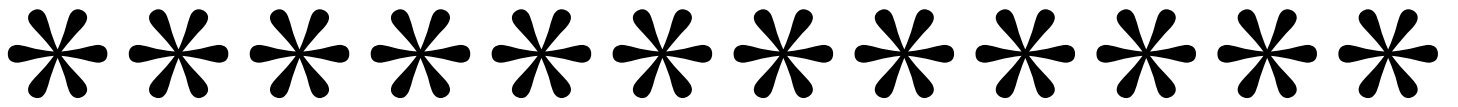




RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

April 2024

Board Packet



Agenda





RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

Regular Board Meeting Agenda

Wednesday, April 3, 2024

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 March 6, 2024 (pg. 7)
 - B. Treasurer's Report and Bill List (pg. 17)
 - C. Permit Program
 - i. 24-13 3M Fire Main Replacement, Maplewood (pg. 28)
 - ii. 24-14 MnDOT Hwy 36 Improvements, Roseville, Maplewood (pg. 32)
 - iii. 24-15 St. Paul Suburban-Burns Sidewalk, St. Paul (pg. 36)
 - iv. 24-16 Justice Alan Page Elementary Parking, Maplewood (pg. 39)
 - v. 24-17 The Heights II, St. Paul (pg. 45)
 - D. Stewardship Grant Program
 - i. 24-15 CS Lake Grove Townhomes (pg. 50)
 - ii. 24-17 CS Landfall 2024 Street Sweeping (pg. 52)
 - iii. 24-18 CS Oakdale 2024 Street Sweeping (pg. 53)
 - iv. 24-21 CS White Bear Lake 2024 Street Sweeping (pg. 54)
 - v. 24-22 CS Ryan (pg. 55)
4. Visitor Comments (limited to 4 minutes each)
5. Permit Program
 - A. Applications
 - i. **24-12 St. Paul Fish Hatchery Trail, St. Paul (pg. 58)**
 - B. Enforcement Action Report (pg. 80)
6. Stewardship Grant Program
 - A. Applications
 - i. **24-16 CS Woodland Hills Church (pg. 84)**
 - ii. **24-19 CS Oakdale Brine Maker (pg. 86)**
 - B. Budget Status Update (pg. 87)
7. Action Items
 - A. **County Road C Flood Risk Reduction Project Advertise to Bid (pg. 89)**
8. Attorney Report
9. Board Discussion Topics
10. New Reports and/or Presentations

Board Meeting Agenda

- A. Community Survey Results and Insights – Lauren Hazenson, Communications and Outreach Coordinator and Kevin Lyons, FlashVote CEO (*no packet materials*)
 - B. Schletty Tamarack Wetland Presentation – Ashley Petel, Former Intern (*pg. 113*)
 - C. [2023 District Water Monitoring Report](#) – Eric Korte, Monitoring Coordinator (*link to report but no packet materials*)
 - D. Kohlman Creek Flood Risk Reduction Projects, Final Design Scope Summary (*pg. 133*)
11. Administrator’s Report (*pg. 137*)
- A. Meetings Attended
 - B. Upcoming Meetings and Dates
 - C. Staff Anniversaries
 - D. Board Action Log
 - E. Minnesota Watersheds Updates
 - F. Staffing Update
12. Project and Program Status Reports (*pg. 141*)
- Project Feasibility Studies*
- A. Kohlman Creek Flood Risk Feasibility Study
 - B. Ames Lake Area Flood Risk Reduction Planning Study
 - C. Phalen Village Flood Risk Reduction
 - D. Resiliency Study for non-Beltline Tributary Areas
 - E. Owasso Basin/North Star Estates Improvements
 - F. Street Sweeping
 - G. Watershed Approach to Retrofit Projects
- Research Projects*
- H. Kohlman Lake Aquatic Plant Management Effects Study
 - I. Shallow Lake Aeration Study
- Capital Improvements*
- J. Woodbury Target Store Stormwater Retrofit Project
 - K. Roosevelt Homes
 - L. Targeted Retrofit Projects 2024
 - M. Stewardship Grant Program
 - N. Pioneer Park Stormwater Reuse
 - O. Fish Creek Tributary Improvements
 - P. Cottage Place Wetland Restoration
 - Q. County Road C Culvert Project
- CIP Project Repair and Maintenance*
- R. Routine CIP Inspection and Unplanned Maintenance Identification
 - S. 2024 CIP Maintenance and Repairs Projects
 - T. Beltline Mississippi Branch Outfall Replacement Project
- Program Updates*
- U. Natural Resources Program
 - V. Public Involvement and Education Program
 - W. Communications and Outreach Program
13. Manager Comments and Next Month’s Meeting
- 14. Adjourn**



RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

NOTICE OF BOARD MEETING

Wednesday, April 3, 2024

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/87110960999?pwd=c1J3M3RCSzdVbWo3NEE4ZUw3bWtnZz09>

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 **871 1096 0999**. The meeting password is **076912**. If you have any questions, please contact Tina Carstens at tina.carstens@rwmwd.org.



Consent Agenda





RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

Ramsey-Washington Metro Watershed District Minutes of Regular Board Meeting March 6, 2024

The Regular Meeting of March 6, 2024, 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/4XyM0enJD4g>. Video time stamps included after each agenda item in minutes.

PRESENT:

Val Eisele, President
Ben Karp, Vice President
Mark Gernes, Secretary
Stephanie Wang, Manager

ABSENT:

Matt Kramer, Treasurer

ALSO PRESENT:

Tina Carstens, District Administrator
Nicole Maras, Permit Coordinator
Laurann Kirschner, Attorney for District
Dave Vlasin, Watershed Project Coordinator
Joe Tillotson, Natural Resources Technician
Ranee Edmundson, CAC Member
Kyle Kubitz, Water Monitoring Technician

Paige Ahlborg, Project Manager
Carrie Magnuson, GIS Technician
Brad Lindaman, Barr Engineering
Keith Pilgrim, Barr Engineering
Paul Erdmann, Natural Resources Program Manager
John Manske, Ramsey County Public Works

1. CALL TO ORDER

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

2. APPROVAL OF AGENDA (0:14)

Tina Carstens requested to have item 4A: Approval of Minutes from February 7, 2024 be moved to Action Item 8E.

Tina Carstens requested the remove item 11A: Community Survey Results Presentation from the agenda.

Motion: Manager Karp moved, Manager Gernes seconded, to approve the agenda as amended. Motion carried unanimously.

3. Ramsey-Washington Metro Watershed District Board Manager Oath of Office- (1:20)

Laurann Kirschner administered the Oath of Office. President Eisele, Manager Gernes, Manager Karp and Manager Wang completed the Oath of Office. Laurann Kirchner noted that Manager Kramer will take the Oath of Office at the April meeting.

4. CONSENT AGENDA (3:30)

- A. Approval of Minutes from February 7, 2024
- B. Treasurer's Report and Bill List
- C. Permit Program
 - i. 24-11 MnDOT County Road Improvement, Woodbury
- D. Stewardship Grant Program
 - i. 24-07 CS Atchinson

- ii. 24-08 CS Woodbury 2024 Street Sweeping
- iii. 24-09 CS Dunn

Motion: Manager Gernes moved, Manager Karp seconded to approve the consent agenda as amended. Motion carried unanimously.

5. VISITOR COMMENTS (4:12)

No comments.

6. PERMIT PROGRAM (4:38)

A. Applications – See Consent Agenda

B. Monthly Enforcement Report

Nicole Maras gave an overview of the monthly enforcement report, highlighting a higher number of permit closures. Nicole explained that this higher number is due to cleaning up the permit list, removing projects that did not move forward as well as older projects that have been completed.

President Eisele questioned if the warm weather has caused upsets in timelines and if that is important to keep track of.

Nicole Maras explained that inspections would be continued as warranted by weather. Nicole stated that the warmer weather has caused more activity. Nicole explained that there are some projects that were needing colder weather to complete the projects, such as the Bailey Nursery project. Nicole stated that inspection frequency is based on the weather and is adjusted as sites become active. Nicole explained that there was no real impact on District staff if a permitted project gets delayed, the same timeframes for soil stabilization and maintenance are applied.

7. STEWARDSHIP GRANT PROGRAM (8:32)

A. Applications - none

B. Budget Status Update

Paige Ahlborg gave an overview of the budget status report and explained what is tracked in the report.

President Eisele questioned if the public art piece is advertised.

Paige Ahlborg explained that it is listed on the website but it is not widely advertised. Paige explained that the idea is that the public art piece is tied to restoration or stewardship grant projects.

Manager Karp questioned how district staff planned to advertise grants in equity areas.

Paige Ahlborg stated that she is working with Lauren Hazenson on a plan.

President Eisele stated that he thinks that advertising in equity areas would help those who would not actively seek out these types of projects.

8. ACTION ITEMS (13:07)

A. Bylaws and Board Governance Document Approval (13:13)

Tina Carstens provided an overview of the board of governance document, explaining that after the review comments were received there was some clean up and changes made as suggested by Board Members and the District's attorney. Tina explained that there were no substantial changes to the final draft and that the Bylaws and Governance document will be reviewed annually.

Motion: Manager Karp moved, Manager Gernes seconded to approve the Ramsey-Washington Metro Watershed District Bylaws and Board Governance Document.

Motion carried unanimously.

B. Board of Managers Annual Meeting (17:33)

Tina Carstens provided an overview of the recommendations given and explained that this is the official business of the annual meeting starting with the elections of officers.

- Election of Officers

Tina Carstens stated that she spoke to Manager Kramer and he indicated that he would be ok with continuing as treasurer and voiced his support for President Eisele to continue as president.

President Eisele self-nominated for the position of President.

Manager Karp self-nominated for the position of Vice President.

Manager Gernes self-nominated for the position of Vice President.

Discussion was had on the two manager's desire to serve as Vice President and why they would be a good fit for the position.

Laurann Kirschner stated that a vote must be taken and can be done in a group or privately. Laurann went on to explain that if there were a tie a second vote could be taken or a vote can be held at the April board meeting when all managers are present.

President Eisele called for a roll call vote on the position of Vice President.

Manager Karp	voted for Manager Karp
Manager Gernes	voted for Manager Gernes
Manager Wang	voted for Manager Gernes
President Eisele	voted for Manager Karp

President Eisele called for a second roll call vote on the position of Vice President.

Manager Karp	voted for Manager Karp
Manager Gernes	voted for Manager Karp
Manager Wang	voted for Manager Karp
President Eisele	voted for Manager Karp

Motion carries unanimously.

President Eisele nominated Manager Gernes for the position of Secretary.

President Eisele nominated Manager Kramer for the position of Treasurer.

Motion: Manager Karp moved, Manager Gernes seconded to elect Val Eisele as President, Ben Karp as Vice President, Matt Kramer as Treasurer, and Mark Gernes as Secretary.

Motion carried unanimously.

- Community Advisory Committee Membership, Board Liaison Appointment, and Activities

Tina Carstens gave an overview of the recommendation to add additional members to the CAC roster. Tina continued on to review the proposed CAC work plan table for 2024. Tina explained the information provided in the table such as projects the CAC would like to work and proposed outcomes of those projects.

Manager Wang stated that she appreciated the well laid out information. Manager Wang continued on to state that it would be nice to include measurable metrics for outcomes.

Manager Gernes also commented that the information is well laid out. Manager Gernes stated that he appreciated seeing the continuity of projects the CAC had been working on as well as seeing new projects being added.

Carrie Magnuson stated that there are projects that happen year after year and that new initiatives have come up through members of the CAC.

Tina Carstens stated that new ideas are coming from CAC interests, board interests and the guidance of staff.

Manager Karp stated that he would like to continue as the liaison but would be open to others taking the position if they so wished. Manager Karp continued on to say that it nice to have open discussion about the CAC and what is communicated to the CAC. Manager Karp proposed setting aside time for the board to discuss the work of the CAC. Manager Karp stated that as the current liaison he had received comments from the CAC asking for more input from the board.

Manager Gernes stated that he would be available as a CAC liaison alternate if needed.

Manager Karp stated that he believed the CAC would be open to multiple board members attending and that if anyone wanted to join a meeting they should feel free to do so.

Tina Carstens mentioned that the maximum number of board members allowed at a CAC meeting should be two and that the CAC meeting would need to be public noticed if more than two would like to attend.

Motion: Manager Gernes moved, Manager Wang seconded to approve the new and renewing CAC membership, select Ben Karp as the board liaison to the committee and approve the 2024 work plan suggestions.

Motion carried unanimously.

- Consulting Staff Selection

President Eisele explained that the board would be confirming the engineer, attorney, and accountant. President Eisele gave a brief overview of the proposals received.

The managers discussed the two proposals received for district engineer.

Motion: Manager Karp moved, Manager Gernes seconded to appoint Barr Engineering, Galowitz Olson, and Redpath and Company as the consultants for 2024.

Motion carried unanimously.

- Official Designations

President Eisele explained that this item was to approve the official bank of deposit as well as the official newspaper to publish in per the current legal standards. President Eisele stated that the newspaper does not mean the only place the district publishes, it is just the official place for postings.

Tina Carstens confirmed that information is also posted to the website. Tina stated the district used to post to local newspapers, as local newspapers started to go away the Pioneer Press became the official place of posting. Tina stated that the Pioneer Press covers the full area of the district.

Motion: Manger Gernes moved, Manger Karp seconded to approve the 4M Fund with LMC: US Bank as the official bank of deposit and the St. Paul Pioneer Press as the official newspaper for 2024.

Motion carried unanimously.

C. Roosevelt Homes Phase 2 Bid Award (47:46)

Paige Ahlborg provided background information on the Roosevelt Homes project. Paige explained that the contract would be for the planting portion of the project. Paige continued to provide an overview of the six bids that were received. Paige stated that the low bid from MNL came in under the engineers estimate and that the district had worked with MNL on many maintenance and planting projects.

Manager Karp questioned if there would be an irrigation plan in addition to the vegetation warranty.

Paige Ahlborg stated that there is an irrigation plan in the contract and that Roosevelt Homes will also work with the district on irrigation plans.

Motion: Manager Karp moved, Manager Gernes seconded to accept the bids and award the 2024 Targeted Retrofit Roosevelt Homes Phase 2 project to MNL, direct staff to prepare and mail the notice of award and prepare the agreements, and review the required submittals.

Motion carried unanimously.

D. Woodbury Target Bid Award (50:36)

Paige Ahlborg provided information on the project and the formal bid procedure. Paige stated that Kurilla Contracting came in with the low bid which came in under the engineers estimate. Paige explained that information has been requested from Kurilla and reference checks were still being completed. Paige asked the board for a contingent approval so that the reference checks could be completed and the district could make sure there was nothing outstanding before the contract is awarded.

President Eisele asked if the contingent approval would allow staff continue forward once the due diligence is complete.

Tina Carstens stated that signatures would still need to be collected for the contract and that the directive for staff to mail notice would come after the conditions were met.

Brad Lindaman stated Barr had not worked with Kurilla before, and that they were a relatively new company. Brad provided more information on what Barr asks for from contractors. Brad gave an overview of the timeline that the contractor was given to provide this information and stated that things are looking good so far and they have been responsive to the requests made.

Tina Carstens explained that if staff had any concerns, the item would be brought back to the board.

Motion: Manager Karp moved, Manager Gernes seconded to accept the bids and award the 2024 targeted retrofit project to Kurilla Contracting at the bid price of \$602,645.75 contingent on staff approval of the qualification evidence and direct staff to request the required bonds and insurance information and execute the contract for work.

Motion carried unanimously.

E. Approval of Minutes from February 7th, 2024

Tina Carstens explained that after reviewing the minutes, Brandon Barnes and Tyler Olson proposed a change to pg. 5 to better explain the intent of the presentation. Tina provided the original wording and the wording of the proposed change:

~~Tyler Olsen stated that the locations being discussed are not required to have the two feet of freeboard because they are above the 100-year flood plain. Tyler explained that part of the criteria is to make any improvement to the freeboard even though they are not at risk. Tyler continued on to explain details of the conceptual projects in the study area and discussed the projects that were recommended and explained which projects were not recommended and why.~~

Tyler Olsen explained that the objective of flood-risk reduction projects is to reduce the 100-year floodplain elevation below the lowest ground elevation adjacent to existing habitable structures, not to achieve 2-feet of freeboard during the 100-year event. Flood-risk reduction projects proposed will also provide improvements for more frequent events.

Motion: Manager Karp moved, Manager Gernes seconded to approve the February 7th, 2024 minutes pending the updates.

Motion carried unanimously.

9. ATTORNEY REPORT (58:03)

Laurann Kirschner expressed gratitude for being appointed for the next year and highlighted the history between Galowitz & Olson and the district. Laurann stated that if there are questions or if the Board would like a more in-depth explanation of services they would be more than happy to provide that. Laurann stated that they like to tailor their services to the specific needs of the board. Laurann continued on to provide an overview of the work completed over the last month including review of the board of governance documents.

10. BOARD DISCUSSION TOPICS (1:01:56)

Manager Gernes brought up the topic of chloride and questioned if there are ways to look at chloride reduction outside of lowering the use of deicers and questioned if it were possible to use design of parking lots and buildings to help reduce the need for deicers.

Tina Carstens highlighted a presentation that was given at the last MN Watersheds meeting. Tina explained that this presentation included low salt design development.

Tina Carstens stated that at the legislative event there were discussions happening that includes the potential of writing low salt design and requiring salt management plans into district rules.

President Eisele stated that he was very interested in reading more about the low salt design plans.

President Eisele asked if there could also be an updated presentation on PFAS at some point in the year.

Tina Carstens stated that an update could be provided once the new guidelines are published.

Manager Karp brought up that the Met Council is starting to look at groundwater from a regional perspective and that he thought it would be an important topic for the board to discuss.

Tina Carstens confirmed that groundwater would be a discussion topic during the watershed management plan update. Tina explained that there was a groundwater goal in the district plan and that it is important to discuss what the districts role is.

11. NEW REPORTS AND/OR PRESENTATIONS (1:09:41)

A. Community Survey Results Presentation – Lauren Hazenson

B. Kohlman Lake Study Presentation – Keith Pilgrim, Barr

Brad Lindaman introduced Keith Pilgrim and provided information on Keith's background and areas of expertise.

Keith Pilgrim provided an overview of the studies he is presenting on and gave history on how the studies came to be.

Keith Pilgrim explained the interaction with sediment and phosphorus in lake systems. Keith mentioned that both aeration and alum treatments were tools to manage phosphorus in lakes. Keith explained what alum treatment entails and how it worked to reduce phosphorus.

Keith Pilgrim stated that the last alum treatment of Kohlman Lake was in 2010 and that it was evident that the alum treatment was no longer effective. Keith explained that over the 10-year period enough phosphorus was deposited in the lake bottom sediment to render the alum treatment no longer effective and internal loading returned.

Tina Carstens added that both external and internal loading are managed. Tina explained the district wanted to reduce the external loading while also dealing with the legacy phosphorus.

Keith Pilgrim explained his involvement in the original alum treatment in 2010 and gave more history of his involvement with Kohlman Lake highlighting the aquatic plants. Keith continued to detail the different treatments and management projects that had taken place in Kohlman and connecting lakes and detailed other measures taken to control external loading. Keith explained the result of those efforts were an increase in aquatic plants and a notable drop in phosphorus levels. Keith stated that in 2019 the levels started to creep back up, highlighting changes on a chart within the presentation that showed the levels throughout the years.

Keith noted that there were questions on if aquatic plant management in 2022 and 2023 had a role in changes in water quality. Keith stated that it was also questioned if the alum treatment that was expected to last 10 years had also been contributing.

President Eisele questioned if there any premeasures of phosphorus coming into Kohlman Lake and asked if changes to BMPs or construction projects around the lake after the alum treatment were considered as possible contributing factors.

President Eisele stated he was wondering about the external factors that could be affecting loading.

Keith Pilgrim explained that monitoring had been done at the inlet of Kohlman for a number of years. Keith explained that he had previously done an intensive look at phosphorus concentrations coming into Kohlman Lake and noted that the annual average concentrations had been decreasing, noting that there is variability with climatic and storm events.

President Eisele asked if it could be expected for the alum treatment to last 10 years.

Keith Pilgrim confirmed that the expectation would be between 10 and 15 years noting that lakes with similar treatments had also seen similar time frames to Kohlman Lake.

President Eisele stated that the conclusion he was seeing was that the external load had decreased over time but the alum treatment reached its useful life.

Manager Gernes noted that it is important to know that the external loading had not been increasing and was shown to be decreasing so that it could be seen that the increase of nutrients was not from external loading and is due to internal loading.

Keith Pilgrim confirmed that the external loading had been decreasing and what was seen on the table provided in the presentation was due to internal loading.

Manager Gernes questioned if there was any information on why it tends to happen that way. Manager Gernes wondered if it is due to the aluminum getting buried or fully consumed over time or is it getting flushed.

Keith Pilgrim stated that lake sediment cores show the alum is still there but it has moved deeper into the sediment.

Keith Pilgrim reviewed a pre and post management table and detailed what information can be determined from this table and highlighted how the alum and aquatic plant treatments worked together to improve water clarity. Keith continued on to another table that showed different aquatic plants and noted a shifting in populations in recent years explaining that these changes may be due to an increase in herbicide treatment in Kohlman Lake, noting that in recent years there has been more acreage added to the treatment area.

Keith Pilgrim continued to show aerial images of Kohlman Lake and highlighting the changes shown in those images over the course of multiple years noting subtle changes. Keith showed drone pictures of both Kohlman and Beaver Lake.

Keith concluded that an abundant and diverse native aquatic plant population creates a more stable system over time and recommended the district consider another alum treatment for Kohlman Lake to reduce internal loading and to keep Kohlman Lake off the impaired waters list. Keith stated that changes in aquatic plant coverage and species composition likely contributed to declining Kohlman Lake water quality. Keith also noted that climate could be having an affect leading to some of the changes seen, and recommended an annual point intercept survey for Kohlman Lake and a control lake going forward, recommending Keller Lake as a control lake for this future monitoring.

President Eisele stated that this seemed like a pressing issue and is looking forward to discuss it more at a later date.

C. Shallow Lake Aeration Study Presentation – Keith Pilgrim, Barr

Keith started by explaining that originally aeration was used in shallow lake systems in order to manage fish populations through the winter as part of the carp management plan. This study was started to determine if aeration could also be used for water quality improvements.

Keith presented information on the shallow lake aeration study and highlighted the lakes utilized in the study and pointed to the locations of the control and study sides of both Bennet Lake and Gervais Mill Pond.

Keith listed the goals he had with this study starting with 'can simple technology increase oxygen levels throughout the water column and is water quality improved.' Keith provided an overview of the information gained starting with the aerators being turned on at Lake Bennet. Keith explained how the aerator mixes the water to provide more oxygen throughout the water column. Keith moved on to explain the second question he wanted to answer with this study 'does it prevent internal loading?' Keith explained how this is a difficult question to answer because shallow lakes show no obvious signatures of internal loading at the bottom of a lake. Keith explained the solution he created, collecting sediment and sucking out the porewater and directly analyze the porewater for phosphorus and iron. Keith explained how this testing was done over time. Keith reviewed a chart showing total phosphorus concentrations in Bennet Lake and explained the data on the chart shown.

Keith Pilgrim explained that the oxygen demand in Gervais Mill Pond and stated that the aerators could not satisfy the oxygen need to prevent internal loading to a large degree. Keith explained that with alum treatment the phosphorus level would be much lower.

President Eisele questioned if more aerators were needed in Gervais Mill Pond or if the aeration wasn't good for this particular sediment loading.

Keith Pilgrim confirmed that the aeration was not compatible with the sediment loading and adding more aerators would not make a large difference and stated that only so much air can be forced into the water. Keith stated because of these limitations this methodology might not be right for Gervais Mill Pond. Keith suggested that direct oxygen injection may be a better option.

Keith Pilgrim continued on to state the conclusion of the study was that forced aeration can reduce internal phosphorus loading for certain lake systems however the reduction with forced air aeration may not be enough to meet standards. Keith explained that in systems such as Gervais Mill Pond, direct injection would be more effective. Keith stated that aeration should be considered as a viable alternative to alum treatments for small lakes with large watershed and when phosphorus in the sediment was organically bound phosphorus.

President Eisele asked for information on what Keith's recommendations would be.

Keith Pilgrim gave an overview of his conclusions and stated that the chemistry of the sediments will determine whether aeration or alum treatment would be effective. Keith explained he believed a viable approach would be to augment the sediments with iron and aeration to try to prevent internal loading. Keith discussed Wakefield and Bennet Lake as examples of lakes where alum treatment may not be effective and could benefit from aeration and iron treatments.

Tina Carstens stated that both Wakefield and Bennet have TMDLs where external loads have been targeted and internal loading is the next decision that will be coming to the board later in the year to discuss the best options of how it will be addressed.

12. ADMINISTRATOR'S REPORT (2:31:42)

A. Meetings Attended

No comments.

B. Upcoming Meetings and Dates

Tina Carstens reviewed the upcoming meetings and dates.

C. Board Action Log and Updates

No comments.

D. Minnesota Watersheds Updates

No comments.

E. Staffing Update

No comments.

13. PROJECT AND PROGRAM STATUS REPORTS (2:39:23)

Project Feasibility Studies

A. Kohlman Creek Flood Risk Feasibility Study

B. Ames Lake Area Flood Risk Reduction Planning Study

C. Resiliency Study for Non-Beltline Tributary Areas

D. Owasso Basin/North Start Estates Improvements

E. Street Sweeping

President Eisele requested to see a presentation on street sweeping stating that he thought it would be worthwhile. Manager Gernes agreed.

F. Watershed Approach to Retrofit Projects (WARP)

Lake Studies/TMDL Reports

G. 2024 Grant Applications

Research Projects

H. Kohlman Lake Aquatic Plants Management Effects Study

I. Shallow Lake Aeration Study

Capital Improvements

J. Woodbury Target Store Stormwater Retrofit Project

K. Roosevelt Homes

L. Stewardship Grant Program

M. Arbogast Stormwater Filtration BMP

N. Pioneer Park Stormwater Reuse

O. Fish Creek Tributary Improvements

P. Cottage Place Wetland Regeneration

Q. County Road C Culvert Project

CIP Project Repair and Maintenance

R. Routine CIP Inspection and Unplanned Maintenance Identification

S. 2024 CIP Maintenance and Repairs Project

T. Beltline Mississippi Branch Outfall Replacement Project

U. New Technology Mini Case Studies

Manager Karp highlighted the chloride reduction information. Manager Karp stated that the information was eye opening and he could see the importance of education and provision of tools. Manager Karp liked the goals and hoped to hear more about this during budgeting.

President Eisele also expressed interest in hearing more about the proposed chloride reduction techniques.

Paige Ahlborg explained that this study was sparked by the City of Oakdale who is looking to build a brine blending station. Paige continued to explain that the City of Woodbury is also working on a similar system.

Program Updates

V. Natural Resources Program

W. Public Involvement and Education Program

X. Communications and Outreach Program

14. MANAGER COMMENTS AND NEXT MONTH'S MEETING (2:45:40)

15. ADJOURN

Motion: Manager Karp moved, Manager Gernes seconded, to adjourn the meeting at 9:18 p.m. Motion carried unanimously.

RWMWD BUDGET STATUS REPORT

Administrative & Program Budget

Fiscal Year 2024

3/31/2024

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	-	-	-	\$7,000.00	0.00%
	Manager Expenses	4360	3,000.00	-	-	-	3,000.00	0.00%
Committees	Committee/Bd Mtg. Exp.	4365	4,000.00	-	104.96	451.99	3,548.01	11.30%
	Sub-Total: Managers/Committees:		\$14,000.00	\$0.00	104.96	451.99	\$13,548.01	3.23%
Employees	Staff Salary/Taxes/Benefits	4010	2,000,000.00	-	173,876.78	424,328.44	1,575,671.56	21.22%
	Employee Expenses	4020	10,000.00	-	247.79	377.30	9,622.70	3.77%
	District Training & Education	4350	75,000.00	-	120.00	6,904.12	68,095.88	9.21%
	Sub-Total: Employees:		\$2,085,000.00	\$0.00	174,244.57	431,609.86	\$1,653,390.14	20.70%
Administration/ Office	Data Base/GIS Maintenance	4170	20,000.00	-	474.93	1,972.90	18,027.10	9.86%
	Office Equipment Maintenance	4305	2,000.00	-	-	-	2,000.00	0.00%
	Telephone	4310	2,000.00	-	201.38	604.14	1,395.86	30.21%
	Office Supplies	4320	7,000.00	-	350.69	948.01	6,051.99	13.54%
	Postage/Delivery	4330	2,000.00	-	-	143.55	1,856.45	7.18%
	Printing/Copying	4335	5,000.00	-	407.00	1,624.30	3,375.70	32.49%
	Dues & Publications	4338	17,000.00	-	30.00	13,035.00	3,965.00	76.68%
	Janitorial/Trash Service	4341	15,000.00	-	2,766.63	4,918.81	10,081.19	32.79%
	Utilities	4342	20,000.00	-	4,476.23	6,609.67	13,390.33	33.05%
	Building Maintenance	4343	100,000.00	-	3,836.01	9,420.54	90,579.46	9.42%
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	65,000.00	-	46,002.00	46,002.00	18,998.00	70.77%
	Office Equipment	4703	80,000.00	-	211.05	16,227.62	63,772.38	20.28%
	District Vehicles/Maintenance	4810-40	60,000.00	-	322.41	1,677.00	58,323.00	2.80%
	Metro INET	4325	100,000.00	-	8,159.21	24,489.95	75,510.05	24.49%
	Sub-Total: Administration/Office:		\$540,000.00	-	67,237.54	127,673.49	\$372,326.51	23.64%
Consultants/ Outside Services	Auditor/Accounting	4110	80,000.00	-	3,793.95	6,816.85	73,183.15	8.52%
	Engineering-Administration	4121	122,000.00	-	14,252.50	26,999.00	95,001.00	22.13%
	Engineering-Permit I&E	4122	10,000.00	-	283.50	283.50	9,716.50	2.84%
	Engineering-Review	4123	75,000.00	-	5,691.00	11,304.00	63,696.00	15.07%
	Engineering-Permit Application Review	4124	65,000.00	-	3,997.50	16,901.50	48,098.50	26.00%
	Project Feasibility Studies	4129	260,000.00	-	11,274.00	27,331.72	232,668.28	10.51%
	Attorney-Permits	4130	5,000.00	-	-	-	5,000.00	0.00%
	Attorney-General	4131	40,000.00	-	1,640.00	8,494.70	31,505.30	21.24%
	Outside Consulting Services	4160	40,000.00	-	-	-	40,000.00	0.00%
	Sub-Total: Consultants/Outside Services:		\$697,000.00	\$0.00	40,932.45	98,131.27	\$598,868.73	14.08%
Programs	WMP/Lakes/TMDLs/Grants	4661	154,500.00	-	9,254.50	16,834.50	137,665.50	10.90%
	Natural Resources Program	4670	120,000.00	-	6,182.05	7,446.61	112,553.39	6.21%
	Water Monitoring Program	4520-30	285,000.00	-	86,141.00	91,503.65	193,496.35	32.11%
	Outside Program Support	4683	57,000.00	-	-	10,000.00	47,000.00	17.54%
	Research Projects	4695	150,000.00	-	24,910.00	44,301.50	105,698.50	29.53%
	Project Operations	4650	150,000.00	-	10,891.58	21,043.97	128,956.03	14.03%
	Communication/Outreach/Events	4371	166,000.00	-	11,261.23	22,218.96	143,781.04	13.38%
	Health and Safety Program	4697	4,000.00	-	2,318.19	3,098.19	901.81	77.45%
	Sub-Total: Programs:		\$1,086,500.00	\$0.00	150,958.55	216,447.38	\$870,052.62	19.92%
GENERAL FUND TOTAL			\$4,382,500.00	\$0.00	433,478.07	874,313.99	3,508,186.01	19.95%
CIP's	Project Repair & Maintenance	516	2,125,000.00	-	123,767.79	214,589.67	1,910,410.33	10.10%
	Targeted Retrofit Projects	518	1,950,000.00	-	15,359.00	75,791.00	1,874,209.00	3.89%
	Flood Risk Reduction Fund	520	5,400,000.00	-	46,170.35	108,611.51	5,291,388.49	2.01%
	Debt Services-Beltline/Maplewood Mall	526	394,963.00	-	-	279,481.40	115,481.60	70.76%
	Stewardship Grant Fund	529	1,250,000.00	-	2,912.00	14,478.77	1,235,521.23	1.16%
	Fish Creek Tributary Improvements	537	1,375,000.00	-	9,253.50	22,207.00	1,352,793.00	1.62%
	Wetland Restoration Projects	540	700,000.00	-	-	-	700,000.00	0.00%
CIP BUDGET TOTAL			\$13,194,963.00	-	197,462.64	715,159.35	\$12,479,803.65	5.42%
TOTAL BUDGET			\$17,577,463.00	\$0.00	630,940.71	1,589,473.34	\$15,987,989.66	9.04%

Current Fund Balances:

Fund:	Unaudited Beginning Fund Balance @ 12/31/23	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @ 3/31/24
101 - General Fund	\$3,125,440.06	-	106,464.75	433,478.07	874,313.99	2,357,590.82
516 - Project Repair & Maintenance	872,232.70	-	782.52	123,767.79	214,589.67	658,425.55
518 - Targeted Retrofit Projects	476,410.31	-	71,824.32	15,359.00	75,791.00	472,443.63
520 - Flood Risk Reduction Fund	4,726,296.76	-	28,187.17	46,170.35	108,611.51	4,645,872.42
526 - Debt Services-Beltline/Maplewood Mall	157,575.04	-	-	-	279,481.40	(121,906.36)
529 - Stewardship Grant Fund	201,659.15	-	894.31	2,912.00	14,478.77	188,074.69
536 - Stormwater Impact Fund	1,336,819.50	-	-	-	-	1,336,819.50
537 - Fish Creek Tributary Improvements	121,092.62	-	223.58	9,253.50	22,207.00	99,109.20
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	\$12,981,049.14	\$0.00	\$ 208,376.65	\$ 630,940.71	\$1,589,473.34	\$11,599,952.45

Ramsey Washington Metro Watershed Dist.
Check Register
For the Period From March 1, 2024 to March 31, 2024

Check #	Date	Payee ID	Invoice #	Payee	Description	Amount
EFT	03/04/24	hea002	Apr-24	HealthPartners	Employee Benefits	\$14,488.61
EFT	03/01/24	met008	Mar-24	MetLife-Group Benefits	Employee Benefits	1,687.06
70295	03/08/24	mat003	4329	Matt's Small Engine Repair	Building/Site Maintenance	245.00
74483	03/07/24	ada002	3859399	Adam's Pest Control, Inc.	Utilities/Building Services Contracts	\$94.72
74484	03/07/24	aws001	S133957-030124	AWS Service Center	Janitorial/Trash/Plowing/Sweeping	350.68
74485	03/07/24	bfg001	2553173-00	BFG Supply Co., LLC	Education Program	35.20
74486	03/07/24	Blo003	Quote 323677	Bloomin' Blinds	Building/Site Maintenance	254.14
74487	03/07/24	gil001	242870	Gilbert Mechanical Contractors, Inc.	Utilities/Building Services Contracts	3,913.00
74488	03/07/24	hom001	Statement 2/28/24	Home Depot Credit Services	Natural Resources Program	442.88
74489	03/07/24	nsp001	866833928	Xcel Energy	Building/Site Maintenance	4,403.67
74490	03/07/24	pre003	319956540	Premium Waters, Inc.	Utilities/Building Services Contracts	34.00
74491	03/07/24	usb005	523708022	US Bank Equipment Finance	Printing/Copier Lease	407.00
74492	03/27/24	ada002	3868671	Adam's Pest Control, Inc.	Utilities/Building Services Contracts	94.72
74493	03/27/24	ahl001	Mar-24	Paige Ahlborg	Employee Benefits, Expenses	465.56
74494	03/27/24	att002	287256653401X02252024	AT & T Mobility - ROC	Project Operations	166.34
74495*	03/27/24	bar001	February 17 through March 15	Barr Engineering	various	188,097.57
74499	03/27/24	bfg001	2538546-00	BFG Supply Co., LLC	Education Program	29.50
74500	03/27/24	blu005	969741	Bluum of Minnesota, LLC	Equipment	211.05
74501	03/27/24	cad001	20302779	Zayo Group, LLC	Water Monitoring Program	202.45
74502	03/27/24	com004	com004	Comcast	Employee Benefits, Expenses	109.93
74503	03/27/24	fit001	PP #1	Fitzgerald Excavating & Trucking, Inc.	Construction Imp./Project Maint. & Repair	90,031.50
74504	03/27/24	fit002	Mar-24	Mary Fitzgerald	Employee Benefits, Expenses	670.79
74505	03/27/24	fit003	Mar-24	Emily F. Kamin	Employee Benefits, Expenses	644.02
74506	03/27/24	gal001	March 20, 2024	Galowitz Olson, PLLC	Attorney-General	1,640.00
74507	03/27/24	gra005	WEB2489607841	Grainger	Natural Resources Program	68.52
74508	03/27/24	int001	W24020490	Office of MN, IT Services	Telephone	59.38
74509	03/27/24	kub001	Mar-24	Kyle W. Kubitz	Employee Benefits, Expenses	40.00
74510	03/27/24	lea004	3/19/24	League of MN Cities Ins.Trust P & C	Insurance	46,002.00
74511	03/27/24	mbc001	3/27/03	Mbohn Consulting, LLC	Communications/Outreach/Events	5,000.00
74512	03/27/24	mel001	February/March 2024	Michelle L. Melser	Employee Benefits	56.15
74513	03/27/24	met013	10/23/04	Metro - INET	Telephone	8,211.00
74514	03/27/24	nep001	3/1/24	NCPERS Group Life Ins.	Employee Benefits	16.00
74515	03/27/24	pac001	24100443416; 24100444198	Pace Analytical Services, Inc.	Water Monitoring Program	2,466.00
74516	03/27/24	pas002	Mar-24	Carol Passi	Employee Benefits, Expenses	484.99
74517	03/27/24	pet004	Mar-24	Ashley N. Petel	Natural Resources Program	42.46
74518	03/27/24	qwe001	March 10; February 10, 2024	CenturyLink	Project Operations	567.95
74519	03/27/24	red002	150483824	Redpath & Company, LLC.	Accounting	3,512.50
74520	03/27/24	sai001	4470	Saint Paul Media	Communications/Outreach/Events	75.00
74521	03/27/24	sod001	Mar-24	Nicole Maras	Employee Benefits, Expenses	51.42
74522	03/27/24	stu001	2019860	Studio Lola	Communications/Outreach/Events	3,978.50
74523	03/27/24	tec001	327869	Tech Sales Co.	Water Monitoring Program	82,659.00
74524	03/27/24	til002	Mar-24	Joseph S. Tillotson	Employee Benefits, Expenses	40.00
74525	03/27/24	urb001	Stage 1 Payment	Urban Roots	Natural Resources Program	5,000.00
74526	03/27/24	usb002	February 2024 Statement	U.S. Bank	Feb/Mar Credit Card Expense	5,223.68
74530	03/27/24	voy001	8692934232408	US Bank Voyager Fleet Sys.	Vehicle Fuel	322.41
74531	03/27/24	was002	6430	Washington Conservation District	Stewardship grant program	813.00
74532	03/27/24	was003	222263	Washington Co.-Taxation Div.	Accounting	50.00
74533	03/27/24	wil002	WF2024	Wilderness Inquiry	Communications/Outreach/Events	1,560.00
74534	03/27/24	wil007	Mar-24	Patrick Williamson	Employee Benefits, Expenses	55.05
Total						\$475,074.40
EFT	03/01/24	myp001	03/01/24	March 1st Payroll	4110-101-000	73.95
EFT	03/15/24	myp001	03/15/24	March 15th Payroll	4110-101-000	73.95
EFT	03/29/24	myp001	03/29/24	March 29th Payroll	4110-101-000	79.85
Dir.Dep.	03/01/24	---	Payroll Expense-Net	March 1st Payroll	4010-101-000	28,748.73
EFT	03/01/24	int002	Internal Rev.Serv.	March 1st Federal Withholding	2001-101-000	10,419.89
EFT	03/01/24	mnd001	MN Revenue	March 1st State Withholding	2003-101-000	1,689.18
EFT	03/01/24	per001	PERA	March 1st PERA	2011-101-000	6,322.36
EFT	03/01/24	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,948.00
EFT	03/01/24	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,879.00
Dir.Dep.	03/15/24	---	Payroll Expense-Net	March 15th Payroll	4010-101-000	28,637.76
EFT	03/15/24	int002	Internal Rev.Serv.	March 15th Federal Withholding	2001-101-000	10,399.91
EFT	03/15/24	mnd001	MN Revenue	March 15th State Withholding	2003-101-000	1,688.35
EFT	03/15/24	per001	PERA	March 15th PERA	2011-101-000	6,304.16
EFT	03/15/24	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,948.00
EFT	03/15/24	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,879.00
Dir.Dep.	03/29/24	---	Payroll Expense-Net	March 29th Payroll	4010-101-000	28,796.70
EFT	03/29/24	int002	Internal Rev.Serv.	March 29th Federal Withholding	2001-101-000	10,424.97
EFT	03/29/24	mnd001	MN Revenue	March 29th State Withholding	2003-101-000	1,688.35
EFT	03/29/24	per001	PERA	March 29th PERA	2011-101-000	6,288.07
EFT	03/29/24	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,948.00
EFT	03/29/24	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,879.00
				Payroll/Benefits:		\$153,117.18
Total				Accounts Payable/Payroll/Benefits:		\$628,191.58

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2024 to March 31, 2024

Date	Check #	Vendor ID	Name	Account ID	Description	Amount
03/04/24	EFT	hea002	HealthPartners	4040-101-000	Employee Benefits	\$14,488.61
03/01/24	EFT	met008	MetLife-Group Benefits	4040-101-000	Employee Benefits	1,687.06
03/08/24	70295*	mat003	Matt's Small Engine Repair	4343-101-000	Building/Site Maintenance	245.00
03/07/24	74483	ada002	Adam's Pest Control, Inc.	4342-101-000	Utilities/Building Services Contracts	\$94.72
03/07/24	74484	aws001	AWS Service Center	4341-101-000	Janitorial/Trash/Plowing/Sweeping	350.68
03/07/24	74485	bfg001	BFG Supply Co., LLC	4370-101-000	Education Program	35.20
03/07/24	74486	Blo003	Bloomin' Blinds	4343-101-000	Building/Site Maintenance	254.14
03/07/24	74487	gil001	Gilbert Mechanical Contractors, Inc.	4342-101-000	Utilities/Building Services Contracts	3,913.00
03/07/24	74488	hom001	Home Depot Credit Services			442.88
				4670-101-000	Natural Resources Program	347.02
				4650-516-000	Project Operations/Project Maintenance & Repair	95.86
03/07/24	74489	nsp001	Xcel Energy			4,403.67
				4343-101-000	Building/Site Maintenance	1,137.14
				4343-101-000	Building/Site Maintenance	3,266.53
03/07/24	74490	pre003	Premium Waters, Inc.	4342-101-000	Utilities/Building Services Contracts	34.00
03/07/24	74491	usb005	US Bank Equipment Finance	4335-101-000	Printing/Copier Lease	407.00
03/27/24	74492	ada002	Adam's Pest Control, Inc.	4342-101-000	Utilities/Building Services Contracts	94.72
03/27/24	74493	ahl001	Paige Ahlborg			465.56
				4040-101-000	Employee Benefits	450.00
				4020-101-000	Employee Expenses	45.56
03/27/24	74494	att002	AT & T Mobility - ROC	4650-101-000	Project Operations	166.34
03/27/24	74495	bar001	Barr Engineering			188,097.57
				4121-101-000	Engineering Admin	14,252.50
				4697-101-000	Health and Safety Program	1,755.00
				4123-101-000	Engineering Review	5,691.00
				4128-520-000	Engineering -Flood Damage	10,903.50
				4129-101-000	Project Feasibility	1,260.00
				4129-101-000	Project Feasibility	4,879.50
				4129-101-000	Project Feasibility	2,732.50
				4129-101-000	Project Feasibility	2,036.50
				4129-101-000	Project Feasibility	365.50
				4129-101-000	Project Feasibility	0.00
				4520-101-000	WQM-Engineering	5,367.00
				4520-101-000	WQM-Engineering	215.00
				4520-101-000	WQM-Engineering	517.00
				4520-101-000	WQM-Engineering	1,520.50
				4122-101-000	Permit Application I & E	283.50
				4124-101-000	Eng. Permit Review	3,997.50
				4661-101-000	SLMP/TMDL Studies	612.50
				4661-101-000	SLMP/TMDL Studies	1,022.50
				4695-101-000	Research Projects	1,358.50
				4695-101-000	Research Projects	22,435.00
				4695-101-000	Research Projects	1,116.50
				4650-101-000	Project Operations	62.00
				4650-101-000	Project Operations	10,095.29

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2024 to March 31, 2024

Date	Check #	Vendor ID	Name	Account ID	Description	Amount
				4128-518-000	Engineering -Targeted Retrofit	8,099.00
				4128-518-000	Engineering -Targeted Retrofit	2,581.00
				4128-518-000	Engineering -Targeted Retrofit	2,511.00
				4682-529-000	Stewardship Grant Program	2,099.00
				4128-520-000	Engineering -Flood Damage	2,905.00
				4128-518-000	Engineering -Targeted Retrofit	2,028.50
				4129-537-000	Driveway Fish Creek Tributary	9,253.50
				4128-518-000	Engineering -Targeted Retrofit	20,594.00
				4128-520-000	Engineering -Flood Damage	11,767.85
				4128-518-000	Engineering -Targeted Retrofit	139.50
				4128-516-000	Eng. Projects-Maint & Repair	5,351.50
				4128-516-000	Eng. Projects-Maint & Repair	6,747.93
				4128-516-000	Eng. Projects-Maint & Repair	21,541.00
03/27/24	74499	bfg001	BFG Supply Co., LLC	4370-101-000	Education Program	29.50
03/27/24	74500	blu005	Bluum of Minnesota, LLC	4703-101-000	Equipment	211.05
03/27/24	74501	cad001	Zayo Group, LLC	4530-101-000	Water Monitoring Program	202.45
03/27/24	74502	com004	Comcast	4342-101-000	Utilities/Building Services Contracts	109.93
03/27/24	74503	fit001	Fitzgerald Excavating & Trucking, Inc.	4630-516-000	Construction Imp./Project Maint. & Repair	90,031.50
03/27/24	74504	fit002	Mary Fitzgerald			670.79
				4341-101-000	Janitorial/Trash/Plowing/Sweeping	600.00
				4040-101-000	Employee Benefits	58.75
				4020-101-000	Employee Expenses	12.04
03/27/24	74505	fit003	Emily F. Kamin			644.02
				4341-101-000	Janitorial/Trash/Plowing/Sweeping	600.00
				4040-101-000	Employee Benefits	40.00
				4020-101-000	Employee Expenses	4.02
03/27/24	74506	gal001	Galowitz Olson, PLLC	4131-101-000	Attorney-General	1,640.00
03/27/24	74507	gra005	Grainger	4670-101-000	Natural Resources Program	68.52
03/27/24	74508	int001	Office of MN, IT Services	4310-101-000	Telephone	59.38
03/27/24	74509	kub001	Kyle W. Kubitza	4040-101-000	Employee Benefits	40.00
03/27/24	74510	lea004	League of MN Cities Ins.Trust P & C	4480-101-000	Insurance	46,002.00
03/27/24	74511	mbc001	Mbohn Consulting, LLC	4371-101-000	Communications/Outreach/Events	5,000.00
03/27/24	74512	mel001	Michelle L. Melser	4020-101-000	Employee Expenses	56.15
03/27/24	74513	met013	Metro - INET			8,211.00
				4310-101-000	Telephone	142.00
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses	8069.00
03/27/24	74514	nep001	NCPERS Group Life Ins.	4040-101-000	Employee Benefits	16.00
03/27/24	74515	pac001	Pace Analytical Services, Inc.	4530-101-000	Water Monitoring Program	2,466.00
03/27/24	74516	pas002	Carol Passi			484.99
				4370-101-000	Education Program	147.08
				4040-101-000	Employee Benefits	235.00
				4020-101-000	Employee Expenses	102.91
03/27/24	74517	pet004	Ashley N. Petel	4670-101-000	Natural Resources Program	42.46
03/27/24	74518	qwe001	CenturyLink	4650-101-000	Project Operations	567.95
03/27/24	74519	red002	Redpath & Company, LLC.	4110-101-000	Accounting	3,512.50
03/27/24	74520	sai001	Saint Paul Media	4371-101-000	Communications/Outreach/Events	75.00

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2024 to March 31, 2024

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
03/27/24	74521	sod001	Nicole Maras			51.42	
				4040-101-000	Employee Benefits		39.39
				4020-101-000	Employee Expenses		12.06
03/27/24	74522	stu001	Studio Lola	4371-101-000	Communications/Outreach/Events	3,978.50	
03/27/24	74523	tec001	Tech Sales Co.	4530-101-000	Water Monitoring Program	82,659.00	
03/27/24	74524	til002	Joseph S. Tillotson	4040-101-000	Employee Benefits	40.00	
03/27/24	74525	urb001	Urban Roots	4670-101-000	Natural Resources Program	5,000.00	
03/27/24	74526	usb002	U.S. Bank			5,223.68	
				4343-101-000	Building/Site Maintenance		4.42
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses		90.21
				4341-101-000	Janitorial/Trash/Plowing/Sweeping		860.95
				4350-101-000	Training & Education		120.00
				4171-101-000	District Database Project		160.00
				4320-101-000	Office Supplies		149.95
				4371-101-000	Communications/Outreach/Events		43.00
				4371-101-000	Communications/Outreach/Events		50.00
				4342-101-000	Utilities Building Services Contracts		229.86
				4670-101-000	Natural Resources Program		179.93
				4370-101-000	Education Program		189.95
				4365-101-000	Committee/Board Meeting Expenses		104.96
				4530-101-000	Water Monitoring Program		70.00
				4343-101-000	Building/Site Maintenance		54.97
				4670-101-000	Natural Resources Program		396.01
				4343-101-000	Building/Site Maintenance		10.95
				4371-101-000	Communications/Outreach/Events		10.00
				4341-101-000	Janitorial/Trash/Plowing/Sweeping		355.00
				4697-101-000	Health & Safety Program		563.19
				4320-101-000	Office Supplies		124.63
				4170-101-000	Database/GIS Maintenance		311.73
				4530-101-000	Water Monitoring Program		272.30
				4371-101-000	Communications/Outreach/Events		48.00
				4371-101-000	Communications/Outreach/Events		45.00
				4670-101-000	Natural Resources Program		435.31
				4530-101-000	Water Monitoring Program		315.25
				4530-101-000	Water Monitoring Program		156.00
				4371-101-000	Communications/Outreach/Events		50.00
				4338-101-000	Dues and Publications		30.00
				4320-101-000	Office Supplies		7.99
				4320-101-000	Office Supplies		68.12
				4171-101-000	District Database Project/GIS Maintenance		3.20
				4670-101-000	Natural Resources Program		(287.20)
03/27/24	74530	voy001	US Bank Voyager Fleet Sys.	4830-101-000	Vehicle Fuel	322.41	
03/27/24	74531	was002	Washington Conservation District	4682-529-000	Stewardship grant program	813.00	
03/27/24	74532	was003	Washington Co.-Taxation Div.	4110-101-000	Accounting	50.00	

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2024 to March 31, 2024

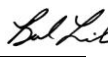
Date	Check #	Vendor ID	Name	Account ID	Description	Amount
03/27/24	74533	wil002	Wilderness Inquiry	4371-101-000	Communications/Outreach/Events	1,560.00
03/27/24	74534	wil007	Patrick Williamson			55.05
				4040-101-000	Employee Benefits	40.00
				4020-101-000	Employee Expenses	15.05
Total						<u>\$475,074.40</u>
03/01/24	EFT	myp001	March 1st Payroll	4110-101-000	March 1st Payroll	73.95
03/15/24	EFT	myp001	March 15th Payroll	4110-101-000	March 15th Payroll	73.95
03/29/24	EFT	myp001	March 29th Payroll	4110-101-000	March 29th Payroll	79.85
03/01/24	Dir.Dep.	---	March 1st Payroll	4010-101-000	March 1st Payroll	28,748.73
03/01/24	EFT	int002	March 1st Federal Withholding	2001-101-000	March 1st Federal Withholding	10,419.89
03/01/24	EFT	mnd001	March 1st State Withholding	2003-101-000	March 1st State Withholding	1,689.18
03/01/24	EFT	per001	March 1st PERA	2011-101-000	March 1st PERA	6,322.36
03/01/24	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,948.00
03/01/24	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,879.00
03/15/24	Dir.Dep.	---	March 15th Payroll	4010-101-000	March 15th Payroll	28,637.76
03/15/24	EFT	int002	March 15th Federal Withholding	2001-101-000	March 15th Federal Withholding	10,399.91
03/15/24	EFT	mnd001	March 15th State Withholding	2003-101-000	March 15th State Withholding	1,688.35
03/15/24	EFT	per001	March 15th PERA	2011-101-000	March 15th PERA	6,304.16
03/15/24	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,948.00
03/15/24	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,879.00
03/15/24	Dir.Dep.	---	March 29th Payroll	4010-101-000	March 29th Payroll	28,796.70
03/15/24	EFT	int002	March 29th Federal Withholding	2001-101-000	March 29th Federal Withholding	10,424.97
03/15/24	EFT	mnd001	March 29th State Withholding	2003-101-000	March 29th State Withholding	1,688.35
03/15/24	EFT	per001	March 29th PERA	2011-101-000	March 29th PERA	6,288.07
03/15/24	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,948.00
03/15/24	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,879.00
Payroll/Benefits:						<u>\$153,117.18</u>
Total				Accounts Payable/Payroll/Benefits:		<u>\$628,191.58</u>



