beltline-Battle Creek Tunnel Repair	551,908.60	-	-	-	393,783.56	158,125.04
529 - Stewardship Grant Program Fund	428,736.05	-	417,565.78	198,923.68	497,843.21	348,458.62
536 - Stormwater Impact Fund	358,950.00	-	782,281.00	-	-	1,141,231.00
537 - Double Driveway Water Quality Optimization Implementation	-	-	104,391.45	2,508.36	52,191.35	52,200.10
540 - Wetland Restoration Projects	498,036.00	-	-	-	-	498,036.00
580 - Contingency Fund	1,465,487.00	-	-	-	-	1,465,487.00
Total District Fund Balance	\$12,000,250.18	\$0.00	\$ 5,301,094.86	\$ 819,252.54	\$5,819,115.53	\$11,482,229.51

Ramsey Washington Metro Watershed Dist. Check Register For the Period From September 1, 2023 to September 30, 2023

Check #	Date	Payee ID	Invoice #	Payee	Description	Amoun
EFT	09/05/23	hea002	Oct-23	HealthPartners	Employee Benefits	\$15,465.91
EFT	09/01/23	met008	Sep-23	MetLife-Group Benefits	Employee Benefits	1,683.78
EFT	09/11/23	cit027	Sep-23	City of St. Paul Dept. of Safety & Inspections		735.00
EFT	09/25/23	pit001	Sep-23	Pitney Bowes Global Financial Serv, LLC	Postage	209.94
74078	09/05/23	lan003	Aug-23	Lancer Catering	Events	750.00
74079	09/05/23	rmb001	Aug-23	RMB Environmental Laboratories	Water Quality Monitoring - Staff	6,291.60
74080	09/26/23	ada002	3714349	Adam's Pest Control, Inc	Utilities/Building Services Contracts	94.72
74081	09/26/23	adv005	212382	Advanced Graphix, Inc	Stewardship Grant Program	2,855.00
74082	09/26/23	att002	287256653401X09252023	AT & T Mobility - ROC	Project Operations	166.34
74083	09/26/23	aws001	S1335957-090123	AWS Service Center	Utilities/Building Services Contracts	329.96
74084	09/26/23	bar001	Aug 19-Sep 15, 2023	Barr Engineering	Various	142,789.20
74085	09/26/23	cad001	19868181	Zayo Group, LLC	Water Quality Monitoring - Staff	199.97
74086	09/26/23	car007	RWMWD-9-6-23	Carp Solutions, LLC	Natural Resources Program	10,800.00
74087	09/26/23	com004	16-Sep-23	Comcast	Utilities/Building Services Contracts	93.48
74088	09/26/23	dav003	Jan-57	Davey Resource Group, Inc	Construction Improvements/Project Main. & Rep	10,626.00
				Zachary DeLong	Stewardship Grant Program	,
74089	09/26/23	del005	23-04 CS	5 6	1 0	8,705.23
74090	09/26/23	esc003	23-20 CS	Escape Climbing	Stewardship Grant Program	50,147.75
74091	09/26/23	fit003	23-Sep	Emily F. Kamir	Employee Benefits, Expenses	43.93
74092	09/26/23	fle001	107125	Flemings Auto Service	Vehicle Maintenance	73.35
74093	09/26/23	gal001	Sept. 20, 2023	Galowitz Olson, PLLC	Attorney General	4,664.00
74094	09/26/23	gen002	80972	General Repair Service	Natural Resources Program	239.32
74095	09/26/23	gru001	Sep	Gruber's Power Equipment	Natural Resources Program	547.49
74096	09/26/23	hin002	23-41 CS	Kyle Hines	Stewardship Grant Program	7,800.00
74097	09/26/23	int001	W23080483	Office of MN, IT Service	Telephone	59.38
74097	09/26/23	lea002	389405	,	Dues & Publications	2,221.00
				League of Minnesota Cities		,
74099	09/26/23	lea003	16-1001	L. Tracy Leavenworth	Education	3,517.32
74100	09/26/23	led001	23-35 CS	Jarrod Leder	Stewardship Grant Program	2,315.05
74101	09/26/23	mcg004	22-06 MTN	Kara McGuire	Stewardship Grant Program	52.00
74102	09/26/23	me1001	Aug/Sept 2023	Michelle L. Melser	Employee Benefits, Expenses	53.17
74103	09/26/23	met012	1482	Metro - INET	Roseville IT Services/Web Site/Software/License	8,219.56
74104	09/26/23	nel005	23-007	Stephanie Nelson-Dusek	Stewardship Grant Program	305.39
74105	09/26/23	nel006	Jul-Sept 2023	Nicholas J. Nelson	Employee Expenses	5.24
74106	09/26/23	pac001	Sep	Pace Analytical Services, Inc	Water Quality Monitoring - Staff	21,278.00
74107	09/26/23	pas002	Aug-Sept 2023	Carol Passi	Employee Benefits, Expenses	185.74
74107	09/26/23	qwe001	Sep-23	CenturyLink	Project Operations	266.35
74109	09/26/23	rad004	23-42 CS	Corey Radloff	Stewardship Grant Program	15,000.00
74110	09/26/23	red002	150480645	Redpath & Company, LLC.	Accounting	2,702.80
74111	09/26/23	reg002	2110012011	Regents of the University of Minnesota	Training & Education	325.00
74112	09/26/23	rmb001	M2300191	RMB Environmental Laboratories	Water Quality Monitoring - Staff	8,452.48
74113	09/26/23	roc001	2839	Rock Leaf Water Environmental LLC	Construction Improvements/Project Main. & Rep	12,716.45
74114	09/26/23	rol001	23-03 CS	Rolling Hills Homeowners Association	Stewardship Grant Program	4,065.00
74115	09/26/23	san003	090323:090323-2	Sandstrom Land Managemen	Stewardship Grant Program	106,589.00
74116	09/26/23	sho004	Progress Pmt #3	Shoreline Landscaping	Construction-Targeted Retrofit	176,980.98
74117	09/26/23	sim001	23-Sep	Emily Simmons	Employee Benefits, Expenses	140.22
74118	09/26/23	sod001	Sep-23	Nicole Maras	Employee Benefits	79.33
74119	09/26/23	tim002	234.5	Timesaver Off-Site Secretarial, Inc	Committee/Board Meeting Expense	234.50
74120	09/26/23	usb002	Sept 2023 Statement	U.S. Bank	August/Sept. Credit Card Expense	5,110.49
74121	09/26/23	usb005	509895074	US Bank Equipment Finance	Printing	294.00
74122	09/26/23	vla001	1/1/2023	Dave Vlasin	Employee Benefits, Expenses	692.20
74123	09/26/23	voy001	8.69293E+12	US Bank Voyager Fleet Sys.	Vehicle Fuel	665.48
74124	09/26/23	wal005	18-04 MTN	Heidi Walz	Stewardship Grant Program	300.19
74125	09/26/23	was002	6203	Washington Conservation District	Stewardship Grant Program	2,378.00
74126	09/26/23	wil007	23-Oct	Patrick Williamson	Employee Benefits	2,578.00
74120	09/26/23	xce003	23-06	Xcel Energy	Escrow Refund	2,000.00
	07/20/25	xcc005	25-00	Acci Lifeigy	Esclow Refund	*
Total						\$642,771.93
EFT	09/01/23	myp001	09/01/23	September 1st Payroll	4110-101-000	82.35
EFT	09/15/23	myp001	09/15/23	September 15th Payroll	4110-101-000	84.45
EFT	09/29/23	myp001	09/29/23	September 29th Payroll	4110-101-000	80.25
Dir.Dep.	09/01/23		Payroll Expense-Net	September 1st Payroll	4010-101-000	35,010.83
EFT	09/01/23	int002	Internal Rev.Serv	September 1st Federal Withholding	2001-101-000	12,173.65
	09/01/23	mnd001	MN Revenue	September 1st State Withholding	2003-101-000	2,042.92
EFT			PERA	September 1st PERA	2011-101-000	6,601.12
EFT EFT	09/01/23	per()()1				
EFT	09/01/23 09/01/23	per001 emp002		1		
	09/01/23 09/01/23 09/01/23	per001 emp002 emp002	Empower Retiremen Empower Retiremen	Employee Def. Comp. Contributions Employee IRA Contributions	2016-101-000 2016-101-000 2018-101-000	1,653.00 857.00

Ramsey Washington Metro Watershed Dist. Check Register For the Period From September 1, 2023 to September 30, 2023

Check #	Date	Payee ID	Invoice #	Payee	Description	Amount
Dir.Dep.	09/15/23		Payroll Expense-Net	September 15th Payroll	4010-101-000	33,056.53
EFT	09/15/23	int002	Internal Rev.Serv	September 15th Federal Withholding	2001-101-000	11,685.77
EFT	09/15/23	mnd001	MN Revenue	September 15th State Withholding	2003-101-000	1,941.36
EFT	09/15/23	per001	PERA	September 15th PERA	2011-101-000	6,601.12
EFT	09/15/23	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,653.00
EFT	09/15/23	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,434.00
Dir.Dep.	09/29/23		Payroll Expense-Net	September 29th Payroll	4010-101-000	32,184.37
EFT	09/29/23	int002	Internal Rev.Serv	September 29th Federal Withholding	2001-101-000	11,504.13
EFT	09/29/23	mnd001	MN Revenue	September 29th State Withholding	2003-101-000	1,920.39
EFT	09/29/23	per001	PERA	September 29th PERA	2011-101-000	6,532.97
EFT	09/29/23	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,653.00
EFT	09/29/23	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,434.00
		-	-		Payroll/Benefits:	\$170,186.21

Total

Accounts Payable/Payroll/Benefits:

\$812,958.14

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
Date		v chuối 1D	Tunie	Account ID	Description	mount	
09/05/23	EFT	hea002	HealthPartners	4040-101-000	Employee Benefits	\$15,465.91	
09/01/23	EFT	met008	MetLife-Group Benefits	4040-101-000	Employee Benefits	1,683.78	
09/11/23	EFT	cit027	City of St. Paul Dept. of Safety & Inspections	4682-529-000	Stewardship Grant Program	735.00	
09/25/23	EFT	pit001	Pitney Bowes Global Financial Serv, LLC	4330-101-000	Postage	209.94	
09/05/23	74078	lan003	Lancer Catering	4372-101-000	Events	750.00	
09/05/23	74079	rmb001	RMB Environmental Laboratories	4530-101-000	Water Quality Monitoring - Staff	6,291.60	
09/26/23	74080	ada002	Adam's Pest Control, Inc.	4342-101-000	Utilities/Building Services Contracts	94.72	
09/26/23	74081	adv005	Advanced Graphix, Inc.	4682-529-101	Stewardship Grant Program	2,855.00	
09/26/23	74082	att002	AT & T Mobility - ROC	4650-101-000	Project Operations	166.34	
09/26/23	74083	aws001	AWS Service Center	4342-101-000	Utilities/Building Services Contracts	329.96	
09/26/23	74084	bar001	Barr Engineering		č	142,789.20	
				4121-101-000	Engineering Admin		7,625.00
				4123-101-000	Engineering Review		6,835.00
				4129-101-000	Project Feasability		1,497.50
				4129-101-000	Project Feasability		14,643.05
				4129-101-000	Project Feasability		4,570.00
				4128-520-000	Engineering -Flood Damage		12,958.50
				4129-101-000	Project Feasability		8,885.05
				4129-101-000	Project Feasability		447.50
				4129-101-000	Project Feasability		1,323.00
				4520-101-000	WQM-Engineering		681.00
				4520-101-000	WQM-Engineering		358.10
				4122-101-000	Engineering -Permit I & E		62.50
				4124-101-000	Eng. Permit Review		3,420.00
				4661-101-000	SLMP/TMDL Studies		39.00
				4695-101-000	Research Projects		1,427.50
				4695-101-000	Research Projects		2,431.50
				4695-101-000	Research Projects		8,121.20
				4650-101-000	Project Operations		1,694.54
				4650-101-000	Project Operations		635.00
				4128-518-000	Engineering - Targeted Retrofit		15,486.00
				4128-518-000	Engineering -Targeted Retrofit		9,992.50
				4128-518-000	Engineering - Targeted Retrofit		1,935.50
				4682-529-000	Stewardship Grant Program		218.00
				4128-518-000	Engineering - Targeted Retrofit		7,541.60
				4128-518-000	Engineering - Targeted Retrofit		7,837.00
				4129-537-000	Driveway Fish Creek Tributary		2,508.36
				4128-518-000	Engineering -Targeted Retrofit		97.50
				4128-516-000	Eng. Projects-Maint & Repair		13,869.80
				4128-516-000	Eng. Projects-Maint & Repair		5,493.00
				4128-516-000	Eng. Projects-Maint & Repair		155.00
09/26/23	74085	cad001	Zayo Group, LLC	4530-101-000	Water Quality Monitoring - Staff	199.97	
09/26/23	74086	car007	Carp Solutions, LLC.	4670-101-000	Natural Resource Program	10,800.00	
09/26/23	74087	com004	Comcast	4342-101-000	Utilities/Building Services Contracts	93.48	
		1002	Daview Davasina Crean Inc	4630-516-000	Construction Internet (Drain at Maintenance & Densi:	10 626 00	
09/26/23	74088	dav003	Davey Resource Group, Inc.	4030-310-000	Construction Improvements/Project Maintenance & Repair	10,626.00	

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
00/25/222	74000	000		4692 520 000		50 147 75	
09/26/23	74090	esc003	Escape Clinbing	4682-529-000	Stewardship Grant Program	50,147.75 43.93	
09/26/23	74091	fit003	Emily Kamin	40.40 101 000	Eventeere Den Co	43.93	10.00
				4040-101-000	Employee Benefits		40.00 3.93
00/26/22	74000	CL 001	Elemines Auto Semilar	4020-101-000	Employee Expense Vehicle Maintenance	72.25	3.93
09/26/23 09/26/23	74092 74093	fle001	Flemings Auto Service Galowitz Olson, PLLC	4820-101-000 4131-101-000	Attorney General	73.35 4,664.00	
09/26/23		gal001	General Repair Service	4670-101-000	Natural Resource Program	239.32	
09/26/23	74094 74095	gen002 gru001	Gruber's Power Equipment	4670-101-000	Natural Resource Program	239.32 547.49	
09/26/23	74093 74096	hin002	Kyle Hines	4682-529-000	Stewardship Grant Program	7,800.00	
09/26/23	74090	int001	Office of MN, IT Services	4310-101-000	Telephone	59.38	
09/26/23	74097 74098	lea002	League of MN Cities	4338-101-000	Dues & Publications	2,221.00	
09/26/23	74098	lea002	L. Tracy Leavenworth	4370-101-000	Education	3,517.32	
09/26/23	74100	led001	Jarrod Leder	4682-529-000	Stewardship Grant Program	2,315.05	
09/26/23	74100	mcg004	Kara McGuire	4682-529-000	Stewardship Grant Program	52.00	
09/26/23	74101	mel001	Michelle L. Melser	4002-527-000	Stewardship Grant Program	53.17	
07/20/23	74102	melool	Michele E. Melser	4040-101-000	Employee Benefits	55.17	40.00
				4020-101-000	Employee Expenses		13.17
09/26/23	74103	met013	Metro-INET	4325-101-000	Roseville IT Services/Web Site/Software/License	8,219.56	10117
09/26/23	74104	nel005	Stephanie Nelson-Dusek	4682-529-000	Stewardship Grant Program	305.39	
09/26/23	74105	nel006	Nicholas J. Nelson	4020-101-000	Employee Expenses	5.24	
09/26/23	74106	pac001	Pace Analytical Services, Inc.	4530-101-000	Water Quality Monitoring - Staff	21,278.00	
09/26/23	74107	pas002	Carol Passi			185.74	
		F		4020-101-000	Employee Expenses		145.74
				4040-101-000	Employee Benefits		40.00
09/26/23	74108	qwe001	Century Link	4650-101-000	Project Operations	266.35	
09/26/23	74109	rad004	Corey Radloff	4682-529-000	Stewardship Grant Program	15,000.00	
09/26/23	74110	red002	Redpath & Company, LLC.	4110-101-000	Accounting	2,702.80	
09/26/23	74111	reg002	Regents of the University of Minnesota	4350-101-000	Training and Education	325.00	
09/26/23	74112	rmb001	RMB Environmental Laboratories	4530-101-000	Water Quality Monitoring - Staff	8,452.48	
09/26/23	74113	roc001	Rock Leaf Water Environmental LLC	4630-516-000	Construction Improvements/Project Maintenance & Repair	12,716.45	
09/26/23	74114	ro1001	Rolling Hills Homeowners Association	4682-529-000	Stewardship Grant Program	4,065.00	
09/26/23	74115	san003	Sandstrom Land Management			106,589.00	
				4682-529-000	Stewardship Grant Program		103847.75
				4630-516-000	Construction Improvements/Project Maintenance & Repair		2741.25
09/26/23	74116	sho004	Shoreline Landscaping	4630-518-000	Construction Improvements/Targeted Retrofit Projects	176,980.98	
09/26/23	74117	sim001	Emily Simmons			140.22	
				4020-101-000	Employee Expenses		100.22
				4040-101-000	Employee Benefits		40.00
09/26/23	74118	sod001	Nicole Maras	4040-101-000	Employee Benefits	79.33	
09/26/23	74119	tim002	Timesaver Off-Site Secretarial, Inc.	4365-101-000	Committee/Board Meeting Expenses	234.50	
09/26/23	74120	usb002	U.S. Bank			5,110.49	
				4365-101-000	Committee/Board Meeting Expenses		80.65
				4371-101-000	Communications and Marketing		100.00
				4320-101-000	Office Supplies		52.00
				4343-101-000	Building/Site Maintenance		8.94

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
					ê.		
				4343-101-000	Building/Site Maintenance		8.00
				4365-101-000	Committee/Board Meeting Expenses		28.75
				4343-101-000	Building/Site Maintenance		82.01
				4325-101-000	Roseville IT Services/Web Site/Software/License		96.34
				4171-101-000	Data Base/GIS Maintenance		97.00
				4343-101-000	Building/Site Maintenance		34.55
				4040-101-000	Employee Benefits		152.90
				4350-101-000	Training and Education		60.00
				4350-101-000	Training and Education		75.00
				4365-101-000	Committee/Board Meeting Expenses		265.36
				4320-101-000	Office Supplies		3.19
				4320-101-000	Office Supplies		40.09
				4350-101-000	Training and Education		200.00
				4350-101-000	Training and Education		28.52
				4670-101-000	Natural Resources Program		15.90
				4682-529-000	Stewardship Grant Program		199.32
				4350-101-000	Training and Education		375.00
				4350-101-000	Training and Education		375.00
				4530-101-000	Water Quality Monitoring - Staff		1,010.00
				4342-101-000	Utilities/Building Services Contracts		79.18
				4371-101-000	Communications and Marketing		39.50
				4650-101-000	Project Operations		250.00
				4670-101-000	Natural Resources Program		250.00
				4350-101-000	Training and Education		175.00
				4320-101-000	Office Supplies		28.99
				4670-101-000	Natural Resources Program		71.64
				4670-101-000	Natural Resources Program		732.23
				4342-101-000	Utilities/Building Services Contracts		31.05
				4343-101-000	Building/Site Maintenance		30.00
				4365-101-000	Committee/Board Meeting Expenses		32.44
				4171-101-000	Data Base/GIS Maintenance	2 04.00	1.94
09/26/23	74121	usb005	US Bank Equipment Finance	4335-101-000	Printing	294.00	
09/26/23	74122	ahl001	Dave Vlasin			692.20	
				4040-101-000	Employee Benefits		645.17
				4020-101-000	Employee Expense		47.03
09/26/23	74123	voy001	US Bank Voyager Fleet Sys.	4830-101-000	Vehicle Fuel	665.48	
09/26/23	74124		Heidi Walz	4682-529-000	Stewardship Grant Program	300.19	
09/26/23	74125	was002	Washington Conservation District	4682-529-000	Stewardship Grant Program	2,378.00	
09/26/23	74126	wil007	Patrick Williamson	1000		255.64	
				4020-101-000	Employee Benefits		240.00
				4040-101-000	Employee Expenses		4.91
				4670-101-000	Natural Resources Program		10.73
09/26/23	74127	xce003	Xcel Energy	2024-101-000	Escrow Refund	2,000.00	
	Total					\$642,771.93	

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
09/01/23	EFT	myp001	September 1st Payroll	4110-101-000	September 1st Payroll	82.35	
09/15/23	EFT	myp001	September 15th Payroll	4110-101-000	September 15th Payroll	84.45	
09/29/23	EFT	myp001	September 29th Payroll	4110-101-000	September 29th Payroll	80.25	
09/01/23	Dir.Dep.		September 1st Payroll	4010-101-000	September 1st Payroll	35,010.83	
09/01/23	EFT	int002	September 1st Federal Withholding	2001-101-000	September 1st Federal Withholding	12,173.65	
09/01/23	EFT	mnd001	September 1st State Withholding		September 1st State Withholding	2,042.92	
09/01/23	EFT	per001	September 1st PERA	2011-101-000	September 1st PERA	6,601.12	
09/01/23	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,653.00	
09/01/23	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	857.00	
09/15/23	Dir.Dep.		September 15th Payroll		September 15th Payroll	33,056.53	
09/15/23	EFT	int002	September 15th Federal Withholding	2001-101-000	September 15th Federal Withholding	11,685.77	
09/15/23	EFT	mnd001	September 15th State Withholding	2003-101-000	September 15th State Withholding	1,941.36	
09/15/23	EFT	per001	September 15th PERA	2011-101-000	September 15th PERA	6,601.12	
09/15/23	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,653.00	
09/15/23	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,434.00	
09/29/23	Dir.Dep.		September 29th Payroll	4010-101-000	September 29th Payroll	32,184.37	
09/29/23	EFT	int002	September 29th Federal Withholding		September 29th Federal Withholding	11,504.13	
09/29/23	EFT	mnd001	September 29th State Withholding		September 29th State Withholding	1,920.39	
09/29/23	EFT	per001	September 29th PERA		September 29th PERA	6,532.97	
09/29/23	EFT	emp002	Employee Def. Comp. Contributions		Employee Def. Comp. Contributions	1,653.00	
09/29/23	EFT	emp002	Employee IRA Contributions		Employee IRA Contributions	1,434.00	
		· · · · -	1 V		Payroll/Benefits:	\$170,186.21	

Accounts Payable/Payroll/Benefits:

\$812,958.14



Summary of Professional Engineering Services During the Period August 19, 2023 through September 15, 2023

	Total Engineering Budget	Total Fees to Date	Budget Balance	Fees During Period	District Accounting Code	Plan Implementation
	(2023)	(2023)	(2023)			Task Number
Engineering Administration General Engineering Administration	\$87,000.00	\$63,323.37	\$23,676.63	\$7,625.00	4121-101	DW-13
RWMWD Health and Safety/ERTK Program	\$2,000.00	\$703.00	\$1,297.00	\$0.00	4697-101	DW-13
Educational Program/Educational Forum Assistance	\$20,000.00	\$702.50	\$19,297.50	\$0.00	4129-101	DW-11
Topical Workshop, Education, and Planning	\$25,000.00	\$3,159.00	\$21,841.00	\$0.00	4129-101	DW-13
Engineering Review Engineering Review	\$70,000.00	\$43,418.50	\$26,581.50	\$6,835.00	4123-101	DW-13
Project Feasibility Studies						
Emergency Response Plans (communication with cities from 2021 and 2022 efforts)	\$15,000.00	\$2,880.00	\$12,120.00	\$1,497.50	4129-101	DW-19
Kohlman Creek flood damage reduction feasibility study	\$75,000.00	\$62,856.06	\$12,143.94	\$14,643.05	4129-101	DW-9, KC-2, BELT-3
Kohlman Creek- Wakefield Lake Diversion Planning and Design	\$111,600.00	\$10,000.50	\$101,599.50	\$0.00	4129-101	DW-9, KC-2, BELT-3
Improvements to County Ditch 17	\$5,000.00	\$250.00	\$4,750.00	\$0.00	4129-101	DW-9, BELT-3
Improvements to Phalen Village	\$5,000.00	\$400.00	\$4,600.00	\$0.00	4129-101	DW-9, BELT-3
Ames Lake Technical Assistance and Project Planning with St. Paul	\$40,000.00	\$27,950.51	\$12,049.49	\$4,570.00	4129-101	DW-9, BELT-3
Resiliency Study for non-Beltline tributary areas (pre-planning study and evaluation of existing data)	\$150,000.00	\$63,079.00	\$86,921.00	\$12,958.50	4128-520	DW-9
Evaluate compliance with South Metro Mississippi River TSS TMDL	\$2,000.00	\$527.00	\$1,473.00	\$0.00	4129-101	MR-2
Owasso Basin area/North Star Estates improvements (with City of Little	\$30,000.00	\$40,279.42	-\$10,279.42	\$8,885.05	4129-101	GC-3
Canada) Street Sweening	\$20,000.00	\$14,740.00	\$5,260.00		4129-101	DW-6. DW-15
Street Sweeping	,		.,	\$447.50		., .
Retrofit Inventory	\$20,000.00	\$18,041.00	\$1,959.00	\$1,323.00	4129-101	DW-17, DW-20
Wetland Restoration Workshop, Education, and Planning	\$5,000.00	\$4,623.00	\$377.00	\$0.00	4129-101	DW-8, DW-13
Contingency*	\$30,000.00				4129-101	
GIS Maintenance GIS Maintenance	\$5,000.00	\$0.00	\$5,000.00	\$0.00	4170-101	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	\$10,000.00	\$90.00	\$9,910.00	\$0.00	4520-101	DW-2
Annual WQ Report Assistance	\$12,000.00	\$8,960.50	\$3,039.50	\$0.00	4520-101	DW-2
Special Project BMP Monitoring	\$25,000.00	\$9,573.16	\$15,426.84	\$0.00	4520-101	DW-12
Grass Lake Berm Wetland Monitoring Battle Creek Monitoring to address TMDL	\$12,000.00	\$13,508.10 \$0.00	-\$1,508.10 \$15,000.00	\$358.10 \$0.00	4520-101 4520-101	DW-5, DW-8 DW-1, DW-2
	\$15,000.00	30.00	\$15,000.00	30.00	4520-101	DW-1, DW-2
Permit Processing, Inspection and Enforcement Permit Application Inspection and Enforcement	\$10,000.00	\$637.50	\$9,362.50	\$62.50	4122-101	DW-7
Permit Application Review	\$59,000.00	\$33,950.00	\$25,050.00	\$3,420.00	4124-101	DW-7
Lake Studies/TMDL Reports						
West Vadnais Lake Incorporation	\$15,000.00	\$75.00	\$14,925.00	\$0.00	4661-101	DW-2
2023 Grant Applications	\$40,000.00	\$845.00	\$39,155.00	\$39.00	4661-101	DW-13
WMP Updates - Including Implementation Plan Updates if needed	\$20,000.00	\$0.00	\$20,000.00	\$0.00	4661-101	DW-13
Prioritization of water quality projects from subwatershed feasibility studies	\$5,000.00	\$11,272.70	-\$6,272.70	\$11,233.70	4661-101	DW-20
Carver Ponds Internal Load Reduction Contingency for Lake Studies	\$12,000.00 \$22,500.00	\$415.00 \$0.00	\$11,585.00 \$22.500.00	\$0.00 \$0.00	4661-101	DW-12
Research Projects New Technology Mini Case Studies (average 6 per year)	\$15,000.00	\$11,784.00	\$3,216.00	\$1,427.50	4695-101	DW-12
Kohlman Permeable Weir Test System - Implement Monitoring Plan	\$5,000.00	\$150.00	\$4,850.00	\$0.00	4695-101	DW-12
Kohlman Lake Aquatic Plant Management Effects Study	\$85,705.00	\$50,875.23	\$34,829.77	\$0.00	4695-101	DW-12
Shallow Lake Aeration Study	\$40,000.00	\$21,731.88	\$18,268.12	\$0.00	4695-101	DW-12
Project Operations						
2023 Tanners Alum Facility Monitoring	\$17,000.00	\$12,306.04	\$4,693.96	\$1,694.54	4650-101	TaL-3
Phalen/Keller and Twin Operations Support & Communications	\$5,000.00	\$0.00	\$5,000.00	\$0.00	4650-101	DW-5, DW-13
Lake Level Station Operation and Maintenance Lake Level Station Rain Gages	\$50,000.00 \$35,000.00	\$0.00 \$1,205.00	\$50,000.00 \$33,795.00	\$0.00 \$635.00	4650-101 4650-101	DW-5 DW-5
Capital Improvements						
Tanners Outlet Woodbury Target	\$5,000.00 \$180,000.00	\$1,877.00 \$60,383.06	\$3,123.00 \$119,616.94	\$0.00 \$15,486.00	4128-520 4128-518	DW-9 DW-6
Roosevelt Homes	\$77,100.00	\$61,533.12	\$15,566.88	\$9,992.50	4128-518	DW-6
Targeted Retrofit Projects 2023	\$150,000.00	\$42,091.81	\$107,908.19	\$1,935.50	4128-518	DW-6
Stewardship Grant Program	\$75,000.00	\$22,946.50	\$52,053.50	\$218.00	4682-529	DW-6
West Industrial Park Berm and associated improvements	\$300,000.00	\$0.00	\$300,000.00	\$0.00	4128-520	GC-3
Lake Emily Subwatershed BMP Pioneer Park Stormwater Reuse	\$175,800.00 \$151,200.00	\$179,112.06 \$100,817.60	-\$3,312.06 \$50,382.40	\$7,541.60 \$7,837.00	4128-518 4128-518	LE-3 DW-6
Double Driveway and Fish Creek Tributary Improvements	\$151,200.00	\$52,191.35	\$60,008.65	\$2,508.36	4128-518 4129-537	FC-2
Cottage Place Wetland Regeneration (2023 Work)	\$112,200.00	\$97.50	\$19,902.50	\$2,508.36	4129-537 4128-518	LE-3, DW-8, DW-14
	\$20,000.00	ψυτ.00	ψ10,002.00	401.00	4120-010	LE 0, 511-0, 511-14
CIP Project Repair & Maintenance	\$125,000.00	\$93,743.27	\$31,256.73	\$13,869.80	4420 540	DW-5
Routine CIP Inspection and Unplanned Maintenance Identification Beltline 5-year Inspection	\$125,000.00	\$93,743.27 \$47,225.27	\$31,256.73	\$5,493.00	4128-516 4128-516	BELT-2
District Inspection Standardization	\$0.00	\$0.00	\$0.00	\$0.00	4128-516	DW-5
2023 CIP Maintenance and Repairs	\$165,000.00	\$87,934.08	\$77,065.92	\$155.00	4128-516	DW-5

\$142,789.20



Arbogast Underground Stormwater Filter Progress Payment #3

1.0	Total Complete	ed Through This Peri	iod:	\$490,405.77		
2.0	Total Complete	ed Previously Compl	leted:		\$304,110.00	
3.0	Total Complete	ed This Period:				\$186,295.77
4.0	Amount Previo	ously Retained:			\$15,205.50	
5.0	Amount Retair	ned This Period (See	Note 1):			\$9,314.79
6.0	Total Amount	Retained (See Note	1):		\$24,520.29	
7.0	Retainage Rele	eased Through This F	Period:			\$0.00
8.0	Total Retainag	ge Remaining:			\$24,520.29	
9.0	Amounts Previ	iously Paid:	-	\$288,904.50		
10.0	Amount Due T	This Estimate:				\$176,980.98
Note 1: A	t rate of 5%.					
SUBMITTE	ED BY:					
Name:	Ste	phan McLafferty	Date:			
Title:	Pre	esident				
Contracto	r: Sho	oreline Landscaping	& Contracting			
Signature						
Signature						
RECOMM	ENDED BY:					
Name:	Les	lie DellAngelo	Date:	9/22/2023		
Title:	Pro	oject Engineer	-			
Engineer:	Bar	rr Engineering Comp	any			
Signatura	. L	uliiDellGyd				
Signature	<u></u>					
APPROVE	D BY:					
Name:	Val	Eisele	Date:			
Title:	Pre	esident	_			
Owner:	Rar	msey-Washington M	etro Watershee	d District		
Signature	:					