**Summary of Professional Engineering Services During the Period
February 17 through March 15, 2024**

	Total Engineering Budget (2024)	Total Fees to Date (2024)	Budget Balance (2024)	Fees During Period	District Accounting Code	Plan Implementation Task Number
Engineering Administration						
General Engineering Administration	\$92,000.00	\$26,999.00	\$65,001.00	\$14,252.50	4121-101	DW-13
RWMWD Health and Safety/ERTK Program (Training)	\$2,000.00	\$0.00	\$2,000.00	\$0.00	4697-101	DW-13
RWMWD Health and Safety Manual Update	\$2,000.00	\$2,535.00	-\$535.00	\$1,755.00	4697-101	DW-13
Education Assistance	\$30,000.00	\$605.00	\$29,395.00	\$0.00	4129-101	DW-13
Engineering Review						
Engineering Review	\$75,000.00	\$11,304.00	\$63,696.00	\$5,691.00	4123-101	DW-13
Project Feasibility Studies						
Resiliency Study for non-Beltline tributary areas (pre-planning study and evaluation of existing data)	\$45,000.00	\$34,611.50	\$10,388.50	\$10,903.50	4128-520	DW-9
Kohlman Creek Flood Damage Reduction Feasibility Study	\$5,000.00	\$3,520.00	\$1,480.00	\$1,260.00	4129-101	DW-9, KC-2
Owasso Basin/North Star Estates Improvements Feasibility Study	\$10,000.00	\$6,040.00	\$3,960.00	\$0.00	4129-101	GC-3
Phalen Village Improvements	\$10,000.00	\$4,879.50	\$5,120.50	\$4,879.50	4129-101	DW-9
Evaluate compliance with South Metro Mississippi River TSS TMDL	\$20,000.00	\$70.00	\$19,930.00	\$0.00	4129-101	MR-2
Street Sweeping	\$20,000.00	\$8,222.50	\$11,777.50	\$2,732.50	4129-101	DW-6, DW-15
Retrofit Inventory	\$60,000.00	\$9,202.72	\$50,797.28	\$2,036.50	4129-101	DW-17, DW-20
Tanners, Battle Creek Lake, McKnight Basin outlet operation plan	\$35,000.00	\$0.00	\$35,000.00	\$0.00	4129-101	DW-9
Ames Lake Feasibility Study	\$5,000.00	\$653.00	\$4,347.00	\$365.50	4129-101	DW-9, BELT-1
Interim Emergency Response Plans	\$5,000.00	\$585.00	\$4,415.00	\$0.00	4129-101	DW-9
Resiliency Study for non-Beltline tributary areas - feasibility studies placeholder	\$50,000.00	\$0.00	\$50,000.00	\$0.00	4129-101	DW-9
Contingency*	\$20,000.00	\$0.00	\$20,000.00	\$0.00	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	\$0.00	\$10,000.00	\$0.00	4520-101	DW-2
Annual WQ Report Assistance	\$20,000.00	\$9,146.00	\$11,854.00	\$5,367.00	4520-101	DW-2
Special Project BMP Monitoring	\$30,000.00	\$705.00	\$29,295.00	\$215.00	4520-101	DW-12
Grass Lake Berm Wetland Monitoring	\$15,000.00	\$3,942.00	\$11,058.00	\$517.00	4520-101	DW-5, DW-8
Battle Creek Monitoring to address TMDL	\$15,000.00	\$1,568.50	\$13,431.50	\$1,520.50	4520-101	DW-1, DW-2
Battle Creek Monitoring to address TMDL (Barr Staff doing the monitoring)	\$15,000.00	\$0.00	\$15,000.00	\$0.00	4520-101	DW-1, DW-2
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	\$10,000.00	\$283.50	\$9,716.50	\$283.50	4122-101	DW-7
Permit Application Review	\$65,000.00	\$16,901.50	\$48,098.50	\$3,997.50	4124-101	DW-7
Watershed Management Plan Update						
Stakeholder Engagement	\$20,000.00	\$0.00	\$20,000.00	\$0.00	4661-101	DW-21
Gaps Analysis/WMP Update Scoping	\$10,000.00	\$612.50	\$9,387.50	\$612.50	4661-101	DW-13, DW-20
Ecosystem Restoration Plan (or "Ecosystem Health Action Plan")	\$50,000.00	\$0.00	\$50,000.00	\$0.00	4661-101	DW-8, DW-14
Lake Studies/TMDL Reports						
West Vadnais Lake Incorporation	\$15,000.00	\$0.00	\$15,000.00	\$0.00	4661-101	DW-2
2024 Grant Applications	\$20,000.00	\$1,860.50	\$18,139.50	\$1,022.50	4661-101	DW-13
Prioritization of water quality projects from subwatershed feasibility studies	\$5,000.00	\$0.00	\$5,000.00	\$0.00	4661-101	DW-20
Carver Ponds Internal Load Reduction	\$12,000.00	\$0.00	\$12,000.00	\$0.00	4661-101	DW-12
Contingency for Lake Studies	\$22,500.00	\$0.00	\$22,500.00	\$0.00	4661-101	
Research Projects						
New Technology Mini Case Studies (average 6 per year)	\$15,000.00	\$9,474.50	\$5,525.50	\$1,358.50	4695-101	DW-12
Kohlman Lake Aquatic Plant Management Effects Study	\$20,000.00	\$31,710.50	-\$11,710.50	\$22,435.00	4695-101	DW-12
Shallow Lake Aeration Study Finalization	\$5,000.00	\$3,116.50	\$1,883.50	\$1,116.50	4695-101	DW-12
Project Operations						
2024 Tanners Alum Facility Monitoring	\$17,000.00	\$124.00	\$16,876.00	\$62.00	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, DW-18
Lake Level Station Operation and Maintenance	\$50,000.00	\$19,406.19	\$30,593.81	\$10,095.29	4650-101	DW-5, DW-18
Capital Improvements						
Woodbury Target	\$180,000.00	\$157,792.56	\$22,207.44	\$8,099.00	4128-518	DW-6
Roosevelt Homes	\$33,600.00	\$18,292.00	\$15,308.00	\$2,581.00	4128-518	DW-6, DW-9
Targeted Retrofit Projects 2024	\$150,000.00	\$6,398.50	\$143,601.50	\$2,511.00	4128-518	DW-6
Stewardship Grant Program	\$75,000.00	\$11,171.50	\$63,828.50	\$2,099.00	4682-529	DW-6
Owasso Basin Flood Risk Reduction	\$200,000.00	\$11,542.27	\$188,457.73	\$2,905.00	4128-520	GC-3
Pioneer Park Stormwater Reuse	\$50,000.00	\$6,300.00	\$43,700.00	\$2,028.50	4128-518	DW-6
Double Driveway and Fish Creek Tributary Improvements	\$150,000.00	\$98,116.95	\$51,883.05	\$9,253.50	4129-537	FC-2
Cottage Place Wetland	\$113,800.00	\$38,888.50	\$74,911.50	\$20,594.00	4128-518	DW-6, DW-8, DW-14, LE-2, LE-3
Ames Lake improvements	\$250,000.00	\$0.00	\$250,000.00	\$0.00	4128-520	DW-9, BELT-1
PCU Pond improvements	\$150,000.00	\$0.00	\$150,000.00	\$0.00	4128-520	DW-9, KC-2
County Road C culvert capacity	\$50,000.00	\$34,902.12	\$15,097.88	\$11,767.85	4128-520	DW-9, KC-2
Lake Emily Subwatershed BMP	\$175,800.00	\$195,070.55	-\$19,270.55	\$139.50	4128-518	LE-3
Kohlman Creek Storage and Detention	\$150,000.00	\$0.00	\$150,000.00	\$0.00	4128-520	DW-9, KC-2
CIP Project Repair & Maintenance						
Routine CIP Inspection and Unplanned Maintenance Identification	\$125,000.00	\$21,024.61	\$103,975.39	\$5,351.50	4128-516	DW-5
2024 CIP Maintenance and Repairs	\$180,000.00	\$52,956.43	\$127,043.57	\$6,747.93	4128-516	DW-5
Beltline long-term fix near river outfall	\$250,000.00	\$83,807.11	\$166,192.89	\$21,541.00	4128-516	BELT-2

Barr declares under the penalties of Law that this Account, **\$188,097.57**
Claim, or Demand is just and that no part has been paid.

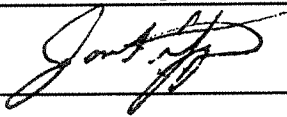

 Bradley J. Lindaman, Vice President

2024 Capital Improvement Project (CIP) Progress Payment Number 2


1.0	Total Completed Through This Period:	<u>\$128,876.60</u>	
2.0	Total Completed Previously Completed:		<u>\$34,106.60</u>
3.0	Total Completed This Period:		<u>\$94,770.00</u>
4.0	Amount Previously Retained:	<u>\$1,705.33</u>	
5.0	Amount Retained This Period:		<u>\$4,738.50</u>
6.0	Total Amount Retained:	<u>\$6,443.83</u>	
7.0	Retainage Released Through This Period:		<u>\$0.00</u>
8.0	Total Retainage Remaining:	<u>\$6,443.83</u>	
9.0	Amounts Previously Paid:	<u>\$32,401.27</u>	
10.0	Amount Due This Estimate:		<u><u>\$90,031.50</u></u>

Retainage shall be 5 percent of the value of the Work completed.

SUBMITTED BY:

Name: Jason Fitzgerald Date: 3-21-2024
 Title: President
 Contractor: Fitzgerald Excavating Inc.
 Signature: 

RECOMMENDED BY:

Name: Brad Lindaman Date: 3/21/2024
 Title: Project Engineer
 Engineer: Barr Engineering Company
 Signature: 

APPROVED BY:

Name: Val Eisele Date: _____
 Title: President
 Owner: Ramsey-Washington Metro Watershed District
 Signature: _____

2024 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 19th, 2024 for Progress Payment Number 2

Item	Description	Unit	Estimated Quantity	Unit Price	Extension	(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
						Quantity	Amount	Quantity	Amount	Quantity	Amount
General											
A	Mobilization/Demobilization	L.S.	1	\$60,000.00	\$60,000.00	0.50	\$30,000.00	0.15	\$9,000.00	0.35	\$21,000.00
B	Control of Water	L.S.	1	\$2,000.00	\$2,000.00	0.50	\$1,000.00	0.15	\$300.00	0.00	\$700.00
C	Traffic Control	L.S.	1	\$2,000.00	\$2,000.00	0.50	\$1,000.00	0.15	\$300.00	0.00	\$700.00
Site 1 - Tamarack Swamp, Woodbury (PFS Basins Cleaning/Sweeping)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	92	\$30.00	\$2,760.00	0	\$0.00	0	\$0.00	0	\$0.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	\$2.00	\$200.00	0	\$0.00	0	\$0.00	0	\$0.00
F	Sediment Log (9-Inch Diameter)	L.F.	60	\$2.00	\$120.00	0	\$0.00	0	\$0.00	0	\$0.00
G	Paver Sweeping	S.Y.	1,400	\$5.00	\$7,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 2 - Lower Afton Road, Maplewood (Drainageway Sediment Removal)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	127	\$30.00	\$3,810.00	0	\$0.00	0	\$0.00	0	\$0.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	\$2.00	\$200.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 3 - West Vadnais Lake, Little Canada (Maintenance Ramp)											
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	50	\$2.00	\$100.00	0	\$0.00	0	\$0.00	0	\$0.00
H	Boat Ramp (Precast Concrete Planks, Rock, Grading, Geotextile Filter Fabric)	L.S.	1	\$35,000.00	\$35,000.00	1	\$35,000.00	0	\$0.00	1	\$35,000.00
I	Floating Silt Curtain	L.F.	100	\$17.00	\$1,700.00	50	\$850.00	0	\$0.00	50	\$850.00
K	Clearing and Grubbing	L.S.	1	\$1,000.00	\$1,000.00	1	\$1,000.00	0	\$0.00	1	\$1,000.00
L	Sediment/Muck Excavation, Loading Hauling, and Disposal of Unregulated Material)	Ton	20	\$30.00	\$600.00	0	\$0.00	0	\$0.00	0	\$0.00
V	Bollard Access Gate and Sign (with Chain Loops and 20 feet of 3/8" Galvaniz	L.S.	1	\$4,000.00	\$4,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 4 - Grass Lake, Little Canada (Maintenance Ramp)											
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	380	\$2.00	\$760.00	630	\$1,260.00	0	\$0.00	630	\$1,260.00
F	Sediment Log (9-Inch Diameter)	L.F.	200	\$2.00	\$400.00	205	\$410.00	0	\$0.00	205	\$410.00
H	Boat Ramp (Precast Concrete Planks, Rock, Grading, Geotextile Filter Fabric)	L.S.	1	\$30,000.00	\$30,000.00	1	\$30,000.00	0	\$0.00	1	\$30,000.00
I	Floating Silt Curtain	L.F.	90	\$17.00	\$1,530.00	50	\$850.00	0	\$0.00	50	\$850.00
N	Sediment/Muck/Vegetation Excavation with On-Site Disposal	L.S.	1	\$3,000.00	\$3,000.00	1	\$3,000.00	0	\$0.00	1	\$3,000.00
W	Ramsey County Parks Entry Gate	L.S.	1	\$9,000.00	\$9,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 5 - Kohlman Basin, Maplewood (Weirs Upflow Treatment System)											
M	Place Existing Stockpiled CC17 Material (12 cuyd)	L.S.	1	\$1,000.00	\$1,000.00	1	\$1,000.00	1	\$1,000.00	0	\$0.00
Q	Install PVC Boards on Weir - 12"x0.5"x11.5' (18)	L.F.	215	\$15.00	\$3,225.00	0	\$0.00	0	\$0.00	0	\$0.00
R	Import and Place CC17 Limerock Material	Ton	30	\$70.00	\$2,100.00	25	\$1,778.00	25	\$1,778.00	0	\$0.00

**2024 Capital Improvement Project (CIP)
 Ramsey-Washington Metro Watershed District
 Summary of Work Completed Through March 19th, 2024 for Progress Payment Number 2**

Item	Description	Unit	Estimated Quantity	Unit Price	Extension	(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
						Quantity	Amount	Quantity	Amount	Quantity	Amount
Site 6 - White Bear Ave, Maplewood (Splash Block Replacement)											
S	Remove Existing Splashblock Assembly	Each	3	\$1,000.00	\$3,000.00	0	\$0.00	0	\$0.00	0	\$0.00
U	Repair Existing Splash Block Assembly	S.F	160	\$35.00	\$5,600.00	0	\$0.00	0	\$0.00	0	\$0.00
T	Install Rain Guardian Turret	Each	3	\$4,000.00	\$12,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 7 - Rice Street, Little Canada (Rice Street Cattail Cleanout)											
L	Sediment/Muck and Vegetation Cleanout, West Vadnais Lake Channel (Unregulated Fill Disposal Off Site)	L.S.	1	\$1,500.00	\$1,500.00	0	\$0.00	0	\$0.00	0	\$0.00
J	Floating Silt Curtain	L.F.	120	\$17.00	\$2,040.00	0	\$0.00	0	\$0.00	0	\$0.00
E	Site restoration (Seeding and Erosion Control Blanket)	S.Y.	60	\$2.00	\$120.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 8 - Arlington Pond, Maplewood (Arlington Pond)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	1300	\$30.00	\$39,000.00	708	\$21,228.60	708	\$21,228.60	0	\$0.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	350	\$2.00	\$700.00	0	\$0.00	0	\$0.00	0	\$0.00
F	Sediment Log (9-Inch Diameter)	L.F.	20	\$2.00	\$40.00	0	\$0.00	0	\$0.00	0	\$0.00
I	Floating Silt Curtain	L.F.	80	\$17.00	\$1,360.00	0	\$0.00	0	\$0.00	0	\$0.00
J	Construction Entrance	Each	1	\$500.00	\$500.00	1	\$500.00	1	\$500.00	0	\$0.00
P	Inlet Protection	Each	1	\$150.00	\$150.00	0	\$0.00	0	\$0.00	0	\$0.00
O	MN/DOT Class III Riprap (Field Stone) with Geotextile Filter Fabric	Ton	30	\$90.00	\$2,700.00	0	\$0.00	0	\$0.00	0	\$0.00
Contract Base Extensions =						\$240,215.00	\$128,876.60	0	\$34,106.60	0	\$94,770.00

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
March 20, 2024
File No: 9M

	Balance
General Account	\$1,425.00
FISH CREEK PROJECT	\$215.00
	<u>\$1,640.00</u>

Permit Application Coversheet

Date April 03, 2024

Project Name 3M Fire Main Replacement

Project Number 24-13

Applicant Name Izzy LaFavor, 3M

Type of Development Utility Maintenance

Property Description

This project is located on the 3M campus in the City of Maplewood. The applicant is proposing to remove/abandon existing fire protection utility main and install new main with minor curb installation and catch basin replacement. The total site area is 1.57 acres. An underground infiltration system is proposed to meet stormwater treatment requirements. Pretreatment methods include a sump and isolator row.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

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

Long Term

The proposed stormwater management plan is sufficient to handle the long term quality of downstream water resources.

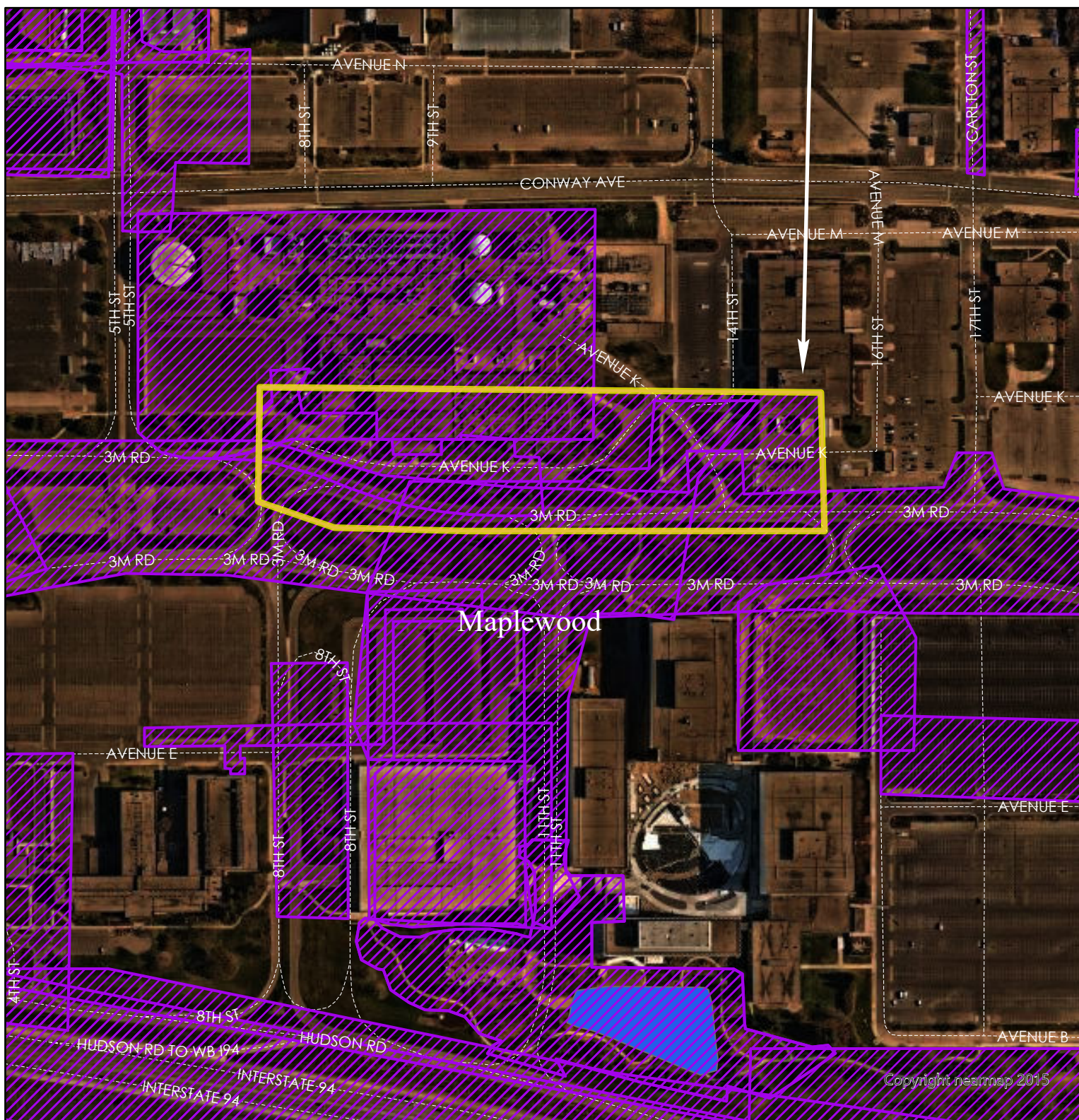
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- Project Location Map**
- Project Grading Plan**

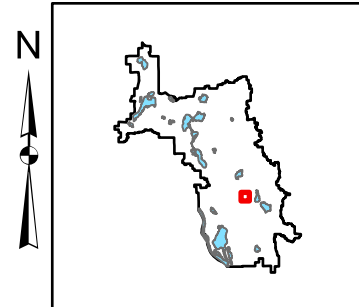
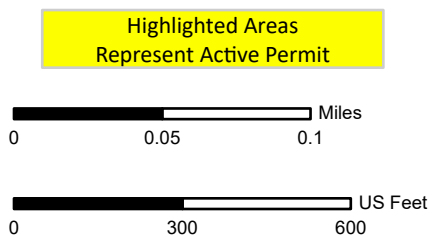
#24-13 3M Fire Main Replacement



Wetlands

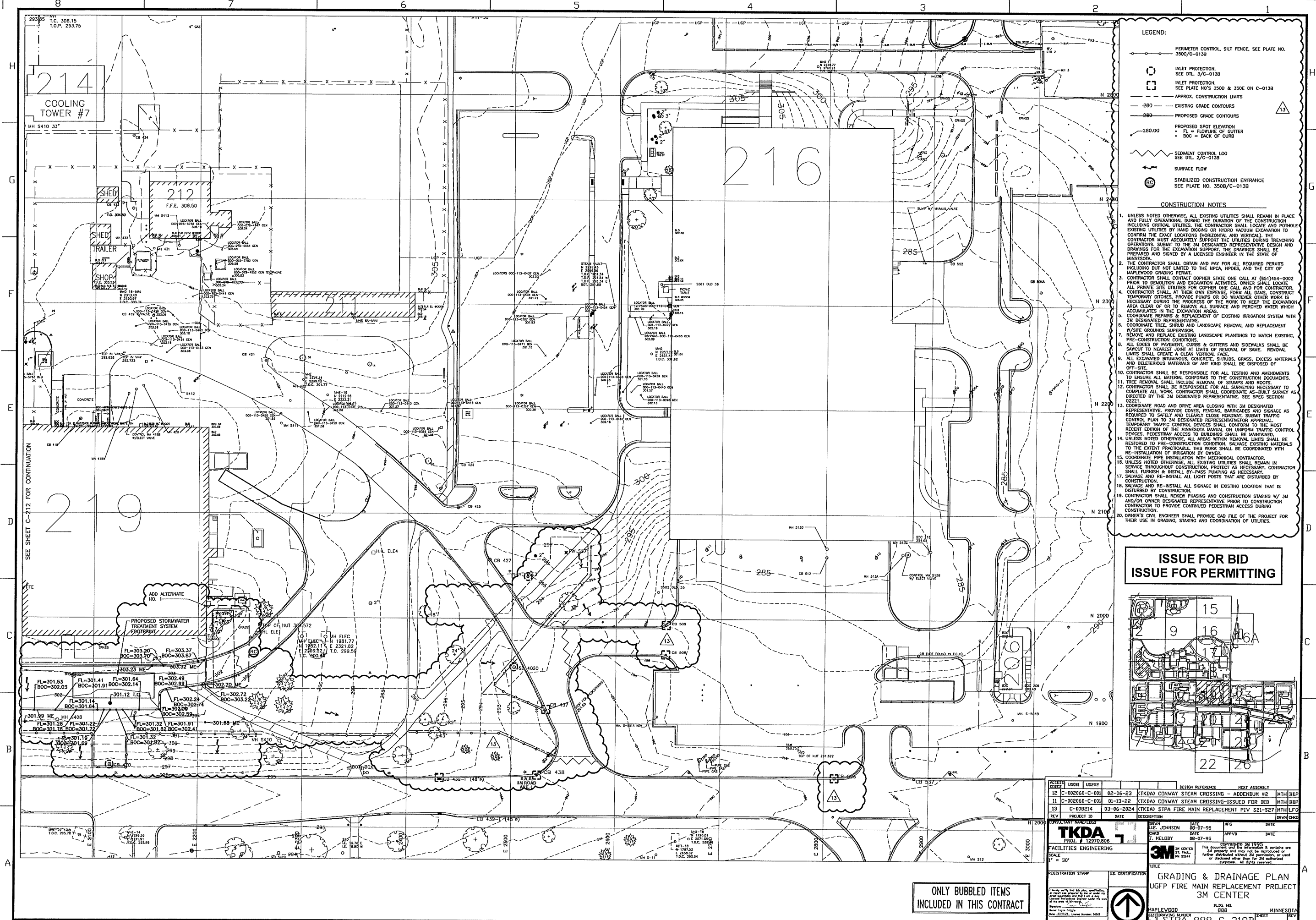
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Flow Arrows
- Roads
- Permits
- Cities
- Subwatersheds
- RWMWD Boundary



Special Provisions

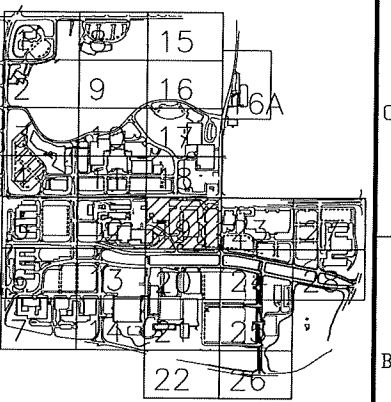
1. The applicant shall submit the escrow fee of \$7,850.
2. The applicant shall add a note to the plans to test infiltration rates during construction of the stormwater infiltration facility to confirm rates are less than 8.3 in/hr, as described in the MPCA's NPDES permit requirements.
3. The applicant shall add construction details for the underground infiltration BMP to the plans, including a plan view that shows inspection and clean-out locations, as well as the outlet control structure.
4. The applicant shall add the 100-year water surface elevation for the underground BMP to the plans.
5. The applicant shall revise the erosion control plan to show location(s) for proposed rock entrance(s).
6. The applicant shall submit the final, signed plans set.
7. The applicant shall submit an executed stormwater maintenance joint agreement with the City of Maplewood.
8. The applicant shall submit a site-specific BMP Operations & Maintenance Plan that shows clean-out and inspection locations for the underground infiltration BMP.
9. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
10. The applicant shall submit a copy of the Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.
11. The applicant shall update the stormwater report to correct the discrepancy in storage volume reported in Table 5 and Section 3.1 such that it matches the HydroCAD storage curve submitted.



- LEGEND:**
- PERIMETER CONTROL, S&T FENCE, SEE PLATE NO. 3500/C-0138
 - INLET PROTECTION, SEE DTL. 3/C-0138
 - APPROX. CONSTRUCTION LIMITS
 - EXISTING GRADE CONTOURS
 - PROPOSED GRADE CONTOURS
 - PROPOSED SPOT ELEVATION
 - FL = FLOWLINE OF GUTTER
 - BOC = BACK OF CURB
 - SEDIMENT CONTROL LOG, SEE DTL. 2/C-0138
 - SURFACE FLOW
 - STABILIZED CONSTRUCTION ENTRANCE, SEE PLATE NO. 3508/C-0138

- CONSTRUCTION NOTES**
1. UNLESS NOTED OTHERWISE, ALL EXISTING UTILITIES SHALL REMAIN IN PLACE AND FULLY OPERATIONAL DURING THE DURATION OF THE CONSTRUCTION INCLUDING CRITICAL UTILITIES. THE CONTRACTOR SHALL LOCATE AND POHOLE EXISTING UTILITIES BY HAND DIGGING OR HYDRO VACUUM EXCAVATION TO CONFIRM EXACT LOCATIONS (HORIZONTAL AND VERTICAL). THE CONTRACTOR MUST ADEQUATELY SUPPORT THE UTILITIES DURING TRENCHING OPERATIONS. SUBMIT TO THE 3M DESIGNATED REPRESENTATIVE DESIGN AND DRAWINGS FOR THE EXCAVATION SUPPORT. THE DRAWINGS SHALL BE PREPARED AND SIGNED BY A LICENSED ENGINEER IN THE STATE OF MINNESOTA.
 2. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS INCLUDING BUT NOT LIMITED TO THE MPCA, NPDES, AND THE CITY OF MAPLEWOOD GRADING PERMIT.
 3. CONTRACTOR SHALL CONTACT COPPER STATE ONE CALL AT (651)454-0002 PRIOR TO EXCAVATION AND EXCAVATION ACTIVITIES. OWNER SHALL LOCATE ALL PRIVATE SITE UTILITIES FOR Gopher ONE CALL AND FOR CONTRACTOR. CONTRACTOR SHALL AT THEIR OWN EXPENSE, FORM ALL DAMS, CONSTRUCT TEMPORARY DITCHES, PUMP-OUT PUMPS OR DO WHATEVER OTHER WORK IS NECESSARY DURING THE PROGRESS OF THE WORK TO KEEP THE EXCAVATION AREA CLEAR OF OR TO REMOVE ALL SURFACE AND PERCHED WATER WHICH ACCUMULATES IN THE EXCAVATION AREAS.
 4. COORDINATE REPAIRS & REPLACEMENT OF EXISTING IRRIGATION SYSTEM WITH 3M DESIGNATED REPRESENTATIVE.
 5. COORDINATE TREE, SHRUB AND LANDSCAPE REMOVAL AND REPLACEMENT W/SITE GROUNDS SUPERVISOR.
 6. REMOVE AND REPLACE EXISTING LANDSCAPE PLANTINGS TO MATCH EXISTING, PRE-CONSTRUCTION CONDITIONS.
 7. ALL EDGES OF PAVED DRIVEWAYS, CURBS & GUTTERS AND SIDEWALKS SHALL BE SAWCUT TO NEAREST JOINT AT LIMITS OF REMOVAL OF SAME. REMOVAL LIMITS SHALL CREATE A CLEAN VERTICAL FACE.
 8. ALL EXCAVATED BEDROCK, CONCRETE, CURBS, GRASS, EXCESS MATERIALS AND DELETERIOUS MATERIALS OF ANY KIND SHALL BE DISPOSED OF OFF-SITE.
 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND AMENDMENTS TO ENSURE ALL MATERIAL CONFORMS TO THE CONSTRUCTION DOCUMENTS.
 10. TREE REMOVAL SHALL INCLUDE REMOVAL OF STUMPS AND ROOTS.
 11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING NECESSARY TO COMPLETE ALL WORK. CONTRACTOR SHALL COORDINATE AS-BUILT SURVEY AS DIRECTED BY THE 3M DESIGNATED REPRESENTATIVE. SEE SPEC SECTION 0222.1.
 12. COORDINATE ROAD AND DRIVE AREA CLOSING WITH 3M DESIGNATED REPRESENTATIVE. PROVIDE CONES, FENCING, BARRICADES AND SIGNAGE AS REQUIRED TO SAFELY AND CLEARLY CLOSE ROADWAY. SUBMIT TRAFFIC CONTROL PLAN TO 3M DESIGNATED REPRESENTATIVE FOR APPROVAL. TEMPORARY TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PEDESTRIAN ACCESS TO BUILDINGS SHALL BE MAINTAINED.
 13. UNLESS NOTED OTHERWISE, ALL AREAS WITHIN REMOVAL LIMITS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION. SALVAGE EXISTING MATERIALS TO THE EXTENT PRACTICABLE. THIS WORK SHALL BE COORDINATED WITH RE-INSTALLATION OF IRRIGATION BY OWNER.
 14. COORDINATE PIPE INSTALLATION WITH MECHANICAL CONTRACTOR.
 15. UNLESS NOTED OTHERWISE, ALL EXISTING UTILITIES SHALL REMAIN IN SERVICE THROUGHOUT CONSTRUCTION. PROTECT AS NECESSARY. CONTRACTOR SHALL FURNISH & INSTALL BY-PASS PUMPING AS NECESSARY.
 16. SALVAGE AND RE-INSTALL ALL LIGHT POSTS THAT ARE DISTURBED BY CONSTRUCTION.
 17. CONTRACTOR SHALL REVIEW PHASING AND CONSTRUCTION STAGING W/ 3M AND/OR OWNER DESIGNATED REPRESENTATIVE PRIOR TO CONSTRUCTION. CONTRACTOR TO PROVIDE CONTINUED PEDESTRIAN ACCESS DURING CONSTRUCTION.
 18. OWNER'S CIVIL ENGINEER SHALL PROVIDE CAD FILE OF THE PROJECT FOR THEIR USE IN GRADING, STAGING AND COORDINATION OF UTILITIES.

**ISSUE FOR BID
ISSUE FOR PERMITTING**



ACCESS CODE	US081	US252	REGION REFERENCE	NEXT ASSEMBLY
12	C-002060-C-001	02-06-23	(TKDA) CONWAY STEAM CROSSING - ADDENDUM #2	MTH/BDF
11	C-002060-C-001	01-13-22	(TKDA) CONWAY STEAM CROSSING-ISSUED FOR BID	MTH/BDF
13	C-008214	03-06-2024	(TKDA) STPA FIRE MAIN REPLACEMENT PIV S21-S27	MTH/LFO
REV	PROJECT ID	DATE	DESCRIPTION	DRWN/CHKD

DESIGNER	DATE	APPV	DATE
J. JOHNSON	05-07-95	MFG	
T. MELOYD	08-07-95	APPV	

TKDA
PROJ. # 12970.806

3M
FACILITIES ENGINEERING

SCALE: 1" = 30'

REGISTRATION STAMP: [Professional Engineer Seal]

IS CERTIFICATION: [Professional Engineer Seal]

GRADING & DRAINAGE PLAN
UGFP FIRE MAIN REPLACEMENT PROJECT
3M CENTER

FILE: RLS.MEL
888
MINNESOTA
DRAWING NUMBER: STPA-888-C-219B
SHEET: 19

**ONLY BUBBLED ITEMS
INCLUDED IN THIS CONTRACT**

Permit Application Coversheet

Date April 03, 2024

Project Name MnDOT Hwy 36 Improvements

Project Number 24-14

Applicant Name Bryce Fossand, MnDOT

Type of Development Linear

Property Description

This project is located along the Highway 36 corridor. The area of interest from I-35W to east of Edgerton St spans three watershed district jurisdictions (Rice Creek, Capitol Region, and Ramsey-Washington). The RWMWD portion of the project will result in 1.75 acres of land disturbance and is primarily mill-and-overlay with some guardrail, ADA, and sidewalk improvements. An infiltration basin is proposed to meet stormwater treatment requirements. Pretreatment method(s) include a sump structure with a SAFL baffle. As the Local Government Unit responsible for implementing the MN Wetland Conservation Act (WCA), MnDOT approved a wetland delineation for the corridor as well as a no-loss approval for impacts to wet ditches due to their incidental status. No jurisdictional wetland or wetland buffer impacts are proposed as a result of this work.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

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

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

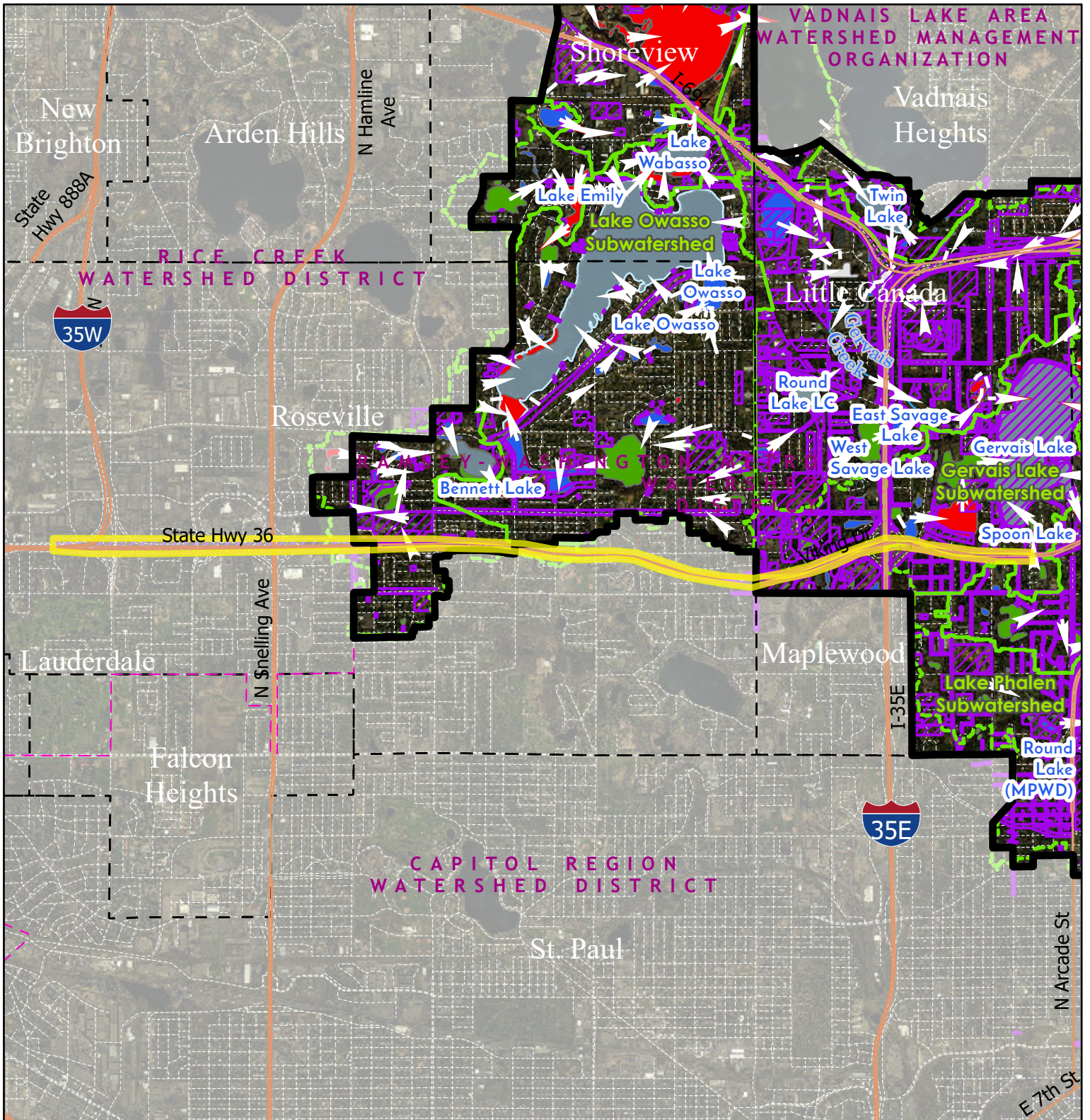
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

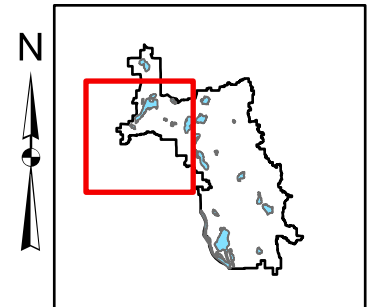
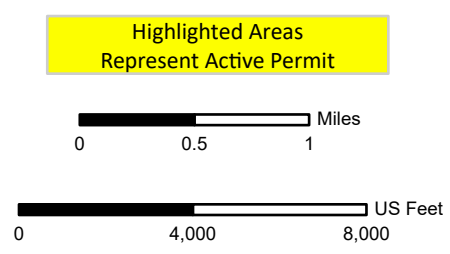
- Project Location Map**
- Project Grading Plan**

#24-14 MnDOT Hwy 36 Improvements



Wetlands	
■	Manage A
■	Manage B
■	Manage C
	Lake
	Sediment Pond
	Not Assessed
	Major Roads

→	Flow Arrows
→	Flow_Arrows (Major)
—	Roads
	Permits
	Cities
	Subwatersheds
	Lakes
	RWMWD Boundary



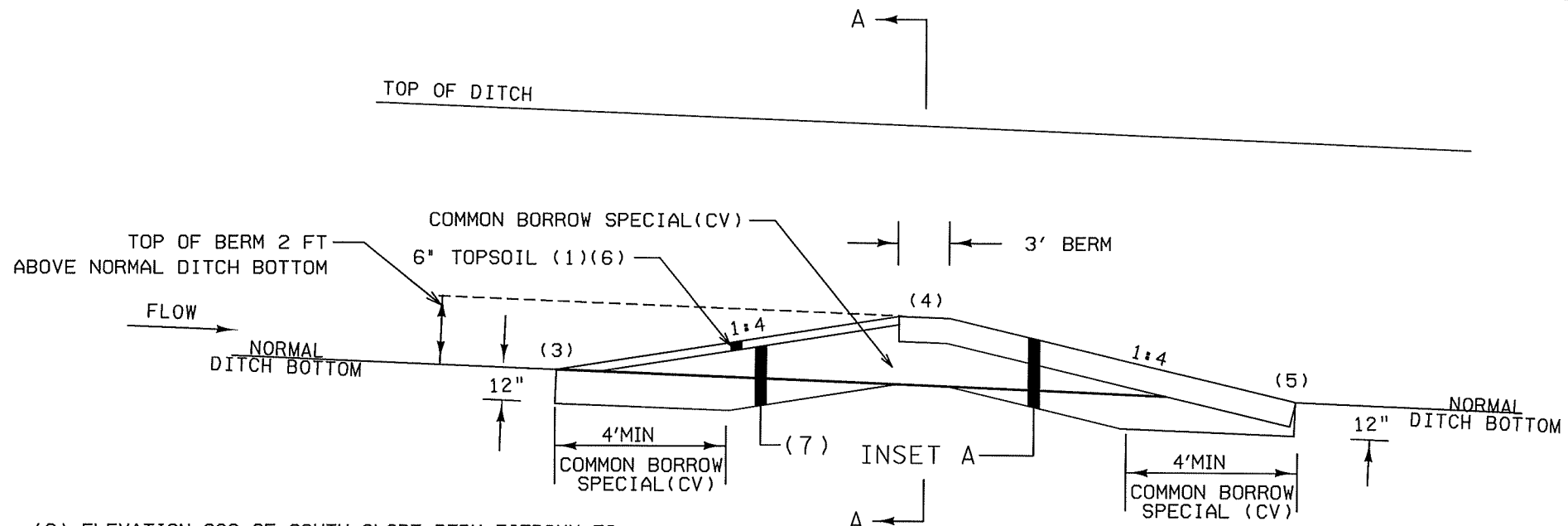
24-14

Special Provisions

1. The applicant shall clarify whether any restoration or activity is occurring in the areas on the plans delineated as "noxious weeds."
2. The applicant shall submit a revised erosion control plan with redundant perimeter control where required.
3. The applicant shall submit the final, signed plans set.
4. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
5. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.

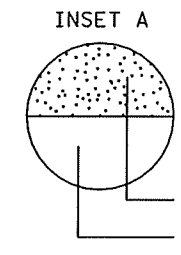
PLOTTED/REVISED: 22-MAR-2024
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DISTRICT #: Metro
 PLOT NAME: Inlet_J6212192_drd337C
 FILENAME: Projects\DM_ROS\036\6212192\Hydraulics\Computations\Edgerton St @ Co Rd B-2 & Dale St\Staffle Borflies\Structure Details\Inlet_J6212192_drd337C.dgn



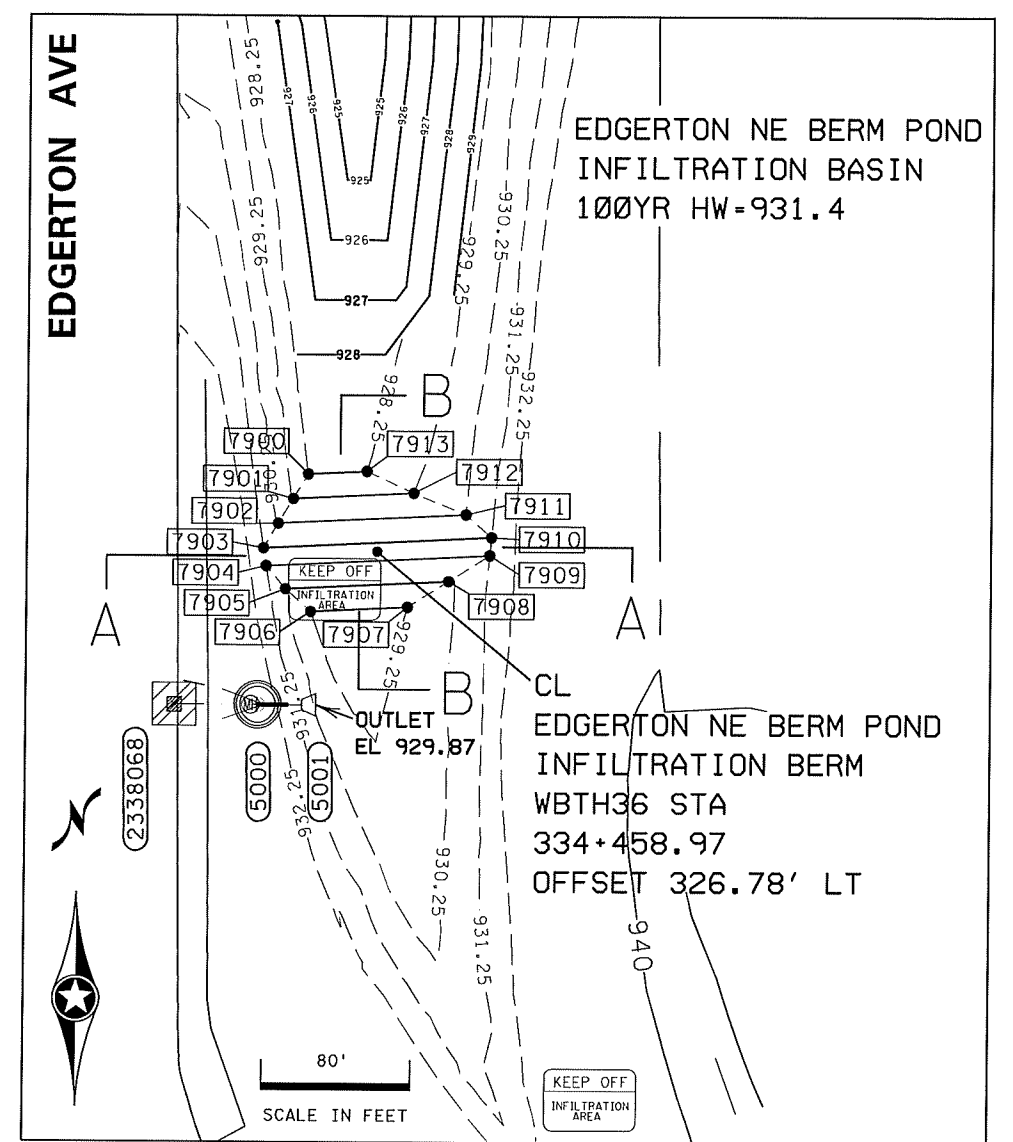
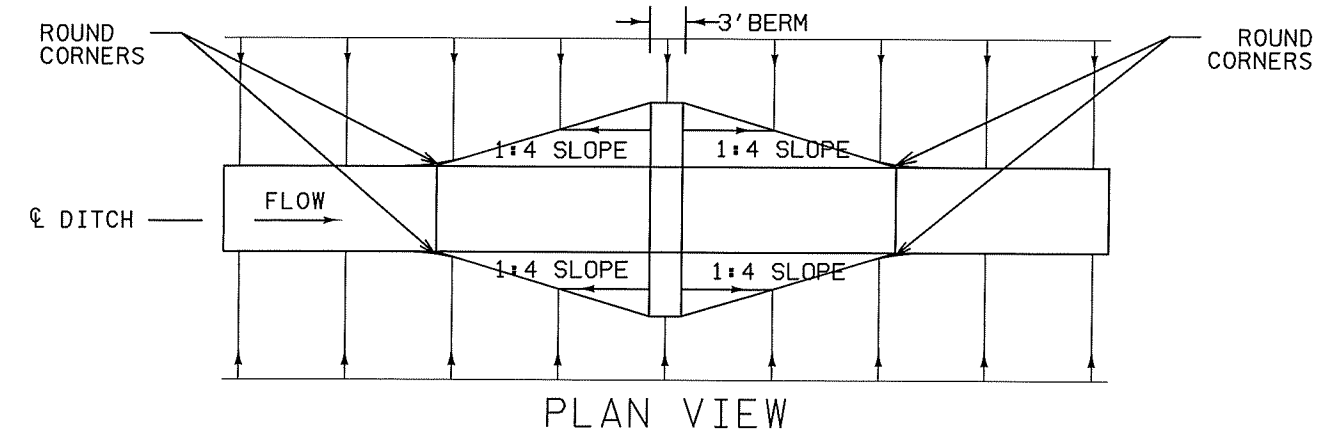
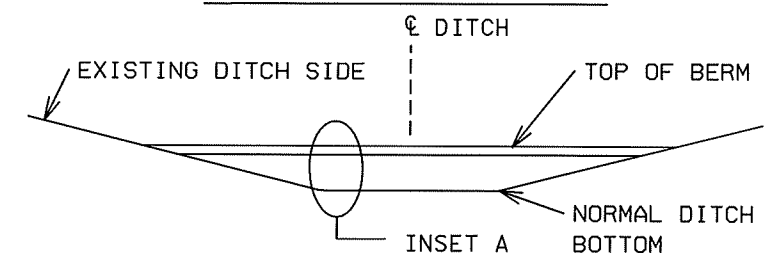
- (3) ELEVATION 929.25 SOUTH SLOPE BERM TIEDOWN TO EXISTING ELEVATION.
- (4) ELEVATION 931.25 TOP OF BERM OVERFLOW ELEVATION.
- (5) ELEVATION 928.25 NORTH SLOPE BERM TIEDOWN TO EXISTING ELEVATION.

CROSS SECTION B-B



- (1) TOPSOIL PAID FOR AS COMMON EMBANKMENT (CV)
- (2) MATERIAL SHALL HAVE 50% OR GREATER PASSING THE 200 SIEVE AND CONTAIN AT LEAST 20% CLAY MATERIAL.
- (6) 6" TOPSOIL DEPTH SOUTH OF ARTICULATED RIPRAP TOP OF BERM (1)
- (7) 30" COMMON BORROW SPECIAL DEPTH AT SOUTH SIDE OF BERM

SECTION A-A



BERM CONSTRUCTION POINTS

POINT NO.	X	Y	Z	NOTES
7900	579442.15	180173.17	928.25	
7901	579439.67	180169.04	929.25	
7902	579437.19	180164.92	930.25	
7903	579434.71	180160.79	931.25	
7904	579435.19	180157.81	931.25	
7905	579438.44	180153.96	930.37	
7906	579442.71	180150.17	929.25	
7907	180162.65	180150.96	929.25	
7908	579465.74	180155.30	930.25	
7909	579472.52	180159.63	931.25	
7910	579472.81	180162.65	931.25	
7911	579468.54	180166.45	930.25	
7912	579459.86	180170.03	929.25	
7913	579452.00	180173.65	928.25	

EDGERTON NE BERM INFILTRATION BASIN
 SHEET 10C OF 10

DRAINAGE DETAILS	
DRAWN BY: LDM	CHECKED BY: BDF
CERTIFIED BY: _____	LIC. NO. 43444 DATE _____
STATE PROJ. NO. 6212-192 (T.H. 36) SHEET NO. 337C OF 367 SHEETS	

Permit Application Coversheet

Date April 03, 2024

Project Name St. Paul Suburban-Burns Sidewalk

Project Number 24-15

Applicant Name Eric McCarthy, City of St. Paul

Type of Development Trail

Property Description

This project is located along the south side of Suburban Avenue and Burns Avenue in the City of St. Paul, between White Bear Avenue and McKnight Road North. The applicant is proposing to implement pedestrian safety and access improvements including new pedestrian ramps, sections of sidewalk, and minor curb work. The total land disturbance area is 0.74 acre, so permanent stormwater treatment is not required. The project will require work within the 100-year floodplain of Suburban Pond, and the applicant has submitted calculations to demonstrate no net fill is being proposed within the floodplain. The work also requires implementation of an erosion and sediment control plan and SWPPP due to > 1,000 square feet of disturbance adjacent to a water body. Suburban Pond has an approved wetland delineation from the City of St. Paul, the Local Government Unit responsible for implementing the Wetland Conservation Act (WCA) on this site, and no wetland impacts are proposed.

Watershed District Policies or Standards Involved:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input type="checkbox"/> Stormwater Management | <input checked="" type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed work in the floodplain will result in no net loss of flood storage on the landscape.

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 considerations pertaining to District rules.

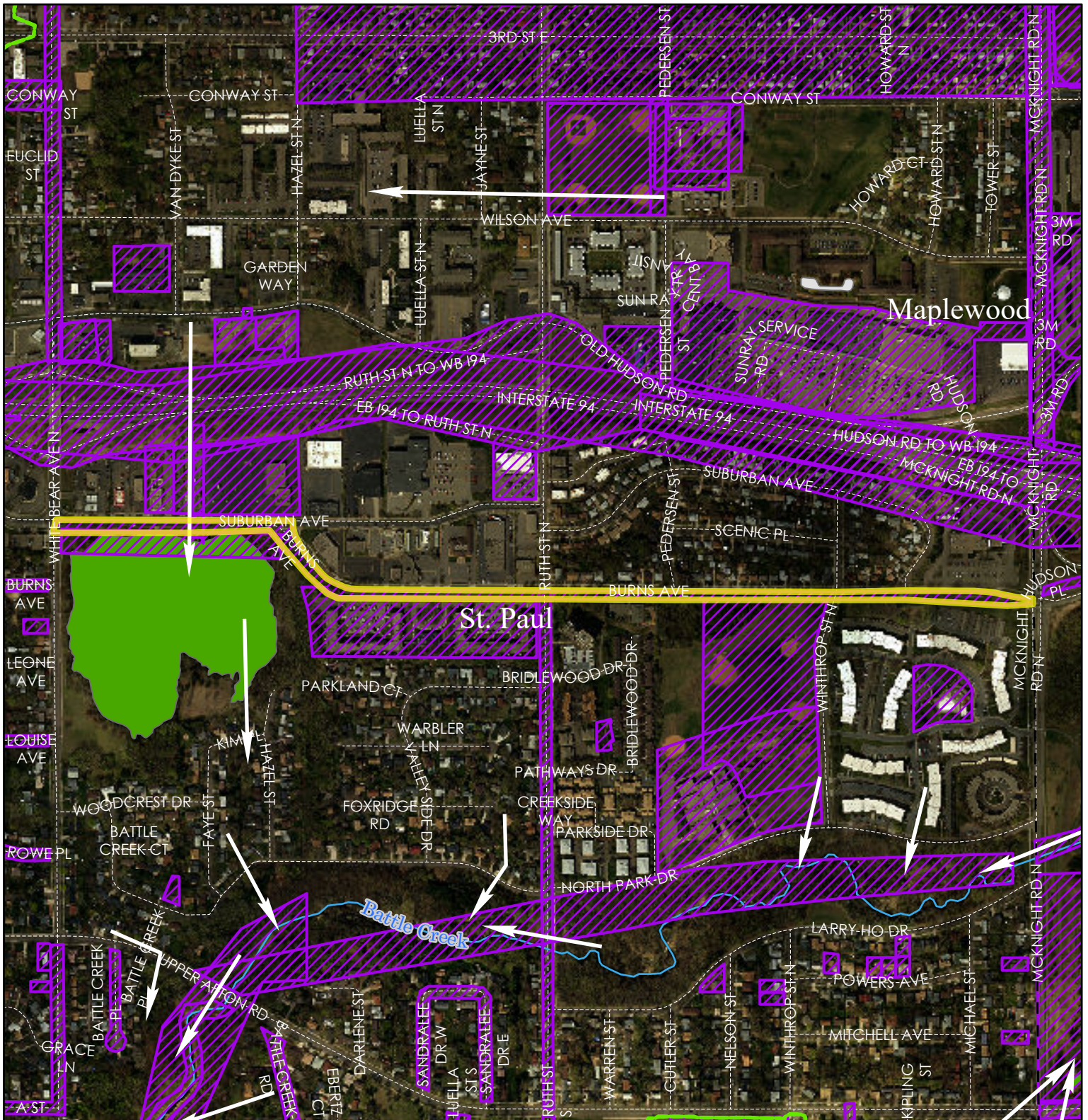
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- Project Location Map**
- Project Grading Plan**

#24-15 St. Paul Suburban-Burns Sidewalk



Wetlands

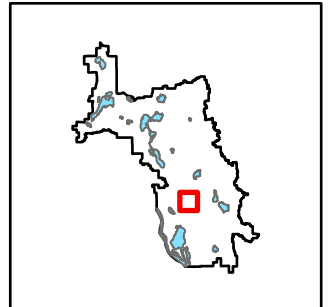
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Flow Arrows
- Roads
- Permits
- Cities
- Subwatersheds
- RWMWD Boundary

Highlighted Areas Represent Active Permit

0 0.1 0.2 Miles

0 500 1,000 US Feet



24-15

Special Provisions

1. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
2. The applicant shall submit the final, signed plans set.

Permit Application Coversheet

Date April 03, 2024

Project Name Justice Alan Page Elementary Parking

Project Number 24-16

Applicant Name Mike Boland, ISD #622

Type of Development Parking Lot

Property Description

This project is located at Justice Alan Page Elementary School off Holloway Avenue East in the City of Maplewood. The applicant is proposing to construct additional parking/sidwalks and relocate the existing playground. The total site area is 5.5 acres. A previous phase of redevelopment was approved for District permitting on this parcel in May 2020 (#20-22) and is expected to be completed in 2024. The applicant is proposing to utilize available treatment capacity in two constructed filtration basins as part of the #20-22 permit, as well as expanding the north filtration basin to provide treatment for the additional impervious area that is now being proposed. All basin work must be completed with vegetation restored and verification of proper drawdown before permits can be closed, including as-built information, to ensure stormwater treatment requirements are met for both phases.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

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

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

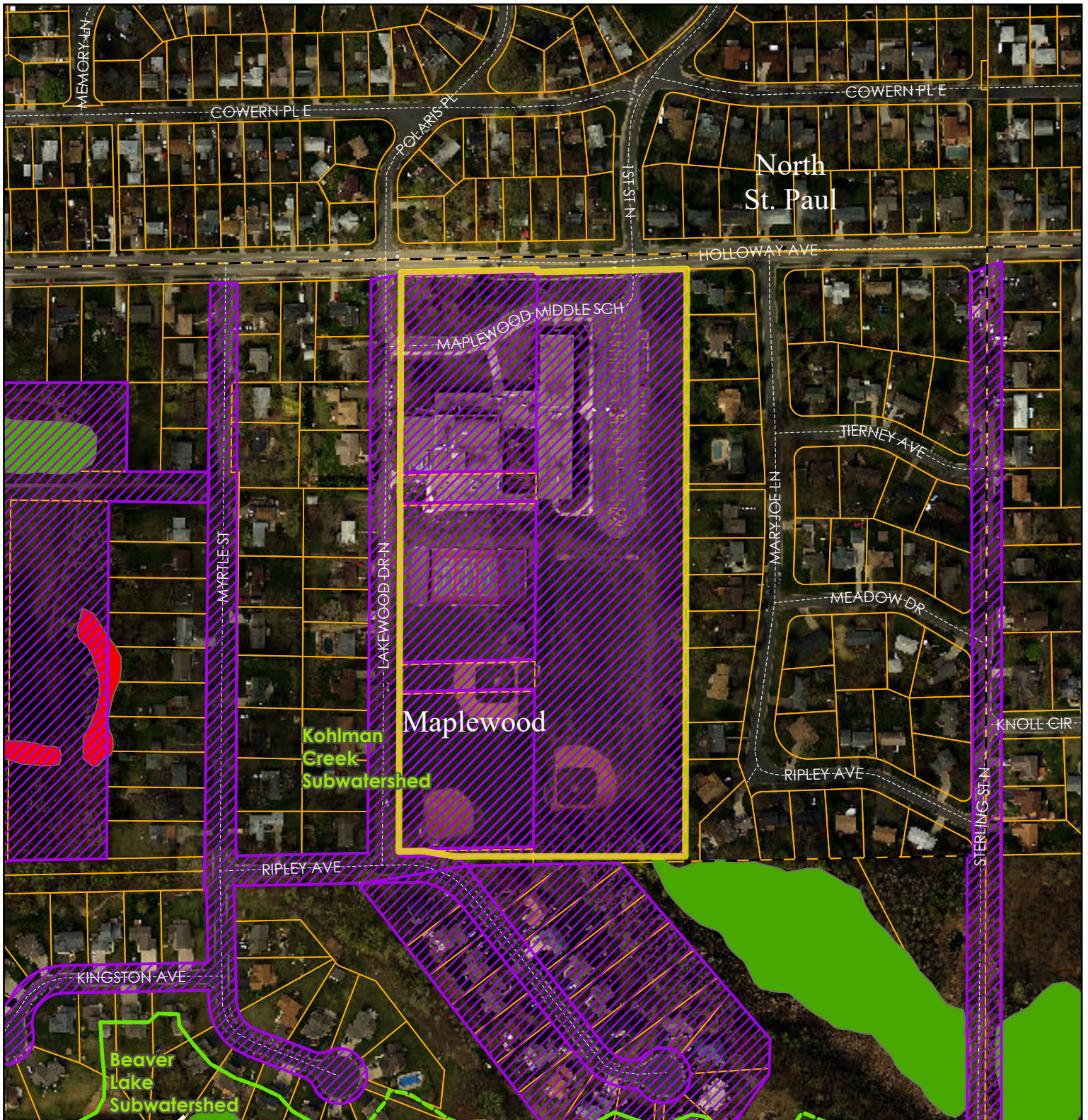
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

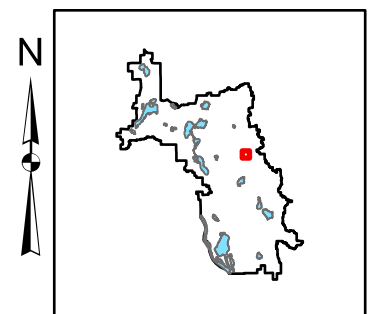
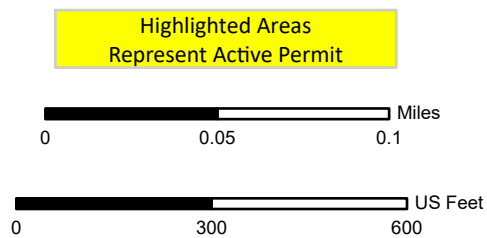
- Project Location Map**
- Project Grading Plan**

#24-16 Justice Alan Page Elementary Parking



Wetlands	
	Manage A
	Manage B
	Manage C
	Lake
	Sediment Pond
	Not Assessed
	Major Roads

	Flow Arrows
	Roads
	Permits
	Cities
	Subwatersheds
	Ramsey Co Parcels
	RWMWD Boundary



24-16

Special Provisions

1. The applicant shall complete outstanding action items related to RWMWD Permit #20-22 including filtration basin repair and vegetation establishment.
2. The applicant shall add a note to the plans providing direction to the contractor on best practices for working in and around the stormwater filtration basin, including the need to protect the drain tile from clogging by sediment and compaction from earth-moving equipment.
3. The applicant shall submit the final, signed plans set.
4. The applicant shall update the previously submitted BMP Operations & Maintenance Plan to reflect any proposed changes to the north filtration basin.
5. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
6. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.

**JUSTICE ALAN PAGE
PARKING AND SITE
IMPROVEMENTS**

2410 Holloway Ave E
Maplewood, MN 55109

**INDEPENDENT SCHOOL
DISTRICT #622**
2520 12th Ave E
North St. Paul, MN 55109



**WOLD ARCHITECTS
AND ENGINEERS**

3323 Maroon Street, Suite W2000
Saint Paul, MN 55101

wold.com | 651 227 7773

**Larson
Engineering, Inc.**

3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (f) 651.481.9201
www.larsonengr.com

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LEGEND

- 950 --- EXISTING CONTOURS
- 950 --- PROPOSED CONTOURS - MAJOR INTERVAL
- 949 --- PROPOSED CONTOURS - MINOR INTERVAL
- 2.0% --- GRADE BREAK LINE
- 2.0% --- GRADE SLOPE
- SILT FENCE, SEE DETAIL 10/C601
- SEDIMENT ROLL, SEE DETAIL 8/C601
- RIP-RAP / ROCK CONST. ENTRANCE, SEE DETAIL 6/C601 OR 8/C601 OR 14/C601
- TURF REINFORCEMENT MAT, SEE DETAIL 13/C601
- EROSION CONTROL BLANKET, SEE DETAIL 11/C601
- INLET PROTECTION, SEE DETAIL 7/C601
- CONCRETE WASHOUT STATION (LOCATE DURING CONSTRUCTION)
- SPOT ABBREVIATIONS:
TC - TOP OF CURB
GL - GUTTER LINE
B - BITUMINOUS
C - CONCRETE
OF - OVERFLOW
AG - AG-LIME
G - GRAVEL
(*) - EXISTING TO BE VERIFIED

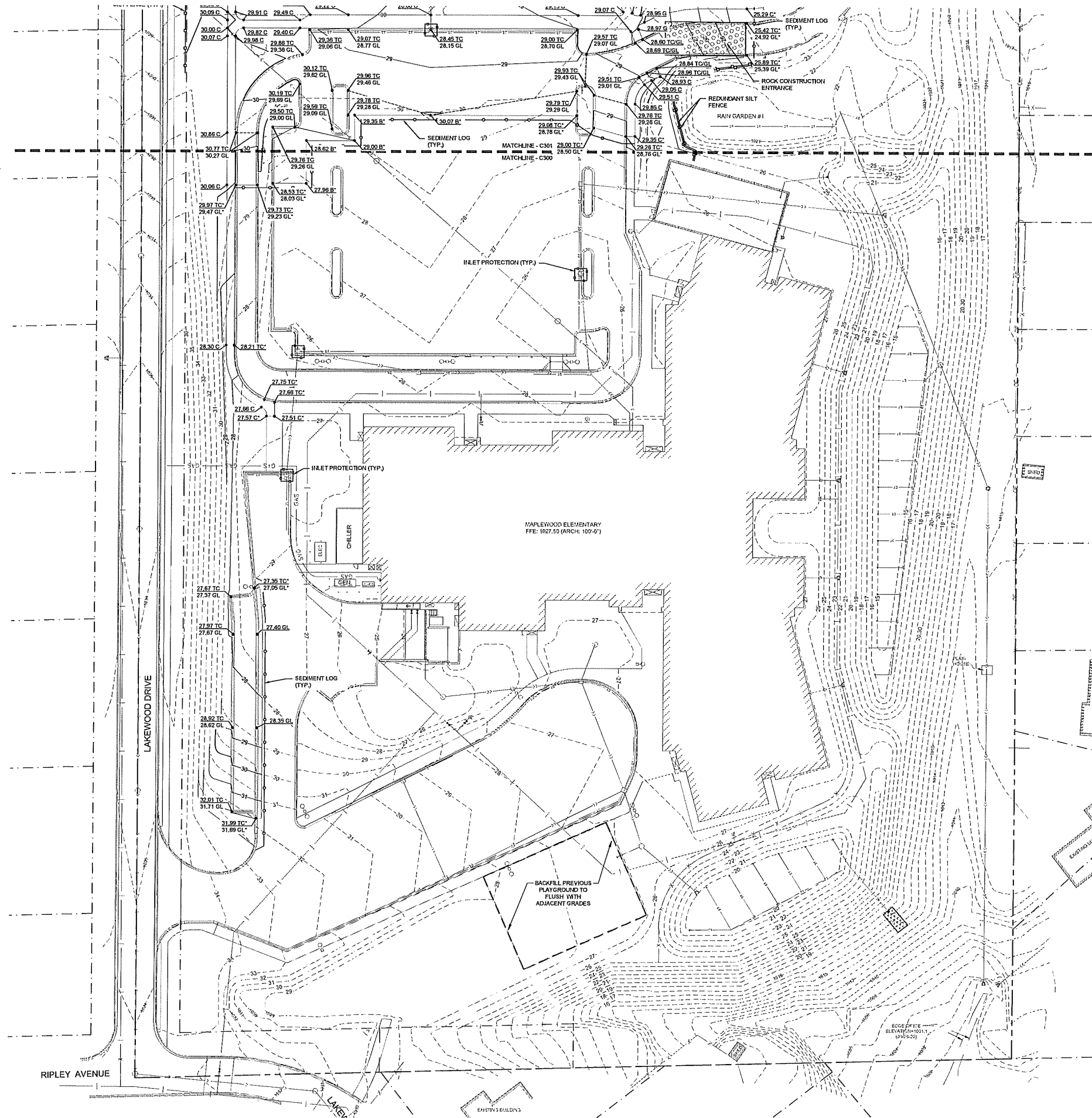
GRADING NOTES

- Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
- All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
- Grades shown in paved areas represent finish elevation.
- All construction shall be performed in accordance with state and local standard specifications for construction.
- Add 100' to spot elevations and contours listed for NAV 88 elevation datum.

EROSION CONTROL NOTES

- See sheet C700 for the SWPPP.
- Install erosion control blanket on all disturbed slopes that are 4:1 or greater, in addition erosion control blanket should be used to stabilize areas that have trouble establishing due to runoff.
- Notify Nicole Soderholm, Ramsey-Washington Metro Watershed District, at 651-792-7970 prior to beginning any and all construction activity in order to schedule an initial SWPPP inspection.
- Notify Nicole Soderholm, Ramsey-Washington Metro Watershed District, at 651-792-7970 at least 48 hours prior to construction of the stormwater filtration basins.

MN



P:\Projects\Projects - 2024\1246004 - Justice Alan Page ELEM Program\Relocation - Wold\DC Design\Drawings\Plan\1246004_C300 - Grading & Erosion.dwg

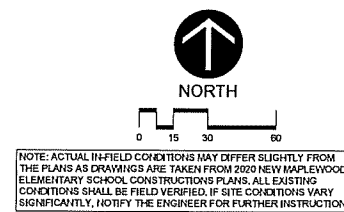
I hereby certify that this plan, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the state of Minnesota.

Greg A. Buchal, P.E. Lic. No. 23793

Description	Revisions	Date	Num
RWMWD Comments		March 21, 2024	1

Comm: 1246004
Date: 02-28-2024
Drawn: MTH
Check: GAB

**GRADING AND
EROSION
CONTROL
PLAN - SOUTH**



NOTE: ACTUAL FIELD CONDITIONS MAY DIFFER SLIGHTLY FROM THE PLANS AS DRAWINGS ARE TAKEN FROM 2020 NEW MAPLEWOOD ELEMENTARY SCHOOL CONSTRUCTION PLANS. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED. IF SITE CONDITIONS VARY SIGNIFICANTLY, NOTIFY THE ENGINEER FOR FURTHER INSTRUCTION.

C300

**JUSTICE ALAN PAGE
PARKING AND SITE
IMPROVEMENTS**

2410 Hollow Ave E
Maplewood, MN 55109

**INDEPENDENT SCHOOL
DISTRICT #622**
2520 12th Ave E
North St. Paul, MN 55109



**WOLD ARCHITECTS
AND ENGINEERS**
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Saint Paul, MN 55101

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White Bear Lake, MN 55110
651.481.9120 (F) 651.481.9201
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LEGEND

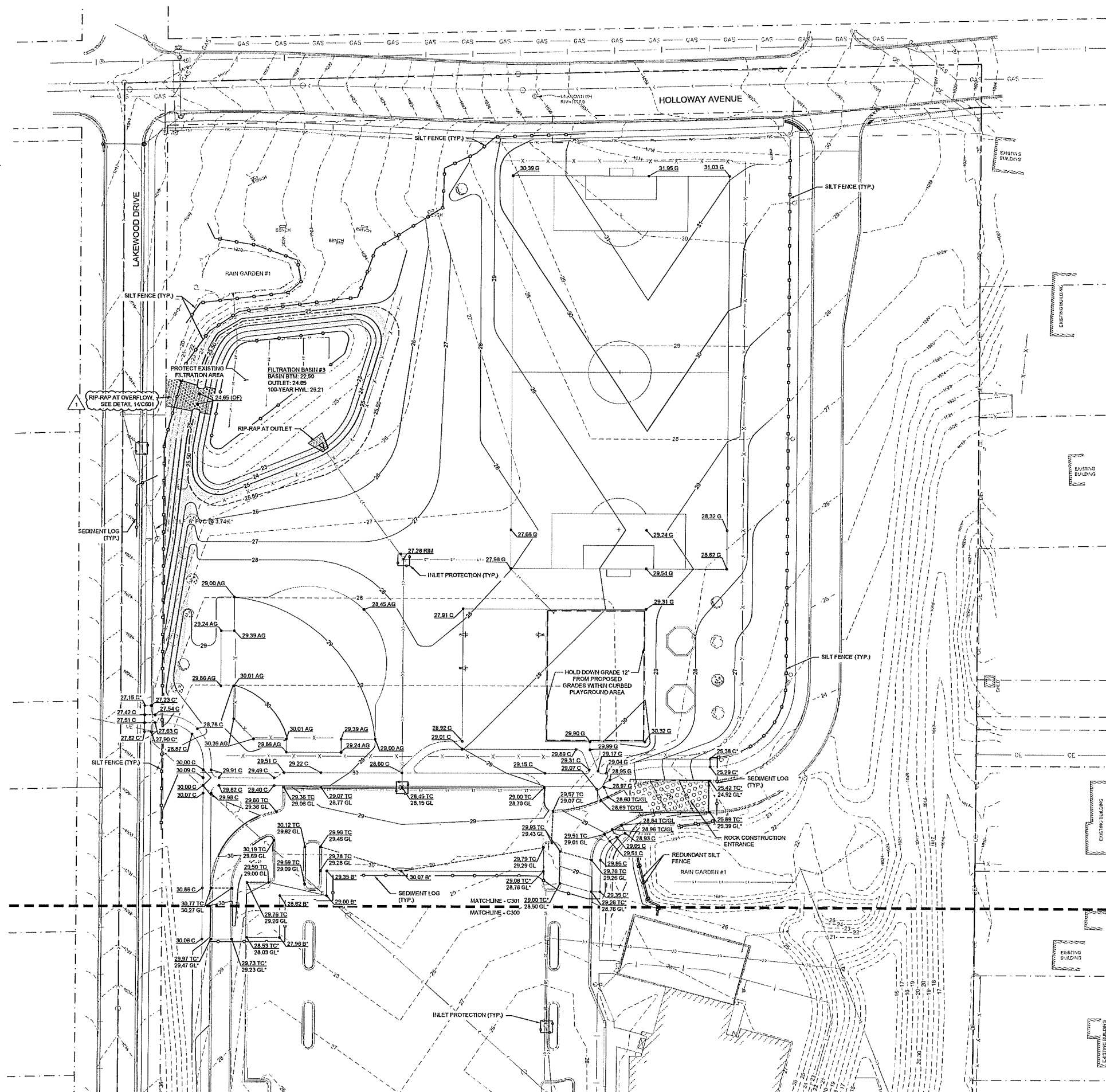
- 950 --- EXISTING CONTOURS
- 949 --- PROPOSED CONTOURS - MAJOR INTERVAL
- 949 --- PROPOSED CONTOURS - MINOR INTERVAL
- 2.0% --- GRADE BREAK LINE
- 2.0% --- GRADE SLOPE
- SILT FENCE, SEE DETAIL 10/C601
- SEDIMENT ROLL, SEE DETAIL 9/C601
- RIP-RAP / ROCK CONST. ENTRANCE, SEE DETAIL 8/C601 OR 8/C601 OR 14/C601
- TURF REINFORCEMENT MAT, SEE DETAIL 13/C601
- EROSION CONTROL BLANKET, SEE DETAIL 11/C601
- INLET PROTECTION, SEE DETAIL 7/C601
- CONCRETE WASHOUT STATION (LOCATE DURING CONSTRUCTION)
- 950.00 TC / 949.50 GL --- SPOT ABBREVIATIONS:
TC - TOP OF CURB
GL - GUTTER LINE
B - BITUMINOUS
C - CONCRETE
OF - OVERFLOW
AG - AGLIME
G - GROUND
(*) - EXISTING TO BE VERIFIED

GRADING NOTES

- See sheet C300 for Grading Notes.

EROSION CONTROL NOTES

- See sheet C300 for Erosion Control Notes.



MN

P:\Projects\Projects - 2024\240004 - Justice Alan Page Elem Program\Revisions - VBA\AC_Design\Drawings\Plan\240004_C300 - Grading & Erosion.dwg

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the state of Minnesota.

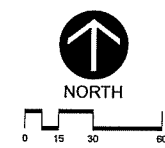
Greg A. Buchal
Greg A. Buchal, P.E.

Date: 02.26.24 Lic. No.: 23793

Revised	Date	By
1	March 21, 2024	J

Comm: 12248004
Date: 02-26-2024
Drawn: JMH
Check: GAB

**GRADING AND
EROSION
CONTROL
PLAN - NORTH**



NOTE: ACTUAL IN-FIELD CONDITIONS MAY DIFFER SLIGHTLY FROM THE PLANS AS DRAWINGS ARE TAKEN FROM 2020 NEW MAPLEWOOD ELEMENTARY SCHOOL CONSTRUCTION PLANS. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED. IF SITE CONDITIONS VARY SIGNIFICANTLY, NOTIFY THE ENGINEER FOR FURTHER INSTRUCTION.

C301

Permit Application Coversheet

Date May 06, 2020

Project Name Maplewood Elementary Project Number 20-22

Applicant Name Mike Boland, ISD 622

Type of Development Institutional

Property Description

This project is located at the former Maplewood Middle School site off Holloway Avenue in the City of Maplewood. The applicant is proposing to demolish the existing school to create a new elementary school, parking lot, and sidewalk areas. The total site area is 15.2 acres. Two filtration basins are proposed to meet stormwater treatment requirements. Filtration is being proposed due to poor soils. Pretreatment will include sumps. Two existing rain gardens constructed with funding from the District will not be impacted by construction and will continue to treat impervious area.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> <i>Wetlands</i> | <input checked="" type="checkbox"/> <i>Erosion and Sediment Control</i> |
| <input checked="" type="checkbox"/> <i>Stormwater Management</i> | <input type="checkbox"/> <i>Floodplain</i> |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

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

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- Project Location Map
- Project Grading Plan

Permit Application Coversheet

Date April 03, 2024

Project Name The Heights II

Project Number 24-17

Applicant Name Kathryn Sarnecki, Saint Paul Port Authority

Type of Development Mixed Use

Property Description

This project is located at the former Hillcrest Golf Club off Larpenteur Avenue in the City of St. Paul. The applicant is proposing to continue redevelopment on the site which is described as a mixed use development including designated residential, commercial, light industrial, and green space/wetland areas. 'The Heights Phase I' RWMWD grading permit (#23-17) was approved in June 2023 and issued for construction activity to begin in July 2023. Permit #23-17 includes demolition, soil remediation, mass grading, wetland impacts, wetland mitigation areas, establishment of wetland buffers, and temporary sediment control ponds. Mass grading and wetland remediation/buffer establishment are currently ongoing.

The applicant is now seeking approval for the next phase of redevelopment which includes public and shared infrastructure, such as street construction and reconstruction, utilities, lighting, boulevards, landscaping, restoration, sidewalks, and permanent stormwater treatment BMPs. All individual parcels slated for future development will apply for separate permits to verify compliance with District rules.

The applicant introduced a mix of proposed public amenities on designated outlots at the December 2023 board meeting, including trails, wetland boardwalks, and nature play areas. The public amenity design plan is not yet finalized and will appear as a separate future permit application with the potential for a wetland buffer variance request at that time.

Of the 112-acre site, approximately 72 acres is proposed to be disturbed as part of this phase of development 'The Heights Phase II.' The applicant is proposing a combination of stormwater BMPs, including above- and below-ground treatment for impervious area proposed as part of this phase, in addition to future impervious area on private parcels that are not yet developed. The applicant is requesting to bank the additional volume until those individual lots are developed. 18 BMPs are proposed, including underground filtration systems, linear filtration and infiltration swales with weirs, iron-enhanced filtration basins, and infiltration basins. Pretreatment methods include hydrodynamic separators and sump structures. The City of St. Paul has agreed to own and maintain the proposed stormwater infrastructure/BMPs after the project is complete.

Each future permit application will be reviewed and presented for board approval such that the District can confirm permitting requirements are being met in relation to construction activity throughout all phases of this common plan of development.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

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

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

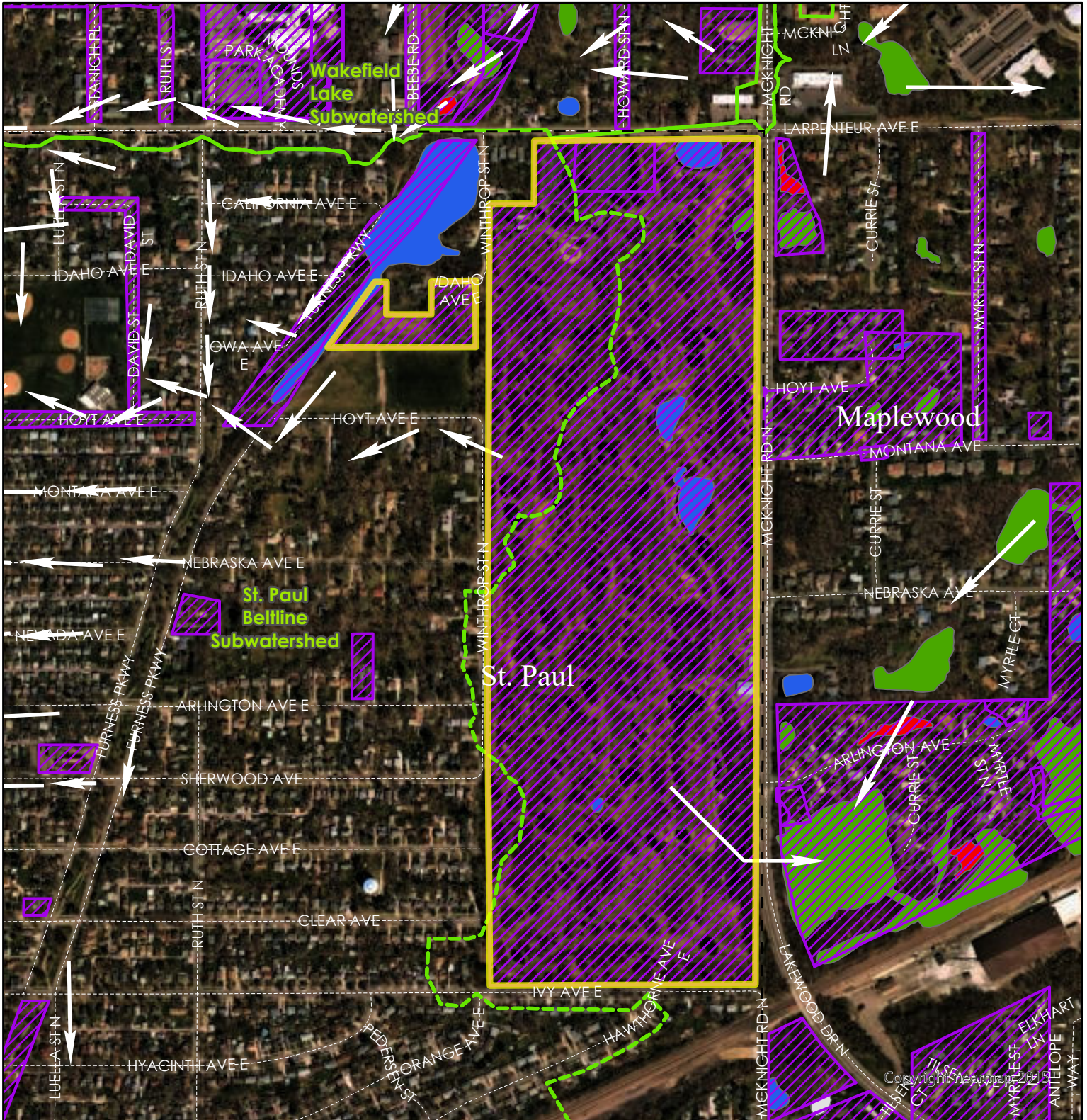
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

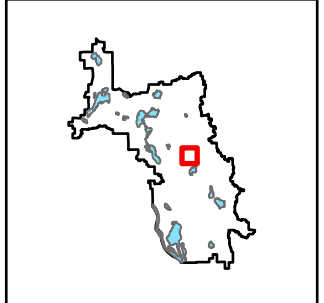
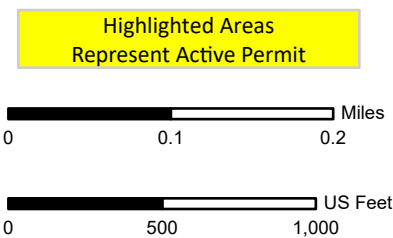
- Project Location Map**
- Project Grading Plan**

#24-17 The Heights Phase II



Wetlands	
■	Manage A
■	Manage B
■	Manage C
■	Lake
■	Sediment Pond
■	Not Assessed

	Flow Arrows
	Roads
	Permits
	Cities
	Subwatersheds
	RWMWD Boundary



24-17

Special Provisions

1. The applicant shall revise Drainage Table 2 such that it matches the model submitted for 'Weir Wall 6,' 'Weir Wall 7,' and 'OCS 5752B.'
2. The applicant shall revise the 100-year High Water Level on the plans for 'Swale 2' such that it matches the model submitted.
3. The applicant shall add notes to the plans:
 - A. Notify Mary Fitzgerald, Ramsey-Washington Metro Watershed District, at 651-792-7956 prior to beginning construction activity to schedule an initial erosion control inspection.
 - B. Add a note to the plans that a curb and gutter system is considered a water of the state. All disturbed areas will require down-gradient perimeter control, including down-gradient curblines, up to 70% vegetation establishment per MPCA NPDES Section 9.2.
4. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
5. The applicant shall submit the new and/or transferred Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.
6. The applicant confirm whether wildlife-friendly erosion control blanket is specified and revise/resubmit the detail.
7. The applicant shall submit the final, signed plans set including all landscaping and restoration plans.

REVISIONS		
NO.	DATE	DESCRIPTION
1	01/30/2024	ADDENDUM NO. 1

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

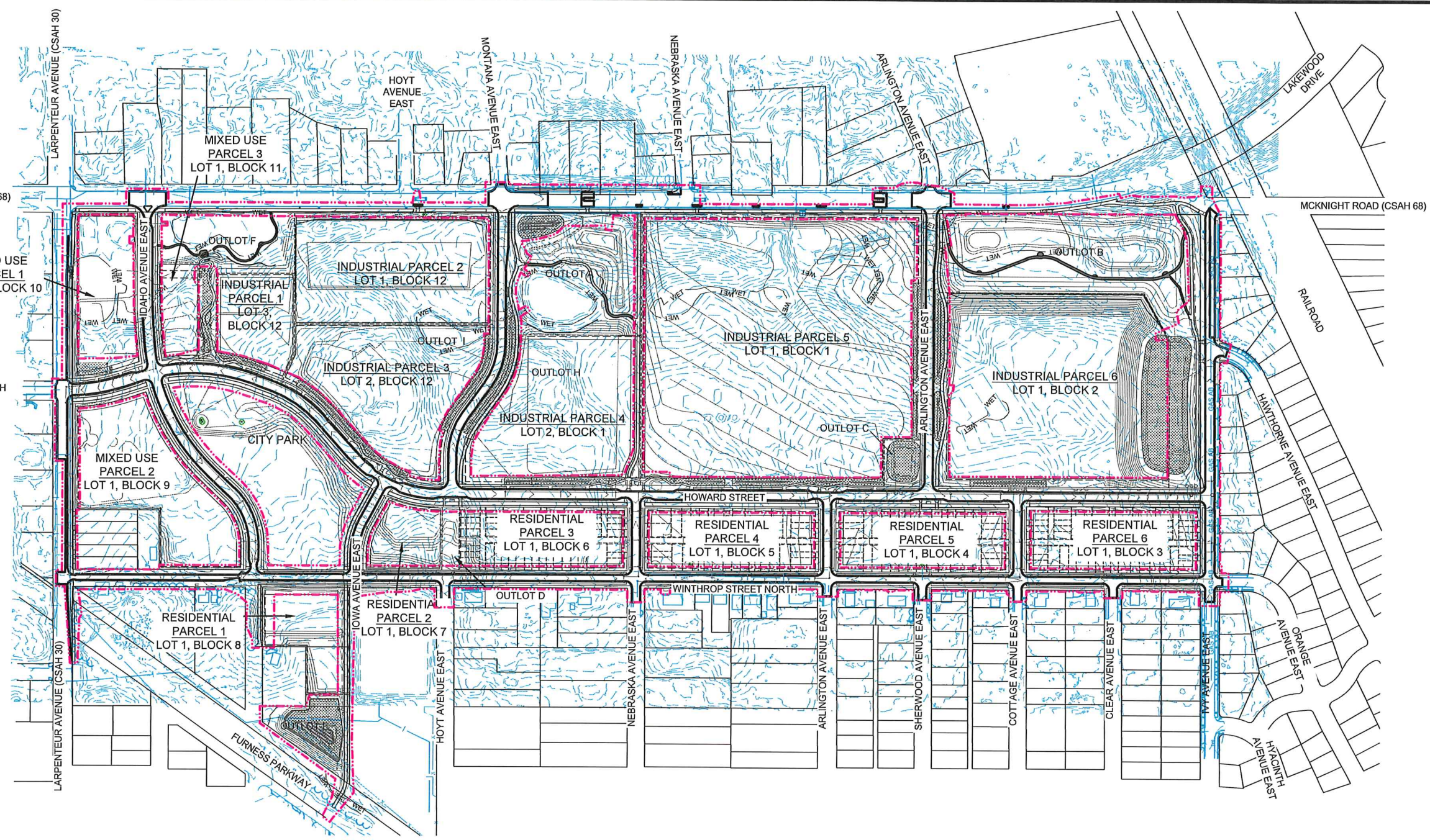
PAUL HORNBY, P.E.
 DATE: 1/24/2024 LIC. NO.: 23359

OVERALL GRADING PLAN

BID PACKAGE NO. 2
 INFRASTRUCTURE PLANS FOR:
 SAINT PAUL, MINNESOTA

Saint Paul Port Authority
 400 Wabasha Street North
 Suite 240
 St Paul, Minnesota 55102
 Phone 612-224-5686

WSB PROJECT NO.
 013987-000

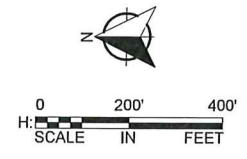


GRADING NOTES:

- ALL PROPOSED BUILDINGS ON THIS SITE MUST HAVE A MINIMUM TOP OF FOUNDATION AND LOWEST UNPROTECTED OPENING ELEVATION A MINIMUM OF 1.0' ABOVE ANY APPLICABLE EMERGENCY OVERFLOW ELEVATION (EO) AND/OR 2.0' ABOVE ANY ADJACENT 100 YR. HW IMPOUNDMENT ELEVATION, WHICHEVER IS GREATER.
- ALL BUILDINGS DEPICTED HEREIN ARE PROTOTYPIC AND ARE NOT INTENDED FOR ACTUAL CONSTRUCTION. THE INDIVIDUAL LOT DEVELOPER/BUILDER SHALL BE RESPONSIBLE FOR ANY AND ALL ACCOMMODATIONS, MODIFICATIONS, ETC. TO ALL PROPOSED BUILDINGS TO ACCOMMODATE THE DESIGN ELEVATIONS SHOWN HEREON AS WELL AS ALL REQUIRED MODIFICATIONS TO THE DESIGN ELEVATIONS SHOWN TO ENSURE THE STRUCTURES COMPLIANCE WITH EGRESS AND ALL APPLICABLE CODE. ALTERATION AND OR MODIFICATION OF THE PROPOSED GRADES SHOWN HEREON TO FACILITATE THE CONSTRUCTION OF BUILDING SHALL BE THE DEVELOPER/BUILDERS RESPONSIBILITY. ANY SUCH MODIFICATION OF DESIGN GRADES SHOWN HEREIN, ESPECIALLY LOWERING OF THE DESIGNATED LOWEST UNPROTECTED OPENING ELEVATION (LO) MAY REQUIRE THE BUILDER TO PROVIDE ADDITIONAL INFORMATION, UP TO AND INCLUDING AN INDIVIDUAL LOT GRADING PLAN AND PERMIT UPON THE CITY OF ST PAUL REQUEST.
- THE GROUND IMMEDIATELY ADJACENT A RESIDENTIAL BUILDING FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING FOUNDATION AT A SLOPE NOT LESS THAN 5 PERCENT FOR A MINIMUM DISTANCE OF 10' HORIZONTAL, MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10' HORIZONTAL, A 5 PERCENT SLOPE SHALL BE PROVIDED TO AN APPROVED ALTERNATE METHOD OF DIVERTING WATER AWAY FROM THE BUILDING FOUNDATION. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED NOT LESS THAN 2 PERCENT WHERE LOCATED WITHIN 10 FEET OF THE OF THE BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10' OF THE BUILDING FOUNDATION SHALL BE SLOPED NOT LESS THAN 2 PERCENT AWAY FROM THE BUILDING.
- THE PROPOSED GRADES SHOWN ON THE GRADING PLAN ARE FINISHED GRADES.
- GRADING ACTIVITY WHICH BLOCKS TRAFFIC OF ANY STREET, ALLEY, OR DRIVE IS SUBJECT TO APPROVAL BY THE CITY.
- CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER AND OWNER IF CONTAMINANTS ARE FOUND IN THE EXISTING SOILS.
- SIDEWALK CROSS-SLOPES SHALL NOT EXCEED 2.0% AND LONGITUDINAL SLOPES SHALL NOT EXCEED 5.0% UNLESS OTHERWISE NOTED.
- IN AREAS WHERE NEW FILL IS TO BE PLACED ON SLOPING GROUND, BENCHING THE SURFACE SHALL BE COMPLETED PRIOR TO PLACING THE FILL. BENCHING SHALL BE COMPLETED WHERE SLOPES ARE STEEPER THAN 4:1 (HORIZONTAL:VERTICAL).
- PROVIDE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE CONSTRUCTION AREA. DO NOT ALLOW WATER TO POND IN EXCAVATION AREAS, AND MAINTAIN ALL EXISTING DRAINAGE PATTERNS.
- PERVIOUS FINISH GRADE EXTERIOR AND ADJACENT A BUILDING FOUNDATION SHALL BE BELOW THE TOP OF THE FOUNDATION IN ACCORDANCE WITH RESIDENTIAL BUILDING CODE R404.1.6. A MINIMUM OF 6" IS SHOWN HEREIN.
- ALL EXTERIOR BUILDING WALLS AND FOUNDATIONS ADJACENT PERVIOUS NON PAVED AREAS SHALL BE WATERPROOFED TO AN ELEVATION OF 0.5' ABOVE SAID EXTERIOR PERVIOUS GRADE IN ACCORDANCE WITH ARCHITECTURAL PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL OSHA REGULATIONS IN THE EXECUTION OF WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL APPLY FOR A GRADING PERMIT BEFORE STARTING WORK. THE INSPECTOR AND THE CITY OF ST PAUL PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED BY THE CONTRACTOR 48 HOURS BEFORE START OF CONSTRUCTION. NO WORK MAY BEGIN UNTIL THE PERMIT HAS BEEN RECEIVED AND THE CONTRACTOR MUST COMPLY WITH THE TERMS OF THE PERMIT.
- ALL NON-PAVED AREAS SHALL RECEIVE A FOUR-INCH (4") LAYER OF TOPSOIL. SEE EROSION AND SEDIMENT CONTROL PLANS & SPECIFICATIONS FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS.
- ALL CONCRETE WASHOUT PRACTICES MUST MEET OR EXCEED THE MPCA STANDARDS.
- ALL DISCHARGE OF TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G. PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) SHALL DISCHARGE INTO A TEMPORARY OR PERMANENT SEDIMENT BASIN UNLESS INFEASIBLE. IF A SEDIMENT BASIN IS NOT AVAILABLE, THE CONTRACTOR SHALL TREAT ALL DISCHARGE WITH APPROPRIATE BMP'S SO THAT ANY DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
- PER THE NPDES CONSTRUCTION STORM WATER PERMIT, THE DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN ONE HALF INCH IN 24 HOURS MUST BE DOCUMENTED. RAINFALL AMOUNTS MUST BE OBTAINED FROM A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION WITHIN ONE MILE OF THE SITE, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES.
- IF THE CONTRACTOR WORK OCCURS WITHIN THAT TREE PROTECTION FENCING, HAND WORK IS REQUIRED TO AVOID DAMAGING LARGE ROOTS. CONTRACTOR MUST NOTIFY FORESTRY PRIOR TO WORK TO COORDINATE THEIR PRESENCE ON SITE WHEN WORK IS BEING DONE.
- GRADING ACTIVITIES SHOULD NOT OCCUR WITHIN THE DRIP LINES OF PRESERVED TREES OR WITHIN THE TREE PROTECTION ZONE (TPZ).

NOTICE TO CONTRACTORS:
 THE SUBJECT PROPERTY CONTAINS CONTAMINATED SOILS, SEDIMENTS AND OTHER MEDIA AS DEFINED BY BRAUN INTERTEC CORPORATION. A RESPONSE ACTION PLAN HAS BEEN PREPARED BY BRAUN INTERTEC CORPORATION DATED MARCH 1, 2022 (PROJECT NO. B1903316.00). ALL CONSTRUCTION WORK AND REMOVALS SHALL BE IN ACCORDANCE WITH "RESPONSE ACTION PLAN FOR: HILLCREST REDEVELOPMENT SITE", PREPARED BY BRAUN INTERTEC CORPORATION, DATED MARCH 1, 2022. REFER TO THE "RAP" FOR ADDITIONAL DETAIL AND SPECIFICATION.

NOTE: SITE MASS GRADING BY OTHERS EXCEPT UNIMPROVED RIGHT OF WAY FOR WINTHROP STREET NORTH.



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Stewardship Grant Application Summary

Project Name: Lake Grove Townhomes

Application Number: 24-15 CS

Board Meeting Date: 4/3/2024

Applicant Name: Lake Grove Townhome Association

Residential

Commercial/Government

Project Overview:

This project is located off Co Rd E East and Auger Ave in the City of White Bear Lake. The applicant is proposing to refurbish an existing rain garden that was installed in 2010 but never functioned to its fullest potential. This project will allow for re-grading the garden, increasing the ponding depth, and installing a better pre-treatment structure. Soils, mulch, and plants will also be renewed to create a better functioning and better looking rain garden. The applicant plans to hire the contractor to perform at least 2 years of routine maintenance upon completion. This project is eligible for 100% coverage up to \$15,000.

BMP type(s):

Rain Garden(1)

Grant Request:

\$7,211.50

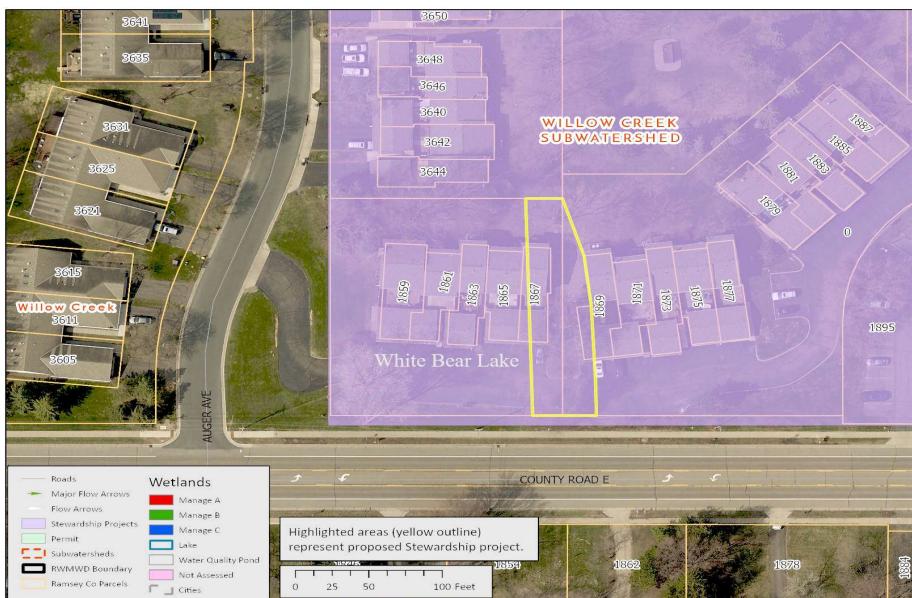
Recommendation:

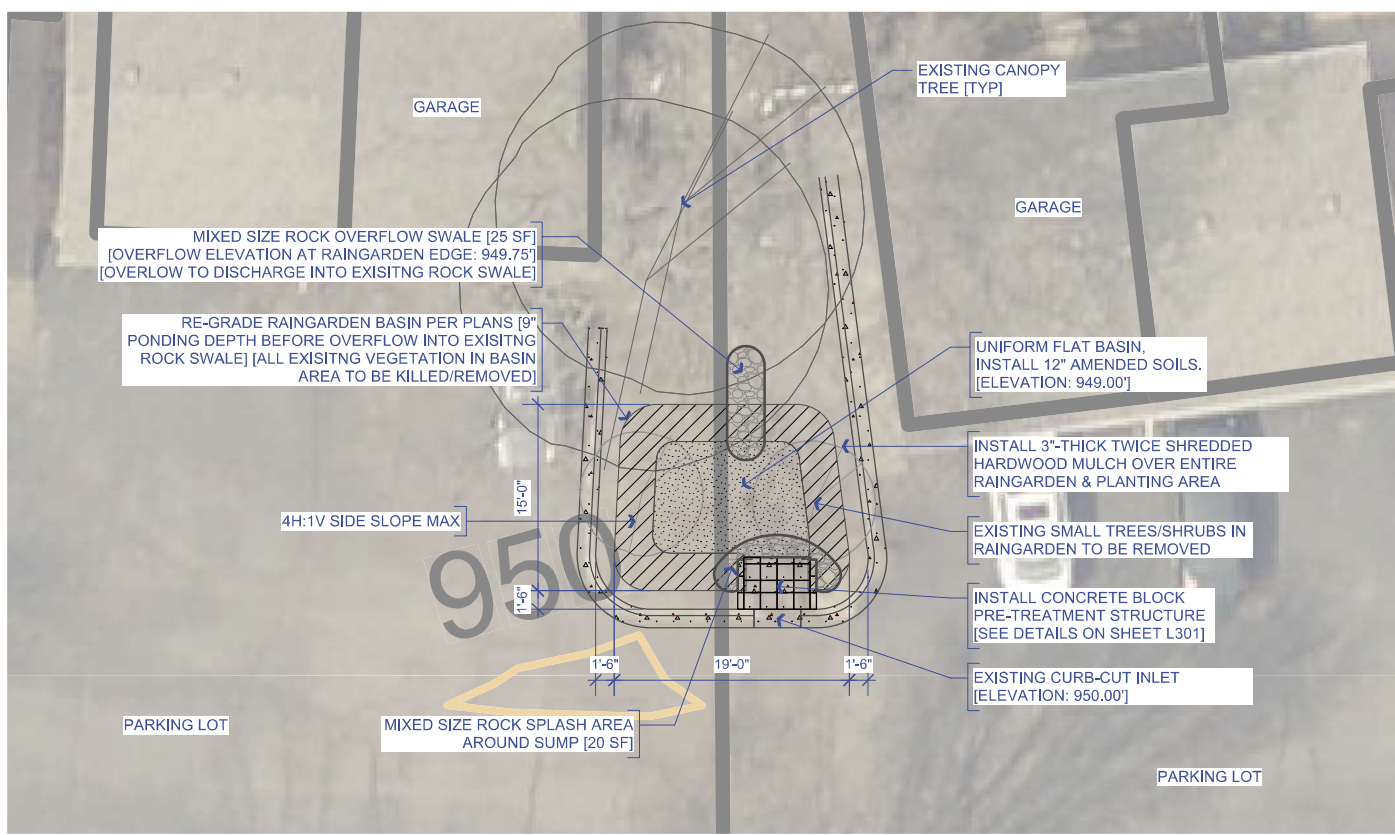
Staff recommends approval of this application.

Subwatershed:

Willow Creek

Location Maps:





RAINGARDEN & SUMP RETROFIT NOTES:

1. REMOVE ALL EXISTING VEGETATION WITHIN PROPOSED RAINGARDEN AND NATIVE PLANTING AREAS. [1-2 HERBICIDE APPLICATIONS AS NEEDED]
2. EXCAVATE RAINGARDEN AREA PER PLAN SPECIFICATIONS, LOOSEN UNDERLYING SOILS 6-12", AND INSTALL 1' AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT FLAT RAINGARDEN BASIN AREA AND 4H:1V SIDE SLOPES, USE TRACKED EQUIPMENT ONLY.
4. INSTALL CONCRETE BLOCK PRE-TREATMENT STRUCTURE AT EXISTING CURB-CUT OPENING PER PLANS. SEE INSTALLATION DETAILS ON SHEET L301.
5. INSTALL MIXED SIZE ROCK OVERFLOW SWALE TO CONNECT TO EXISTING ROCK SWALE BETWEEN BUILDINGS. [4-6" RIVER ROCK OR EQUAL] INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL. [25 SF]
6. INSTALL 3"-THICK TWICE SHREDDED HARDWOOD MULCH OVER ENTIRE RAINGARDEN AND NATIVE PLANTING AREA [430 SF]. PLANT WITH NATIVE SPECIES [SEE PLANTING PLAN]
7. CONTRACTOR TO LOCATE UTILITIES PRIOR TO BEGINNING WORK AND SECURE ANY NECESSARY PERMITS.
8. CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY PERIMETER & EROSION CONTROL MEASURES DURING ANY SOIL DISTURBANCE PERIODS.
9. CONTRACTOR TO VERIFY ANY REQUIRED CHANGES WITH RCSWCD PRIOR TO INSTALLATION. MAINTAIN SQUARE FEET AND PONDING DEPTH.
10. ELEVATIONS PROVIDED ARE APPROXIMATE, SITE VERIFY FINAL ELEVATIONS TO ENSURE PROPER PONDING DEPTH, OVERFLOW, ETC.
11. PLANTING PLAN WITH RECOMMENDED SPECIES, LAYOUT, SIZING, ETC. PROVIDED ON SHEET L200. FINAL SPECIES LIST INCLUDING SPECIES, SIZING, AND QUANTITY TO BE PROVIDED TO RCSWCD STAFF PRIOR TO PURCHASE AND INSTALLATION FOR APPROVAL.
12. EXACT SIZE/SHAPE OF RAINGARDEN & PLANTING AREA MAY VARY. MAINTAIN APPROXIMATE SQUARE FEET SIZE. VERIFY FINAL LAYOUT WITH LANDOWNER PRIOR TO HERBICIDE APPLICATION AND PROJECT INSTALLATION.
13. SEE DETAIL SHEET L300-301 FOR ADDITIONAL INSTALLATION DETAILS & SPECIFICATIONS.