Arbogast Underground Stormwater Filter

Ramsey-Washington Metro Watershed District

Summary of Work completed through September 19, 2023 for Progress Payment #3

							(1) Total Complete Perio		(2) Total Complete	ed Previous Period	(3) Total Complete	ed This Period
Line Item	Item Code	Item Description	UofM	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amoun
1	А	Mobilization/Demobilization	LS	1	\$43,500.00	\$43,500.00	0.5	\$21,750.00	0.50	\$21,750.00	0.00	\$0.0
2	В	Traffic and Pedestrian Safety Control Measures	LS	1	\$8,500.00	\$8,500.00	0.5	\$4,250.00	0.50	\$4,250.00	0.00	\$0.0
3	С	Control of Water	LS	1	\$10,000.00	\$10,000.00	0.5	\$5,000.00	0.50	\$5,000.00	0.00	\$0.0
4	D	Erosion and Sediment Control	LS	1	\$5,000.00	\$5,000.00	0.5	\$2,500.00	0.50	\$2,500.00	0.00	\$0.0
5	E	Salvage and Reinstall Topsoil (P)	CY	100	\$25.00	\$2,500.00	0	\$0.00	0	\$0.00	0	\$0.0
6	F	Salvage and Reinstall Landscape Boulders	LS	1	\$800.00	\$800.00	0	\$0.00	0	\$0.00	0	\$0.0
7	G	Sawcut and Remove Concrete Curb	LF	150	\$3.00	\$450.00	150	\$450.00	150	\$450.00	0	\$0.0
8	Н	Sawcut and Remove Asphalt Road Pavement	SY	125	\$3.00	\$375.00	125	\$375.00	125	\$375.00	0	\$0.0
9	Н	Sawcut and Remove Concrete and Asphalt Walk Pavement	SY	425	\$15.00	\$6,375.00	425	\$6,375.00	425	\$6,375.00	0	\$0.0
10	I	Common Excavation and Off-Site Disposal (P)	CY	800	\$25.00	\$20,000.00	800	\$20,000.00	800	\$20,000.00	0	\$0.0
11	J	Compacted Backfill (P)	CY	300	\$28.00	\$8,400.00	300	\$8,400.00	0	\$0.00	300	\$8,400.0
12	K	Connect Structure to Existing Pipes	EA	2	\$2,500.00	\$5,000.00	2	\$5,000.00	2	\$5,000.00	0	\$0.0
13	1	MH-1 (72" Precast) incl. Stop Gate	EA	1	\$28,560.00	\$28,560.00	0	\$0.00	0	\$0.00	0	\$0.0
14	1	MH-2 (48" Precast)	EA	1	\$6,350.00	\$6,350.00	1	\$6,350.00	1	\$6,350.00	0	\$0.0
15	L	MH-3 (48" Precast)	EA	1	\$6,350.00	\$6,350.00	0	\$0.00		\$0.00	0	\$0.0
16	L	MH-4 (48" Precast)	EA	1	\$6,350.00	\$6,350.00	0	\$0.00	0	\$0.00	0	\$0.0
17	L	MH-5 (48" Precast)	EA	1	\$6,350.00	\$6,350.00	1	\$6.350.00	1	\$6,350.00	0	\$0.0
18	L	MH-5 (40 FIEcast) MH-6 (72" Precast)	EA	1	\$12,630.00	\$12,630.00	1	\$0,530.00	1	\$6,330.00	0	\$0.0
10	M	18" RCP	EA	400	\$12,630.00	\$45,200.00	312	\$35,256.00	296	\$12,030.00	16	\$0.0
20	N		LF	220	\$113.00		220	\$35,256.00	296	\$33,448.00	220	\$1,808.0
		6" SCH 40 PVC Drain Pipe w/ Fittings (P)	с,	220		\$8,360.00	4		0		220	
21	0	6" PVC Gate Valve	EA	4	\$1,500.00	\$6,000.00		\$6,000.00		\$0.00		\$6,000.0
22	Р	Cast-In-Place Vault Structure	LS	1	\$283,000.00	\$283,000.00	1.0	\$283,000.00	0.6		0.4	\$113,000.0
23	Q	Precast Concrete Plank Lid	EA	10	\$10,860.00	\$108,600.00	0	\$0.00	0	\$0.00	0	\$0.0
24	R	Vault Access Manhole	EA	7	\$2,830.00	\$19,810.00	0	\$0.00	0	\$0.00	0	\$0.0
25	S	Stainless Steel Weir Plate	EA	1	\$8,960.00	\$8,960.00	1	\$8,960.00	0	\$0.00	1	\$8,960.0
26	Т	Aeration Splash Block	EA	1	\$3,000.00	\$3,000.00	1	\$3,000.00	0	\$0.00	1	\$3,000.0
27	U	CC17 (Crushed Limestone) Filtration Media (P)	CY	75	\$147.00	\$11,025.00	75	\$11,025.00	0	\$0.00	75	\$11,025.0
28	V	Concrete Curb w/Compacted Base	LF	150	\$62.00	\$9,300.00	0	\$0.00	0	\$0.00	0	\$0.0
29	W	Asphalt Road Pavement w/ Compacted Base	SY	125	\$85.00	\$10,625.00	0	\$0.00	0	\$0.00	0	\$0.0
30	Х	Pedestrian Ramp w/ Truncated Dome and Compacted Base (MnDOT Std. Plt.)	EA	1	\$4,500.00	\$4,500.00	0	\$0.00	0	\$0.00	0	\$0.0
31	Y	Heavy Vehicle Asphalt Pavement w/ Compacted Base	SY	100	\$91.00	\$9,100.00	0	\$0.00	0	\$0.00	0	\$0.0
32	Y	Asphalt Walk Pavement w/ Compacted Base	SY	425	\$41.30	\$17,552.50	0	\$0.00	0	\$0.00	0	\$0.0
33	Z	Painted Pavement Markings	LS	1	\$2,500.00	\$2,500.00	0	\$0.00	0	\$0.00	0	\$0.0
34	AA	Common Topsoil Borrow (MnDOT 3877-1A)	CY	50	\$48.00	\$2,400.00	0	\$0.00	0	\$0.00	0	\$0.0
35	AB	Seeding (MnDOT Low Maint. Turf Mix)	SY	1000	\$1.50	\$1,500.00	0	\$0.00	0	\$0.00	0	\$0.0
36	AC	Erosion Control Blanket	SY	1000	\$4.00	\$4,000.00	0	\$0.00	0	\$0.00	0	\$0.0
37	AD	Landscape Edging	LF	80	\$5.00	\$400.00	0	\$0.00	0	\$0.00	0	\$0.0
38	AE	Double Shredded Hardwood Mulch	CY	3	\$100.00	\$300.00	0	\$0.00	0	\$0.00	0	\$0.0
39	AF	Herbaceous Plant	EA	12	\$25.00	\$300.00	0	\$0.00	0	\$0.00	0	\$0.0
hange Ord	der 1		ŀ	Contract Base Extensions		\$733,922.50	L	\$455,031.00	I	\$294,478.00		\$160,553.0
C.C	D.1.A	Additional Steel Reinforcement for Cast-In-Place Vault Structure	LS	1	\$9,632.00	\$9,632.00	1	\$9,632.00	1	\$9,632.00	0	\$0.0
hange Oro	der 2											
).2.A	Additional Costs Related to Project Interruptions Due to Communication Utility Relocation	LS	1	\$16,036.55	\$16,036.55	1	\$16,036.55	0	\$0.00	1	\$16,036.5
	D.2.B	Excavation for Communication Conduit Relocation	LS	1	\$9,706.22	\$9,706.22	1	\$9,706.22	0	\$0.00	1	\$9,706.2
				Change Order Extensions		\$35,374.77		\$35,374.77		\$9,632.00		\$25,742.77

Contract Grand Total

\$769,297.27

\$490,405.77

\$304,110.00

\$186,295.77

Galowitz Olson, PLLC 10390 39th Street North Lake Elmo, Minnesota 55042 Office: (651) 777-6960 Fax: (651) 777-8937

Ramsey-Washington Metro Watershed District C/O Tina Carstens 2665 Noel Drive Little Canada MN 55117 Page: 1 September 20, 2023 File No: 9M

General Account

Balance

\$4,664.00

Stewardship Grant Application Summary

Project Overview:

This project is located off Highwood Avenue East and Schaller Drive South in the City of Maplewood. The homeowner is proposing to install a rain garden to capture and treat runoff from an existing dry creek bed and from a majority of the roof. The applicant will be installing native plants and is excited to show this off to the many pedestrians that walk by this area each day. They also have plans in place for a larger native planting bed which will be completed as part of a future phase.

This project is eligible for 75% coverage up to \$15,000.

BMP type(s):

Rain Garden(1)

Grant Request:

\$10,335.00

Recommendation:

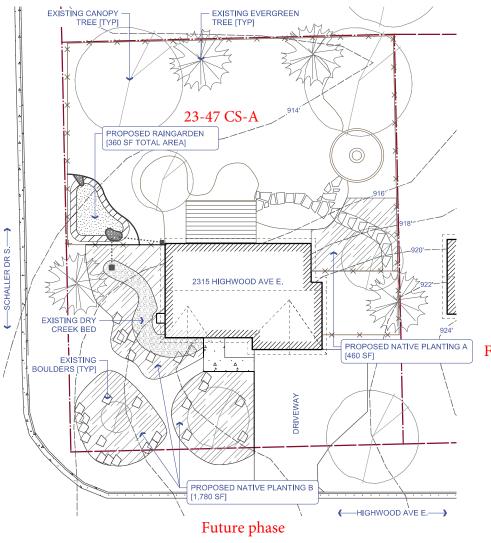
Staff recommends approval of this application.

Subwatershed:

Blufflands

Location Maps:





Watershed Data	BMP 1 -Rai	ingarden	
Target Rainfall	1.1	in	
Soil Type:	В	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Roof	1,160	0.027	98
Sidewalk	45	0.001	98
Turf Grass/Lawn	1,345	0.031	79
Total	2,550	0.059	
% Imp	47%		

Pollutant Reductions: Yearly - Raingarden A									
	Before	After	Reduction	Red. %					
Volume (cu-ft/yr)	3,441	414	3,027	88%					
TSS (lbs/yr)	11.71	1.40	10.31	88%					
TP (lbs/yr)	0.064	0.008	0.057	88%					

RAMSEY COUNTY

RAMSEY COUNTY SWCD 2015 VAN DYKE STREET MAPLEWOOD, MN 55109 651-266-7280 www.ramseycounty.us

PROJECT: WESTBROCK RESIDENCE LOCATION: 2315 HIGHWOOD AVE E. MAPLEWOOD, MN 55119 WATERSHED DISTRICT:

RAMSEY-WASHINGTON

DESIGNER: BRIAN T. OLSEN DATE: 1/17/2023 PAST REVISION: PAST REVISION: PAST REVISION: PAST REVISION: CHECKED BY: TAA:

NOTES:

-CONTACT GOPHER STATE ONE CALLTO CONFIRM UTILTY LOCATIONS -ELEVATIONS ARE APPROXIMATE, SITE VENIFY -VERIFY ANY BID ALTERNATES OR ONSITE CHANGES WITH SWCD STAFF PRIOR TO INSTALLATION -ORIGINAL SHEET SIZE: 11"x17"

Future phase

 LEGEND
 RAINGARDEN SIDE SLOPE [4H:1V SLOPE MAX]

 Image: Image

SCALE: 1"=20'-0" N

Consent Agenda Action Item

Board Meeting Date:	October 4, 2023	Agenda Item No: <u>3D</u>				
Preparer:	Tina Carstens, Administrator					
Item Description:	Change Order No. 2 for the Arbogast Underground Stormwater Filter Project					

Background:

Change order 2 for the Arbogast Underground Stormwater Filter Project is attached. This change order will increase the contract price by \$25,742.77 and is due to the conflict with the communication utility.

Applicable District Goal and Action Item:

Goal: Achieve quality surface water – The District will maintain or improve surface water quality to support healthy ecosystems and provide the public with a wide range of water-based benefits.

Action Item: Implement retrofit water quality improvement projects.

Staff Recommendation:

Approve Change Order No. 2.

Financial Implications:

This change order increases this contract price by \$25,742.77, which is available in the contingency budget for this project.

Board Action Requested:

Approve Change Order No. 2.

Change Order No. 2 Ramsey-Washington Metro Watershed District Arbogast Underground Stormwater Filter

DATE OF ISSUANCE: September 27, 2023

Owner: Ramsey-Washington Metro Watershed District 2665 Noel Drive Little Canada, MN 55117 Attn: Val Eisele

- Contractor: Shoreline Landscaping & Contracting 29159 Ivywood Trail Chisago City, MN 55013 Attn: Stephan McLafferty
- Engineer: Barr Engineering Company 4300 MarketPointe Drive, Suite 200 Minneapolis, MN 55435 Attn: Erin Anderson Wenz

C.O.2.A Additional Costs Related to Project Interruptions Due to Communication Utility Relocation

Description of Change:

A Lumen communication conduit was discovered on the site that had a direct conflict with the storm sewer entering the underground filtration vault. Because of this conflict, the project was paused while the Engineers reviewed potential solutions to the utility conflict. During the review period, the Contractor finished work onsite that could be completed without relocating the utility, and demobilized from the site including removal of equipment to other project sites. The Contractor also needed to reschedule its subcontractors (i.e., concrete pouring) until the utility conflict was resolved, which resulted in additional administrative costs.

This results in an additional Lump Sum (L.S.) cost of \$16,036.55.

C.O.2.B Excavation for Communication Utility Relocation

Description of Change:

After the utility conflict was identified, the Engineers directed the Contractor to work with Lumen to relocate the utility conduit above the proposed storm sewer. Lumen indicated that if they were to perform the work, they would be delayed by approximately 2 weeks due to a lack of appropriate equipment. To avoid this additional delay, the Contractor performed the excavation work required to relocate the utility, which resulted in an additional cost to the project. The actual concrete and utility work was performed and paid for by Lumen.

This results in an additional Lump Sum (L.S.) cost of \$9,706.22.

Total Impact on Contract Price:

Additional cost of **\$25,742.77** is anticipated.

Attachments:

- Change Order request from Shoreline Landscaping and Contracting •
- Invoice for KX080 Excavator (INV1)
- Invoice for Sany Excavator (INV3)
- Rental Credit Memo for Sany Excavator (INV4) •

This Change Order No. 2 is:

Helli Dellage

Submitted By: (ENGINEER)

Leslie DellAngelo, Project Engineer **Barr Engineering Company**

Authorized By: (OWNER)

Val Eisele, President Ramsey-Washington Metro Watershed District

Approved By: (CONTRACTOR)

Stephan McLafferty

Stephan McLafferty, Owner Shoreline Landscaping and Contracting

Date: September 27, 2023

Date: 9-27-2023

Date:

ATTACHMENTS



Shoreline Landscaping 29159 Ivywood Trail Chisago City, MN 55013 651-257-2655 <u>stephan@shorelinelandscaping.net</u>

Project Name – Arbogast Underground Stormwater Filter

Change Order Agreement(s) to Project-

Project Delays

8-04-2023 - 8-24-2023

Costs Related Project Delay -

1. Mobilization – Machine / Equipment Relocation –

-Transferred equipment / tools / supplies from Arbogast site to Isanti County site and back to Arbogast Site.

-Transferred equipment/ tools / supplies from site to shop & shop to site.

Mobilization Costs = **\$8,510.00**

2.Equipment Rental – Lano Invoice# 03-1011532 - KX80 Excavator -

Total Monthly Rental Costs- \$4,435.41 (\$1,108.85 per week)

Prorated for project delay (x3 weeks) = \$3,326.56

3.Reschedule Subcontractors -

12 hours staff time @ \$90.00 - \$1,080.00

4. Changes to Scheduled Projects –

-Reschedule project subs (surveying, clear & grub, concrete, ect) & materials / production.

-Costs to Push Scheduled Fall (2023) Project to Spring (2024) - \$3,120.00

Project Delay Grand Total = \$16,036.56

Excavation for Concrete Communication Conduit (9-Pack) -

- 9/6/2023 9/8/2023 1.Equipment Rental - Sany Excavator -Lano rental Invoice # 03-1021301 -- \$4,193.48 Less Credit Memo (Inv 03-1021301) – (\$2,306.42) Actual Rental Cost = \$1,887.06 2. Labor Expenses -Company Exposure for Payroll (9/6-9/8) -Donald M - 9/6 = 6.10 Labor Hours (9 Pack) - Donald drove to Arbogast separate this day. Donald M - 9/7 = 10.83 Labor Hours (9 Pack) Donald M - 9/8 = 11.56 Labor Hours (2 hours in morning for 9 pack) Total 9pack Labor Hours for Donald M = 18.93 hours Jack G – 9/6 = 11.56 Skidsteer Operator Hours (9 Pack) Jack G - 9/7 = 12.10 Skidsteer Operator Hours (9 Pack) Jack G - 9/8 = 12.97 Skidsteer (2 hours in morning for 9 pack) Total 9Pack Hours for Jack G = 25.66 hours Liam R - 9/6 = 10.88 Labor Hours (9 Pack) Liam R - 9/7 = 10.70 Labor Hours (9 Pack) Liam R - 9/8 = 10.78 Labor Hours (2 hours in morning for 9 pack) Total 9pack hours for Liam R = 23.58 hours Trevor J – 9/6 =12.20 Labor Hours (9 Pack) Trevor J - 9/7 = 11.60 Labor Hours (Slotted Pipe) Trevor J - 9/8 = 13.07 Labor Hours (Wier Plate) Total 9pack hours for Trevor J = 12.20 hours Sebastian M – 9/8 1.40 Labor Hours (Wier Plate) Total Labor Hours = 54.71 hours @ 59.39 per = \$3249.23
- Total Skidsteer Operator Hours = 25.66 hours @ 64.30 = \$1649.94

Total 9pack Related Labor Costs = \$4,899.17

3. Machine Time –

Asv - 70 - Skidsteer - 20 hours @ \$125.00/ hour = \$2,500.00

Robotic Sheepfoot Roller Compactor – 4 hours @ \$105.00 per hour = \$420.00

Sany Excavator Hours - N/A (Rental)

Total for Machine Time = \$2,920.00

Excavation for Nine Pack Grand Total = \$9,706.23

Total cost for changes for the project - ____\$25,742.79_____

Change order does not require a payment now. Adjustment in the contract price resulting in the Change Order will be made upon completion.

Acceptance of Change Order

By their signature below the Parties accept the change to the scope of the work, specifications, and prices as stated in this Change order. Shoreline Landscaping is authorized to begin work on the earliest available date

Signature -

Ian	0		RENTAL INVOICE							
3021 W 133rd St • Shakopee, MN 55379 • 952-445-6310 6140 Hwy 10 NW • Anoka, MN 55303 • 763-323-1720 23580 Hwy 55 • Loretto, MN 55357 • 763-479-8200 www.lanoequip.com • www.lanoeq.com • www.lanogardengear.com		1	Invoice: 03-1011532 Date: 7/26/2023			PO: Custld: SHORELINE				
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Bill To: SHORELINE LA 29159 IVYWOC CHISAGO CITY	D TRL	_		Ship To: SHORELINI 741 ARBOG SHOREVIE	SAST ST		3			
AGREEMENT 72139										
Contract Number: Pickup Date:		168354		Status: Delivery Date:		Comp	leted			
Item	Туре	Description			Qty	Тах	Price	Discount	Net Price	
Excavator 208103 / RENTAL	RU	KUBOTA EXCAVATOR , RBBR T BLADE Model: KX080-4S2R3A S/N: KBCDZ84CJL3K11156 1 mon (\$3,900.00)	RKS, A/C CAB	B, ANGLE		Y				
PD	МС	Rental Term: 7/26/2023 1:08:00 PM - 8/	′23/2023 1:08:00 F	PM Unit Total:	1.0000 1.0000	Y	\$3,900.00 \$225.00	Total:	\$3,900.00 \$3,900.00 \$225.00	
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	Signa	ture:				Total	Forms of Pa	yment:	\$4,435.41	



RENTAL INVOICE

Invoice: 03-1011532 Date: 7/26/2023

PO: CustId: SHORELINE

Cust Email: Phone: Salesperson: User:

STEPHAN@SHORELINELANDSCAPING.NET (651) 257-2655 ANDREWK ANDREWK

Bill To: SHORELINE LANDSCAPING 29159 IVYWOOD TRL CHISAGO CITY, MN 55013 US

www.lanoequip.com • www.lanoeq.com • www.lanogardengear.com

Ship To:

SHORELINE LANDSCAPING 741 ARBOGAST ST SHOREVIEW , MN 55126

Balance Due On This Invoice: \$0.00

Purchaser hereby grants Lano Equipment, Inc. a purchase money security interest in all of the above described items. Purchaser hereby agrees to pay Lano Equipment, Inc. all attorney's fees, court costs and other costs on collection on any and all unpaid amounts. NO REFUNDS ON ELECTRICAL PARTS * NO REFUNDS ON SPECIAL ORDER PARTS * NO REFUNDS ON OTHER PARTS AFTER 30 DAYS

lano					RENTAL INVOICE						
3021 W 133rd St • Shakopee, MN 55379 • 952-445-6310 6140 Hwy 10 NW • Anoka, MN 55303 • 763-323-1720 23580 Hwy 55 • Loretto, MN 55357 • 763-479-8200 www.lanoequip.com • www.lanoeq.com • www.lanogardengear.co		ngear.com	Invoice: 0 Date: 9/5		3-1021301 ⁄2023		PO: Custld: SHORELINE				
			non dasha 🖌 ang			Cust Email: Phone: Salesperson: User:	(651) 2	257-265 EWK		IELANDSCAF	PING.NET
Bill To: SHORELINE LA 29159 IVYWOC CHISAGO CITY	D TRL		US			Ship To: SHORELINE 741 ARBOG, SHOREVIEV	AST ST.				
AGREEMENT 72274 Contract Number: Pickup Date:		169093				Status: Delivery Date:		Comple	ted		
Item	Туре	Description					Qty 1	Tax	Price	Discount	Net Price
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Forms of Payment											
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Signature:__

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lan	0						RENT	AL	CR	ED	ΤN	IEM	0 -	RET	URN
EDURMENT, INC. 3021 W 133rd St • Shakopee, MN 55379 • 952-445-6310 6140 Hwy 10 NW • Anoka, MN 55303 • 763-323-1720 23580 Hwy 55 • Loretto, MN 55357 • 763-479-8200 www.lanoequip.com • www.lanoeq.com • www.lanogardengear.com			Invoice: 03-1022594 Date: 9/8/2023		594	PO: CustId: SHORELINE									
		576-19, 5 (c)					Cust Emai Phone: Salespers User:		(651) AND	PHAN® 257-2 REWK REWK	655	RELIN	IELANI	DSCAP	PING.NET
Bill To: SHORELINE LA 29159 IVYWOC CHISAGO CITY	D TRL	-	US		 		Ship To: SHORELI 741 ARBC SHOREVI	OGAS	T ST.		G				
AGREEMENT 72274															
Contract Number: Pickup Date:		169093					Status: Delivery Dat	te:		Deliv	rered				
Item	Туре	Descript	on		 				Qty	Тах		Price	Disc	ount	Net Price
216226 / RENTAL Returned	RU d	SANY EX TRACK S/N: SY0 0.45 Mont Rental Ter	07TCBC h (\$1,755	. 5638):29:00 AM	-		1.0000	Y	\$3,9	900.00			(\$2,145.00) (\$2,145.00)
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					 					rotal		s of Pay			(\$2,306.42)

Balance Due On This Invoice: \$0.00

Signature:_

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* * * * * * * * * * * *

Permit Program ********

Permit Application Coversheet

Date	Octobe	er 04, 20	23		
-	Name	Bailey N	lursery Wetland CAP	Project Number	23-23
Applica	ant Nam	e Johr	n Bailey, Bailey Nurseries, Inc.		
Type of	f Develo	opment	Wetland		

Property Description

This project is located at the Bailey Nursery property south of Carver Lake in the City of Woodbury. The applicant is proposing to complete a Corrective Action Plan (CAP) project overseen by the Minnesota Department of Agriculture (MDA) to remove contaminated soils from an existing wetland. The total project area is 1.32 acres. Excavation and removal of soil contaminated with Bifenthrin insecticide is proposed to comply with a MDA corrective action order. Soil will be removed by a licensed waste hauler to an environmental landfill for disposal. The wetland in question received a delineation approval in November 2021 (#21-16 WCA). Temporary wetland impacts in the amount of 0.53 acre are proposed to accommodate site excavation, grading/restoration, and construction access. A variance request (Rule E) for temporary wetland and buffer impacts is enclosed. All areas will be restored with native seed mixes. In the final condition, the project will meet District minimum (25') and average (50') wetland buffer requirements. Proposed excavation will be limited to the minimum dimensions necessary for achieving the project purpose and will not result in a permanent change in wetland type or area. A Wetland Conservation Act (WCA) no-loss application was approved in September 2023 (#23-21 WCA). The project will result in no net fill within the 100-year floodplain and no impervious area.

Watershed District Policies or Standards Involved:				
✓ Wetlands	Erosion and Sediment Control			
Stormwater Management	✓ Floodplain			

Water Quantity Considerations

There are no water quantity concerns.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

There are no long term water quality concerns.

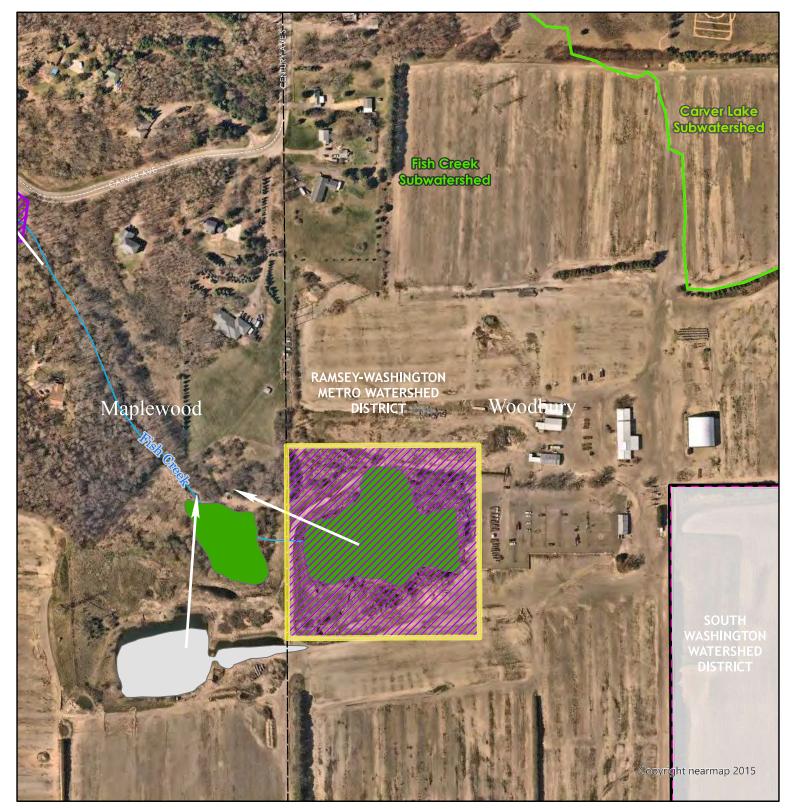
Staff Recommendation

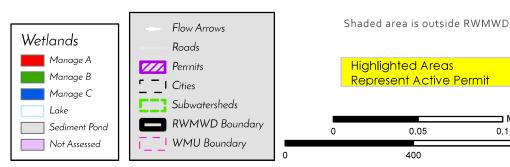
Staff recommends approval of this permit with the special provisions and variance request (Rule E).

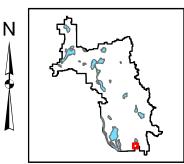
Attachments:

- ✓ Project Location Map
- Project Grading Plan

#23-23 Bailey Nursery Wetland CAP







⊐ Miles

□ US Feet

800

0.1

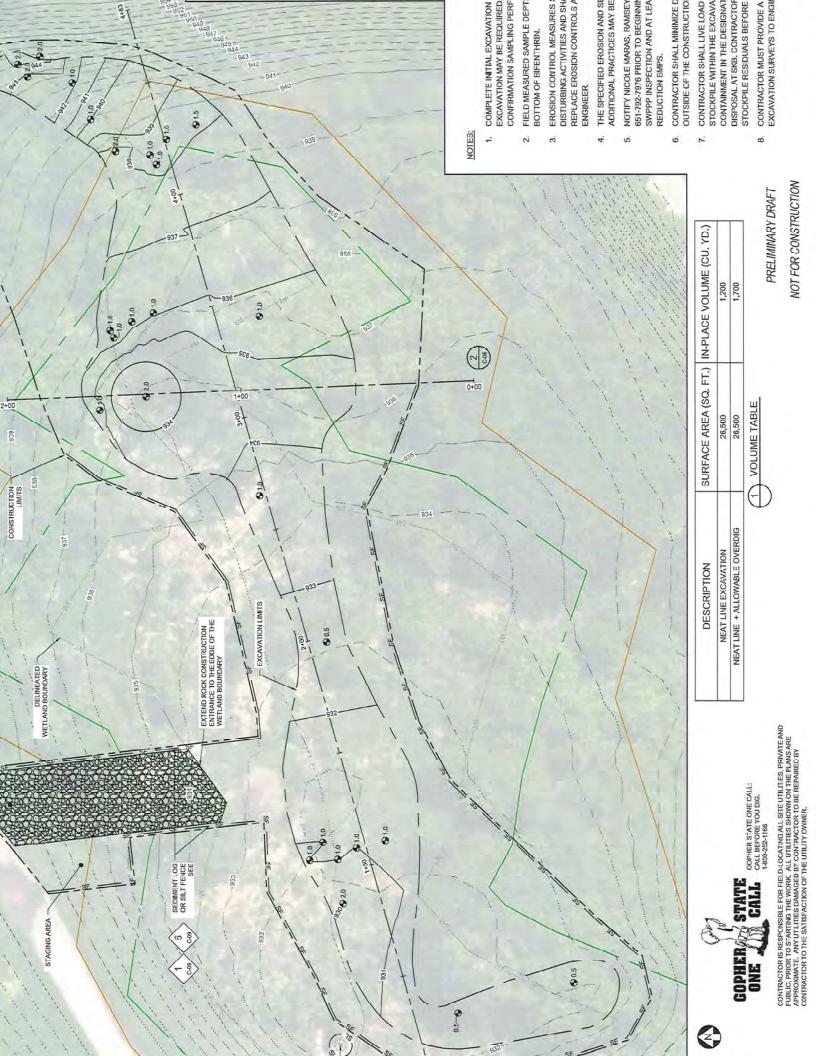
23-23

Special Provisions

1. The applicant shall submit the final, signed plans set.

2. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

3. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.



Memorandum

To:Ramsey-Washington Metro Watershed District (RWMWD) Board of ManagersFrom:Bailey Nurseries, Inc.Subject:Bailey Nurseries Corrective Action Plan Wetland AreaDate:September 13, 2023

Project Description

The Wetland Area Bailey Nurseries Corrective Action project is located on the Container West Farm of the Bailey Nurseries property in Woodbury within Section 19 of Township 28N, Range 21W, Washington County, Minnesota.

The project purpose is to excavate contaminated soil containing agricultural chemicals in and surrounding a wetland. This work is being completed as a corrective action completed by Bailey Nurseries and overseen by the Minnesota Department of Agriculture to remove contaminated soils containing Bifenthrin insecticide. Work will take place within 1.32 acres of the Bailey Nurseries property.

A RWMWD grading permit application for this project was submitted on September 13, 2023.

This memo provides project information to support a request for a variance of the Rule E wetland management no disturb wetland buffer.

Rule E: Wetland Management

Aquatic resources affected by the project includes:

- excavation of contaminated soil within 0.331 acres (14,440 SF) of wetland previously delineated and designated as Wetland 9.
- Additional grading area within the wetland for slope stabilization along the edges of the excavation will take place within 0.178 acres (7,738 SF) of wetland.
- The temporary construction access is within 0.020 acres (855 SF) of wetland.

These areas are shown in the attached Excavation and Grading Impacts Figure attached. Excavated contaminated soil will be hauled by a licensed waste hauler to an environmental landfill for disposal. Disturbed areas will be seeded with native seed mix and restored.

Previous Agency Communication, Documentation, and Submittals:

• Wetland boundaries and types were previously approved by the RWMWD Wetland Conservation Act (WCA) Local Government Unit (LGU) on 11/10/2021.

- A Minnesota Joint Application Form for Activities Affecting Water Resources in Minnesota (Joint Application) was submitted to the Nicole Maras at RWMWD and the U.S. Army Corps of Engineers (USACE) project manager on September 13, 2023.
- The project activities are anticipated to be authorized by the USACE under Section 404 of the Clean Water Act through Nationwide Permit 38 for Cleanup of Hazardous and Toxic Waste.
- WCA Project activities are anticipated to be approved as no-loss activities including:
 - Excavation of contaminated soil and grading for slope stabilization would be considered no-loss activity under MN Rule 8420.0415 E. for excavation limited to removal of contaminated substrate, when the excavated area is limited to the minimum dimensions necessary for achieving the desired purpose and stabilized to prevent water quality degradation. Excavation and grading associated with the project would take place within 0.509 acres of wetland.
 - Temporary construction access would be considered no-loss activity under MN Rule 8420.0415 H. for temporary impacts that are rectified by repairing, rehabilitation, or restoring the affected wetland. There are 0.020 acres of wetland within the construction access area that would be temporarily disturbed, which will be seeded with a native seed mix and restored to pre-project conditions within six months from the start of the activity.
- No work will occur within Minnesota Department of Natural Resources Public Water.
- The RWMWD no-disturb wetland buffers apply to this project. A variance from Rule E will be needed for the wetland buffer disturbance. The RWMWD classification for this wetland (MNRAM ID 82-028-21-19-005-A) is a Manage B, which requires a minimum buffer width would of 25' and a 50' average.

Rule E Variance Request:

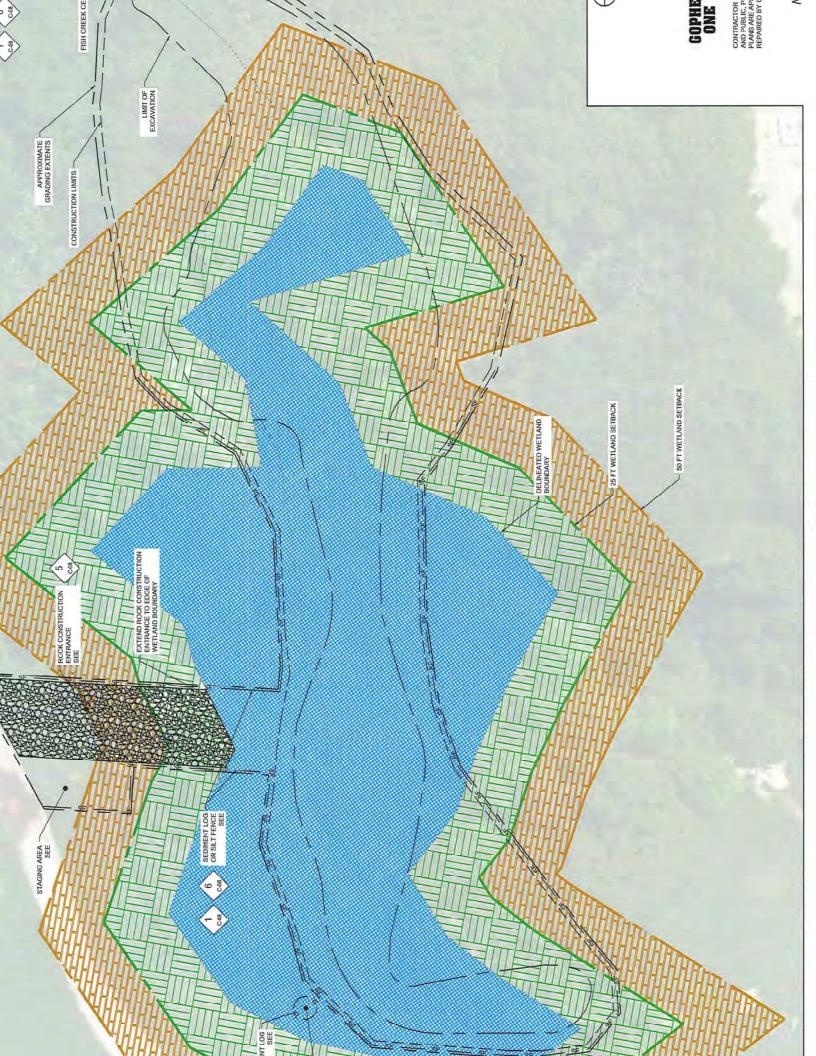
Avoiding the wetland and adjacent buffer is not possible due to the nature of the project being located within the wetland and buffer. However, the project will result in an improvement to the wetland and its associated buffer in the final condition as follows:

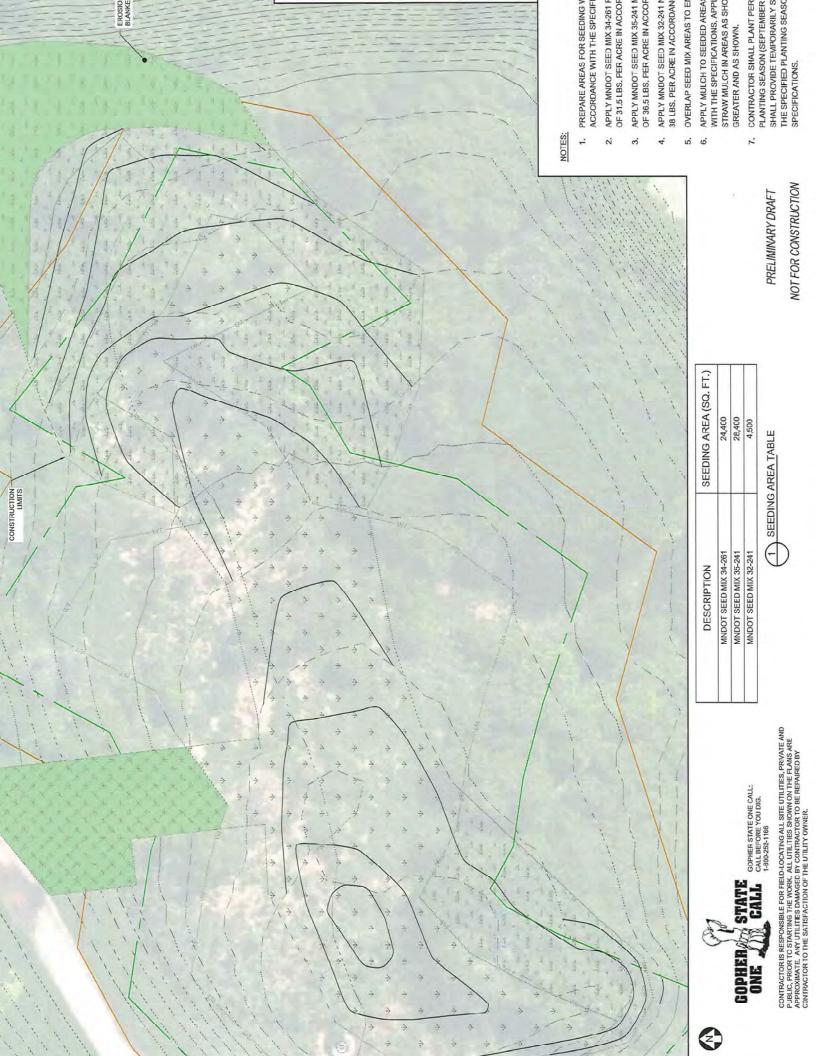
- The existing wet meadow/shrub-carr wetland communities within the project area are dominated with non-native invasive species including reed canary grass and common buckthorn and the project area is further disturbed by contaminated soil. Existing site condition photographs are attached.
- The project will restore wetland through removal of contaminated soil in the upper 1 to 2 feet within 0.331 acres of existing wetland. Resulting elevations are not anticipated to result in a change in the wetland community types.
- The disturbed wetland and adjacent upland areas will be restored to pre-project conditions and seeded by a qualified contractor with native seed mixes, providing cover of native grasses, sedges, rushes, and forbs. Adjacent willows are anticipated to fill into the project area over time. See Restoration Plan Sheet C-05 attached. Designated seed mixes include Riparian South & West (MnDOT Seed Mix 34-261, same as BWSR re-numbered to 34-262) in the disturbed wetland, Mesic Prairie General (MnDOT Seed Mix 35-241, same as BWSR State Seed Mix 35-241) in

disturbed adjacent upland, and Native Construction (MnDOT 32-241, same as BWSR re-numbered 32-242) in the upland portion of the temporary construction access area.

 After restoration is completed, the minimum 25' width from the edge of the delineated wetland will be met. The average 50' buffer width will also be met. An asphalt roadway exists within a portion of the 50' width boundary, however the average naturalized buffer width is exceeded to the south of the wetland meeting the required 50' average around the wetland. See Wetland Area Final Grading Plan Sheet C-04 attached.

Due to the nature of the project, since complete avoidance is not possible, the project has been designed to restore conditions to improve the existing conditions of the wetland and associated upland buffer to the extent practicable. Therefore, a variance of the wetland and buffer Rule E is requested.







Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit: Ramsey-Wa	ashington Metro	Watershed District Cou	unty: Ramsey, Washington	
Applicant Name: John Bailey (Bailey	Nurseries, Inc.)	Applicant Representative	: Kyle Uhler (Kjolhaug	
Environmental Services)				
Project Name: Bailey Nursery	LGU Project No	5. (if any): 21-16 WCA		
Date Complete Application Received	d by LGU: 10/13	/2021		
Date of LGU Decision: 11/10/2021				
Date this Notice was Sent: 11/18/20	21			
WCA Decision Type - check all that ap	ply			
⊠Wetland Boundary/Type	Sequencing	Replacement Plan	□Bank Plan (not credit	
	pu	rchase)		
□No-Loss (8420.0415)		□Exe	mption (8420.0420)	
Part: 🗌 A 🗌 B 🔲 C 🗆 D 🗌 E 🗌 F	□с□н	Subpart: 🗖 2 [□ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □ 9	
Replacement Plan Impacts (replacem	ent plan decisio	ns only)		
Total WCA Wetland Impact Area:	<u> </u>			
Wetland Replacement Type:	piect Specific Cre	edits:		
	nk Credits:			
Bank Account Number(s):				
Technical Evaluation Panel Findings a				
🛛 Approve 🔲 Approve w/Condition	ons 🗌 Deny	No TEP Recommenda	ation	
	1	N 1		
Approved with Conditions (specif List Conditions:	y below)'	⊠ Approved ¹	Denied	
Decision-Maker for this Application: Staff □ Governing Board/Council □ Other: Decision is valid for: S years (default) □ Other (specify):				

¹ <u>Wetland Replacement Plan</u> approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For projectspecific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision¹.

 \Box Attachment(s) (specify):

Summary: Nicole Soderholm (RWMWD- LGU) completed a field review with Kyle Uhler, Ben Meyer (BWSR), and Matt Moore (SWWD- LGU) on 11/9/21. No changes were requested to the delineation report. This NOD pertains to water resources that fall within the jurisdiction of RWMWD (various ponds, Wetlands 8, 9, and 11).

¹ Findings must consider any TEP recommendations.

Appeals of LGU Decisions

If you wish to <u>appeal</u> this decision, you must provide a written request <u>within 30 calendar days of the date you</u> <u>received the notice</u>. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator Minnesota Board of Water & Soils Resources 520 Lafayette Road North St. Paul, MN 55155 travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

 \Box Yes¹ \boxtimes No

¹If yes, all appeals must first be considered via the local appeals process.

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

SWCD TEP Member: Emily Dee	ring (Ramsey County), Jay Riggs (Washington Conservation District)	\boxtimes
BWSR TEP Member: Ben Meyer		
LGU TEP Member (if different that	an LGU contact):	
DNR Representative: Leslie Par	ris	
□ Watershed District or Watershed	Mgmt. Org.:	
Applicant (notice only):	Agent/Consultant (notice only):	

Optional or As Applicable:

Corps of Engineers: Samantha Coungeris

BWSR Wetland Mitigation Coordinator (required for bank plan applications only):					
□ Members of the Public (notice only): □ Other:					

Signature:	Date:
Nicole Soderholm	11/18/2021

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit: Ramsey-Washington Metro Watershed District (RWMWD) County: Washington
Applicant Name: John Bailey (Bailey Nurseries, Inc.) Applicant Representative: Alex West (Barr Engineering
Co.)
Project Name: Bailey Nursery No Loss LGU Project No. (if any): 23-21 WCA
Date Complete Application Received by LGU: 9/13/2023
Date of LGU Decision: 9/18/2023
Date this Notice was Sent: 9/18/2023
WCA Decision Type - check all that apply
□Wetland Boundary/Type □Sequencing □Replacement Plan □Bank Plan (not credit purchase)
⊠No-Loss (8420.0415) □Exemption (8420.0420)
Part: 🗆 A 🗆 B 🗆 C 🗆 D 🖾 E 🗆 F 🗆 G 🗆 H Subpart: 🗆 2 🗆 3 🗆 4 🗆 5 🗔 6 🗆 7 🗔 8 🗆 9
Replacement Plan Impacts (replacement plan decisions only)
Total WCA Wetland Impact Area:
Wetland Replacement Type: Project Specific Credits:
Bank Credits:
Bank Account Number(s):
Technical Evaluation Panel Findings and Recommendations (attach if any)
□ Approve □ Approve w/Conditions □ Deny
LGU Decision
$\Box \text{ Approved with Conditions (specify below)}^1 \qquad \Box \text{ Approved}^1 \qquad \Box \text{ Denied}$
List Conditions:
Decision-Maker for this Application: 🛛 Staff 🛛 Governing Board/Council 🖾 Other:
Decision is valid for M E veges (default) Other (specify)
Decision is valid for: \boxtimes 5 years (default) \square Other (specify):
¹ Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-

specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision¹.

 \Box Attachment(s) (specify):

Summary: A wetland delineation was approved for the site in November 2021 (#21-16 WCA NOD 11/18/21). Excavation of contaminated sediment is related to a Corrective Action Plan approved by the MDA (Minnesota Department of Agriculture) and will be limited to removal of contaminated substrate to the minimum dimensions necessary for preventing further water quality degradation. Contaminated sediment will be hauled offsite and disposed in a regulated landfill. Proposed elevations/contours are not expected to change the existing wetland type or size, resulting in no loss of wetlands.

¹ Findings must consider any TEP recommendations.

Attached Project Documents

Appeals of LGU Decisions

If you wish to <u>appeal</u> this decision, you must provide a written request <u>within 30 calendar days of the date you</u> <u>received the notice</u>. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator Minnesota Board of Water & Soils Resources 520 Lafayette Road North St. Paul, MN 55155 travis.germundson@state.mn.us

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¹If yes, all appeals must first be considered via the local appeals process.

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

SWCD TEP Member: Jay Riggs (Washington Conservation District)

□ LGU TEP Member (if different than LGU contact):

DNR Representative: Kelly Pharis

⊠ Watershed District or Watershed Mgmt. Org.:

Applicant (notice only): Agent/Consultant (notice only): Karen Wold/Adam Birr/Sheridan Braun/Tom Mattison (Barr)

Optional or As Applicable:

☐ Corps of Engineers: Samantha Coungeris				
BWSR Wetland Mitigation Coordinator (required for bank plan applications only):				
Members of the Public (notice only): Other: Mary Fitzgerald (RWMWD), Heidi				
Quinn (City of Woodbury)				

Signature:	Date:
Nicole Maras	9/19/2023

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



MEMORANDUM

Date: October 4, 2023

To: Board of Managers and Staff

- From: Nicole Maras, Permit Coordinator Mary Fitzgerald, District Inspector
- Subject: September Enforcement Action Report

During September 2023:

Number of Violations:	30
Contain Liquid (Calid Weather	~
Contain Liquid/Solid Wastes	6
Install/Maintain Perimeter Control	6
Install/Maintain Inlet Protection	5
Install/Maintain Construction Entrance	4
General Permit Requirements	4
Sweep Streets	2
Maintain/Protect Permanent BMPs	2
Stabilize Exposed Soils	1

Activities and Coordination Meetings:

Active permit site monitoring and inspections, permitting assistance to private developers and public entities, Wetland Conservation Act (WCA) administration & procedures, new permit review with Barr Engineering, vegetation establishment inspections, wetland mitigation site inspections, initial erosion control walk-throughs at new permit sites, onsite BMP maintenance education, MN Water Workforce pilot program meeting, Strategic Diversity Initiatives staff training, MN Watershed DEI workgroup meeting, RWMWD DEIA meeting

Single Lot Residential Permits Approved by Staff:

None

Permits Closed:

23-06 Xcel Energy Roseville 0802 Line Rebuild (Roseville)

Active sites who received non-compliant reports in the month of September:

23-21 MWWTP Lab Services Building (St. Paul; public project)



Insufficiently protected inlet near site work caused non-compliance. Site installed protections within an hour of discovery, and is now back into compliance.

23-17 The Heights Phase I (St. Paul; public project)

Cause for non-compliance: Excessive sediment tracking on roadways, removal of redundant perimeter control at the northeast wetland buffer and removal of east perimeter control without proper reinstallation. In addition to the items listed above, during approved wetland dewatering of mitigated wetlands, the site began to accidentally dewater a wetland that is not to be disturbed through construction. This mistake was noted by an individual on site and the hose was shut off. As the WCA LGU, St. Paul is going through communication with the site to determine course of action for enforcement and restoration.

To correct non-compliance, the site reinstalled redundant perimeter control around the northeast wetland and reinstalled east perimeter control. They have installed addition slash mulch and rock to reduce sediment tracking, and hired a professional sweeper to continuously sweep Monday-Friday during the work day.



23-11 Reuter Walton Apartments II (Little Canada; private project) Cause of non-compliance was failure to maintain half full silt fence perimeter control. The site has since repaired all of their perimeter control and is back in compliance.

23-09 Woodbury 2023 SIP (Woodbury; public project)

Cause of non-compliance was failure to install and maintain anti-tracking BMPs at construction entrances, which resulted in excessive sediment trackout throughout many residential roads. The site has since installed entrances and increased sweeping efforts.

22-31 White Bear Lake Apartments II (White Bear Lake; private project) Staff discovered many routine maintenance items needing attention and discussed in length on site with contractors about necessary repairs. During the next inspection in early September, staff found the site had not completed any items from the previous report, causing them to be noncompliant. Staff required all work to be completed immediately. Staff reinspected the site two days later, walked the site with contractors, and found all required



work complete. They are now back in compliance and communicated that they will make erosion and sediment control a bigger priority on site from now on.

22-12 Victoria Shores (Roseville; private project)

During an initial erosion control walkthrough, staff discovered soil disturbance beyond silt fence, caused by tree removal. Staff issued a non-compliant report and required installation of stabilization and perimeter control to be installed immediately, and completed within 24 hours. Contractors initiated work and completed it same day. Staff will monitor this area to ensure vegetation establishes in the stabilized zone.



21-32 Rooney 2nd Addition (White Bear Lake; private project)

Staff met with city of White Bear Lake staff on site to discuss next steps for the Rooney site where the general contractor has gone out of business. The site is non-compliant due to a number of incomplete maintenance items. The site is in the process of being acquired by a new agency/contractor. Inspection staff from RWMWD and White Bear Lake are working with subcontractors to upkeep items in the meantime. No off-site impacts are occurring, and all non-compliance is contained on the site.



21-11 North High School Addition (North St. Paul; public project) Staff observed full inlet devices during an inspection in early September. This was noted as regular routine maintenance and compliant. During staff's next inspection, they noted the same inlet devices were still full, this was now considered noncompliant due to incomplete maintenance. Staff sent their report to the site and emphasized timeframes for completing action items. The site confirmed all inlets would be maintained and/or removed where no longer necessary from phase I of the project.

21-05 1880 Old Hudson Road Phase II (St. Paul; private project) Lack of reinstallation of inlet devices after paving the parking lot, and missing perimeter control along the northwest portion of the building caused noncompliance. Staff reinspected the site a couple days later and discovered some inlets still missing protection. Staff received photos of these remaining inlets protected, and the site is now back in compliance.

Active sites who received violations in the month of September. Violations do not always result in a non-compliant report:

23-02 Caretta Assisted Living (Maplewood; private project) Silt fence reinstalled after short term pipe installation work is not fully trenched in.

22-24 Impact Apartments (Oakdale; private project) Construction entrance needs to be maintained. Temporary stabilization needs to be installed.



21-16 Metro Transit Gold Line BRT (Landfall, Maplewood, Oakdale, St. Paul, Woodbury; public project)

Site needs to maintain/install inlet protection, install temporary stabilization, and secure portable toilets to prevent tipping.

19-42 American Indian Magnet School Addition (St. Paul; public project) Improperly disposed of concrete waste onto soil.



Active sites who received compliant reports in the month of September:

23-16 MnDOT Hwy 5 Improvements (Maplewood, St. Paul; public project)

- 23-15 Maplewood Myrtle-Sterling 2023 SIP (Maplewood; public project)
- 23-10 Oakdale Senior Living (Oakdale; private project)
- 23-08 Little Canada 2023 SIP (Little Canada; public project)
- 23-03 Ramsey Co Hodgson Rd Reconstruction (Shoreview; public project)
- 23-01 Phalen Village Maryland/Prosperity (St. Paul; private project)
- 22-35 Rosedale Estates Parking (Roseville; private project)
- 22-34 Pioneer Park Improvements (Little Canada; public project)
- 22-28 Pioneer Commons (Little Canada; private project)
- 22-21 Lapham-Hickey Steel Addition (Little Canada; private project)
- 22-18 Battle Creek Park Improvements (St. Paul; public project)
- 22-07 North St. Paul 2022 SIP (North St. Paul; public project)

22-06 Metro Transit Gold Line BRT – Woodlane Park and Ride (Woodbury; public project)

- 22-03 Gervais Woods 2nd Addition (Little Canada; private project)
- 21-12 Tartan High School Phase II (Oakdale; public project)
- 20-16 Mondello Shores (Little Canada; private project)

2022 Numbers

Active Sites: 47 Inspections Completed: 413 Non-Compliant Inspection Reports: 56 % Sites Received Violations: 55 % Inspections Found Non-Compliant: 14

Enforcement Mechanisms Available to Staff

Notice of Violation Notice of Non-Compliance, With or Without Escrow Deduction Letter from Attorney Cease and Desist (Stop Work order) Enforcement by County Sheriff * * * * * * * * * * * *

Stewardship Grant Program

* * * * * * * * * * * *

Stewardship Grant Program Budget Status Update

October 4, 2023

Homeowner	Coverage	Number of Projects: 27	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share \$15,000 Max	16	\$55,396.50
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share \$15,000 Max	9	\$96,789*
Master Water Steward Project	100% Cost Share \$15,000 Max	1	\$11,500
Shoreland Restoration	100% Cost Share \$15,000 Max	1	\$15,000

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects: 20	Funds Allocated
Habitat Restoration	50% Cost Share \$15,000 Max	3	\$20,396
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share \$100,000 Max	2	\$139,907
Priority Area Projects	100% Cost Share \$100,000 Max	4	\$264,154
Non-Priority Area Projects	75% Cost Share \$50,000 Max	0	\$0
Public Art (\$50,000 Reserved)	50% Cost Share \$15,000 Max/Project	4	\$6,250
Aquatic Veg Harvest/LVMP Development	50% Cost Share \$15,000 Max	2	\$27,000
Enhanced Street Sweeping (\$128,000 Reserved)	Varies	5	\$128,000

Maintenance	50% Cost Share \$7,500 Max for 5 Years	73	\$52,650**
Consultant Fees			\$67,304.60
Total Allocated			\$884,347.10

*includes funds to be approved at current board meeting **includes staff approvals since previous board meeting

2023 Stewardship Grant Program Budget	
Budget	\$1,128,000
Total Funds Allocated	\$884,347.10
Total Available Funds	\$243,652.90

* * * * * * * * * * * *

Action Items *******

Request for Board Action

Board Meeting Date:	October 4, 2023	Agenda Item No: <u>7A</u>
Preparer:	Tina Carstens, Administrator	
Item Description:	2023 Targeted Retrofit Project Accept Plans & Pioneer Park Reuse Project	& Solicit Bids –

Background:

See attached memo for more information on the Pioneer Park project.

This project was planned through our Targeted Retrofit program and will be funded through this project fund. The engineer's opinion of probably project construction cost is \$692,000. After approval at this meeting, the bidding process will be followed with a selection of contractor coming to the board for approval in November.

Applicable District Goal and Action Item:

Goal: Achieve quality surface water – The District will maintain or improve surface water quality to support healthy ecosystems and provide the public with a wide range of water-based benefits.

Action Item: Implement retrofit water quality improvement projects.

Staff Recommendation:

Staff recommends approval of the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals.

Financial Implications:

This project will be funded from the district's Targeted Retrofit Fund where there are sufficient funds available.

Board Action Requested:

Approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals.



Technical Memorandum

To:	RWMWD Board of Managers
From:	Jennifer Koehler and Erin Anderson Wenz
Subject:	Issued for Bid Summary for the Pioneer Park Stormwater Reuse System
Date:	September 27, 2023
Project:	23/62-1464
C:	Paige Ahlborg (RWMWD), Tina Carstens (RWMWD), Bryce Shearan (City of Little
	Canada), Bill Dircks (City of Little Canada)

1 Introduction

This memorandum summarizes the 100%-level of design of the Pioneer Park stormwater reuse system, located within the City of Little Canada in the Gervais Creek subwatershed. This BMP was identified in a 2021 stormwater reuse assessment study completed for Ramsey County (funded by a Board of Water and Soils Resources (BWSR) Clean Water Fund Watershed Based Funding Grant and Ramsey County). The objective of the County's project was to perform a county-wide assessment to identify potential opportunities for stormwater reuse for irrigation to conserve groundwater and protect and improve surface water quality. Five of the seven sites were located within the Ramsey-Washington Metro Watershed District (RWMWD). Of these, Pioneer Park was considered to be one of the most promising parcels for a stormwater reuse project.

Currently, 11.2 acres are irrigated at the site form an irrigation well, including several athletic fields, using an average of approximately 2.2 million gallons per year (approximately 0.4 inches per week during the irrigation season). The existing irrigation rate ranges from approximately 80-120 gallons per minute. The original project concept proposed to utilize two existing, connected ponds located on the east side of the site that could be used for stormwater storage for reuse. The ponds were constructed in the late 1980's and collect runoff from approximately 39 acres, including the tennis courts, park pavilion, shade structures, athletic fields, trails, parking lot surface, and nearby residential roofs. The north basin was constructed in upland area and is considered an incidental wetland; the south basin, although significantly reshaped during park construction, did include a historic wetland.

The goal of the project is to conserve groundwater (for irrigation uses) and protect and improve surface water quality. Although Gervais Lake has stable water quality and consistently meets the state water quality standards, Gervais Creek is managed as "at risk" by the district (often does not meet the MPCA stream water quality standards but is not officially listed as impaired).

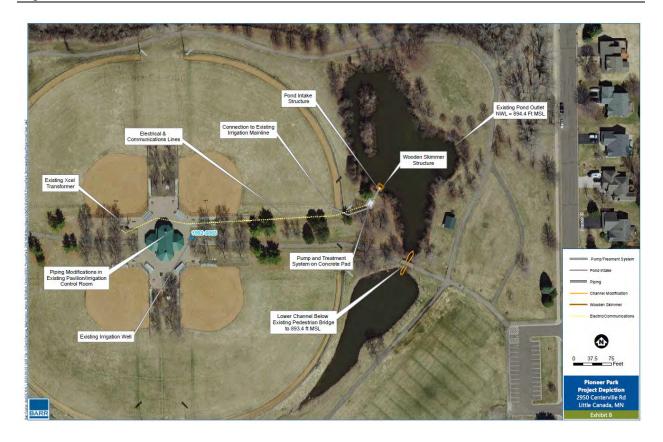


Figure 1: Pioneer Park Stormwater Reuse Project Design Components

The final BMP design, modeling results, and engineer's opinion of cost are discussed in the following sections. RWMWD staff and City staff have been involved with the design progression, providing feedback and comments, including 60% design, 90% design, and 100% design reviews with City of Little Canada and District staff in March 2023, June 2023, and August 2023, respectively.

2 BMP Design

In 2022, Barr began development of final designs for the stormwater reuse system at Pioneer Park. The reuse system includes the following key components:

- Pond Modifications
- Pumping/Intake
- Treatment
- Piping Modifications and Connections

2.1 Pond Modifications

The stormwater reuse system proposes to use the top one foot of water in the north and south ponds in Pioneer Ponds (from normal water level (NWL) to one foot below normal water level). The outlet from the

north pond is located on the northeast side of the basin, with a NWL of the 894.4 ft MSL. Flows from the south basin drain north into the north basin via a riprap lined channel below an existing pedestrian bridge, with an estimated NWL of 894.7 ft MSL, which is controlled by the riprap.

The proposed project involves a limited amount of grading to lower the channel connection between the north and south basins to elevation 893.4 ft MSL so that the normal water level on both ponds is the same and is controlled by the north basin outlet. This will allow the reuse system to fully utilize the storage in the top one foot of both the north and south ponds for reuse.

A small amount of grading will be required around the proposed pump intake structure in the north basin (see discussion below) to connect pond water levels above 892.0 ft MSL to the intake structure. Additionally, grading is required for the construction of the treatment system (see details below) above the 100-year elevation (898.0 ft MSL) adjacent to the pond (e.g., fill in the floodplain). The proposed grading provides compensatory storage between the normal water level and the 100-year elevation so there is no net fill in the floodplain.

2.2 Pumping/Intake

The proposed pump intake will include a precast reinforced concrete intake structure located on the pond shoreline that will be accessible from shore to allow access for regular inspections and maintenance. The intake structure will include the following:

- A stainless-steel screen to screen debris from the pond while allowing water from the ponds to enter and equalize within the intake structure,
- A pressure transducer to monitor water levels in the ponds to determine if water is available for reuse (if not, the system will automatically switch to the existing irrigation well for a back-up supply),
- A pump and pump intake suction assembly that will draw water from the pond and pump through the proposed treatment system,
- Access for inspection and maintenance, and
- An aluminum hand railing along three sides of the top of the intake structure for safety

The design also includes a wooden skimmer structure in front of the intake structure that will provide secondary screening to help keep any floatable debris (e.g., trash, vegetation, etc.) from accumulating on the stainless-steel screen and to help minimize maintenance efforts.

The stormwater reuse pump will provide 140 gpm of flow at 70 - 80 psi. These specifications are based on information provided by City staff related to the existing irrigation system.

2.3 Treatment System

Although the State of Minnesota provides guidelines for stormwater reuse systems for irrigation and recommends treatment of stormwater for reuse, there are no official requirements. Based on conversations with District and City staff, the design for the Pioneer Park stormwater reuse system includes a skidded water quality treatment system for the pond water prior to irrigation at Pioneer Park.

Water quality in stormwater ponds can be highly variable and often includes parameters such as bacteria (e.g., E.coli), that can pose some risk to public health if people ingest the irrigation water. Many irrigation systems operate late at night which helps minimize direct contact and reduce risk, which is the case for the existing irrigation system at Pioneer Park (operation at night). However, District and City staff agree that treatment is desirable in this setting to further decrease risk to the public. The skidded treatment system includes an automated backwashing filtration system and an ultraviolet (UV) disinfection system. In addition, the system includes a control panel that automatically switches the irrigation source water to the existing groundwater well if pond levels are too low or if there are any alarms triggered by the reuse pump or treatment systems. The system also includes a communications system that will directly notify City staff if any alarms are triggered and allows for remote access to the system performance data.

2.4 Piping Modifications and Connections

The treated discharge from the proposed reuse system will connect to the existing irrigation system mainline at the far eastern end of the northeast ball field.

Additionally, the existing irrigation system controls and associated piping are located in a room in the park pavilion. Some modifications to the piping are needed to incorporate a reduced pressurized zone (RPZ, i.e., backflow preventor) to eliminate the potential for contamination of the existing groundwater/well by stormwater when the system is operating.

3 System Performance

Barr optimized the proposed BMP using both the MWMO stormwater reuse calculator and the MIDS calculator to estimate the efficacy of the BMP.