PLAN LEGEND:

- NATIVE PLANTING
- ROCK SPLASH AREA & RAINGARDEN OVERFLOW ROCK
- FLAT RAINGARDEN BASIN
- RAINGARDEN 4H:1V SIDE SLOPES

SITE PLAN

L100

Stewardship Grant Application Summary

Project Name: Landfall 2024 Street Sweeping

Application Number: 24-17 CS

Board Meeting Date: 4/3/2024

Applicant Name: Scott Hildebrand

Residential

Commercial/Government

Project Overview:

In December 2023, the RWMWD Board of Managers voted to allocate \$250,000 towards 2024 enhanced street sweeping efforts. The City of Landfall Village is requesting funds to increase their annual sweeping efforts from 2 times a year to 5 times a year. The City will add 1 spring, 1 summer, and 1 fall sweeping. The City will continue to fund two sweepings per season on top of this request.

BMP type(s):

Street Sweeping(1)

Grant Request:

\$6,375.00

Recommendation:

Staff recommends approval of this application.

Subwatershed:

Battle Creek Lake, Tanners Lake

Location Maps:

Stewardship Grant Application Summary

Project Name: Oakdale 2024 Street Sweeping

Application Number: 24-18 CS

Board Meeting Date:

Applicant Name: Matt Williams

Residential

Commercial/Government

Project Overview:

In December 2023, the RWMWD Board of Managers voted to allocate \$250,000 towards 2024 enhanced street sweeping efforts. The City of Oakdale is requesting funds to increase their annual sweeping efforts from 2 times a year to 4 times a year. The City will add 1 spring and 1 summer sweeping. The City will continue to fund two fall sweepings on top of this request.

BMP type(s):

Street Sweeping(1)

Grant Request:

\$32,000.00

Recommendation:

Staff recommends approval of this application.

Subwatershed:

Battle Creek Lake, Tanners Lake

Location Maps:

Stewardship Grant Application Summary

Project Name: White Bear Lake 2024 Street Sweeping

Application Number: 24-21 CS

Board Meeting Date:

Applicant Name: Mark Meyer

Residential

Commercial/Government

Project Overview:

In December 2023, the RWMWD Board of Managers voted to allocate \$250,000 towards 2024 enhanced street sweeping efforts. The City of White Bear Lake is requesting funds to increase their annual sweeping efforts from 2 times a year to 5 times a year. The City will add 1 spring and 1 summer, and 1-2 fall sweepings. The City will continue to fund 3 annual sweepings on top of this request. Similar to last year, RWMWD will be hiring a contractor to perform the additional sweepings on behalf of White Bear Lake.

BMP type(s):

Grant Request:

\$27,000.00

Recommendation:

Staff recommends approval of this application.

Subwatershed:

Location Maps:

Stewardship Grant Application Summary

Project Name: Ryan

Application Number: 24-22 CS

Board Meeting Date: 4/3/2024

Applicant Name: Dave Ryan

Residential Commercial/Government

Project Overview:

This project is located off Crestline Drive on Hiners Pond in the City of White Bear Lake. The applicant is proposing to restore the shoreline by repairing some erosion damage and adding native upland and transitional plants to protect the shoreline from further erosion. The applicant is also interested in increasing pollinator habitat on the pond and reducing the mowed area of their property. The applicant plans to have the contractor maintain the shoreline for at least two years. This project is eligible for 100% funding up to \$15,000.

BMP type(s):

Shoreline Restoration(1)

Grant Request:

\$8,497.40

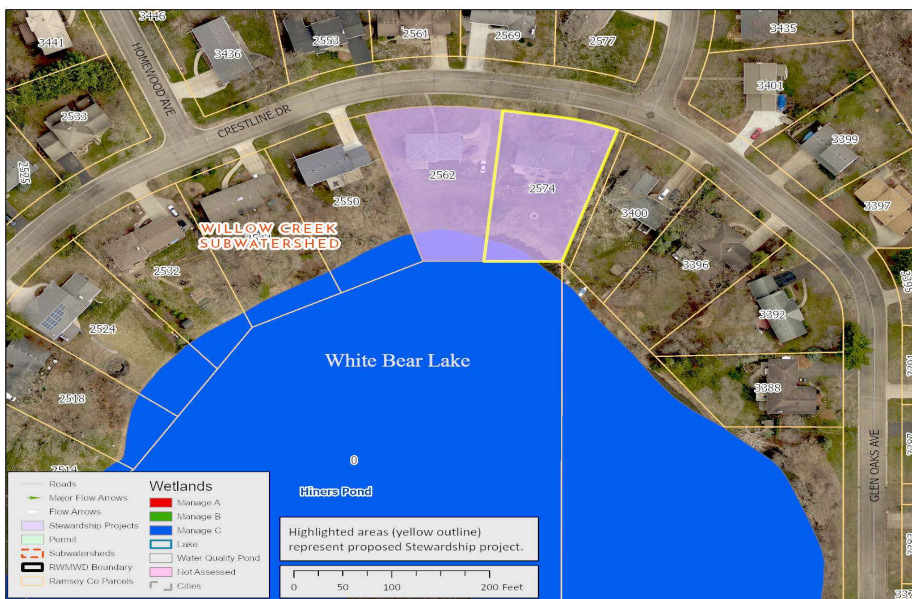
Recommendation:

Staff recommends approval of this application.

Subwatershed:

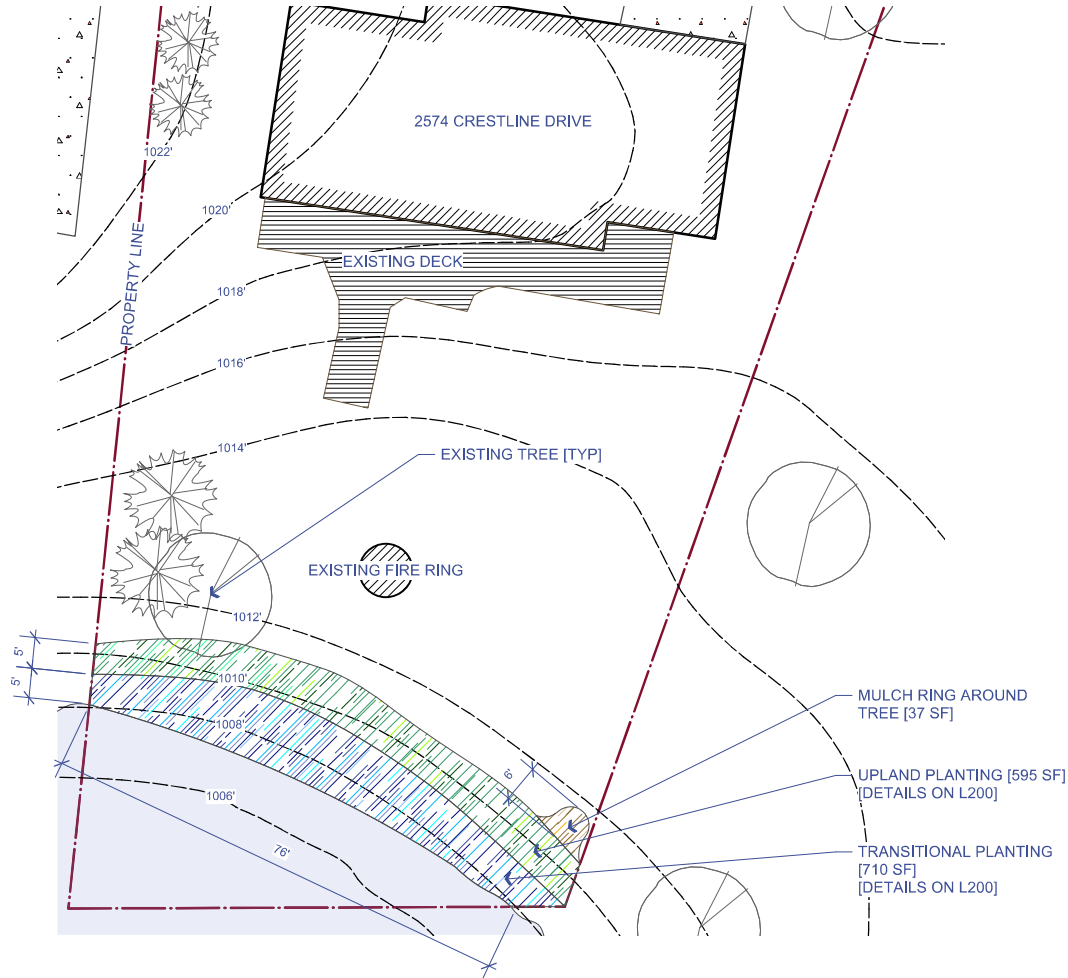
Willow Creek

Location Maps:



PROJECT NOTES:

1. FOR ALL PLANTING AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SPRAYED WITH WETLAND SAFE HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION IN PROPOSED PLANTING AREAS. REMOVE WOODY OR EXCESS DEAD VEGETATION. AREAS OF DEAD TURF GRASS TO REMAIN IN PLACE..
2. AFTER INSTALLATION OF PLUGS, SEED BOTH PLANTING AREAS WITH PRAIRIE MOON TALL SEDGE MEADOW (OR SIMILAR) SEED MIX
5. INSTALL 2" HARDWOOD MULCH OVER UPLAND PLANTING AREA. INSTALL 4" SHREDED HARDWOOD AROUND TREE.
6. INSTALL C125 / SC1508N OR EQUIVALENT NATURAL NETTING EROSION CONTROL BLANKET ON TRANSITIONAL PLANTING.
7. FOR ALL PLANTING AREAS, ADD SHOVEL EDGE BETWEEN PLANTING AND EXISTING TURF GRASS.
8. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
9. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
10. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
11. HERBIVORE EXCLUSION FENCE TO BE INSTALLED AROUND ENTIRE PERIMETER OF NATIVE PLANTING. EXCLUSION FENCE TO REMAIN IN PLACE FOR 2 FULL GROWING SEASONS TO ALLOW PLANTS TO ESTABLISH.



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

PROJECT:
RYAN RESIDENCE
LOCATION:
2574 CRESTLINE DR
WHITE BEAR LAKE, MN 55110
WATERSHED DISTRICT:



DESIGNER: NICK NEYLON
DATE: 2/23/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY: BTO
TAA:

NOTES:
-ELEVATIONS ARE APPROXIMATE
-CONTRACTOR ACQUIRE NECESSARY PERMITS PRIOR TO START
-SIZE AND SHAPE OF PROJECT MAY VARY, VERIFY CHANGES WITH RCSWCD STAFF PRIOR TO INSTALL
-ORIGINAL SHEET SIZE: 11"x17"

SCALE: 1"=20'-0"



SITE PLAN

L100

* * * * *

Permit Program

* * * * *

Permit Application Coversheet

Date April 03, 2024

Project Name St. Paul Fish Hatchery Trail

Project Number 24-12

Applicant Name Bryan Murphy, St. Paul Parks & Recreation

Type of Development Trail

Property Description

This project is located generally on the southern side of Warner Road and Highway 61, between Fish Hatchery Road North and Point Douglas Road in the City of St. Paul. The total site area is 4.43 acres. The applicant is proposing to abandon a stretch of the existing Fish Hatchery Trail, realigning the trail to the north, and reconstructing another stretch of existing trail. The realignment is being proposed for safety and environmental reasons, due to the existing trail's location within the floodplain and the presence of contaminated soils due to historic landfill use. Three lined filtration basins are proposed to partially meet stormwater treatment requirements onsite. Lined filtration is proposed due to high groundwater and contamination. Due to site constraints, the applicant is proposing to make a payment into the District's Stormwater Impact Fund (SIF) per District Rule C alternative compliance sequencing. Rate control will be met onsite.

Construction activity is proposed in the 100-year floodplain. The applicant has demonstrated that there is no net fill proposed, thereby maintaining existing flood storage and relocating a section of trail outside the floodplain to reduce impacts to the trail and public safety during high water conditions. Disturbance of contaminated soils is being minimized.

0.25 acre of permanent wetland impact is proposed to accommodate this project due to spatial constraints, roadway and trail structural concerns, steep slope embankments, contaminated soils, and lack of city property ownership within the project limits. Per District Rule E wetland replacement sequencing, the applicant is requesting the board consider an offsite partnership with private industry that has resulted in wetland restoration within the same subwatershed and in excess of the 0.25 acre of impact proposed. A memo is enclosed describing the project and request. A permit was approved by the District for the nearby wetland restoration in June 2023 with the permit issued in August 2023 (#23-20). To meet federal and state wetland replacement requirements, the applicant is proposing to purchase wetland banked credits at a 2:1 ratio outside of the District. The City of St. Paul is the Local Government Unit (LGU) responsible for administering the MN Wetland Conservation Act (WCA) for this project with an approval of the replacement plan pending. A wetland buffer variance request (Rule E) is also included for board consideration.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input checked="" type="checkbox"/> Floodplain |

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site, and the proposed grading plan results in no net loss of flood storage on the landscape.

Water Quality Considerations

Short Term

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

during construction.

Long Term

The proposed stormwater management plan and contribution to the SIF is sufficient to protect the long term quality of downstream water resources.

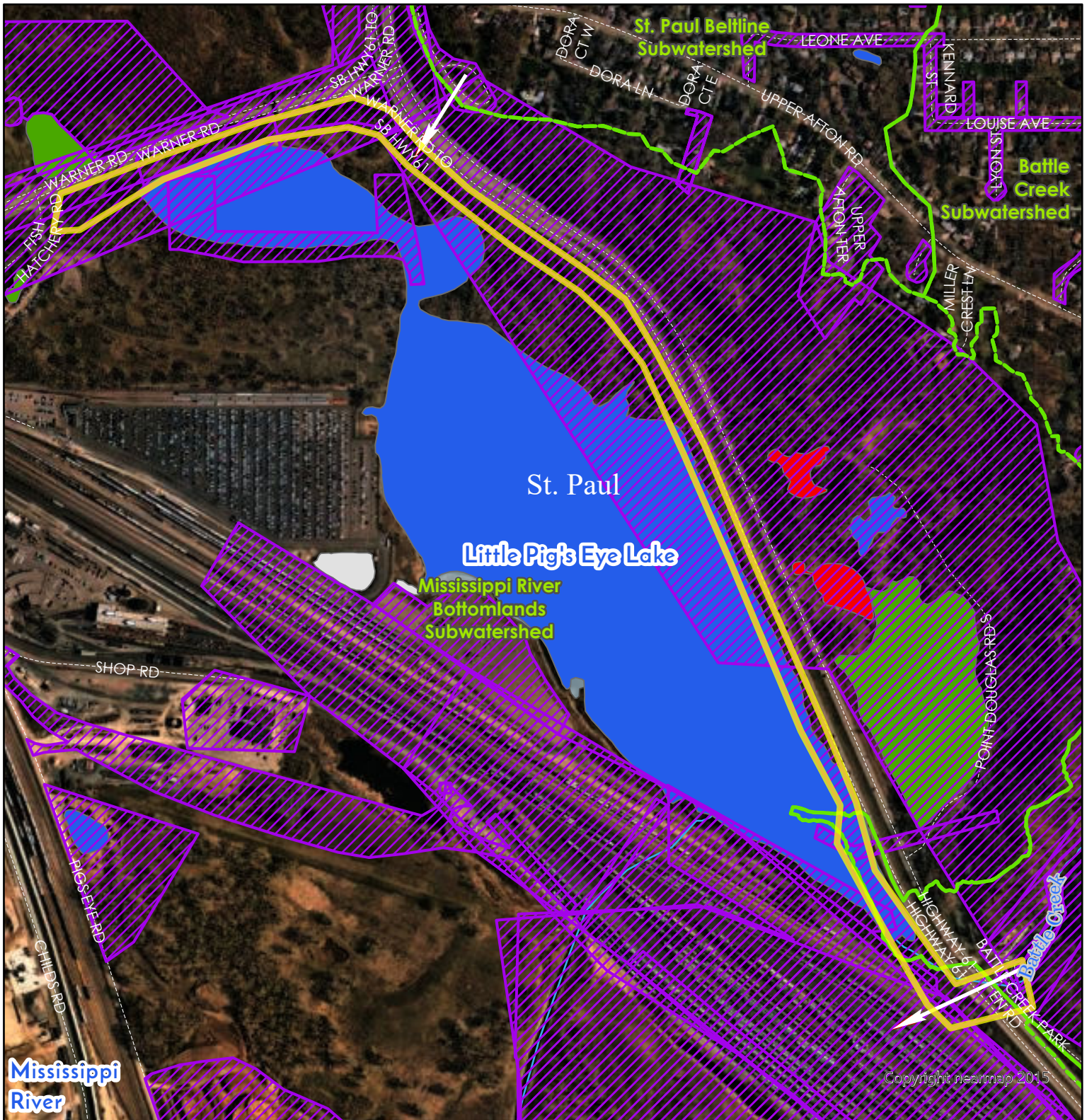
Staff Recommendation

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

Attachments:

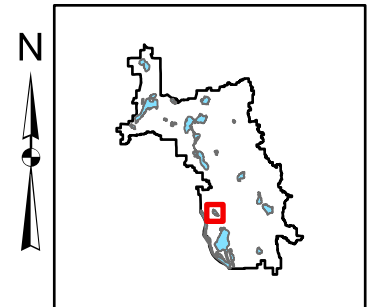
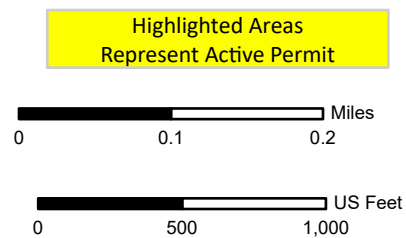
- Project Location Map**
- Project Grading Plan**

#24-12 St. Paul Fish Hatchery Trail



Wetlands	
■	Manage A
■	Manage B
■	Manage C
	Lake
	Sediment Pond
	Not Assessed

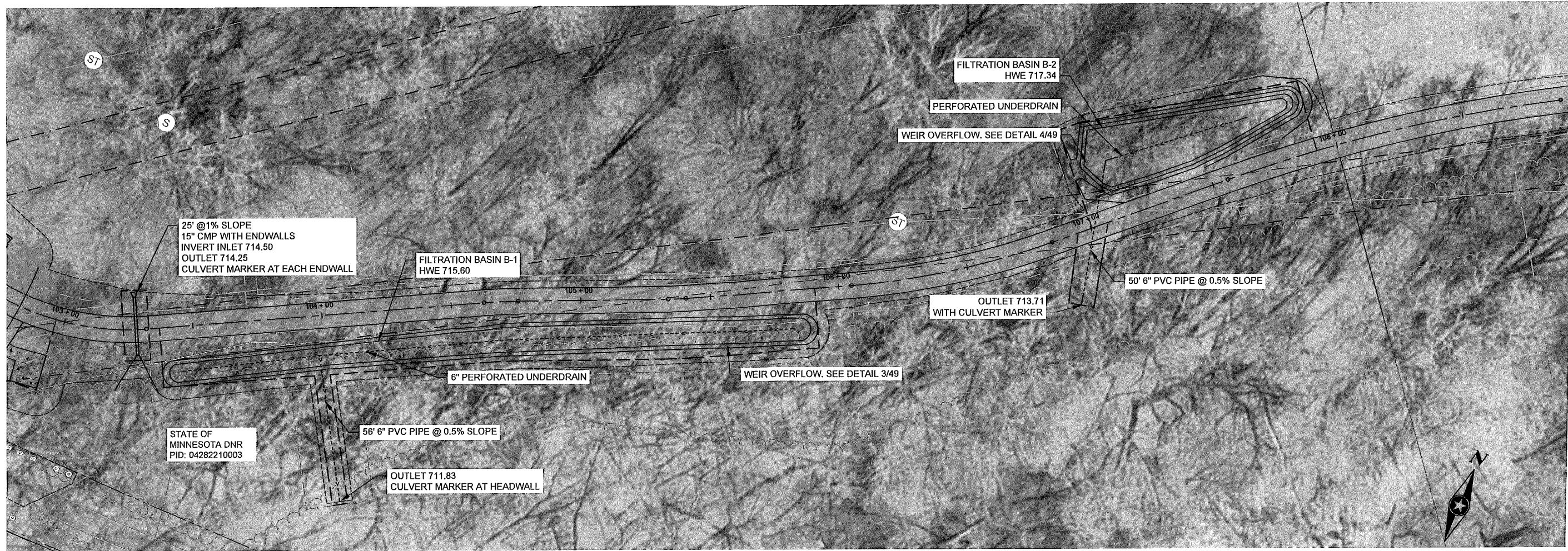
	Flow Arrows
	Flow_Arrows (Major)
	Roads
	Permits
	Cities
	Subwatersheds
	Lakes
	RWMWD Boundary



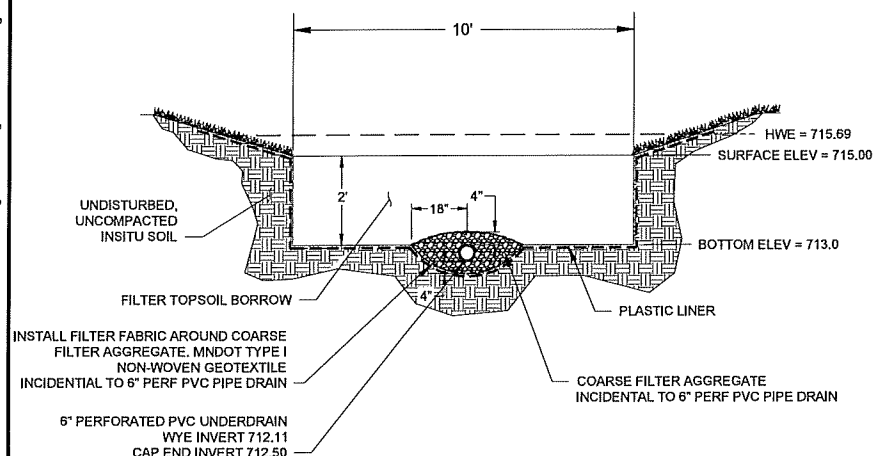
24-12

Special Provisions

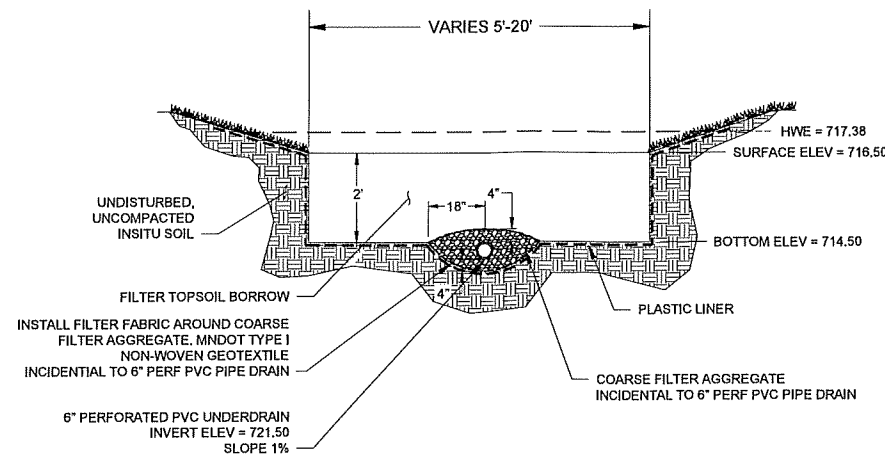
1. The applicant shall submit the Stormwater Impact Fund payment of \$84,053.
2. The applicant shall add the 100-year water surface elevations for the proposed filtration basins to the plans, Sheets 49 and 50.
3. The applicant shall submit the final, signed plans set.
4. The applicant shall submit the final Wetland Conservation Act (WCA) decision documentation from the City of St. Paul.
5. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
6. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.



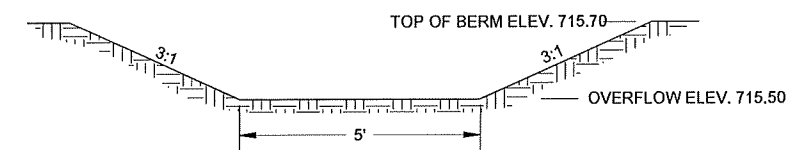
Save: 2/19/2024 11:15 AM bhansen Plot: 2/19/2024 1:28 PM X:\P\T\STPAU\164778\5-final-dsgn\51-drawings\10-Civil\cadd\dwg\sheet\ST164778SW1.dwg



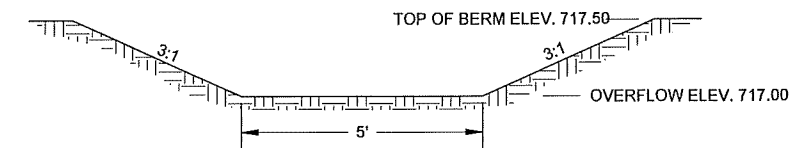
1
49
FILTRATION BASIN B-1
NO SCALE



2
49
FILTRATION BASIN B-2
NO SCALE



3
49
WEIR OVERFLOW
NO SCALE



4
49
WEIR OVERFLOW
NO SCALE

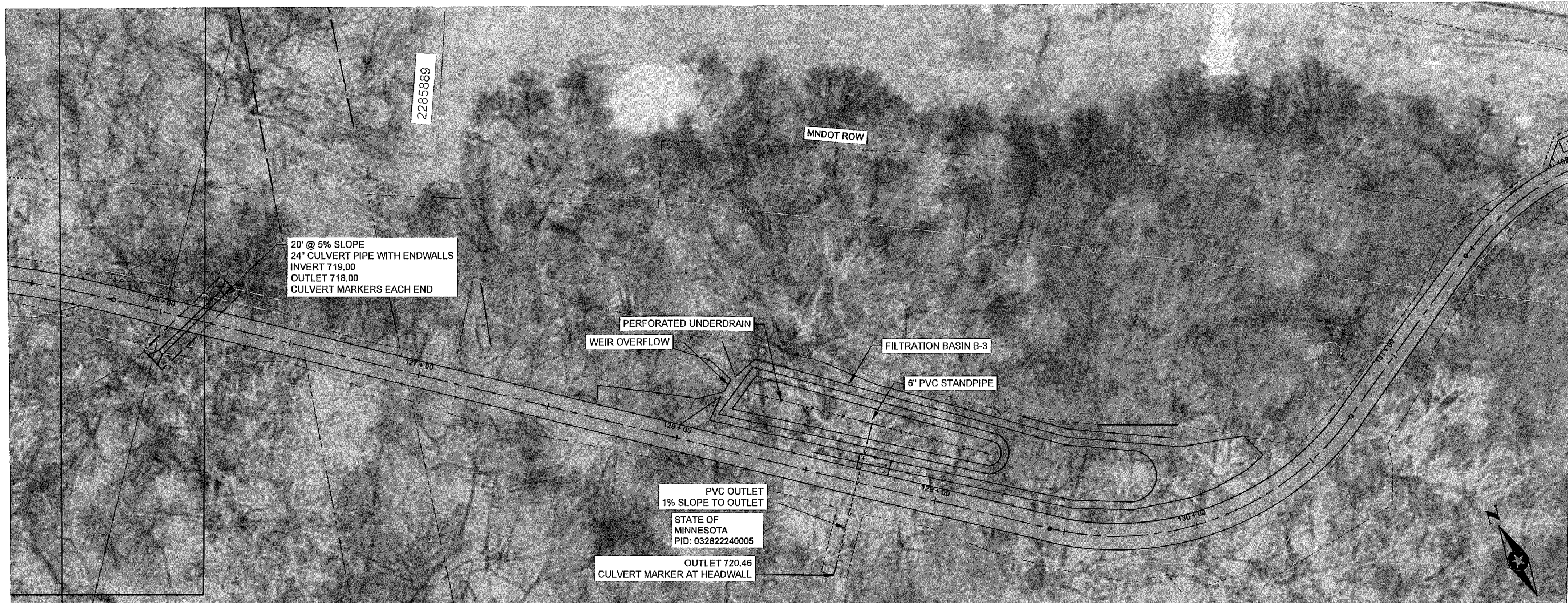
SEH Project	164778	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By							
Designed By							
Checked By							



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Myrtle R. Parkerson
 DATE 02/16/2024 LICENSE NO. 25799

**FISH HATCHERY TRAIL
STABILIZATION AND RECONSTRUCTION**
ST. PAUL, MINNESOTA

STORMWATER PLAN
SP 164-090-017
SP 6220-95 (TH 61)



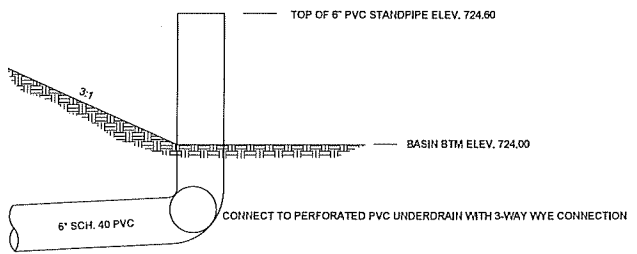
20' @ 5% SLOPE
24" CULVERT PIPE WITH ENDWALLS
INVERT 719.00
OUTLET 718.00
CULVERT MARKERS EACH END

PERFORATED UNDERDRAIN
WEIR OVERFLOW

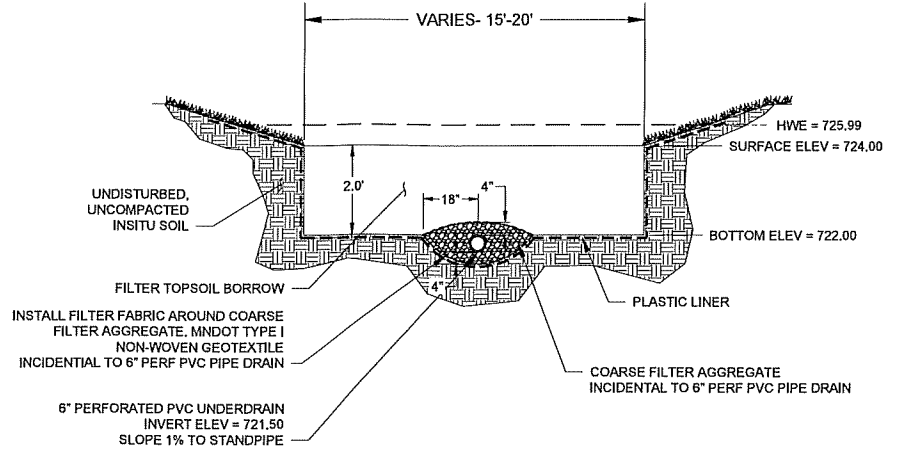
FILTRATION BASIN B-3
6" PVC STANDPIPE

PVC OUTLET
1% SLOPE TO OUTLET
STATE OF MINNESOTA
PID: 032822240005

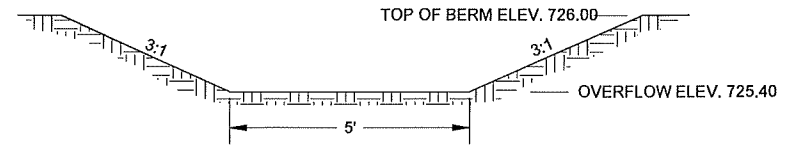
OUTLET 720.46
CULVERT MARKER AT HEADWALL



6 STANDPIPE OUTLET
50 NO SCALE



7 FILTRATION BASIN B-3
50 NO SCALE



8 WEIR OVERFLOW
50 NO SCALE

Save: 2/19/2024 11:14 AM bhansen Plot: 2/19/2024 1:28 PM X:\P\15\15\STPAU\164778\5-final.dgn\51-drawings\15-civil\cad\dwg\sheet\ST164778\51.dwg

SEH Project	164778	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By							
Designed By							
Checked By							

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Angela R. Pinkerton
DATE 02/16/2024 LICENSE NO. 25799

**FISH HATCHERY TRAIL
STABILIZATION AND RECONSTRUCTION**
ST. PAUL, MINNESOTA

STORMWATER PLAN
SP 164-090-017
SP 6220-95 (TH 61)

**DEPARTMENT OF PARKS AND RECREATION
DESIGN AND CONSTRUCTION**



**SAINT PAUL
MINNESOTA**

400 City Hall Annex
25 West 4th Street
Saint Paul, Minnesota
55102

Telephone: 651-266-6400
Facsimile: 651-292-7311
www.stpaul.gov/parks

WETLAND – NO NET LOSS MITIGATION

February 26, 2024

Re: Fish Hatchery Trail Reconstruction – Ramsey – Washington Metro Watershed District (RWMWD)
Wetland No Net Loss Permit Requirement

To: Nicole Maras, Permit Coordinator, RWMWD

From: Bryan Murphy, Landscape Architect/Project Manager, Parks and Recreation
Johannes Mack, Environmental Manager, Gerdau

CC: Sarah Sullivan, Assistant City Attorney, City of Saint Paul
Tom Hagel, Manager, Operations and Maintenance, City of Saint Paul, Department of Parks and Recreation
Brett Hussong, Design and Construction, City of Saint Paul, Department of Parks and Recreation
Alice Messer, Manager, Design and Construction, City of Saint Paul, Department of Parks and Recreation
Blake Hansen, Project Manager, Short Elliot Hendrickson, Inc (SEH)
Jamie Bankston, Vice President, Barr Engineering
Karen Wold, Senior Environmental Scientist, Barr Engineering

The City of St. Paul Department of Parks and Recreation (Parks) is preparing plans for the reconstruction of the Fish Hatchery Trail between Battle Creek Regional Park, along Highway 10-61 to Warner Road at Fish Hatchery Road. See Exhibit A – Project Location.

Reconstruction of the trail is proposed to impact two wetlands, totaling an area of 0.25 acres (11,329 square feet). See Exhibit B – Wetland Impacts. Parks is unable to mitigate on site and is requesting the Board consider offsite replacement within the same subwatershed per Ramsey-Washington Metro Watershed District's (RWMWD) Rule E 2 (a) (2), wetland replacement prioritization.

This memorandum includes details on our proposed plans, and intent to meet the spirit of RWMWD's No Net Loss permit requirements, while also meeting the requirements of the Minnesota wetland



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Conservation Act, as also administered by the RWMWD and Clean Water Act Section 404 administered by the U.S. Army Corps of Engineers.

A. Project Description

The existing Fish Hatchery Trail runs north along Highway 10-61 for approximately $\frac{3}{4}$ of a mile before encroaching into the Mississippi River floodplain associated with Little Pig's Eye Lake for the remaining $\frac{3}{4}$ of a mile to Warner Road. The southern half of the trail lies within the embankment of highway 10-61. This segment of the trail is constrained by highway guardrail, steep slopes, and wetland. The northern half of the trail is through an area that the former State of Minnesota Fish Hatchery used for waste disposal (referenced as the Fish Hatchery Dump). The Fish Hatchery Dump is located within Minnesota Department of Natural Resources (MNDNR) land, is listed as a brownfield site, and has contaminated soils. To limit exposure of contaminated soils for the construction of the trail, Parks studied alternate routes for the portion of trail crossing this area. An alternate alignment for this portion of the trail follows a grassed road, which could be used to construct the trail with minimal grading, tree removal, and avoidance of most of the contaminated soils. The entire length of the trail is located on Minnesota Department of Transportation (MNDOT) and MNDNR land, so Cooperative Agreements and easements need to be secured.

Construction of the trail proposes permanent impacts to (2) two wetlands within the preferred alignment. The first wetland impact is a 317 sq ft area within the MNDNR parcel. The second wetland impact location is located at the base of the Highway 10-61 embankment. Deep seated soils with poor structural properties in this area caused a section of the embankment to slump in 2014 undermining the existing trail. Feathering the embankment into wetland is unavoidable, as this fill placement is needed to counterbalance the load on the soils for construction of the trail. Alternate construction methods, including installation of retaining walls, sheet pile walls, and boardwalks, to construct the trail without impacting wetland were considered, but the poor soils wouldn't provide sufficient bearing capacity for wall foundations, nor would boardwalks provide the necessary load requirements for maintenance vehicles.

The project will result in the permanent loss of 0.25 acres of wetland habitat. Permit applications for the loss of aquatic habitat are required under the MN Wetlands Conservation Act (WCA) and Section 404 of the Clean Water Act. Permit applications will be submitted to the appropriate agencies following the decision by the RWMWD for wetland mitigation within the district per Rule E 2 (a) (2).

B. Replacement Options

Under the WCA and Section 404 of the Clean Water Act, impacts to wetlands in this location are required to be offset by a mitigation ratio of 2:1; therefore, 0.50 credits of Wetland mitigation are required to replace the .25 acres of wetland permanently lost. The City of St. Paul Department of Parks and Recreation understands it is RWMWD's policy to manage wetlands so that no net loss of acreage, functions, and values occurs. The RWMWD wetland rules are being carefully considered for the mitigation of the proposed impacts. Based on RWMWD Rule E 2 (a) (2), wetland replacement, where permitted, shall be in accordance with the following prioritization for the relocation of the replacement wetland:

- i. Onsite replacement is most preferred
- ii. Within the same sub-watershed
- iii. Within the District

iv. Outside the District is the least preferred

Currently, there are no wetland mitigation banks located within the RWMWD boundaries, so any mitigation would be required to be project specific.

The City of St. Paul Department of Parks and Recreation explored restoring wetlands within the project area. This was deemed unachievable due to the site constraints identified previously and the lack of available wetlands to restore. Creation of new wetland is also not feasible due to lack of hydrology, and the extensive amount of tree removal that would be required.

Without any options for meeting the RWMWD No Net Loss requirement within the project limits, Parks began looking for options to mitigate elsewhere.

Approximately 3 miles to the south of the Fish Hatchery Trail, Gerdau Ameristeel US Inc. St. Paul – Mill (Gerdau) (1678 Red Rock Road) recently completed a voluntary wetland restoration. In total, they restored approximately 0.83 acres (36,155 square feet) of wetland, which is located on Parks property. See Exhibit C – Wetland Restoration. While this wetland restoration is not creating wetland credits available for purchase, the restoration of the wetland on Parks property by Gerdau is near to, and within the same sub-watershed, as the Fish Hatchery Trail. Considering the limited opportunities to mitigate at the Fish Hatchery trail project site, Parks is looking to link these two projects for the combined benefit of No Net Loss of wetland.

Project proposers intend to also purchase 0.5000 credits of wetland mitigation from a privately owned wetland bank, located within the same Bank Service Area as the impact location (BSA #7). This will serve to satisfy the requirements of a WCA and USACE wetland permit application.

Request:

A consideration of offsite wetland mitigation within the watershed boundaries and same subwatershed are requested, on the basis that at 2:1 replacement of wetlands will have been mitigated by Gerdau on City of St. Paul property. It is recognized that this project-specific mitigation will not satisfy the requirements of the WCA and USACE wetland mitigation rules but would satisfy the requirements of "No Net Loss" within the watershed boundaries.

Summary of Hardship to Comply:

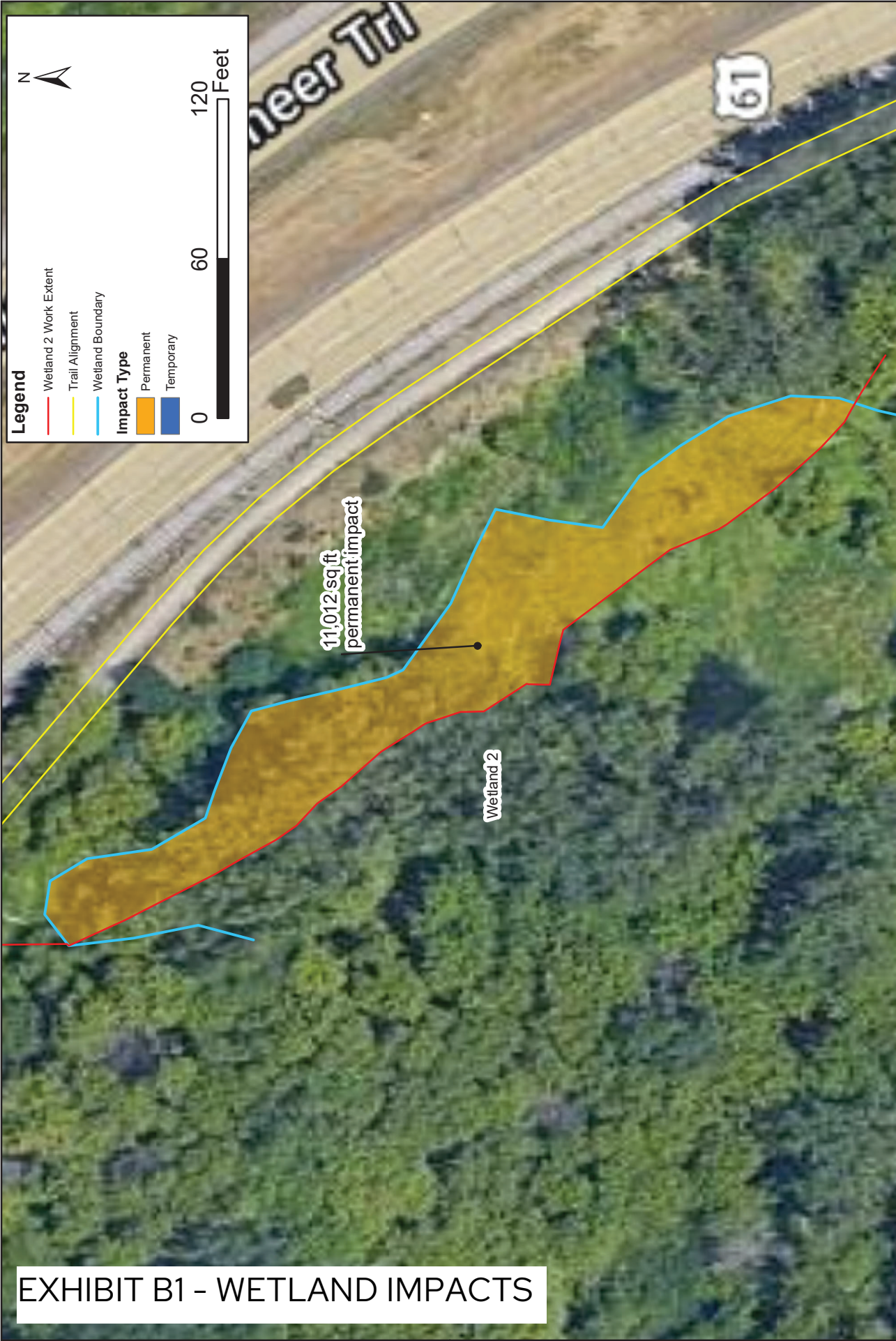
Due to the location constraints of the project, onsite wetland mitigation is not feasible. A neighboring property owner has agreed to collaborate with the City of St. Paul to ensure that a 2:1 ratio of wetland mitigation is achieved within the RWMWD's boundary. However, due to ownership of the land and accessibility, it is not feasible to comply with wetland mitigation monitoring requirements at this site; therefore, the mitigation would not be formally recognized as a wetland mitigation bank site. Ongoing maintenance will be completed at the wetland restoration site through the City of St. Paul Parks and Recreation Department.

B. Roles and Responsibilities

Gerdau completed the restoration of the wetland during the week of December 4, 2023. Gerdau will follow their outlined 3-Year Management Plan, which started December 8, 2023, for the establishment and maintenance of the wetland until December 7, 2026. Starting on Monday December 7, 2026, the City of St. Paul operations staff will resume all roles and responsibilities associated with the wetland. Control of invasive species, such of phragmites, will not be considered part of the 3-Year Management Plan.



EXHIBIT A - PROJECT LOCATION



Legend

- Wetland 2 Work Extent
- Trail Alignment
- Wetland Boundary

Impact Type

- Permanent
- Temporary

0 60 120 Feet

EXHIBIT B1 - WETLAND IMPACTS

Figure 1

Wetland 2 Impacts
 Fish Hatchery Trail Stabilization & Reconstruction
 St. Paul, Ramsey County, Minnesota

Project: STPAU 164778
 Print Date: 6/6/2023
 Map by: Imenden
 Projection: UTM NAD 83 Zone 15N
 Source: Google, SEH, ESRI

3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110
 PHONE: (651) 490-2000
 FAX: (651) 490-2150
 WATTS: 800-325-2055
 www.sehinc.com



This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) data used to prepare this map are error free, and SEH does not represent that the GIS data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

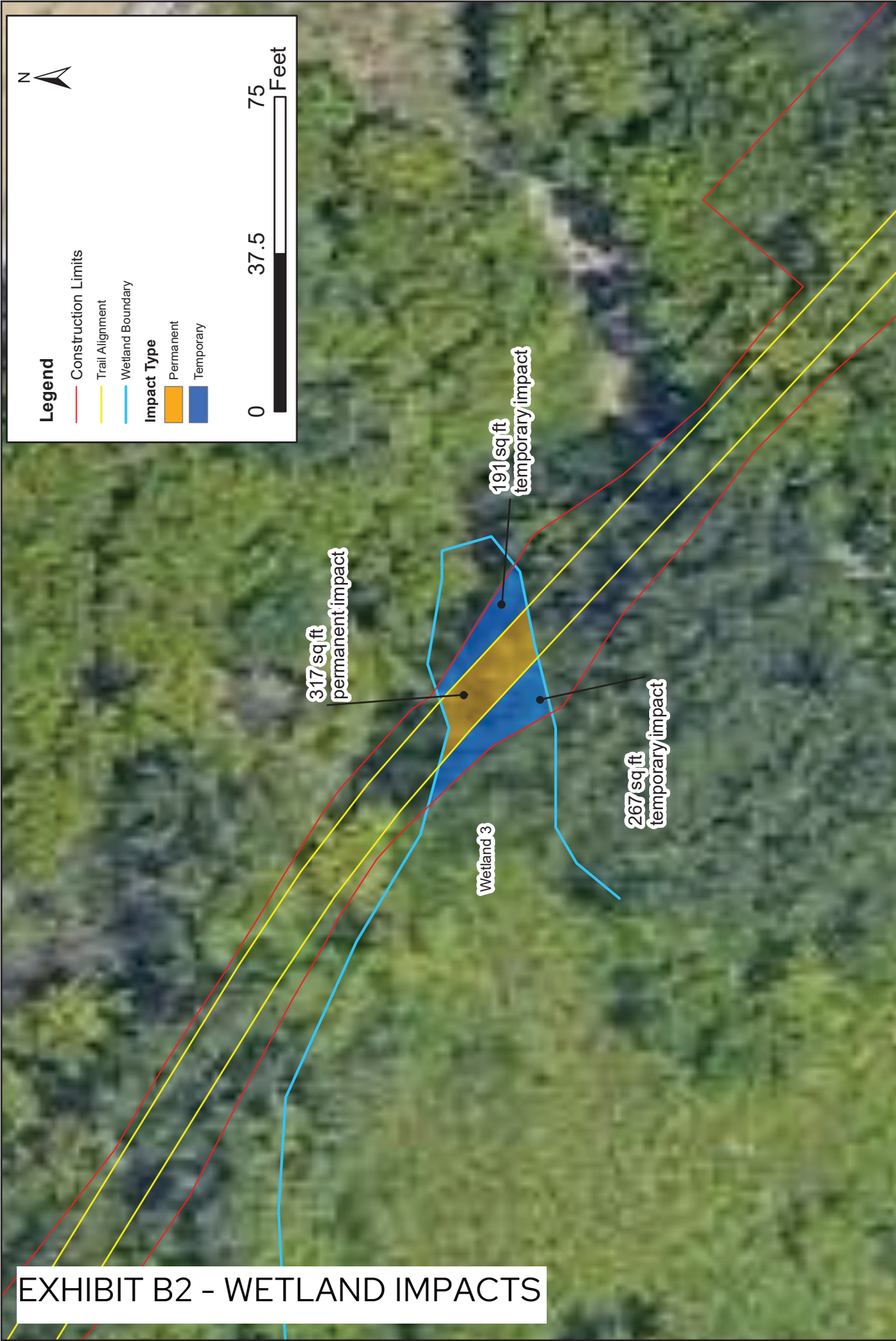


EXHIBIT B2 - WETLAND IMPACTS

Figure 2

Wetland 3 Impacts
 Fish Hatchery Trail Stabilization & Reconstruction
 St. Paul, Ramsey County, Minnesota

Project: STPAU 164778
 Print Date: 5/25/2023
 Map by: Imenden
 Projection: UTM NAD 83 Zone 15N
 Source: Google, SEH, ESRI

3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110
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ESTIMATED QUANTITIES NORTH OF PROPERTY LINE:

GRADING AREA = 0.78 ACRES
 SLAG EXCAVATION VOLUME = 5,800 CY
 SLAG EXCAVATION BELOW OHWL = 3,940 CY
 SLAG WITHIN EXISTING WETLAND = 0.17 ACRES
 COMMON FILL = 3,000 CY
 TOPSOIL = 1,250 CY
 NEW FENCE = 330 LF
 EXISTING SLAG IMPACTED WETLAND = 0.17 ACRES
 PROPOSED ADDITIONAL WETLAND = 0.66 ACRES

ESTIMATED QUANTITIES SOUTH OF PROPERTY LINE:

GRADING AREA = 1.04 ACRES (NOT INCLUDING STOCKPILE AREA)
 SLAG EXCAVATION VOLUME = 7,100 CY
 TOPSOIL = 900 CY

GENERAL NOTES:

- LOCATE AND PROTECT ALL EXISTING UTILITIES. UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE INCLUSIVE OF ALL EXISTING UTILITIES.
- VERIFY ALL EXISTING CONDITIONS SHOWN ON DRAWINGS FOR ACCURACY.
- NOTIFY ENGINEER IMMEDIATELY IF SITE CONDITIONS OR UTILITIES DIFFER SIGNIFICANTLY FROM THAT SHOWN.
- DEWATERING AND WATER CONTROL ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUBMIT DEWATERING AND WATER CONTROL PLAN TO ENGINEER FOR APPROVAL.
- PROTECT ALL EXISTING STRUCTURES AND UTILITIES NOT DESIGNATED FOR REMOVAL. EXISTING UTILITIES AND FACILITIES NOT DESIGNATED FOR REMOVAL TO REMAIN OPERATIONAL FOR THE DURATION OF THE WORK. DEMOLITION DEBRIS, UNLESS OTHERWISE NOTED, ARE THE PROPERTY OF CONTRACTOR.
- PROTECT ALL EXISTING TREES OUTSIDE OF THE GRADING LIMITS. REMOVE ALL TREES WITHIN THE GRADING LIMITS.
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE RESULTING FROM CONTRACTOR'S WORK. REPAIR OR REMOVE AND REPLACE ITEMS THAT ARE DAMAGED AT CONTRACTOR'S EXPENSE. VEGETATION RESTORATION IS AT CONTRACTOR'S EXPENSE.
- FISHERY PROTECTION - EXCLUSION DATES: NO ACTIVITY AFFECTING THE BED OF THE PROTECTED WATER MAY BE CONDUCTED BETWEEN APRIL 1 AND JUNE 30, TO MINIMIZE IMPACTS ON FISH SPAWNING AND MIGRATION. IF WORK DURING THIS TIME IS ESSENTIAL, IT SHALL BE DONE ONLY UPON WRITTEN APPROVAL OF THE AREA FISHERIES MANAGER. SHOULD WORK BEGIN ELSEWHERE IN THE PROJECT AREA WITHIN THESE DATES, ALL EXPOSED SOILS THAT ARE WITHIN 200 FEET OF PUBLIC WATERS AND DRAIN TO THOSE WATERS MUST COMPLETE EROSION CONTROL MEASURES WITHIN 24 HOURS OF ITS DISTURBANCE TO PREVENT SEDIMENT FROM ENTERING PUBLIC WATERS.
- OWNER WILL PROVIDE SURVEY CONTROL POINTS AND LIMITED INITIAL CONSTRUCTION STAKING. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING.