The final design system is estimated to reuse, on average, 1.8 million gallons of stormwater per year for irrigation, meeting approximately 80-90% of average annual park irrigation demand. The existing well will be used for irrigation back-up if water levels in the ponds hit the lower operating threshold. The MIDS calculator estimates that the reuse system would remove approximately 6.0 pounds of total phosphorus from the influent stormwater annually.

4 Engineer's Opinion of Probable Cost

The 100% design Drawings for the Pioneer Park Stormwater Reuse System are attached to this memo. A summary of the engineer's opinion of probable cost and the water quality treatment estimate for the system is included in the table below.

Table 1Summary of Issued for Bid Opinion of Probable Costs and Water Quality Treatment
Estimate for the Pioneer Park Stormwater Reuse System

Engineer 's Opinion of Probable Project Construction Cost	Engineer's Opinion of Probable Cost Range (-5% to +10%)	BMP Average Annual TP Removal (lbs/year)	Annualized Cost per Pound of TP Removal
\$692,000	\$658,000 - \$762,000	6.0	\$6,717 - \$9,017

The current engineer's opinion of probable cost for the project ranges from -5% to +10%. These opinions include a 10% contingency and reflect an Issued for bid level of accuracy. This contingency reflects uncertainty in the design elements and current bid prices. The annualized cost per pound of TP removed by the project reflects annualized total capital cost, including estimated annual maintenance with the range reflecting a 20-35-year lifespan on the project.

5 RWMWD Prioritization Tool

The Pioneer Park stormwater reuse project was updated in the RWMWD prioritization tool based on the 100% design outlined in this memo. The Pioneer Park stormwater reuse project ranks high in the district's project list, behind the Roosevelt Homes project (slated for construction in 2024) and a few other reuse projects from the Ramsey County study. The Pioneer Park is the first stormwater reuse project to be implemented by the RWMWD.

The Pioneer Park Stormwater Reuse system has primary project benefits of "Water Quality" and "Manage Organization". The table below summarizes the project's scores per each goal in the RWMWD's Watershed Management Plan. A description of the credits that each project received in the tool under each of RWMWD's Plan Goal categories is included below, as well.

Plan Goal Categories	Scores per Plan Goal Category	Comments
1. Water Quality	4.0	Annual Cost-Benefit of TP and TSS removals \$6,717 - \$9,017/lb TP/yr) TP removal (lbs/yr) (6.0 lbs) TSS removal (lbs/yr) (1,085 lbs)
2. Ecosystem	0.0	N/A
3. Flooding	2.0	Potential Flood Storage – Project will result in temporary lowering normal water level of the ponds during the irrigation season which may help reduce risk of local flooding and improve overall system resiliency
4. Groundwater	2.0	Promotes infiltration through irrigation from a stormwater pond Note: Although not a metric in the prioritization tool, groundwater conservation is a primary driver for the project, reducing dependence on groundwater for irrigation - within 5 miles of White Bear Lake – MnDNR limits irrigation when water

Table 2 Summary of RWMWD Prioritization Tool Scores for Pioneer Park Stormwater Reuse System

		level of White Bear Lake drops below the target elevation and
		remains in place until water levels raise.
5. Community	3.0	Potential for significant educational component and visibility
		Project fosters collaboration with cities, watershed
		management organizations to develop and implement shared
		communication and messaging strategies
		Note: We did not assign points to the project as it relates to
		District Priority Equity Areas, as the site does not fall within the
		ACP50 or other district priority areas as used in the water
		quality prioritization tool. However, the project falls within
		more vulnerable areas based on the Ramsey County Social
		Vulnerability Index.
6. Manage	5.0	Project will utilize the existing park irrigation system and
Organization		existing groundwater well (for any needed back-up water
		supply)
		Design address changing climate trends/prepare for long-term
		resiliency by reducing dependence on groundwater for
		irrigation purposes and will maintain additional storage
		capacity within the existing ponds during the
		irrigation/growing season, helping better manage runoff for
		more intense or extreme events
		Partner (City of Little Canada) will provide long-term
		operations and maintenance
		Willing project partners that want to share and educate their
		51 5 1
		reuse
		Design address changing climate trends/prepare for long-terresiliency by reducing dependence on groundwater for irrigation purposes and will maintain additional storage capacity within the existing ponds during the irrigation/growing season, helping better manage runoff for more intense or extreme events Partner (City of Little Canada) will provide long-term operations and maintenance Willing project partners that want to share and educate their parks commission and city council related to groundwater

6 Recommendations and Attachments

Barr recommends bidding the project to select a contractor for construction. The annualized cost-benefit estimate of \$6,717 - \$9,017/lb TP is within the typical range (\$400 to \$14,000 per pound of TP) of cost per pound of TP removal for regional RWMWD water quality projects. The project also leverages stormwater for irrigation to significantly offset the consumption groundwater for irrigation at the site while also improving water quality.

Schedule

Barr is currently working through the Wetland Conservation Act (WCA) permitting process and are actively working with the District staff through the permitting process for floodplains (design includes compensatory storage) and buffers (design includes native buffers appropriate for the District wetland management classifications). This will be provided for discussion and approval at an upcoming board meeting.

Pending Board approval to bid the Pioneer Park Stormwater Reuse system, Barr will conduct the project bidding process in starting in early October through mid-late October. Based on conversations with the vendor, there is an anticipated 6-month lead time on the pumps and treatment system so the goal is bid

and award the project to o allow the equipment procurement process to being in 2023, with actual construction to begin in 2024. Once a responsible low bidder is identified, the project could begin construction as early as January 2024 (though an exact start date would be up to the contractor), with anticipated completion in the summer of 2024.

Specifications Outline (Table of Contents)

The bid documents include the following specification sections:

Front-End Specifications

- Advertisement for Bids
- Instructions to Bidders
- Bid Form
- Responsible Bidder Affidavit/Oath
- Prevailing Wages
- Equal Employment Opportunity Special Provisions
- Notice of Award
- Form of Agreement
- Notice to Proceed
- General Conditions
- Supplementary Conditions

General Requirements:

- Summary of Work
- Unit Price Measurement and Payment
- Payment Procedures
- Project Coordination
- Project Meetings
- Submittal Procedures
- Safety
- Construction Facilities and Temporary Controls
- Traffic Control
- Mobilization
- Closeout Procedures

Technical Specifications:

- Concrete Forming and Accessories
- Concrete Reinforcing
- Cast-In-Place Concrete

- Grouting
- Electrical General Provisions
- Common Work Results for Electrical
- Low Voltage Electrical Transmission
- Earthwork
- Site Clearing, Preparation, and Demolition
- Dewatering and Control of Water
- Erosion and Sedimentation Control
- Irrigation Water Treatment and Appurtenances
- Irrigation Intake
- Site Restoration
- Instrumentation and Control for Process Systems

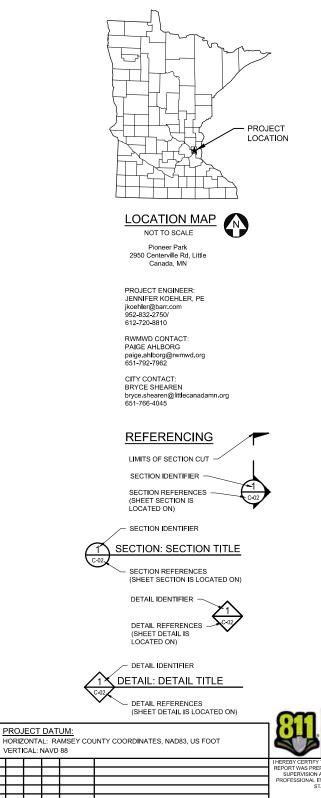
Attachments

Issued for Bid (100% Design) Drawings for the Pioneer Park Stormwater Reuse System

To:RWMWD Board of ManagersFrom:Jennifer Koehler and Erin Anderson WenzSubject:Issued for Bid Summary for the Pioneer Park Stormwater Reuse SystemDate:September 27, 2023Page:9

Attachment: Issued for Bid(100% Design)Drawings

PIONEER PARK STORMWATER REUSE PROJECT RAMSEY-WASHINGTON METRO WATERSHED DISTRICT LITTLE CANADA, MINNESOTA





VICINITY MAP

NOTES:

1. COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, PERMITS, AND REGULATIONS.

2. VERIFY ALL QUANTITIES, GRADES, AND DIMENSIONS.

3. TOPOGRAPHIC INFORMATION BASED ON SITE SURVEY CONDUCTED BY BARR ENGINEERING, 2022. SURVEY PERFORMED WITH VERTICAL DATUM OF NAVD88.

4. FIELD-LOCATE ALL SITE UTILITIES (PRIVATE AND PUBLIC) PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF UTILITY OWNER AT CONTRACTOR'S COST.

8	VERT	TICAL:	: NAVI	0.88														
×Γ						I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT		06	/02/2023 08/14/202	3 ——	-			Project Office:	Scale	AS SHOWN		
Ξ.						SUPERVISION AND THAT I AM A DULY LICENSED	PERMIT	-		_				BARR ENGINEERING CO.	Date	09/22/23		
	_	_	_			PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	BID			09/22/23			DADD	4300 MARKETPOINTE DRIVE	Drawn	GWB		
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S -	_	_	_			PRINTED NAME	RECORD							MINNEAPOLIS, MN 55435				MEEDO MAREDOMED DIGEDIGE
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ОN	о. BY	CHK	<. APF	. DATE	REVISION DESCRIPTION	DATELICENSE #	TO/FOR		DATE	RELEA	SED		Ph: 1-800-632-2277	www.barr.com	Approved			
	О. ВТ		N. AFF	. DATE	REVISION DESCRIPTION	DATELICENSE #	10/10/1		DATE	RELEP	1SED		FII. 1-000-032-22/7	www.barr.com	rippiorou			

Know what's **below.**

Call 811 before you dig.

DRAWING INDEX

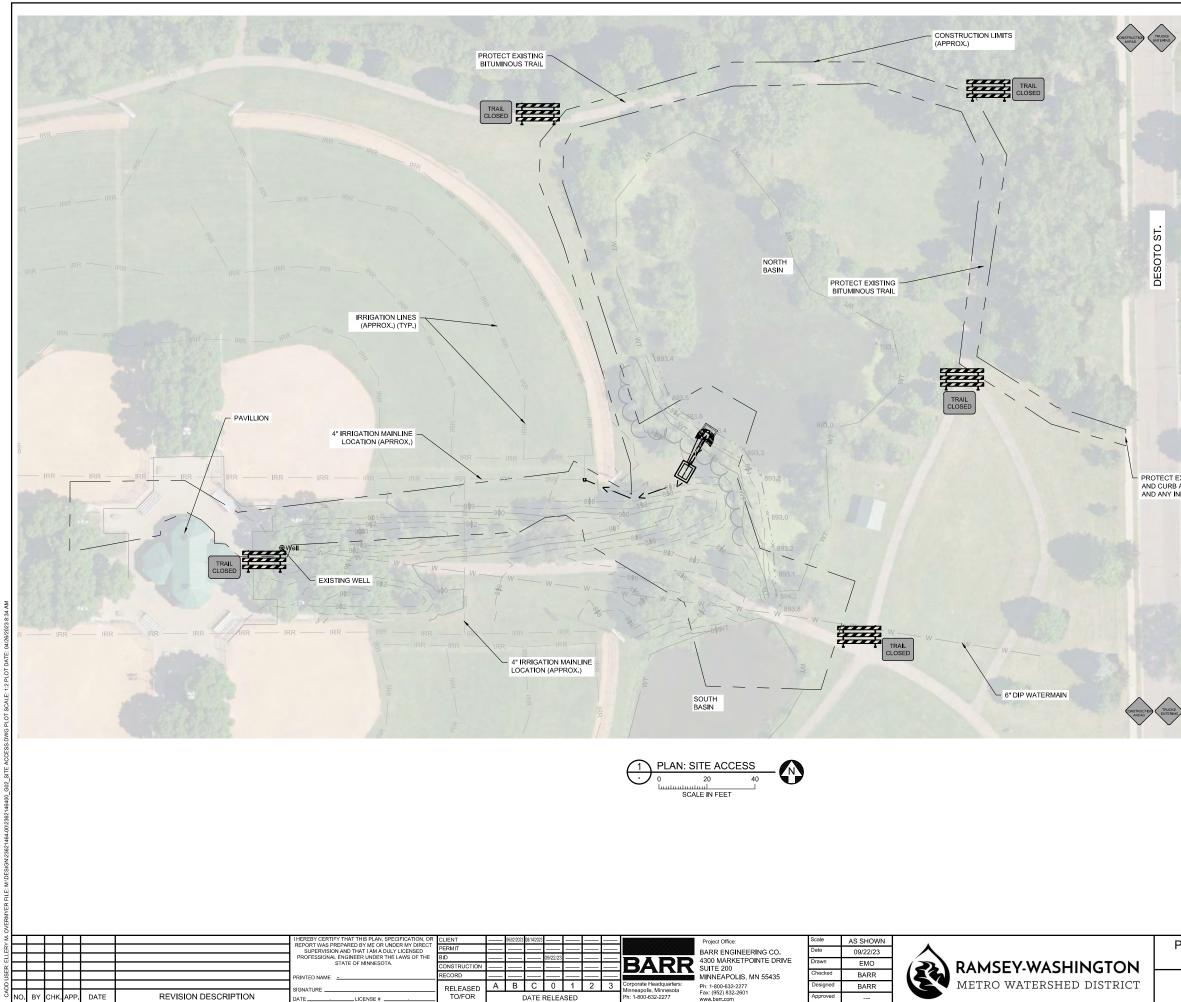
		BIO WING INDEX
<u>DRAWING</u>		TITLE
G-01		COVER SHEET, INDEX AND VICINITY MAP
G-02		SITE ACCESS AND TRAFFIC CONTROL
C-01		EXISTING CONDITIONS, EROSION CONTROL AND REMOVALS
C-02		SITE LAYOUT
C-03		REUSE SYSTEM PLAN AND PROFILE
C-04		STORMWATER INTAKE STRUCTURE DETAILS
C-05		STORMWATER TREATMENT SYSTEM
C-06		DETAILS
C-07		PEDESTRIAN BRIDGE DETAIL PLAN
C-08		EROSION CONTROL DETAILS
L-01	·····	LANDSCAPE RESTORATION PLAN
S-01		STRUCTURAL NOTES AND SPECIFICATIONS
S-02		PUMP AND TREATMENT SYSTEM SHELTER AND FOUNDATION
E-01	••••	ELECTRICAL SITE PLAN
E-02		ENLARGED ELECTRICAL PLAN
E-03		ELECTRICAL DETAILS
E-04		ELECTRICAL SHEMATICS

ABBREVIATIONS AND SYMBOLS

APPROX	APRROXIMATE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CONC	CONCRETE
DIP	DUCTILE IRON PIPE
EL	ELEVATION
F.F.E.	FINISHED FLOOR ELEVATION
HARN	HIGH ACCURACY REFERENCE NETOWRK
D	INSIDE DIAMETER
E	INVERT ELEVATION
MAX	MAXIMUM
MIN	MINIMUM
NAVD	NATIONAL AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NO.	NUMBER
ос	ON CENTER
PVC	POLYVINYL CHLORIDE
ROW	RIGHT-OF-WAY
TBD	TO BE DETERMINED
TYP	TYPICAL
@	AT
ø	DIAMETER

ISSUED FOR BID

l	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464. CLIENT PROJECT No.	.00
	COVER AND SHEET INDEX AND VICINITY MAP	DWG. No. G-01	REV. No. 0



LEGEND - PLAN

LEGEND - PLAN	
	CONSTRUCTION LIMITS
——— P/L ———	PROPERTY LINE
1380	EXISTING MAJOR CONTOUR
— — 1379 — —	EXISTING MINOR CONTOUR
1380	PROPOSED MAJOR CONTOUR
1379	PROPOSED MINOR CONTOUR
<u> </u>	PROPOSED ALIGNMENT
XX	EXISTING FENCE
_ · · · _ · · · _	EXISTING SHORELINE
OE	EXISTING OVERHEAD ELECTRIC
UE	EXISTING UNDERGROUND ELECTRIC
SAN	EXISTING SANITARY SEWER
ST	EXISTING STORM SEWER
W	EXISTING WATER LINE
۲	EXISTING CONTROL POINT
Ø	EXISTING POWER POLE
- \	EXISTING LIGHT POLE
MH	EXISTING MANHOLE
SAN	EXISTING SANITARY MANHOLE
ST	EXISTING STORM MANHOLE
wт	WETLAND BOUNDARY
IRR	EXISTING IRRIGATION
*	CONIFEROUS TREE
Ó	DECIDUOUS TREE
\sim	

NOTES:

- 1. NOTIFY DAVE VLASIN, RAMSEY WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7972 PRIOR TO BEGINNING ANY AND ALL CONSTRUCTION ACTIVITIES TO INSPECT EROSION/SEDIMENT CONTROL PRACTICES.
- 2. SPECIFIED EROSION/SEDIMENT CONTROL PRACTICES SHOWN ARE THE MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.
- INSTALLATION OF EROSION CONTROL DEVICES SHALL BE CONDUCTED PRIOR TO ALL WORK INSIDE THE WATER BODY.
- 4. CONTRACTOR RESPONSIBLE FOR RESTORING ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS. ONLY AREAS WITHIN LIMITS WILL BE CONSIDERED FOR PAYMENT.
- RESTORE ALL DISTURBED AREAS WITH SEED AND EROSION CONTROL BLANKET AS DIRECTED BY OWNER.
- 6. NO PARKING ON DESOTO STREET WITHOUT APPROVAL FROM THE CITY OF LITTLE CANADA PUBLIC WORKS DEPT.
- EXISTING BITUMINOUS WALKING PATH AND PEDESTRIAN BRIDGE TO BE PROTECTED DURING WORK, CONTRACTOR RESPONSIBLE FOR ANY DAMAGE FOUND, INCLUDING SURFACE SCUFFING AND SCRAPING.
- 8. SITE IS LOCATED TO THE EAST OF I-35E AND DIRECTLY NORTH OF THE LITTLE CANADA YMCA.

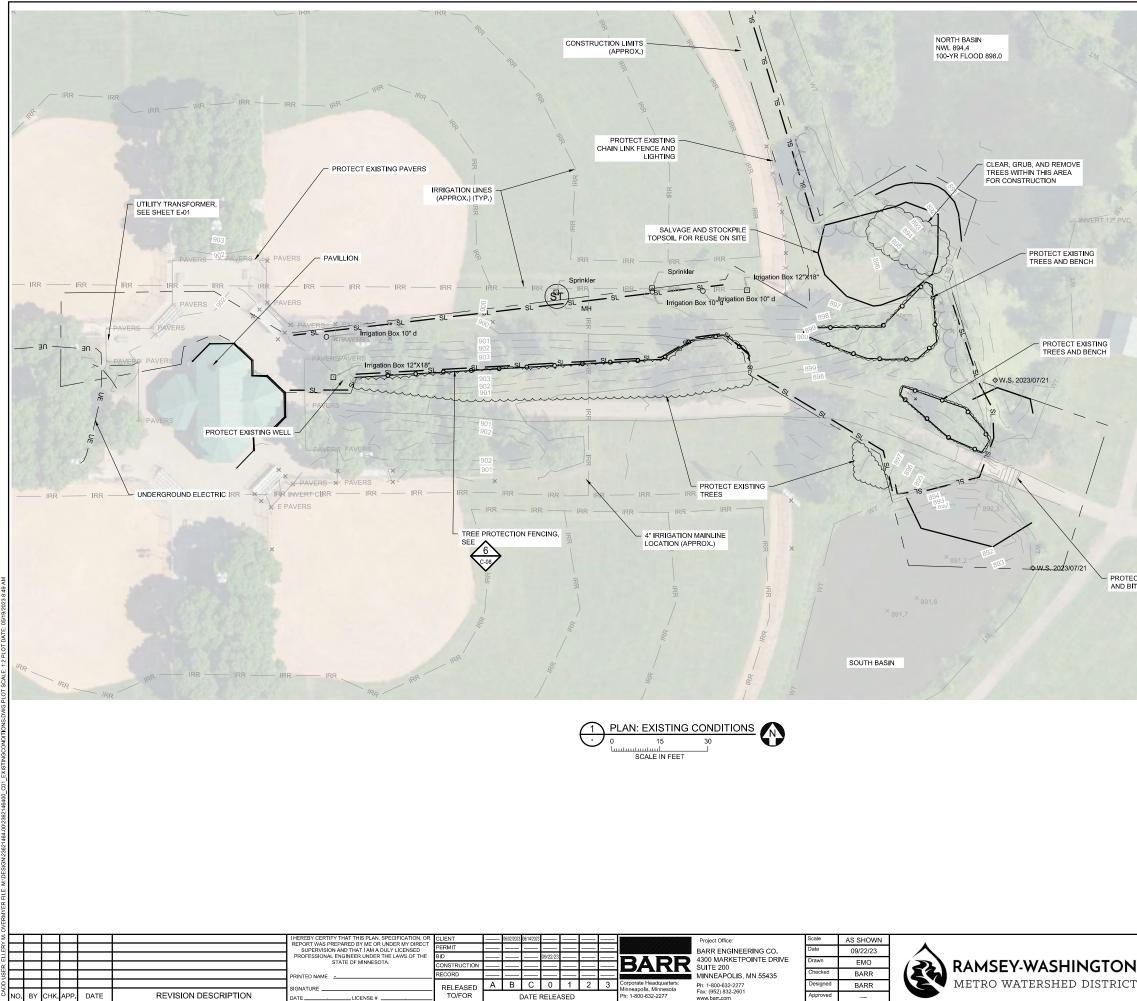
TRAFFIC SIGNS			
QTY.	MNDOT SIGN NO.	SIGN SIZE	SIGN MESSAGE
5	Barricade	8.2' WIDE	
5	R9-9 OVERLAY ON R11-2M	24" X 18"	TRAIL CLOSED
2	Special	36" X 36"	CONSTRUCTION
2	W11-X3	36" X 36"	TRUCKS

ISSUED FOR BID

J	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464.00 CLIENT PROJECT No.	
Т	SITE ACCESS	DWG. No.	REV. No.
	AND TRAFFIC CONTROL	G-02	0

ST DESOTO

PROTECT EXISTING WALK AND CURB AND GUTTER AND ANY INLETS





LEGEND - PLAN P/L 1380 1379 1379 11+00 X X OE UE UE SAN ST SL SL

CONSTRUCTION LIMITS	
PROPERTY LINE	
EXISTING MAJOR CONTOUR	
EXISTING MINOR CONTOUR	
PROPOSED MAJOR CONTOUR	
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PROPOSED ALIGNMENT	
EXISTING FENCE	
EXISTING SHORELINE	
EXISTING OVERHEAD ELECTRIC	
EXISTING UNDERGROUND ELECTRI	С
EXISTING SANITARY SEWER	
EXISTING STORM SEWER	
EXISTING WATER LINE	
EXISTING CONTROL POINT	
EXISTING POWER POLE	
EXISTING LIGHT POLE	
EXISTING MANHOLE	
EXISTING SANITARY MANHOLE	
EXISTING STORM MANHOLE	
WETLAND BOUNDARY	
EXISTING IRRIGATION	
CONIFEROUS TREE	
DECIDUOUS TREE	
SEDIMENT LOG	
SILT FENCE	
TREE PROTECTION FENCING	

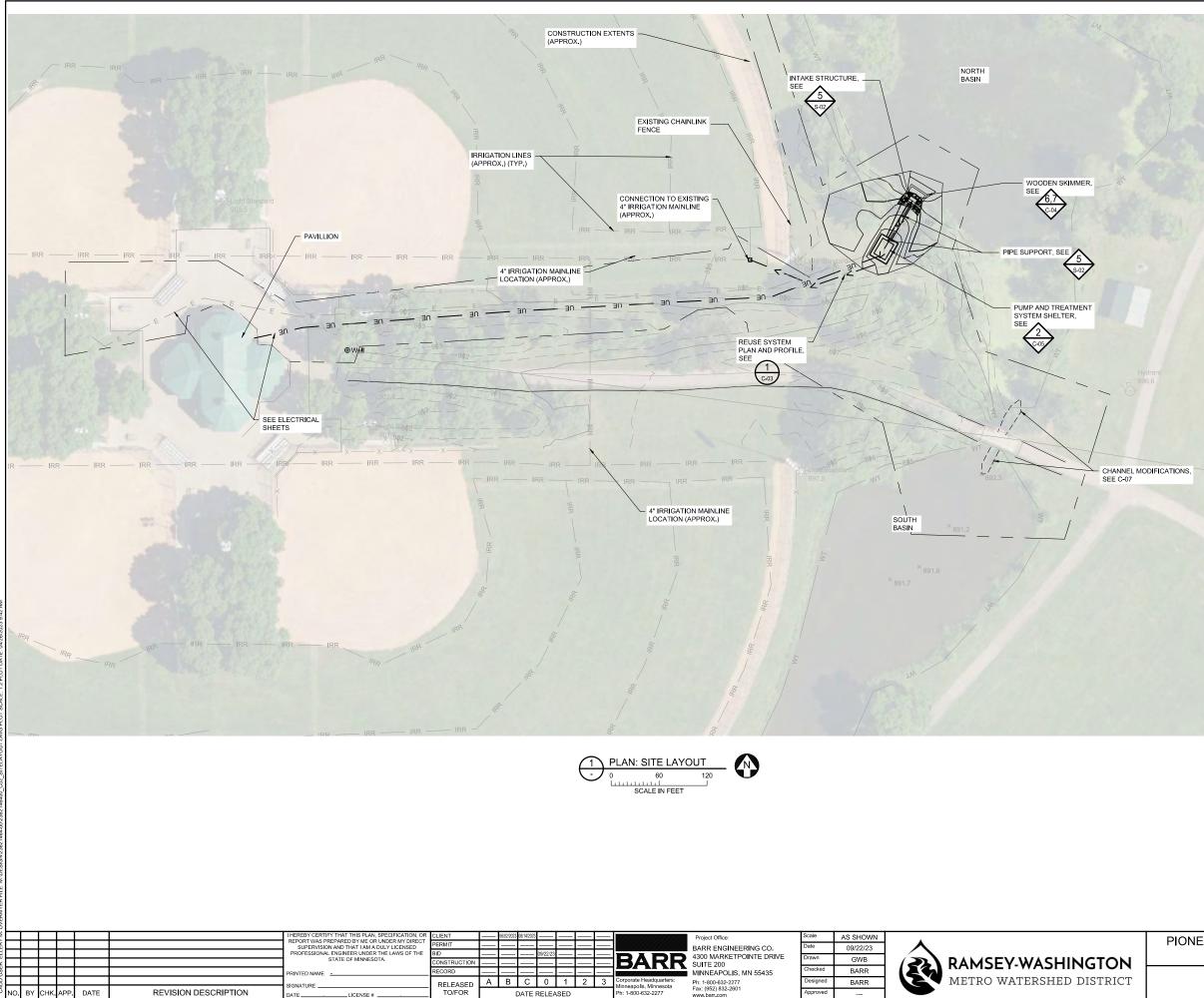
NOTES:

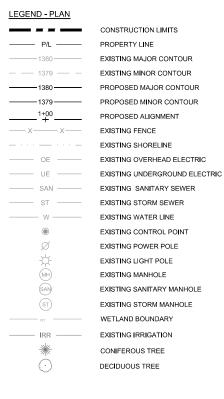
- NOTIFY DAVE VLASIN, RAMSEY WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7972 PRIOR TO BEGINNING ANY AND ALL CONSTRUCTION ACTIVITIES TO INSPECT EROSION/SEDIMENT CONTROL PRACTICES.
- 2. SPECIFIED EROSION/SEDIMENT CONTROL PRACTICES SHOWN ARE THE MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.
- 3. INSTALLATION OF EROSION CONTROL DEVICES SHALL BE CONDUCTED PRIOR TO ALL WORK INSIDE THE WATER BODY.
- CONTRACTOR RESPONSIBLE FOR RESTORING ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS. ONLY AREAS WITHIN LIMITS WILL BE CONSIDERED FOR PAYMENT.
- 5. RESTORE ALL DISTURBED AREAS WITH SEED AND EROSION CONTROL BLANKET AS DIRECTED BY OWNER.
- 6. NO PARKING ON DeSOTO STREET WITHOUT APPROVAL FROM THE CITY OF LITTLE CANADA PUBLIC WORKS DEPT.
- 7. EXISTING BITUMINOUS WALKING PATH AND PEDESTRIAN BRIDGE TO BE PROTECTED DURING WORK. CONTRACTOR RESPONSIBLE FOR ANY DAMAGE FOUND, INCLUDING SURFACE SCUFFING AND SCRAPING.
- 8. SITE IS LOCATED TO THE EAST OF I-35E AND DIRECTLY NORTH OF THE LITTLE CANADA YMCA.

ISSUED FOR BID

ſ	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT №. 23\62-1464. CLIENT PROJECT №.	.00
1	EXISTING CONDITIONS	DWG. No.	REV. No.
	AND REMOVALS	C-01	0

PROTECT EXISTING BRIDGE AND BITUMINOUS TRAIL

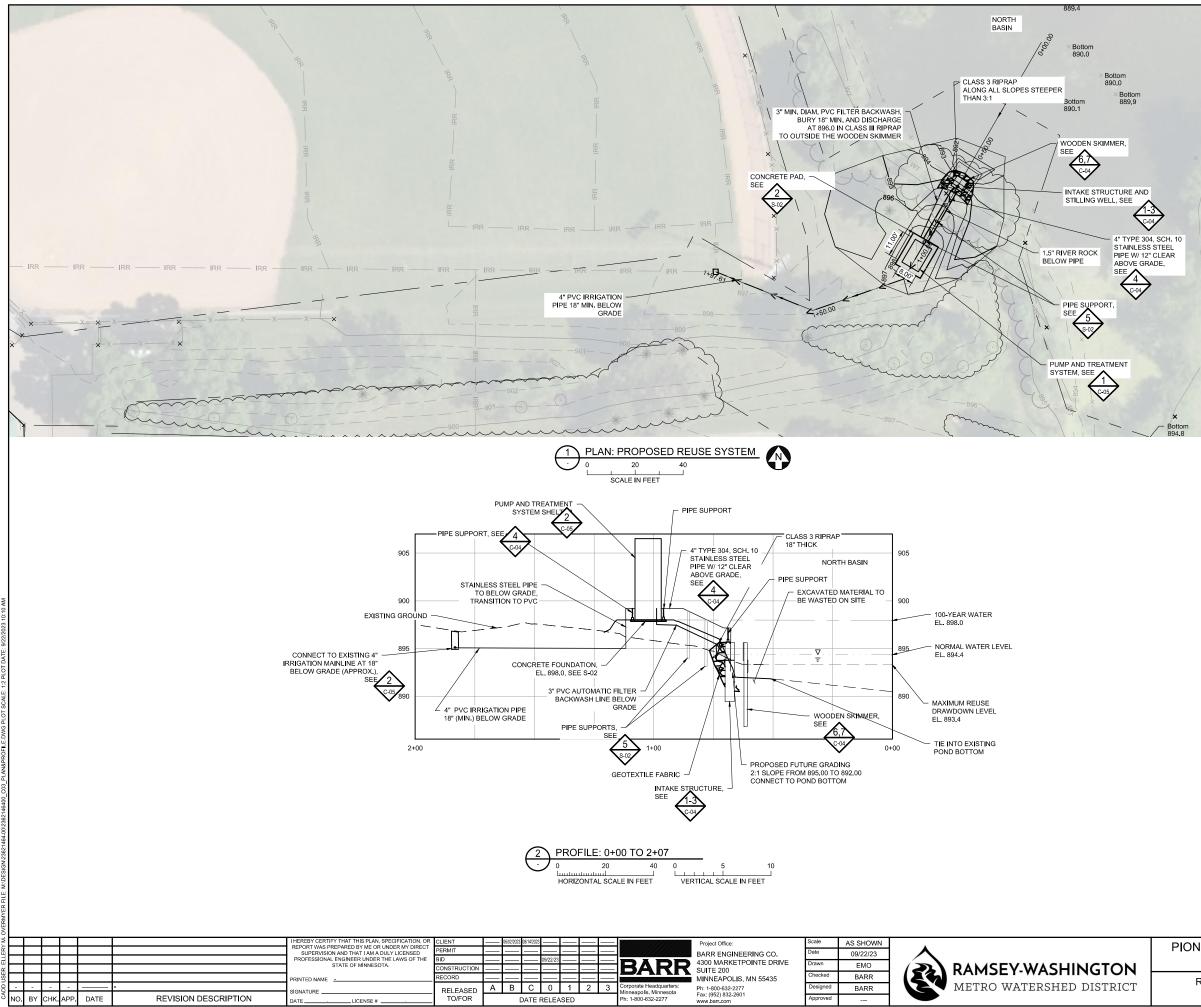




NOTES:

- NOTIFY DAVE VLASIN, RAMSEY WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7972 PRIOR TO BEGINNING ANY AND ALL CONSTRUCTION ACTIVITIES TO INSPECT EROSION/SEDIMENT CONTROL PRACTICES.
- 2. SPECIFIED EROSION/SEDIMENT CONTROL PRACTICES SHOWN ARE THE MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.
- 3. INSTALLATION OF EROSION CONTROL DEVICES SHALL BE CONDUCTED PRIOR TO ALL WORK INSIDE THE WATER BODY.
- 4. CONTRACTOR RESPONSIBLE FOR RESTORING ALL DISTURBED AREAS OUTSIDE OF CONSTRUCTION LIMITS, ONLY AREAS WITHIN LIMITS WILL BE CONSIDERED FOR PAYMENT.
- 5. RESTORE ALL DISTURBED AREAS WITH SEED AND EROSION CONTROL BLANKET AS DIRECTED BY OWNER.
- 6. NO PARKING ON DESOTO STREET WITHOUT APPROVAL FROM THE CITY OF LITTLE CANADA PUBLIC WORKS DEPT.
- EXISTING BITUMINOUS WALKING PATH AND PEDESTRIAN BRIDGE TO BE PROTECTED DURING WORK. CONTRACTOR RESPONSIBLE FOR ANY DAMAGE FOUND, INCLUDING SURFACE SCUFFING AND SCRAPING.
- 8. SITE IS LOCATED TO THE EAST OF I-35E AND DIRECTLY NORTH OF THE LITTLE CANADA YMCA.
- 9. CONTRACTOR SHALL PLACE 6" OF SALVAGED TOPSOIL OVER DISTURBED (GRADED OR EXCAVATED) EXTENTS WITHIN THE PROJECT LIMITS.

I	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464. CLIENT PROJECT No.	.00
ſ	SITE LAYOUT	DWG. No. C-02	REV. No. 0



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CONSTRUCTION LIMITS PROPERTY LINE EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED ALIGNMENT EXISTING FENCE EXISTING SHORELINE EXISTING OVERHEAD ELECTRIC EXISTING UNDERGROUND ELECTRIC EXISTING SANITARY SEWER EXISTING STORM SEWER EXISTING WATER LINE EXISTING CONTROL POINT EXISTING POWER POLE EXISTING LIGHT POLE EXISTING MANHOLE EXISTING SANITARY MANHOLE EXISTING STORM MANHOLE WETLAND BOUNDARY EXISTING IRRIGATION CONIFEROUS TREE DECIDUOUS TREE

LEGEND - PROFILE

	EXISTING GROUND
	FINISHED GRADE
OHWM	EXISTING OHWM
—— онwм ——	PROPOSED OHWM
<u>⊽</u>	WATER LEVEL
-··· -	NORMAL WATER ELEVATION
	MAXIMUM REUSE DRAWDOWN
	100 YEAR FLOOD ELEVATION

NOTES:

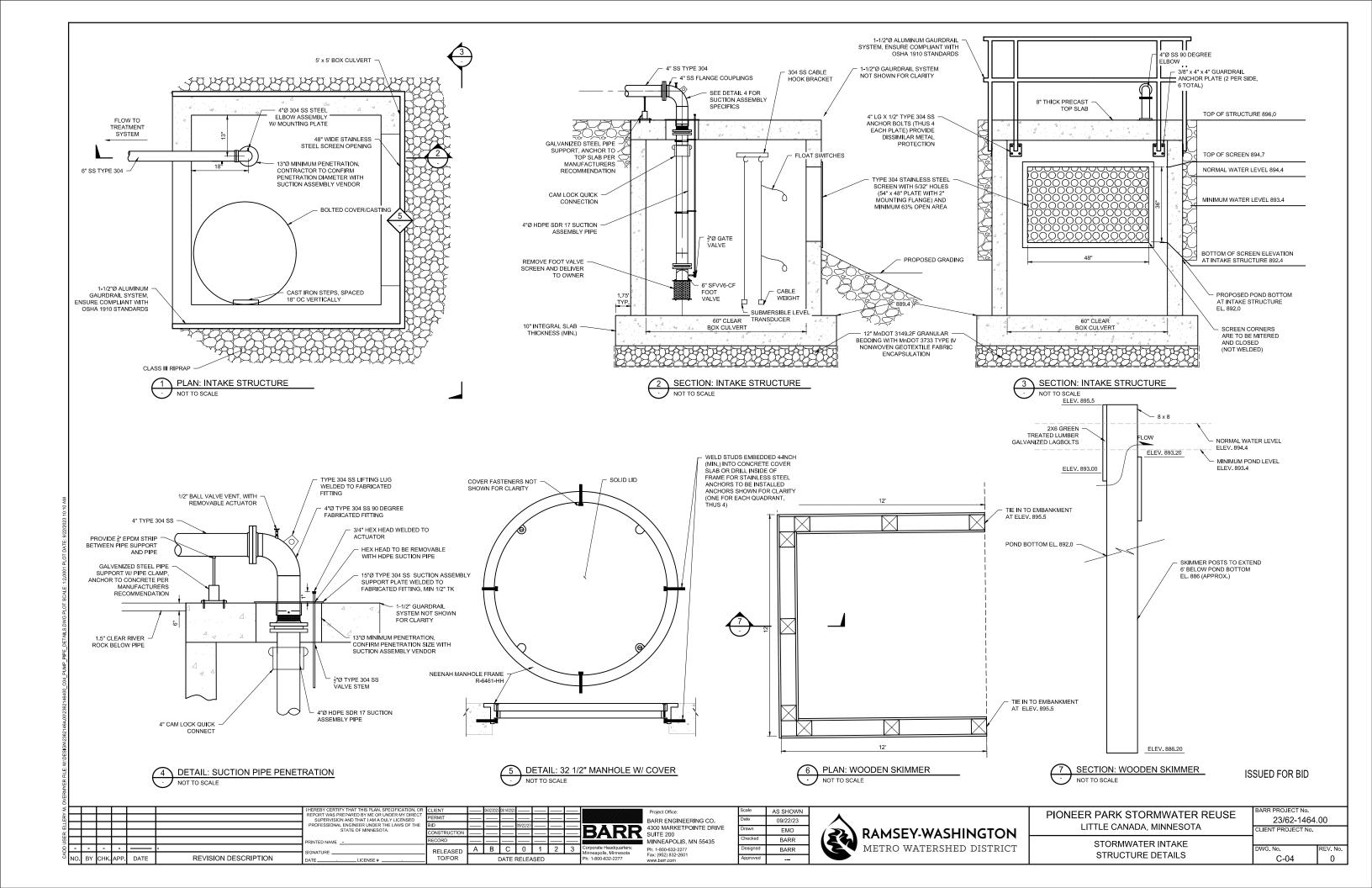
- ANY DAMAGE OUTSIDE OF CONSTRUCTION LIMITS TO BITUMINOUS TRAILS, PARKING AREA, CURB, TURF, OR ANY OTHER FEATURES WITHIN PIONEER PARK BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- 2. CONTRACTOR TO SUBMIT BMP PLAN FOR DISTRICT APPROVAL PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR DEWATERING MEANS AND METHODS, IN REFERENCE TO POTENTIAL COFFER DAMMING FOR CONSTRUCTION PROCEDURES. CONTRACTOR TO SUBMIT DEWATERING PLAN PRIOR TO CONSTRUCTION.
- 4. CONTRACTOR TO FIELD VERIFY EXISTING IRRIGATION PIPE DEPTH, MATERIAL AND SIZE.
- ALL ABOVE GRADE PIPES AND FITTINGS TO BE TYPE 304, SCH. 40 STAINLESS STEEL AND TRANSITION TO PVC AT BURT DEPTH.
- ALL ABOVE GRADE PIPES EXITING TREATMENT SYSTEM SHELTER TO INCLUDE A PIPE SUPPORT ANCHORED TO THE CONCRETE SLAB.
- 7. SEE 3 FOR ABOVE GRADE PIPE EXITING TREATMENT SHELTER.
- 8. CONTRACTOR SHALL PLACE 6" OF SALVAGED TOPSOIL OVER DISTURBED (GRADED OF EXCAVATED) EXTENTS WITHIN THE PROJECT LIMITS.
- EXCAVATED MATERIAL FROM POND AT PROPOSED INTAKE SHOULD BE TEMPORARILY STOCKPILED TO DEWATER, THEN THIN SPREAD ALONG ACCESS ROUTE BETWEEN BALL FIELD AND VEGETATED POND EDGE TO WASTE ONSITE.

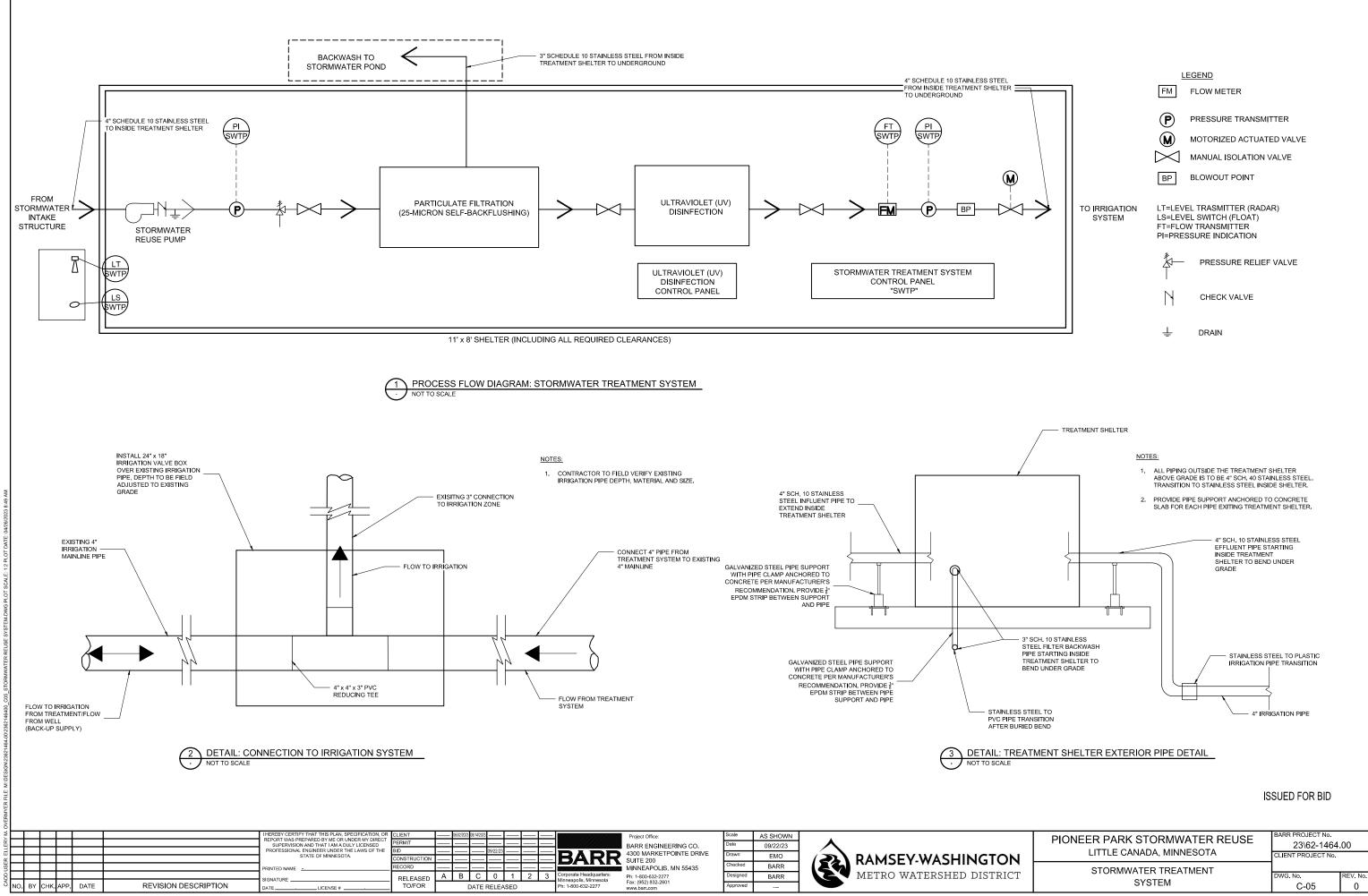
ISSUED FOR BID

 PIONEER PARK STORMWATER REUSE
 BARR PROJECT No. 23\62-1464.00

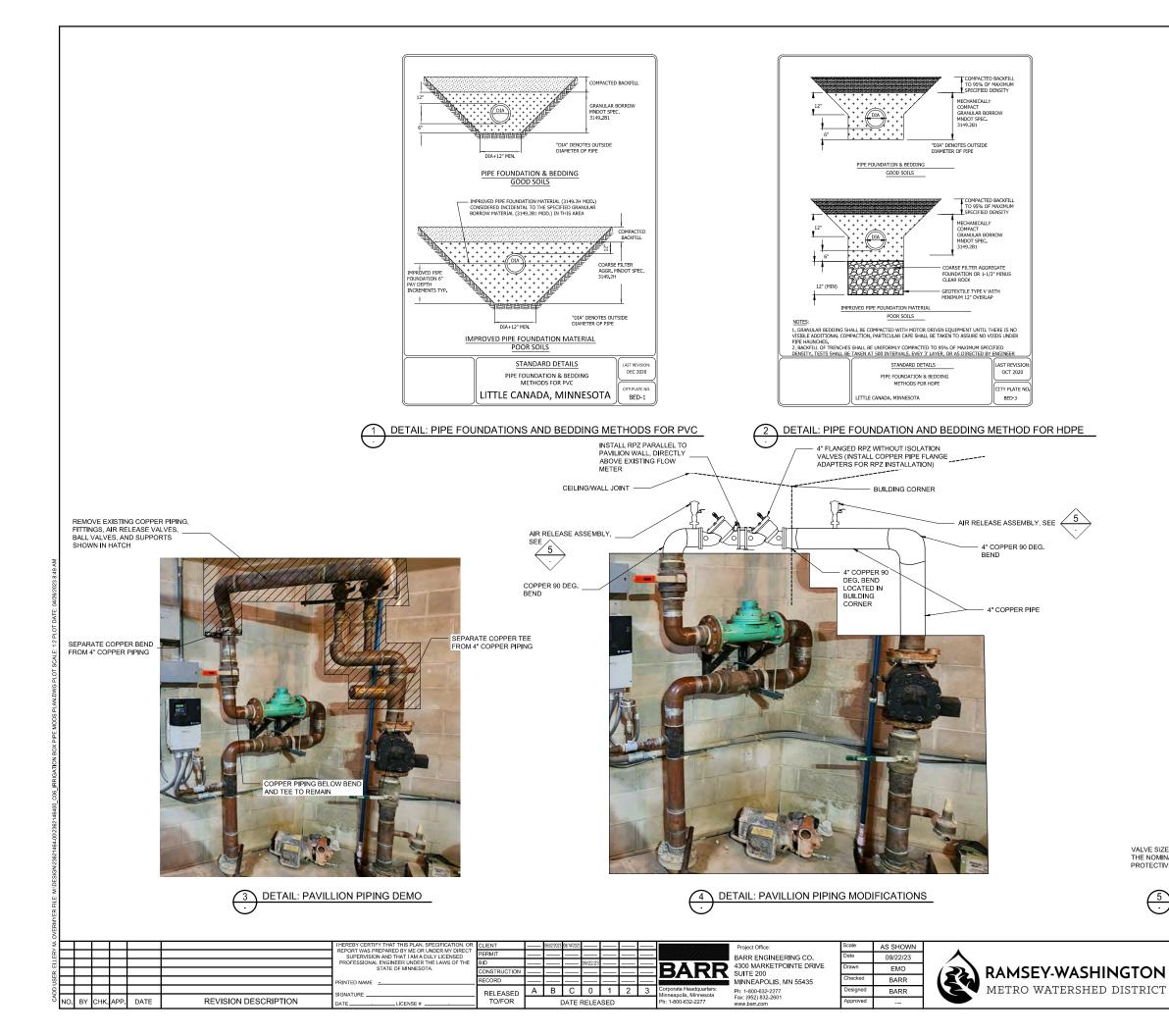
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 CLIENT PROJECT No.

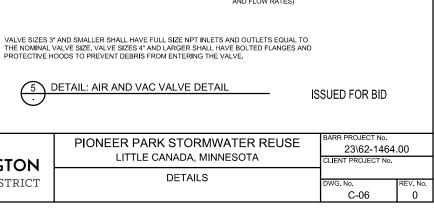
 REUSE SYSTEM PLAN AND PROFILE
 DWG. No. C-03
 REV. No. 0

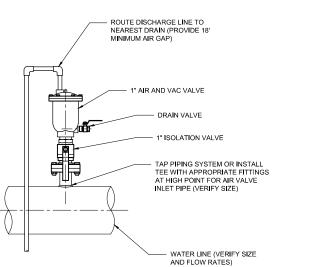


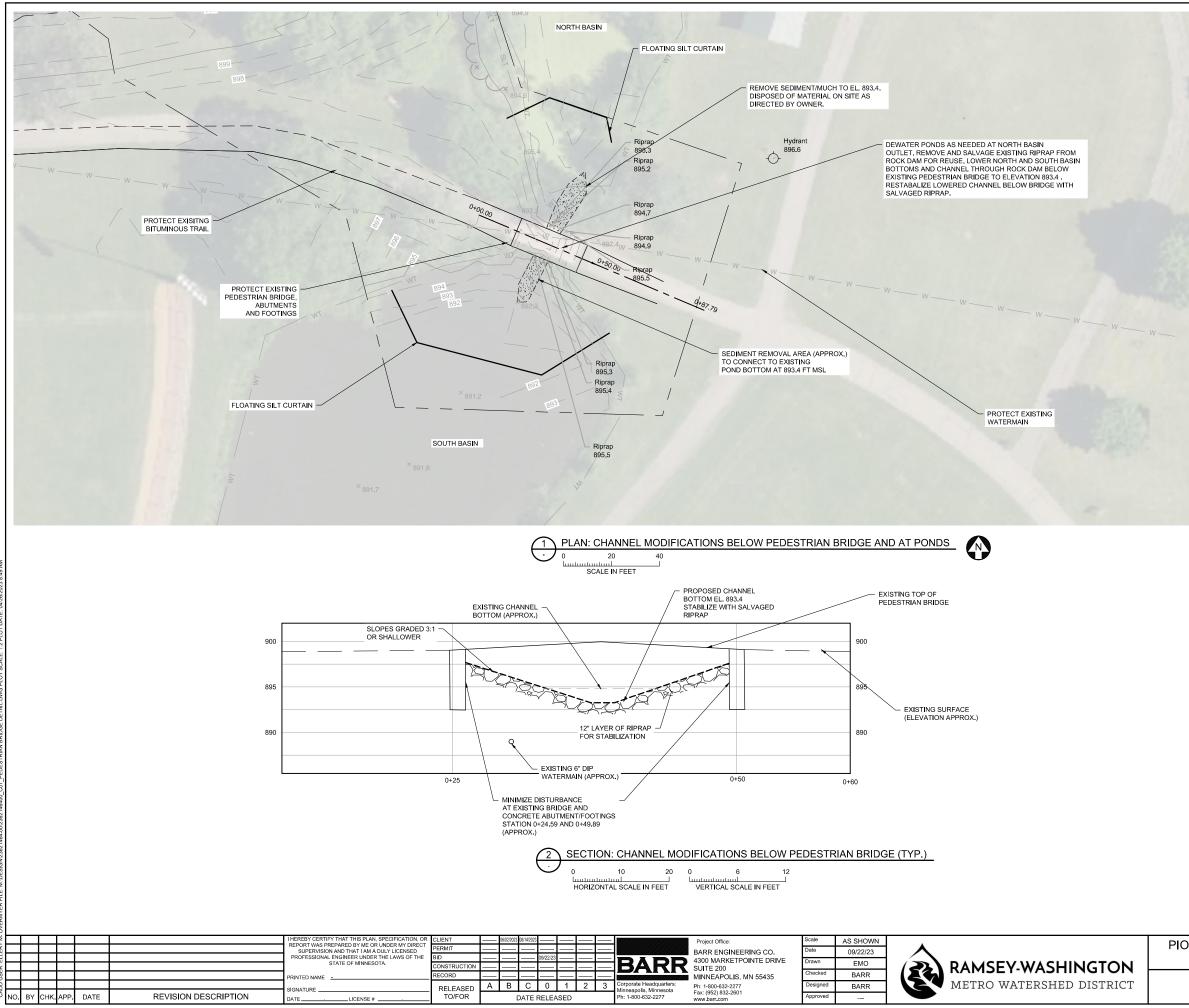


N	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT №. 23\62-1464. CLIENT PROJECT №.	.00
CT	STORMWATER TREATMENT	DWG. No.	REV. No.
	SYSTEM	C-05	0









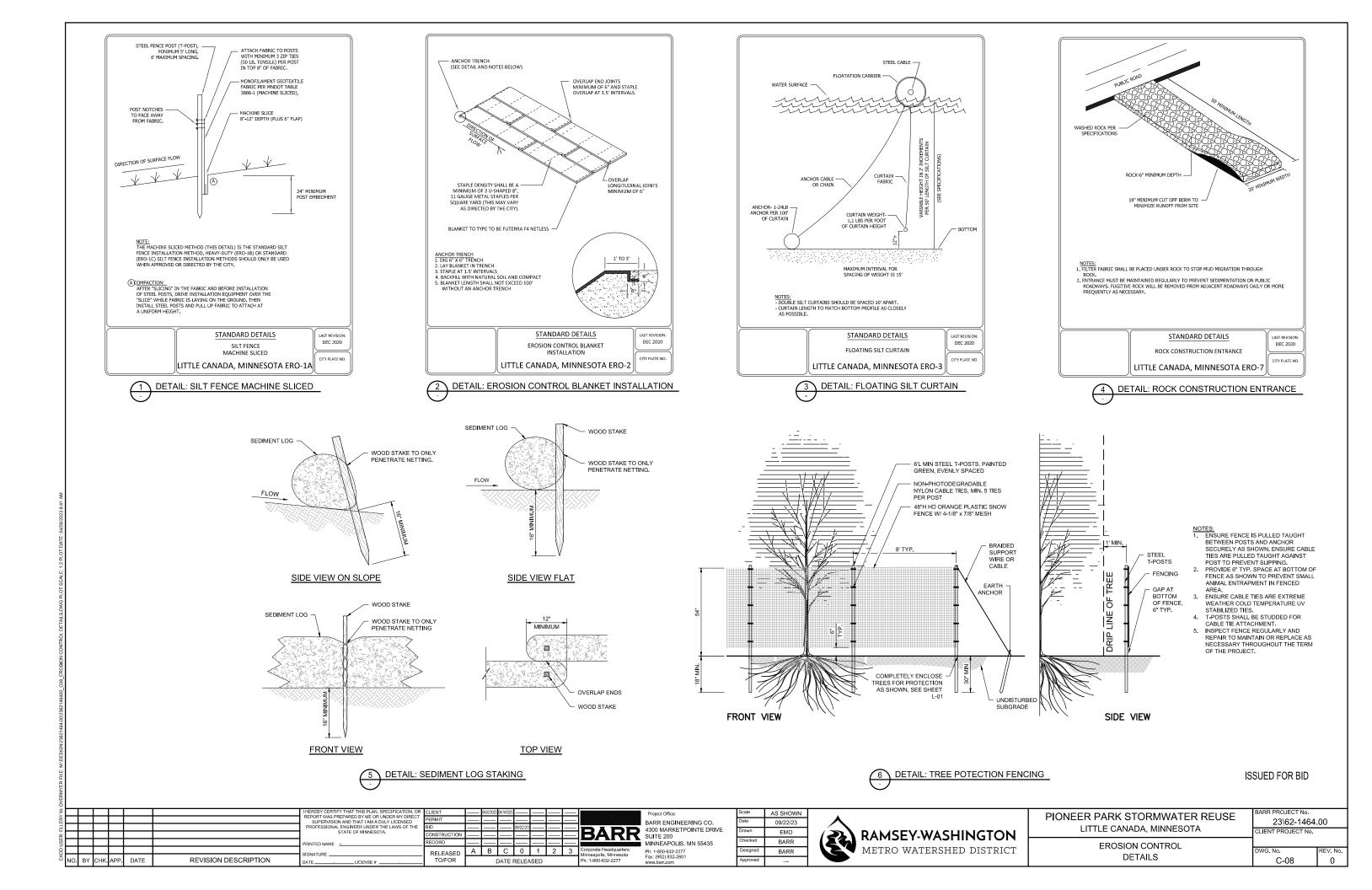
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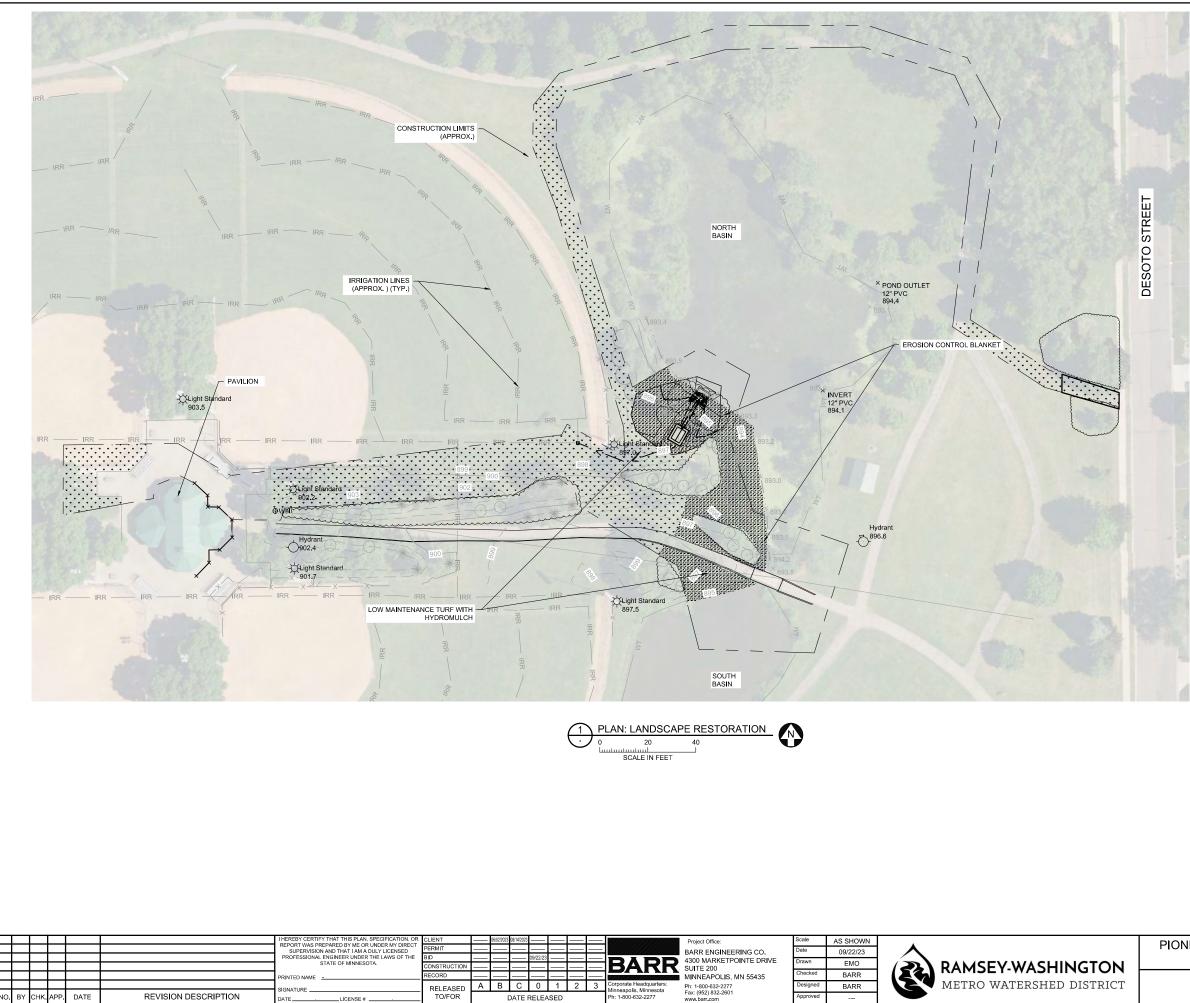
STRUCTION LIMITS ERTY LINE ING MAJOR CONTOUR ING MINOR CONTOUR OSED MAJOR CONTOUR OSED MINOR CONTOUR OSED ALIGNMENT ING FENCE ING SHORELINE ING OVERHEAD ELECTRIC ING UNDERGROUND ELECTRIC ING SANITARY SEWER ING STORM SEWER ING WATER LINE ING CONTROL POINT ING POWER POLE ING LIGHT POLE ING MANHOLE ING SANITARY MANHOLE ING STORM MANHOLE AND BOUNDARY ING IRRIGATION FEROUS TREE UOUS TREE MENT REMOVAL AREA

NOTES:

1. EXCAVATED MATERIAL FROM POND AT PEDESTRIAN BRIDGE SHOULD BE TEMPORARILY STOCKPILED TO DEWATER, THEN SPREAD THIN ALONG OPEN TURF SPACE ADJACENT TO POND EDGE OR ALONG ACCESS ROUTE BETWEEN BALL FIELD AND VEGETATED POND EDGE TO WASTE ONSITE. COORDINATE WITH ENGINEER.