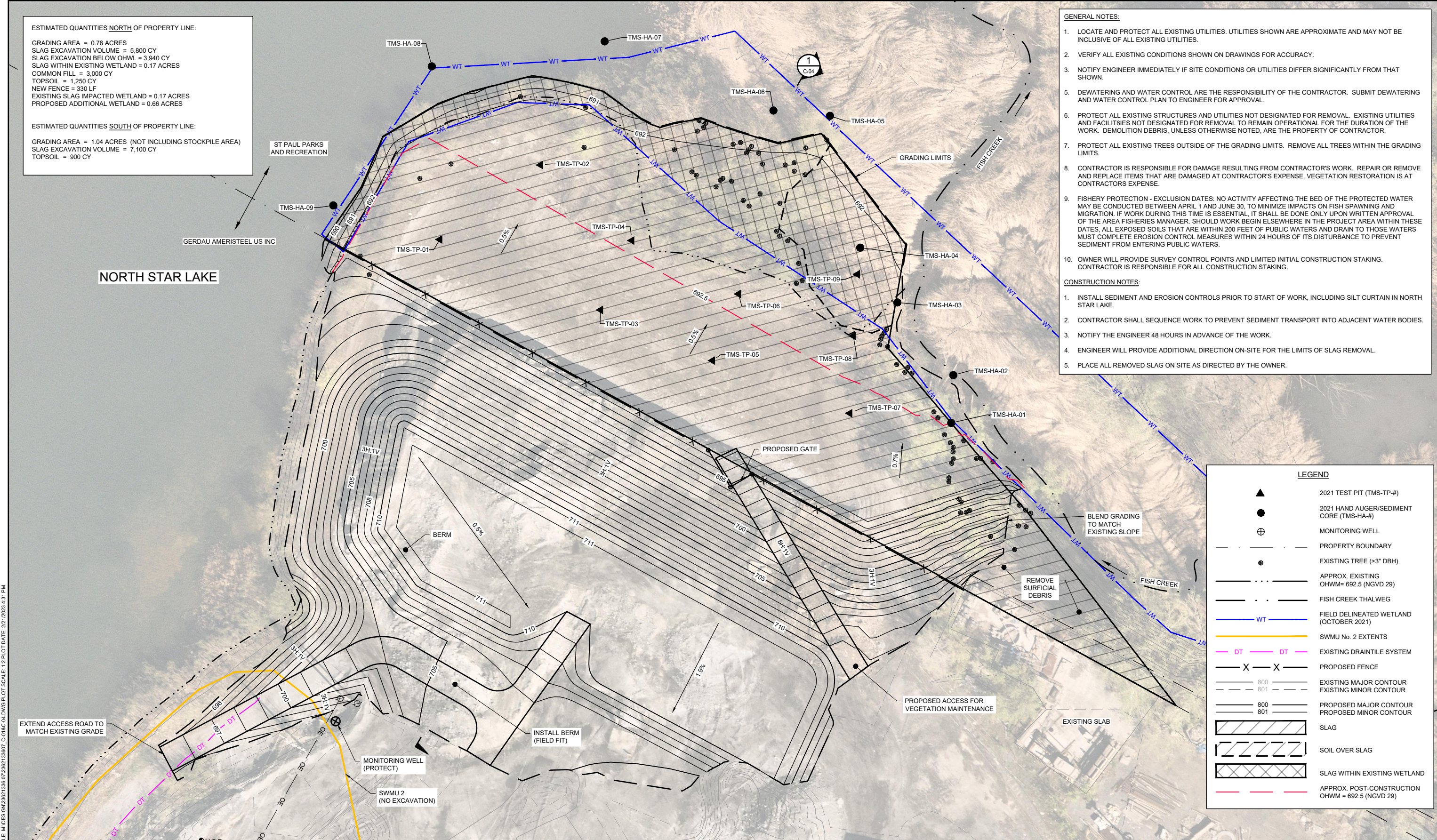
CONSTRUCTION NOTES:

- INSTALL SEDIMENT AND EROSION CONTROLS PRIOR TO START OF WORK, INCLUDING SILT CURTAIN IN NORTH STAR LAKE.
- CONTRACTOR SHALL SEQUENCE WORK TO PREVENT SEDIMENT TRANSPORT INTO ADJACENT WATER BODIES.
- NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF THE WORK.
- ENGINEER WILL PROVIDE ADDITIONAL DIRECTION ON-SITE FOR THE LIMITS OF SLAG REMOVAL.
- PLACE ALL REMOVED SLAG ON SITE AS DIRECTED BY THE OWNER.

LEGEND

- ▲ 2021 TEST PIT (TMS-TP-#)
- 2021 HAND AUGER/SEDIMENT CORE (TMS-HA-#)
- ⊕ MONITORING WELL
- PROPERTY BOUNDARY
- EXISTING TREE (>3" DBH)
- APPROX. EXISTING OHWM= 692.5 (NGVD 29)
- FISH CREEK THALWEG
- WT FIELD DELINEATED WETLAND (OCTOBER 2021)
- SWMU No. 2 EXTENTS
- DT EXISTING DRAINTILE SYSTEM
- X X PROPOSED FENCE
- 800 EXISTING MAJOR CONTOUR
- 801 EXISTING MINOR CONTOUR
- 800 PROPOSED MAJOR CONTOUR
- 801 PROPOSED MINOR CONTOUR
- SLAG
- SOIL OVER SLAG
- SLAG WITHIN EXISTING WETLAND
- APPROX. POST-CONSTRUCTION OHWM = 692.5 (NGVD 29)

CADD USER: PATRICK.E. BROCKAMP FILE: M:\DESIGN\23021336\07_C-01&C-04.DWG PLOT SCALE: 1/2" = 10' PLOT DATE: 2/21/2023 4:31 PM



1 PLAN: SITE PLAN
 SCALE IN FEET
 0 20 40

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.				CLIENT: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435				Scale: AS SHOWN Date: 02/17/2023 Drawn: PEB Checked: JWJ Designed: PEB Approved: JLB2				GERDAU ST. PAUL, MN				60% DESIGN FOR PERMITTING TMS AREA ST. PAUL, MN				BARR PROJECT No. 23/62-1336.07			
PRINTED NAME: _____ SIGNATURE: _____ DATE: _____ LICENSE #: _____				RELEASED TO/ FOR: _____ DATE RELEASED: _____				Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com				DWG. No. C-01 REV. No. A				CLIENT PROJECT No. 23/62-1336.07											
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION	A	B	C	0	1	2	3															



Building a Better World
for All of Us®

MEMORANDUM

TO: Ramsey-Washington Metro WD

FROM: Luke Menden, SEH

DATE: March 6th, 2024

RE: Wetland Buffer Variance Request
St. Paul Fish Hatchery Trail Stabilization and Reconstruction
SEH No. STPAU 164778

Introduction

The City of St. Paul is proposing a realignment for the Fish Hatchery Trail. This Memorandum summarizes SEH's request for a Rule E wetland buffer variance exemption for wetland buffer impacts made along Fish Hatchery Trail. The 12.5 ft buffer minimum is unable to be met around wetland 3 due to site constraints limiting potential alignments for the proposed trail. The project area is located in Section 3 in Township 28 North, Range 22 West in St. Paul, Ramsey County, Minnesota.

Project Overview

The project corridor was delineated on June 12th, 2022. A WCA notice of decision approving the wetland boundaries and types was sent on November 9th, 2022 (**Attachment A**). Per the boundary and type decision, the wetland referred to in this variance request is identified as Wetland 3. A WCA NOA (**Attachment B**) has been issued for a Replacement plan approval for proposed wetland impacts.

Purpose and Need

The primary purpose of this trail realignment is for safety. The proposed route will ensure a safe, reliable, and efficient path for pedestrians and bicyclists to travel through Pig's Eye Regional Park during high water(flooding) conditions. During times of flooding, trail users are faced with two options: traverse outside of the trail corridor or forge the flood waters. Either option is extremely dangerous. Constant inundation also subjects the asphalt trail to increased deterioration.

The new path alignment follows an already established compacted dirt trail created by pedestrians who have used the path to avoid the flooded trail portion. The proposed new trail alignment is unable to be moved farther north to avoid wetland 3 due to the steep grade of the area immediately north of the wetland. The road embankment for US 61 begins just north of the wetland and the steep grade would provide an unsafe travel environment for trail users. Creating the path on the steep road embankment would also increase the likelihood of future erosion issues and the potential for soils to slough from the slope and flow into the wetland.

Wetland Buffer Impacts

Per the District's Management Plan, Wetlands 1, 2 and 3 have been classified as Manage C and require an average buffer width of 25 ft.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 3535 Vadnais Center Drive, St. Paul, MN 55110-3507

651.490.2000 | 800.325.2055 | 888.908.8166 fax | sehinc.com

SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

For Wetland 1, the 25 ft buffer average amounts to 29,575 sq ft and the proposed buffer area is 30,081 sq ft. This creates an excess of 506 sq ft of wetland buffer. Wetland 1 has a temporary impact area of 1,126 sq ft (**Figures 1-3**).

Wetland 2 maintains the 25 ft buffer width around the entirety of the wetland. No wetland buffer impacts are proposed for this wetland (**Figure 4**). Due to the permanent impact in wetland 2, the proposed wetland buffer is established along the post impact wetland boundary. The buffer area will be seeded with 34-261.

The Wetland 3 buffer average of 25 ft equals 10,152 sq ft. The proposed wetland buffer is 10,382 sq ft and amounts to an additional 230 sq ft of wetland buffer. The ten (10) foot asphalt path will result in a combined **permanent buffer impact of 494 sq ft** and construction access for equipment will cause a combined **temporary impact of 999 sq ft (Figure 5)**. This wetland is not able to maintain the minimum 12.5 ft buffer width in one location. Any wetland buffer area that is reduced from the 25 ft average is compensated for in another location of the wetland buffer.

Buffer Restoration

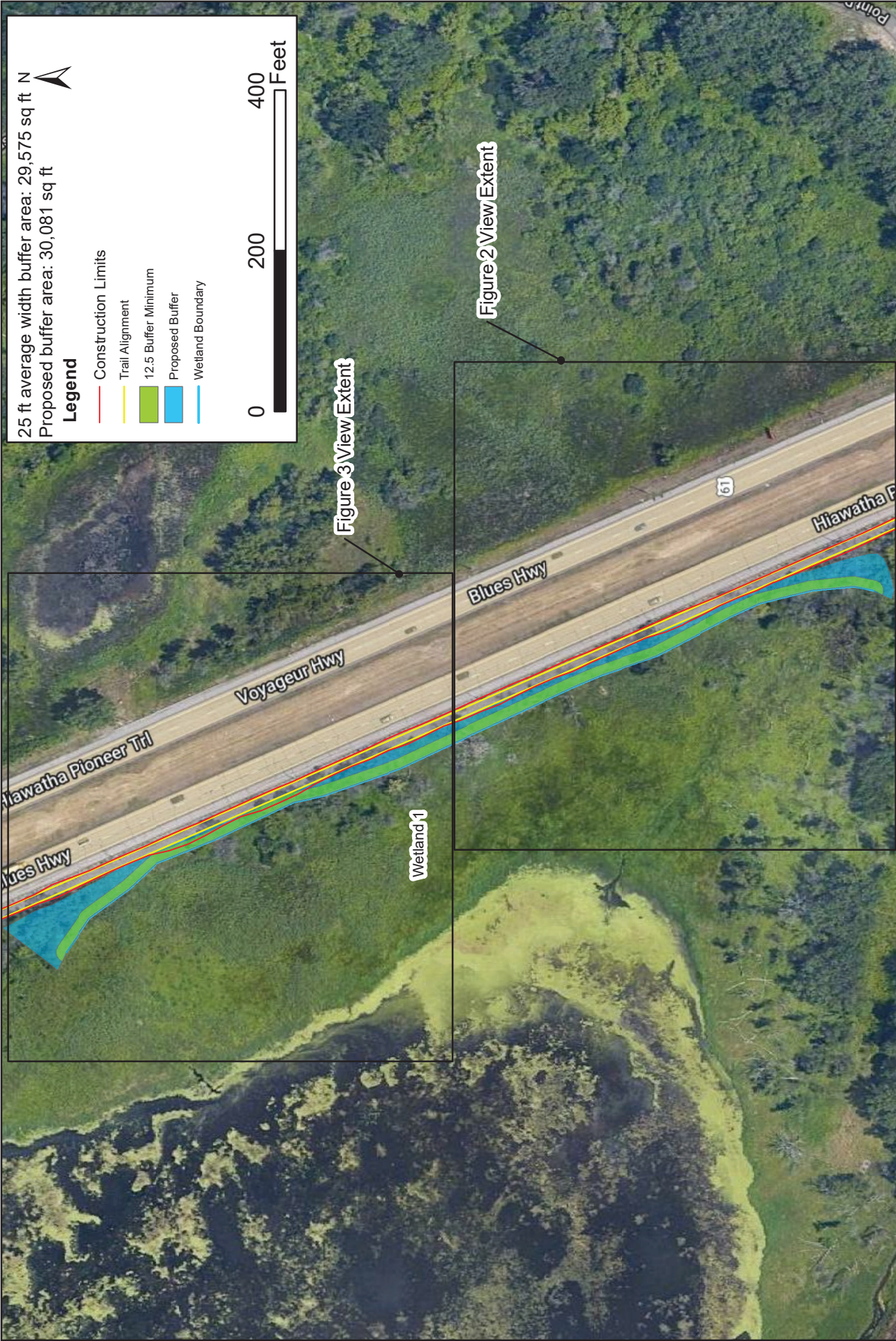
Areas of temporary buffer disturbance shall be restored in accordance with Rule E 3(d)(7). The native seed mix 34-261 will be used for all disturbed areas. Soils compacted due to construction actions will be loosened to a depth of at least five (5) inches prior to seeding.

Contact

Please contact Luke Menden directly with any questions regarding this field investigation at 612.618.4453 or via e-mail at lmenden@sehinc.com.

Attachments

- Figure 1, 2, 3 – Wetland 1 Buffer Map
- Figure 4 – Wetland 2 Buffer Map
- Figure 5 – Wetland 3 Buffer Map
- Attachment A – WCA Boundary and Type NOD
- Attachment B – WCA Replacement Plan NOA



25 ft average width buffer area: 29,575 sq ft
 Proposed buffer area: 30,081 sq ft

Legend

- Construction Limits
- Trail Alignment
- 12.5 Buffer Minimum
- Proposed Buffer
- Wetland Boundary



<p>Figure 1</p>
<p>Wetland 1 Buffer Overview Fish Hatchery Trail Stabilization & Reconstruction St. Paul, Ramsey County, Minnesota</p>
<p>Project: STPAU 164778 Print Date: 6/6/2023 Map by: Imenden Projection: UTM NAD 83 Zone 15N Source: Google, SEH, ESRI</p>
<p>3535 VADNAIS CENTER DR. ST. PAUL, MN 55110 PHONE: (651) 490-2000 FAX: (651) 490-2150 WATTS: 800-325-2055 www.sehinc.com</p> 

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) data used to prepare this map are error free, and SEH does not represent that the GIS data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.



Figure 2

Wetland 1 Buffer Overview
 Fish Hatchery Trail Stabilization & Reconstruction
 St. Paul, Ramsey County, Minnesota

Project: STPAU 164778
 Print Date: 6/6/2023
 Map by: Imenden
 Projection: UTM NAD 83 Zone 15N
 Source: Google, SEH, ESRI

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Figure 3

Wetland 1 Buffer Overview
 Fish Hatchery Trail Stabilization & Reconstruction
 St. Paul, Ramsey County, Minnesota

Project: STPAU 164778
 Print Date: 6/6/2023
 Map by: Imenden
 Projection: UTM NAD 83 Zone 15N
 Source: Google, SEH, ESRI

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Legend

- Construction Limits
- Trail Alignment
- Wetland Boundary Post Impact
- Wetland Boundary
- Proposed Buffer

No buffer impacts: 25 ft wetland buffer maintained across entire wetland



Buffer does not intersect with trail

Path: X:\PT\SIS\TPAU\164778\3-env-stdy-reg\32-permit\RW\WMD BufferNew Submittal\Fig_buffer2.mxd

Project: STPAU 164778
 Print Date: 3/6/2024
 Map by: Imenden
 Projection: UTM NAD 83 Zone 15N
 Source: Google, SEH, ESRI

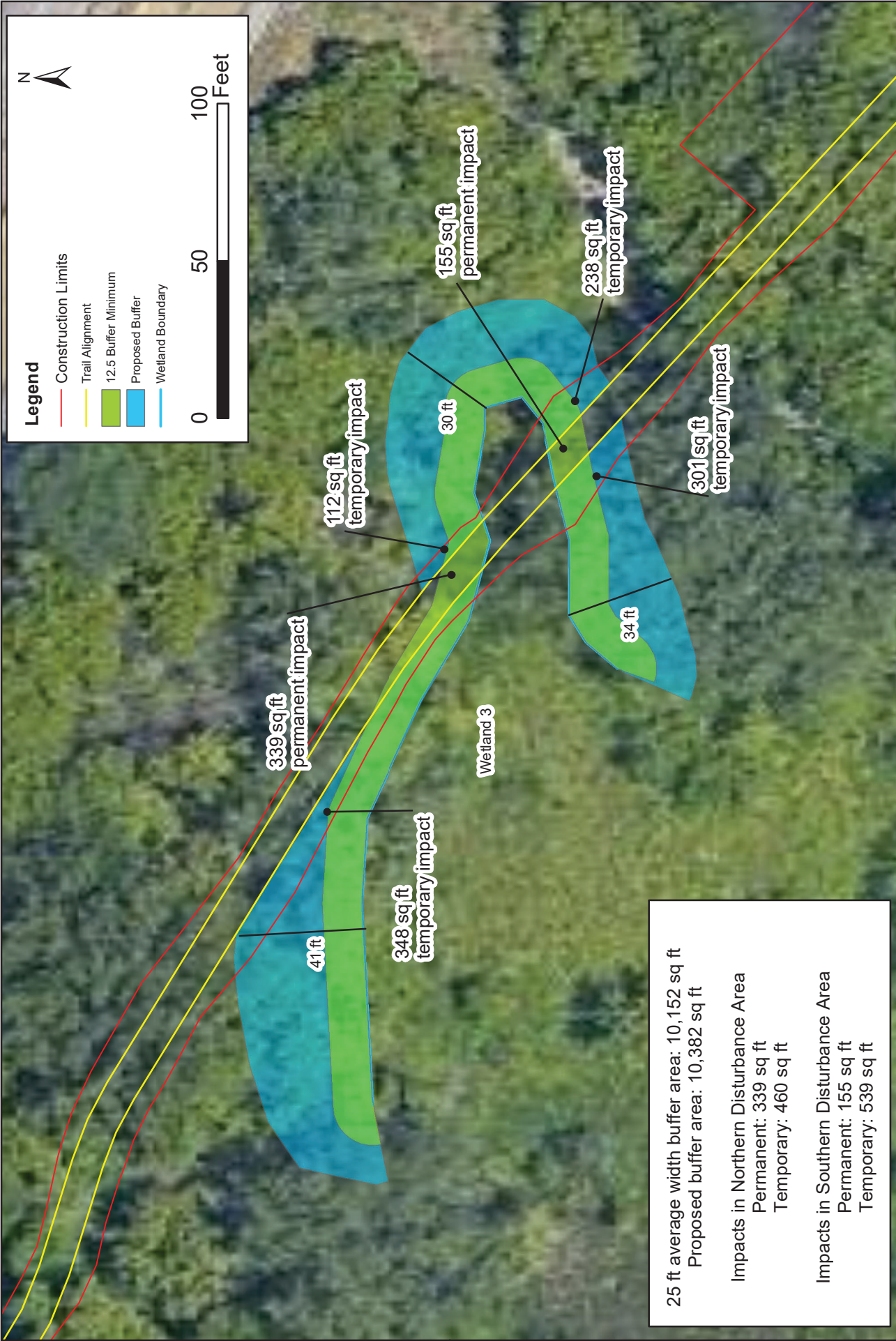
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 www.sehinc.com



Wetland 2 Buffer
 Fish Hatchery Trail Stabilization & Reconstruction
 St. Paul, Ramsey County, Minnesota

Figure 4

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the use, access or use of data provided.



25 ft average width buffer area: 10,152 sq ft
 Proposed buffer area: 10,382 sq ft

Impacts in Northern Disturbance Area
 Permanent: 339 sq ft
 Temporary: 460 sq ft

Impacts in Southern Disturbance Area
 Permanent: 155 sq ft
 Temporary: 539 sq ft

	3535 VADNAIS CENTER DR. ST. PAUL, MN 55110 PHONE: (651) 490-2000 FAX: (651) 490-2150 WATTS: 800-325-2055 www.sehinc.com	Project: STPAU 164778 Print Date: 6/6/2023 Map by: Imenden Projection: UTM NAD 83 Zone 15N Source: Google, SEH, ESRI	Wetland 3 Buffer Overview Fish Hatchery Trail Stabilization & Reconstruction St. Paul, Ramsey County, Minnesota	Figure 5
	<p><small>This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.</small></p>			

Permit Application Coversheet

Date June 28, 2023

Project Name Gerdau TMS Area Restoration Project Number 23-20

Applicant Name Johannes Mack, Gerdau Ameristeel- St. Paul

Type of Development Wetland

Property Description

This project is located on Red Rock Road, east of Pig's Eye Lake and the Mississippi River in the City of St. Paul. The applicant is proposing to remove deposited slag material from an existing wetland and St. Paul Parks property that had occurred over time when the facility was operational. The material will be deposited in an upland storage location elsewhere on the parcel, resulting in no net fill in the 100-year floodplain. In order to accommodate this work, a variance request is enclosed for work within the delineated wetland and associated buffer, resulting in temporary disturbance. The project's final condition would create an additional 0.6 acre of wetland over existing conditions and meet the District's buffer requirements. The City of St. Paul is the Local Government Unit (LGU) responsible for administering the Wetland Conservation Act (WCA) and waived jurisdiction to the DNR for water resource permitting since a majority of the work will take place below the Ordinary High Water Level (OHWL) of the Public Waters wetland. The total site area is 1.82 acres.

Watershed District Policies or Standards Involved:

- | | |
|---|---|
| <input checked="" type="checkbox"/> <i>Wetlands</i> | <input checked="" type="checkbox"/> <i>Erosion and Sediment Control</i> |
| <input type="checkbox"/> <i>Stormwater Management</i> | <input checked="" type="checkbox"/> <i>Floodplain</i> |

Water Quantity Considerations

The proposed grading plan results in no net fill within the 100-year floodplain.

Water Quality Considerations

Short Term

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

Long Term

There are no long term water quality considerations.

Staff Recommendation

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

Attachments:

- Project Location Map
- Project Grading Plan



RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

MEMORANDUM

Date: April 3rd, 2024

To: Board of Managers and Staff

From: Nicole Maras, Permit Coordinator
Mary Fitzgerald, District Inspector

Subject: March Enforcement Action Report

During March 2024:

Number of Violations:	16
General Permit Requirements (SWPPP, Inspection Log)	5
Install/Maintain Perimeter Control	4
Install/Maintain Construction Entrance	2
Stabilize Exposed Soils	2
Contain/Dispose of Liquid or Solid Waste	1
Improper Dewatering	1
Install/Maintain Inlet Protection	1

Permit Staff- Activities, Trainings, and Coordination Meetings:

Active and inactive site monitoring, active site inspections and progress meetings, meetings with permit applicants, rule guidance assistance and misc. inquiries, Wetland Conservation Act (WCA) administration & procedures, permit submittal reviews with Barr Engineering, 2023 BMP cost benefit analysis, GEOPATHs mentorship event at Continental Scientific Drilling Facility, MS4 coordination meetings, annual report tasks, BMP installation observations, 2024 underground BMP inspection planning, Inspector Internship interviews and hiring, MN Water Workforce Pilot Program monthly check-in, Watershed Equity Alliance monthly check-in, interview participation with Capitol Region Watershed District, DEIA workgroup monthly meeting, pre-construction meeting

Single Lot Residential Permits Approved by Staff:

None

Permits Closed:

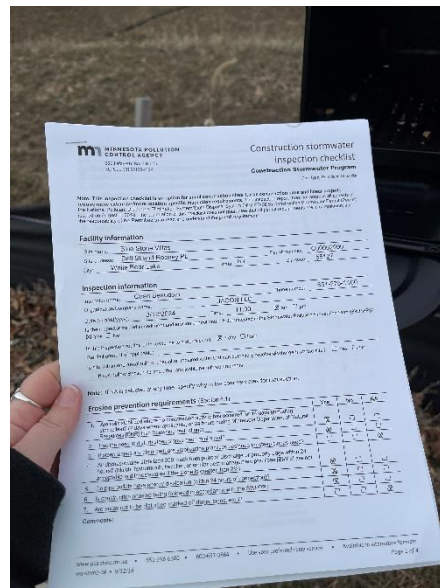
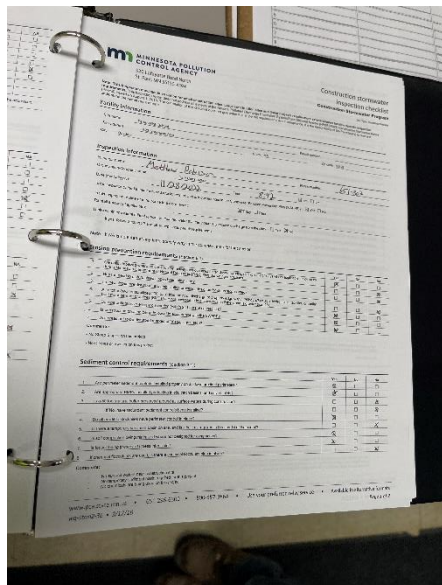
None

Site Violation Updates:

The following sites received a violation in the month of March for not meeting general permit record-keeping requirements:

- #21-12 Tartan High School Phase 2 (Oakdale)
- #21-32 Rooney 2nd Addition (White Bear Lake)
- #22-03 Gervais Woods 2nd Addition (Little Canada)
- #23-21 Metro Waste Water Treatment Plant Lab Services Building (St. Paul)

These notices of violations are due to sites not having their Stormwater Pollution Prevention Plan (SWPPP) available onsite, not keeping their SWPPP up-to-date, and/or not having an up-to-date inspection log available. The permit requires sites to amend all erosion and sediment control changes in the field on their SWPPP. The permit also requires sites to inspect their own site at least once a week, and within 24 hours of a 0.5" rain event that falls in a 24-hour period. Staff have been more diligently reviewing these materials in 2024, as it was a large area of non-compliance throughout the state of Minnesota in 2023 according to the Minnesota Pollution Control Agency. Staff have been stricter with sites on their record-keeping practices and are issuing more violations in an effort to gain better permit compliance. Hopefully this effort will get more contractors into a better habit of complying with record-keeping and site maintenance requirements.



The following site received a violation in the month of March for improper containment and disposal of liquid or solid wastes:

- #22-24 Norhart Impact Apartments (Oakdale)



This violation can occur when staff discover a hazardous material that is not meeting proper containment requirements to prevent spills or environmental exposure of the material. It can also occur if staff find general construction waste, including trash, to be littered around the site and not properly disposed of in a designated container. At this particular site, staff discovered two 55-gallon drums and 4 smaller containers filled with used oil that did not have any secondary containment to capture spills in the event of a container failure or puncture. Staff also observed a smaller container of used oil without any lid or secondary containment. The site received a violation and was directed to provide proper containment immediately.

* * * * *

Stewardship Grant Program

* * * * *

Stewardship Grant Application Summary

Project Name: Woodland Hills Church

Application Number: 24-16 CS

Board Meeting Date: 4/3/2024

Applicant Name: Jodi Cremers

Residential **Commercial/Government**

Project Overview:

This project is located off N St. Paul Rd and Van Dyke St at Woodland Hills Church. The applicant is proposing to remove a little over of 1.25 acres of asphalt in the north end of the parking lot. They will be installing a large rain garden along with other green space areas to create a demonstration site for a tiny homes settlement for people experiencing homelessness. This project is located in a priority subwatershed so is eligible for 100% coverage up to \$100,000. Given its location in a medium priority SVI (social vulnerability index) area, staff would like to propose approval of \$49,113 in the Wakefield Lake drainage area stormwater impact fund dollars be allocated towards this project. The applicant has also requested funds be paid directly to the contractor upon project completion. The total project cost is \$394,128 and the grant eligible portion is \$165,180.

BMP type(s):

Rain Garden(1)

Grant Request:

\$149,113.00

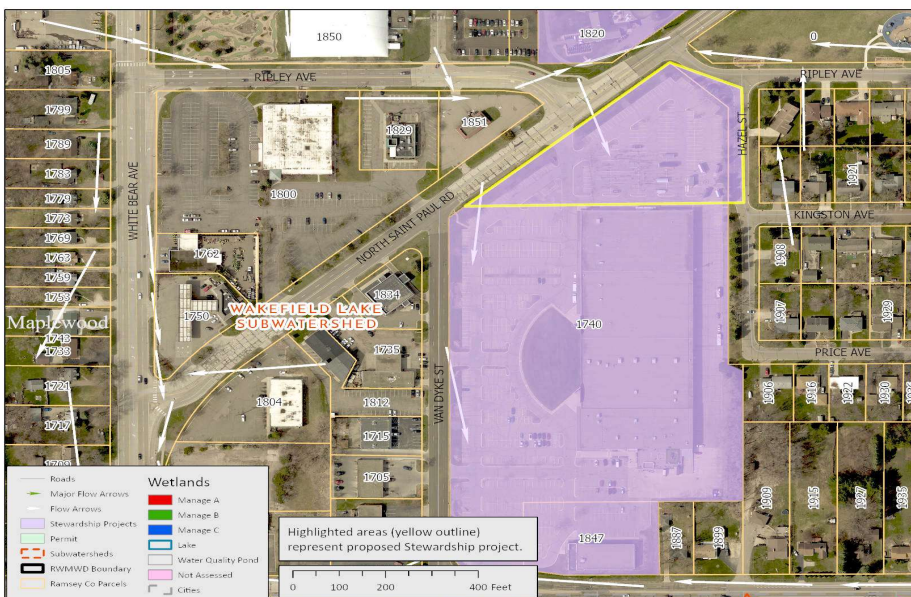
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Wakefield Lake

Location Maps:



Stewardship Grant Application Summary

Project Name: Oakdale Brine Maker

Application Number: 24-19 CS

Board Meeting Date: 4/3/2024

Applicant Name: Matt Williams

Residential **Commercial/Government**

Project Overview:

Last month, the board of managers reviewed a mini case study on considerations for funding chloride application equipment in an effort to reduce salt use and improve water quality. The City of Oakdale is developing plans for a new public works facility southwest of the intersection of 32nd St N and Granada Ave. The City is proposing to include an in-house brine production and storage facility for improved winter road maintenance and reduction of chloride across the city, much of which drains to Battle Creek Lake-a waterbody that is classified by the MPCA as impaired for chloride. The brine maker and liquid blending station facility is estimated to cost \$148,000. Given that roughly 50% of the City is within RWMWD, the applicant has requested 50% of the cost in grant funds.

BMP type(s):

Proprietary Stormwater Device(1)

Grant Request:

\$74,000.00

Recommendation:

Staff recommends approval of this application.

Subwatershed:

Battle Creek Lake, Tanners Lake

Location Maps:



Stewardship Grant Program Budget Status Update

April 3, 2024

Homeowner	Coverage	Number of Projects: 11	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share \$15,000 Max	8	\$18,558**
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share \$15,000 Max	2	\$12,620
MN Water Steward Project	100% Cost Share \$15,000 Max	0	\$0
Shoreland Restoration	100% Cost Share \$15,000 Max	1	\$5,000

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects: 10	Funds Allocated
Habitat Restoration	50% Cost Share \$15,000 Max	0	\$0
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share \$100,000 Max	0	\$0
Priority Area Projects	100% Cost Share \$100,000 Max	4	\$281,213.50*
Non-Priority Area Projects	75% Cost Share \$50,000 Max	0	\$0
Public Art (\$50,000 Reserved)	50% Cost Share \$15,000 Max/Project	1	\$5,000**
Aquatic Veg Harvest/LVMP Development	50% Cost Share \$15,000 Max	0	\$0
Enhanced Street Sweeping (\$250,000 Reserved)	Varies	5	\$142,375*

Maintenance	50% Cost Share \$7,500 Max for 5 Years	69	\$52,425**
Consultant Fees			\$5,026
Total Allocated			\$522,217.50

*includes funds to be approved at current board meeting

** includes staff approvals since previous board meeting

2024 Stewardship Grant Program Budget	
Budget	\$1,250,000
Total Funds Allocated	\$522,217.50
Total Available Funds	\$727,782.50

* * * * *

Action Items

* * * * *

Request for Board Action

Board Meeting Date: April 3, 2024

Agenda Item No: 7A

Preparer: Tina Carstens, Administrator

Item Description: County Road C Culvert Flood Risk Reduction Accept Plans & Solicit Bids

Background:

See attached memo for more information on the County Road C culvert replacement project plans and memo.

This project was planned through our Flood Risk Reduction program and will be funded through this project fund. The engineer's opinion of probably project construction cost is \$586,284. After approval at this meeting, the bidding process will be followed with a selection of contractor coming to the board for approval in May.

Applicable District Goal and Action Item:

Goal: Manage risk of flooding – The District will reduce the public's risk to life and property from flooding through programs and projects that protect public safety and well-being.

Action Item: Cooperate with appropriate stakeholders to identify, assess, and address potential flooding problems in the District.

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 Flood Risk Reduction 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: Tyler Olsen & Brandon Barnes – Barr Engineering Co. (Barr)
Subject: 100% Design Summary for County Road C Culvert Replacement Project
Date: March 27, 2024
Project: 23/62-1494.00
c: Paige Ahlborg (RWMWD), Tina Carstens (RWMWD)

1 Introduction

This memorandum summarizes the culvert replacement 100%-level design for the County Road C crossing along Kohlman Creek, located in Maplewood, MN. The project was identified in the Kohlman Creek Flood-Risk Reduction Feasibility Report, which was presented to the Managers in February 2024. The project schedule was determined such that the culvert could be constructed prior to a road resurfacing project by Ramsey County, scheduled for Fall 2024. Per Ramsey County policy, any county road that is resurfaced cannot be impacted for 5 years following construction. Therefore, the culvert replacement project needs to be constructed before the road resurfacing is complete.

2 100% Design Description and Submittals to Board

Construction documents including bidding documents, technical specifications, and construction drawings have been prepared for the County Road C culvert replacement project. The design at County Road C includes the removal of the existing culvert, replacing it with a box culvert, and site restoration for the roadway, embankment, and residential driveway. The culvert improvement is the first of several projects that will reduce flood-risk for habitable structures along Kohlman Creek. This is the first of several planned projects along Kohlman Creek, that when constructed will result in 4 structures being removed from the modelled 100-year flood zone in the wetland upstream (south) of County Road C. This project is an important step towards reducing flood risk along Kohlman Creek and implementation of the recommended projects described in the Kohlman Creek Flood-Risk Reduction Feasibility Study (2024).

Barr and RWMWD staff are working through final coordination with project stakeholders – the City of Maplewood, Ramsey County Public Works, Ramsey County Parks and Recreation, Minnesota DNR, and Property Owners – to obtain approvals, authorizations, and cost-sharing of the project (Ramsey County Public Works). Comments received from project stakeholders have been incorporated into the final construction documents.

3 Engineer's Opinion of Probable Cost

The engineer's opinion of probable cost is shown in Table 1. The opinion of probable cost provided is made on the basis of Barr's experience and qualifications and represents our best judgement as experienced and qualified professionals familiar with the project. Because we have no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor's methods of determining prices, or over competitive bidding or market conditions, Barr cannot and does not guarantee that proposals, bids, or actual costs will not vary from the opinion of probable cost presented. Currently, Barr and RWMWD staff are developing a cost share agreement with Ramsey County Public Works for the project. The current culvert is owned by Ramsey County, and the draft agreement states that the County

will be responsible for 100% of the costs to replace the County owned culvert within the project limits, and for associated roadway and utility improvements required to facilitate the culvert replacement. This agreement will be finalized and signed prior to bidding.

Table 1: Engineer's Opinion of Probable Cost

Item		Cost
Engineer's Opinion of Probable Construction Cost		\$586,284
Estimated Accuracy Range	Low (-10%)	\$527,700
	High (+20%)	\$703,600

Notes:

- 1 Quantities based on Design Work Completed (95%).
- 2 Unit Prices Based on Information Available at This Time.
- 3 This design level (Class 1, 70-100% design completion per ASTM E 2516-11) cost estimate is based on 95% designs, alignments, quantities and unit prices. Costs will change with further design. Time value-of-money escalation costs are not included. A construction schedule is not available at this time. Contingency is an allowance for the net sum of costs that will be in the Final Total Project Cost at the time of the completion of design, but are not included at this level of project definition. The estimated accuracy range for the Total Project Cost as the project is defined is -10% to +20%. The accuracy range is based on professional judgement considering the level of design completed, the complexity of the project and the uncertainties in the project as scoped. The contingency and the accuracy range are not intended to include costs for future scope changes that are not part of the project as currently scoped or costs for risk contingency. Operation and Maintenance costs are not included.
- 4 Estimate assumes that projects will not be located on contaminated soil.
- 5 The estimated costs do not include maintenance, monitoring or additional tasks following construction.

4 Board Request

It is requested that the RWMWD Board of Managers approve the preliminary design, specifications, estimate of costs and proposed schedule (Section 5) and direct Barr to finalize the design, prepare the bidding documents, and advertise the project for bids from contractors to construct the County Road C Culvert Replacement project.

5 Schedule

Pending Board approval, the project documents (e.g., plans, specifications) will be posted for bid in April or May, 2024. The bid posting will depend on approval of the DNR Public Waters Permit, which an application will be submitted for in April. Bid opening will occur 2 weeks after posting of the documents. After bidding, if a responsible low bidder is identified, Barr will return to the Board with the recommended low bidder in May or June, 2024. Construction will commence following the approval of the low bidder, with a target completion date of September 2024.

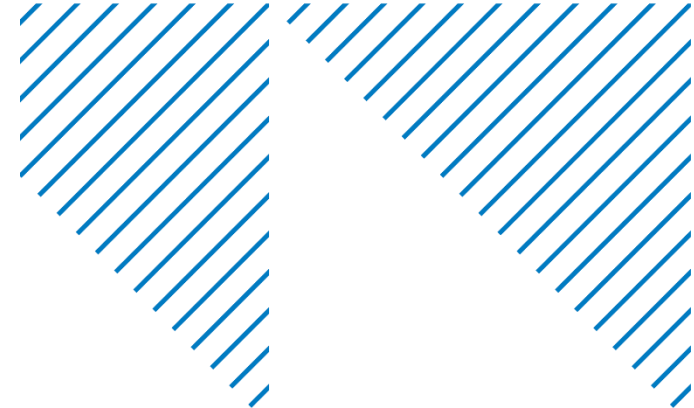
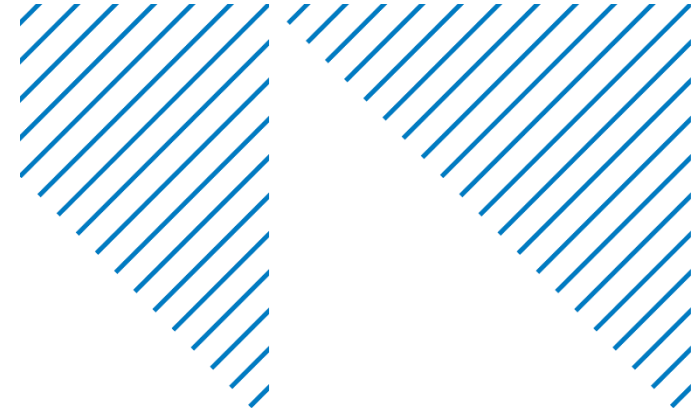
Attachments

- Issued for Approval Drawings for the County Road C Culvert Replacement Project
- Table of Contents for the Project Specifications



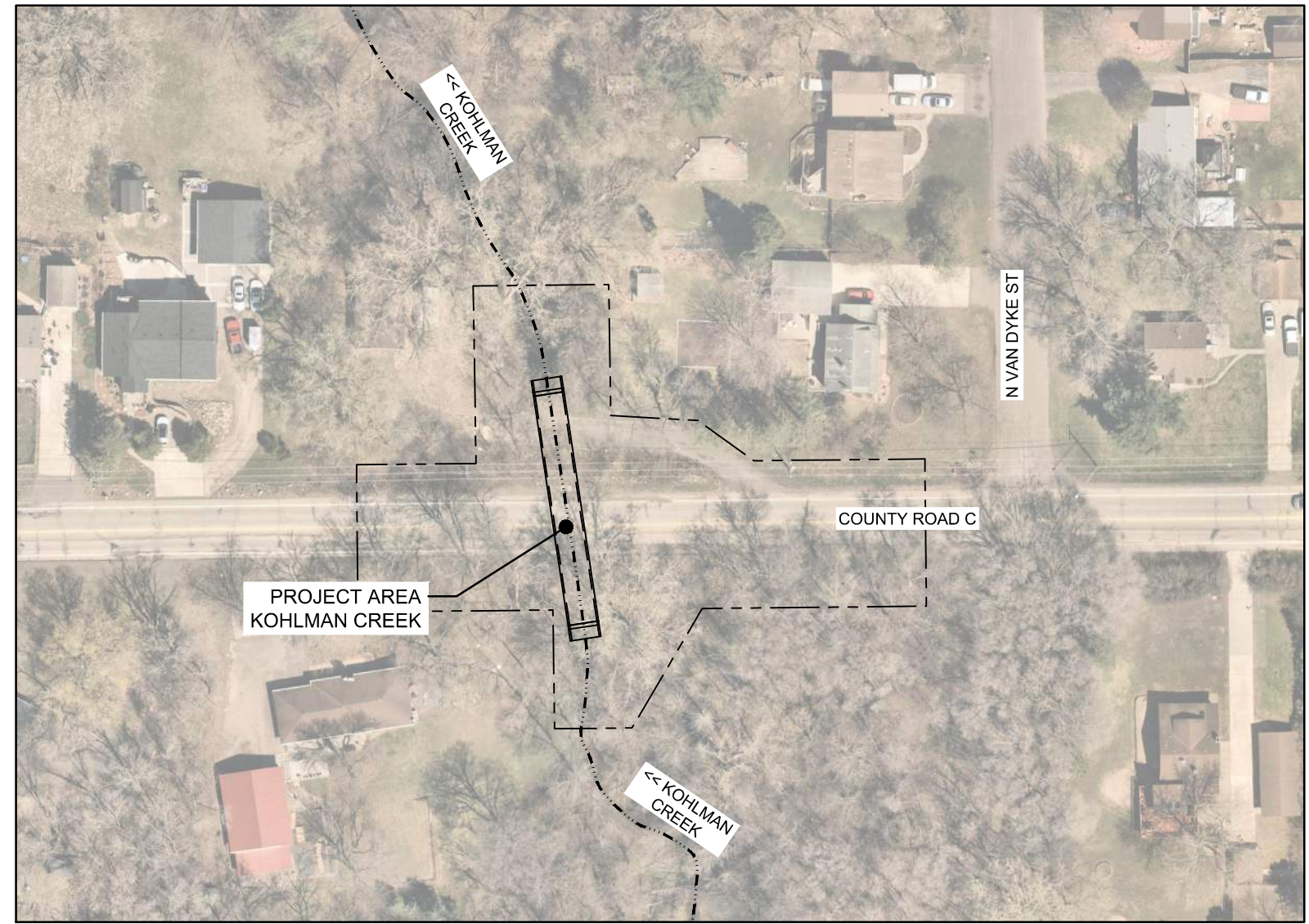
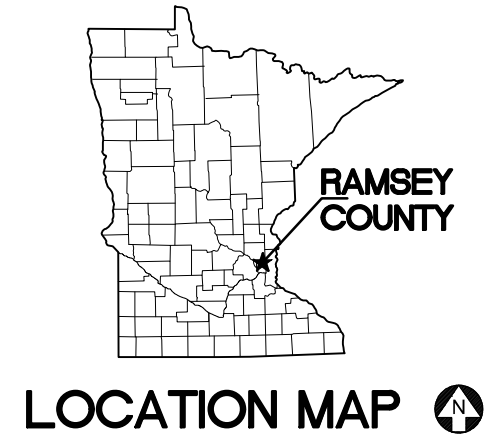
Attachment 1

**Issued for Approval Drawings for the
County Road C Culvert Replacement
Project**

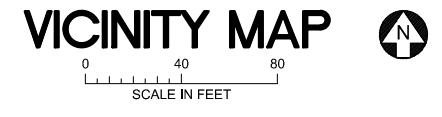


RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT



NOTE: NEARMAP ORTHOGRAPHIC IMAGE SHOWN



DRAWING INDEX

DWG. NO.	DESCRIPTION
G-01...	COVER SHEET AND DRAWING INDEX
G-02...	STATEMENT OF ESTIMATED QUANTITIES
G-03...	EROSION AND SEDIMENT CONTROL PLAN
G-04...	EROSION AND SEDIMENT CONTROL DETAILS
CIVIL	
C-01...	GENERAL SITE LAYOUT PLAN
C-02...	EXISTING CONDITIONS AND REMOVAL PLAN
C-03...	COUNTY ROAD C E PLAN AND PROFILE
C-04...	KOHLMAN CREEK CULVERT PLAN AND PROFILE
C-05...	SECTIONS AND DETAILS
C-06...	PRECAST CONCRETE BOX CULVERT SECTIONS AND DETAILS
C-07...	PRECAST CONCRETE BOX CULVERT SECTIONS AND DETAILS
C-08...	PRECAST CONCRETE BOX CULVERT SECTIONS AND DETAILS
RESTORATION	
R-01...	SITE RESTORATION PLAN
BORING LOGS	
B-01...	BORING LOG CXC-1-B (1a, 1b)
B-02...	BORING LOG CXC-2-B AND CXC-3-B
B-03...	BORING LOG CXC-4-B

PROJECT COORDINATE SYSTEM
 HORIZONTAL: MNDOT RAMSEY COUNTY, US FOOT, NAD83 DATUM
 VERTICAL: NAVD88 DATUM

CONTACTS

BARR ENGINEERING CO. TYLER A. OLSEN, PE PROJECT MANAGER PHONE: 952-832-2930 EMAIL: tolsen@barr.com	CITY OF MAPLEWOOD STEVE LOVE PUBLIC WORKS DIRECTOR PHONE: 651-249-2404 EMAIL: steve.love@maplewoodmn.gov
RAMSEY WASHINGTON METRO WATERSHED DISTRICT TINA CARSTENS ADMINISTRATOR PHONE: 651-792-7960 EMAIL: tina.carstens@rwmwd.org	RAMSEY COUNTY DAN BODELSON PUBLIC WORKS PROJECT SUPERVISOR PHONE: 651-248-0173 EMAIL: dan.bodelson@co.ramsey.mn.us
RAMSEY WASHINGTON METRO WATERSHED DISTRICT DAVID VLASIN WATERSHED PROJECT COORDINATOR PHONE: 651-729-7970 EMAIL: david.vlasin@rwmwd.org	RAMSEY COUNTY MARK MCCABE PARKS AND RECREATION DIRECTOR PHONE: 651-266-0300 EMAIL: mark.mccabe@co.ramsey.mn.us

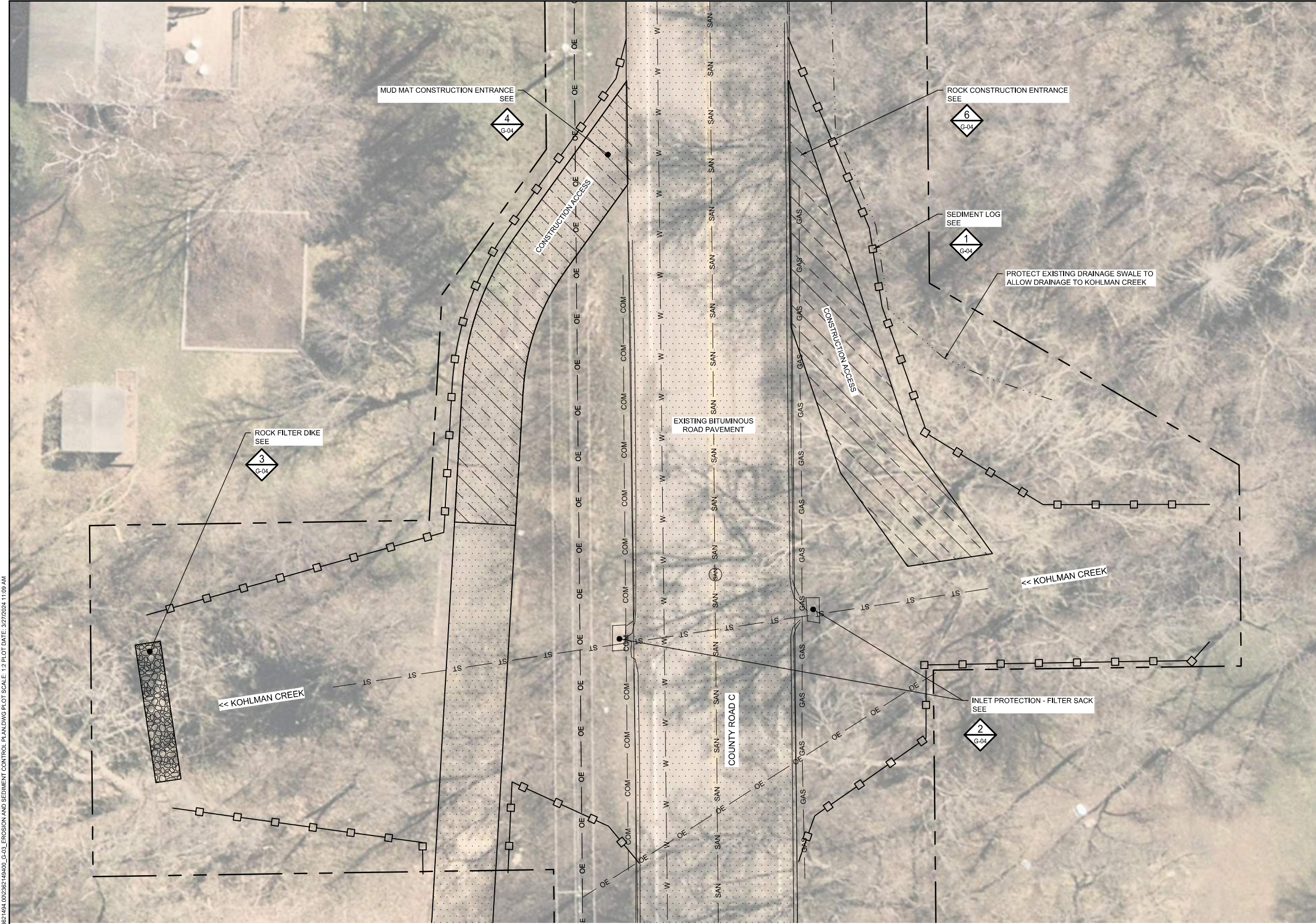



CONTRACTOR IS RESPONSIBLE FOR FIELD-LOCATING ALL SITE UTILITIES, PRIVATE AND PUBLIC, PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR TO BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER.

BOARD REVIEW
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		CLIENT BID CONSTRUCTION	3/22/24	BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435			Scale AS SHOWN		COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT COVER SHEET, LOCATIONS MAP, VICINITY MAP, AND DRAWING INDEX	BARR PROJECT No. 23/62-1494.00	
PRINTED NAME: TYLER A. OLSEN SIGNATURE: _____ DATE: _____ LICENSE # _____		RELEASED TO/FOR	A B C 0 1 2 3	Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com		Date 3/22/24	CLIENT PROJECT No.			DWG. No. G-01	REV. No. A
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION						
A	GGN	TAO2	-	3/22/24	BOARD REVIEW FOR PROJECT APPROVAL						


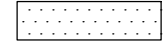
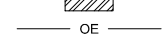
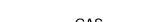
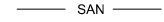
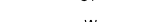






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- EROSION CONTROL NOTES:**
- FIRST PHASE OF CONSTRUCTION ONLY REMOVE NECESSARY BITUMINOUS PAVEMENT TO COMPLETE THE REMOVAL AND REPLACEMENT OF THE EXISTING CULVERT TO MINIMIZE THE AMOUNT OF DISTURBED AREA OF EXPOSED SOIL OVER THE LENGTH OF THE PROJECT.
 - PLACE AND MAINTAIN ROCK FILTER DIKE DOWNSTREAM OF CULVERT INSTALLATION DURING ACTIVE CONSTRUCTION TO PREVENT SEDIMENT FROM REACHING RECEIVING WATERS. DO NOT BLOCK BY-PASS FLOWS.
 - PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL, AS A PART OF HIS CONTROL OF WATER PLAN, INCLUDE A METHOD TO PREVENT SEDIMENT AND DEBRIS FROM ACTIVE CONSTRUCTION AREA FROM ENTERING THE DOWN STREAM FLOW.
 - PLACE TOPSOIL, SEED AND EROSION CONTROL BLANKET OVER ALL DISTURBED AREAS AS REQUIRED ON SITE RESTORATION DRAWING AND EROSION CONTROL BLANKET INSTALLATION DETAIL, SEE 

- GENERAL NOTES:**
- PROTECT ALL EXISTING UTILITIES, TRAFFIC SIGNS, AND MISCELLANEOUS SITE FEATURES UNLESS OTHERWISE NOTED IN THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE THESE ITEMS IF DAMAGED AT THEIR OWN EXPENSE.