J	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464. CLIENT PROJECT No.	.00
	PEDESTRAIN BRIDGE DETAIL		
Т	TEBEOTIVIN BRIDGE BETRIE	DWG. No.	REV. No.
		C-07	0

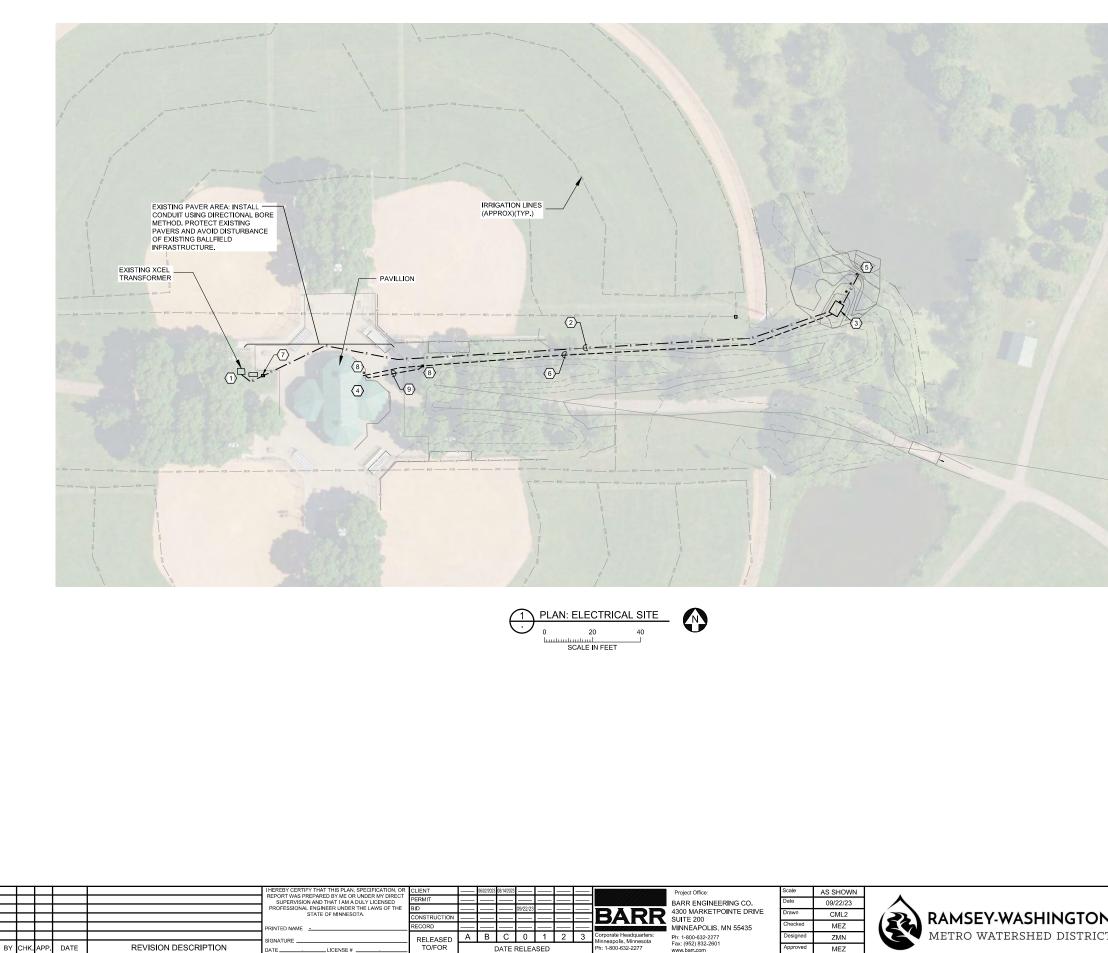




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CONSTRUCTION LIMITS PROPERTY LINE EXISTING MAJOR CONTOUR EXISTING MINOR CONTOUR PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED ALIGNMENT EXISTING FENCE EXISTING SHORELINE EXISTING OVERHEAD ELECTRIC EXISTING UNDERGROUND ELECTRIC EXISTING SANITARY SEWER EXISTING STORM SEWER EXISTING WATER LINE EXISTING CONTROL POINT EXISTING POWER POLE EXISTING LIGHT POLE EXISTING MANHOLE EXISTING SANITARY MANHOLE EXISTING STORM MANHOLE WETLAND BOUNDARY EXISTING IRRIGATION CONIFEROUS TREE DECIDUOUS TREE LOW MAINTENANCE TURF 25-131 WITH HYDROMULCH STORMWATER SOUTH AND WEST 33-26 WITH EROSION CONTROL BLANKET

2	PIONEER PARK STORMWATER REUSE	BARR PROJECT №. 23\62-1464. CLIENT PROJECT №.	.00
Т	LANDSCAPE RESTORATION	DWG. No.	REV. No.
	PLAN	L-01	0





- 1. CONDUCT ALL WORK SO THAT EXISTING FACILITIES REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL OUTAGES AND CUTOVERS WITH OWNER AT LEAST TWO (2) WEEKS IN ADVANCE, AND ONLY TO OCCUR AS APPROVED BY OWNER.
- FIELD CONFIRM LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, CABLES, CONDUITS, ETC. PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPAIR SUCH ITEMS AT NO COST TO OWNER IF DAMAGED BY CONTRACTOR.
- 3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UNDERGROUND FACILITIES THAT WILL BE EXPOSED DUE TO CONSTRUCTION.
- 4. EXISTING UNDERGROUND CIRCUITRY THAT IS TO REMAIN IS NOT ALL SHOWN.
- 5. FIELD CONFIRM ALL CONDUIT AND CIRCUIT ROUTING. SEE SCHEMATIC FOR ADDITIONAL WIRING DETAILS.
- 6. USE DIRECTIONAL BORING OR SIMILAR METHOD FOR NEW CONDUTS TO BE INSTALLED UNDER EXISTING SIDEWALKS AND PAVEMENT, WHERE PITS ARE OPENED, PATCH ALL SURFACES TO MATCH EXISTING.
- CORE DRILL EXISTING STRUCTURES AS REQUIRED FOR NEW CONDUIT INSTALLATION. PATCH ALL SURFACES TO MATCH EXISTING. ALL CORE DRILL LOCATIONS SHALL BE VERIFIED WITH OWNER AND ENGINEER.
- 8. SEAL ALL CONDUITS TO EXTERIOR USING DUCTSEAL OR 1/2" THICKNESS SILICONE CAULK.
- 9. SEE CIVIL DRAWINGS FRO SIDEWALK AND PAVER LOCATIONS NEAR THE PAVILION BUILDING.

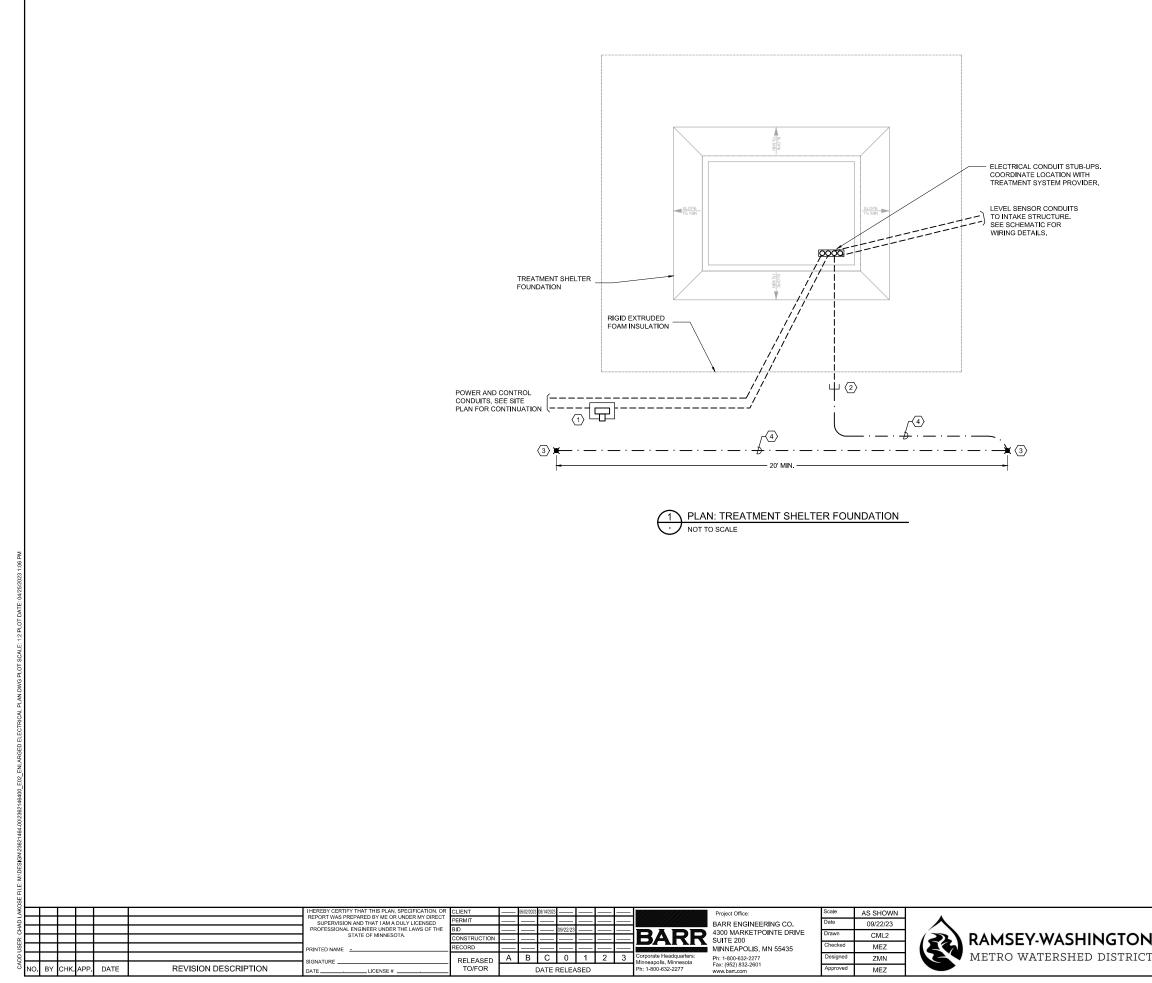
NUMBERED NOTES:

- (1) EXISTING UTILITY PAD-MOUNT TRANSFORMER. COORDINATE NEW METERED SERVICE FOR TREATMENT SYSTEM WITH UTILITY, XCEL ENERGY. SEE SPEC SECTION 26 20 00 FOR ADDITIONAL INFORMATION.
- 2 SERVICE CONDUCTORS TO TREATMENT SYSTEM.
- (3) PROPOSED TREATMENT SYSTEM SHELTER, SEE PROCESS FOR ADDITIONAL DETAILS. SEE SCHEMATIC FOR WIRING DETAILS.
- (4) IRRIGATION CONTROLLER LOCATION. NEW IRRIGATION CONTROLLER MODEL AND LOCATION IS BEING PROVIDED BY CITY UNDER A DIFFERENT PROJECT.
- $\underbrace{(5)}_{\text{ADDITIONAL REQUIREMENTS.}} \text{ LEVEL INSTRUMENTS, SEE SCHEMATIC AND DETAIL FOR ADDITIONAL REQUIREMENTS.}$
- 6 ROUTE 1" SCH. 80 PVC CONDUIT FROM TREATMENT SYSTEM CONTROL PANEL TO PAVILLION BUILDING. TIE INTO NEW 11" X 18" X 18"D HANDHOLE, SEE NUMBERED NOTE 8. SEE SCHEMATIC FOR WIRING DETAILS.
- (7) UTILITY METERING PEDESTAL, PER XCEL ENERGY REQUIREMENTS. FIELD COORDINATE PEDESTAL LOCATION WITH OWNER AND ENGINEER DURING CONSTRUCTION.
- EXISTING 3" CONDUIT (IRRIGATION CONTROL WIRING) FROM PAVILLION BUILDING TO SITE. THE LOCATION OF THE OTHER END OF THE CONDUIT IS UNKNOWN. CONTRACTOR TO FIELD LOCATE THE END OF THE CONDUIT SUNKTRACTOR TO FIELD PIBERGLASS HANDHOLE NEAR END OF CONDUIT AND TE IN 1" SCH. 80 PVC CONDUIT TO TREATMENT SYSTEM CONTROL PANEL. OWNER PREFERENCE TO UTILIZE THIS EXISTING CONDUIT FOR IRRIGATION CONTROL WIRING.
- (9) IF EXISTING CONDUIT CANNOT BE LOCATED (SEE NUMBERED NOTE 8), CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN BID-ALTERNATIVE A.

BID-ALTERNATE A:

INSTALL 1* CONDUIT FROM HANDHOLE INTO PAVILLION BUILDING, FOR NEW COMMUNICATION WIRING TO IRRIGATION CONTROLLER. REMOVE A SINGLE SIDEWALK PANEL ADJACENT TO THE PAVILLION (APPROX. 3' X 3' PANEL) AND DIRECTIONAL BORE UNDER THE EXISTING PAVER PATIO. TRANSITION TO GRS CONDUIT BELOW GRADE AND UTILIZE 90 DEGREE ELBOW INTO BUILDING ABOVE GRADE. REPLACE SIDEWALK PANEL AND MATCH SURFACES DISTURBED. MINIMIZE DISTURBANCE TO EXISTING PAVERS. ANY DISTURBANCE TO PAVERS MUST BE RESTORED TO EXISTING CONDITIONS AT NO COST TO OWNER.

J	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT №. 23\62-1464. CLIENT PROJECT №.	.00
Г	ELECTRICAL SITE	DWG. No.	REV. No.
	PLAN	E-01	0



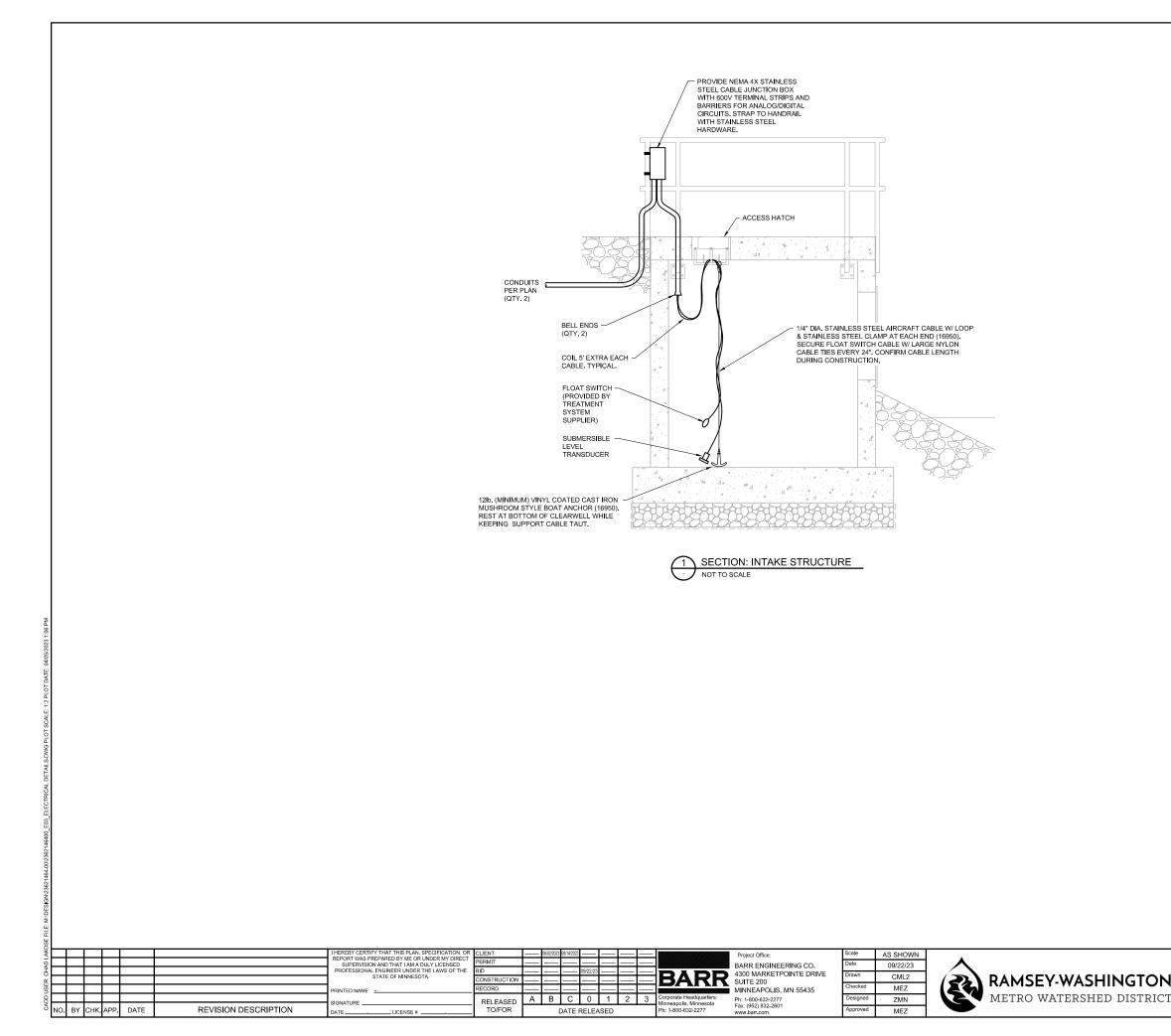
GENERAL NOTES:

- 1. SEE SCHEMATIC AND TREATMENT SYSTEM DRAWINGS FOR ADDITIONAL WIRING DETAILS.
- 2. FIELD CONFIRM LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, CABLES, CONDUITS, ETC. PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPAR ALL SUCH ITEMS AT NO EXTRA COST IF DAMAGED BY CONTRACTOR.
- 3. FIELD CONFIRM ALL CONDUIT ROUTES WITH ENGINEER.
- 4. RESTORE ALL SURFACES DISTURBED BY THIS WORK.

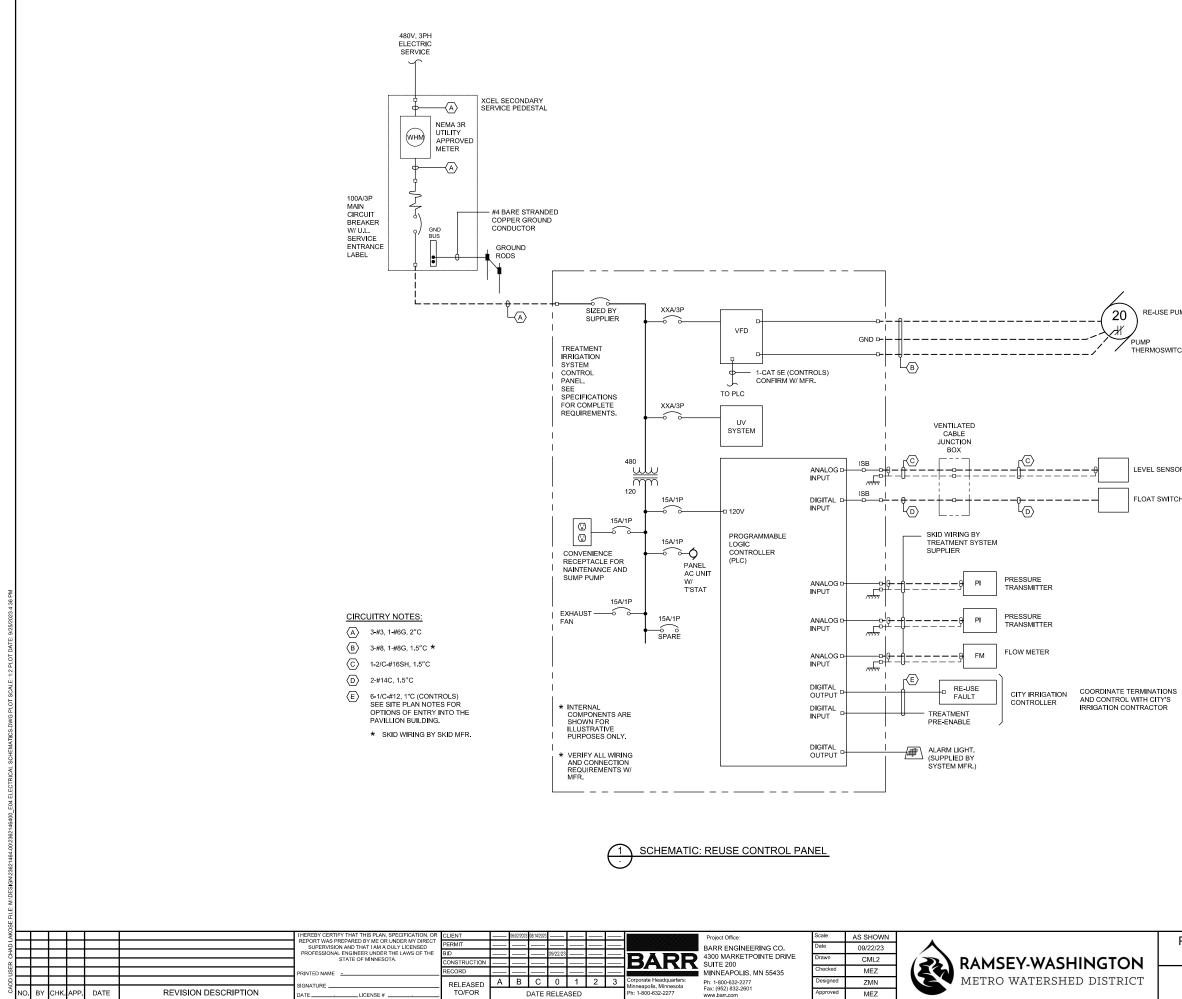
NUMBERED NOTES:

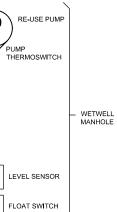
- (1) UTILITY SECONDARY METERING PEDESTAL WITH PADLOCK PROVISIONS. COORDINATE WITH XCEL ENERGY STANDARDS.
- 2 STUB 1.25" SCHEDULE 80 PVC CONDUIT FOR GROUND.
- (3) 5/8" x 10' COPPER-CLAD GROUND ROD WITH EXOTHERMIC WELD TO CONDUCTOR SHOWN. SET TOP AT 12" DEEP.
- (4) #4AWG BARE STRANDED COPPER GROUND CONDUCTOR, 12" DEEP.

	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464.	.00
I		CLIENT PROJECT No.	
Γ	PLAN	DWG. No. E-02	REV. No. 0



	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT №. 23\62-1464.00 CLIENT PROJECT №.	
T	ELECTRICAL DETAILS	DWG. No. E-03	REV. No. 0





L	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT No. 23\62-1464.00 CLIENT PROJECT No.	
Т	ELECTRICAL SCHEMATICS		REV. No.
		E-04	0

GENERAL REQUIREMENTS AND SUBMITTALS Α.

- CENERAL
 THESE NOTES ARE COMPLEMENTARY TO THE SPECIFICATIONS AND DRAWINGS AND REPRESENT MINIMUM
 REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- DO NOT SCALE DRAWINGS. THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND, EXCEPT WHERE SPECIFICALLY
- SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR PREPARATION AND INSTALLATION OF PURCHASED MATERIALS 4 AND EQUIPMENT
- AND EQUIPMENT. TESTS WILL BE PAID FOR BY THE OWNER; HOWEVER, IN THE EVENT THAT WORK IS DEFECTIVE, THE CONTRACTOR WILL PAY FOR THE TESTS AND ANY ADDITIONAL TESTING AND WORK REQUIRED TO CONFIRM THAT THE DEFECTIVE WORK HAS BEEN CORRECTED AND COMPLIES WITH THIS SPECIFICATION.
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- GOVERNING CODES 1. PERFORM WORK IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS, a. 2018 INTERNATIONAL BUILDING CODE AND REFERENCED STANDARDS W/ 2020 MINNESOTA BUILDING CODE AMENDMENTS.
- SUBMITTALS T. PROVIDE SUBMITTALS TO OWNER A MINIMUM OF TWO WEEKS PRIOR TO INCORPORATION INTO THE WORK. 2. SUBMIT ONE ELECTRONIC COPY OF EACH SUBMITTAL SPECIFIED TO THE OWNER AT THE FOLLOWING:
- OWNER COMPANY a. ATTN: MR. OR MRS. CLIENT CONTACT [<u>EMAILADDRESS@CLIENT.COM</u>] ENGINEER'S ACCEPTANCE MUST BE SECURED FOR ALL STRUCTURAL SUBSTITUTIONS.
- ENGINEER'S ACCEPTANCE MUST BE SECURED FOR ALL STRUCTURAL SUBSTITUTIONS. ENGINEER'S EVIEW OF SHOP DRAWINGS ARE FOR GENERAL CONFORMANCE AND COMPLIANCE WITH DESIGN CONCEPTS, STRUCTURAL DRAWINGS AND SPECIFICATIONS, ANY ACTION NOTED DOES NOT WAIVE ANY REQUIREMENTS OF CONTRACT DOCUMENTS; COORDINATION OF TRADES AND SATISFACTORY PERFORMANCE OF THEIR WORK IS THE CONTRACTOR'S COMPLETE RESPONSIBILITY. SHOP DRAWINGS WILL BE MARKED AS 'NOT APPROVED (RESUBMITY' IF CONTRACTOR HAS NOT REVIEWED THEM DIRIDATES IN CONTRACTORY OF A STRUCTURE OF A STRUCTURE AND CONTRACTOR HAS NOT REVIEWED THEM DIRIDATES IN CONTRACTORY OF A STRUCTURE O 5.
- PRIOR TO SUBMITTING
- D.
- DESIGN LOADS

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 - SNOW LOAD 4
 - NOT USED WIND LOAD 5.
 - NOT USED
 - SEISMIC LOAD 6 NOT USED
- GEOTECHNICAL INFORMATION AMERICAN ENGINEERING TESTING, INC "REPORT OF GEOTECHNICAL EXPLORATION " PIONEER PARK AND GERVAIS MILL PARK, LITTLE CANADA, MINNESOTA, JANUARY 14, 2020 REPORT NO26-20225. Ε.
- F.
- EXISTING CONDITIONS

 1.
 PRIOR TO COMMENCING WORK AT THE SITE, CONTACT GOPHER STATE ONE AND HAVE ALL EXISTING UTILITIES FIELD LOCATED AND MARKED. PROTECT EXISTING UTILITIES UNLESS OTHERWISE INDICATED. REPAIR OR REPLACE ANY UTILITIES DAMAGED BY CONTRACTOR AT CONTRACTORS EXPENSE.

 2.
 VERIFY ALL EXISTING CONDITIONS SHOWN ON DRAWINGS FOR ACCURACY. VERIFICATION OF FIELD DIMENSIONS ARE NOT PART OF THE ENGINEER'S RESPONSIBILITY.

 3.
 NOTFY OWNER IMMEDIATELY IF SITE CONDITIONS OR UTILITIES DIFFER SIGNIFICANTLY FROM THAT SHOWN.

 4.
 DO NOT DISTURB EXISTING VEGETATION AREAS OUTSIDE OF CONSTRUCTION LIMITS.
- <u>G.</u>

<u>L</u>

- SAFETY
 CONTRACTOR IS RESPONSIBLE FOR JOB-SITE CONDITIONS AND SAFETY PROCEDURES AND PROGRAMS. THIS REQUIREMENT APPLIES CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.

 2.
 MEET ALL FEDERAL, STATE, AND LOCAL RULES AND REGULATIONS PERTAINING TO SAFETY, INCLUDING OSHA
 SECURE THE SITE FOR PUBLIC SAFETY FOR THE DURATION OF THE WORK.
- н.
- PHASING 1. COORDINATE CONSTRUCTION PHASING WITH OWNER, COORDINATE CONSTRUCTION LIMITS FOR ALL PHASES OF WORK. PHASE WORK TO MINIMIZE EXPOSED SOIL AND EROSION POTENTIAL. 2.
- TRAFFIC MANAGEMENT

 1.
 TAKE ALL NECESSARY PRECAUTIONS TO EFFECTIVELY ADDRESS VEHICLE AND PEDESTRIAN TRAFFIC, ACCESSIBILITY AND WORKER SAFETY DURING CONSTRUCTION.
- EXCAVATION, SUBGRADE PREPARATION, BACKFILL, & COMPACTION 2.0
 - GENERAL COORDINATE THE EXCAVATION, SUBGRADE PREPARATION, BACKFILL, COMPACTION, AND GRADING ACTIVITIES WITH THE DRAWINGS.
 - в.
 - SUBMITTALS GROUNDWATER AND SURFACE WATER CONTROL PLAN.

 - GROUNDWATER AND SURFACE WATER CONTROL PLAN. SUBGRADE STRENGTH AND UNIFORMITY VERIFICATION METHOD. SUBGRADE INSPECTION REPORT FOR EACH FOUNDATION COMPLETED BY A GEOTECHNICAL ENGINEER. GRAIN SIZE ANALYSIS, NATURAL MOSITURE CONTENT, STANDARD PROCTOR MAXIMUM DRY DENSITY AND ATTERBERG LIMITS (FOR COHESIVE MATERIALS) FOR FILL MATERIALS. COMPACTION TEST RESULTS FOR FILL INDICATING LOCATION OF TEST, DRY DENSITY, AND MOISTURE CONTENT OF PLACED FILL.
 - <u>5.</u>
 - с.

 - PRODUCTS 1. STRUCTURAL FILL: WELL GRADED (PER UNIFIED SOIL CLASSIFICATION SYSTEM) GRANULAR SOIL CONSISTING OF B. WELL GRADED (PER UNIFIED SOIL CLASSIFICATION SYSTEM) GRANULAR SOIL CONSISTING OF CONVEL AND SAND OR CONVEL AND SAND O

 - <u>2.</u>

 - a.
 WELL GRADED (PER UNIFIED SOIL CLASSIFICATION SYSTEM) GRANULAR SOIL CONSISTING OF GRAVEL AND SAND, OR

 b.
 CRUSHED STONE WITH A MAXIMUM PARTICLE SIZE OF 11/2" AND LESS THAN 5% PASSING THE NO. 200 SIEVE AND FREE OF VEGETATION, DEBRIS, ROOTS, STICKS, BRUSH, AND NON-SOIL MATERIALS.

 NON-FROST SUSCEPTIBLE SOIL: GRANULAR SOIL CONSISTING OF GRAVEL, SAND OR CRUSHED STONE HAVING A MAXIMUM PARTICLE SIZE OF 11/2", NO LESS THAN 70% PASSING THE 34" SIEVE, AND LESS THAN 10% PASSING THE 0, 200 SIEVE AND FREE OF VEGETATION, DEBRIS, ROOTS, STICKS, BRUSH, AND NON-SOIL MATERIALS.

 COMMON FILL: SUITABLE UNFROZEN MATERIALS EXCAVATED FROM THE FOUNDATION SITE OR IMPORTED AS NECESSARY AND PROCESSED TO THE SPECIFICE REQUIREMENTS BELOW.

 a.
 MATERIALS BACKFILLED WITHIN 1 FOOT OF ANY CONCRETE: FINE, WELL GRADED MATERIALS WITH PARTICLE SIZE ON GREATER THAN 3".

 b.
 REMAINING BACKFILL TO MEET THE DENSITY REQUIREMENTS, FREE OF VEGETATION, DEBRIS, ROOTS, STICKS, BRUSH AND MON-SOIL MATERIALS, AND PLACED USING METHODS THAT WILL PREVENT VOIDS FROM OCCURRING.

 c.
 COHESIVE MATERIALS HAVING LIQUID LIMIT VALUES OF 40% OR LESS AND PLASTICITY INDICES OF 16% OR LESS.

 - 15% OR LESS.

- EXECUTION 1. EXCAVATE SOILS TO THE LIMITS INDICATED, USING TECHNIQUES THAT WILL MINIMIZE DISTURBANCE.
- 4.
- UILON EXCAVATE SOILS TO THE LIMITS INDICATED, USING TECHNIQUES THAT WILL MINIMIZE DISTURBANCE. CONTROL SURFACE AND GROUNDWATER FLOWS INTO THE EXCAVATION. IF GRANULAR SOILS ARE ENCOUNTERED ACROSS THE ENTIRE FOOTPRINT OF THE FOUNDATION, SURFACE COMPACT THE TOP OF THE SUBGRADE TO CONSOLIDATE LOOSE SOILS CREATED DURING EXCAVATION, REFER TO THE GEOTECHNICAL REPORT FOR RECOMMENDED SUBGRADE PREPARATION TECHNIQUES. PRIOR TO PLACING CONCRETE, HAVE A PROFESSIONAL GEOTECHNICAL ENGINEER (DR A PERSON UNDER THE SOIL TYPE ENCOUNTERED, GROUNDWATER CONDITIONS, OR OTHER SUBSURFACE CONDITIONS AND RECORD THE SOIL TYPE ENCOUNTERED, GROUNDWATER CONDITIONS, OR OTHER SUBSURFACE CONDITIONS, PREPARE AND SUBMIT A SUBGRADE INSPECTION REPORT FOR EACH FOUNDATION THAT INCLUDES THE FOLLOWING: . VERFICATION THAT OBSERVATIONS TAKEN ARE CONSISTENT WITH THE CBSERVATIONS CONTAINED IN THE GEOTECHNICAL REOPORT. . METHODS AND RESULTS TO VERIFY SUBGRADE STRENGTH AND UNIFORMITY. IF SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT CONSISTENT WITH THE GEOTECHNICAL REPORT, SUBGRADE IS NOUNIFORM, OR STRENGTH IS INSUFFICIENT: OBTAIN WRITTEN INSTRUCTIONS FROM THE FOUNDATION STAKEN ROM THAT RE NOT CONSISTENT WITH THE SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT CONSISTENT WITH THE IF SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT CONSISTENT WITH THE INSTRUCTIONS FROM THE FOUNDATION ENGINEER AS TO THE MEANS OF CORRECTION TO BE UNDERTAKEN, OBTAIN WRITEN CONFIRMATION FROM THE GEOTECHNICAL REPORT, SUBGRADE IS NON-UNIFORM, OR STRENGTH IS INSUFFICIENT BAIN WRITTEN INSTRUCTIONS FROM THE FOUNDATION ENGINEER AS TO THE MEANS OF CORRECTION TO BE UNDERTAKEN, OBTAIN WRITEN CONFIRMATION FROM THE GEOTECHNICAL ENGINEER THAT THE SPECIFIED CORRECTIVE ACTIONS WERE COMPLETED. BACKFILL AND COMPACTION: PLACE AND COMPACT MATERIALS TO THE LIMITS, DEPTH AND DRY DENSITY INDICATED ON THE DRAWINGS.
- BACKFILL AND COMPACTION: PLACE AND COMPACT MATERIALS TO THE LIMITS, DEPTH AND DRY DENSITY

 INDICATED ON THE DRAWINGS.

 a.
 STRUCTURAL FILL PLACE IN MAXIMUM LOOSE LIFTS OF 9 INCHES OR LESS TO ACHIEVE THE SPECIFIED

 b.
 GRANULAR FILL PLACE IN MAXIMUM LOOSE LIFTS OF 9 INCHES OR LESS TO ACHIEVE THE SPECIFIED

 b.
 GRANULAR FILL PLACE IN MAXIMUM LOOSE LIFTS OF 12 INCHES OR LESS TO ACHIEVE THE SPECIFIED

 c.
 COMMON FILL PLACE IN MAXIMUM LOOSE LIFTS OF 12 INCHES OR LESS TO ACHIEVE THE SPECIFIED

 DENSITY, COMPACT TO A MINIMUM OF 98% STANDARD PROCTOR.
 C.

 c.
 COMMON FILL PLACE IN MAXIMUM LOOSE LIFTS OF 12 INCHES OR LESS TO ACHIEVE THE SPECIFIED

 DENSITY, COMPACT TO A MINIMUM OF 95% STANDARD PROCTOR.
 BACKFILL MAY BE PLACED WHEN THE ADJACENT CONCRETE HAS REACHED 2,000 PSI.