LEGEND - EXISTING CONDITIONS

-  EXISTING EDGE OF ROAD
-  EXISTING BITUMINOUS PAVEMENT
-  EXISTING STORM DRAIN
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING UNDERGROUND FIBER OPTIC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER
-  EXISTING STORM SEWER
-  EXISTING WATER MAIN
-  CONSTRUCTION LIMITS
-  SEDIMENT LOG
-  CONSTRUCTION ENTRANCE

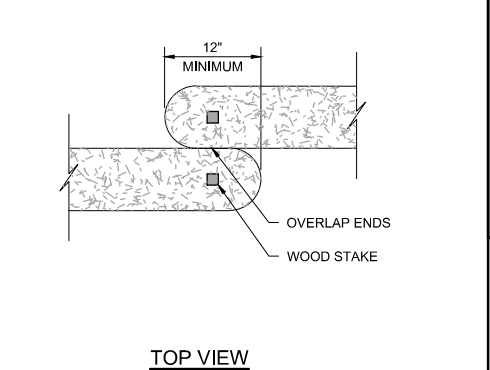
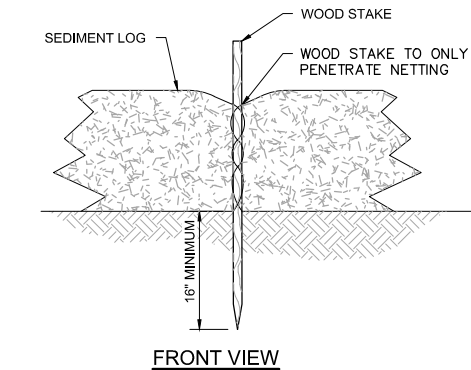
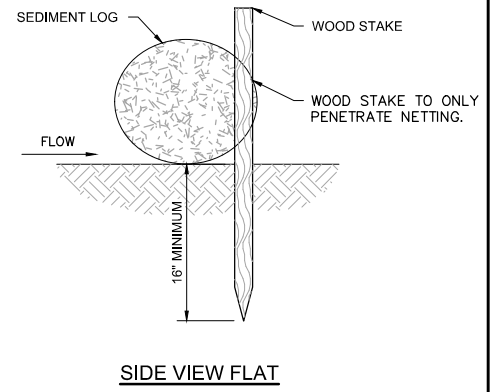
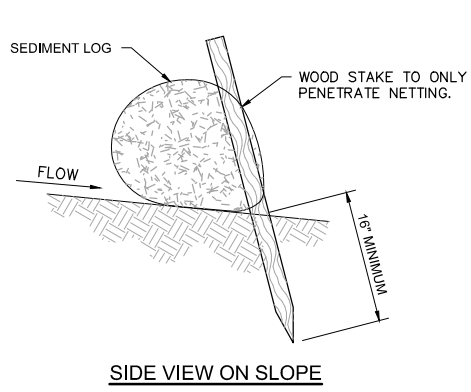
1 PLAN: COUNTY ROAD C EROSION/SEDIMENT CONTROL

0 10 20
SCALE IN FEET

BOARD REVIEW
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: TYLER A. OLSEN SIGNATURE: _____ DATE: _____ LICENSE #: _____				CLIENT PERMIT BID CONSTRUCTION RECORD 3/22/24 A B C 0 1 2 3 DATE RELEASED				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com				Scale AS SHOWN Date 3/22/24 Drawn GGN Checked TAO2 Designed BARR Approved				COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT EROSION AND SEDIMENT CONTROL PLAN				BARR PROJECT No. 23/62-1494.00 CLIENT PROJECT No. DWG. No. G-03 REV. No. A			
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION																		
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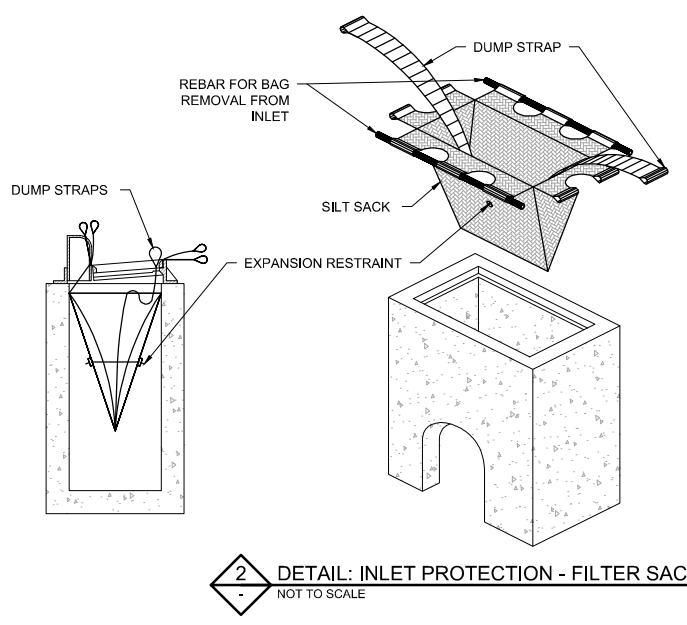
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NOTES:

1. SEDIMENT LOG SHOULD BE INSTALLED ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN REACHING 1/2 OF LOG HEIGHT.
4. SEDIMENT LOG SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED.

1 DETAIL: SEDIMENT LOG
NOT TO SCALE



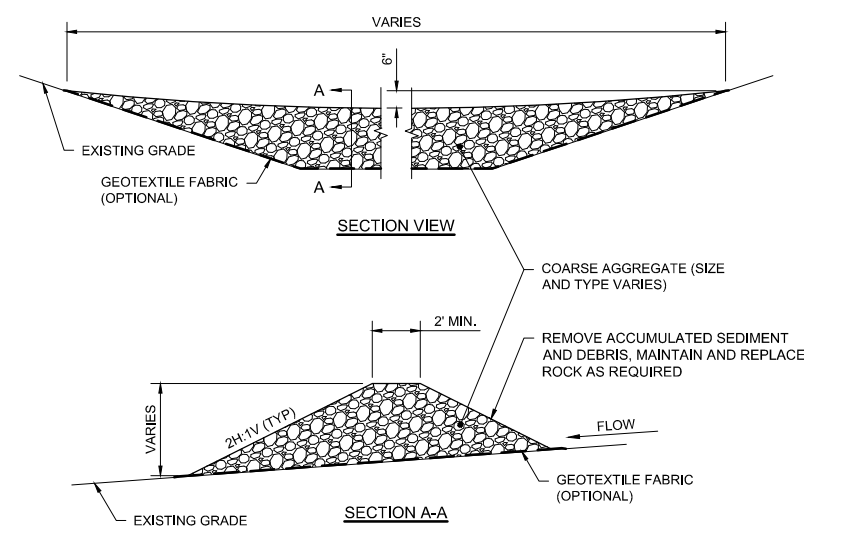
NOTES:

1. INLET PROTECTION SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED OR IMMEDIATELY FOLLOWING CATCHBASIN INSTALLATION, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
2. MATERIALS SHALL BE SUFFICIENT TO ALLOW FLOW WHILE BLOCKING SEDIMENT. NO HOLES OR GAPS SHALL BE PRESENT IN/AROUND FILTER SACK.
3. FILTER SACK SHOULD BE CLEANED AS REQUIRED TO ALLOW FLOW INTO CATCHBASIN.
4. MATERIALS AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

2 DETAIL: INLET PROTECTION - FILTER SACK
NOT TO SCALE

GOPHER STATE ONE CALL
CALL BEFORE YOU DIG.
1-800-252-1166

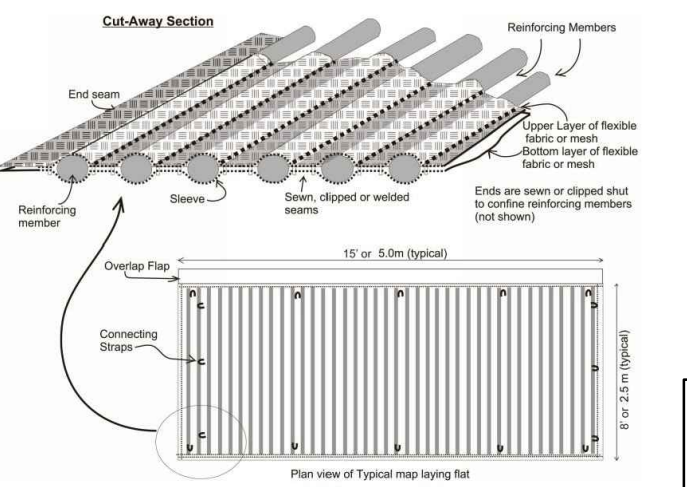
CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD-LOCATING ALL SITE UTILITIES, PRIVATE AND PUBLIC, PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER.



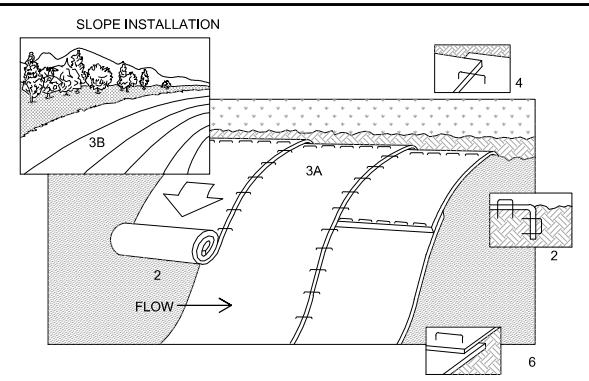
NOTES:

1. AGGREGATE SIZE MAY VARY AND DEPENDING ON CHANNEL SIZE, FLOW, SEDIMENT LOAD OR OTHER SITE CONDITIONS. AGGREGATE USED SHOULD BE RELATIVELY FREE OF SEDIMENT PRIOR TO INSTALLATION.
2. ROCK FILTER DIKE SHALL BE CLEANED OR REPLACED WHEN SEDIMENT BUILD UP REACHES 1/2 OF THE DIKE HEIGHT. ALTERNATIVELY A SECOND ROCK FILTER DIKE MAY BE INSTALLED DOWNSTREAM OF THE EXISTING DIKE AT A SUITABLE DISTANCE.
3. ROCK FILTER DIKE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ROCK, GEOTEXTILE AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

3 DETAIL: ROCK FILTER DIKE
NOT TO SCALE



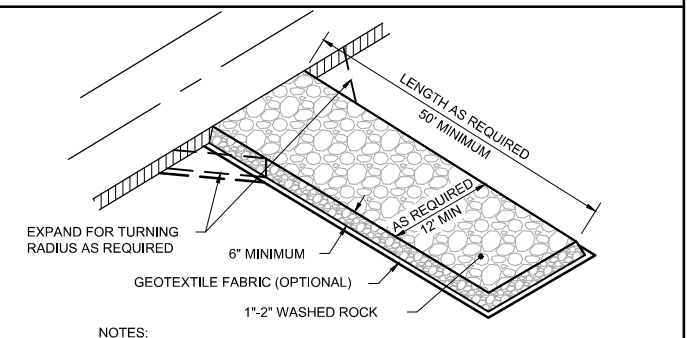
4 DETAIL: MUD MAT CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
2. PREPARE SOIL BY LOOSENING TOP 1-2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
3. BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. BLANKET MATERIALS SHALL BE AS SPECIFIED OR AS APPROVED BY ENGINEER.

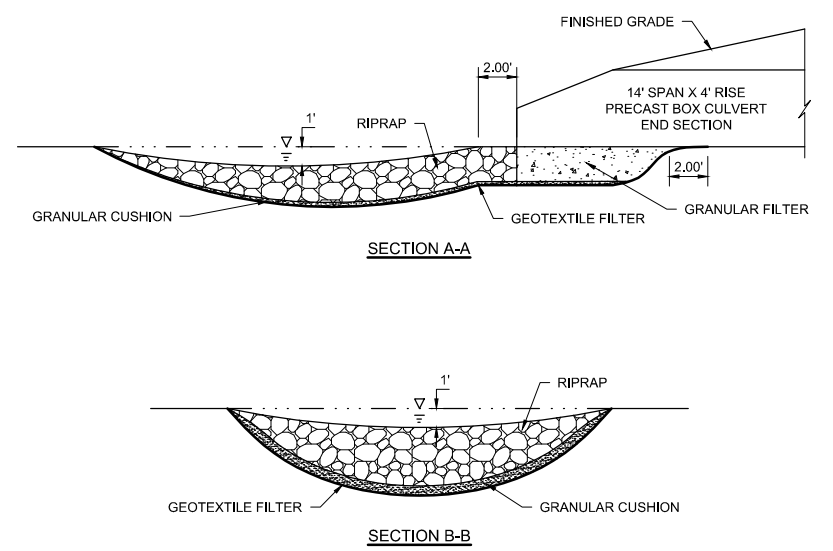
5 DETAIL: EROSION CONTROL BLANKET - INSTALLATION
NOT TO SCALE



NOTES:

1. ENTRANCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. ENTRANCE SHALL BE REMOVED IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.
3. PROTECTION OF CURB & GUTTER, TRAILS AND SIDEWALKS DUE TO CONSTRUCTION ENTRANCE LOCATION SHALL BE CONSIDERED INCIDENTAL.

6 DETAIL: ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



7 SECTION: RIPRAP OUTFALL

BOARD REVIEW
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CADD USER: Greg Nelson FILE: M:\DESIGN\23821494_00\23821494_04_EROSION AND SEDIMENT CONTROL DETAILS.DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:09 AM

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
A	GGN	TAO2		3/22/24	BOARD REVIEW FOR PROJECT APPROVAL

CLIENT	3/22/24
BID	
CONSTRUCTION	
RELEASED TO/FOR	A B C 0 1 2 3
DATE RELEASED	

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PRINTED NAME: TYLER A. OLSEN
SIGNATURE: _____
DATE: _____ LICENSE #: _____

BARR
Corporate Headquarters: Minneapolis, Minnesota
Ph: 1-800-632-2277

Scale	AS SHOWN
Date	3/22/24
Drawn	GGN
Checked	TAO2
Designed	BARR
Approved	

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435

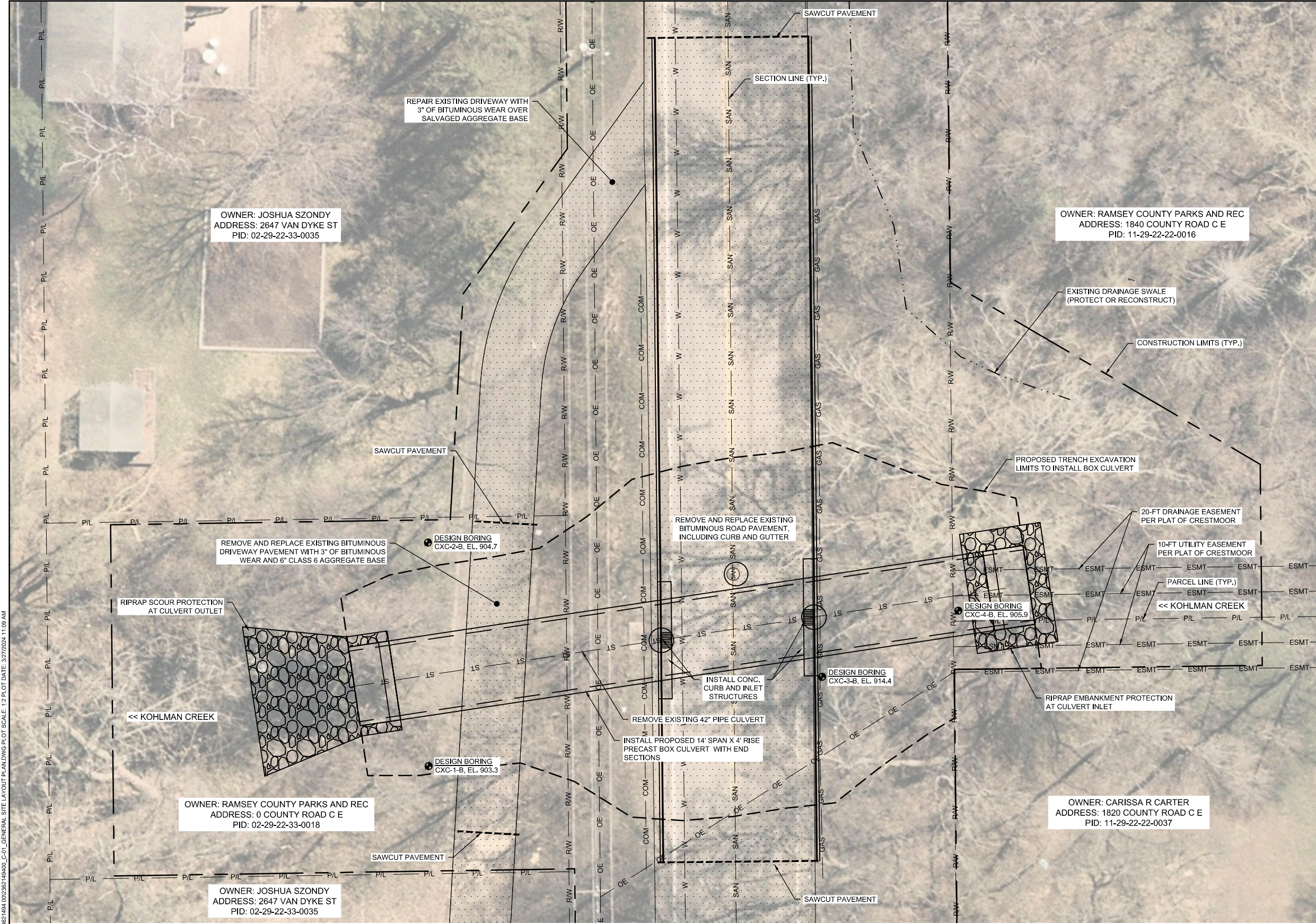
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

COUNTY ROAD C / KOHLMAN CREEK
CONVEYENCE IMPROVEMENT

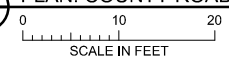
EROSION AND SEDIMENT
CONTROL DETAILS

BARR PROJECT No.	23/62-1494.00
CLIENT PROJECT No.	
DWG. No.	G-04
REV. No.	A



- NOTES:**
- CONTRACTOR TO COORDINATE WITH LANDOWNER AT 2647 VAN DYKE STREET TO FULFILL AGREEMENT REQUIREMENTS, INCLUDING ADVANCED NOTIFICATION 7-DAYS PRIOR TO WORK STARTUP.
 - USE CARE WHEN OPERATING EQUIPMENT AND EXCAVATING AND/OR GRADING NEAR HOMES AND PRIVATE PROPERTY ADJACENT TO THE WORK AREA. CONTRACTOR IS LIABLE AND RESPONSIBLE FOR ANY DAMAGE ASSOCIATED WITH CONSTRUCTION ACTIVITY.
 - A TRAFFIC CONTROL PLAN TO BE SUBMITTED BY THE CONTRACTOR. ALL TRAFFIC CONTROL DEVICES AND SIGNAGE SHALL CONFORM TO THE MN MUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL LAYOUTS, AND BE APPROVED BY ROAD AUTHORITY. ALL TRAFFIC CONTROL SIGNS AND BARRICADES TO BE PLACED BY CONTRACTOR AND APPROVED BY ROAD AUTHORITY.
 - THE CITY OF MAPLEWOOD FIRE STATION LOCATED AT HAZELWOOD AND COUNTY RD C IS A CRITICAL ROUTE FOR EMERGENCY RESPONSE. CLOSURE DURATION DURING CONSTRUCTION ON COUNTY ROAD C E NOT TO EXCEED 14-DAYS SO EMERGENCY RESPONSE TIME CAN BE RESTORED.
 - ADDITIONAL INFORMATION FOR BORINGS SHOWN CAN BE FOUND IN DRAWINGS B-01, B-02, AND B-03.

1 PLAN: COUNTY ROAD C GENERAL SITE LAYOUT PLAN



BOARD REVIEW
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PRINTED NAME: TYLER A. OLSEN
SIGNATURE: _____
DATE: _____ LICENSE # _____

CLIENT PERMIT	3/22/24						
BID							
CONSTRUCTION RECORD							
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BARR Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	3/22/24
Drawn	GGN
Checked	TAO2
Designed	BARR
Approved	

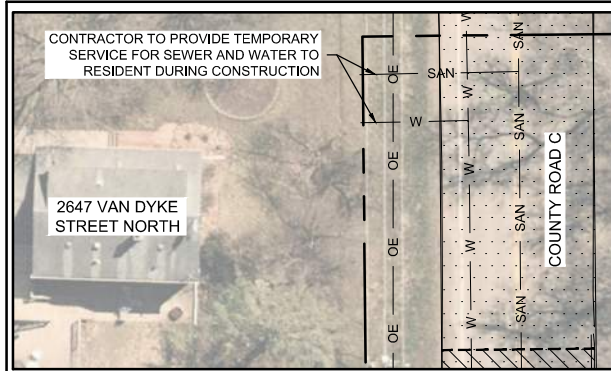


COUNTY ROAD C / KOHLMAN CREEK
CONVEYANCE IMPROVEMENT

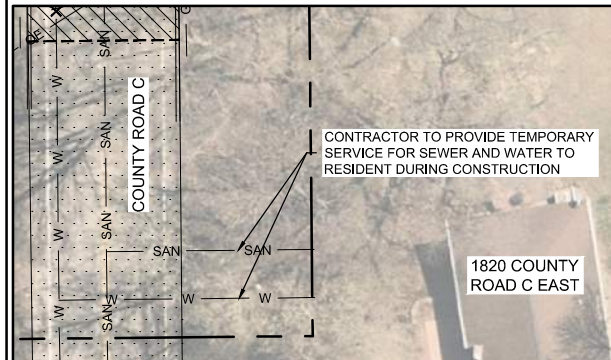
GENERAL SITE
LAYOUT PLAN

BARR PROJECT No.	23/62-1494.00
CLIENT PROJECT No.	
DWG. No.	C-01
REV. No.	A

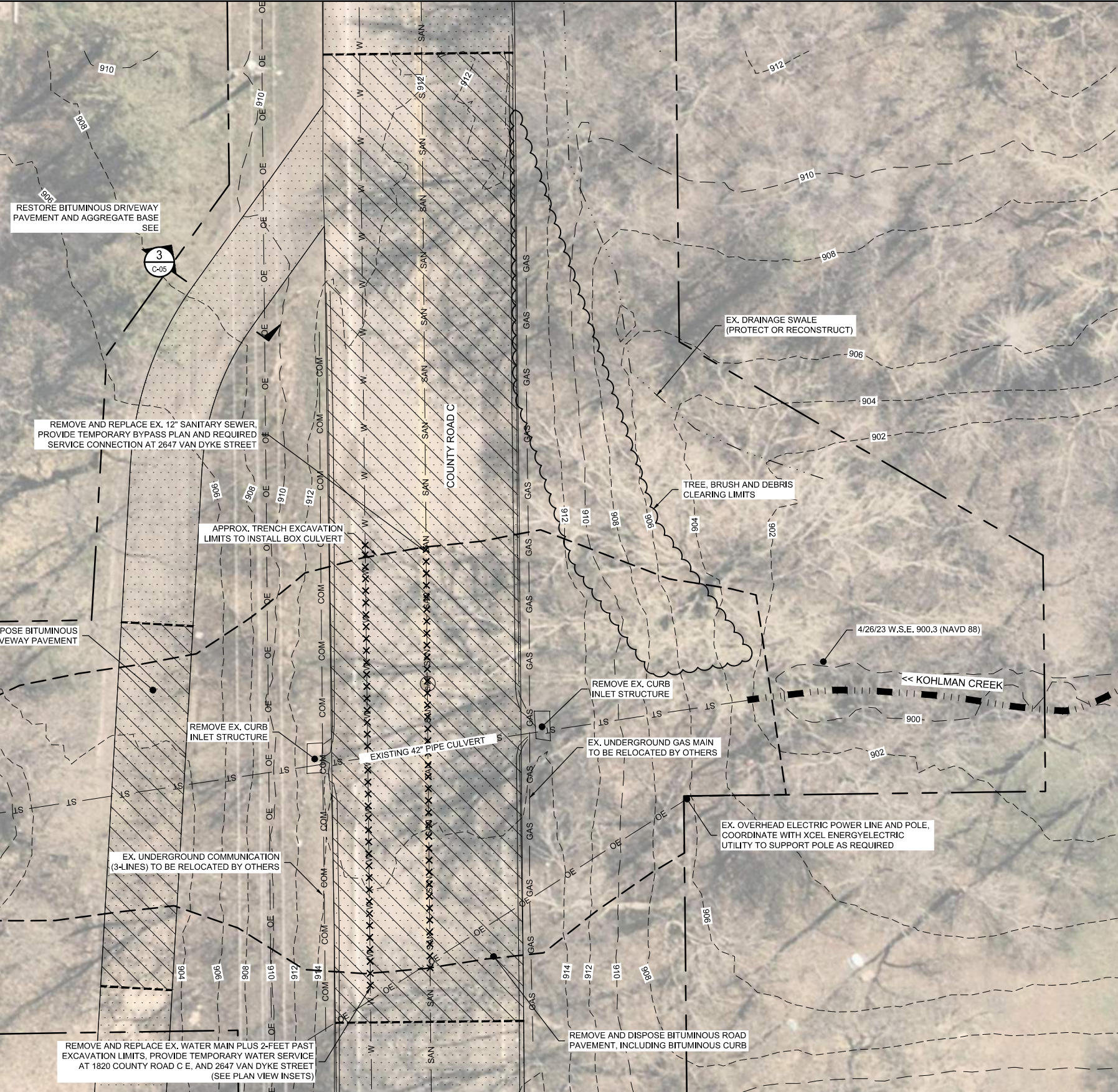
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TEMPORARY SERVICE CONNECTION 1



TEMPORARY SERVICE CONNECTION 2



CONSTRUCTION NOTES:

1. STRIP TOPSOIL FROM WORK AREA WITHIN CONSTRUCTION LIMITS FOLLOWING REMOVAL OF TREES, BRUSH, AND DEBRIS.
2. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. NOTIFY OWNER OF ANY DISCREPANCIES.
3. CONTRACTOR TO DETERMINE DEPTH OF ALL BURIED UTILITIES IMPACTED BY THE WORK PRIOR TO EXCAVATION.
4. UTILITY RELOCATION TO BE COORDINATED BY CONTRACTOR PRIOR TO CONSTRUCTION.
5. PROTECT ALL EXISTING UTILITIES DURING REMOVALS (DEMOLITION) AND CONSTRUCTION.
6. DO NOT REMOVE BITUMINOUS PAVEMENT UNTIL IMMEDIATELY PRIOR TO EXCAVATION.
7. PROTECT ALL EXISTING UTILITIES AND COMMUNICATIONS UNLESS OTHERWISE NOTED IN DRAWINGS.
8. PROTECT ALL TREES, SHRUBS, AND LANDSCAPING UNLESS CALLED OUT FOR REMOVAL.
9. REMOVE TREES, BRUSH AND DEBRIS WITHIN CULVERT INLET AND OUTLET EXTENTS AS NEEDED TO FACILITATE CONSTRUCTION AND PROVIDE ADEQUATE WORKING AREA. NO REMOVAL MAY OCCUR BEYOND CONSTRUCTION LIMITS SHOWN WITHOUT APPROVAL BY OWNER.

LEGEND - EXISTING CONDITIONS

- 910 --- EXISTING MAJOR CONTOUR
- 908 --- EXISTING MINOR CONTOUR
- ===== EXISTING EDGE OF ROAD
- [Pattern] EXISTING BITUMINOUS PAVEMENT
- [Symbol] CREEK
- [Symbol] EXISTING STORM DRAIN
- [Symbol] EXISTING SANITARY MANHOLE
- [Symbol] EXISTING OVERHEAD ELECTRIC
- [Symbol] EXISTING UNDERGROUND FIBER OPTIC
- [Symbol] EXISTING GAS LINE
- [Symbol] EXISTING SANITARY SEWER
- [Symbol] EXISTING STORM SEWER
- [Symbol] EXISTING WATER MAIN

LEGEND - PROPOSED CONDITIONS

- [Symbol] CONSTRUCTION LIMITS
- [Symbol] SAWCUT PAVEMENT
- [Symbol] REMOVE PAVEMENT
- [Symbol] REMOVE EXISTING UTILITY

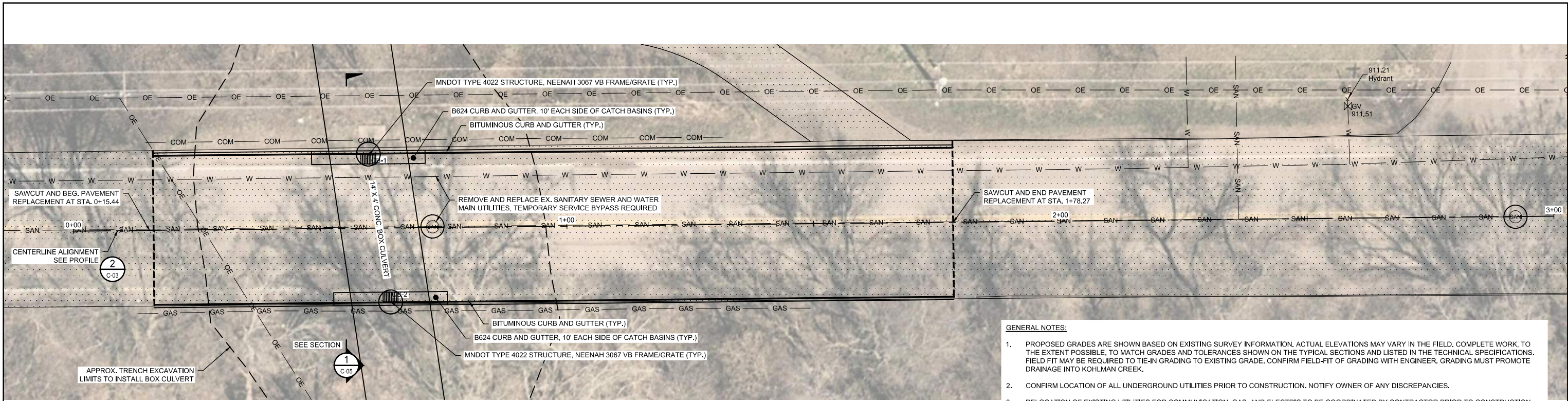
1 PLAN: COUNTY ROAD C EXISTING CONDITIONS AND REMOVALS PLAN



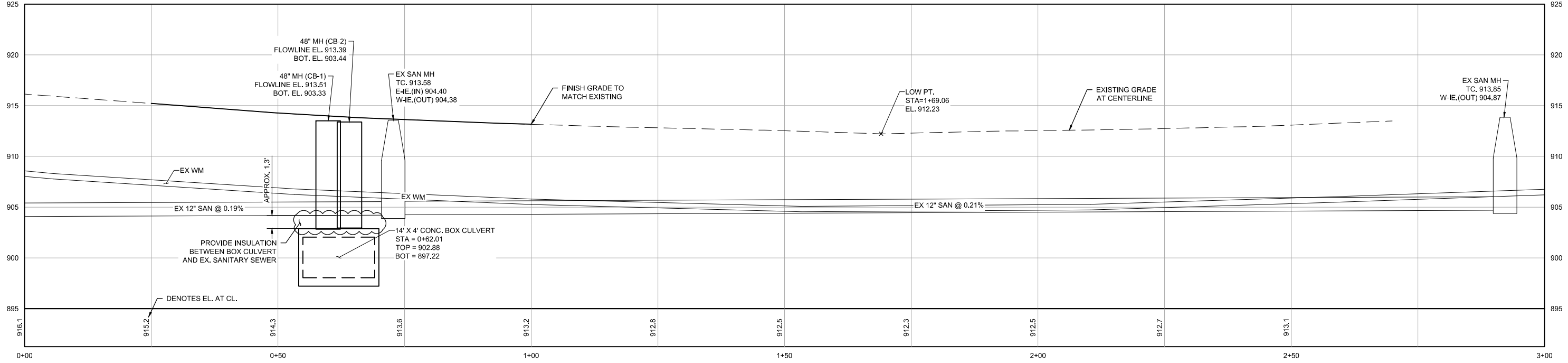
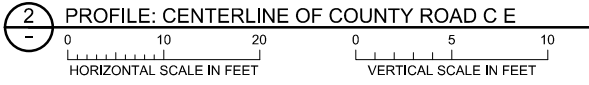
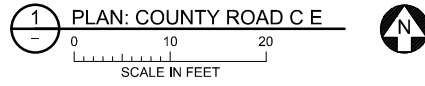
CADD USER: GREG NELSON FILE: M:\DESIGN\23621494\02\EXISTING CONDITIONS AND REMOVALS PLANS\DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:10 AM

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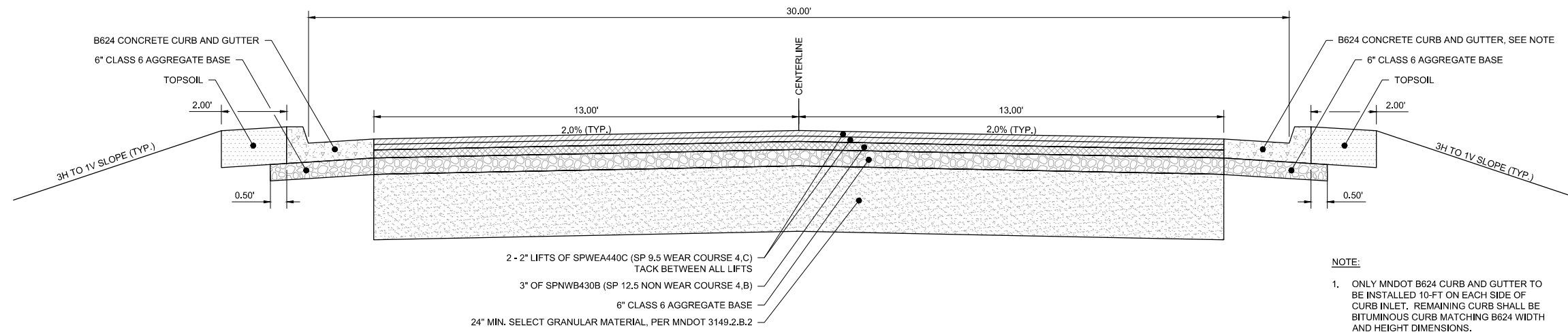
- GENERAL NOTES:**
1. PROPOSED GRADES ARE SHOWN BASED ON EXISTING SURVEY INFORMATION, ACTUAL ELEVATIONS MAY VARY IN THE FIELD. COMPLETE WORK, TO THE EXTENT POSSIBLE, TO MATCH GRADES AND TOLERANCES SHOWN ON THE TYPICAL SECTIONS AND LISTED IN THE TECHNICAL SPECIFICATIONS. FIELD FIT MAY BE REQUIRED TO TIE-IN GRADING TO EXISTING GRADE. CONFIRM FIELD-FIT OF GRADING WITH ENGINEER. GRADING MUST PROMOTE DRAINAGE INTO KOHLMAN CREEK.
 2. CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. NOTIFY OWNER OF ANY DISCREPANCIES.
 3. RELOCATION OF EXISTING UTILITIES FOR COMMUNICATION, GAS, AND ELECTRIC TO BE COORDINATED BY CONTRACTOR PRIOR TO CONSTRUCTION.
 4. PROTECT ALL EXISTING UTILITIES DURING DEMOLITION AND CONSTRUCTION.
 5. FOR EROSION CONTROL PLAN, NOTES AND DETAILS, SEE DRAWINGS G-03 AND G-04.
 6. FOR EXISTING CONDITIONS AND REMOVALS, SEE DRAWING C-02.



CADD USER: GREG NELSON FILE: M:\DESIGN\23621490_C03_COUNTY ROAD C E PLAN AND PROFILE.DWG PLOT SCALE: 1/2"=1' PLOT DATE: 3/27/2024 11:10 AM

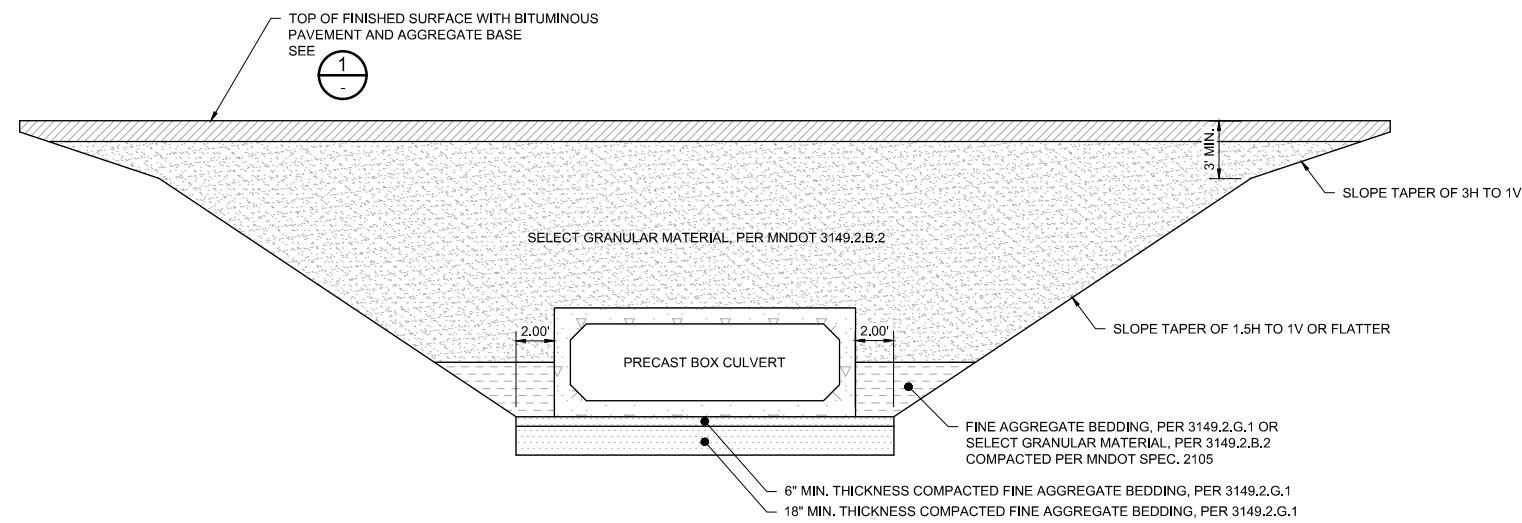
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PRINTED NAME: TYLER A. OLSEN SIGNATURE: _____ DATE: _____ LICENSE # _____		RELEASED TO/FOR	A B C 0 1 2 3	Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com			Client Project No.		DWG. No. C-03
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION				
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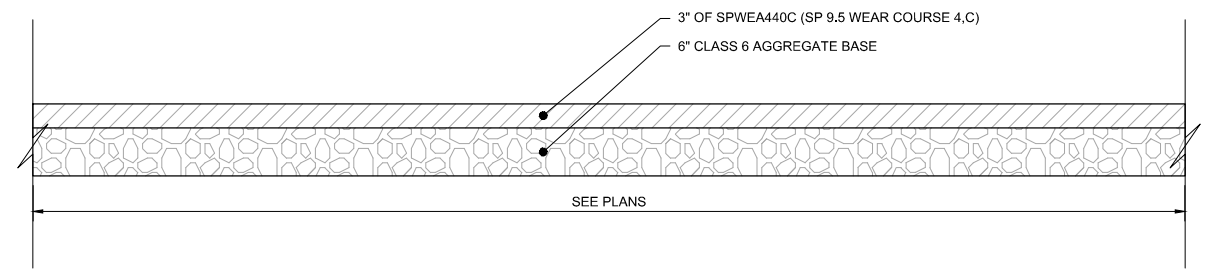


NOTE:
 1. ONLY MNDOT B624 CURB AND GUTTER TO BE INSTALLED 10-FT ON EACH SIDE OF CURB INLET. REMAINING CURB SHALL BE BITUMINOUS CURB MATCHING B624 WIDTH AND HEIGHT DIMENSIONS.

1 SECTION: BITUMINOUS ROAD PAVEMENT RESTORATION (TYPICAL)
 0 1 2 3 4
 SCALE IN FEET



2 SECTION: BOX CULVERT TRENCH EXCAVATION, BEDDING AND BACKFILL (TYPICAL)
 0 5 10
 SCALE IN FEET

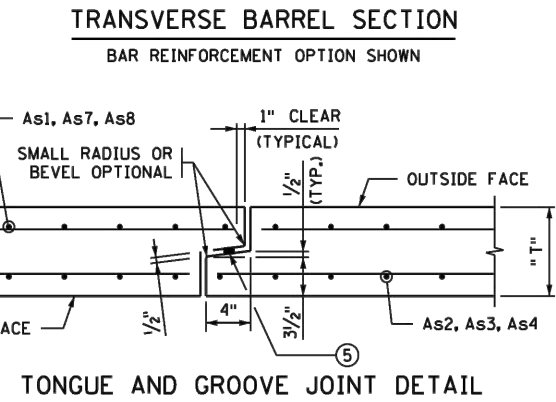
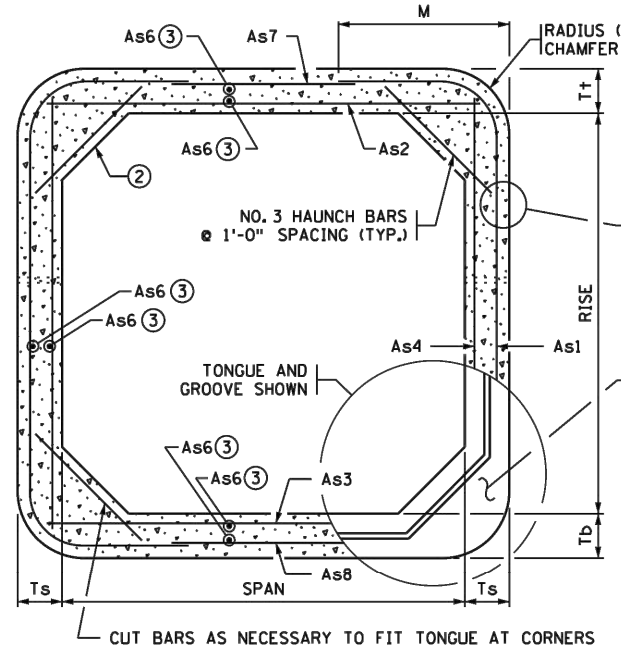
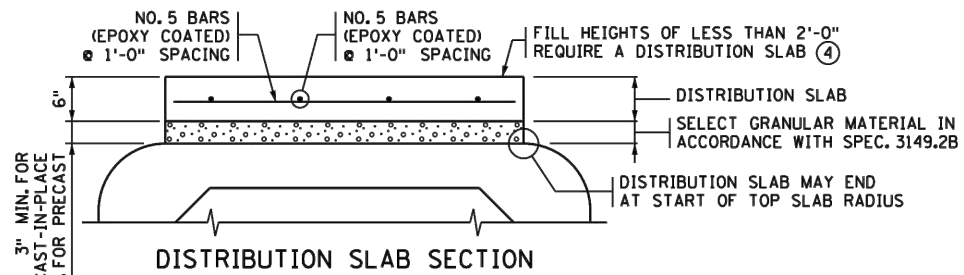


3 SECTION: DRIVEWAY PAVEMENT RESTORATION (TYPICAL)
 0 1 2
 SCALE IN FEET

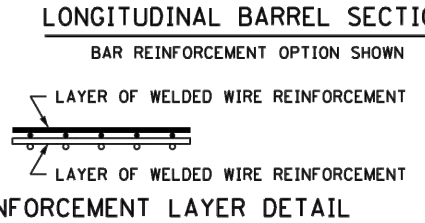
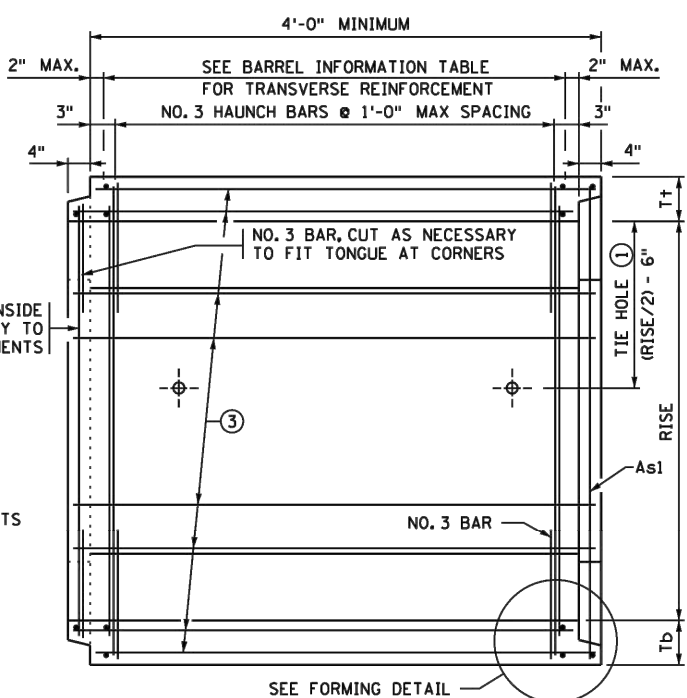
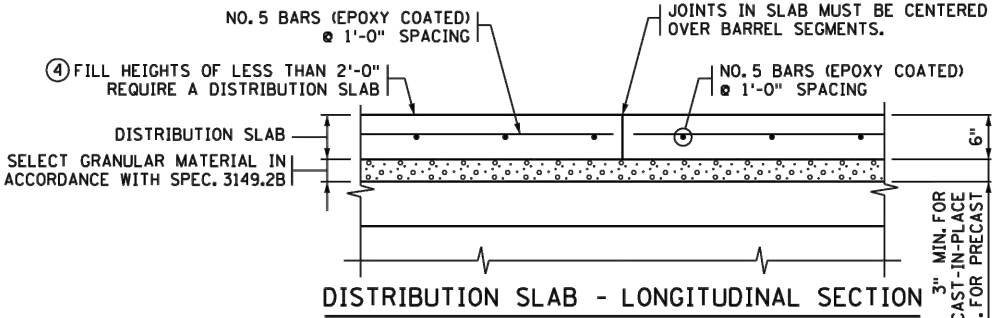
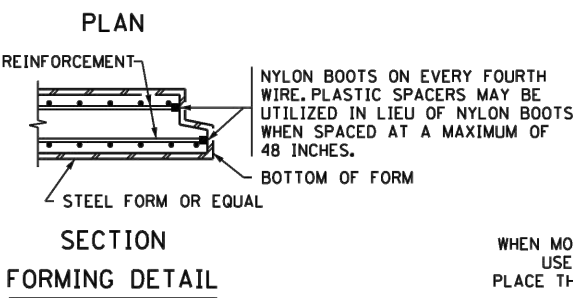
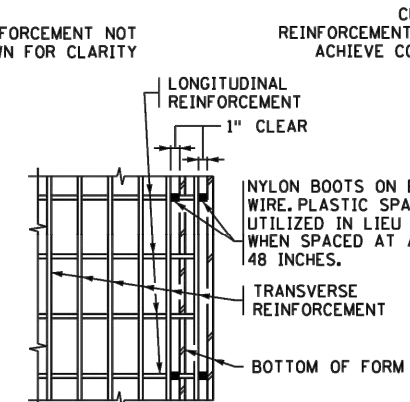
BOARD REVIEW
 NOT FOR CONSTRUCTION

CADD USER: GREG NELSON FILE: M:\DESIGN\23621494\05_SECTIONS AND DETAILS.DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:10 AM

				I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.				CLIENT PERMIT BID CONSTRUCTION RECORD				3/22/24				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435				Scale: AS SHOWN Date: 3/22/24 Drawn: GGN Checked: TAO2 Designed: BARR Approved: --				COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT				BARR PROJECT No. 23/62-1494.00 CLIENT PROJECT No.			
A GGN TAO2 - 3/22/24 BOARD REVIEW FOR PROJECT APPROVAL				PRINTED NAME: TYLER A. OLSEN SIGNATURE: _____ DATE: _____ LICENSE #: _____				RELEASED TO/FOR: _____ DATE RELEASED: _____				Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 Ph: 1-800-632-2277 www.barr.com				RAMSEY-WASHINGTON METRO WATERSHED DISTRICT				SECTIONS AND DETAILS				DWG. No. C-05 REV. No. A							



HAUNCH BAR LENGTH:
 31" FOR 8" WALL THICKNESS
 34" FOR 9" WALL THICKNESS
 34" FOR 10" WALL AND 10" SLAB
 36" FOR 10" WALL AND 11" SLAB
 38" FOR 10" WALL AND 12" SLAB
 38" FOR 11" WALL THICKNESS



WHEN MORE THAN ONE LAYER OF WELDED WIRE REINFORCEMENT IS USED TO OBTAIN THE REQUIRED REINFORCEMENT AREAS, PLACE THE WIRES OF THE WELDED WIRE REINFORCEMENT AS SHOWN

CONSTRUCTION NOTES
 CONSTRUCT CULVERTS IN ACCORDANCE WITH SPEC. 2412 EXCEPT AS NOTED.
 REFER TO THE GENERAL PLAN AND ELEVATION SHEET FOR THE DISTANCE BETWEEN BARRELS OF ADJACENT BOXES AND TO STANDARD FIGURE 5-395.115 FOR MATERIAL REQUIREMENTS FOR FILL BETWEEN ADJACENT BOXES.
 PROVIDE WELDED WIRE REINFORCEMENT, SHEAR REINFORCEMENT AND REINFORCEMENT BARS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M259.
 1/2" MIN. AND 2" MAX. CONCRETE COVER ON ALL REINFORCEMENT, INCLUDING SHEAR REINFORCEMENT, EXCEPT FOR TONGUE AND GROOVE DETAIL.
 ANY OF THE FOLLOWING COMBINATIONS OF STEEL REINFORCEMENT MAY BE USED:
 (a) 1 OR 2 LAYERS OF WELDED WIRE REINFORCEMENT OR
 (b) 1 LAYER OF WELDED WIRE REINFORCEMENT AND 1 LAYER OF REINFORCEMENT BARS OR
 (c) 1 LAYER OF REINFORCEMENT BARS.
 DEVELOP REINFORCEMENT IN ACCORDANCE WITH AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS". IF BAR REINFORCEMENT IS SUBSTITUTED FOR WELDED WIRE REINFORCEMENT, INCREASE THE AREA OF REINFORCEMENT BY 8%, AND SUBMIT DESIGN CALCULATIONS VERIFYING COMPLIANCE WITH AASHTO 5.7.3.4. "CONTROL OF CRACKING BY DISTRIBUTION OF REINFORCEMENT".
 MAXIMUM SIZE OF REINFORCEMENT BARS IS NO. 6. THE MAXIMUM WELDED WIRE REINFORCEMENT SIZE IS W23 PER LAYER (MAXIMUM OF 2 LAYERS).
 SPACE CENTER TO CENTER OF TRANSVERSE WIRES NOT LESS THAN 2" NOR MORE THAN 4". SPACE CENTER TO CENTER OF LONGITUDINAL WIRES NOT MORE THAN 8".
 WHEN USING As1, As7, AND As8 REINFORCEMENT AS ONE CONTINUOUS CAGE WITH SPLICES OCCURRING IN THE CENTER OF THE TOP AND BOTTOM OF THE BOX SECTION, THE MIN. LAP LENGTH FOR THE As7 AND As8 IS 15".
 WELDING IS NOT PERMITTED ON REINFORCEMENT BARS OR WELDED WIRE REINFORCEMENT, EXCEPT THAT THE ORIGINAL WELDING REQUIRED TO MANUFACTURE WIRE REINFORCEMENT IS ACCEPTABLE.
 WHEN REINFORCEMENT IS CUT, PLACE ADDITIONAL REINFORCEMENT ON BOTH SIDES OF THE CUT MEMBER TO REPLACE OR EXCEED THE CUT STEEL.
 USE CONCRETE MIX NO. 3W82 WITH NO CALCIUM CHLORIDE ALLOWED.
 SHOP DRAWING APPROVAL IN ACCORDANCE WITH SPEC. 3238.2A IS NOT REQUIRED UNLESS OPENINGS OR ATTACHMENTS ARE PLACED ON A BARREL SEGMENT.
 COMPACT THE FIRST 1.5' (LOOSE) OF FILL ABOVE THE BOX WITH LIGHT COMPACTION EQUIPMENT SUCH AS PLATE COMPACTORS OR WALK BEHIND ROLLERS.
 TRANSVERSE REINFORCEMENT IS PARALLEL TO THE CULVERT SPAN. LONGITUDINAL REINFORCEMENT IS PERPENDICULAR TO THE CULVERT SPAN.
 ① USE 1" DIAMETER CULVERT TIES. SEE STANDARD PLATE NO. 3145 FOR DETAILS.
 ② USE 12" VERTICAL, 12" HORIZONTAL HAUNCHES ON ALL BOX SIZES.
 ③ PLACE LONGITUDINAL REINFORCEMENT DENOTED AS As6 IN ALL SLABS AND WALLS WITH A MINIMUM OF 0.06 SQ. IN./FT.
 ④ ROADWAY OR SHOULDER FILL HEIGHTS OF LESS THAN 2'-0" REQUIRE A 6" THICK DISTRIBUTION SLAB WITH CONCRETE MIX 3552.
 PLACE CAST-IN-PLACE DISTRIBUTION SLABS WITH 3" MIN. SELECT GRANULAR MATERIAL IN ACCORDANCE WITH SPEC. 3149.2B BETWEEN BARREL AND DISTRIBUTION SLAB.
 PRECAST DISTRIBUTION SLABS MAY BE USED FOR FILL HEIGHTS OVER 1'-0". PROVIDE 6" MINIMUM SELECT GRANULAR MATERIAL IN ACCORDANCE WITH SPEC. 3149.2B BETWEEN BARREL AND SLAB.
 EXTEND THE WIDTH OF THE DISTRIBUTION SLAB TO THE OUTSIDE EDGES OF THE ROADWAY SHOULDERS UNLESS DIRECTED BY THE ENGINEER.
 REDESIGN THE DISTRIBUTION SLAB PER THE MNDOT PAVEMENT DESIGN MANUAL IF IT IS USED AS PAVEMENT SURFACE.
 PAYMENT FOR THE DISTRIBUTION SLAB AND SELECT GRANULAR MATERIAL BENEATH THE SLAB IS INCLUDED IN THE PRECAST CONCRETE BOX CULVERT PAY ITEM.
 ⑤ REFER TO SPEC. 2412 FOR SEALANT REQUIREMENTS.

BARREL INFORMATION TABLE ***

LOCATION	SIZE	CLASS	f'c (P.S.I.)	FILL HEIGHT RANGE (FT.)	DISTRIBUTION SLAB REQUIRED *	RECESSED TIE RODS REQUIRED **	DIMENSIONS					WEIGHT (LBS./FT.)	WELDED WIRE REINFORCEMENT												
							SPAN (FT.)	RISE (FT.)	T+ (IN.)	Tb (IN.)	Ts (IN.)		As1		As2		As3		As4		As7		As8		
													AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	
KOHLMAN CREEK	14 X 4	3	5000	6'-11"	NO	NO	14	4	10	10	9	5075	1.33	15.67	5.25	0.94	14.5	0.95	14.5	0.22	4.5	0.24	9.58	0.24	9.58

REVISION: DECEMBER 21, 2022
 APPROVED: MARCH 24, 2011
 Nancy S. Olsen
 STATE BRIDGE ENGINEER

* ALL CLASS 1 CULVERTS WITH FILL HEIGHTS OF LESS THAN 2'-0" REQUIRE A DISTRIBUTION SLAB. IF A DISTRIBUTION SLAB IS NOT REQUIRED, INDICATE "NO" IN THIS BOX.
 ** FOR PEDESTRIAN CULVERT APPLICATIONS HIDE-AWAY OR RECESSED TIE CONNECTIONS ARE REQUIRED, SEE STANDARD PLATE 3145. IF REQUIRED, INDICATE "YES" IN THIS BOX.

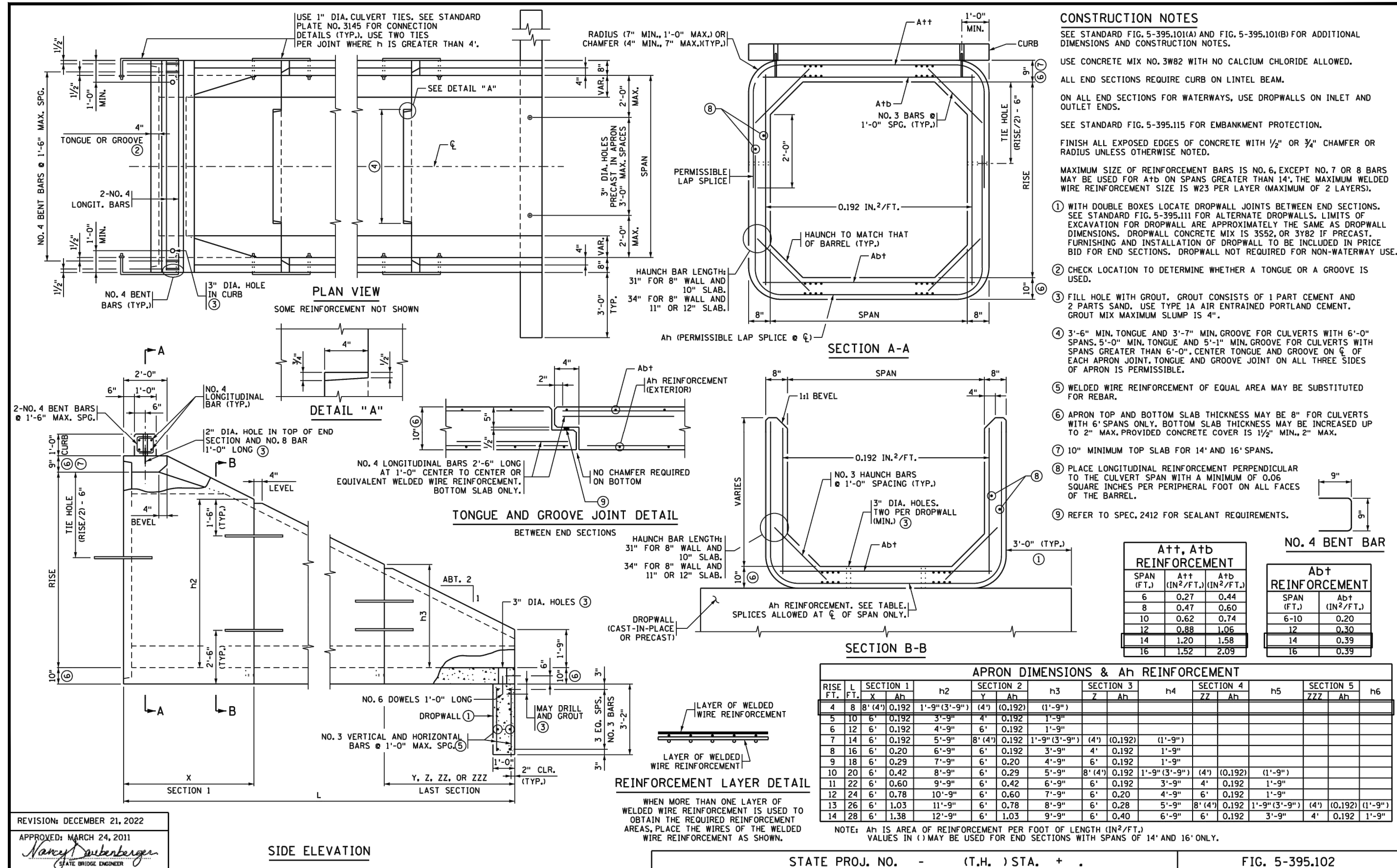
*** BOX CULVERTS WITH SPANS FROM 6 TO 14 FT. ARE DESIGNED FOR HL-93 LIVE LOADS (AASHTO LRFD 3.6.2.1) NOT INCLUDING THE DESIGN LANE LOAD. BOXES WITH SPANS OF 16 FT. ARE DESIGNED FOR HL-93 LIVE LOADS INCLUDING THE DESIGN LANE LOAD.

STATE PROJ. NO. - (T.H.) STA. + . FIG. 5-395.101(A)

CADD USER: GREG NELSON FILE: M:\DESIGN\2022\1494\00236149400_C-08_PRC-CAST CONCRETE BOX CULVERT SECTIONS AND DETAILS.DWG PLOT SCALE: 1/2" = 1'-0" DATE: 3/27/2024 11:10 AM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		CLIENT PERMIT BID CONSTRUCTION RECORD	3/22/24	Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435		Scale AS SHOWN	COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT	BARR PROJECT No. 23/62-1494.00
PRINTED NAME: TYLER A. OLSEN		RELEASED TO/ FOR	A B C 0 1 2 3	Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com	AS SHOWN	CLIENT PROJECT No.		
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION	AS SHOWN	PRECAST CONCRETE BOX CULVERT SECTIONS AND DETAILS	REV. No. A

CADD USER: GREG NELSON FILE: M:\DESIGN\2022\1494\002362149400_C-07_Precast Concrete Box Culvert Sections and Details.dwg PLOT SCALE: 1/2" = 1'-0" PLOT DATE: 3/27/2024 11:11 AM



REVISION: DECEMBER 21, 2022

APPROVED: MARCH 24, 2011

Nancy Rubenberger
 STATE BRIDGE ENGINEER

SIDE ELEVATION

STATE PROJ. NO. - (T.H.) STA. + .

FIG. 5-395.102

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		CLIENT PERMIT BID CONSTRUCTION RECORD	3/22/24	Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435		Scale: AS SHOWN		COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT PRECAST CONCRETE BOX CULVERT SECTIONS AND DETAILS	BARR PROJECT NO. 23/62-1494.00			
PRINTED NAME: TYLER A. OLSEN	SIGNATURE: _____	RELEASED TO/ FOR	A B C 0 1 2 3	DATE RELEASED	Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2801 www.barr.com	Date: 3/22/24			Drawn: GGN	Checked: TAO2	Designed: BARR	Approved: _____

CONSTRUCTION NOTES

THIS PLAN SHEET IS FOR CULVERT EMBANKMENT PROTECTION ONLY. REFER TO THE GRADING PLANS FOR ADDITIONAL RIPRAP OR OTHER SCOUR PROTECTION MEASURES.

PROVIDE RIPRAP IN ACCORDANCE WITH SPECS. 2511 AND 3601.

EMBANKMENT PROTECTION, INCLUDING MATERIAL PLACED BETWEEN BARRELS THAT ARE LESS THAN 2'-0" APART, IS INCLUDED IN THE PRECAST CONCRETE BOX CULVERT PAY ITEMS.

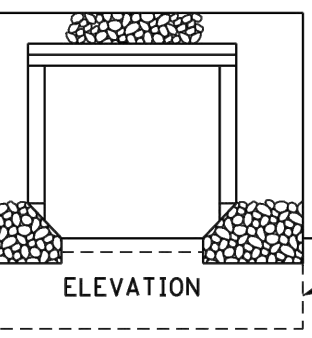
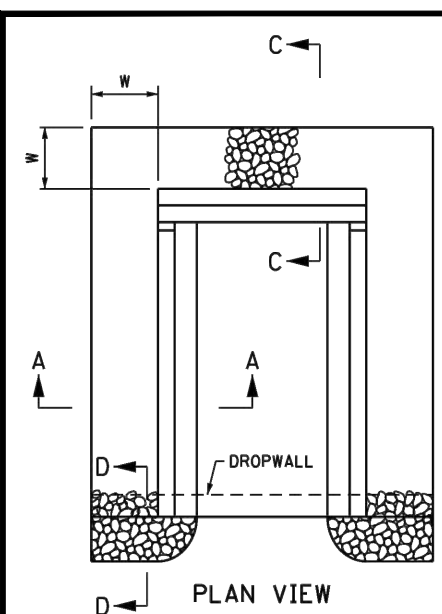
① PROVIDE TYPE 7 GEOTEXTILE IN ACCORDANCE WITH SPEC. 3733. PROVIDE GEOTEXTILE STRIPS CONTINUOUS WITHOUT OVERLAPS, EXCEPT FOR THE TOP STRIP, WHICH SHOULD SHINGLE VERTICAL STRIPS. BURY THE TOP EDGE TO PREVENT UNDERMINING.

② IF THE DISTANCE BETWEEN MULTIPLE BARRELS IS LESS THAN 2'-0" USE EITHER PEA ROCK OR LEAN MIX BACKFILL (SPEC. 2520) BETWEEN THE CULVERTS AS APPROVED BY THE ENGINEER. IF PEA ROCK IS USED PROVIDE APPROVED GROUT SEEPAGE CUTOFF CORE, MINIMUM 12" THICK BETWEEN THE CULVERT'S TWO ENDS AND PROVIDE CLASS I GROUTED RIPRAP IN LIEU OF CLASS III RIPRAP.

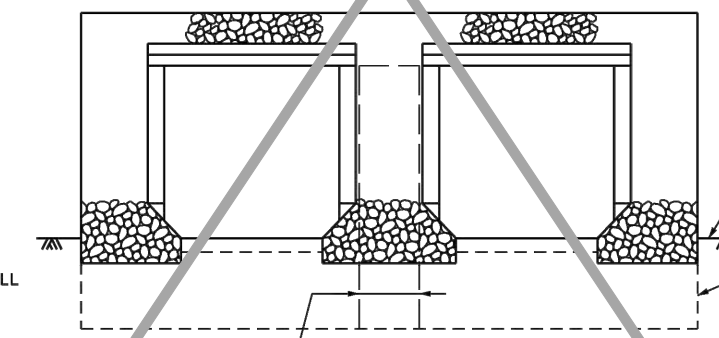
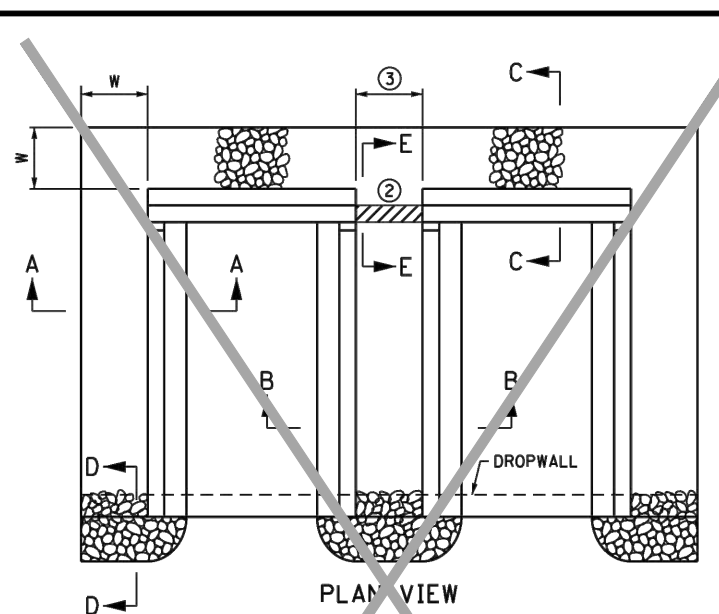
③ REFER TO THE GENERAL PLAN AND ELEVATION SHEET FOR THE DISTANCE BETWEEN BARRELS OF ADJACENT BOXES.

RIPRAP CLASS

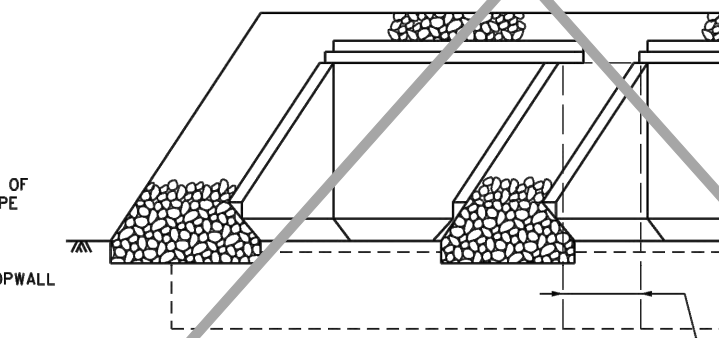
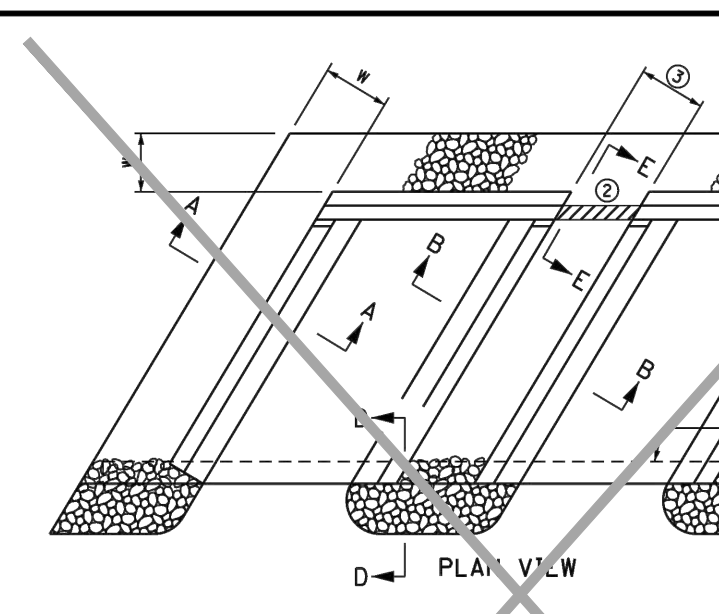
RIPRAP CLASS	RIPRAP CLASS	T	W
	III	1'-6"	3'-0"
	IV	2'-0"	4'-0"



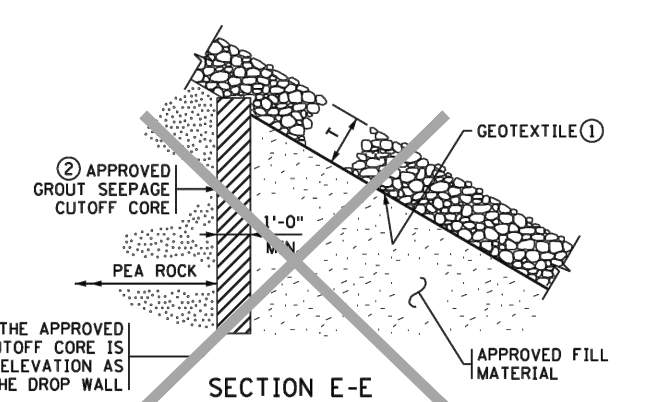
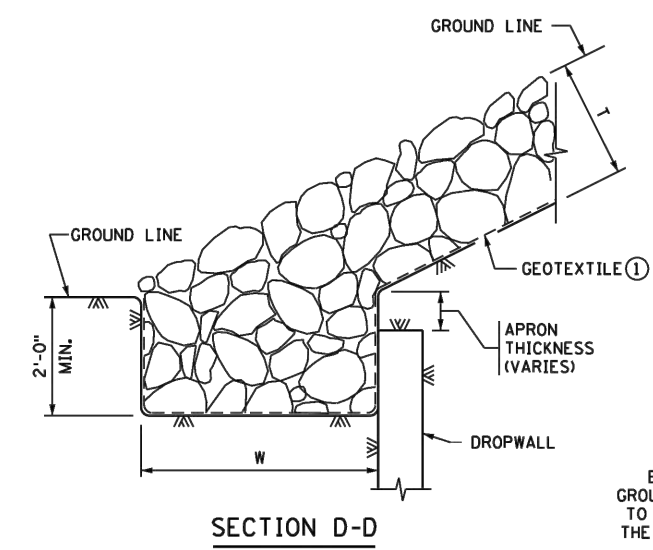
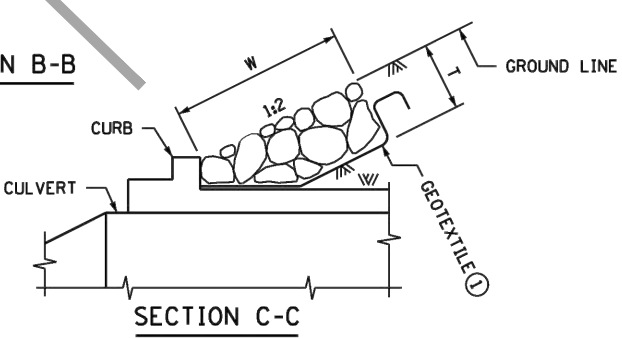
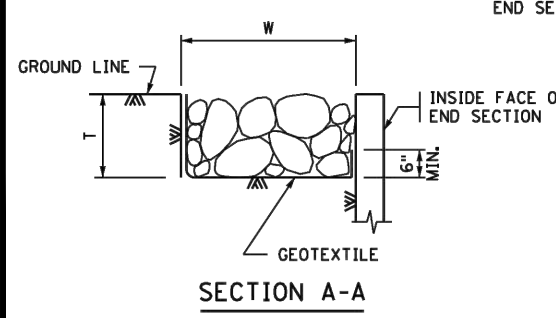
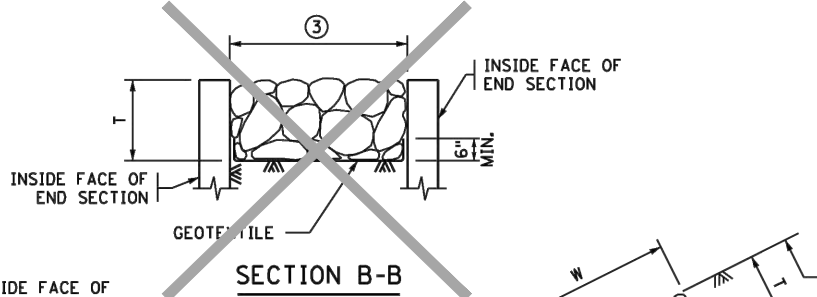
SINGLE BARREL
CLASS III OR IV SHOWN FOR SKEWS UP TO 7 1/2°



MULTIPLE BARREL
FOR SKEWS UP TO 7 1/2°
CLASS III OR IV SHOWN
DOUBLE BARREL SHOWN



MULTIPLE BARREL
FOR SKEWS OVER 7 1/2°
CLASS III OR IV SHOWN
DOUBLE BARREL SHOWN,
OTHER BARREL CONFIGURATIONS SIMILAR.



REVISION: DECEMBER 21, 2022
APPROVED: SEPTEMBER 11, 2014
Nancy Subenberger
STATE BRIDGE ENGINEER

STATE PROJ. NO. - (T.H.) STA. + .

FIG. 5-395.115

CADD USER: GREG NELSON FILE: M:\DESIGN\23621490.00\236214900_C-08_Precast Concrete Box Culvert Sections and Details.dwg PLOT SCALE: 1/2" = 1'-0" PLOT DATE: 3/27/2024 11:11 AM

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PRINTED NAME: TYLER A. OLSEN		BID							
SIGNATURE: _____		CONSTRUCTION RECORD							
DATE: _____ LICENSE # _____		RELEASED TO/FOR	A	B	C	0	1	2	3
		DATE RELEASED							

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	3/22/24
Drawn	GN
Checked	TAO2
Designed	BARR
Approved	

COUNTY ROAD C / KOHLMAN CREEK
CONVEYANCE IMPROVEMENT
PRECAST CONCRETE BOX CULVERT
SECTIONS AND DETAILS

BARR PROJECT No. 23/62-1494.00	
CLIENT PROJECT No.	
DWG. No. C-08	REV. No. A

CADD USER: GREG NELSON FILE: M:\DESIGN\23621494\02\23621494_R-01_SITE RESTORATION PLAN AND DETAILS.DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:17 AM



NOTES:

1. OWNER WILL DESIGN, PURCHASE SEPARATELY, AND SUPPLY NATIVE SEED MIXTURES FOR THE CONTRACTOR'S USE AFTER THE DISTURBED AREA AT THE SITE IS ASSESSED. CONTRACTOR SHALL NOT INCLUDE THE COST OF NATIVE SEED IN THE CONTRACT PRICE FOR SEEDING.
2. ALL AREAS SHALL BE RESTORED WITH MIN. 6" TOPSOIL.
3. PROTECT EXISTING CURBS, PAVEMENT, AND OTHER SITE ELEMENTS FROM IMPACT BY SOIL PREPARATION, AND PLANTING OPERATIONS. AVOID COMPACTING SOIL WITH HEAVY EQUIPMENT, ANY DAMAGE TO SITE TO BE REPAIRED AT CONTRACTOR'S EXPENSE.
4. ANY EXOTIC INVASIVE PLANTS AND WEEDS WITHIN THE SEEDING AREAS SHALL BE SPRAYED WITH HERBICIDE 14-DAYS PRIOR TO SEEDING OR AS PER MANUFACTURE'S RECOMMENDATION. SIGNAGE INDICATING THE USE OF HERBICIDES MUST BE POSTED ON SITE.
5. ALL HERBICIDE APPLICATION SHALL BE APPLIED BY A LICENSED APPLICATOR WITHIN THE STATE OF MINNESOTA.
6. SEED IN ACCORDANCE WITH THE SPECIFICATIONS. SEEDING IS TO TAKE PLACE IMMEDIATELY FOLLOWING FINAL GRADING AND TOPSOIL PLACEMENT TO PREVENT EROSION AND COMPACTION.

1 PLAN: SEEDING AND EROSION CONTROL BLANKET

BOARD REVIEW
NOT FOR CONSTRUCTION

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PRINTED NAME: TYLER A. OLSEN			
SIGNATURE: _____			
DATE: _____ LICENSE # _____			
NO.	BY	CHK.	APP.
A	GGN	TAO2	-
DATE: 3/22/24			BOARD REVIEW FOR PROJECT APPROVAL
REVISION DESCRIPTION			

CLIENT PERMIT	3/22/24						
BID							
CONSTRUCTION RECORD							
RELEASED TO/FOR	A	B	C	0	1	2	3
DATE RELEASED							

BARR Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277
Fax: (952) 832-2601
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Scale	AS SHOWN
Date	3/22/24
Drawn	GGN
Checked	TAO2
Designed	BARR
Approved	---



COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT	
SITE RESTORATION PLAN	

BARR PROJECT No. 23/62-1494.00	
CLIENT PROJECT No.	
DWG. No. R-01	REV. No. A

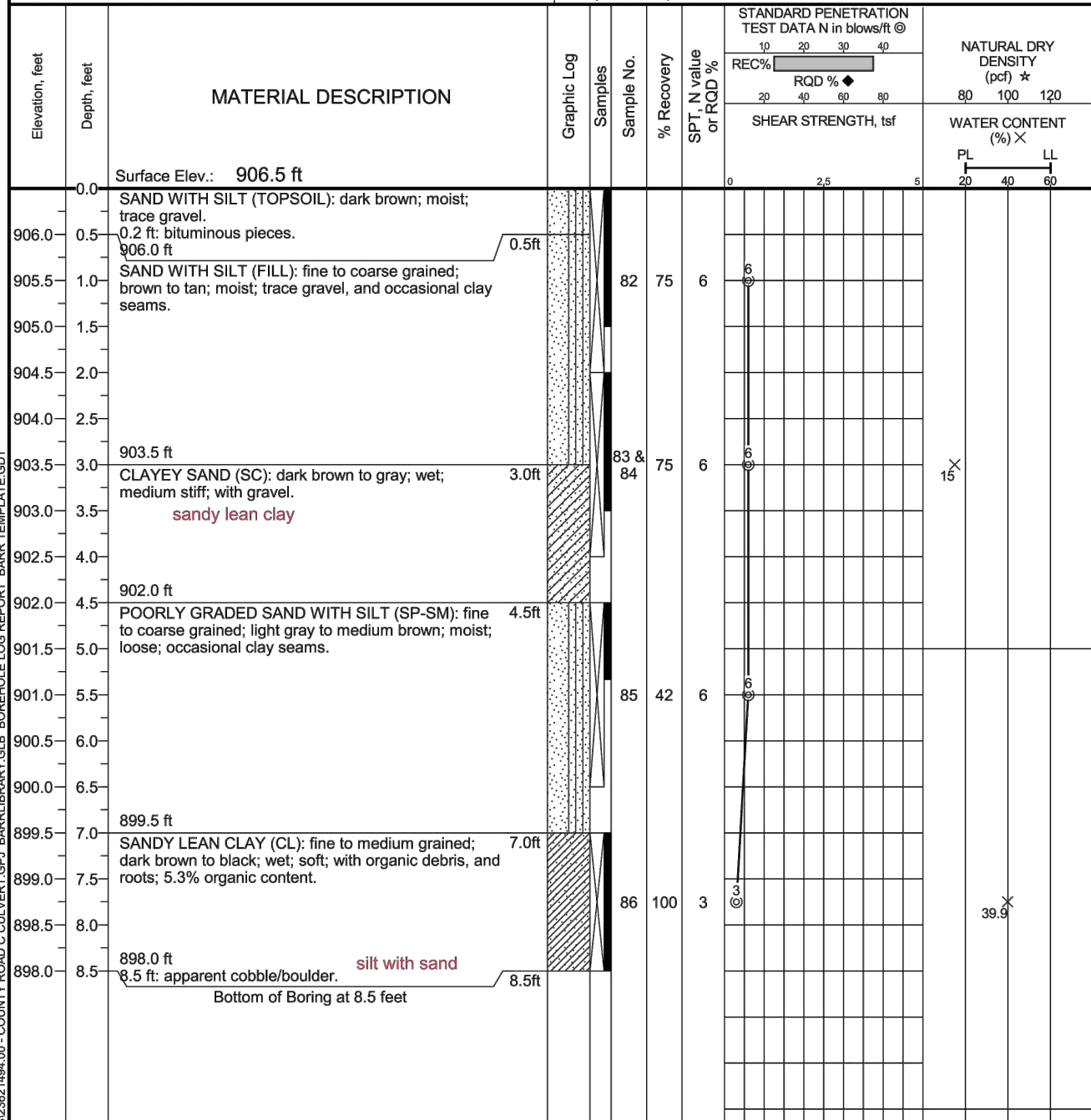


Barr Engineering Co.
4300 MarketPointe Drive Suite 200
Minneapolis, MN 55435
Telephone: 952-832-2600

LOG OF BORING CXC-1a-B

Associated Boring #: CXC-1-B
Sheet 1 of 1

Project: County Road C Improvements	Surface Elevation: 906.5 ft
Job No.: 23621494.00	Drilling Method: HSA
Location: Little Canada, Minnesota	Sampling Method: Split Spoon
Coordinates: N 4,985,281.5 ft E 498,163.0 ft	Completion Depth: 8.5 ft
Datum: NAD83	



Date Boring Started: 12/18/23 8:32 am	Water Levels (ft): At Time of Drilling Dry	Remarks: Spoon refusal prior to reaching target depth. Adjacent to CXC-1b-B.
Date Boring Completed: 12/18/23 9:10 am	Logged By: ACW A.E.T.	Weather: P. Cloudy, 16°F
Drilling Contractor: CME-550X	Drill Rig: CME-550X	

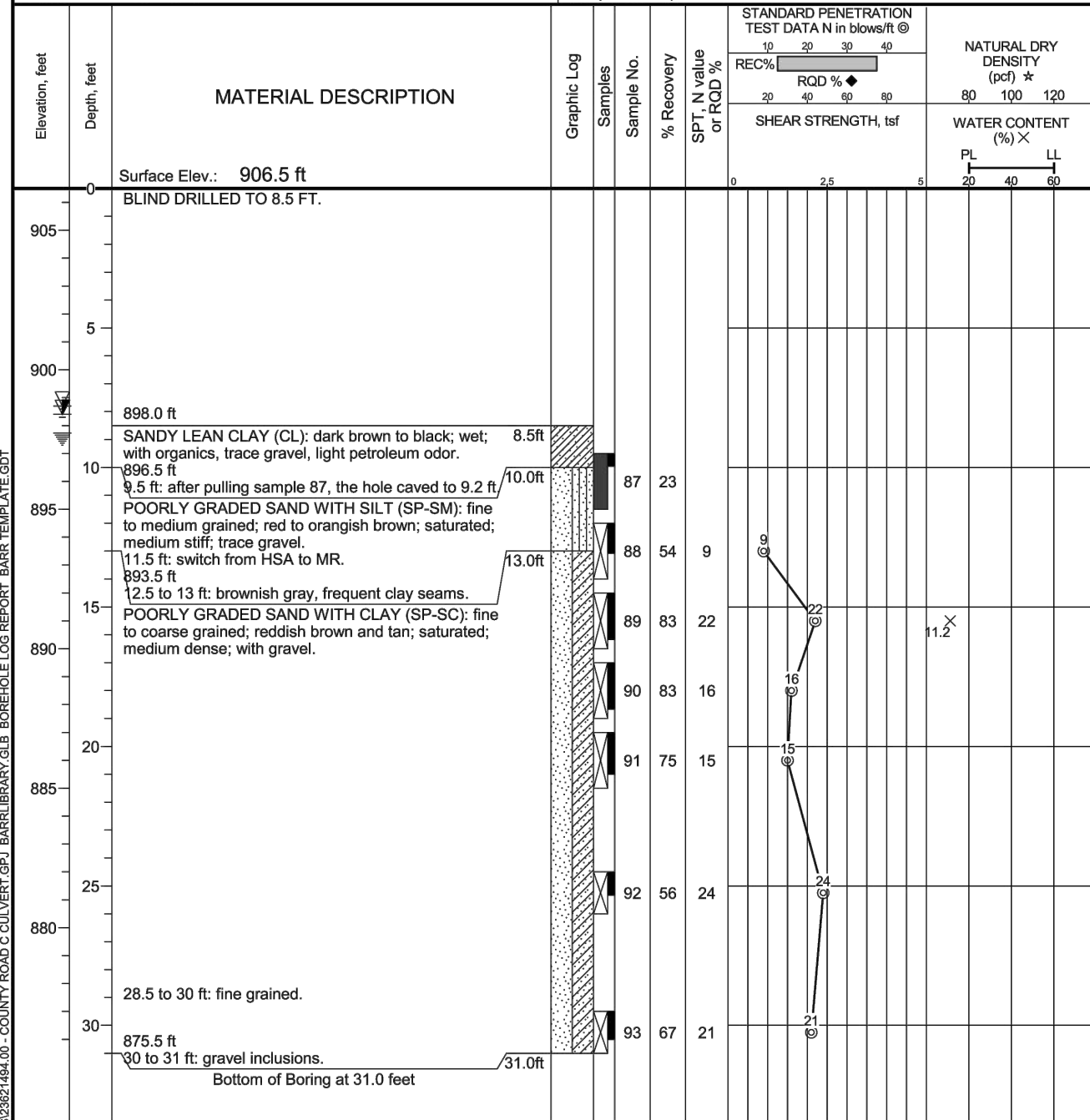


Barr Engineering Co.
4300 MarketPointe Drive Suite 200
Minneapolis, MN 55435
Telephone: 952-832-2600

LOG OF BORING CXC-1b-B

Associated Boring #: CXC-1-B
Sheet 1 of 1

Project: County Road C Improvements	Surface Elevation: 906.5 ft
Job No.: 23621494.00	Drilling Method: HSA/MR
Location: Little Canada, Minnesota	Sampling Method: Split Spoon, Thin Wall Tube
Coordinates: N 4,985,281.4 ft E 498,163.6 ft	Completion Depth: 31.0 ft
Datum: NAD83	



Date Boring Started: 12/18/23 9:15 am	Water Levels (ft): Wet Cave-in Depth 9.2	Remarks: Boring terminated upon reaching target depth. Adjacent to CXC-1a-B.
Date Boring Completed: 12/18/23 10:20 am	Logged By: ACW A.E.T.	Weather: P. Cloudy, 16°F
Drilling Contractor: CME-550X	Drill Rig: CME-550X	

CADD USER: GREG NELSON FILE: M:\DESIGN\23621494\B-01_BORINGS LOG.DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:11 AM

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PRINTED NAME: TYLER A. OLSEN		RELEASED TO/FOR		DATE RELEASED		A		B		C		0		1		2		3		
SIGNATURE: _____		DATE: _____		LICENSE # _____																

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277
Ph: 1-800-632-2277

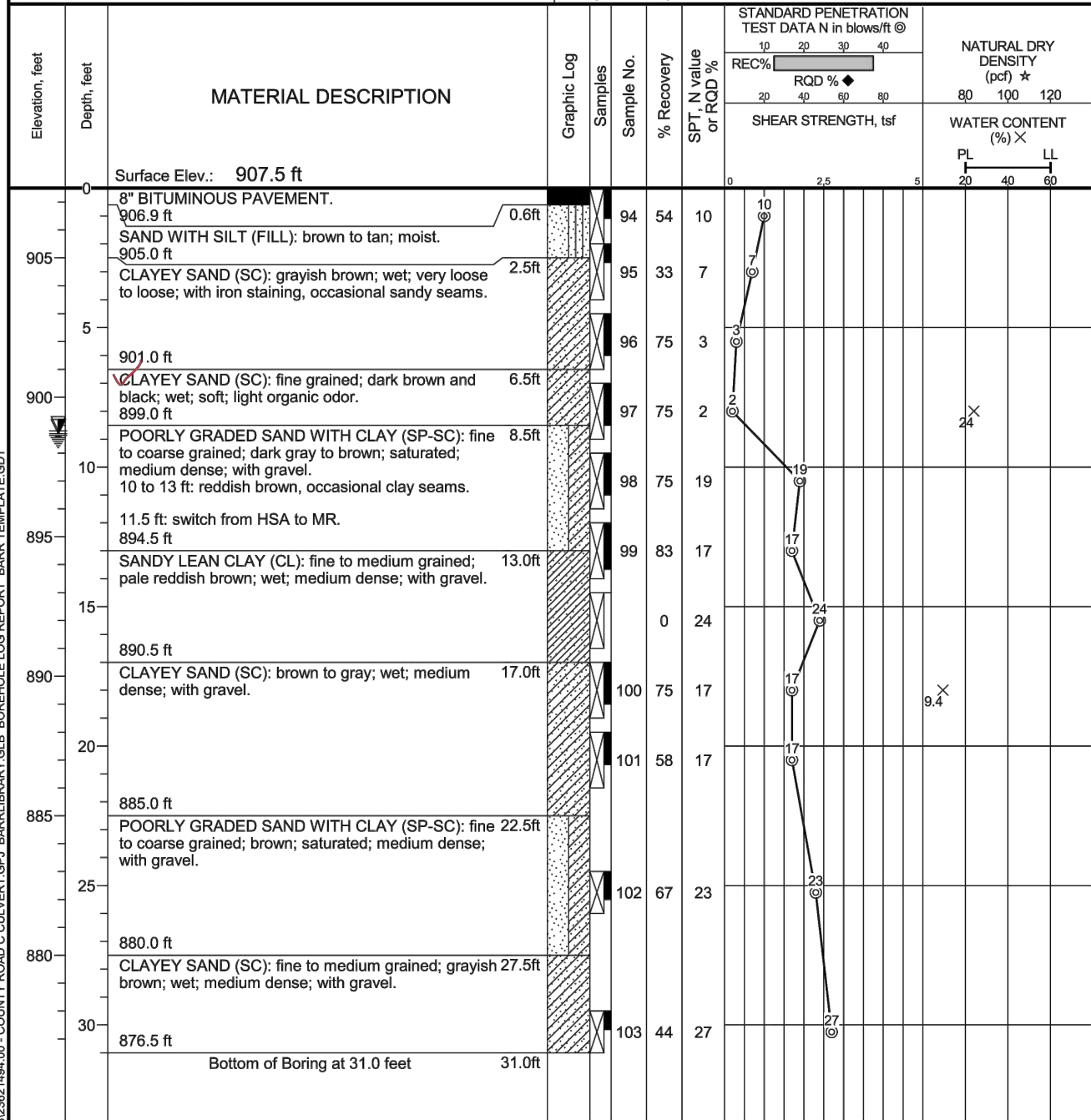
Scale: AS SHOWN	Date: 3/22/24	Drawn: GGN	Checked: TAO2	Designed: BARR	Approved: _____
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COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT		BARR PROJECT No. 23/62-1494.00
BORING LOG CXC-1-B (1a, 1b)		CLIENT PROJECT No.
DWG. No. B-01	REV. No. A	

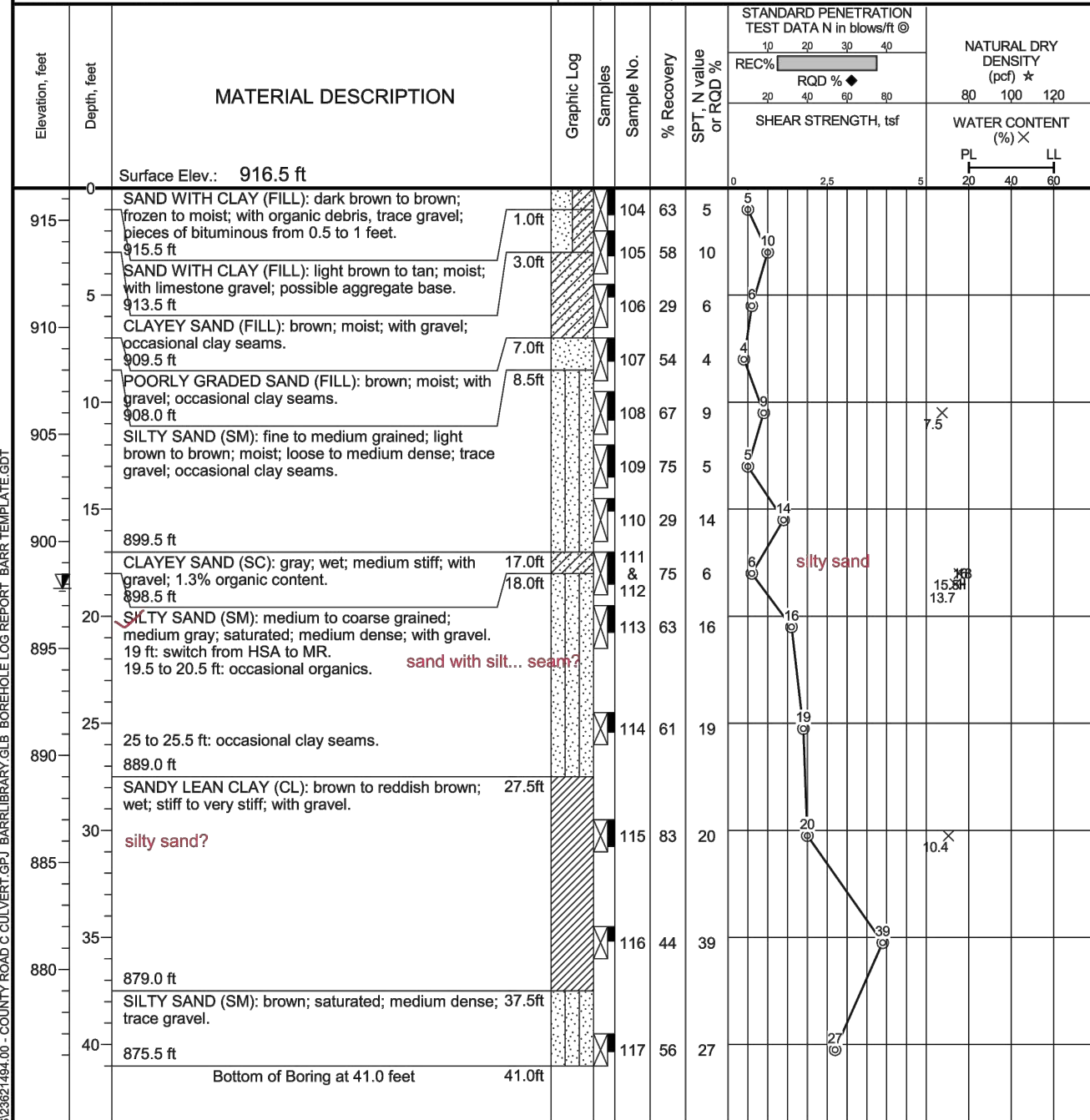
BOARD REVIEW
NOT FOR CONSTRUCTION

Project: County Road C Improvements	Surface Elevation: 907.5 ft
Job No.: 23621494.00	Drilling Method: HSA/MR
Location: Little Canada, Minnesota	Sampling Method: Split Spoon
Coordinates: N 4,985,277.9 ft E 498,173.6 ft	Completion Depth: 31.0 ft
Datum: NAD83	



Date Boring Started: 12/18/23 10:45 am	Water Levels (ft): Wet Cave-in Depth 9.3	Remarks: Boring terminated upon reaching target depth. Asphalt patch applied to surface.
Date Boring Completed: 12/18/23 1:45 pm	At Time of Drilling 8.8	
Logged By: ACW	0.25 hrs After Drilling 8.7	
Drilling Contractor: A.E.T.		
Drill Rig: CME-550X		
Weather: Sunny, 18°F		

Project: County Road C Improvements	Surface Elevation: 916.5 ft
Job No.: 23621494.00	Drilling Method: HSA/MR
Location: Little Canada, Minnesota	Sampling Method: Split Spoon
Coordinates: N 4,985,258.2 ft E 498,168.7 ft	Completion Depth: 41.0 ft
Datum: NAD83	



Date Boring Started: 12/19/23 9:15 am	Water Levels (ft): At Time of Drilling 18.7	Remarks: Boring terminated upon reaching target depth.
Date Boring Completed: 12/19/23 11:15 am		
Logged By: ACW		
Drilling Contractor: A.E.T.		
Drill Rig: CME-550X		
Weather: P. Cloudy, 32°F		

CADD USER: GREG NELSON FILE: M:\DESIGN\23621494\B-01_BORINGS LOG.DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:11 AM

M:\GINT\PROJECTS\23621494\00 - COUNTY ROAD C CULVERT.GPJ_BARR\LIBRARY.GLB_BOREHOLE LOG REPORT_BARR TEMPLATE.GDT

M:\GINT\PROJECTS\23621494\00 - COUNTY ROAD C CULVERT.GPJ_BARR\LIBRARY.GLB_BOREHOLE LOG REPORT_BARR TEMPLATE.GDT

BOARD REVIEW
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.				CLIENT: 3/22/24 PERMIT: _____ BID: _____ CONSTRUCTION RECORD: _____ RELEASED TO/FOR: _____ DATE RELEASED: _____				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Ph: 1-800-632-2277				Scale: AS SHOWN Date: 3/22/24 Drawn: GGN Checked: TAO2 Designed: BARR Approved: _____				COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT BORING LOG CXC-2-B AND CXC-3-B				BARR PROJECT No. 23/62-1494.00 CLIENT PROJECT No. DWG. No. B-02 REV. No. A			
PRINTED NAME: TYLER A. OLSEN SIGNATURE: _____ DATE: _____ LICENSE #: _____				NO. BY CHK. APP. DATE REVISION DESCRIPTION				A GGN TAO2 - 3/22/24 BOARD REVIEW FOR PROJECT APPROVAL				NO. BY CHK. APP. DATE REVISION DESCRIPTION											

Project: County Road C Improvements
Job No.: 23621494.00
Location: Little Canada, Minnesota
Coordinates: N 4,985,249.2 ft E 498,173.3 ft
Datum: NAD83

Surface Elevation: 907.5 ft
Drilling Method: HA
Sampling Method: Hand Auger
Completion Depth: 9.0 ft

Elevation, feet	Depth, feet	MATERIAL DESCRIPTION	Graphic Log	Samples	Sample No.	% Recovery	SPT, N value or RQD %	STANDARD PENETRATION TEST DATA N in blows/ft @		NATURAL DRY DENSITY (pcf) *	WATER CONTENT (%) X
								REC%	RQD %		
907.5	0.0	Surface Elev.: 907.5 ft						0	2.5		
907.0	0.5	SAND WITH SILT (TOPSOIL): dark brown; moist; with roots and organic debris.			59	100					
906.5	1.0	POORLY GRADED SAND WITH SILT (SP-SM): fine to coarse grained; light brown to brown; moist; with roots and gravel.			60	100					
906.0	1.5	1.3 to 1.5 ft: limestone gravel.			61	100					
905.5	2.0	905.5 ft			62	100					
905.0	2.5	POORLY GRADED SAND (SP): fine to medium grained; orangish brown to tan; moist; trace gravel.			63	100					
904.5	3.0	silty sand			64	100					5.3 X
904.0	3.5				65	100					
903.5	4.0				66	100					
903.0	4.5	4.2 ft: apparent cobble.			67	100					
902.5	5.0				68	100					
902.0	5.5				69	100					
901.5	6.0				70	100					
901.0	6.5				71	100					
900.5	7.0	sand with silt			72	100					
900.0	7.5	900.0 ft			73	100					6.1 X
899.5	8.0	PEAT (PT): black; moist; moderately decomposed, fibrous.			74	100					
899.0	8.5	ORGANIC LEAN CLAY (OL-OH): dark brown to black; wet; trace sand and gravel; 4.8% organic content.			75	100					
898.5	9.0	8.1 ft: apparent cobble. lean clay with organics			76	100					29.5 X
	9.0	Bottom of Boring at 9.0 feet			77	100					

Date Boring Started: 12/15/23 11:30 am
Date Boring Completed: 12/15/23 2:14 pm
Logged By: ACW
Drilling Contractor: A.E.T.
Drill Rig: Hand Augered

Water Levels (ft)
At Time of Drilling: Dry

Remarks: Boring terminated upon reaching target depth.

Weather: Cloudy, 41°F

CADD USER: GREG NELSON FILE: M:\DESIGN\23621494_00\BORINGS LOG DWG PLOT SCALE: 1:2 PLOT DATE: 3/27/2024 11:11 AM

BOARD REVIEW
NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		CLIENT PERMIT	3/22/24	Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435		Scale: AS SHOWN	COUNTY ROAD C / KOHLMAN CREEK CONVEYANCE IMPROVEMENT	BARR PROJECT No. 23/62-1494.00
PRINTED NAME: TYLER A. OLSEN		BID		Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Ph: 1-800-632-2601 www.barr.com		Date: 3/22/24		BORING LOG CXC-4-B
SIGNATURE: _____		CONSTRUCTION RECORD				Drawn: GGN	DWG. No. B-03	
DATE: _____ LICENSE # _____		RELEASED TO/FOR	A B C 0 1 2 3			Checked: TAO2		
NO. BY CHK. APP. DATE REVISION DESCRIPTION		DATE RELEASED				Designed: BARR		
						Approved: _____		





Attachment 2

Table of Contents for the Project Specifications

CONTRACT DOCUMENTS

**COUNTY ROAD C CULVERT REPLACEMENT
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT
LITTLE CANADA, MINNESOTA**

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31 23 19 Dewatering and Water Control	31 23 19-1
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32 12 00 Roadway Pavements	32 12 00-1



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33 42 00 Precast Concrete Culverts

33 42 00-1

Drawings

See Drawing G-01 for the Construction Drawing index



* * * * *

New Reports/ Presentations

* * * * *

SCHLETTY TAMARACK WETLAND

Ashley Petel
petha001@umn.edu

INTRO

Master of Professional Studies in Horticulture &
Bachelor of Design in Architecture at University
of Minnesota

Program Manager at Environmental Nonprofits

Natural Resources Intern at RWMWD

Ecologist at Minnesota Native Landscapes



OUTLINE

Overview

Site Assessment

Concept Plan

Plan Narrative





SITE DETAILS






- Ramsey Washington Metro
- Little Canada, MN
- Traditional homelands of the Dakota
- Wetland ~8 acres
- Site 8.49 acres

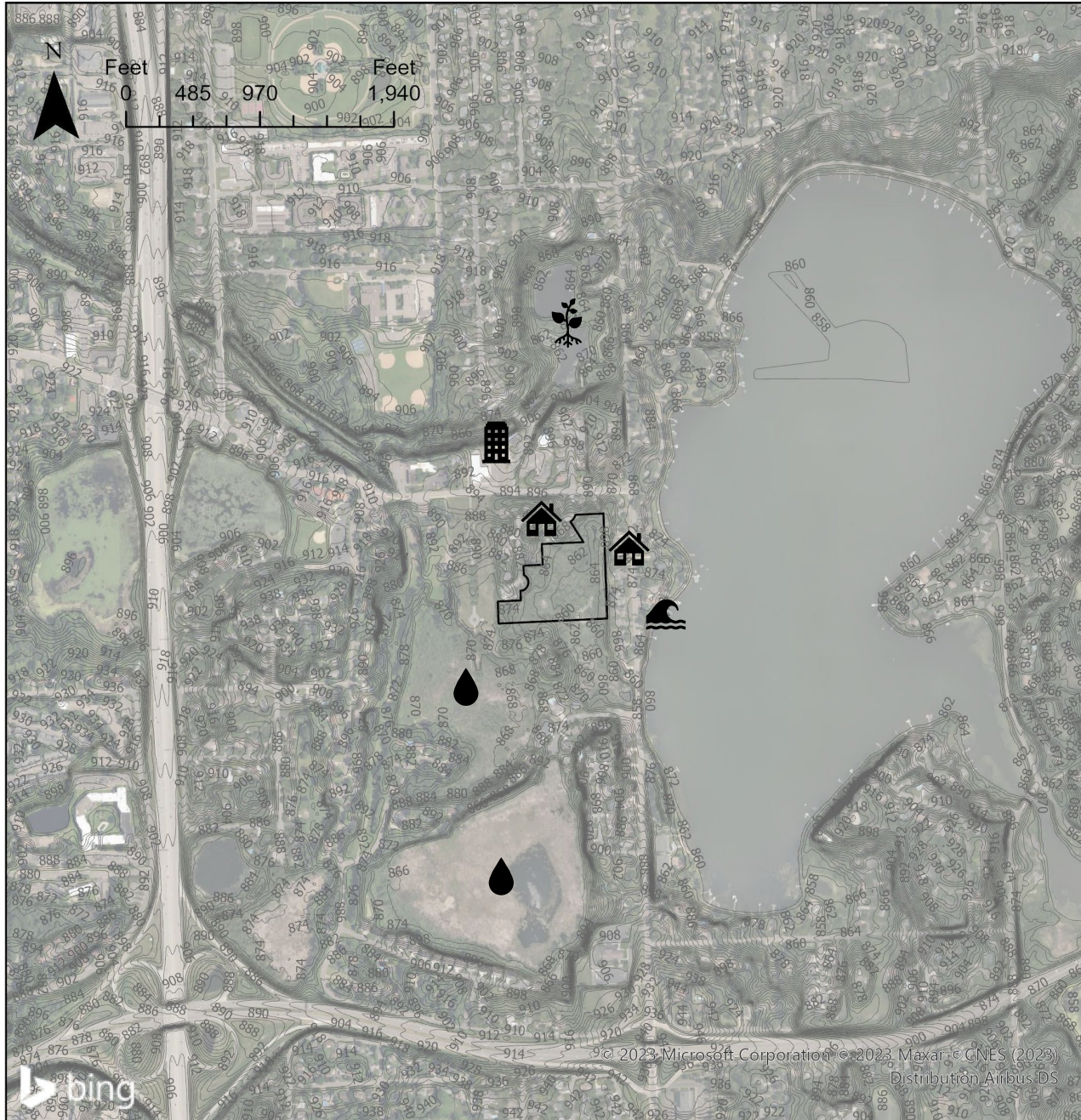


Site Context

Legend

-  Site Boundaries
-  Elevation

- Connected wetlands 
- Lake Gervais 
- Gervais Mill Pond restoration 
- Residential development and roads 
- Site is secluded, not easy to see or find
- Watershed district office 



SITE HISTORY

1940



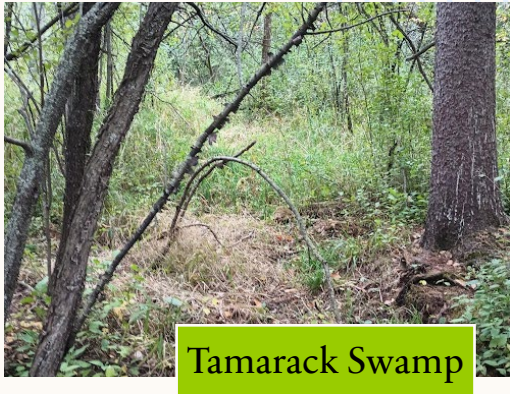
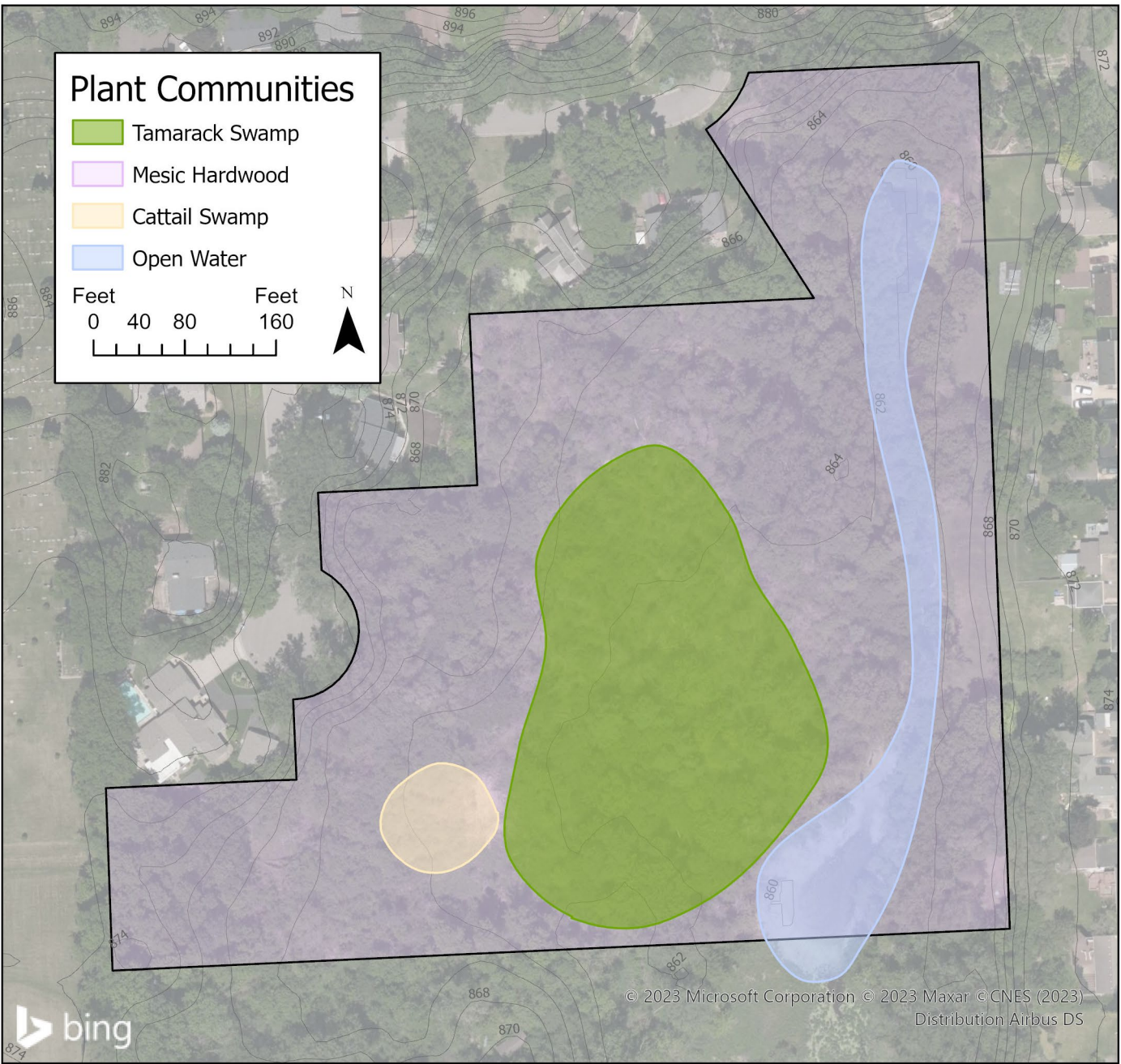
1953



1991



- Cul-de-sac development, reducing wetland
- Farming south of site
- Ditch on east boundary constructed
- Remnant!