 6.
 BACKFILL MAY BE PLACED WHEN THE ADJACENT CONCRETE HAS REACHED 2,000 PSI.
 B.

 6.
 BACKFILL ALL SIDES OF FOUNDATION WALLS OR PIERS EVENLY.
 GRADING TOLERANCE: ± 0.1 FEET.

GENERAL GENERAL ALL CONCRETE WORK COVERED BY THESE CONTRACT DOCUMENTS SHALL CONFORM TO THE REFERENCED SECTIONS OF ACI 301-10 AS PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE, FARMINGTON HILLS, MICHIGAN, EXCEPT AS MODIFIED BY THESE SPECIFICATIONS.

SUBMITTALS 1. MANUFACTURER'S DESCRIPTIVE LITERATURE AND PRODUCT SPECIFICATIONS FOR EACH PRODUCT.

EMBEDDED STEEL, INSERTS, ANCHOR BOLT AND ACCESSORIES LOCATIONS

COMPRESSIVE STRENGTH AT 28 DAYS

SCALE WEIGHTS OF EACH AGGREGATE

6. TESTING
 FOR EVERY 1000 CUBIC YARDS (OR CHANGE IN MATERIAL TYPE) OF PLACED STRUCTURAL, GRANULAR, OR COMMON FILL, OBTAIN SAMPLES OF MATERIALS AND PERFORM AND SUBMIT GRAN SIZE ANALYSIS PER ASTM D422, MOISTURE CONTENT PER ASTM D2216, STANDARD PROCTOR MAXIMUM DRY DENSITY PER ASTM D698, AND ATTERBERG LIMITS (FOR COHESIVE MATERIALS) PER ASTM D4318.
 FOR ALL PLACED AND COMPACTED STRUCTURAL, GRANULAR, OR COMMON FILL, PERFORM AND SUBMIT ONE DENSITY TEST PER LIFT (PER 1000 SQUARE FEET ON SLABS-ON-GRADE AND PER 25 LINEAL FEET ON WALLS AND FOOTINGS) INDICATING TEST LOCATION, DRY DENSITY AND MOISTURE CONTENT PER ASTM D6938.

D.

<u>E.</u>

3.0 CONCRETE

<u>B.</u>

b. c. EXECUTION 1. PREPARATION: ACI 301 5.3.1. COAT ANCHOR ROD THREADS WITH GREASE AN
 PLUG OR CAP ANCHOR ROD SLEEVES.
 a. TOLERANCES: AISC 303, SECTION 7.5.1.
 CAST-IN-PLACE CONCRETE TOLERANCES: ACI 117
 DELIVERY: ASTM C94
 TIME OF DISCHARGE: ACI 301.4.3.2.2
 CONVEYANCE: ACI 301.4.3.2.2
 CONVEYANCE: ACI 301.5.3.2.3
 DLACEMENT OF CONCRETE: ACI 30.1.5.3.2 CONVEYANCE, AND 501 5.3.2.2 AND 505.2.5 PLACEMENT OF CONCRETE: ACI 301 5.3.2 COLD WEATHER PLACEMENT: ACI 301 AND RECOMMENDATIONS OF ACI 306R. HOT WEATHER PLACEMENT: ACI 301 AND RECOMMENDATIONS OF ACI 305R. CONSOLIDATION: ACI 301 5.3.2.5 13. 14. CURING AND PROTECTION: ACI 301 5.3.6 REPAIR OF SURFACE DEFECTS: ACI 301 5.3.7 TESTING PARAMETER TEST FREQUEN

12.

D.

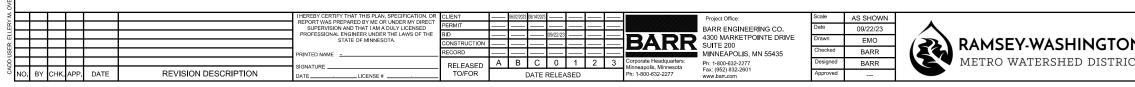
а.

AIR CONTENT ASTM C231, ONE 2. SLUMF ASTM C143, ONE 3. TEMPERATURE HOURLY WHEN LESS THAN 40F CONCRETE TEST OBTAIN SET OF OF CONCRETE SET EACH DAY PER ASTM C172 ASTM C39 1 STRENG 2 STRENG 1 STRENG COMPRESSIVE STRENGTH FOR FUT

4.0 FASTENING AND ANCHORAGE

- BO NOT CHANGE MIX DESIGNS AND SUPPLIER UNLESS NEW BATCH PLANT QUALIFICATIONS AND MIX DESIGNS ARE SUBMITTED.
 CONCRETE REINFORCEMENT
 SUBMIT PRIOR TO START OF WORK.
 MANUFACTURER'S MILL CERTIFICATES: PROPERTIES OF THE STEEL (I.E., MILL TESTS).
 MANUFACTURER'S MILL CERTIFICATES: PROPERTIES OF THE STEEL (I.E., MILL TESTS).
 REPORTS ON MATERIALS, CONCRETE DESIGN MIXED, AND TESTING PERFORMED
 ONE SIGNED COPY OF THE DESIGN MIXED, AND TESTING PERFORMED
 ONE SIGNED COPY OF THE DESIGN MIXED, AND TESTING PERFORMED
 ONE SIGNED COPY OF THE DESIGN MIXED, AND TESTING PERFORMED
 JOBSITE PROVIDE.
- JOBSITE PROVIDE.
- STRENGTH: MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH: 4:500 PSI. SERVICEABILITY. SEE ACI 301 4.2.2.7 PCR DEFINITIONS AND REQUIREMENTS a. SULFATE RESISTANCE REQUIREMENT: [S0] b. FREEZE THAW RESISTANCE REQUIREMENT: [F2] c. PERMEABILITY REQUIREMENT: [P0] d. REINFORCING CORROSION RESISTANCE REQUIREMENT: [C1] CEMENTITIOUS MATERIA. a. PORTLAND CEMENT: ACI 301 4.2.1.1 b. POZCLANIC MINERAL ADMIXTURE: ACI 301 4.2.1.1,D c. USE ONLY ONE BRAND AND TYPE OF CEMENTITIOUS MATERIALS. FINE AND COURSE AGGREGATES a. GRADATION: ACI 301 4.2.2.3 WATER: ACI 301 4.2.1.3 ADMIXTURES STRENGTH: MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH: 4,500 PSI. ADMIXTURES NORES NO ADMIXTURES, EXCEPT AIR-ENTRAINING AGENT AND WATER REDUCING ADMIXTURE, WITHOUT APPROVAL OF THE ENGINEER, DO NOT USE CALCIUM CHLORIDE.
- AIR-ENTRAINING AGENT: ASTM C260 WATER-REDUCING ADMIXTURE: ASTM C494, TYPE A MIXES:
- a. CEMENITIOUS MATERIAL CONTENT: ACI 301 4.2.2.1
 b. SLUMP: ACI 301 4.2.2.2
 c. MAXIMUM WATER-TO-CEMENT RATIC: 0.45
 d. MINIMUM WATER-TO-CEMENT RATIC: 0.45
 d. MINIMUM WATER ALS:
 a. WATER FOR CURING: ASTM C1602
 b. MEMBRANE CURING COMPOUND: ASTM C309 OR ASTM C1315.
 c. WATERRFORO SHEETS: ASTM C171
 CONCRETE REINFORCIMENT
 a. REINFORCING BARS: ASTM A615, A706, OR A996 (TYPE R), A970, GRADE 60.
 b. EPDXY COATED REINFORCING: ASTM A775.
 d. BAR SUPPORTS:

- BAR SUPPORTS:



- C. <u>PRODUCTS</u>

 - CEMENTITIOUS MATERIAL CONTENT: ACI 301 4.2.2.1

 - - CRSI MANUAL OF STANDARD PRACTICE COLD-DRAWN STEEL WIRE. TYPE C PLASTIC PROTECTED OR TYPE E STAINLESS STEEL PROTECTED PRECAST CONCRETE

 a. TEMBEDDED STEEL, INSERTS, ANCHOR BOLT AND ACCESSORIES LOCATIONS
 BATCH PLANT OULLIFICATIONS
 a. PLANTS NAME
 b. ADDRESS
 C. PHONE NUMBER
 d. DISTANCE AND TRAVEL TIME TO SITE
 d. CERTFICATION OF READY-MIX PLANT EQUIPMENT AND FACILITIES PER [MN/DOT 2461.4D]
 CONCRETE MIX DESIGN
 a. MIX DESIGN TO BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA
 b. SUBMIT FOR EACH MIX AT LEAST 15 DAYS PRIOR TO START OF WORK
 1. BASIS FOR MIX DESIGN (BY CONCRETE PRODUCTION FACILITY OR LABORATORY TRIAL MIXES)
 1DENTIFICATION OF AGGREGATE SOURCE AND COMPLIANCE TEST TO ASTM REQUIREMENTS
 3. COMPRESSIVE STREMENT HA ZB DAYS SCALE WIGHTI SUP PACH AGGREGATE BRAND, TYPE, AND AMOUNT OF CEMENTITIOUS MATERIAL IN MIX PROPORTIONS OF EACH MATERIAL REQUIRED PER CUBIC YARD DO NOT CHANGE MIX DESIGNS AND SUPPLIER UNLESS NEW BATCH PLANT QUALIFICATIONS AND MIX

В.

С.

D.

E.

TESTING

a. NOT USED

E.

CONCRETE FORMWORK: ACI 301 2.2

CONCRETE FORMWORK: ACI 301 2.2 EXPANSION JOINT MATERIAL <u>a.</u> EXPANSION AND ISOLATION MATERIAL USED FOR INTERIOR APPLICATIONS WITH A SEALANT. POLYETHYLENE CLOSED-CELL JOINT FILLER: SONOFLEX⁺ AS MANUFACTURED BY SONNEBORN, CERAMAR AS MANUFACTURED BY W. R. MEADOWS, INC., OR APPROVED EQUAL <u>b.</u> EXPANSION AND ISOLATION MATERIAL USED FOR EXTERIOR APPLICATIONS WITHOUT A SEALANT. FIBER EXPANSION JOINT FILLER CONFORMING TO ASTM D1751.

SEALER SEALANT FOR USE IN FLOOR SLAB ISOLATION AND CONTRACTION JOINTS: 2_COMPONENT POLYURETHANE SEALANT, SONOLASTIC SL2 SEALANT AS MANUFACTURED BY SONNEBORN, OR APPROVED EQUAL. SEALANT FOR USE IN WALL JOINTS: 1-COMPONENT GUN GRADE POLYURETHANE SEALANT SONOLASTIC NP1 AS MANUFACTURED BY SONNEBORN, SIKAFLEX-1A AS MANUFACTURED BY SIKA, OR APPROVED EQUAL PRIMER: AS RECOMMENDED BY THE SEALANT MANUFACTURER.

PREPARATION: ACI 301 5.3.1. REINFORCEMENT: ACI 301 3.3.1 PLACEMENT a. SET ANCHOR RODS USING PLYWOOD, STEEL, AND EMBEDDED TEMPLATES (IF NECESSARY). SECURE WITH NUTS ON EACH SIDE OF TEMPLATE. b. ANCHOR ROD PROTECTION. 1. COAT ANCHOR ROD THREADS WITH GREASE AND WRAP WITH BURLAP. 2. DILVC OR CAD ANYCHOR ROD THREADS WITH GREASE AND WRAP WITH BURLAP.

CONSOLIDATION: ACI 301 5.3.2.5 FINISHES a. EXPOSED SURFACES NOT IN CONTACT WITH FORMWORK: ACI 301 5.3.4. b. EXTERIOR PAVEMENT AND WALKWAYS: ACI 301 5.3.4.2.0, BROOM OR BELT FINISH c. INTERIOR SLABS: ACI 301 5.3.4.2.0, TROWLE FINISH d. ALL OTHER EXPOSED SURFACES: ACI 301 5.3.4.2.0, TROWEL FINISH

ICY	TARGET VALUES
E TEST PER TRUCK	SEE MIX DESIGN
E TEST PER TRUCK	PER MIX DESIGN ENGINEER
AIR TEMPERATURE IS OR GREATER THAN 80F	ACI 306R-10 FOR AIR TEMPERATURE <40F ACI 305R-10 FOR AIR TEMPERATURE >80F
FOUR FOR EACH CLASS 150 CY EACH DAY, OR ONE WHICHEVER IS GREATER, 2. CURE PER ASTM C31	4"x8" CYLINDERS
IGTH TEST AT 7 DAYS IGTH TESTS AT 28 DAYS IGTH TEST RETAINED IURE TESTING	AVERAGE 28-DAY > 4,500 PSI

GENERAL 1. COORDINATE THE FASTENING AND ANCHORAGE WITH THE CONCRETE AND STEEL COMPONENTS SHOWN ON THE DRAWINGS.

SUBMITTALS 1. PRODUCT SPECIFICATIONS WITH RECOMMENDED DESIGN VALUES AND PHYSICAL CHARACTERISTICS FOR ADHESIVE AND MECHANICAL

ESR-2322. b. MECHANICAL ANCHORS: HILTI KWIK BOLT-TZ EXPANSION ANCHORS PER ICC ESR-1917. REBAR ANCHORS: ADHESIVE HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER

 PRODUCTS

 1.
 CAST-IN-PLACE ANCHORS:

 a.
 ANCHOR BOLTS: ASTM F1554, GRADE 36

 b.
 NUTS: ASTM 1563 HEAVY HEX (GRADE DH WHEN GALVANIZED)

 c.
 WASHERS: ASTM F436

 2.
 POST-INSTALLED ANCHORS:

 a.
 ADHESIVE ANCHORS: HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM WITH HAS-E THREADED ROD PER ICC ESR-2322.

 SER-2322.
 ESR-2322.

 C.
 ESR-2322.

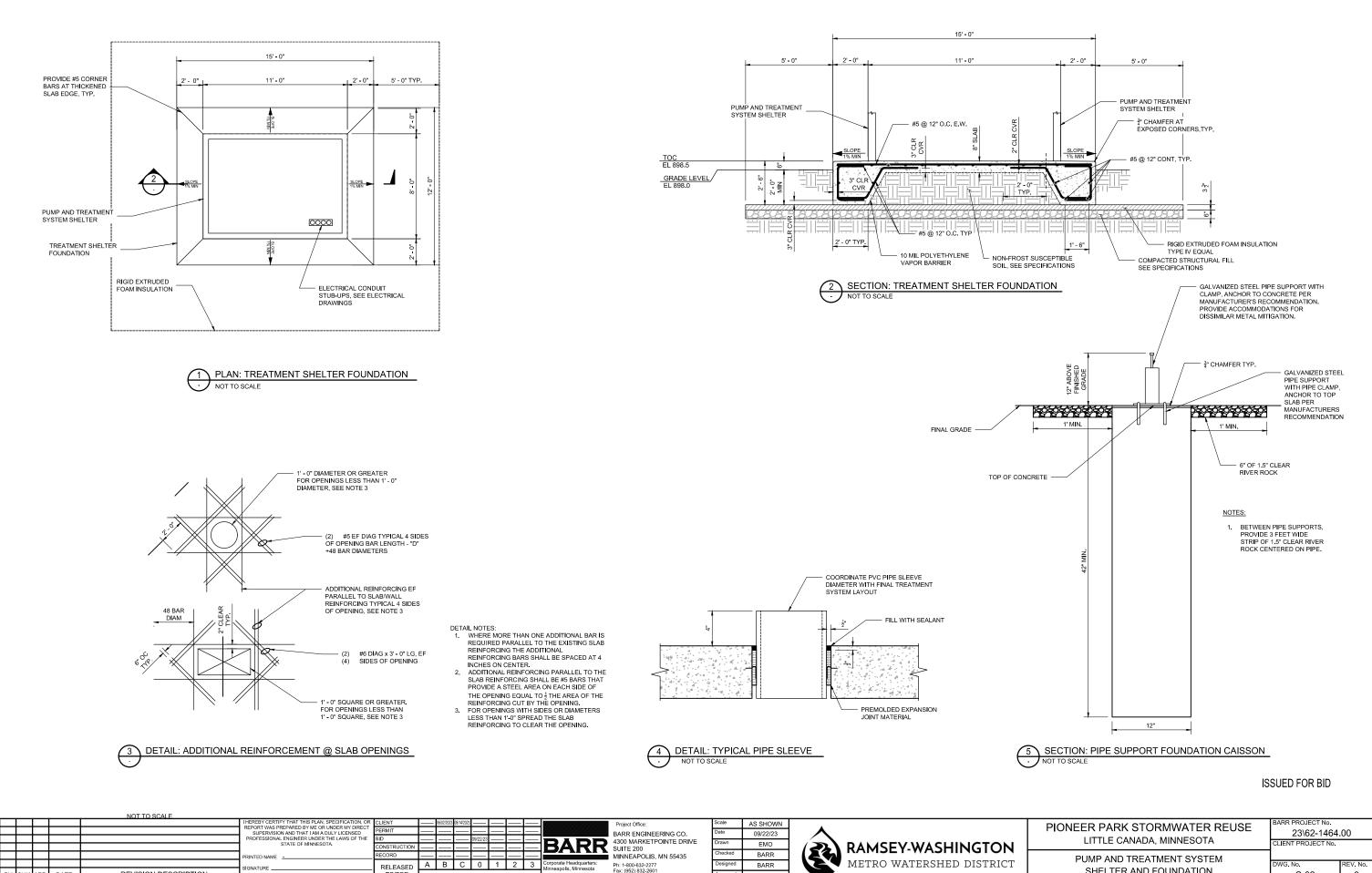
 C.
 ESR-2322.

 C.
 ESR-2322.

EXECUTION 1. CAST-IN-PLACE ANCHORS: USE TEMPLATES TO LOCATE ANCHORS ACCURATELY AND SECURELY IN FORMWORK.

CAST-IN-PLACE ANCHORS: USE TEMPLATES TO LOCATE ANCHORS ACCURATELY AND SECURELY IN FORMWORK. INSTALL ANCHORS PER THE MANUFACTURERS INSTRUCTIONS. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS OTHERWISE NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, REVIEW THE EXISTING STRUCTURAL DRAWINGS AND LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS BY INN-DESTRUCTIVE METHODS, NOTIFY ENGINEER OF IDENTIFIED CONFLICTS BETWEEN ANCHOR LOCATIONS AND REINFORCING BARS.

Z	PIONEER PARK STORMWATER REUSE LITTLE CANADA, MINNESOTA	BARR PROJECT №. 23\62-1464. CLIENT PROJECT №.	.00
ĊΤ	STRUCTURAL NOTES AND	DWG. No.	REV. No.
	SPECIFICATIONS	S-01	0



neapolis, Minnesota 1-800-632-2277

TO/FOR

DATE RELEASED

DATE

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REVISION DESCRIPTION

DATE ____

LICENSE #

METRO WATERSHED DISTRICT

SHELTER AND FOUNDATION

S-02

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New Reports/ Presentations



Targeted Retrofit Program – A decade in review

Paige Ahlborg – Ramsey-Washington Metro Watershed District Marcy Bean – Barr Engineering Co.



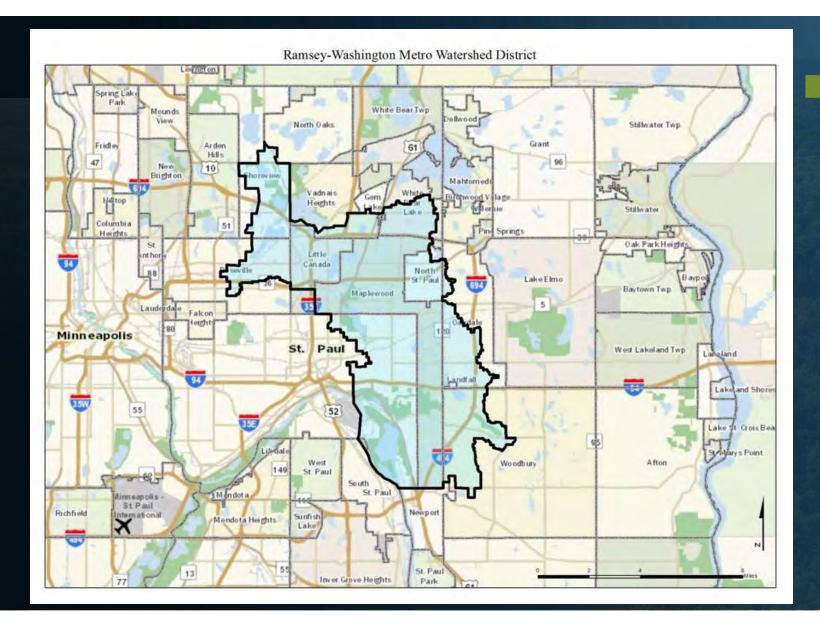
paige.ahlborg@rwmwd.org mbean@barr.com



Little Canada, MN Minneapolis, MN



651.792.7964 952.842.3511 BAR



BARR



- Started in 2013
- Goal: Seek out opportunities for stormwater treatment beyond stewardship grant and permit requirements
- Focus on: Schools, Churches, and Commercial Properties
- Funding: District and Clean Water Funds when available



- Why was it developed?
 - Meet TMDL, water quality goals
 - Had a permit program
 - Had grant program
 - How could we find other projects if property owners didn't have funding to do their own project?



- Churches came first
 - Assessment tool created (2014)
 - Often large buildings, large parking lots, lots of impervious surface
 - Partnership opportunities
 - Alignment with environmental goals







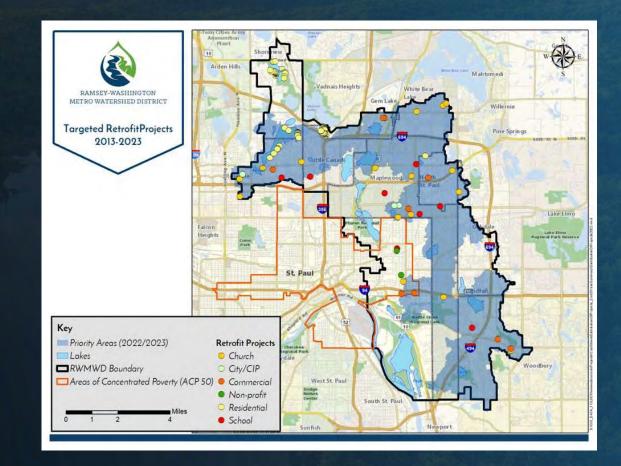
Next came schools

- Used Clean Water Fund grants and District funds
- Connections with educators in the District

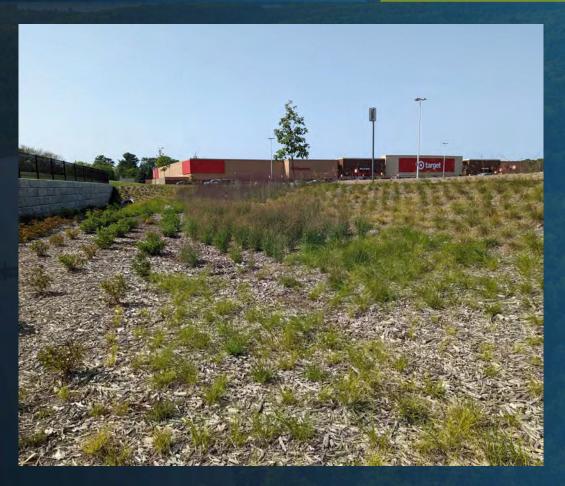




- Between 2014 and 2024, have built 24 projects at schools and churches
- Low hanging fruit projects
- Emphasis on costeffective water quality improvements
- Key partnerships created



- Commercial sites added in 2016
 - Often more complicated sites
 - Additional priority subwatersheds in equity areas
 - Aldrich Arena (2019)
 - Boys and Girls Club (2020)
 - Target stores (2020-2024)



• Over 10 years...

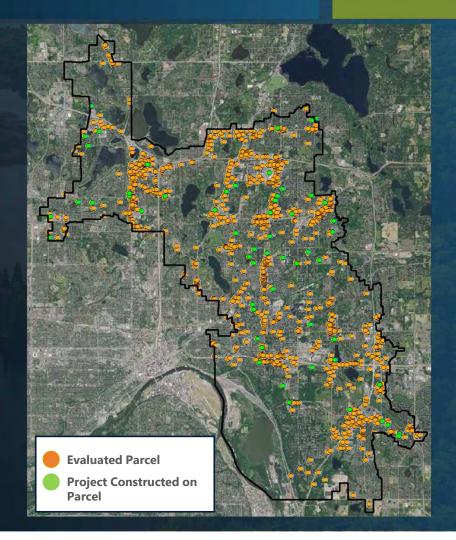
- 54 stormwater BMPs constructed
 - 16 churches
 - 8 schools
 - 8 commercial sites
 - 4 parks/city owned
- \$6.7 M in capital
- **293 lb** TP removed annually
- **89,486 lb** TSS removed annually
- 389,583 cubic feet volume reduction



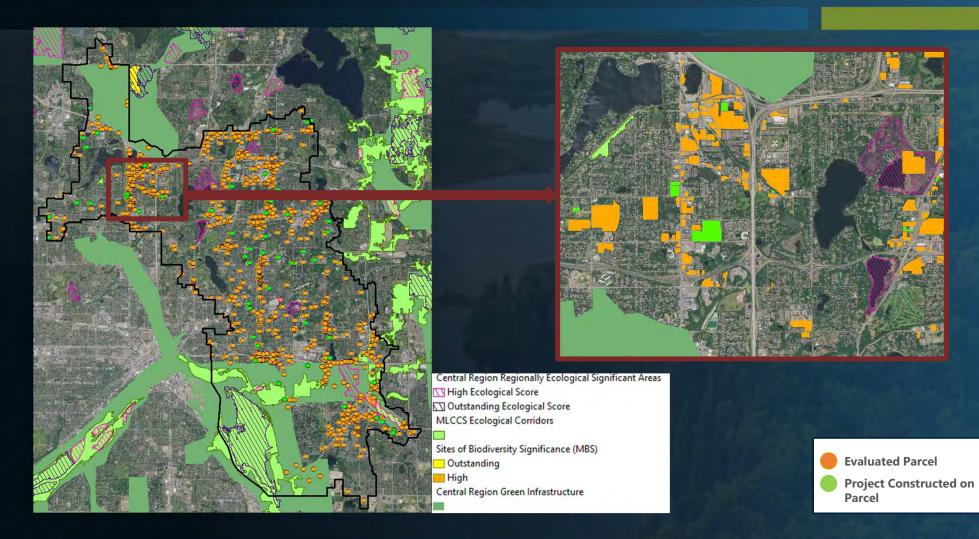


What's next?

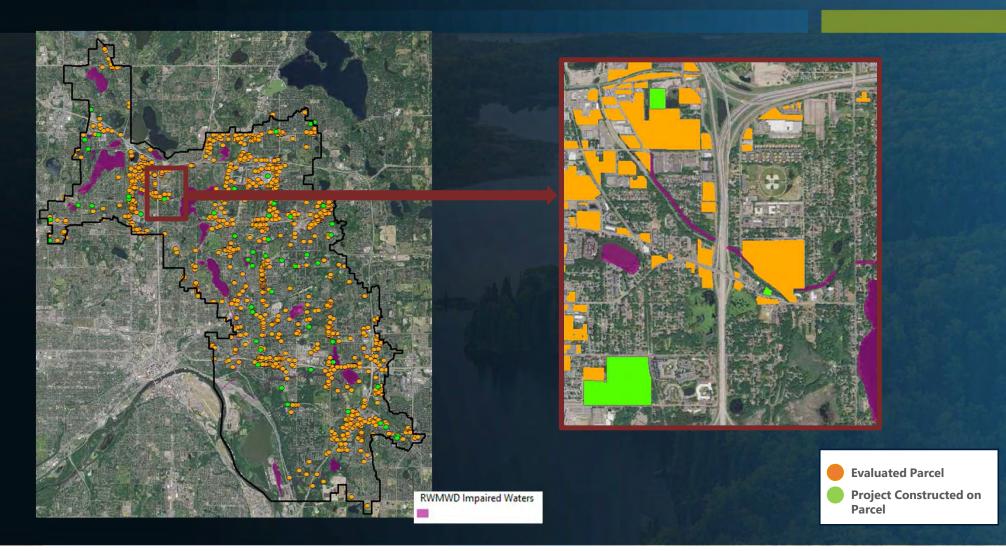
- GIS mapping, analyze new data
- 17,000 parcels
- Equity lens
- Potential data layers
 - Flood risk
 - Water quality impairment
 - Natural resources protection
 - Climate hazards
 - Population vulnerability



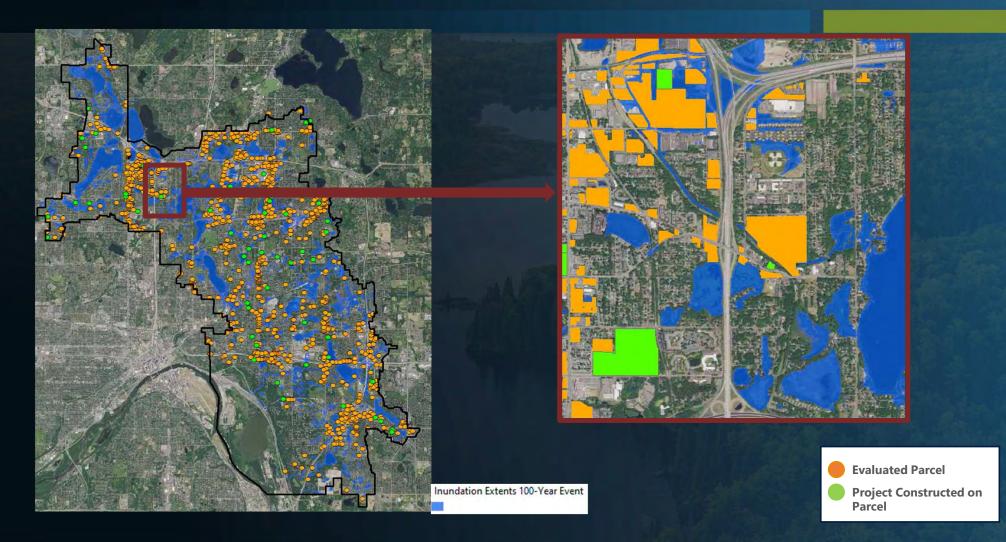
Ecological Corridors



Impaired Waters



Flood Risk



The projects are constructed... what now?



First two years of maintenance subcontracted by RWMWD



Develop Operation and Maintenance Manuals to assist after first 2 years





Work with property owners on educational signage





For more information:

https://rwmwd.org/projects/ paige.ahlborg@rwmwd.org or mbean@barr.com



Project Work Plan

September 19, 2023

Project: RWMWD Watershed Management Plan Gaps Analysis Project #:

Project Team:

District Staff:	Tina Carstens
Barr Staff:	Greg Williams (Project Manager), Erin Anderson Wenz

Scope of Work:

We understand that in preparation for beginning work related to the update of their Watershed Management Plan, the RWMWD Managers wish to review their current 2017 WMP. This review is intended to identify any gaps or potential focus areas to be emphasized during the development of their next 10year watershed management plan (expected to begin in 2024).

Barr will review the 2017 WMP and other RWMWD planning-related documents developed since the 2017 WMP (e.g., project prioritization tool). We will review existing water and natural resource management plans, including applicable TMDLs (e.g., Twin Cities Metro Area Chloride TMDL). Our review will include select member communities' local water plans and official controls as well as applicable state regulatory documents (e.g., NPDES permit). We will draw from Barr's ongoing role(s) supporting the RWMWD as the District engineers.

Through our review, we will identify and summarize any potential gaps, inconsistencies, and areas for further analysis in a gaps analysis memo and summary table. This gaps analysis memo and table will include recommended actions for the District to consider for addressing any gaps or inconsistencies during the Plan update. We will provide a draft of the memo and table to the Administrator and meet with the Administrator to received comments. We will revise the memo and table to address the Administrator's comments and present highlights of the memo and table to the RWMWD Board of Managers at a regularly scheduled RWMWD meeting.

Schedule

Barr will provide a draft of the gaps analysis memo and table to the Administrator by **October 16, 2023**, with the expectation that we will meet with the Administrator to discuss the draft and make revisions by **October 25, 2023**, to allow the memo and table to be included in the packet for the November 1, 2023, RWMWD meeting. Barr staff will attend the **November 1, 2023**, meeting to present the gaps analysis.

Project Budget

Barr will complete the work outlined above on a time and expense basis for an estimated **\$8,000**.

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Administrator's Report

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MEMO

TO:	Board of Managers and Staff
FROM:	Tina Carstens, Administrator
SUBJECT:	September Administrator's Report
DATE:	September 28, 2023

A. Meetings Attended

Monday, September 4	ALL DAY	Holiday
Tuesday, September 5	9:00 AM	MAWA Executive Committee
Wednesday, September 6	5 5:00 PM	Board Tour and Meeting
Thursday, September 7	10:30 AM	WeCo Website Accessibility
Tuesday, September 12	ALL DAY	Advancing the Integration of CWA with Natural
		Hazard Mitigation Workshop
Wednesday, September 1	L3 ALL DAY	Advancing the Integration of CWA with Natural
		Hazard Mitigation Workshop
Friday, September 15	10:30 AM	Ames Lake Area Flood Risk Reduction Projects
Monday, September 18	9:30 AM	Beyond Diversity 101 Training
Wednesday, September 2	20 9:00 AM	DEIA Audit Discussion
Tuesday, September 26	12:00 PM	State Revolving Fund Webinar
Wednesday, September 2	27 ALL DAY	MAWA Statewide Fall Meeting
Thursday, September 28	ALL DAY	MAWA/SWCD Manager Joint Meeting

B. Upcoming Meetings and Dates

Metro Watersheds Meeting	October 17, 2023
CAC Meeting	October 24, 2023
November Board Meeting	November 1, 2023
Watershed Excellence Awards	November 16, 2023
Minnesota Watersheds Annual Conference	November 28-30, 2023
CAC Meeting	December 5, 2023
December Board Meeting	December 6, 2023

C. Board Action Log and Updates

This month's board action log is attached. Each month, I review this list and add anything that was suggested in the previous meeting. If you have anything you'd like to add, this would be the time for board discussion.

September 2023 Administrator's Report Page 2

D. Staff Presentations at Upcoming Conferences

We are heading into what we call, Conference Season. Several staff have submitted abstracts and will be presenting at conferences this fall and winter.

Minnesota Water Resources Conference – October 17 and 18, 2023

- RWMWD Targeted Retrofit Program Paige Ahlborg (RWMWD) and Marcy Bean (Barr Engineering)
- Permanent BMP Maintenance: Implementing Inspections for BMP Success Mary Fitzgerald (RWMWD)
- Storing Water in the Lake: Flood Risk Reduction on the Phalen Chain of Lakes Paige Ahlborg (RWMWD) and Brandon Barnes (Barr Engineering)
- Lower the Gates (Except When They Shouldn't Be Lowered) Lessons Learned Operating Adjustable Lake Outlet Control Structures – Dave Vlasin (RWMWD) and Brandon Barnes (Barr Engineering)

BWSR Academy – October 24-26, 2023

• Risks, Rewards, and Applications of innovative stormwater BMPs – Eric Korte (RWMWD), Forrest Kelley (Capitol Region WD), and Justine Dauphinais (Coon Creek WD)

Minnesota Watersheds (MAWD) Annual Meeting – November 29 – December 1, 2023

• Minnesota Water Workforce Pilot – what is it and how can it help you. – Mary Fitzgerald (RWMWD) and Michelle Stockness (Freshwater Society)

City Engineer's Association of Minnesota (CEAM) Conference – January 31 – February 2, 2024

• Stormwater BMPs – Using Innovative Technology to Improve Inspection and Maintenance Prioritization – Paige Ahlborg (RWMWD) along with City of Edina and Barr Engineering Staff.

E. Minnesota Watersheds (formerly MAWD) Updates

Preparations are being made for the annual conference in Alexandria coming up this winter. If you are planning to attend the conference on November 29-December 1, please let me know so we can ensure you have a hotel room when registration opens up next week. More information on the program and schedule will come at that time as well.

For the monthly newsletters go here: <u>https://www.mnwatersheds.com/news-letters</u>

F. Integrating Natural Hazard Mitigation and Clean Water Act Planning and Project Implementation Workshop

I attended this training workshop last month along with Ramsey County Emergency Management staff person, Bryan Meyer. We were among about 30 participants from various federal, state and local government agencies. Our Minnesota DNR State Floodplain Manager, Ceil Strauss, was also in attendance and presented on the first day.

The goal of the workshop is to introduce the idea of bringing together hazard mitigation planning with clean water nature based solutions and sharing the opportunities that exist between the two efforts. It was a mixture of presentations and scenario based discussions. There was good discussion on coming to a common language. Specifically on what hazard mitigation means and what nature based solutions means. There was much discussion on the need to protect, preserve, and restore our wetlands to help with not only flood mitigation but other hazards related to drought and heat. It was a good reminder that hazard mitigation isn't just related to flooding and that nature based solutions provide many benefits.

Much of the second day covered funding and opportunities that are available when clean water organizations work with state, county, and city hazard mitigation organizations. Being part of the planning process and providing project and program ideas that can provide benefits to both organizations can open up a number of different funding sources that we haven't used in the past.

For next steps, I am planning on meeting with our state and county hazard mitigation staff to coordinate our efforts and line up our planning efforts. In our upcoming planning process we will include the county staff in our technical advisory committee. For the county's process, I will be involved in their future planning. When the county plan is completed, you will see that for review and acceptance.



Board of Managers Action Log

Wednesday, October 4, 2023

Item	Anticipated Action Date	Means of Action	Completed
Land Acquisition and Use Policy	Fall 2023 (Priority 1)	Board discussion and approval.	
West Vadnais Lake Boundary Change	Fall 2023 (Priority 1)	Board review and approval.	
Alum Use Policy	Fall 2023	Proposed policy discussion.	
Adopt-A-Drain Program Evaluation and Promotion	Fall 2023	Presentation and discussion.	
Governance Manual	Fall 2023	Board review and approval.	Sept 2023 (more to come)
Review of Equity Areas Definition	Summer 2023	Presentation & discussion	June 2023
Planting of Edible Plants in Restoration Areas	Winter 2022/2023	Barr new technology report	Feb 2023
PFAS (Per- and polyfluoroalyl substances) in MN and RWMWD's role.	Winter 2022/2023	Presentation	Feb 2023
Miyawaki Mini-Forest Assessment	Fall 2022	Barr new technology report	Oct 2022
Alum use for internal load control along with information on alternative solutions.	Fall/Winter 2022	Memo/Presentation	Nov 2022

Quality Water for Quality Life.

office@rwmwd.org rwmwd.org 2665 Noel Drive Little Canada, MN 55117

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Project and Program Status Reports

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Memorandum

То:	Board of Managers and Staff
From:	Tina Carstens, Brad Lindaman, and Erin Anderson Wenz
Subject:	Project and Program Status Report – September 2023
Date:	September 27, 2023

Note: The location, brief description, and current status of each project described below can be found on the <u>2023 RWMWD engineering services story map</u>.

Project feasibility studies

A. Interim emergency response planning for district areas at risk of flooding (Barr project manager: Gareth Becker; RWMWD project manager: Tina Carstens)

The purpose of this project is to provide information and guidance to cities throughout the district on how to protect low-lying habitable structures from flooding during the 100-year storm event. These emergency-response plans address areas where 1) a feasible project to protect structures has not been identified or 2) a project cannot be implemented soon due to logistical and/or budgeting concerns. This effort is an outcome of the Beltline resiliency study and will extend through 2023.

Barr created plan sheets for emergency flood-risk-mitigation measures and site-specific modifications. We split figures by municipality and are preparing a draft transmittal memorandum for each city. Barr and RWMWD staff met in August to review the figures. This month, Barr prepared a memorandum summarizing the information presented in the figures. RWMWD staff reviewed the memorandum, and a final draft will be sent to municipalities with a request to meet later this fall to discuss flood-prone areas within each community.

B. Kohlman Creek flood risk reduction feasibility study (Barr project manager: Tyler Olsen; RWMWD project manager: Tina Carstens)

The purpose of this study is to complete a feasibility evaluation of modifications to reduce flood risk along Kohlman Creek and remove structures from the 100-year floodplain. Work includes coordinating with the cities of Maplewood and North Saint Paul, evaluating alternatives to reduce flood risk, preparing cost estimates for each alternative, and identifying permitting requirements. This project focused primarily on areas surrounding the Postal Credit Union (PCU) Pond and the wetland complex west of White Bear Avenue. This is a follow-up feasibility study of flood-prone areas identified in the Beltline resiliency study.

This month, Barr continued to model flood-risk-reduction concepts in the XPSWMM hydrologic model. Several concepts to reduce flood levels have been identified along Kohlman Creek from PCU pond through County Road C. According to the computer model, some concepts that Barr identified appear to increase discharge rates downstream of the project area. Therefore, Barr has begun to evaluate system improvements that will reduce discharge rates overall.

The County Road C culvert is sized and expected to be installed next year. The size of the culvert is based on overall upstream flow rates. The other modifications being evaluated are independent of the County Road C culvert size. Assuming funding is available, we expect these other modifications/improvements to be designed in 2024 and built in 2025.

C. Ames Lake area flood risk reduction planning study (Barr project manager: Matt Metzger; RWMWD project manager: Tina Carstens)

The purpose of this study is to complete a planning-level evaluation of modifications to reduce flood risk near Ames Lake, supported by the City of Saint Paul. Work includes coordinating discussions with the city; reviewing potential pipe alignments, land-acquisition costs, utility conflicts, and permitting issues; and completing the related design. If the planning study identifies projects that impact regional drainage, a feasibility study will be completed in 2023. This follow-up planning study was identified in the Beltline resiliency study.

This month, Barr met with RWMWD staff to present concepts to remove habitable structures from the floodplain in the Ames Lake area of St. Paul. Barr presented conceptual designs, cost estimates, and corresponding reductions in flood elevations. Next, staff will update conceptual design figures based on feedback from district staff and schedule an October meeting with the Saint Paul Housing and Redevelopment Authority (HRA) and the City of Saint Paul to request feedback on the alternatives identified. Concepts include wet ponds with live storage, dry storage basins, park spaces, and native plantings. The alternatives involve mass excavation and grading on the site to create extreme precipitation flood storage volume. This entails tree removal, reconfiguring the parcel(s) as public park space, and establishing new flow connections to existing drainage networks. Barr is reviewing the cost-effectiveness of grading and possibly retaining walls to maximize the desired storage volume. Following the meeting with the City and HRA, a feasibility report will be prepared, documenting concepts considered, stakeholder feedback, cost estimates, permitting requirements, and recommendations for future system modifications. The draft report is anticipated to be available later this year. Once designed, the district will likely seek grant funding for this project, resulting in a construction timeframe of at least 2025 or later.

D. Owasso Basin area/North Star Estates improvements (Barr project manager, Brandon Barnes; RWMWD project manager, Tina Carstens)

The purpose of this study is to evaluate the benefit-cost of flood-risk-reduction strategies in the Owasso Basin/North Star Estates area by removing habitable structures from the floodplain. Stakeholder outreach with the City of Little Canada is important to this effort. This study is a continuation of the Owasso Basin bypass study, which laid out several phases of implementation and areas of further study.

In September, Barr and RWMWD staff continued conversations with representatives from Saint Paul Regional Water and North Star Estates regarding the proposed modifications. Both Saint Paul Regional Water and North Star Estates are considering whether to approve modifications on their respective properties and associated site constraints that may affect the design of system modifications to reduce flood risk to habitable structures (homes). This month, staff were informed that both Saint Paul Regional Water and North Star Estates require additional time to consider project modifications. This delay continues to slow the project's progress.

While waiting, Barr staff planned geotechnical investigations to support the final design. These investigations will be scheduled following feedback from Saint Paul Regional Water and North Star Estates. We expect design activity to increase through the fall after we receive approval from these property owners as we prepare for the first construction phase in 2024.

Currently, there is no Emergency Response Plan for North Star Estates. However, Barr and RWMWD staff have informed City staff of the area's flood risk and specific flood-prone structures. City staff provided feedback on proposed modifications in and around North Star Estates to make structures accessible by emergency vehicles. In the meantime, we understood that the City would help install temporary access if necessary.

E. Resiliency study for non-Beltline tributary areas (pre-planning study and evaluation of existing data) (Barr project managers: Jay Hawley, Lulu Fang; RWMWD project manager: Tina Carstens)

The purpose of this project is to evaluate system-scale modifications to reduce flood risk within the portion of the RWMWD that was not evaluated as part of the Beltline resiliency study. This portion of the watershed includes the Tanners Lake, Battle Creek Lake, Battle Creek, Carver Lake, Fish Creek, and Snake Creek subwatersheds. The evaluation will identify modifications to the drainage system to reduce flood risk to habitable structures within the 100-year floodplain of district-managed water bodies—including actively managing outlet control structures on Tanners Lake, Battle Creek Lake, and Carver Lake. This evaluation will allow RWMWD to identify potential flood-risk-mitigation strategies that address the portion of the district not tributary to the Beltline.

This month, Barr staff continued to review and update the existing-conditions XPSWMM hydrologic models for the Tanners Lake, Battle Creek Lake, Battle Creek, Carver Lake, Fish Creek, and Snake Creek subwatersheds based on LiDAR, aerial imagery, and recent development plans. Staff continued incorporating storm sewer information provided by the cities to more accurately account for storage and flow routing in areas near potentially flood-prone structures. Storm sewer updates are complete in the Carver Lake, Fish Creek, and Snake Creek models, and staff are "debugging" the updated model. Updates to the Tanners Lake, Battle Creek Lake, and Battle Creek model are anticipated by the end of September. At that point, the team will begin evaluating system modifications needed to remove habitable structures from the floodplain. The study is expected to continue through 2023.

F. Retrofit inventory (Barr project manager, Marcy Bean; RWMWD project manager, Paige Ahlborg)

The purpose of this study is to review 2014 property data and selection criteria that determined which sites were considered for retrofit projects. This information will be compared to updated property data. The study will also consider equity metrics and use GIS mapping to overlay implemented projects and potential retrofit sites with other district initiatives.

A comprehensive database of projects has been built, and GIS maps have been created. The database includes permitted projects since 2007 and retrofit sites inventoried and evaluated since 2014. The map layers provide an at-a-glance overview of key project data and the project distribution across the

watershed. RWMWD staff and Barr are presenting an overview of the project at the Water Resources Conference in October, highlighting the goals and successes of the program over the 10 years since its inception. We will also highlight the improved data available through GIS that will allow for a more refined view across the District for potential retrofit projects moving forward.

Research projects

G. Kohlman Lake aquatic plant management effects study (Barr project manager, Keith Pilgrim; RWMWD project manager, Paul Erdmann)

The objective of this investigation is to determine the effect of intensive aquatic plant management on Kohlman Lake water quality. The goal is to help the district identify a science-based aquatic plant management policy.

Recent activities included management of and communication with parties conducting sampling (Barr, RWMWD, and Ramsey County staff). An additional lake-water-quality model was built to aid in our lake analysis and evaluate potential improvements. Barr also conducted August drone surveys of Kohlman and Beaver Lake to collect vegetation coverage data. The data will be analyzed over the next several months, continuing into 2024.

H. Shallow lake aeration study (Barr project manager: Keith Pilgrim; RWMWD project manager: Paul Erdmann)

The purpose of this project is to determine the potential for aeration to reduce internal phosphorus loading from bottom sediments in shallow lakes and ponds.

Barr collected additional sediment cores in Gervais Mill Pond this month and analyzed them for phosphorus fractions, as well as extractable iron and aluminum. Unlike Bennet Lake, where we have tentatively concluded that aeration prevents internal loading, Gervais Mill Pond is not responding to aeration. One of the questions we are trying to answer with this coring effort is whether the phosphorus chemistry of Gervais Mill Pond sediment is unique and responsible for the lack of aeration benefit. This study will continue into 2024.

Project operations

I. 2023 automated lake level station maintenance and rain gage installation (Barr project manager, Chris Bonick; RWMWD project manager, Dave Vlasin)

The purpose of this project is to continuously measure and record lake levels and display real-time and historical data in graphs on the RWMWD website for the following lakes: Phalen, Snail, Owasso, Wabasso, West Vadnais, Battle Creek, Tanners, Spoon, and Twin.

Regular maintenance and sensor accuracy verification are ongoing at each of the lake-level stations. We have begun planning to install rain gages on many lake-level stations. The rain gauge data will inform the public and help staff better prepare for gate operations at the Keller control structure, the Phalen outlet, and flood response across the district. The rain gages have been ordered and should be delivered the first week of October. Installation of the gages will be completed this fall.

Barr staff has completed the all-in-one Power BI webpage and provided the link to RWMWD staff. This webpage will soon be available to the public on the District's website.

Capital improvements

J. Woodbury Target store stormwater retrofits (Barr project manager: Katie Turpin-Nagel; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to create concept-level and final designs and construct stormwater BMPs for Woodbury's Valley Creek Target shopping complex.

During this period, Barr has been working to develop 50% design plan sheets. This effort includes communicating with utilities to verify locations, coordinating with product manufacturers (e.g., trench drains), and developing CAD drawings. Barr sent the draft 50% design plan sheets to RWMWD staff on September 18. Barr plans to coordinate with Target staff on a 50% design review through early October.

K. Roosevelt Homes targeted retrofit (Barr project manager: Marcy Bean; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to create construction documents for a multi-phase flood management and water quality improvement project at the Roosevelt Homes public housing area in St. Paul.

Roosevelt Homes is a multi-family housing area owned by the Saint Paul Public Housing Authority (SPHA). The area is in a flood-prone area of the city. Barr recently updated existing-conditions models to show more detailed resolution, and preliminary concepts were developed to provide the owner with options to consider. SPHA is interested in moving forward with 1- to 2-year phased retrofits. Barr and the RWMWD are coordinating with the City of Saint Paul to help inform improvements.

Last month, the board approved the draft plan specifications and authorized staff to solicit quotes for the work. During September, Barr submitted construction documents and necessary background information to the City of St. Paul for review. After the City's feedback is addressed, staff will solicit quotes, which are expected before the November meeting. Construction is expected to begin soon thereafter.

L. Stewardship grant program (Barr project manager: Marcy Bean and Michael McKinney; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to 1) provide BMP design and review services to cost-share applicants throughout the RWMWD on an as-needed basis and 2) support the development of the stewardship grant program.

Woodland Hills Church is ready to finalize construction documents in late fall 2023. The project removes over 1.25 acres of pavement, captures up to 270 pounds of total suspended solids annually, adds native habitat, and creates gathering spaces for facility users. The site will become a model community for tiny homes in partnership with the non-profit group "Settled."

M. Arbogast stormwater filtration BMP (Barr project manager, Leslie DellAngelo; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to complete the final design, plans, and specifications for a regional stormwater BMP in the Lake Emily subwatershed. The goal of the BMP is to decrease phosphorus loads to Lake Emily, which is at risk of impairment from excess nutrients.

During the last period, Barr responded to construction questions, observed construction activities, and attended weekly construction meetings at the Arbogast filter site. Construction was delayed due to a utility conflict and resumed in mid-August. For those that toured the site before the August board meeting, you may recall this issue being discussed in the presentation at the site.

The project is on schedule to be completed by the substantial completion date, November 15, 2023. The contractor has requested a change order for reimbursement for a number of costs associated with the utility conflict and associated relocation. That change order is included in the consent agenda, and it includes a description of the request. Barr has reviewed the request in accordance with the conditions of the contract and recommends this change.

N. Double Driveway Pond and Fish Creek tributary improvements (Barr project manager, Tyler Olsen; RWMWD project manager, Tina Carstens)

The purpose of this project is to design and implement vegetation improvements around Double Driveway Pond, as well as stream-stabilization improvements in the Fish Creek tributary upstream.

During this period, Barr continued designing the Fish Creek tributary improvements. Additionally, Barr and RWMWD staff developed a plan to engage the property owners along the tributary creek to determine their interest in the project. This outreach will occur very soon.

O. Pioneer Park stormwater reuse (Barr project manager, Jennifer Koehler; RWMWD project manager, Paige Ahlborg)

The purpose of this project, in partnership with the City of Little Canada, is to design and implement a stormwater-reuse irrigation system in Pioneer Park to conserve groundwater and reduce phosphorus loading to downstream district waterbodies.

After a final design review meeting with District and City Staff, Barr updated the drawings and specifications and an engineer's opinion of cost. This included preparing documents for bidding, organizing a draft advertisement to bid, and finalizing permitting submittals (wetland and MDNR appropriations). Staff is seeking authorization to finalize the bidding documents and advertise this project for bid. A separate memo is attached with the related items for board review and requested action. If authorized, bids will be received during October and will be brought before the board for consideration at the November 1 board meeting.

Additionally, Barr provided educational summary points for District staff to leverage in future signage, reviewed the draft MOU developed by District staff, and developed exhibits that can be used in the agreement execution with the City of Little Canada.

A memorandum describing the project is included in this month's Board packet for the managers' review. Barr and District staff are asking for the managers' approval to put the project out to bid.

CIP project repair and maintenance

P. Beltline 5-year inspection (Barr project manager: Nathan Campeau; RWMWD project manager: Dave Vlasin)

The purpose of this effort is to adequately maintain the Beltline interceptor storm sewer system to extend the longevity of the tunnel.

In early July, a sinkhole was discovered over the Beltline alignment, just upstream of the outfall into the Mississippi River. An inspection inside the tunnel revealed two holes in the sides of the large steel pipe section about 10 feet from the outfall to the Mississippi River and another tunnel area needing immediate attention. During the repair work, it was clear that a more extensive, long-term repair would be needed for approximately 70 feet of corroded steel tunnel. Barr staff have completed a hydraulic evaluation of several repair alternatives for consideration by the district and are now looking at the construction feasibility of those alternatives. Barr is drafting a report that outlines the repair and replacement options and maps out the next steps and costs in investigation and design. Barr anticipates that the report will be finalized in October and presented to the Board in November.

Barr, District, and PCiRoads staff performed the final warranty walk-through from the 2017–2018 Beltline repair project in September. PCiRoads (the construction contractor) had provided a 5-year warranty on certain repair items. Staff determined that the repairs are performing adequately, and the warranty period is now closed.

Q. Routine CIP inspection and unplanned maintenance identification (Barr project managers, Gareth Becker and Greg Nelson; RWMWD project manager, Dave Vlasin)

The purpose of this study is to address unplanned and routine maintenance of the RWMWD's existing capital improvement projects not included in the annual CIP maintenance and repairs project.

During August and September, the district and Barr staff collaborated to identify annual maintenance items on district CIPs and develop a design and draft set of plans and specification to address those maintenance needs. Staff expect this effort to continue through October and hope to deliver project plans and specifications, costs, and a schedule to the board for consideration at the November 1 meeting.

R. Natural Resources Update–Paul Erdmann, Patrick Williamson & Joe Tillotson

Shoreline Restoration Projects

The NR Team has continued to prep the Lake Owasso Shoreline Expansion project. During the first week of October we will be planting around 2,000 native plants for this project, and later seeding the area with a native seed mix. Prep work has also continued on the Keller Lake Shoreline Restoration Project. The majority of work on this project will take place in 2024. Both of these projects are a collaboration with Ramsey County Parks & Recreation and are funded by a Conservation Partners Legacy grants.

Aquatic Vegetation Survey

NR staff and Ramsey County Parks and Recreation staff performed a point intercept aquatic vegetation survey on Gervais Lake in September. We revisit specific points on District waterbodies on a periodic, rotating basis to see what plants are present and in what abundance. Aquatic plants play a crucial role in water quality and ecosystem health, so knowing what is growing helps us make important management decisions. (Photos below from the survey).

Seed Collection

We have started collecting seed from District sites and also inventorying and organizing our existing seed stock. Seed collected by staff supplements the seed we purchase for various projects and is sometimes used by the Education Team for their work with schools and others. The NR Team recently put together a blog post titled <u>"Drought Tolerant Native Plants and Turf Grass Alternatives"</u> that also included best practices for watering lawns and gardens and the importance of watering trees and shrubs. The article was featured on our social media channels as well as our monthly newsletter.



s. Public Involvement and Education Program – Sage Passi

RWMWD Volunteers Engage Minnesota State Fair Visitors



Thank you to Water Stewards, Bette Danielson, Phyllis Webster and Anna Barker for signing up to volunteer at the Blue Thumb exhibit in front of the Eco Experience building at the Minnesota State Fair or the Adopt-A-Drain exhibit inside organized by Watershed Partners. There were lots of people interested in adding native plants to their front yards who asked for more info about grants, advice on what to plant and where to buy native plants. We also noticed a spike in storm drain adoptions in our watershed district from State-Fair attendees who signed up on the kiosk during the fair! We are getting ready to send out thank-you's to storm drain adopters who signed up this year and plan to distribute yard signs to them next month.

Classes Get On Board For Field Trips In Our Watershed This Fall



In preparation for field trips coming up in October, Education staff, Sage and Tracy have been meeting with 6 fifth classes at Island Lake Elementary, two 5th grade American Indian Magnet classes, three 5th grade classes from L'Etoile du Nord, two third grade classes from L'Etoile du Nord, 2 4th grade classes from L'Etoile du Nord and two high school classes from Lionsgate Academy. Students from Island Lake Academy are preparing to travel by bus to Grass Lake Nature Preserve, Snail Lake and Wetland A in Snail Lake Regional Park on October 11. 12 and 13. Students will do water quality monitoring at Snail Lake and learn about the restoration project in Wetland A as a part of this field trip.

American Indian Magnet and Lionsgate Academy students will assist with a planting at the Wilderness in the City pollinator project in Battle Creek Regional Park and explore the water features in this large park

in early October. L'Etoile du Nord students in multiple grades will walk to Ames Lake and the Boys and Girls Club next month to explore the diverse habitats in these two locations.

Below are some photos of classes preparing for their field trips through play-acting, examining native plants they may encounter in the field and measuring their root lengths.







Engaging with Teachers for Upcoming Lessons with Schools in October

Education staff met with four fifth/sixth grade teachers at Central Park Elementary in Roseville on September 12 to plan for a classroom lesson and walking field trip and service learning project near their school in late October. Our education team also met with the fifth grade Weaver teachers in Maplewood that day and started planning for a service learning project coordinated with their fifth graders and their kindergarten buddies in late fall. We also met with four fourth grade teachers from Farnsworth Aerospace Magnet on September 15 to plan for up-coming fall service learning activities.

Sage will be collaborating with Randee Edmundson to offer a lesson about Harmony Learning Center's rain garden for two of their adult ELL classes on September 28.

T. Communications and Outreach Program – Lauren Hazenson

Recognition Dinner and Watershed Excellence Awards

Thursday, November 16 at 6 pm, Keller Golf Course

The event preparation schedule is complete, and two staff planning meetings for the 2023 Recognition Dinner have also been conducted. Progress is underway for the Landscape Ecology Awards Program (LEAP) videos, while arrangements for the Watershed Excellence Awards video interviews are pending the finalization of awardees. The registration form and invitations have been drafted and will be distributed in early October. It's worth noting that this year's program will include a special segment commemorating the 20th anniversary of the ecological restoration project at Keller Golf Course.

Website Accessibility Audit

The schedule for the WeCo accessibility audit of our website is in the final stages of preparation. This audit represents a significant step towards ensuring that our digital presence is accessible to all, in alignment with our commitment to inclusivity. The improvements resulting from the audit will also bring us closer to adhering to the following standards:

- WCAG 2.1 AA
- The Americans with Disabilities Act (ADA)
- Section 508 of the Rehabilitation Act of 1973

Preparations for online accessibility training for three of our staff members are also underway. This training will empower our team to understand and implement web accessibility best practices, reinforcing our dedication to providing an accessible online experience for everyone.

To provide transparency into the scope of the audit, below is the list of web pages that will be included in the assessment:

Home page https://rwmwd.org/ Strategy https://rwmwd.org/about/ourstrategy/ Citizen Advisory Committee https://rwmwd.org/about/citizenadvisory-committee/ History https://rwmwd.org/about/mnwatershed-history/ Are you in the watershed https://rwmwd.org/waters/are-you-in-the-watershed/ Explore our waters https://rwmwd.org/waters/exploreour-waters/ Projects https://rwmwd.org/projects/ Volunteer opportunities https://rwmwd.org/getinvolved/volunteer-opportunities/

These pages were selected according to their distinctive formatting features or widgets more than their content. By focusing on the formatting, the audit should be able to efficiently identify an issue found in other areas of the site and limit the expense of the assessment.

Community Survey

We are currently planning the question content and the logistics for the survey delivery with contractor

FlashVote. We aim to ensure the survey reaches a scientifically representative sample of residents in each city within the District. This approach will help us gather data that accurately reflects the diverse perspectives of our community.

Following the scientifically representative distribution, we will conduct a second survey distribution to our community partners, volunteers, and other stakeholders. While this distribution may not adhere to strict scientific sampling methods, it allows us to capture input from key individuals and organizations that play an integral role in our community.

By leveraging scientific and community-driven perspectives, we will gather comprehensive insights to inform our outreach and communications decision-making. Namely, the results will provide a base from which we can form a strategic communications plan for the next two years, in addition to any stakeholder meetings and input provided by the DEIA audit.

E-newsletter

Audience: 1,553 Opens: 45% Link clicks: 3.2%

Social Media (Facebook, Twitter, Instagram) Numbers as of 9/25:

Facebook

Reach: 1,575 Engagement (likes, shares, comments): 96 Audience: 1,604

Instagram

Reach: 7,864 Engagement: 55 Audience: 881

Twitter

Reach: 123 Engagement: 3 Audience: 990

Resident Communications/Professional Development/ Public Meetings, Misc.

- Staff/resident communications support
- Online Part 107 drone training
- PRSA AP style updates webinar (9/20)

U. Citizen Advisory Committee (CAC) Program – Carrie Magnuson

The Citizen Advisory Commission met on September 26th, 2023. The group included staff members Carrie Magnuson, Sage Passi and Lauren Hazenson, BOM member Benjamin Karp, and eleven CAC members. The following initiatives were discussed and further developed

Watershed Excellence Awards – These awards recognize our volunteers and partners who make an extraordinary contribution to watershed conservation, education, and community outreach. These clean water champions will be celebrated at our annual recognition ceremony on November 16th. The CAC reviewed fifteen nominations. Anonymous voting by CAC members will be live through Monday 10/2/23 at noon. Those being recommended for the award will be presented at the 10/4/23 Board of Managers meeting for your approval. Following Board approval of candidates, a formal letter will go out to each individual.

The group also discussed the logistics of the Recognition Dinner including award presenters, commissioning the physical award, and managing time effectively.

The CAC also reviewed major projects being done by RWMWD staff and partners.

Future CAC meetings: October 24th, December 5th