KEY ASSETS



TAMARACK TREES

Unique this far south in Minnesota



MICRO-TOPOGRAPHY

Hummocks and hollows, pockets of standing water



NATIVE VEGETATION

Marsh marigold, lake sedge, giant manna grass, dark green bulrush, ferns



COARSE WOODY DEBRIS

Indicates windthrow and beneficial hydrology

NOTABLE PRESSURES



NON-NATIVE SPECIES / ASH TREE DEATH

Emerald ash borer,
buckthorn, garlic mustard,
reed canary grass, hybrid
cattail



SURROUNDING DEVELOPMENT

Edgerton St on east
boundary, single-family
houses surrounding



WETLAND BOUNDARIES

Wetland extends onto
private property past
southern boundary



NO TAMARACK REGENERATION

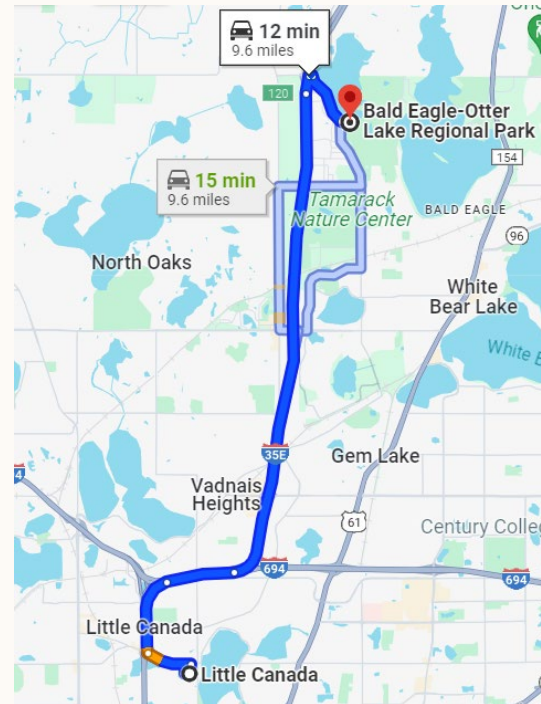
There were no signs of
young tamarack seedlings
or saplings in 2010 or 2023



REFERENCE SITES

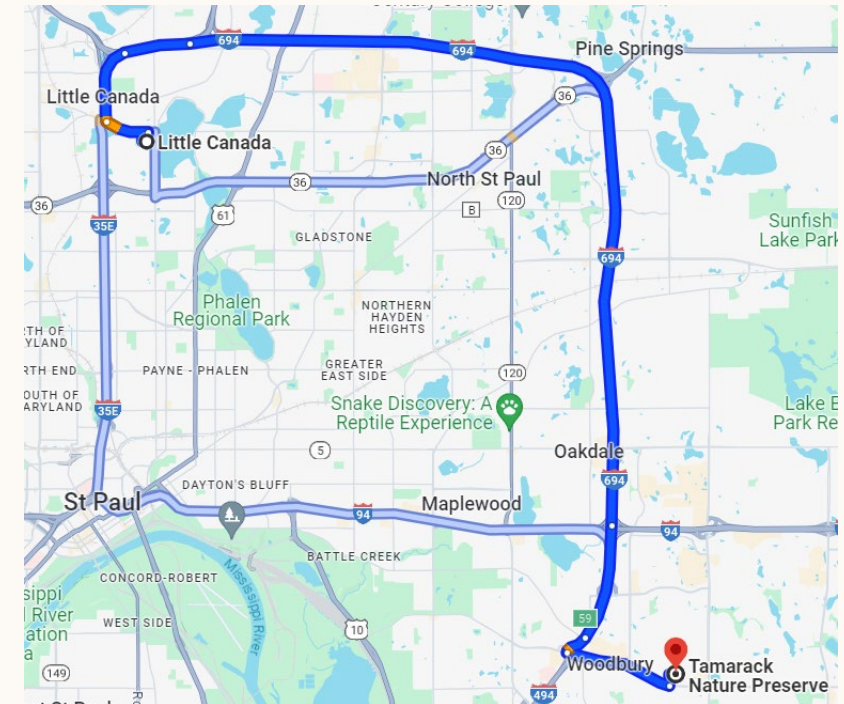
BALD EAGLE REGIONAL PARK

- Regenerating tamarack population

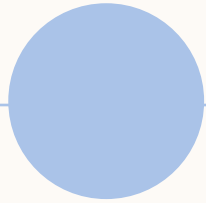


TAMARACK NATURE PRESERVE

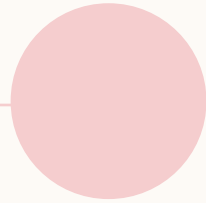
- Example restoration



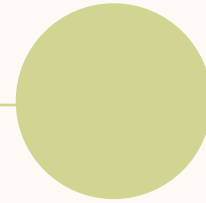
CONCEPTUAL GOALS



**ENHANCE A TAMARACK
SWAMP PLANT
COMMUNITY THAT IS RARE
THIS FAR SOUTH**

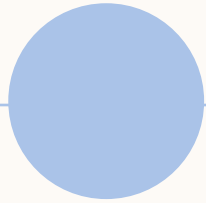


**IMPROVE WILDLIFE
HABITAT**

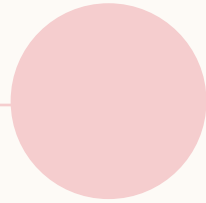


**STRENGTHEN WATER
QUALITY AND
STORMWATER/NUTRIENT
MANAGEMENT IN SUB-
WATERSHED**

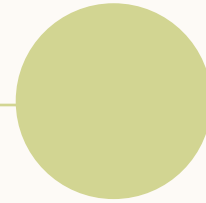
OUTCOMES



**REGENERATION OF
TAMARACK TREES,
IMPROVED NATIVE PLANT
DIVERSITY**



**PRESENCE OF WILDLIFE
AND SPECIES THAT NEED
THIS HABITAT**



**RAIN GARDENS, STREET
SWEEPING, AND OTHER
WATER QUALITY ACTIONS
IN SUB-WATERSHED**



Tamarack Swamp

- Core wetland, priority
- DNR FPs63 Southern Rich Conifer Swamp
- Control invasives and establish tamarack, trees, and shrubs



Mesic Hardwood

- Wetland buffer and wildlife habitat
- Control invasive species
- Cover-it-up and diversify understory



Cattail Marsh

- Later priority
- Address hybrid cattail and replace with native species

INVASIVE SPECIES CONTROL



BUCKTHORN

Cut and stump treat
Burn (Oregon kiln?)
Pile for habitat structure



REED CANARY GRASS

String trim and spray
Overseed

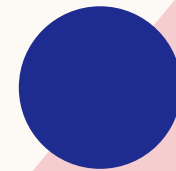


GARLIC MUSTARD

Hand pull
Dispose at compost site



OREGON KILN BIOCHAR



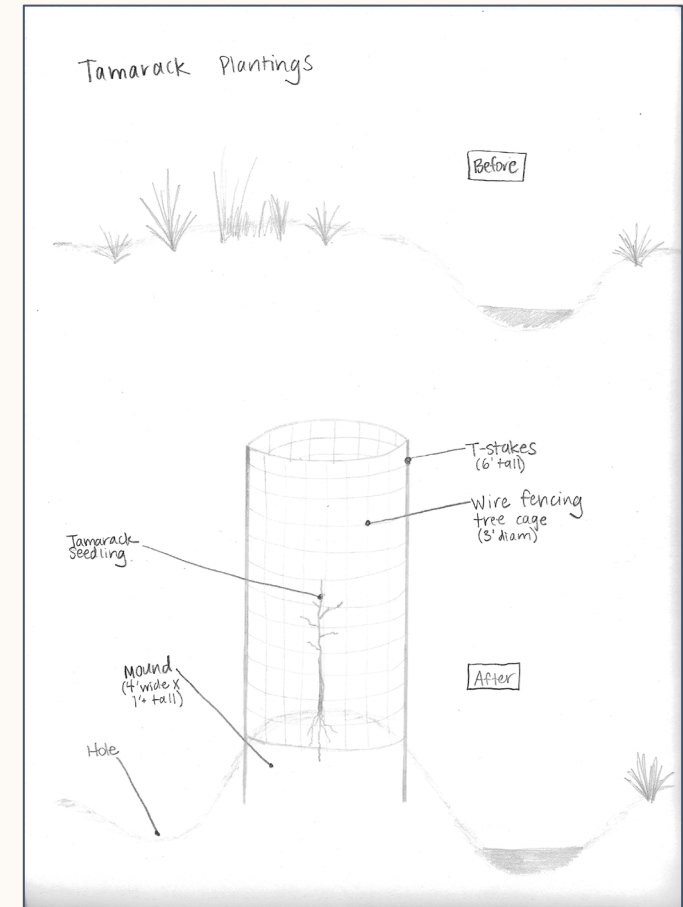
SEEDING AND PLANTING

Wetland

- Collected wetland seed mix
- Bare root trees and shrubs
- Custom wetland seed mix

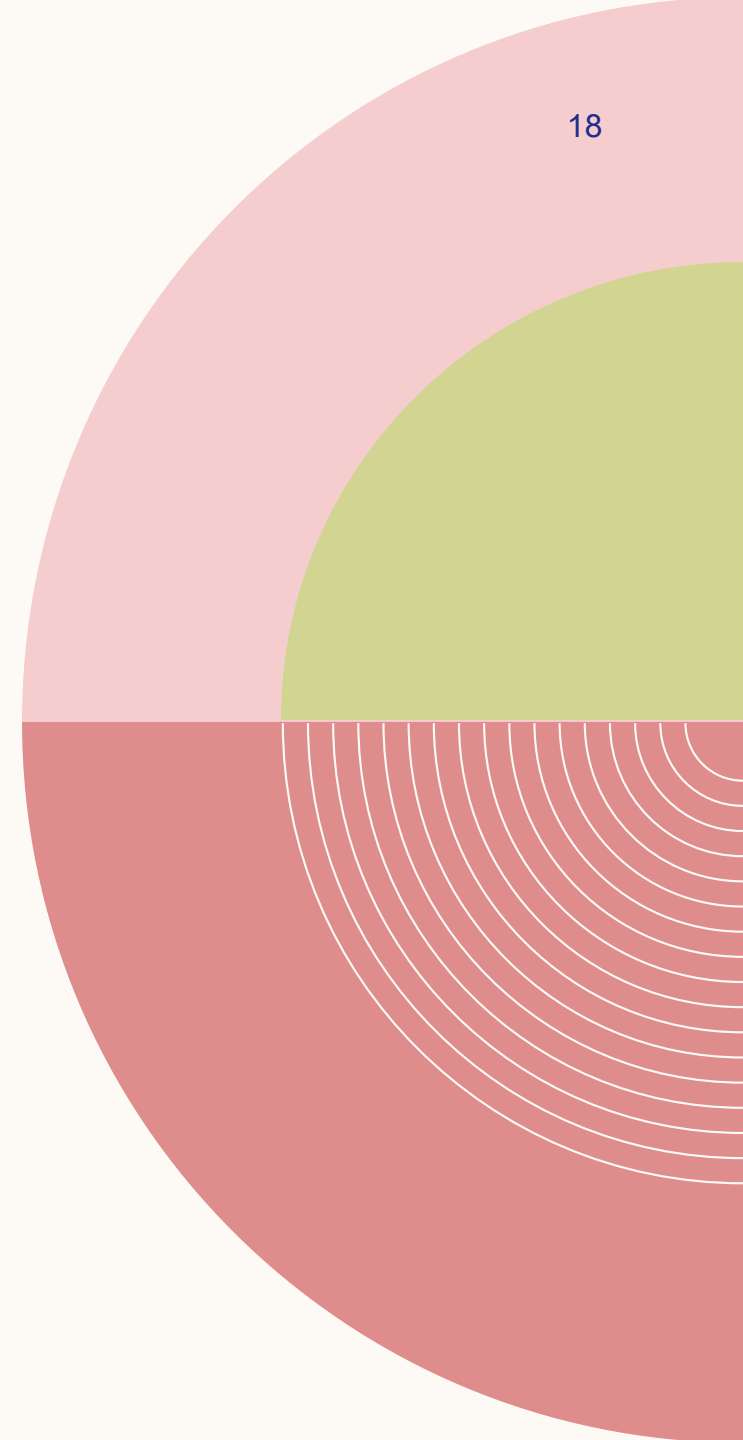
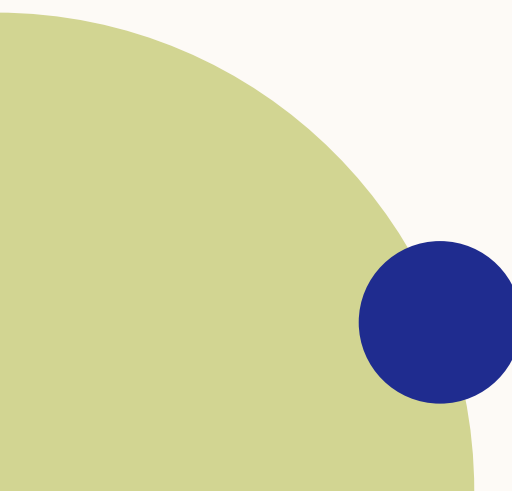
Upland

- BWSR Woodland
Regeneration Mix Phases 1
and 2



PLAN NARRATIVE

- Project leadership and partners
- Keys for project success
- Project benefits
- Funding ideas
- Research opportunities
- Plant community enhancement plan





*To preserve and improve **water resources and related ecosystems** to sustain their **long-term health and integrity** and contribute to the well-being and **engagement of stakeholders** within the community.*

RWMWD mission



THANK YOU!

Questions?

SOURCES

Landview Aerial Photos

Minnesota Wildflowers

Minnesota's St. Croix River Valley and Anoka Sandplain: A Guide to Native Habitats

National Wetlands Inventory

Ramsey County GIS

Site Visits with Mark Gernes, Dan Shaw, and Paul Erdmann

Vegetation Survey by Michael Bourdaghs

Web Soil Survey

Project Work Plan

Original Date: March 25, 2024

Project: Kohlman Creek Flood-Risk Reduction Projects – Final Design

Project Team:

RWMWD Staff: Paige Ahlborg (project manager), Tina Carstens
Barr Staff: Tyler Olsen (project manager)
Brandon Barnes (principal in charge)
Gareth Becker (designer)
Greg Nelson (designer, QAQC)
Parker Brown (modeling support)
Katie Zadrozny (geotechnical design)

Scope of Work

The Kohlman Creek Flood Risk Reduction Feasibility Study included the identification of system modifications along Kohlman Creek to remove habitable structures from the floodplain. The proposed improvements include: PCU pond berm grading, 13th Avenue storm sewer improvements, and County Road C backyard berm and outlet improvements. Another recommended project, the County Road C culvert replacement project, is being designed and constructed in 2024. These proposed improvements are shown on Figure 1.

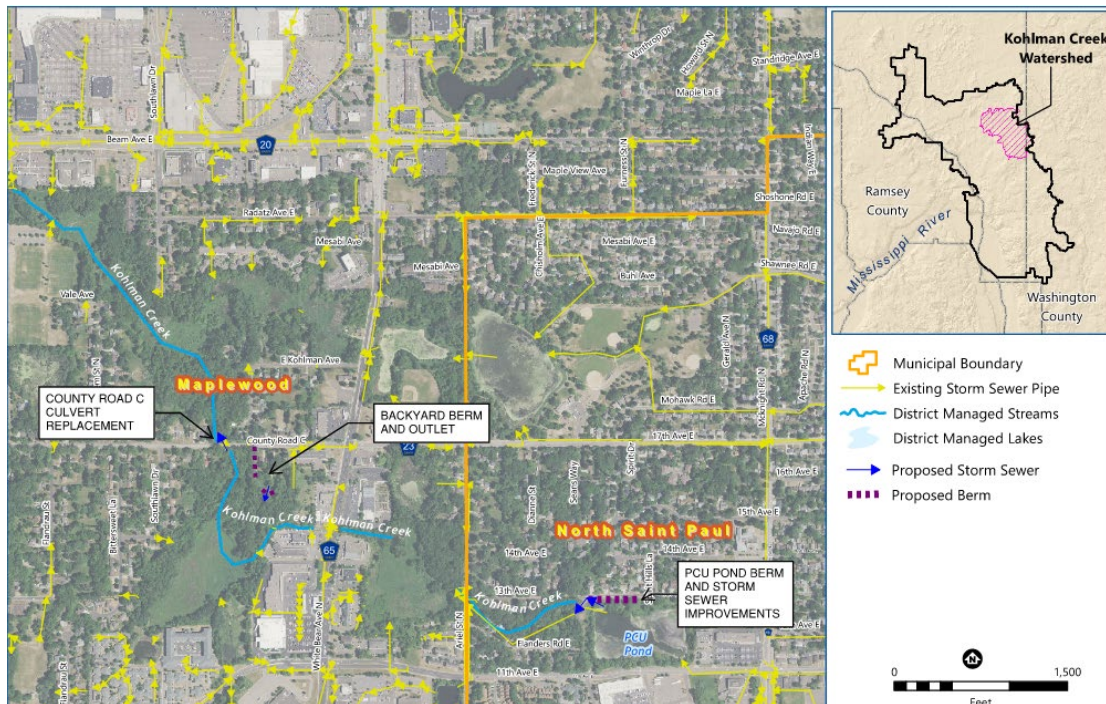


Figure 1. Recommended projects for Kohlman Creek flood-risk reduction

The scope of work for final design will consist of preparing plans and specifications, completing hydraulic and hydrologic modeling of the final designs, and coordinating with the Cities of North Saint Paul and Maplewood on the projects.

Barr proposes the following work tasks:

Task 1: Downstream Impact Assessment

Barr will conduct an assessment of the potential impacts downstream of County Road C with the proposed improvements in place. The assessment will include a comparison of proposed velocity and shear stress to existing conditions to determine if there is an increased risk of bank erosion to change in flows during events more frequent than the 100-year event.

Task 2: Site Investigation

Subtask 2a: Topographic Survey

A topographic survey will be conducted to establish existing grades and elevations, and locations of existing infrastructure and utilities. The survey will be conducted using a total station and/or survey grade GPS with horizontal and vertical accuracy of +/- 0.2 feet. As part of the topographic survey Barr will complete a Gopher State One Call to locate existing utilities within the project area.

Subtask 2b: Geotechnical Investigation

Soil borings will be collected at the proposed project sites (north of PCU pond, and backyard berm area) to evaluate the structural integrity of the existing soils. The soil borings will be used to inform any corrections that are needed to support the proposed projects.

Task 3: Design, Plans, and Specifications

All contract documents and bidding documents will be completed as part of this task. This task also includes all hydrologic and hydraulic modeling and calculations, design development, and opinion of probable construction costs.

Intermediate milestones will include 60% and 90% design review, and 100% design approval from the RWMWD Board. We will also provide ongoing coordination with Maplewood and North St. Paul staff regarding the final design milestones, and offer opportunities to comment and provide feedback.

Task 4: Permitting

This task will include all necessary permit preparation for the proposed projects. The list of expected permits and permitting authorities is included below.

- **Right-of-way permit (City of North Saint Paul):** Any work in the public right-of-way requires a city right-of-way permit.
- **Stormwater Pollution Prevention Plan (City of North Saint Paul):** Any work resulting in land disturbance activities between 10,000 square feet and 1 acre requires a stormwater pollution prevention plan permit to be submitted to the City of North Saint Paul.

- **RWMWD Permit:** A permit is required if any RWMWD rules are triggered. Rule C Stormwater Management is triggered if the proposed land disturbance exceeds 1 acre. Rule D Flood Control is triggered for any land-disturbing activity greater than 1 acre that increases impervious area or any land-disturbing activity of any size that involves alteration or fill of land below the 100-year flood elevation of a water body. Rule E Wetland Management applies for land disturbance that exceeds 1 acre and is located adjacent to a wetland. Finally, Rule F (erosion and sediment control) applies for proposed land disturbance that exceeds 1 acre or is greater than 1,000 square feet and within the 100-year floodplain or adjacent to a public water or wetland.
- **National Pollutant Discharge Elimination System (NPDES) permit (MPCA):** An NPDES permit is required if the disturbed area is greater than 1 acre or if the MPCA determines that the area poses a risk to water resources.
- **Public water work permit (MnDNR):** A public water work permit may be required if proposed drainage modifications include work in or adjacent to a MnDNR public water.

Budget and Schedule

Barr will complete the work outlined above on a time and expense basis of \$150,000.

We propose the following milestone schedule:

Milestone	Estimated Date	Estimated Budget
Project Start	April 2024	--
Downstream Impact Assessment	April 2024	\$10,000
Topographic Survey	May 2024	\$20,000
Geotechnical Investigation	June 2024	\$20,000
60% Plans for Review	September 2024	\$50,000
90% Plans and Specifications for Review	October 2024	\$30,000
100% Plans and Specifications for Approval	December 2024	\$20,000

* * * * *

Administrator's Report

* * * * *

MEMO

TO: Board of Managers and Staff
FROM: Tina Carstens, Administrator
SUBJECT: March Administrator's Report
DATE: March 28, 2024

A. Meetings Attended

Monday, March 4	11:00 AM	MW Events-Education Committee
Tuesday, March 5	11:30 AM	Woodbury Target Bid Check In
Wednesday, March 6	ALL DAY	MW Legislative Event
	6:30 PM	Board Meeting
Monday, March 11	1:00 PM	WBIF FY25 Convene Meeting
Tuesday, March 12	10:00 AM	Lower Phalen Creek Project Meeting
	1:00 PM	MW Communications Platform
Friday, March 15	11:30 AM	Administrator Meeting
Monday, March 18	9:00 AM	Equity Audit Meeting
Wednesday, March 20	2:00 PM	2024 Monitoring Planning Meeting
Thursday, March 21	12:00 PM	Owasso Basin Meeting
	1:00 PM	WARP Planning Meeting
Friday, March 22	10:30 AM	Lower Phalen Creek Project Meeting

B. Upcoming Meetings and Dates

Metro Watersheds Meeting	April 16, 2024
CAC Meeting	April 23, 2024
May Board Meeting	May 1, 2024
WaterFest	June 1, 2024
June Board Meeting	June 5, 2024
CAC Meeting	June 11, 2024
Minnesota Watersheds Summer Tour	June 25-26, 2024
July Board Meeting	July 10, 2024
Metro Watersheds Meeting	July 16, 2024
August Board Meeting	August 7, 2024

C. Staff Anniversaries

I thought it would be nice to recognize our staff and share their full-time work anniversaries for the coming month. I will start this month by catching up from the start of 2024 and then provide them monthly. I appreciate each one of these staff members and want to thank them for their commitment to the district and our mission!

January 1	Lyndsey Flaten*	6 years
March 5	Paige Ahlborg	17 years
March 20	Joe Tillotson*	1 year
April 9	Eric Korte*	21 years
April 26	Emily Kamin	1 year

*Also were interns for RWMWD.

D. Board Action Log and Updates

The board action log is attached. I review this list monthly and add anything suggested in the previous meeting.

E. Minnesota Watersheds (MW) Updates

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

At the Minnesota Watersheds board meeting in February, they approved a change in venue for the 2024 MW Annual Conference. It will be held at Grand View Lodge during the first week of December this year.

Paige and I have been meeting with MW staff and Capitol Region Watershed District to continue to plan for the MW Summer Tour. The Essence in Bandana Square, Saint Paul, is the event space for the education sessions and the evening reception. The hotel is next door at the Best Western Plus Como Park. We are still finalizing the tour stops in our district but are looking at Lake Owasso, Maplewood Mall, Aldrich Arena, Keller Golf Course, and East Side Boys and Girls Club/Roosevelt Homes.

F. Staffing Update

We are pleased to announce that Ashlee Ricci will start as our Grant Program Specialist on May 1st. Ashlee brings over seven years of watershed management experience, including program and project management experience. Welcome to Ashlee!

Our staff have been busy interviewing for our seasonal intern positions. This year, we will have one communications intern, one permit inspector intern, one water monitoring intern, and three natural resources interns.

Board of Managers 2024 Action Log

Wednesday, April 3, 2024

Item	Anticipated Action Date	Means of Action	Completed
Governance Manual	March 2024	RBA – Approval	March 2024
Land Acquisition and Use Policy	May 2024	Board discussion	
West Vadnais Lake Boundary Change	May 2024	Board discussion	
Shoreline Condition Assessment and Planning	May 2024	Presentation and Discussion.	
Addressing Internal Load in Lakes (aeration and alum)	Spring 2024	Board discussion	
Impervious Surface Reduction Planning	Summer/Fall 2024	Presentation and Discussion.	
Chloride Use Reduction/Low Salt Design	Summer/Fall 2024	Presentation and Board Discussion	
PFOS Update	Fall 2024	Presentation and Board Discussion	

* * * * *

Project and Program Status Reports

* * * * *

Memorandum

To: Board of Managers and Staff
From: Tina Carstens, Brad Lindaman, and Erin Anderson Wenz
Subject: Project and Program Status Report – April 2024
Date: March 27, 2024

Note: *The location, brief description, and current status of each project described below can be found on the [2024 RWMWD engineering services story map](#).*

Project feasibility studies

A. 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.

Barr finalized the report for the Kohlman Creek flood-risk-reduction feasibility study during this period and shared it with district staff and Maplewood and North St. Paul staff. The report was the final deliverable for this specific effort. However, the design work associated future capital improvements will begin later this year and construction of high priority items will likely begin construction in 2025.

B. 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 to identify potential modifications that reduce flood risk to homes and businesses 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. This follow-up planning study was identified in the Beltline resiliency study.

This month, Barr staff followed up with the City of Saint Paul and the Housing and Redevelopment Authority (HRA). The HRA Board is reviewing its property portfolio and developing a long-range plan for several properties, including those near Ames Lake. In March, the HRA leadership voiced support for moving forward with a grant application. HRA leadership personnel are working through their process to evaluate the plans for the parcel(s) and this potential project. The HRA anticipates providing direction

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towards the end of May regarding whether it would support the proposed flood-risk mitigation project on the parcel(s) it owns. Following receipt of feedback from 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 for RWMWD and Barr staff review in May. Once designed, the district will likely seek grant funding for this project, resulting in a construction timeframe of at least 2025 or later.

C. Phalen Village flood risk reduction (Barr project manager, Brandon Barnes; RWMWD project manager, Paige Ahlborg)

The purpose of this study is to complete an evaluation of modifications to reduce flood risk near Phalen Village north of Lake Phalen by lowering flood levels to remove structures from the 100-year floodplain. The feasibility study was completed in 2022. In 2024, RWMWD is working with the City of Maplewood to incorporate modifications to the storm sewer system into the City's 2024 street improvement project. This is a follow-up planning study identified in the Beltline resiliency study.

Barr staff reviewed preliminary storm sewer plans provided by the City of Maplewood. Barr's review included verifying that the City's plans were consistent with the RWMWD feasibility study for the area and that the recommended flood-risk-reduction design elements were implemented as intended. Later this spring, when conditions allow, Barr staff will coordinate property access for wetland delineations needed to construct storm sewer modifications.

D. 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 potential 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 that could 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 that is not tributary to the Beltline.

This month, Barr staff completed their evaluation of potential system modifications needed to remove habitable structures and critical infrastructure from the floodplain in the Carver Lake, Fish Creek, Snake Creek, Tanners Lake, and Battle Creek Lake watersheds. The potential modifications include adjustable outlet control structures, new regional stormwater basins, and modifications to culverts, storm sewers, overland flow paths, and existing storage areas. The modeling effort includes evaluating ways to mitigate the downstream impacts of these proposed modifications along Fish Creek and Battle Creek and considering whether these actions to mitigate flood risk may have a positive effect on water quality in these creeks. Barr staff have also begun drafting the project report and organizing information to update the district's web map. The draft report is anticipated to be available for RWMWD staff review later this spring.

E. 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.

As you recall, RWMWD received direction from Saint Paul Regional Water and North Star Estates property management that they are not interested in partnering on drainage modifications to their respective properties. This month, Barr staff met with the City of Little Canada to discuss responses from Saint Paul Regional Water and North Star Estates and review upcoming street improvement projects that the City of Little Canada is planning. The City informed us that there is a fall 2024 project to construct a sidewalk along South Owasso Boulevard. Barr staff are reviewing the benefits of increasing the South Owasso Boulevard culvert capacity alone. The City of Little Canada remains supportive of all of the proposed modifications; however, replacing just the culvert provides only an incremental reduction in flood risk.

Currently, there is no Emergency Response Plan for North Star Estates. However, Barr and RWMWD staff have informed City of Little Canada staff and North Star Estates property management 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, it is our understanding that the City will assist North Star Estates by providing materials to install temporary flood-risk mitigation measures if necessary.

Barr and district staff met recently to discuss the next steps and plan for follow-up discussions with the City of Little Canada, St. Paul Water Utility, and North Star Estates. For now, the project is on hold as we try additional ways to garner support for the work from the two landowners.

F. Street sweeping (Barr project manager, Michael B. McKinney; RWMWD project manager, Paige Ahlborg)

The purpose of this study is to support the 2024 enhanced street-sweeping grant program.

Barr developed a technical memorandum summarizing the 2023 Enhanced Street Sweeping pilot grant program and shared it with the RWMWD staff last month. The memorandum summarized the grant program approach, interviews and selection of grantees, implementation and water quality impact of enhanced street sweeping efforts, and outlined recommendations related to the implementation of the grant program in 2024. Barr will continue to coordinate with district staff throughout this year to implement the program. A presentation to the board on the results of the study and subsequent program objectives will be given later this year.

G. Watershed approach to retrofit projects (WARP) (Barr project manager, Marcy Bean; RWMWD project manager, Paige Ahlborg)

In 2022–23, Barr reviewed the history of the retrofit program to help inform considerations for future projects. This “retrofit inventory” resulted in an updated database of over 17,000 properties and GIS

maps of built and considered projects. In 2024, Barr will work with district staff to consider the intersections between the database and other districtwide initiatives and information to more systematically guide retrofit project selection.

During this period, Barr GIS staff continued developing a shared online mapping tool that includes the latest project data across the district's multiple program areas and allows staff to track potential projects moving forward. This mapping tool will directly connect the historical review of sites across the district with the development of an updated screening process for potential retrofit projects.

Barr also began preparing for a March 21 workshop with RWMWD program managers to review the initial steps of developing the WARP framework and heat mapping. The goal of the workshop will be to identify GIS layers for prioritizing areas and parcels throughout the watershed that would be good candidates for retrofit projects. Examples of these GIS layers include impaired watersheds, imperviousness, and equity areas.

Research projects

H. 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. The report written for this effort is titled "Evaluation of the Potential Causes of Declining Water Quality in Kohlman Lake."

A draft report was completed and presented by Keith Pilgrim at the March board meeting. Next, Barr and district staff will be developing steps this spring to address the declining water quality in Kohlman Lake.

I. 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.

A final report, including a comprehensive analysis and recommendation on the potential for shallow lake aeration to control internal loading and improve shallow lake water quality, is complete and was presented to the board by Keith Pilgrim at the March meeting. Barr and district staff will develop a plan for using this technology on an impaired water body in RWMWD that, based on study results, will be responsive to this approach.

Capital improvements

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

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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.

The RWMWD board of managers authorized bidding for the Woodbury Target stormwater retrofits at their February 7, 2024, meeting. Following the board's authorization, the project was bid between February 9 and February 29. A virtual bid opening occurred on February 29, 2024. Eighteen bids were received. Kurilla Contracting was the apparent lowest bidder. RWMWD does not have previous civil construction experience with Kurilla Contracting and, as such, requested qualification information for review (e.g., project experience, present commitments, subcontractor list, equipment availability, and references). Barr and district staff were still reviewing the information provided at the March 7 board meeting; therefore, the board of managers approved awarding the project to Kurilla Contracting at the bid price of \$602,645.75 contingent on Barr and the district staff's satisfaction with the qualification evidence.

Barr and district staff reviewed Kurilla Contracting's qualification information and contacted the references provided. This review and the feedback provided by the references suggested that Kurilla Contracting met the bidding requirements and based on the information provided appears qualified to successfully complete the project. Therefore, on March 8, a "Notice of Award" was issued to Kurilla Contracting for the Woodbury Target stormwater retrofit project. The pre-construction meeting was held on March 22, 2024, with district staff, Barr staff, Kurilla Contracting, and Target Corporation staff in attendance.

K. Roosevelt Homes (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 flood-prone multi-family housing area owned by the Saint Paul Public Housing Authority (SPHA). For the first part of this 1- to 2-year phased retrofit, two stormwater basins were constructed in late 2023. In March, the board approved contracting for the vegetation components of the project to be planted early in 2024.

Barr is working with the property owner and the City of St. Paul to develop designs for the final phase of work that will help direct flow across the site into the two stormwater basins. Designs are being developed to facilitate discussions with the City, and if approved, the designs would be completed in 2024 for construction in late 2024 or early 2025.

L. Targeted retrofit projects 2024 (Barr project manager, Marcy Bean; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design BMP retrofits on previously identified commercial, school, and faith-based properties throughout the district, as well as to provide bid assistance and oversee construction.

In 2022, a retrofit project was constructed at St. Pascal Baylon Catholic Church in St. Paul. The owner is pleased with the results of that effort and is interested in considering additional projects with the help of the RWMWD. During this period, Barr reviewed the site in GIS and developed additional concepts for consideration.

In 2023, discussions were initiated with St. Paul Youth Services for a potential green roof. During this period, Barr staff sought quotes for structural investigation of the roof to determine its potential for accommodating the additional load of a green or blue roof system.

M. Stewardship grant program (Barr project manager, Marcy Bean; 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.

The Woodland Hills Church pavement reduction project drawings are in the hands of the owner, who sought bids in March. Support for the project is ongoing.

During this period, Barr staff reviewed a funding request from the City of Oakdale to support the purchase of equipment for salt brine applications in an effort to reduce overall chloride application.

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

The purpose of this project is to complete the final design, plans, and specifications for a stormwater reuse system in Pioneer Park that will reduce the use of groundwater for irrigation and phosphorus loads to downstream water bodies.

Barr has been reviewing the pump and water treatment submittals, submittals related to the system intake structure, and submittals related to access, dewatering, and bridge removals. We will perform a survey of the bridge abutments in response to the bridge removal plan and direction from district and City of Little Canada staff. We will also revise the erosion control plan to reflect the revised access and dewatering plan and will submit it to district staff as part of the final district permitting requirements. Based on the schedule provided by Peterson Companies, construction is expected to begin in late April 2024.

O. 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 the development of project plans and technical specifications, including the landscape restoration plan. Galowitz-Olson has continued with the easement appraisal process and has reached out to several firms for appraisal services. After the appraisals are complete,

district and Barr staff will meet with property owners to obtain a signed purchase agreement. The easement acquisition and bidding documents are anticipated to be completed in the Spring of 2024. We remain hopeful that construction will begin later this fall.

P. Cottage Place Wetland restoration (Barr project manager, Brendan Dougherty; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design and restore a degraded wetland on City of Shoreview property located near the Cottage Place cul-de-sac. The project will involve the creation of plans, bidding, and construction administration to provide additional stormwater treatment and restore wildlife habitat within the project area.

During this period, Barr continued working toward a 90% plan design, developing grading, site layout, and landscape plans and specifications. Based on feedback from landowners, Barr has updated the plans to remove the proposed trails throughout the site. Wetland features will remain, and any trails will be informal. Barr has reached out to the US Army Corps regarding wetland jurisdiction rules and is waiting for a formal response on the proposed work within the wetland. We hope to have a clear direction regarding wetland rules within the month. We are currently working to finalize plans and specifications for presentation at the May board meeting when we expect to ask the board's authorization to advertise the project for bid.

Q. County Road C culvert (Barr project manager, Tyler Olsen; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design and construct a box culvert where Kohlman Creek crosses under County Road C (owned by Ramsey County) in the City of Maplewood. The culvert was identified as a flood-risk-reduction improvement project in the Kohlman Creek Flood Risk Reduction Feasibility Study.

During this period, Barr continued preparing plans and specifications. Barr coordinated with Ramsey County on a final cost-share agreement and incorporated design comments into the final plans. Additionally, Barr met with the Minnesota DNR to review the Ordinary High Water (OHW) Level of Kohlman Creek. The project will require a General Permit from the DNR because Kohlman Creek is a Public Watercourse. Barr will provide final plans, a table of contents for the contract documents, and a summary memorandum in the April board packet for approval to bid the project. We anticipate that bidding will take place in April or May. Construction is anticipated later in 2024.

CIP project repair and maintenance

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

The purpose of this effort is to maintain the RWMWD's existing capital improvement projects as they come up outside the normal annual maintenance project (below).

Most of the work completed during this period was associated with Lake Wabasso outlet replacement planning with Ramsey County. The district is working collaboratively with the County as it prepares to

remove the existing outlet and replace it with a new outlet when funds are available. Recently, Barr led the geotechnical investigation and analysis and prepared a conceptual design for the County's consideration. Cost estimates were also prepared for the County to use in its internal funding request process. Once funding is approved, the outlet will be replaced.

S. 2024 CIP maintenance and repairs projects (Barr project managers, Gareth Becker; RWMWD project manager, Dave Vlasin)

The purpose of this effort is to maintain the RWMWD's existing capital improvement projects through this annual maintenance project.

To date, work has been performed on approximately one-half of the sites. Most recently, the boat ramps at West Vadnais Lake and Grass Lake were installed with temporary access controls while awaiting access gate installations. The contractor has submitted a partial payment application for consideration again this month. The unusually mild winter has delayed work on several sites. Despite this, we assume no change to the overall project schedule due to the small size of this year's construction project and the mid-summer substantial completion date.

T. Beltline Mississippi Branch outfall replacement project (Barr project managers, Joe Welna and Nathan Campeau; RWMWD project manager, Dave Vlasin)

The purpose of this project is to replace the final approximately 70 feet of the Beltline Storm Sewer Interceptor adjacent to the Mississippi River that failed in July 2023.

During March, we began the detailed 90% design of the tunnel replacement, incorporating comments from RWMWD and the landowner, the St. Paul Port Authority. We anticipate completing the design in April. The construction and repair work are planned for later in 2024.

U. Natural Resources Update—Paul Erdmann, Patrick Williamson & Joe Tillotson

Carp Management Program Update- In 2023, the District and our contractor, Carp Solutions, continued efforts to monitor and control the common carp population in the Ramsey-Washington Metro Watershed District. It was a somewhat slow carp management year due to low water levels, ongoing drought, and previous successful management efforts.

Passive Integrated Transponder (PIT) antennas were used at the barriers at the inlet and outlet of Lake Owasso to guide an attempt to remove carp, but the carp never showed up at the barriers in significant numbers. To estimate carp biomass density, boat electrofishing surveys were conducted on Grass, Owasso, Wabasso, and West Vadnais lakes. Of these four lakes, Owasso was the only one that yielded carp during surveys (21 carp in total), leading to a population estimate of 5,214 carp and a biomass density estimate of 112.3 kg/ha for Owasso. This is slightly above the recommended management threshold of 100 kg/ha. PIT data showed that large numbers of carp were attempting downstream spawning migration through the lake's outlet, but these fish were unable to cross to the downstream end of the outlet culvert, presumably due to low water levels, thus carp removal at the barrier below the outlet culvert was not possible.

Trap netting surveys to sample the native fish populations and detect juvenile carp were conducted on West Vadnais and Grass lakes along with the known nursery water bodies of Casey Lake,

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Markham/Beam Pond, and Kohlman Basin. While a majority of trap net surveys yielded no carp, two juvenile carp and one goldfish were identified in nets from Kohlman Basin, in addition to a high density of goldfish in Markham Pond. Backpack electrofishing equipment was used at the Gervais Mill Pond barrier to remove migrating carp. From May to August, 2023, 43 carp were removed at this barrier.

Overall, the carp population throughout the District appears to be either under or slightly above the sustainable threshold, showing that efforts made over the past several years have proven successful. Our approach in 2024 will be very similar to the work conducted last year, with a combination of various surveys, removals, and monitoring of carp and native fish populations. We also plan to monitor the goldfish population in Markham Pond and determine if any management efforts are needed there.

Prescribed Burns, Training, Bat House- The “Winter That Never Was” and an early spring has allowed NR staff to begin conducting prescribed burns on our managed sites. In March we conducted burns at Keller and Goodrich Golf Courses, Keller Lake shoreline, and the District office. Lauren made a cool video about the burns and posted it on social media and on our [YouTube channel](#).

At the end of February NR staff attended the virtual Best Practices for Pollinators Summit, an annual educational summit hosted by Pollinator Friendly Alliance and the Xerces Society which offers sessions by leaders in ecology, regenerative land management practices and pollinator conservation. Most of the sessions from the summit, as well as those from previous years, can be found on the organization’s website- <https://www.pollinatorfriendly.org/summit>

District staff recently constructed and put up a rocket box bat house on the office grounds, right outside the board room. A rocket box is a bat house that has openings for bats on all four sides, so bats can move around inside it during the day in order to regulate their temperature. If successful, our new house may attract both little brown bats and big brown bats, both species whose populations are in severe decline due to White-noes syndrome. Bats benefit our ecosystem and economy in multiple ways. In other areas they are important pollinators and seed dispersers. In Minnesota, they consume their body weight by eating up to 3,000 mosquito sized insects each night. They keep agricultural and forest pests in check, providing an estimated \$3 billion in ecosystem benefits annually in the U.S.

Photo below: Prescribed burns at Keller Golf Course

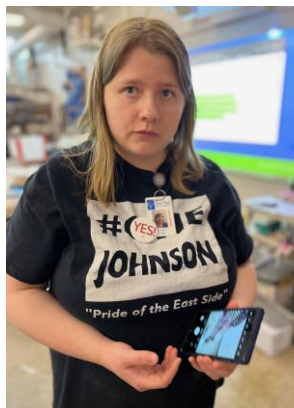




Photos above: Raising of the bat house

v. Public Involvement and Education Program – Sage Passi

Community Engagement and Art Partnership with Johnson High School



Since early winter Sage Passi has been engaging with Capitol Region Watershed District Community Engagement Program Manager Lindsay Schwantes and community artist, Gita Ghei, Johnson High School art and media teacher, Jessie Tran and three classes of media and art students including 3 high school artist interns in a collaborative public art residency facilitated by Ghei who received a Partnership Grant from CRWD and is sponsored by the East Side Arts Council. The goal of this partnership is to empower

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young people to develop leadership skills through collaborations within their community through the arts and local watershed districts.

“This opportunity to participate in a pilot interface, while helping young people get acquainted with our watershed community is creating the possibility and helping pave the way for possible future collaborations that engage young people and their communities in learning about and appreciating different facets of water,” acknowledged Passi and Schwantes. This art project was initiated in response to a MNDOT arterial roadway rebuilding project along Arcade Street in St. Paul that is launching in 2025 that crosses into both RWMWD and CRWD. The three high school students attended a CAC meeting for Capitol Region Watershed District last month and will be giving a presentation for RWMWD’s Citizen Advisory Committee on April 23rd.

“The goal for this project is to draw on the power of public art to inspire citizen stewardship and appreciation of our water bodies as life giving and sustaining resources,” says Ghei.

Jessie Tran praised the initiative and describes her work as a teacher at Johnson High School,

“Much of the time, schools are very insulated from the communities they occupy, so I think it's really important to encourage the students to develop their own connection with the places they share with other people.” Art is the great connector, and is a perfect way to celebrate the beauty of nature, have pride in the space you inhabit, and communicate with others around you both directly and indirectly.

When I visited the art and media classrooms, I tapped into my own theatre and performance skills by dramatizing myself as “Hastings Pond,” the wetland that was drained on the location where Johnson High School currently sits. I drew my inspiration for that character from a local writer’s story who used to frequent the area where the school is located now. One day when I walked into Johnson High School to meet one of the art classes, I had a flashback of a story from Dorothy Lynch, one of my RSVP/RWMWD volunteers who lived just adjacent to where Johnson High School stands.

Dorothy had shared with me that she used to live next to a wetland that was located across from Farnsworth Aerospace where Johnson High School is now located. Out of curiosity I Googled the name “Hastings Pond” and a wonderful story appeared that revealed details about this local but now lost wetland. Here is a short passage written about this magical wetland that helped me develop my story for those students. I was delighted to see that several students drew inspiration for their ceramic objects from the story I told the class. Here is a short excerpt from Andy Singer’s story,

“Hastings Pond,” along with its two smaller neighboring ponds, was surrounded by thick brush, mature trees, a hilly terrain, and a scattering of trails. Salamanders slithering under rocks, frogs and toads camouflaged by the moist green groundcover, snakes squirming through the brush, and birds and insects harmoniously chirping were natural to this haven for wildlife. These living creatures, along with the stark beauty of the densely treed trails, contributed to the personality of this urban wilderness. The sweet fragrance of wildflowers, combined with the unmistakable odor of stagnant swamp water provided my senses with all the contrasts nature can offer.”

The three Johnson High interns will be attending an RWMWD Citizen Advisory Committee meeting on April 23rd and will share some of their ideas for art collaborations and networking in the neighborhood and learn some things about the Watershed District. They will also tour Lake Phalen with me and make a visit to the Poetry Park adjacent to the lake and hopefully attend WaterFest.

Through their continued art making and upcoming field trips to Lake Phalen, the students from Johnson High School will connect to the natural world and learn about the natural history of their own neighborhood. I anticipate these trips may inspire them to continue making art that will delight people with its visual and literary elements and build their sense of stewardship, reverence for nature and confidence in being vital change-makers in their community.

Artist Gita Ghee asks this question, “How can art uphold and strengthen our community values? She continues by saying, “Students at Johnson High School participating as interns in a public art collaboration will raise questions that offer a unique opportunity for the public to initiate ways to appreciate the natural resources of Lake Phalen in their neighborhoods and consider stewardship. I believe that informing young people about their role in protecting water is empowering and is a fundamental means to protect our watershed. At the end of this internship I will ask each student to choose a personal commitment of water stewardship - something they choose and document that has measurable impact.”

W. Communications and Outreach Program – Lauren Hazenson

Current Projects

In-person engagement plan

Increasing in-person community engagement is one of the cornerstones of this year’s communications strategy. We aim to host or attend a minimum of 15 community events or meetings across the district in 2024, focusing on areas where we need to increase visibility or where we have current projects. Lauren, Carrie, and the incoming Communications Intern have committed to at least eight farmer’s market dates in six cities throughout the growing season, in addition to the Ramsey County Green Fair, MarketFest in White Bear Lake, the Vadnais Heights ice cream social, and WaterFest. We scheduled and confirmed most of the farmers' market dates in March.

Community Survey: Next Steps

The community survey results showed us that most communities within the district have water quality and habitat loss as their foremost water-related concerns. The data also show room for growth in connecting with residents ages 35 and under and in a few district geographic areas. While our increased in-person outreach presence will likely help with our overall visibility and community awareness of watershed topics, communications campaigns targeted toward community concerns or a specific demographic should also result in progress toward these goals. We will use the survey results and the equity audit results from SDI to draft a pilot-targeted communications plan for one of the areas where we see lower engagement numbers.

WaterFest and Display Content

The redesigned RWMWD booth display, including two banners and a backdrop, is completed and ready for use. The new display allows RWMWD to communicate our mission and branding within seconds of a

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visitor approaching or passing our display. It also brings the look of our booth into a more cohesive, modern design aspect. Giveaway items for the booth are also low-waste or made of recycled materials. The next step is to complete interactive display activities to complete feedback gathering or educate booth visitors.

A staff work team has completed the plan for the new RWMWD interactive display for WaterFest, centered around the 25 year anniversary of the event. The booth will feature a floor map and 25 retrospective content on District projects, along with a take home call to action message so that visitors can envision themselves as part of the network of partners working to protect and preserve area water resources.

Annual Report

The District Annual Report to the Public, a comprehensive resource on recent RWMWD projects and activities for partners and stakeholders, is on target for publication in April. This document is a product of a collaboration between all staff to showcase successes and illustrative data points for a general public audience and recognize volunteers and partners. This year, we will be publishing a printed version in addition to the customary digital copy available on the website so that it can be offered to RWMWD booth visitors throughout the season. We have scheduled this document to be completed with the Water Quality Annual Report.

E-newsletter

February

Opens: 51.4%
Clicks: 1.4%
Subscribers: 1,570

March

Opens: 44.6%
Clicks: 2.7%
Subscribers: 1,562

Social Media (Facebook, YouTube, Instagram)

Numbers as of 3/25:

Facebook

Reach: 4,461
Engagement (likes, shares, comments): 657
Audience: 1,690

Instagram

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Reach: 888
Engagement: 81
Audience: 913

Youtube

Views: 1,325
Watch time (hours): 22.8
Subscribers: 336
Viewers: 1,100

Resident Communications/Professional Development/ Public Meetings, Misc.

- BWSR Spring Academy (3/28)
- CAC new member orientation
- Staff communications support